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Lichen planus occurs most frequently on the

- A. buccal mucosa.
- B. tongue.
- C. floor of the mouth.
- D. gingiva.

In the absence of “Hanks balanced salt solution”, what is the most appropriate media to transport an avulsed tooth?

- A. Saliva.
- B. Milk.
- C. Saline.
- D. Tap water.

Which of the following is the most likely cause of osteoporosis, glaucoma, hypertension and peptic ulcers in a 65 year old with Crohn’s disease?

- A. Uncontrolled diabetes.
- B. Systemic corticosteroid therapy.
- C. Chronic renal failure.
- D. Prolonged NSAID therapy.
- E. Malabsorption syndrome.

A 7 year old patient is missing tooth 5.5 and tooth 7.5. Space maintainers were not placed. A current mixed dentition analysis yields the following data:

R	L
-5mm	-3mm (maxilla)
-3mm	-4.5mm (mandible)

The actual space loss assuming there was no asymmetry in tooth sizes is

- A. 8mm in the maxilla.
- B. 2mm in the maxilla.
- C. 7.5mm in the mandible.
- D. 4.5mm in the mandible.

The setting of a zinc-phosphate cement can best be retarded by

- A. decreasing the particle size.
- B. increasing the concentration of water in the liquid.
- C. increasing the rate of addition of the powder to the liquid.
- D. cooling the glass mixing slab.

What is the most likely diagnosis of a white lesion on the retromolar pad opposing a non-functional molar?

- A. Alveolar ridge keratosis.
- B. Candidiasis.
- C. Lichen planus.
- D. Squamous cell carcinoma.

Upon examination of an edentulous patient, it is observed that the tuberosities contact the retromolar pads at the correct occlusal vertical dimension. The treatment of choice is to

- A. reduce the retromolar pads surgically to provide the necessary clearance.
- B. reduce the tuberosities surgically to provide the necessary clearance.
- C. construct new dentures at an increased occlusal vertical dimension to gain the necessary clearance.
- D. proceed with construction of the denture and reduce the posterior extension of the mandibular denture to eliminate interferences.

A hinge axis facebow records

- A. Bennett angle.
- B. centric relation.
- C. lateral condylar inclination.
- D. horizontal condylar inclination.
- E. opening and closing axis of the mandible.

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The most important objective of occlusal adjustment of a natural dentition is to

- A. prevent temporomandibular joint syndrome.
- B. increase the shearing action in mastication.
- C. improve oral hygiene by preventing food impaction.
- D. achieve a more favorable direction and distribution of forces of occlusion.

Which of the following is essential for successful periodontal treatment?

- A. Scaling.
- B. Final evaluation and maintenance on a one-year recall.
- C. Periodontal flap surgery.
- D. Elimination of local etiologic factors.

A hinge axis facebow records

- A. Bennett angle.
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- C. lateral condylar inclination.
- D. horizontal condylar inclination.
- E. opening and closing axis of the mandible.

The predominant type of movement produced by a finger spring on a removable appliance is

- A. torque.
- B. tipping.
- C. rotation.
- D. translation.

Which condition has NOT been associated with *Candida albicans* infection?

- A. Median rhomboid glossitis.
- B. Angular cheilitis.
- C. Denture stomatitis.
- D. Aphthous ulcerations.
- E. Oral hairy leukoplakia.

If a complete mandibular denture causes a burning sensation in the premolar region, this is due to the denture exerting pressure in/on the

- A. fibres of the buccinator muscle.
- B. lingual branch of the mandibular division of the trigeminal nerve.
- C. underlying bone.
- D. mental branch of the inferior alveolar nerve.
- E. buccal frenum area.

Which of the following microorganisms are most frequently found in infected root canals?

- A. Streptococcus viridans.
- B. Staphylococcus aureus.
- C. Lactobacilli.
- D. Enterococci.
- E. Staphylococcus albus.

Epinephrine should be administered immediately in which of the following emergencies?

- A. A severe angina attack.
- B. A mild asthmatic attack.
- C. Severe anaphylaxis.
- D. Severe hypotension.

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The location and extent of subgingival calculus is most accurately determined clinically by

- A. radiopaque solution used in conjunction with radiographs.
- B. disclosing solution.
- C. probing with a fine instrument.
- D. visual inspection.

In inhalation analgesia, what is the safe maximal nitrous oxide concentration that can be delivered?

- A. 50%.
- B. 60%.
- C. 70%.
- D. 80%.

The predominant immunoglobulin isolated from saliva is

- A. IgG.
- B. IgM.
- C. IgA.
- D. IgD.

Roots of the permanent maxillary central incisors are completed by what age?

- A. 8 years.
- B. 10 years.
- C. 12 years.
- D. Later than 12 years.

Increased overjet, moderate facial convexity and a deep labio-mental sulcus is most characteristic of which facial type?

- A. Prognathic.
- B. Orthognathic.
- C. Retrognathic.

Endotoxin is

- A. a cell wall component of gram-negative bacteria.
- B. a potent inflammatory agent.
- C. present in diseased root cementum.
- D. All of the above.

The bond between porcelain and metal in a ceramometal (porcelain bonded to metal) crown is

- A. chemical.
- B. mechanical.
- C. equally chemical and mechanical.
- D. neither chemical nor mechanical.

Soft tissue pockets CANNOT be reduced by

- A. occlusal adjustment.
- B. scaling and root planing (debridement).
- C. open flap curettage.
- D. guided tissue regeneration.

When designing a removable partial denture, changing the tilt of the cast on the surveyor alters the

- A. path of insertion of the planned removable partial denture.
- B. the position of the survey line on the cast.
- C. the undercut and non-undercut areas.
- D. the direction of forces applied to the partial denture.

Needle deflection increases as

- A. depth of injection increases.
- B. needle length increases.
- C. needle gauge decreases.
- D. All of the above.

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Acute or subacute suppurative osteomyelitis occurs most frequently in the

- A. anterior maxilla.
- B. posterior mandible.
- C. posterior maxilla.
- D. anterior mandible.

Intraoral soft tissue examination will NOT assist in the diagnosis of

- A. lichen planus.
- B. sinusitis.
- C. erythema multiforme.
- D. anemia.
- E. vitamin deficiencies.

Which of the following improves the prognosis of pulp vitality after indirect pulp capping?

- A. Use of calcium hydroxide.
- B. Having a well sealed restoration.
- C. Reducing other traumas to the pulp.
- D. Removing all demineralized dentin.

An 8 year old patient has a permanent central incisor with a necrotic pulp and a wide open apex. The most appropriate management is to perform a/an

- A. pulpotomy.
- B. apexification.
- C. regenerative endodontics.
- D. root canal therapy.

Hyperplastic lingual tonsils may resemble which of the following?

- A. Epulis fissuratum.
- B. Lingual varicosities.
- C. Squamous cell carcinoma.
- D. Median rhomboid glossitis.
- E. Prominent fungiform papillae.

The line drawn through the occlusal rests of two principal abutments is

- A. survey line.
- B. terminal line.
- C. axis of rotation/fulcrum line.
- D. line of greatest torque.

An anxious 67 year old patient presents for consultation to extract tooth 4.6. The medical history includes a heart murmur, hypertension and a cerebrovascular accident 5 years ago. Medications include clopidrogel, hydrochlorothiazide and rosuvastatin. What is the most appropriate preoperative management?

- A. Prescribing antibiotic prophylaxis.
- B. Ordering an INR test within 24 hours prior to procedure.
- C. Discussing with the patient the use of sedation.
- D. Requesting a complete blood count.

In clinical dentistry, stiffness of wire is a function of

- A. length of the wire segment.
- B. diameter of the wire segment.
- C. alloy composition.
- D. All of the above.
- E. None of the above.

The major disadvantage of zinc phosphate used to cement crowns is the

- A. development of heat during setting.
- B. pulp irritation.
- C. lack of edge strength.
- D. low crushing strength.

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The most effective way of minimizing a patient's radiation dose is

- A. a lead apron and thyroid collar.
- B. prescription radiography.
- C. fast emulsion film.
- D. intensifying screens.

Which of the following require prophylactic antibiotics prior to dental procedures causing a bacteremia?

- A. Implanted cardiac pacemakers.
- B. Prosthetic cardiac valves.
- C. Coronary artery bypass grafts.
- D. Cardiac stents one year after placement.

A bite-wing radiograph of tooth 1.4 reveals caries penetrating one third into the mesial enamel. The most appropriate management of tooth 1.4 is to

- A. place an amalgam restoration.
- B. place a porcelain inlay.
- C. place a direct composite restoration.
- D. apply fluoride and improve oral hygiene.

Desquamation of the gingiva usually occurs as a result of

- A. inflammation.
- B. benign neoplasia.
- C. normal cell turnover.
- D. a developmental abnormality.

The most appropriate management of an avulsed maxillary central incisor in a 10 year old is the placement of a

- A. removable space maintainer.
- B. bonded resin bridge (Maryland bridge).
- C. conventional fixed partial denture.
- D. single tooth implant.

An acute periapical abscess originating from a mandibular third molar generally points and drains in the

- A. submandibular space.
- B. pterygomandibular space.
- C. buccal vestibule.
- D. buccal space.

Which of the following is/are NOT usually affected by hereditary ectodermal dysplasia?

- A. Salivary glands.
- B. Teeth.
- C. Sweat glands.
- D. Hair.
- E. Fingernails.

The smear layer created by root canal instrumentation can be removed by

- A. hydrogen peroxide and ethyl chloride.
- B. sodium hypochlorite and EDTA.
- C. chlorhexidine and chloroform.
- D. calcium hydroxide and phenol.

Abrasion is most commonly seen on the

- A. lingual surface of posterior teeth.
- B. occlusal surface of posterior teeth.
- C. incisal edges.
- D. facial surfaces of teeth.

In the surgical removal of an impacted mandibular third molar, which of the following would be considered to be the most difficult?

- A. Mesio-angular.
- B. Horizontal.
- C. Vertical.
- D. Disto-angular.

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A laboratory remount of processed dentures is done in order to correct occlusal disharmony produced by errors primarily in the

- A. mounting of the casts on the articulator.
- B. registration of jaw relation records.
- C. processing of acrylic dentures.
- D. registration of condylar guidance.

An adult patient has several multilocular lesions associated with vital mandibular teeth. A histopathologic analysis reveals the presence of multinucleated giant cells. The most appropriate management for this patient is to

- A. extract the involved teeth.
- B. obtain a serum parathormone (PTH) level.
- C. commence antibiotic therapy.
- D. initiate endodontic treatments.
- E. perform a mandibular resection.

The tissue which is most sensitive to radiation is

- A. nerve.
- B. dental pulp.
- C. lymphoid.
- D. muscle.

The level of *streptococcus mutans* has been shown to be significantly higher in the bacterial plaque adjacent to which type of posterior restoration?

- A. Glass-ionomer.
- B. Composite resin.
- C. Amalgam.
- D. Gold castings.

During extraction of a maxillary third molar, the tuberosity is fractured. The tooth with the tuberosity remains attached to the surrounding soft tissue. You should

- A. remove both and suture.
- B. leave both and stabilize, if possible.
- C. remove both, fill the defect with Gelfoam and suture.
- D. reflect the mucoperiosteum, remove the tooth, leaving the tuberosity in place and suture.

If a tooth has an inadequate ferrule, which of the following is an effective strategy to increase tooth structure available for crown preparation?

- A. Cementation of the restoration with a glass ionomer cement.
- B. Sub-gingival preparation and prolonged temporization.
- C. Orthodontic eruption.
- D. Elective endodontic treatment and a post core.

Methemoglobinemia is a potential complication of an excessive dose of

- A. bupivacaine.
- B. lidocaine.
- C. mepivacaine.
- D. prilocaine.

Maxillary skeletal arch expansion

- A. is easiest in the preadolescent patient.
- B. requires surgery in skeletally immature patients.
- C. decreases arch space.
- D. increases overbite.

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Warfarin (Coumadin®) acts by

- A. preventing formation of thromboplastin.
- B. preventing fibrinogen conversion to fibrin.
- C. inhibiting the synthesis of prothrombin in the liver.
- D. incorporating ionic calcium.

In the pterygomandibular space, the inferior alveolar nerve passes

- A. anterior to the deep tendon of the temporal muscle.
- B. lateral to the sphenomandibular ligament.
- C. medial to the medial pterygoid muscle.
- D. medial to the pterygomandibular raphe.

The gingivectomy is a useful technique to eliminate

- A. infrabony pockets.
- B. suprabony pockets.
- C. thick osseous ledges.
- D. mucogingival problems.

Periapical osseous dysplasia (periapical cemento-osseous dysplasia)

- A. is associated with a vital tooth.
- B. is found mainly in children.
- C. has an orange peel radiographic pattern.

Which of the following drugs can be administered to manage pain following the acute onset of a migraine?

- A. Amitriptyline.
- B. Nifedipine.
- C. Propranolol.
- D. Sumatriptan.

In complete denture construction, the physiologic rest position

- A. provides a guide to establish the vertical dimension of occlusion.
- B. determines the level of the occlusal plane.
- C. provides a guide for the selection of cusp inclination.
- D. determines the shape of the compensating curve.
- E. is useful to the determination of condylar inclination.

Upon stimulation of salivary flow, which gland is the main source of salivary volume?

- A. Submandibular.
- B. Submaxillary.
- C. Sublingual.
- D. Parotid.

Following periodontal surgery, the curetted root surface is repopulated by cells derived from all of the following tissues EXCEPT

- A. periodontal ligament.
- B. cementum.
- C. alveolar bone.
- D. epithelium.
- E. gingival connective tissue.

With excessive forward mandibular growth in a patient with minimal overjet, the mandibular incisors will most likely

- A. tip labially.
- B. tip lingually.
- C. tip laterally.
- D. remain unchanged.

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"Tic douloureux" is synonymous with

- A. psychogenic facial pain.
- B. trigeminal neuralgia.
- C. facial paralysis.
- D. temporomandibular joint dysfunction.

The start of a mandibular bone formation coincides with

- A. tooth germ development.
- B. completion of fusion of the facial processes.
- C. bone formation in the maxilla.
- D. completion of a mandible cartilage model.

A 35 year old female patient has multiple petechiae hemorrhages of the palatal mucosa and ecchymoses of the right and left buccal mucosae. Which of the following is the most likely laboratory finding?

- A. Anemia.
- B. Prolonged partial thromboplastin time (PTT).
- C. Elevated INR.
- D. Thrombocytopenia.

Osteogenesis imperfecta is manifested by

- A. punched-out radiolucencies in the jaws.
- B. numerous unerupted supernumerary teeth.
- C. osteoporosis and anemia.
- D. multiple fractures and blue sclera.

Keratocystic odontogenic tumours (odontogenic keratocysts) have a/an

- A. inflammatory origin.
- B. mixed radiopaque/radiolucent appearance.
- C. solid consistency.
- D. tendency to recur.

By definition, a compound fracture of the mandible must have

- A. multiple bone fragments.
- B. exposure to the external environment.
- C. a tooth in the line of fracture.
- D. displacement of the fractured segments.

Which of the following has a direct effect on periodontal tissues in diabetes mellitus-associated gingivitis?

- A. Lipopolysaccharides.
- B. Matrix metalloproteinases.
- C. Proinflammatory cytokines.
- D. Prostaglandins.
- E. Leukotoxin.

The inferior border of the lingual bar of a removable partial denture should

- A. displace the lingual frenum.
- B. be in contact with the cingula of the incisor teeth.
- C. be superior to the gingival border.
- D. be as inferior as the movement of the frenum of the tongue will permit.

In radiography, minimum magnification and maximum definition are achieved by

- A. minimum OFD (object-film distance) and minimum FFD (focal-film distance).
- B. minimum OFD (object-film distance) and maximum FFD (focal-film distance).
- C. maximum OFD (object -film distance) and maximum FFD (focal-film distance).
- D. maximum OFD (object-film distance) and minimum FFD (focal-film distance).

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Side effects of chemotherapeutic treatment for malignancy include

- A. thinning of the oral mucosa.
- B. ulceration.
- C. necrosis.
- D. spontaneous bleeding.
- E. all of the above.

The use of an intra-coronal attachment is CONTRAINDICATED for a tooth

- A. that is nonvital.
- B. requiring a core procedure build up.
- C. supporting a partial denture.
- D. with short crown length.

World epidemiological data indicates that periodontal disease is the most likely cause of tooth loss in the following age group:

- A. 10 - 20 years.
- B. 20 - 30 years.
- C. 30 - 50 years.
- D. 65 - 75 years.
- E. over 75 years.

For a patient with cardiovascular disease, local anesthesia

- A. affects blood pressure more than general anesthesia.
- B. affects blood pressure less than general anesthesia.
- C. is responsible for bacteremia.

A clinical sign of unilateral fracture of the body of the zygoma is

- A. cerebrospinal rhinorrhea.
- B. impaired hearing.
- C. subconjunctival haemorrhage.
- D. otorrhea.

When probing a healthy peridontium using light forces, the probe tip will most likely extend to the

- A. attached gingiva.
- B. junctional epithelium.
- C. transverse fibres of the periodontal ligament.

A surgical flap approach to periodontal pocket elimination permits

- A. healing by primary intention.
- B. retention of gingiva.
- C. access to perform osseous recontouring.
- D. All of the above.

What is the most probable syndrome affecting a 9 year old patient with a history of 3 keratocystic odontogenic tumours (odontogenic keratocyst)?

- A. Nevroid basal cell carcinoma syndrome (Gorlin Syndrome).
- B. Familial colorectal polyposis (Gardner's Syndrome).
- C. Crouzon Syndrome.
- D. Apert Syndrome.

The smear layer present on the root canal wall after cleaning and shaping is best removed by using

- A. EDTA.
- B. hydrogen peroxide.
- C. chlorhexidine.
- D. isopropyl alcohol.

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The primary etiological factor associated with periodontal disease is

- A. bacterial plaque.
- B. calculus.
- C. diabetes mellitus.
- D. tooth mobility.
- E. smoking.

The inorganic ion that is implicated in primary hypertension is

- A. sodium.
- B. fluoride.
- C. potassium.
- D. magnesium.

A patient with complete dentures complains of clicking. The most common causes are

- A. reduced vertical dimension and improperly balanced occlusion.
- B. excessive vertical dimension and poor retention.
- C. use of too large a posterior tooth and too little horizontal overlap.
- D. improper relation of teeth to the ridge and excessive anterior vertical overlap.

Which of the following drugs does NOT cause gingival enlargement?

- A. Nifedipine.
- B. Cyclosporine.
- C. Phenytoin.
- D. Prednisolone.

Odontoblast gap junctions

- A. adhere the cells to one another.
- B. attach the cells to the basement membrane.
- C. seal off the dentin from the pulp.
- D. permit lateral cell-cell communication.

Which type of malocclusion should be corrected as early as possible?

- A. Class II Division 1 associated with an anterior open bite.
- B. Class II Division 2 associated with an increased anterior overbite.
- C. Class III associated with an anterior open bite.
- D. Cross-bite associated with a functional shift of the mandible from initial contact to maximum intercuspation.
- E. Anterior open bite associated with a lip or digit sucking habit.

Ideally, within how many hours should one receive medical attention for percutaneous exposure to blood borne pathogens?

- A. 2.
- B. 4.
- C. 6.
- D. 8.

The maximum recommended number of 1.8ml cartridges of 2% lidocaine with epinephrine 1:100,000 that may be safely administered to a 17kg child is approximately

- A. 0.5.
- B. 1.
- C. 1.5.
- D. 2.
- E. 2.5.

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Which of the following conditions may develop as a result of juvenile diabetes mellitus?

- A. Ataxia.
- B. Aphasia.
- C. Deafness.
- D. Blindness.
- E. Motor paralysis.

Which condition is associated with elevated serum alkaline phosphatase and elevated urinary hydroxyproline levels?

- A. Fibrous dysplasia.
- B. Paget disease.
- C. Sjögren syndrome.
- D. Gardner syndrome.

The metabolic clearance of which of the following drugs is NOT reduced in an elderly patient?

- A. Carbamazepine.
- B. Warfarin.
- C. Morphine.
- D. Clindamycin.

The local anesthetic technique requiring the needle to contact the neck of the condyle is the

- A. posterior superior alveolar nerve block.
- B. Gow-Gates block.
- C. Vazirani-Akinosi block.
- D. inferior alveolar nerve block.

When will infiltrating new blood vessels be histologically detectable following a free gingival graft?

- A. 2 to 3 hours.
- B. 2 to 3 days.
- C. 2 to 3 weeks.
- D. 2 to 3 months.

Which of the following is the most predictable indicator of periodontal stability?

- A. Patient compliance with maintenance visit.
- B. Gingival inflammation.
- C. Plaque index.
- D. Absence of bleeding on probing.

To ensure a clinically acceptable setting time, polyalkenoic cements contain

- A. salicylic acid.
- B. phosphoric acid.
- C. maleic acid.
- D. tartaric acid.
- E. itaconic acid.

A gluteal intramuscular injection may be safely administered in which quadrant?

- A. Lower medial.
- B. Upper medial.
- C. Lower lateral.
- D. Upper lateral.

Sickle cell anemia is

- A. a genetic disease.
- B. caused by exposure to radiation.
- C. a viral infection.
- D. a drug reaction.
- E. an auto-immune disease.

Biocompatibility tests conducted in vitro

- A. follow screening with an animal model.
- B. predict human cell growth or death.
- C. reproduce the in vivo environment.
- D. are more easily standardized than clinical studies.

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In order to prevent gingival recession, a full gold crown should have

- A. a slightly narrow food table.
- B. a slightly overcontoured tooth form.
- C. normal contour reproduced.
- D. the margins extended 1mm subgingivally.

Bite-wing radiographs are most valuable for detecting

- A. hyperemia of the pulp.
- B. occlusal carious lesions.
- C. proximal surface caries.
- D. cervical caries.

In an infrabony pocket, the epithelial attachment is located

- A. within basal bone.
- B. coronal to alveolar bone crest.
- C. apical to alveolar bone crest.

Which of the following presents with high serum calcium levels, thinning of cortical bone and giant cell osteoclasts in the jaw and drifting teeth?

- A. Hyperthyroidism.
- B. Hyperparathyroidism.
- C. Hypothyroidism.
- D. Hypoparathyroidism.

The condyle of the mandible is unique because

- A. it develops from Meckel's cartilage.
- B. both interstitial and appositional bone formation are present.
- C. both primary and secondary cartilage growth centres are present.

Widening of the periodontal ligament space is NOT seen radiographically in

- A. trauma from occlusion.
- B. orthodontic tooth movement.
- C. Scleroderma (systemic sclerosis).
- D. Paget's disease.

The pulpal floor of a Class II cavity is cut perpendicular to the long axis of the tooth EXCEPT in the

- A. maxillary first premolar.
- B. maxillary second premolar.
- C. mandibular second premolar.
- D. mandibular first premolar.

An 86 year old patient with poor oral hygiene has a cavitated lesion with active caries. The lesion is on the vestibular root surface of a maxillary posterior tooth, and the patient does not want any mercury in their mouth. The most appropriate restorative material for this lesion is a/an

- A. microfill resin composite.
- B. hybrid resin composite.
- C. resin-modified glass ionomer.
- D. amalgam.

Which of the following characteristics is common to all types of aphthous ulcers?

- A. History of pain.
- B. Involvement of keratinized mucosa.
- C. Presence of vesicles.
- D. Presence of fever.
- E. Scar formation after healing.

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For an adult patient, the recommended time interval between bite-wing radiographic examination for the detection of dental caries is

- A. 6 months.
- B. 12 months.
- C. 24 months.
- D. dependent upon caries risk.

Drug-induced gingival overgrowth will most likely occur on the interdental papillae of which area?

- A. Anterior palate.
- B. Posterior palate.
- C. Anterior labial.
- D. Posterior buccal.

All of the following conditions are associated with AIDS EXCEPT

- A. acute marginal periodontitis.
- B. hairy leukoplakia.
- C. candidiasis.
- D. geographic tongue.

Which of the following statements about sodium is correct?

- A. Salt-sensitive people should avoid foods like oranges and bananas.
- B. A high salt intake aggravates but does not cause hypertension.
- C. Renal sodium excretion varies indirectly with total sodium intake.
- D. The sodium recommendation is increased during pregnancy.

Which of the following “in office” preventive procedures is most practical and effective for an uncooperative 4-year old patient from a non-compliant family?

- A. Oral hygiene instruction.
- B. Dietary counseling.
- C. Fluoride varnish every six months.
- D. Fluoride supplements.
- E. Pit and fissure sealants on all primary molars.

What is the most likely diagnosis of a white diffuse lesion with a wrinkled appearance on the buccal mucosa which disappears upon stretching?

- A. Leukoedema.
- B. Lichen planus.
- C. Candidiasis.
- D. Linea alba.
- E. White sponge nevus.

Oral nitrate is used to treat the symptoms of

- A. hypertension.
- B. angina.
- C. arrhythmia.
- D. tachycardia.

Which of the following landmarks is used to determine the height of the occlusal plane of the posterior teeth in a mandibular complete denture?

- A. Maxillary central incisor.
- B. Residual ridge crest.
- C. Tongue.
- D. Mandibular canine.
- E. Retromolar pad.

When exposing radiographic film, the amount of radiation received by the patient is best reduced by

- A. collimation.
- B. decreased object-film distance.
- C. low kVp correlated with high milliamperage.
- D. decreased target-object distance.

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In patients wearing complete dentures, the most frequent cause of tooth contact (clicking) during speaking is

- A. nervous tension.
- B. incorrect centric relation position.
- C. excessive occlusal vertical dimension.
- D. lack of vertical overlap.
- E. unbalanced occlusion.

Vitamin C is essential for

- A. formation of collagen.
- B. osteoid.
- C. dentin.
- D. cementum.
- E. All of the above.

The normal position of the alveolar crest in healthy periodontium is

- A. 1 to 2mm coronal to the CEJ.
- B. at the CEJ.
- C. 1 to 2mm apical to the CEJ.
- D. 3 to 4mm apical to the CEJ.

The presence of flaws or cracks in a material

- A. influences the strength of metals more than ceramics.
- B. leads to the development of stress concentrations.
- C. impacts compressive strength more than tensile strength.
- D. decreases its elastic modulus.

A patient with amyloidosis is taking 20 mg prednisone once a day. What is the minimum number of weeks taking the drug that triggers the need for corticosteroid prophylaxis before proceeding with major dentoalveolar surgery under general anesthesia?

- A. 2.
- B. 4.
- C. 6.
- D. 8.

The most appropriate radiograph(s) to determine the location of an impacted maxillary cuspid is/are

- A. occlusal.
- B. periapical.
- C. periapical and occlusal.
- D. panoramic.

The most radiosensitive cell type is a/an

- A. neuron.
- B. chondrocyte.
- C. myocyte.
- D. epithelial basal cell.

Fluorides are effective in the prevention of dental caries by

- A. increasing the resistance of dentin to bacterial penetration.
- B. causing tooth enamel to be more resistant to demineralization.
- C. providing a more favorable pulpal blood supply.
- D. All of the above.

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Angiotensin II converting enzyme is primarily produced in

- A. osteoblasts.
- B. epithelial cells of the small intestine.
- C. hepatocytes.
- D. Kupffer cells.
- E. vascular endothelial cells of the lung.

In chewing, maximum contact between teeth occurs in the position of

- A. habitual occlusion.
- B. lateral excursion on the non-working side.
- C. protrusive excursion.
- D. All of the above

A patient that has been prescribed metronidazole should avoid

- A. alcohol.
- B. antacids.
- C. caffeine.
- D. cheese.
- E. grapefruit juice.

Sterilization of carious dentin without pulp injury is assured by the application of

- A. phenol.
- B. 70% ethyl alcohol.
- C. chlorhexidine.
- D. absolute alcohol.
- E. None of the above.

The small bubble normally seen in a local anesthetic cartridge is

- A. nitrogen.
- B. air.
- C. oxygen.
- D. a breakdown product.

Which periodontal pathogen can use the hormone estrogen as a growth factor?

- A. *Porphyromonas gingivalis*.
- B. *Aggregatibacter (Actinobacillus) actinomycetemcomitans*.
- C. *Prevotella intermedia*.
- D. *Tannerella forsythia*.

If an infection from an abscessed permanent mandibular first molar perforates the lingual cortex, which muscle determines the space to which the infection will spread in the soft tissues?

- A. Mylohyoid.
- B. Temporalis.
- C. Digastric.
- D. Medial pterygoid.

A 13 year old complains of red, bleeding and swollen gums. Clinical examination reveals this is present only on the labial gingiva of the maxillary anterior teeth. What is the most likely etiologic factor?

- A. Blood dyscrasia.
- B. Insulin-dependent diabetes mellitus.
- C. Mouth breathing habit.
- D. Pubertal hormones.

Which syndrome has multiple cysts of the jaws?

- A. Gardner syndrome.
- B. Nevroid basal cell carcinoma syndrome.
- C. Peutz-Jeghers syndrome.
- D. Sjögren syndrome.

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In dental radiography, the most effective method of reducing patient somatic exposure is to use

- A. a lead apron.
- B. high speed film.
- C. added filtration.
- D. collimation.

A lateral force applied to the crown of a tooth will result in the crown moving

- A. in one direction and the root apex in the opposite direction.
- B. in the same direction as the root apex.
- C. along the line of force while the root apex remains stationary.

Healthy attached gingiva

- A. has no basal cell layer.
- B. is closely bound to underlying periosteum.
- C. contains elastic fibers.
- D. has no rete pegs.

The most common senile dementia in the elderly is

- A. vascular dementia.
- B. Alzheimer's disease.
- C. a result of cerebral arteriosclerosis.
- D. multi-infarct dementia.

In the mandibular dental arch of a 12-year old boy, the permanent first molars are in contact with the first premolars and the crowns of the second premolars have erupted lingually. The likely cause is

- A. ankylosis of the mandibular second premolars.
- B. lack of space.
- C. teeth too large for the dental arch.
- D. premature loss of deciduous second molars.
- E. faulty lingual eruption of the second premolars.

The most appropriate treatment following the extraction of a first primary molar in a 4 year old child is

- A. regular assessment of arch development.
- B. to perform space analysis.
- C. insertion of a space maintainer.
- D. extraction of the contra-lateral molar.
- E. extraction of the opposing molar.

The most common form of periodontal disease is

- A. gingivitis.
- B. chronic periodontitis.
- C. gingival hyperplasia.
- D. aggressive periodontitis.

Metronidazole can be used to treat

- A. denture stomatitis.
- B. recurrent aphthous ulcers.
- C. necrotizing ulcerative gingivitis (NUG).
- D. primary herpetic gingivostomatitis.

An anterior crossbite of a permanent maxillary incisor in the mixed dentition is most often associated with

- A. a functional shift.
- B. unexplainable genetic factors.
- C. lingually situated supernumerary teeth.
- D. prolonged retention of a primary incisor.
- E. premature eruption of a maxillary incisor.

In healthy gingiva, the level of the interproximal alveolar crest is related to the

- A. thickness of the alveolar process.
- B. location of the gingival margin.
- C. amount of underlying trabecular bone.
- D. position of the cemento-enamel junction.

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Heat treatment alters a gold alloy's

- A. hardness.
- B. proportional limit.
- C. percentage elongation.
- D. All of the above.

The major connector of a removable partial denture should be designed to

- A. connect rigidly the component parts of the partial denture.
- B. act as a stress-breaker.
- C. dissipate vertical forces.

Which of the following procedures must be done to ensure acceptable mercury hygiene in a dental office?

- A. Use of high volume evacuation when working with amalgam.
- B. Use of air spray when condensing, polishing or removing amalgam.
- C. Storage of amalgam scrap in a dry container with a lid.
- D. A quarterly mercury assessment for office personnel.

Which of the following changes in colour, contour and texture are indicative of plaque induced gingivitis?

- A. Red, swollen, increased stippling.
- B. Cyanotic, cleft formation, lack of stippling.
- C. Red, swollen, lack of stippling.
- D. Pink, swollen, lack of stippling.

Hypochromic anemia is associated with

- A. iron deficiency.
- B. aminopyrine therapy.
- C. vitamin B₁₂ deficiency.
- D. folic acid deficiency.

Which of the following is a clinical CONTRAINDICATION for an all-ceramic maxillary anterior crown?

- A. Excessive overjet and overbite.
- B. Normal overjet and excessive overbite.
- C. An endodontically treated tooth with a cast post and core.
- D. A low caries index.

The dimensional stability of polyether impression material is considered to be good EXCEPT if the material is

- A. dehydrated.
- B. allowed to absorb water after setting.
- C. used in uneven thickness.
- D. distorted by rapid removal of the impression from the mouth.
- E. contaminated with latex.

A preparation for a Class II amalgam restoration in primary molars should include

- A. occlusally divergent buccal and lingual walls.
- B. an axial wall that parallels the dentino-enamel junction.
- C. an isthmus that occupies two thirds of the intercuspal distance.
- D. undercut enamel and dentin.

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The primary factor for selecting periodontal flap surgery rather than gingivectomy is

- A. presence of gingival edema.
- B. pocket depth.
- C. presence of subgingival calculus.
- D. need for access to the bony defect.

The most appropriate material of choice for obturating the root canal system of a primary tooth is

- A. MTA.
- B. gutta percha.
- C. zinc-oxide eugenol.
- D. formocresol.

Which of the following tumours has the best prognosis?

- A. Osteosarcoma.
- B. Melanoma.
- C. Ameloblastoma.
- D. Adenocarcinoma.

A pleomorphic adenoma is characterized by

- A. metastases.
- B. recurrence.
- C. pain.
- D. ulceration.

Which of the following preoperative instructions are most appropriate for a well-controlled insulin-dependent diabetic patient who is scheduled at 9:00 a.m. for the extraction of two teeth under local anesthesia?

- A. Eat breakfast before the appointment and delay insulin injection until after the appointment.
- B. Take insulin before the appointment and delay breakfast until after the extractions.
- C. Eat breakfast before the appointment and take insulin according to the regime prescribed by the physician.
- D. Delay breakfast and insulin until after the dental appointment.

During orthodontic treatment, a healthy adolescent will most frequently present with

- A. gingivitis.
- B. horizontal bone loss.
- C. necrotizing ulcerative gingivitis.
- D. vertical bone loss.

Many months after trauma to a primary incisor, the development of a greyish discolouration in the crown usually indicates

- A. pulp necrosis.
- B. pulp canal calcification.
- C. external root resorption.
- D. internal root resorption.

A 4 year old has generalized bone loss, mobile teeth and generalized calculus. Which condition should NOT be included in the differential diagnosis?

- A. Cyclic neutropenia.
- B. Papillon-Lefèvre syndrome.
- C. Chédiak-Higashi syndrome.
- D. Crouzon syndrome.
- E. Leukocyte adhesion deficiency syndrome.

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The most appropriate time for surgical treatment of a patient with mandibular prognathism is

- A. just before the beginning of the prepubertal growth spurt.
- B. just after the end of the prepubertal growth spurt.
- C. just before eruption of the second permanent molars.
- D. just after eruption of the second permanent molars.
- E. following the completion of growth.

Enamel pearls form when

- A. ameloblasts migrate apically down the root.
- B. cells of the epithelial root sheath do not migrate away from the dentin.
- C. cells of the dental follicle fail to develop.
- D. epithelial rests transform into ameloblast vesicles.

Which of the following should be performed to confirm a diagnosis of pseudomembranous candidiasis?

- A. An incisional biopsy.
- B. A cytological smear.
- C. An excisional biopsy.
- D. A complete blood count.

A 70 year old patient was diagnosed with squamous cell carcinoma of the lateral border of the tongue. The tumour measures 3.5 x 3.0 cm. A CT of the neck confirms the presence of a 2.5cm ipsilateral submandibular lymph node suggestive of locoregional disease. Chest X-rays and liver function tests were within normal limits. The TNM classification of this patient's disease is

- A. T1N1M0.
- B. T1N2M0.
- C. T2N1M0.
- D. T2N2M1.

Presence of bleeding on probing

- A. is indicative of current inflammation.
- B. is indicative of past inflammation.
- C. has a high positive predictive value (PPV) for further attachment loss.

Which of the following is classified as a muscle of mastication?

- A. Temporalis.
- B. Buccinator.
- C. Digastric.
- D. Mylohyoid.

The most logical explanation for causing swelling beneath the eye caused by an abscessed maxillary canine is that the

- A. lymphatics drain superiorly in this region.
- B. bone is less porous superior to the root apex.
- C. infection has passed into the angular vein which has no valves.
- D. the root apex lies superior to the attachment of the caninus and levator labii superioris muscles.

What percentage of natal teeth are supernumerary?

- A. 10.
- B. 50.
- C. 90.

Which of the following is NOT a symptom of hypercalcemia?

- A. Paresthesia.
- B. Constipation.
- C. Anoxia.
- D. Lethargy.

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On bite-wing radiographs of adults under the age of 30, the normal alveolar crest is

- A. at the cementoenamel junction.
- B. 1-2mm apical to the cementoenamel junction.
- C. 3-4mm apical to the cementoenamel junction.
- D. not clearly distinguishable.

Which disorder presents with all permanent teeth exhibiting bulbous crowns, cervical constriction and obliterated pulp canals and chambers?

- A. Amelogenesis imperfecta.
- B. Dentinogenesis imperfecta.
- C. Dentin dysplasia type I.
- D. Dentin dysplasia type II.

In composite resin restorations, glass ionomer cements can be used as a base because they are

- A. sedative to a hyperemic pulp.
- B. neutral in colour.
- C. biocompatible.
- D. compatible with the expansion of composite resins.

Which of the following structures lies inferior to the mylohyoid muscle at the level of the mandibular second molar?

- A. Lingual artery.
- B. Lingual vein.
- C. Lingual nerve.
- D. Submandibular duct.

Which of the following has the greatest effect on the mechanical properties of composite resin?

- A. Modulus of elasticity of the filler particles.
- B. Weight fraction of the filler particles.
- C. Volume fraction of filler particles.
- D. Hardness of filler particles.
- E. Size of the filler particles.

Multiple neurofibromatosis and "café au lait" spots on the skin are typical of

- A. Gardner's syndrome.
- B. Plummer-Vinson syndrome.
- C. Von Recklinghausen's disease.
- D. Down syndrome.

After the elimination of occlusal trauma, even in the presence of inflammation, which of the following is most likely to result?

- A. Reduction in tooth mobility.
- B. Regeneration of the periodontal ligament.
- C. Restoration of lost alveolar bone.
- D. Gain of clinical attachment.

Temporary anchorage devices (TADS) have the greatest effect on which orthodontic movement?

- A. Extrusion.
- B. Torqueing.
- C. Intrusion.
- D. Tipping.

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Which of the following is most likely to have its effect reduced in a patient with genetic polymorphism of CYP2D6?

- A. Acetaminophen.
- B. Amoxicillin.
- C. Clindamycin.
- D. Codeine.
- E. Ibuprofen.

The mean annual radiation dose equivalent for human populations on earth is approximately

- A. 3 to 4 micro- (μ) Sv.
- B. 3 to 4 milli- (m) Sv.
- C. 3 to 4 Sv.
- D. 3 to 4 kSv.

The labial/buccal attached gingiva on permanent teeth is normally widest at the

- A. mandibular canines.
- B. maxillary premolars.
- C. mandibular premolars.
- D. maxillary lateral incisors.

Metastasis is most likely to occur in

- A. squamous cell carcinoma.
- B. basal cell carcinoma.
- C. ameloblastoma.
- D. complex odontoma.
- E. odontogenic fibroma.

Mandibular growth

- A. is sustained over a longer period of time in girls.
- B. is sustained over a longer period of time in boys.
- C. occurs at the same chronologic age in both sexes.
- D. occurs two years earlier in boys than in girls.

Lidocaine (Xylocaine®) is an example of a local anesthetic which is chemically classified as an

- A. amide.
- B. ester.
- C. aldehyde.
- D. ethamine.
- E. aminide.

Which of the following drugs are classic antagonists for curare over-dosage?

- A. Anticholinesterases.
- B. Ganglionic stimulants.
- C. Ganglionic blocking agents.
- D. Alpha adrenergic blocking agents.
- E. Beta adrenergic blocking agents.

A mixed lesion with a radiolucent rim and corticated border causing impaction of a permanent tooth is most likely a/an

- A. adenomatoid odontogenic tumour.
- B. calcifying epithelial odontogenic tumour.
- C. odontoma.
- D. ameloblastic fibro-odontoma.

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During endodontic treatment a file separates. The fragment is 3mm long and is lodged tightly in the apical third of the canal. No radiographic changes at the apex are evident. In addition to informing the patient, the most appropriate management is to

- A. extract the tooth.
- B. perform an apicoectomy and place a retrograde filling.
- C. resect the apical section of the root containing the separated instrument.
- D. complete the root canal filling and monitor at recall examination.

Polycarboxylate cement may be used as a base material beneath a metallic restoration because

- A. its thermal conductivity is similar to dentin and enamel.
- B. its thermal diffusivity is similar to dentin and enamel.
- C. its compressive strength when set will resist forces of condensation.
- D. All of the above.

The collimator of an X ray tube

- A. produces a more homogeneous X ray beam.
- B. prevents secondary radiation.
- C. focuses the X ray beam.
- D. restricts the diameter of the X ray beam.

The most significant factor in the predictable correction of an anterior crossbite is the

- A. age of the patient.
- B. degree of incisor overbite.
- C. shape of the incisors.
- D. amount of mesio-distal spacing.

The most appropriate restoration for a primary first molar with extensive carious destruction of the crown is a

- A. posterior composite resin.
- B. pin retained amalgam.
- C. stainless steel crown.
- D. resin-modified glass ionomer.

The physiologic wear of hard dental tissue resulting from mastication is known as

- A. decalcification.
- B. attrition.
- C. abrasion.
- D. erosion.

Sickle cell anemia is

- A. a genetic disease.
- B. caused by exposure to radiation.
- C. a viral infection.
- D. a drug reaction.
- E. an auto-immune disease.

Blue sclera is characteristic of

- A. osteopetrosis.
- B. osteogenesis imperfecta.
- C. osteitis deformans.
- D. fibrous dysplasia.

The principal microorganism in localized aggressive periodontitis is

- A. *Porphyromonas gingivalis*.
- B. *Fusobacterium nucleatum*.
- C. *Aggregatobacter (Actinobacillus) actinomycetemcomitans*.
- D. *Prevotella intermedia*.

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What is the most likely diagnosis of an ulcerated gingival lesion whose biopsy report confirms epithelial basal layer separation from the lamina propria?

- A. An aphthous ulcer.
- B. Erosive lichen planus.
- C. Pemphigus vulgaris.
- D. Mucous membrane pemphigoid (cicatricial pemphigoid).

Chewing “automatism” is dependent on which mechanism?

- A. Reflexes between jaw closing and opening muscles.
- B. Swallowing and respiration neuronal activity.
- C. Periodontal receptor stimulation.
- D. Reticular formation neuronal activity.

The junctional epithelium, once it has migrated apically, attaches to the cementum by means of

- A. collagen fibres.
- B. oxytalan fibres.
- C. desmosomes.
- D. hemidesmosomes.

Condensing osteitis in the periapical region is indicative of a/an

- A. acute inflammation of the pulp.
- B. pulpal abscess.
- C. chronic inflammation of the pulp.
- D. early apical abscess formation.

Overhangs on restorations initiate chronic inflammatory periodontal disease by

- A. increasing plaque retention.
- B. increasing food retention.
- C. causing traumatic occlusion.
- D. causing pressure atrophy.

The management of a single tooth posterior crossbite requires

- A. opening the bite to disclude the teeth.
- B. creating space in the opposing arch.
- C. correcting the functional shift of the mandible.
- D. rapid palatal expansion.

A facebow is used to record the

- A. vertical dimension of occlusion.
- B. horizontal condylar inclination.
- C. incisal guidance.
- D. relationship of the maxilla to the horizontal hinge axis.

A vital canine is to be used as the anterior abutment of a four unit fixed partial denture and it has 2.0mm remaining coronal tooth structure. The most acceptable foundation restoration would be

- A. bonded amalgam core build-up.
- B. a pin retained amalgam core build-up.
- C. a pin retained composite resin core build-up.
- D. intentional devitalization followed by a post and core restoration.

Which of the following is associated with aggressive periodontitis in adolescents?

- A. *Treponema denticola*.
- B. *Aggregatibacter (Actinobacillus) actinomycetemcomitans*.
- C. *Porphyromonas gingivalis*.
- D. *Prevotella intermedia*.

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In neurons, glutamate is an amino acid that binds only to

- A. nuclear receptors.
- B. ionotropic receptors.
- C. metabotropic receptors.
- D. ionotropic and metabotropic receptors.

Which maxillary central incisor characteristic is the most limiting in the construction of a Class II functional appliance?

- A. Retroclination.
- B. Proclination.
- C. Overeruption.
- D. Undereruption.

Which of the following viruses has the greatest chance of transmission in an occupational exposure to a vaccinated dental healthcare worker?

- A. Hepatitis B.
- B. Hepatitis C.
- C. HIV.
- D. HPV.

Which of the following results from a necrotic pulp?

- A. Dentigerous cyst.
- B. Lateral periodontal cyst.
- C. Chronic periradicular periodontitis.
- D. Pulp polyp.

Which of the following periodontal procedures is indicated on a maxillary canine that will receive a full crown with subgingival margins when the abutment has 1mm of attached gingiva, no sign of inflammation or loss of attachment?

- A. Root planing.
- B. Coronally positioned flap.
- C. Localized gingivectomy.
- D. Autogenous connective tissue graft.
- E. There is no indication that this tooth requires periodontal treatment.

Which of the following compounds released by inflammatory cells induces bone resorption?

- A. Nitric oxide.
- B. Interleukin-1.
- C. Bradykinin.
- D. Alkaline phosphatase.

Ludwig's angina may cause death by

- A. heart failure.
- B. asphyxia.
- C. convulsions.
- D. paralysis of muscles of respiration.
- E. pyemia.

The mechanical objectives when preparing the root canal system for obturation with gutta-percha should include

- A. development of a continuously tapering cone in the root canal.
- B. removal of irregularities.
- C. maintenance of an intact foramen.
- D. all of the above.

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A radiograph displaying a “cotton-wool” appearance and generalized hypercementosis is suggestive of

- A. fibrous dysplasia.
- B. osteopetrosis.
- C. osteogenesis imperfecta.
- D. Paget’s disease.
- E. cleidocranial dysplasia.

Continued smoking will impair wound healing following a surgical procedure because of

- A. stain development.
- B. increased rate of plaque formation.
- C. increased rate of calculus formation.
- D. contraction of peripheral blood vessels.
- E. superficial irritation to tissues by smoke.

During guided tissue regeneration therapy, the regenerative cells originate primarily from the

- A. lamina propria.
- B. periodontal ligament.
- C. cellular cementum.
- D. collagen membrane.

When compared to zinc phosphate cement, glass ionomer cement has a/an

- A. lower solubility in oral fluids.
- B. ability to release fluoride.
- C. higher compressive strength.
- D. lower film thickness.

The term "subdivision" in malocclusion classification refers to molar relationships that are

- A. different on the right and left side.
- B. the same on the right and left side.
- C. mildly abnormal.
- D. severely abnormal.

Assuming a maxillary cast is accurately mounted on an articulator, a centric relation record is used to

- A. determine the vertical dimension of occlusion.
- B. mount the mandibular cast.
- C. establish the occlusal plane.
- D. record the inclination of the condylar guidance.

Compared to heat-cured acrylic resins, cold-cure acrylic resins are

- A. harder and more colour stable.
- B. less hard and more colour stable.
- C. less hard and less colour stable.
- D. harder and less colour stable.

A 30 year old patient has bilateral asymptomatic, bony hard nodules on the lingual surface of the anterior mandible. The most appropriate management is

- A. excisional biopsy of the nodules.
- B. referral for potential premalignant colonic polyps.
- C. vitality test of teeth adjacent to the nodules.
- D. observation at routine recalls.
- E. a bone scan for metastatic tumours.

A patient complains of lip and tongue hypersensitivity (allodynea) following intake of hot, spicy food. The sensory nerve fibers that are associated with this form of pain are

- A. A-alpha.
- B. A-beta.
- C. A-gamma.
- D. A-delta and C.

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The most common barrier preventing elderly individuals from seeking dental treatment is

- A. the cost associated with dental treatments.
- B. difficulty getting to and from the dental office.
- C. a lack of perceived need for treatment.
- D. fear of being “hurt”.

After a tooth has had nonsurgical endodontic treatment, which of the following is NOT an indication for additional endodontic intervention?

- A. Presence of clinical signs and symptoms.
- B. Presence of a periradicular radiolucency.
- C. Enlargement of the original periradicular radiolucency.
- D. Development of a periradicular radiolucency.

Which of the following most appropriately describes a traumatic neuroma?

- A. A slow-growing, painless neoplasm.
- B. A slow-growing, hypersensitive nodule.
- C. A tumour at a recent extraction site.
- D. A tumour of the tongue.

The short action of thiopental is due to

- A. rapid redistribution.
- B. rapid renal excretion.
- C. rapid metabolism.
- D. build up of tolerance.
- E. conjugation with serum proteins.

Which laboratory test is the most appropriate in a patient with acute bacterial infection who does not respond to routine antibiotic therapy?

- A. Platelet count.
- B. Hemoglobin level.
- C. Cytological smear.
- D. Culture and sensitivity.
- E. Immunoglobulin concentration.

What is the primary etiologic factor for generalized aggressive periodontitis?

- A. Altered lymphocyte activity.
- B. Generalized subgingival calculus.
- C. Impaired polymorphonuclear phagocytosis.
- D. Bacterial plaque.

A double blind controlled clinical trial that assessed the analgesic effects of etoricoxib and comparator agents on the second and third days after third molar extraction included 600 officers from dental clinics at 10 military bases. What form of bias is present in this study?

- A. Publication.
- B. Recall.
- C. Sampling.
- D. Selection.

To prevent mesial drift of a permanent first molar, the ideal time to place a distal extension space maintainer is

- A. as soon as the tooth erupts through the gingival tissue.
- B. after the permanent second molar has erupted.
- C. immediately after extraction of the primary second molar.
- D. as soon as the extraction site of the primary second molar has completely healed.

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The best way to protect the abutments of a Class I removable partial denture from the negative effects of the additional load applied to them is by

- A. splinting abutments with adjacent teeth.
- B. keeping a light occlusion on the distal extensions.
- C. placing distal rests on distal abutments.
- D. using cast clasps on distal abutments.
- E. regular relining of the distal extensions.

In a standard dental cartridge (carpule) containing 1.8ml 2% lidocaine with epinephrine 1/100,000, the amount of vasoconstrictor is

- A. 18.0 mg.
- B. 0.018 mg.
- C. 1.8 mg.
- D. 0.18 mg.
- E. 180.0 mg.

An incisional biopsy of a clinically suspicious malignant lesion fails to support the clinical diagnosis. The most appropriate management is to

- A. reassure the patient that there is no malignancy.
- B. contact the pathologist to discuss the case.
- C. recall the patient in six months.
- D. perform a cytological smear.

Fordyce spots or granules is/are

- A. sweat glands.
- B. implanted epithelium.
- C. cystic formations.
- D. sebaceous glands.
- E. hyperkeratosis.

What is the most common manifestation of occlusal trauma?

- A. Tooth mobility.
- B. Periodontal pocket formation.
- C. Gingival recession.
- D. Pulp calcifications.

When designing a removable partial denture, undercuts are found in which area of teeth?

- A. Height of contour.
- B. Suprabulge area.
- C. Proximal guide plane.
- D. Infrabulge area.

When uprighting a molar to be used as a bridge abutment, consideration must be given to the

- A. local periodontium.
- B. vertical changes due to tipping of the molar.
- C. residual space for a pontic.
- D. use of fixed appliances for optimum control.
- E. All of the above.

In comparison to visible light, X rays

- A. have a longer wavelength.
- B. have higher energy.
- C. travel faster.
- D. can be focused.

Which of the following root surfaces have concavities that make root planing difficult?

- A. Mesial of maxillary first premolars.
- B. Lingual of mandibular first premolars.
- C. Mesial of maxillary incisors.
- D. Distal of the palatal roots of maxillary molars.

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Extreme resorption of an edentulous mandible can bring the alveolar ridge to the level of the attachment of the

- A. buccinator, styloglossus and geniohyoid muscles.
- B. mylohyoid, buccinator and styloglossus muscles.
- C. superior constrictor, mylohyoid and buccinator muscles.
- D. mylohyoid, buccinator and genioglossus muscles.

The tooth surfaces LEAST susceptible to caries are

- A. mesial of the maxillary arch.
- B. lingual of the mandibular arch.
- C. distal of the maxillary arch.
- D. occlusal of the mandibular arch.
- E. lingual of the maxillary arch.

The characteristic oral lesion(s) of pemphigus is/are

- A. vesicles and bullae.
- B. Fordyce granules.
- C. white plaques.
- D. hairy tongue.
- E. candidiasis.

Excessive flare of the distobuccal cavosurface margin of a Class II amalgam cavity preparation will result in

- A. unsupported enamel at the margin.
- B. weak amalgam at the margin.
- C. poor retention.
- D. poor esthetics.

When closing a diastema with direct composite, care must be taken to ensure that the

- A. width to height relationships are appropriate.
- B. entire embrasure is filled.
- C. restoration does not extend subgingivally.
- D. enamel is reduced 0.3 to 0.5mm prior to etching.

During the setting phase, a dental stone mixture will exhibit

- A. expansion.
- B. contraction.
- C. loss in compressive strength.
- D. gain in moisture content.

After partial pulpotomy of a permanent central incisor in an 8 year old child, the most important clinical criterion of success is

- A. completion of root formation.
- B. retained natural colour of the tooth.
- C. pulp regeneration.
- D. formation of pulp stones.

Increasing the kilovoltage setting on the dental x-ray machine results in

- A. more gamma radiation.
- B. greater collimation.
- C. more penetration.
- D. greater secondary radiation at the level of the skin.

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The earliest radiographic sign of traumatic occlusion is

- A. hypercementosis.
- B. root resorption.
- C. alteration of the lamina dura.
- D. widening of the periodontal ligament space.
- E. ankylosis.

The most likely complication associated with the extraction of an isolated maxillary second molar is

- A. a dry socket.
- B. nerve damage.
- C. fracture of the malar ridge.
- D. fracture of the tuberosity.

After an inferior alveolar nerve block injection, a patient would develop seventh nerve paralysis if the injection was made into the

- A. internal maxillary artery.
- B. retroparotid space.
- C. internal pterygoid muscle.
- D. retromandibular vein.
- E. pterygoid plexus of veins.

Decreased alveolar bone density is associated with decreased levels of

- A. thyroxin.
- B. hydrocortisone.
- C. parathyroid hormone.
- D. estrogen.

A 10 year old patient complains of discomfort in a maxillary primary second molar when eating. The tooth is mobile with a large mesio-occlusal amalgam restoration. The most likely diagnosis is

- A. an exfoliating tooth.
- B. a hyperemic pulp.
- C. a hyperplastic pulp.
- D. an acute pulpitis.
- E. traumatic occlusion.

Which substance found in radiograph processing solutions is of most concern environmentally?

- A. Ammonium thiosulfate.
- B. Acetic acid.
- C. Silver.
- D. Sodium sulfite.

Which of the following conditions is NOT associated with the fully edentulous state?

- A. Residual ridge reduction.
- B. Decrease in masticatory function.
- C. Altered taste perception.
- D. Rheumatoid arthritis.

Increased tooth mobility and the absence of lamina dura are signs of

- A. hyperthyroidism.
- B. hyperpituitarism.
- C. hyperparathyroidism.
- D. scleroderma.

Collagen

- A. is most common in hard tissues.
- B. forms insoluble high tensile strength fibres.
- C. has a triple helical structure.
- D. All of the above.

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Which of the following presents with high serum calcium levels, thinning of cortical bone and giant cell osteoclasts in the jaw and drifting teeth?

- A. Hyperthyroidism.
- B. Hyperparathyroidism.
- C. Hypothyroidism.
- D. Hypoparathyroidism.

Which of the following is a proliferative response of the soft tissue to an irritant?

- A. Cellulitis.
- B. Abscess.
- C. Pyogenic granuloma.
- D. Aphthous ulcer.

Periodontitis as a manifestation of systemic disease as described in the Armitage 1999 classification includes

- A. diabetes.
- B. leukemia.
- C. atherosclerosis.
- D. osteoporosis.

Pyogenic granuloma is most frequently found on the

- A. tongue.
- B. gingiva.
- C. buccal mucosa.
- D. tonsillar pillars.
- E. lips.

An 8 year old patient presents 4 hours post-trauma with an oblique crown fracture of 2.1 exposing 2mm of vital pulp. The most appropriate pulpal treatment is

- A. apexogenesis.
- B. apexification.
- C. extraction.
- D. root canal treatment.

For an optimum esthetic result, what is the MINIMUM time to wait after an anterior tooth extraction before making a final impression for a fixed partial denture?

- A. 2 weeks.
- B. 1 month.
- C. 3 months.
- D. 6 months.
- E. 1 year.

Latex gloves should

- A. be washed with plain soap before initial use.
- B. be washed with plain soap when used between patients.
- C. be washed with a disinfectant solution only.
- D. not be washed.

In the mandibular first premolar, the occlusal dovetail of an ideal disto-occlusal amalgam preparation is usually not extended into the mesial fossa because of the

- A. small lingual lobe.
- B. large buccal cusp.
- C. large buccal pulp horn.
- D. prominent transverse ridge.

The canal of a maxillary canine has been instrumented to within 1mm of the apex and is ready to be obturated. A radiograph indicates that the master cone is 2.5mm short of the apex. The most appropriate management is to

- A. proceed with the filling as the cone is within acceptable limits.
- B. fit a larger cone within 2mm of the apex.
- C. cut the cone 1mm and insert.
- D. discard the cone and fit a smaller one.

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In a xerostomic patient, which salivary glands are most likely responsible for the lack of lubrication?

- A. Accessory.
- B. Labial.
- C. Parotid.
- D. Sublingual and submandibular.

Gingival inflammation may result from

- A. trauma.
- B. chemical irritation.
- C. plaque.
- D. All of the above.

A therapeutic advantage of penicillin V over penicillin G is

- A. greater resistance to penicillinase.
- B. broader antibacterial spectrum.
- C. greater absorption when given orally.
- D. slower renal excretion.
- E. None of the above.

If hydroquinone is added to the monomer, it will

- A. inhibit polymerization.
- B. initiate polymerization.
- C. activate polymerization.
- D. None of the above.

The most appropriate management for a gingival cyst of the newborn is

- A. curettage.
- B. incisional biopsy.
- C. cytologic smear.
- D. excisional biopsy.
- E. observation.

Hypothyroidism affects the dental developmental pattern by

- A. interfering with jaw growth.
- B. delaying the eruption timetable.
- C. causing sclerotic bone to form over the occlusal surface of erupting teeth.
- D. accelerating the eruption timetable.

What is the earliest age to confirm the diagnosis of a congenitally missing mandibular second premolar?

- A. 1 year.
- B. 3 years.
- C. 5 years.
- D. 7 years.

The prolonged use of antibacterial lozenges or mouthwashes contributes to the development of

- A. oral candidiasis.
- B. geographic tongue.
- C. cancrum oris.
- D. Koplik's spots.
- E. aphthous ulcers.

Solitary eosinophilic granuloma is associated with

- A. multiple myeloma.
- B. hyperparathyroidism.
- C. hypoparathyroidism.
- D. Langerhans cell histiocytosis.

In teeth with pulp necrosis, the periapical area is involved if there is pain

- A. to thermal stimuli.
- B. on percussion.
- C. to electric pulp testing.
- D. when the patient is lying down.

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In an 8-year old, the optimum time for treatment of an anterior crossbite of dental origin is

- A. as soon as possible.
- B. after the maxillary canines are in position.
- C. after the maxillary premolars erupt.
- D. following completion of jaw growth.

Which drug is most adversely affected by ingestion of antacids?

- A. Cephalexin.
- B. Erythromycin.
- C. Tetracycline.
- D. Penicillin V.

The most common primary tooth to become ankylosed is a

- A. maxillary molar.
- B. mandibular molar.
- C. maxillary canine.
- D. mandibular canine.

The most frequent location of a dentigerous cyst is the

- A. inferior third molar area.
- B. symphysis of the mandible.
- C. midline of the hard palate.
- D. apical area of a devitalized tooth.
- E. premolar area.

All of the following display viscoelastic properties EXCEPT

- A. irreversible hydrocolloids.
- B. dental porcelain.
- C. silver amalgam.
- D. dentin.

The presence of hepatitis B surface antigen (HBsAg) and hepatitis B e antigen (HBeAg) in blood indicates the individual

- A. is infectious for hepatitis B.
- B. has acquired immunity to hepatitis B.
- C. is not infectious for hepatitis B and has not acquired immunity to hepatitis B.
- D. has never been infected with hepatitis B.

Loss of attachment in periodontal disease occurs

- A. at a consistent rate.
- B. in cycles lasting for about 3 months.
- C. in random cycles.

Which of the following is NOT appropriate to be used to relieve ischemic discomfort of an acute coronary syndrome patient?

- A. Nitroglycerin.
- B. Morphine.
- C. Acetaminophen.
- D. Oxygen.

Nystatin is the most appropriate drug to treat

- A. aphthous stomatitis.
- B. candidiasis.
- C. periodontal abscess.
- D. necrotizing ulcerative gingivitis.

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Which of the following is NOT a property of lidocaine?

- A. Local anesthesia.
- B. Topical anesthesia.
- C. Muscle relaxation.
- D. Antiarrhythmic action.

Accessory canals in permanent teeth are most commonly found in the

- A. cervical third of the root.
- B. middle third of the root.
- C. apical third of the root.
- D. bifurcation area.
- E. trifurcation area.

Which of the following modifications to the standard procedure for mixing gypsum products will increase the compressive strength of the set material?

- A. Adding a small amount of salt to the water before mixing.
- B. Decreasing the water/powder ratio by a small amount.
- C. Using warmer water.
- D. Decreasing the mixing time.

The surgical removal of tooth 3.6 requires anesthesia of the inferior alveolar nerve as well as which of the following nerves?

- A. Lingual, cervical plexus.
- B. Cervical, long buccal.
- C. Lingual, long buccal.
- D. Mental, long buccal.

Pressure and tension have little effect on growth of

- A. the frontomaxillary suture.
- B. the alveolus.
- C. the mandible.
- D. cartilage.

The most common risk associated with vital bleaching using 10% carbamide peroxide in a custom tray is

- A. superficial enamel demineralization.
- B. soft tissue reaction.
- C. tooth sensitivity.
- D. cytotoxicity.

Which of the following statements is true about diazepam? It

- A. improves performance of fine motor skills.
- B. causes amnesia.
- C. is available without prescription in Canada.
- D. does not produce a dependence syndrome.

When tumour cells revert to a more primitive, embryonic or undifferentiated form with an increased capacity for reproduction and a decreased function, this is called

- A. anaplasia.
- B. metaplasia.
- C. hypoplasia.
- D. hyperplasia.

After the age of 6 years, growth of the mandible is greatest

- A. at the symphysis.
- B. between canines.
- C. along the lower border.
- D. posterior to first molars.

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Which of the following is the most frequent major congenital malformation of the head and neck?

- A. Cystic hygroma colli.
- B. Cleft palate.
- C. Encephalotrigeminal angiomatosis.
- D. Double lip.
- E. Commissural pits.

Hyperkeratosis, acanthosis, dysplasia, increased mitosis, intact basal cell layer and chronic inflammatory cells are histologic features that may be found in

- A. squamous cell carcinoma.
- B. carcinoma in situ.
- C. papillofibroma.
- D. endothelioma.

The best way to increase the working time of a polyvinylsiloxane is to

- A. change the catalyst/base ratio.
- B. refrigerate the material.
- C. add oleic acid.
- D. reduce mixing time.

The purpose of calibrating examiners in a randomized controlled clinical trial is to ensure

- A. consistent measurement of clinical outcomes.
- B. similarity of experimental and control groups.
- C. high ethical standards in conducting the trial.
- D. measurement of all relevant clinical outcomes.

An increase of immunoglobulins is consistent with increased numbers of

- A. fibroblasts.
- B. neutrophils.
- C. lymphocytes.
- D. plasma cells.

The placement of a post in an endodontically treated tooth with minimal coronal tooth structure provides

- A. retention for the core.
- B. a ferrule effect.
- C. reinforcement of the remaining root structure.
- D. resistance to root fracture.

Veillonella species in supragingival plaque

- A. act symbiotically with *S. mutans* to decrease pH and promote caries activity.
- B. convert lactate to acetic and propionic acid.
- C. enhance the progression of caries by metabolizing sucrose.
- D. act as pioneer microorganisms in the development of plaque.

When using the periodontal probe to measure pocket depth, the measurement is taken from the

- A. base of the pocket to the cementoenamel junction.
- B. free gingival margin to the cementoenamel junction.
- C. base of the pocket to the crest of the free gingiva.
- D. base of the pocket to the mucogingival junction.

An ameloblastoma is most frequently found in

- A. the anterior region of the maxilla.
- B. the mandible, near the junction of the body and the ramus.
- C. the posterior region of the maxilla.
- D. in the anterior region of the mandible near the midline.

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The occlusal cavosurface margin for a Class I amalgam restoration should be

- A. beveled.
- B. 90°.
- C. chamfered.
- D. acute.

All of the following are possible effects of acetylsalicylic acid except

- A. reduction of fever.
- B. shortening of bleeding time.
- C. suppression of inflammatory response.
- D. bleeding from the gastrointestinal tract.

What is the name of the area in which the resin of the adhesive system micromechanically interlocks with dentinal collagen?

- A. Active zone.
- B. Smear layer.
- C. Hybrid layer.
- D. Adhesive zone.

Histologically, a pulp polyp consists of all of the following EXCEPT for

- A. a mass of collagenous fibres.
- B. epithelial rests of Malassez.
- C. proliferating capillaries.
- D. fibroblasts.

An incipient lesion on an interproximal surface is usually located

- A. at the contact area.
- B. facial to the contact area.
- C. lingual to the contact area.
- D. gingival to the contact area.
- E. occlusal to the contact area.

A 24 year old patient complains of abdominal pain, frequent diarrhea and weight loss. The oral clinical examination shows linear mucosal ulcers with hyperplastic margins in the buccal vestibule. What is the most likely diagnosis?

- A. Crohn's disease.
- B. Leukemia.
- C. AIDS.
- D. Diabetes mellitus.

Local anesthetics

- A. do not readily pass the blood-brain barrier.
- B. interfere with the propagation of action potentials in nerve fibres.
- C. selectively interfere with the propagation of action potentials in nociceptive fibres.
- D. do not have an effect on any other tissue than the nervous tissue.

Mean x-ray beam energy is a function of

- A. exposure time.
- B. tube current.
- C. tube voltage.
- D. collimation.

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The difference between gingivitis and periodontitis is

- A. radiographic changes are present only in gingivitis.
- B. radiographic changes are present only in periodontitis.
- C. changes in gingival colour are present only in gingivitis.
- D. changes in gingival colour are present only in periodontitis.

When performing endodontic treatment on a vital tooth, the most appropriate termination point of apical root canal preparation is

- A. 0.5 to 1mm short of the radiographic apex.
- B. 3mm short of the radiographic apex.
- C. slightly through the apical foramen.
- D. to the point where the patient feels sensation.

Rigor mortis is

- A. due to intracellular Ca^{2+} ion depletion.
- B. due to cellular ATP depletion.
- C. mechanistically identical to a tetanic contraction.
- D. characterized by spastic paralysis.
- E. an isotonic contraction.

Which of the following is a sign of an allergic reaction to penicillin?

- A. Hyperventilation.
- B. Nausea.
- C. Oliguria.
- D. Dermatitis.
- E. Constipation.

In comparing D and F speed intraoral radiographic films, F speed film emulsion is approximately

- A. 20% more sensitive than D speed film.
- B. 40% more sensitive than D speed film.
- C. 60% more sensitive than D speed film.
- D. 80% more sensitive than D speed film.

The best method to control the setting time of an irreversible hydrocolloid without affecting its physical properties is to alter the

- A. water temperature.
- B. water:powder ratio.
- C. mixing time.
- D. composition.

Orthodontic correction of a maxillary midline diastema is most appropriate in a/an

- A. 8 year old patient without a thumb sucking habit.
- B. 14 year old patient without a thumb sucking habit.
- C. 8 year old patient with a thumb sucking habit.
- D. 14 year old patient with a thumb sucking habit.

On bite-wing radiographs of adults under the age of 30, the normal alveolar crest is

- A. at the cemento-enamel junction.
- B. 1-2mm apical to the cemento-enamel junction.
- C. 3-4mm apical to the cemento-enamel junction.
- D. not clearly distinguishable.

A lower molar requiring a crown has an extensive MOD amalgam restoration. The crown margin is most appropriately placed

- A. on the existing amalgam.
- B. at the amalgam/tooth junction.
- C. 1mm apical to the amalgam margin.

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Following premature deciduous tooth loss, space loss occurs most frequently in the area of the

- A. maxillary lateral incisor.
- B. mandibular central incisor.
- C. mandibular second premolar.
- D. maxillary first premolar.

A lowering of serum calcium is the stimulus for the endogenous release of

- A. thyroid hormone.
- B. adrenocortical hormone.
- C. insulin.
- D. parathyroid hormone.
- E. adrenalin.

Loss of sensation over the distribution of the inferior alveolar nerve is a possible complication of

- A. removal of an impacted mandibular third molar tooth.
- B. removal of a torus mandibularis.
- C. a forceps removal of a mandibular second molar.
- D. distal wedge periodontal surgery.

In long-standing gingivitis, the subgingival microflora shifts toward

- A. aerobic bacteria.
- B. Gram-positive bacteria.
- C. Gram-negative anaerobic bacteria.
- D. None of the above.

What is the alloy of choice for the framework of a resin-bonded fixed bridge?

- A. Nickel-chromium.
- B. Gold-palladium.
- C. Gold-silver.
- D. Gold-platinum-palladium.

Selection of the appropriate kilovoltage for dental films is influenced by

- A. line voltage fluctuation.
- B. diameter of the primary beam of radiation.
- C. type of timer.
- D. tissue density.
- E. filter thickness.

Pernicious anemia may cause

- A. glossitis.
- B. lingual ulceration(s).
- C. parotid swelling.
- D. gastric hyperacidity.

Using less water for mixing plaster of Paris will result in set plaster that

- A. contracts.
- B. is stronger.
- C. is more porous.
- D. is less brittle.

High humidity in a room where zinc oxide and eugenol impression paste is being mixed will

- A. increase the setting time.
- B. not affect the setting.
- C. prevent any setting.
- D. decrease the setting time.

In the presence of an acute bacterial infection, laboratory tests will show an increase in

- A. polymorphonuclear leukocytes.
- B. plasma cells.
- C. lymphocytes.
- D. monocytes.
- E. eosinophils.

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The angle SNA can be used to evaluate the

- A. maxillary protrusion.
- B. overbite.
- C. upper incisor inclination.
- D. facial height.
- E. mandibular angle.

What is the most likely diagnosis for a patient who exhibits fatigue, nausea and yellow sclera?

- A. Acute viral hepatitis.
- B. Appendicitis.
- C. Peptic ulcer.
- D. Ulcerative colitis.

In clinically normal periodontium, the distance between the bottom of the gingival sulcus and the alveolar crest is

- A. 0.5-1mm.
- B. 1.5-2mm.
- C. 3-5mm.

In the mixed dentition, which of the following conditions should be treated immediately?

- A. A maxillary midline diastema.
- B. Posterior cross-bite with a midline discrepancy.
- C. Crowding of maxillary and mandibular incisors.
- D. An end-to-end molar relationship.

A 45 year old with insulin-dependent diabetes mellitus has a morning dental appointment. During the examination, the patient complains of being lightheaded and weak. Sweating is observed. The patient is most likely experiencing

- A. hyperglycemia.
- B. hypoglycemia.
- C. syncope.
- D. hyperventilation.
- E. cerebrovascular accident.

Which statement is true regarding amalgam?

- A. A thin layer can be left to seal the cavosurface margins.
- B. It bonds on its own to tooth structure.
- C. It wears at a rate similar to that of tooth structure.
- D. It is time-consuming to place compared to composite resin.

Generally, glass ionomer cements contain

- A. zinc oxide and distilled water.
- B. zinc oxide and polyacrylic acid.
- C. fluoroaluminosilicate powder and orthophosphoric acid.
- D. fluoroaluminosilicate powder and polyacrylic acid.

The most frequent cause of hyposalivation in elderly patients is

- A. Alzheimer's disease.
- B. multiple medications.
- C. salivary gland atrophy.
- D. Sjögren's syndrome.

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Which of the following drugs may cause generalized enlargement of interdental papillae?

- A. Digitalis.
- B. Nifedipine.
- C. Captopril.
- D. Propranolol.

Abnormal development of the first pharyngeal arch may produce defects in the

- A. zygomatic bones and the external ears.
- B. mandible and the external nose.
- C. maxilla and the muscles of facial expression.
- D. palate and the hyoid bone.

A fixed partial denture with a single pontic is deflected a certain amount, a span of two similar pontics will deflect

- A. the same amount.
- B. twice as much.
- C. four times as much.
- D. eight times as much.

The yield strength of an orthodontic wire is

- A. the same as the proportional limit.
- B. decreased by work hardening.
- C. the same as the stress at fracture.
- D. higher than the proportional limit.

Multiple congenitally missing teeth may be characteristic of

- A. cleidocranial dysplasia.
- B. ectodermal dysplasia.
- C. Gardner's syndrome.
- D. Gorlin-Goltz's syndrome.

Initial caries of enamel has which of the following shape in pits and fissures?

- A. Inverted V-shape (base towards dentino-enamel junction).
- B. V-shape (apex towards dentino-enamel junction).
- C. Inverted U-shape (base towards dentino-enamel junction).
- D. U-shape (apex towards dentino-enamel junction).

A single tooth anterior crossbite found in a 9 year old should

- A. self-correct.
- B. be treated with a removable appliance.
- C. have 2 arch orthodontic treatment.
- D. be treated in the complete permanent dentition.
- E. be observed and treated when the cuspids have erupted.

A patient with pain, fever and unilateral parotid swelling following a general anesthetic most likely has

- A. Mumps.
- B. sialolithiasis.
- C. acute bacterial sialadenitis.
- D. Sjögren's syndrome.
- E. sarcoidosis.

Polyvinylsiloxane impression materials have high

- A. polymerization shrinkage.
- B. dimensional stability.
- C. by-product formation.
- D. linear expansion.

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A patient with a tumor in the right infratemporal fossa shows a significant shift of the mandible to the right when opening. Which nerve is involved?

- A. Facial nerve VII.
- B. Glossopharyngeal nerve IX.
- C. Trigeminal nerve V.
- D. Hypoglossal nerve XII.

In an adult, progressive increase in mandibular length and interdental spacing is a feature of

- A. hyperparathyroidism.
- B. hyperpituitarism.
- C. hyperthyroidism.
- D. Addison's disease.
- E. Cushing's disease.

An 8 year old patient with all primary molars still present exhibits a cusp-to-cusp relationship of permanent maxillary and mandibular first molars and good alignment of the lower incisors. The management of this patient should be to

- A. refer for orthodontic consultation.
- B. use a cervical headgear to reposition maxillary molars.
- C. disk the distal surfaces of primary mandibular second molars.
- D. place patient on appropriate recall schedule.

A bitewing radiograph of an early mixed dentition should include the following proximal surfaces.

- A. Distal of the primary canine to distal of the permanent first molar.
- B. Distal of the primary canine to mesial of the permanent first molar.
- C. Mesial of the primary first molar to mesial of the permanent first molar.
- D. Mesial of the primary first molar to distal of the permanent first molar.

Procaine is a local anaesthetic which is chemically classified as an

- A. amide.
- B. ester.
- C. aldehyde.
- D. ethamine.
- E. aminide.

An adult female patient presents to the dental office with fractured teeth, a lacerated lip and a black eye. She is with her 6 year old son, who is crying and upset. The dentist's receptionist discretely reports that the child was asking his mother "Why was Daddy hurting you?" Upon questioning, the patient confides that her husband was the source of her injuries and indicates that she would not be pursuing any action. She is referred to a specialist due to the complexity of her dental injuries, but she requests that the source of her injuries not be disclosed. What is the dentist's obligation?

Aspiration prior to a local anesthetic injection reduces the

- A. toxicity of local anesthetic.
- B. toxicity of vasoconstrictor.
- C. possibility of intravascular administration.
- D. possibility of paresthesia.

- A. Respect the patient's request regarding confidentiality.
- B. Report her injuries to an adult protection agency.
- C. Forward all information, including the source of the injuries, to the specialist.
- D. Report the situation to a relevant child protection agency.

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What is the most common intraoral location of squamous cell carcinoma?

- A. Lateral tongue.
- B. Buccal mucosa.
- C. Tonsillar bed.
- D. Attached gingiva.

Which of the following are mechanisms of growth of the naso-maxillary complex?

- A. Sutural.
- B. Cartilaginous.
- C. Appositional.
- D. All of the above.

An 8 year old patient with all primary molars still present exhibits a cusp-to-cusp relationship of permanent maxillary and mandibular first molars. The management of this patient should be to

- A. plan serial extractions for more normal adjustment of the occlusion.
- B. refer the patient to an orthodontist for consultation.
- C. place a cervical headgear to reposition maxillary molars.
- D. disk the distal surfaces of primary mandibular second molars to allow normal adjustment of permanent molars.
- E. observe.

While performing a bony tuberosity reduction, the maxillary sinus lining is accidentally perforated. The wound is to be closed with a suture that will resorb in 7-10 days. The suture material that should be used is

- A. polyethylene.
- B. catgut.
- C. chromic catgut.
- D. polylactic acid.

In primary molars, radiographic bony changes from an infection are initially seen

- A. at the apices.
- B. in the furcation area.
- C. at the alveolar crest.
- D. at the base of the developing tooth.

Which cells migrate into the gingival sulcus in the largest numbers in response to the accumulation of plaque?

- A. Plasma cells and monocytes.
- B. Polymorphonuclear leukocytes.
- C. Macrophages.
- D. Lymphocytes.
- E. Mast cells.

Which of the following symptoms are consistent with an anaphylactic reaction to penicillin?

- A. Deafness, dizziness, acute anemia and bronchial constriction.
- B. Crystalluria, nausea, vomiting, diarrhea, and bronchial constriction.
- C. Oliguria, hematuria, bronchial constriction, and cardiovascular collapse.
- D. Urticaria, diarrhea, bronchial constriction and cardiovascular collapse.

Which Gracey curette is most appropriate for the root planing of a 5mm deep pocket located on the distal surface of tooth 1.7?

- A. 7/8.
- B. 9/10.
- C. 11/12.
- D. 13/14.

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When compared to permanent teeth, primary teeth have

- A. a greater thickness of enamel.
- B. a greater thickness of dentin.
- C. more prominent cervical constriction.
- D. pulps which are smaller in relation to crown size.

Initial therapy for periodontal pockets that are deeper than 5mm must include supragingival scaling and

- A. polishing.
- B. irrigation.
- C. root planning.
- D. antibiotics.

In the preparation of gypsum products, an increase in the water/powder ratio will

- A. increase the surface hardness.
- B. increase the compressive strength.
- C. accelerate the setting reaction.
- D. None of the above.

During CPR, if a patient is not breathing but has a pulse, how often should a breath be given? Every

- A. 3-4 seconds.
- B. 5-6 seconds.
- C. 7-8 seconds.
- D. 9-10 seconds.

When placing an implant in the posterior mandible, the minimum thickness of bone between the implant and the inferior alveolar nerve should be

- A. 2mm.
- B. 4mm.
- C. 6mm.
- D. 8mm.

For a patient with chronic renal failure,

- A. dental procedures should be performed on non-dialysis days.
- B. normal bleeding can be expected if the platelet count is normal.
- C. the arm used for vascular access during dialysis can be used to measure blood pressure.
- D. the gravity of the disease is estimated by albumine clearance.

Which radiographic finding supports the diagnosis of lingual displacement of the root of an intruded primary incisor?

- A. Elongation.
- B. Foreshortening.
- C. Increased opacity.
- D. Widened periodontal ligament space.

Hypothyroidism in adults is associated with

- A. exophthalmos.
- B. weight loss.
- C. generalized edema.
- D. tachycardia.
- E. mental defects.

Which of the following is contagious?

- A. Pemphigus.
- B. Primary herpetic gingivostomatitis.
- C. Recurrent aphthous stomatitis.
- D. Necrotizing ulcerative gingivitis.

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A "broken stress" or "non-rigid" connector is indicated for a fixed partial denture when

- A. the retainers can be so prepared as to have equal retentive qualities.
- B. 2 or 3 teeth are to be replaced.
- C. constructing a mandibular fixed prosthesis.
- D. the abutments cannot be prepared in parallel without excessive removal of tooth structure.

Benzodiazepines

- A. may produce hypertension.
- B. are contraindicated in a patient with acute open angle glaucoma.
- C. may produce muscular weakness.
- D. may cause insomnia.

To decrease abutment tooth sensitivity, a fixed bridge may be temporarily seated using

- A. polycarboxylate cement.
- B. acrylic resin cement.
- C. zinc oxide eugenol cement.
- D. glass ionomer cement.

For the extraction of maxillary teeth, the most appropriate position of the maxillary occlusal plane is

- A. parallel to the floor.
- B. 20° to the floor.
- C. 60° to the floor.
- D. 90° to the floor.

To initiate caries, bacterial plaque pH must reach

- A. 5.4.
- B. 5.9.
- C. 6.4.
- D. 6.9.

On the basis of "Socransky's Modifications of Koch's Postulates", the potential pathogens in periodontal disease must possess all of the following EXCEPT

- A. be associated with disease, as evidenced by increases in the number of organisms at diseased sites.
- B. be eliminated or decreased in sites that demonstrate clinical resolution of disease with treatment.
- C. demonstrate a host response, in the form of alteration in the host cellular, not humoral, immune response.
- D. be capable of causing disease in experimental animal models.
- E. demonstrate virulence factors responsible for enabling the organisms to cause periodontal tissue destruction.

The genial tubercles are best visualized on which type of radiograph?

- A. Occlusal.
- B. Periapical.
- C. Bitewing.
- D. Panoramic.

The management of syncope following local anesthetic administration does NOT include

- A. elevating the legs.
- B. placing in a supine position.
- C. administering oxygen.
- D. ensuring the airway is open.
- E. administering epinephrine.

Which of the following variables has the greatest effect on bond strength?

- A. Moisture control.
- B. Size of the bracket base.
- C. Type of acid etch.
- D. Composition of the resin cement.
- E. Patient oral hygiene.

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Most bone loss following the placement of dental implants occurs at

- A. 0 – 1 year.
- B. 2 – 4 years.
- C. 5 – 7 years.
- D. 10 – 12 years.

Which of the following can be associated with an impacted tooth?

- A. Periapical osseous dysplasia (periapical cemento-osseous dysplasia).
- B. Peripheral odontogenic fibroma.
- C. Cementoblastoma.
- D. Ameloblastoma.

Oral hairy leukoplakia primarily occurs with

- A. diabetes.
- B. hepatitis A.
- C. HIV.
- D. hypophosphatasia.
- E. Papillon-Lefèvre syndrome.

What is the most likely cause of a maxillary denture dislodging when the patient opens wide or makes extreme lateral excursions?

- A. Insufficient posterior palatal seal.
- B. Poor denture base adaptation.
- C. Labial frenum impingement.
- D. Coronoid process interference.
- E. Pronounced midpalatal raphe.

A patient presents with hypodontia, conical teeth, fine, scanty, fair hair, and an intolerance to hot weather. The most likely diagnosis is

- A. achondroplasia.
- B. malignant hyperthermia.
- C. ectodermal dysplasia.
- D. cystic fibrosis.

In partial denture design, the major connector should

- A. rigidly connect the bilateral components.
- B. act as a stress-breaker.
- C. not interfere with lateral forces.
- D. dissipate vertical forces.

A patient suddenly becomes pale and sweaty after an injection of 4ml of lidocaine 2% with epinephrine 1:100,000. The radial pulse is slow and steady. The respiration is slow. The blood pressure is 80/60. What is the most probable diagnosis?

- A. A toxic reaction to lidocaine.
- B. A toxic reaction to epinephrine.
- C. An allergic reaction to the local anesthetic.
- D. Incipient syncope.
- E. An impending adrenal insufficiency.

The primary stress bearing area of the maxillary complete denture is the

- A. hard palate.
- B. alveolar ridge.
- C. soft palate.
- D. zygoma.

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The appliance of choice to correct an anterior crossbite is determined by the

- A. amount of overbite.
- B. age of the patient.
- C. cooperation of the patient.
- D. practitioner preference.

In a cavity preparation which closely approximates the pulp, you would protect the pulp with

- A. a zinc phosphate cement base.
- B. a calcium hydroxide cement base.
- C. a calcium hydroxide wash and cavity varnish.
- D. a calcium hydroxide cement liner and a glass ionomer cement base.

For an otherwise healthy patient, with an acute localized periodontal abscess, initial treatment must include

- A. scaling and root planing.
- B. occlusal adjustment.
- C. prescription of an antibiotic.
- D. prescription of an analgesic.

In primary teeth, a pulpotomy using calcium hydroxide

- A. will cause an acute inflammatory reaction.
- B. is successful treatment in 90 percent of cases.
- C. will cause internal resorption.
- D. is the treatment of choice for small mechanical exposures.
- E. will stimulate apical closure.

The Fluorosis Index is used to measure the

- A. degree of protection offered against dental caries by fluoride supplements.
- B. concentration of fluoride in public water supplies.
- C. degree or severity of mottled enamel.
- D. opposition to fluoridation by citizens' groups.
- E. total amount of fluoride ingested.

If removal of teeth is indicated in a patient who is to receive radiation therapy for a carcinoma of the tongue, the teeth should be extracted

- A. prior to the radiation therapy.
- B. during the radiation therapy.
- C. immediately post-radiation therapy.
- D. six months post-radiation therapy.

Areas of isolated gingival recession are most frequently seen on teeth that are

- A. nonvital.
- B. moderately mobile.
- C. ankylosed.
- D. labially prominent in the arch.

The Periodontal Screening and Recording System (PSR®) is designed to

- A. document the progression of periodontitis.
- B. assess the periodontal status of a patient.
- C. measure loss of attachment for large patient populations.
- D. evaluate oral hygiene.

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The function of the fixer solution is to

- A. bring out the contrast.
- B. convert the latent image to black metallic silver.
- C. remove unexposed silver halide.
- D. continue the action of the developer.

The permanent teeth most frequently ankylosed are the

- A. canines.
- B. incisors.
- C. molars.
- D. premolars.

Clinical examination of a 42 year old heavy smoker reveals a white patch in the tonsillar pillar region. The patch cannot be wiped off. The most likely diagnosis is

- A. lichen planus.
- B. leukoplakia.
- C. white sponge nevus.
- D. frictional hyperkeratosis.
- E. pseudomembranous candidiasis.

Irreversible hydrocolloid materials are best removed from the mouth by

- A. a quick snap.
- B. a slow teasing motion.
- C. twisting and rocking.
- D. having the patient create a positive pressure.

A mucocele results from

- A. aplasia of the duct.
- B. hyperplasia of the duct.
- C. damage to the duct.
- D. hypersecretion.

During the cementation of a gold inlay, the best way to assure that it stays well seated in the cavity until the final setting of the cement is

- A. to ask the patient to keep the mouth open and to apply no pressure on the inlay.
- B. to ask the patient to gently tap the teeth together continuously.
- C. to apply firm pressure to the inlay.
- D. to tap on the inlay with an orange wood stick and mallet.

Treatment of primary herpetic gingivostomatitis should include

- A. topical steroids.
- B. application of dilute hydrogen peroxide.
- C. cauterization.
- D. control of secondary infection.

Water irrigation devices have been shown to

- A. eliminate plaque.
- B. dislodge food particles from between teeth.
- C. disinfect pockets for up to 18 hours.
- D. prevent calculus formation.

Of the following structures, which would be projected closest to the occlusal plane when taking a mandibular posterior periapical radiograph?

- A. External oblique ridge.
- B. Mandibular canal.
- C. Submandibular salivary gland fossa.
- D. Mental foramen.

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Compared to a set of opposing complete dentures, a maxillary denture opposing a full complement of natural teeth is more often associated with

- A. less denture tooth wear.
- B. greater incidence of denture fracture.
- C. improved retention of the denture.
- D. improved stability of the denture.
- E. improved appearance of the denture.

An oroantral communication occurs

- A. more often with the removal of maxillary second premolars.
- B. less often when the maxillary sinus has pneumatized into the alveolus.
- C. more often with the removal of maxillary first molars.
- D. less often in elderly patients.

A sedative drug should

- A. cause excitement.
- B. eliminate all sensation.
- C. produce unconsciousness.
- D. produce a mild state of central nervous system depression.

A 23 year old female complains of bilateral stiffness and soreness in the preauricular region. Her symptoms have been present for the past week and are most pronounced in the morning. The most likely cause is

- A. fibrous ankylosis of the temporomandibular joints.
- B. nocturnal bruxism.
- C. early osteoarthritis.
- D. mandibular subluxation.

An 80 year old man develops multiple painful skin vesicles along the distribution of the right infraorbital nerve. The most likely diagnosis is

- A. psoriasis.
- B. herpes zoster.
- C. pemphigus vulgaris.
- D. candidiasis.

A laboratory-fabricated composite resin inlay compared to a direct composite resin restoration has increased

- A. colour stability.
- B. surface smoothness.
- C. control of polymerization shrinkage.
- D. bondability to tooth structure.

An advantage of glass ionomer cement is

- A. low solubility.
- B. wear resistance.
- C. adhesion to hard tooth tissues.
- D. low incidence of sensitivity.

A person who has sickle cell anemia may show certain radiographic changes in the bones of the skull. These changes may be

- A. "punched-out" radiolucent lesions.
- B. a moth-eaten appearance of the bone.
- C. gross irregularities with exostosis formation.
- D. a "hair on end" sign.

A post is used in an endodontically treated tooth to

- A. obturate the canal.
- B. strengthen the root.
- C. reinforce the remaining crown.
- D. retain the restoration.

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A measure of the stiffness of a dental gold alloy is expressed as its

- A. proportional limit.
- B. modulus of elasticity.
- C. ultimate tensile strength.
- D. flow.

Which of the following exposure factors will result in the most penetrating x-rays?

- A. 10kVp - 65mA.
- B. 85kVp - 5mA.
- C. 90kVp - 10mA.
- D. 65kVp - 15mA.
- E. 75kVp - 40mA.

A large carious exposure occurs on a permanent first molar of a 7 year old. There is no periapical involvement and the tooth is vital. The treatment should be to

- A. cap the exposure with calcium hydroxide and place zinc-oxide and eugenol.
- B. perform a pulpotomy and place calcium hydroxide.
- C. perform a pulpectomy.
- D. extract the tooth and place a space maintainer.

On T₁-weighted magnetic resonance images, the tissue that has the highest intensity is

- A. blood.
- B. fat.
- C. skeletal muscle.
- D. cortical bone.

Repair of periodontal tissues is the replacement of lost tissue with one that is similar in

- A. function.
- B. structure.
- C. structure and function.

Cervical caries on the maxillary primary incisors in a 12-month old child is most likely caused by

- A. lack of systemic fluoride.
- B. poorly formed enamel.
- C. lack of calcium during pregnancy.
- D. excessive bottle use.

Which radiograph best depicts the buccal cortex of the mandible?

- A. Bite-wing.
- B. Periapical.
- C. Panoramic.
- D. Occlusal.

For which of the following is nystatin oral suspension an appropriate treatment?

- A. Herpetic gingivostomatitis.
- B. Nicotinic stomatitis.
- C. Denture stomatitis.
- D. Aphthous stomatitis.

Incomplete tooth fracture

- A. can readily be diagnosed using transillumination.
- B. most commonly involves the supporting cusps.
- C. is associated with medium to large-sized restorations.
- D. elicits dull, prolonged pain on chewing.

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Which of the following structures may be associated with the role of the central nervous system in sleep (nocturnal) bruxism?

- A. Basal ganglia (nigrostriatal).
- B. A delta and C nerves.
- C. Sphenopalatine ganglion.
- D. Petrous nerves.

Which of the following modifications is recommended when making radiographs on an 8 year old child compared to an adult?

- A. Increase the kVp.
- B. Reduce the exposure time.
- C. Increase the mA.
- D. Use a lower speed receptor.

An Angle Class II, division 1 malocclusion can be differentiated from an Angle Class II, division 2 malocclusion based upon the

- A. molar relationship.
- B. severity of the Angle Class II malocclusion.
- C. amount of overbite.
- D. inclination of maxillary incisors.
- E. amount of crowding present.

Increased radiographic density is caused by

- A. decreased mA.
- B. decreased kVp.
- C. decreased target-object distance.
- D. increased object-film distance.

The primary purpose of surgical therapy for the treatment of periodontitis is to

- A. apically position the flap.
- B. eliminate periodontal pockets.
- C. remove the ulcerated epithelium of the periodontal pocket.
- D. improve access for removal of local etiologic factors.

Dental plaque is composed of

- A. desquamated epithelial cells.
- B. components from oral secretions.
- C. bacteria and their products.
- D. cuticle or pellicle.
- E. All of the above.

A 7 year old patient presents with a crown fracture of a permanent maxillary central incisor that occurred 3 days ago. The incisal half of the crown is missing, resulting in a 2mm exposure of vital pulp. What is the most appropriate initial management for this tooth?

- A. Apexification.
- B. Pulpotomy.
- C. Pulp capping.
- D. Pulpectomy.

The microorganism most commonly associated with root surface caries is

- A. *Actinomyces viscosus*.
- B. *Streptococcus mutans*.
- C. *Streptococcus salivarius*.
- D. *Lactobacillus acidophilus*.

Prior to cementing an onlay in a vital tooth using a resin cement, the application of cavity varnish will

- A. protect the pulp.
- B. improve seal.
- C. reduce prevent postoperative sensitivity.
- D. reduce bond strength.
- E. reduce microleakage.

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Which of the following cements can chemically bond to enamel?

- A. Reinforced zinc oxide eugenol cement.
- B. Zinc phosphate cement.
- C. Glass ionomer cement.

Which of the following Class II Division 1 malocclusion(s) is/are most likely to be corrected with a cervical headgear?

- A. Retrognathic mandible, retrognathic maxilla, open bite.
- B. Prognathic maxilla, decreased lower face height, increased over bite.
- C. Increased lower anterior face height, prognathic mandible, retrognathic maxilla.
- D. Open bite, prognathic maxilla, prognathic mandible.

Which of the following methods of instrument sterilization uses the lowest temperature?

- A. Steam autoclave.
- B. Dry heat oven.
- C. Ethylene oxide method.
- D. Glass bead sterilizer.
- E. Alcohol autoclave.

A 22 year old patient has been experiencing general malaise, fever, sore throat and coughing for one week. There are multiple ulcerations of the oral mucosa, crusting of the lips and red circular lesions on the palms of the hands. The most likely diagnosis is

- A. gonorrhea.
- B. infectious mononucleosis.
- C. acute herpetic gingivostomatitis.
- D. AIDS.
- E. erythema multiforme.

Periapical osseous dysplasia (periapical cemento-osseous dysplasia) is

- A. painful.
- B. expansile.
- C. associated with vital teeth.
- D. premalignant.

In an infection caused by non-penicillinase producing staphylococcus, the drug of choice is

- A. penicillin V.
- B. cephalixin.
- C. tetracycline.
- D. vancomycin.

In a 4 year old the most appropriate treatment for a chronically infected, non-restorable primary first molar is to

- A. extract it and place a space maintainer.
- B. observe it until it exfoliates.
- C. extract it only.
- D. observe it until it becomes symptomatic.

Hyperplastic lingual tonsils may resemble which of the following?

- A. Epulis fissuratum.
- B. Lingual varicosities.
- C. Squamous cell carcinoma.
- D. Median rhomboid glossitis.
- E. Prominent fungiform papillae.

When taking radiographs on a 10 year old patient, which of the following should be used to decrease radiation exposure?

- A. Prescribe radiographs every 3 years.
- B. Decrease the kilovoltage to 50kVp.
- C. Use of high speed film.
- D. Use of a lead apron.

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A 6 year old has circumscribed suppurative lesions that look like cigarette burns on the left ear lobe and the right knuckles. The parents are cooperative and respond to the dentist in a coherent manner. The most likely diagnosis is

- A. battered child syndrome.
- B. impetigo.
- C. osteogenesis imperfecta.
- D. Münchhausen syndrome.
- E. von Willebrand disease.

With age, dentinal tubules become occluded because odontoblast cellular projections

- A. produce organic molecules.
- B. swell and expand.
- C. absorb dentinal fluid.
- D. deposit more mineral.

If a patient in her first trimester of pregnancy requires the replacement of a large MOD amalgam restoration with extensive recurrent caries and thermal sensitivity, the most appropriate treatment is to

- A. delay treatment until after the baby is born.
- B. restore with reinforced zinc oxide eugenol.
- C. restore with amalgam.
- D. restore with a composite resin.

The chemical that is used to retard the setting reaction in alginate impression materials is

- A. calcium sulfate.
- B. sodium sulfate.
- C. calcium phosphate.
- D. sodium phosphate.

Which of the following factors could cause a partial denture framework to fit tighter in the mouth than on the cast?

- A. Too much water in the mix of the stone for the cast.
- B. Not enough water in the mix of the stone for the cast.
- C. Duplication impression slightly oversized.
- D. Improper wax-up of the partial denture.

The permanent anterior tooth that exhibits the greatest variation in size and shape is the

- A. maxillary central incisor.
- B. maxillary lateral incisor.
- C. mandibular central incisor.
- D. mandibular lateral incisor.

An anterior open bite is commonly associated with

- A. a horizontal growth pattern.
- B. a functional shift.
- C. an associated habit.
- D. a normal swallowing reflex.

When a radiograph shows the inferior alveolar canal superimposed on an impacted mandibular third molar, the canal is

- A. usually on the lingual side of the tooth.
- B. usually of the buccal side of the tooth.
- C. usually passing through the tooth.
- D. equally likely to be on the buccal or lingual side of the tooth.

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Which of the following may be used to disinfect gutta-percha points?

- A. Autoclave.
- B. Chemical solutions.
- C. Flame sterilization.
- D. Dry heat sterilization.

Saliva is most effective in minimizing an acid challenge by its

- A. lubrication function.
- B. antimicrobial effect.
- C. buffering action.
- D. fluoride concentration.

Which root surfaces are most likely to have concavities which make root planing difficult?

- A. Distal surfaces of mandibular canines.
- B. Distal surfaces of maxillary canines.
- C. Mesial surfaces of maxillary central incisors.
- D. Mesial surfaces of maxillary first premolars.

To improve denture stability, mandibular molar teeth should normally be placed

- A. over the crest of the mandibular ridge.
- B. buccal to the crest of the mandibular ridge.
- C. over the buccal shelf area.
- D. lingual to the crest of the mandibular ridge.

Duraflor®

- A. is only effective on dry, plaque-free teeth.
- B. can remineralize early root carious lesions.
- C. causes unsightly stain on exposed roots.
- D. should only be used on individuals in unfluoridated areas.

Reduced thyroid hormone level in a child is associated with

- A. lack of tooth eruption.
- B. early tooth eruption.
- C. delayed tooth eruption.
- D. supernumerary teeth.

Following the IV administration of a benzodiazepine, a patient becomes apneic and unresponsive. Which of the following drugs should be administered immediately?

- A. Naloxone.
- B. Propranolol.
- C. Amphetamine.
- D. Flumazenil.
- E. Atropine.

A patient on broad spectrum antibiotics for 4 weeks has widespread, sore, red and white oral mucosal lesions. The most likely diagnosis is

- A. candidiasis.
- B. leukoplakia.
- C. erythema multiforme.
- D. erosive lichen planus.
- E. pemphigoid.

The predominant micro-organisms associated with periodontitis are

- A. Gram-positive aerobes.
- B. Gram-negative aerobes.
- C. Gram-positive anaerobes.
- D. Gram-negative anaerobes.

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Following a pulpotomy in a second primary molar with extensive occlusal caries, what is the most appropriate restoration?

- A. Resin-modified glass ionomer.
- B. Bonded amalgam.
- C. Composite resin.
- D. Stainless steel crown.

Patients who have gingival enlargements surgically removed should be forewarned that there is a high incidence of

- A. altered taste sensation.
- B. dentinal hypersensitivity.
- C. reoccurrence of gingival enlargement.
- D. post-operative swelling.

The physiopathology of sleep apnea is most likely related to

- A. excessive oropharyngeal muscular tonus during sleep.
- B. central nervous system respiratory depression.
- C. obstruction in lower airways.
- D. a severe Angle Class III malocclusion.

A rubber dam should be used in

- A. pulp capping procedures.
- B. amalgam placement.
- C. composite placement.
- D. removing carious dentin from deep lesions.
- E. all of the above.

The most appropriate method to prevent root canal obstruction during the instrumentation phase of endodontic treatment is to

- A. obtain adequate access.
- B. use a chelating agent.
- C. irrigate copiously.
- D. use reamers instead of files.

Pulp polyp is

- A. an acute pathological lesion.
- B. a proliferative reaction of the pulp.
- C. frequently found in elderly patients.
- D. accompanied by severe pain.

The most common abuser of an elderly person is a/an

- A. friend or acquaintance.
- B. adult child.
- C. spouse.
- D. sibling.

Gingivectomy is recommended

- A. when the bottom of the pocket is apical to the mucogingival junction.
- B. to eliminate the suprabony pockets when the pocket wall is fibrous and firm.
- C. to treat moderately deep pockets with mild intrabony defects.

Which ethical principle is violated when a dentist practices while impaired?

- A. Autonomy.
- B. Beneficence.
- C. Justice.
- D. Nonmaleficence.
- E. Veracity.

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The stratified squamous epithelial layer of oral mucosa does NOT contain

- A. melanocytes.
- B. Langerhans cells.
- C. Merkel cells.
- D. Schwann cells.

A line angle NOT present on a Class I cavity preparation on tooth 1.5 is

- A. mesiopulpal.
- B. buccopulpal.
- C. linguopulpal.
- D. axiopulpal.

A 15 year old presents with hypoplastic enamel on tooth 1.5. All other teeth are normal. This was most probably caused by a/an

- A. vitamin D deficiency.
- B. generalized calcium deficiency.
- C. high fever encountered by the patient when he had measles at age 3.
- D. infection of tooth 5.5 during the development of tooth 1.5.
- E. hereditary factor.

In normal gingiva, the predominant microflora of gingival plaque are

- A. gram-positive cocci.
- B. gram-negative cocci.
- C. gram-negative facultative and anaerobic rods.
- D. spirochetes.

Which of the following is the most probable postoperative complication of intracoronary bleaching for a tooth that has an inadequate internal seal?

- A. Fracture.
- B. Discolouration.
- C. Internal resorption.
- D. External root resorption.

Adequate position of a needle in the lumen of a blood vessel for a venipuncture is confirmed by the

- A. presence of blood upon aspiration.
- B. rapidity of filling of the syringe upon aspiration.
- C. pain associated with vessel puncture.

A major difference between stable angina pectoris and myocardial infarction is that stable angina pectoris does NOT involve

- A. crushing substernal pain.
- B. ischemic myocardial necrosis.
- C. occlusive coronary artery disease.
- D. atherosclerosis.
- E. females under the age of 80 years.

Which of the following is NOT a sign of occlusal trauma?

- A. Fremitus.
- B. Gingival recession.
- C. Widened periodontal ligament.
- D. Tooth migration.

Which of the following posts are the most radiopaque?

- A. Zirconia.
- B. Titanium.
- C. Carbon fibre.
- D. Plastic.

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The success of indirect pulp capping is dependent upon

- A. removal of all caries at the enamel-dentin junction.
- B. use of calcium hydroxide.
- C. a well sealed restoration.
- D. All of the above.

The most appropriate recall interval for an 8 year old patient with high caries risk is

- A. 3 months.
- B. 6 months.
- C. 9 months.
- D. 12 months.

Short-acting barbiturates are metabolized mainly in the

- A. liver.
- B. kidneys.
- C. small intestine.
- D. pancreas.
- E. spleen.

Initial scaling and oral hygiene instruction in the treatment of periodontitis results in all of the following EXCEPT

- A. pocket shrinkage.
- B. decreased hemorrhage during surgery.
- C. evaluation of the patient's motivation.
- D. improved healing after surgery.
- E. correction of pathological migration of teeth.

To evaluate an existing occlusion, diagnostic casts should be mounted on an articulator in

- A. centric relation.
- B. balancing occlusion.
- C. either centric relation or balancing occlusion.
- D. horizontal protrusive relation.

A patient presents with a chief complaint of “severe pain in my right ear” which began when eating, three hours ago. An examination reveals tenderness over the right preauricular region, maximum interincisal opening of 21 mm with deflection to the right, right lateral excursion of 9 mm and left lateral excursion of 2 mm. The most likely diagnosis is

- A. left anterior disc displacement with reduction.
- B. right anterior disc displacement with reduction.
- C. left anterior disc displacement without reduction.
- D. right anterior disc displacement without reduction.

Following trauma, bluish-grey discolouration of the crown of an anterior tooth is due to

- E. external resorption.
- F. pulpal hemorrhage.
- G. discoloured composite restoration.
- H. chromogenic bacteria.

Unconsciousness in syncope results from

- A. electrolyte imbalance.
- B. neurogenic shock.
- C. cerebral hyperemia.
- D. cerebral hypoxia.

The proximal surfaces of two adjacent teeth in contact form the borders of the

- A. interdental space.
- B. embrasures.
- C. interdental col.
- D. line angles.

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Glossodynia can be associated with

- A. vitamin B₁₂ deficiency.
- B. occult malignancy.
- C. lichenoid reaction to amalgam.
- D. sialorrhea.
- E. vitamin D overdose.

Calculus attaches to tooth surfaces by all of the following EXCEPT

- A. organic pellicle.
- B. mechanical locking to tooth/root irregularities.
- C. close adaption to cementum.
- D. hemidesmosomes.

The occlusal parameter most useful to differentiate between an overbite of dental or skeletal origin is the

- A. mandibular curve of Spee.
- B. mandibular curve of Wilson.
- C. maxillary curve of Wilson.
- D. maxillary incisor morphology.
- E. maxillary lip length.

Which of the following increases the probability of success of a direct pulp cap?

- A. Having a large exposure allowing more calcium absorption.
- B. The ability of the capping and restorative material to seal dentin completely.
- C. Having copius bleeding that rids the pulp of bacterial toxins.
- D. Using material that allows swelling of pulpal tissue during healing.

Adjustment of the occlusal plane of natural teeth opposed by a complete or partial denture should be completed

- A. after the teeth have been set on the trial denture.
- B. immediately after making the final casts.
- C. upon delivery of the denture.
- D. after the diagnosis and treatment plan has been established.

The redness of inflamed gingiva is due to

- A. the degree of keratinization.
- B. subgingival deposits.
- C. increased collagen fibre density.
- D. increased vasodilation.

What is the most stable area for support of a mandibular complete denture?

- A. Retromylohyoid area.
- B. Residual ridge.
- C. Mylohyoid ridge.
- D. Buccal shelf.
- E. Genial tubercle.

Saliva production is increased when blood flow to the salivary glands is

- A. stimulated by parasympathetic activity.
- B. stimulated by sympathetic activity.
- C. inhibited by acetylcholine.
- D. inhibited by cyclic AMP.

Which of the following is NOT correlated to early implant failure?

- A. Age of the patient.
- B. Type III/IV bone around the implant.
- C. Poorly controlled diabetes.
- D. Regular smoking habit.

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Exclusive of third molars, the earliest that permanent dentition is usually completely erupted by the age of

- A. 9 to 11 years.
- B. 12 to 14 years.
- C. 15 to 17 years.
- D. 18 to 21 years.

For application of porcelain to a ceramo-metal alloy, the correct viscosity is achieved by mixing the porcelain powder with

- A. a porcelain modifier.
- B. pure methyl alcohol.
- C. a mild detergent.
- D. distilled water.

The most common infrabony site for breast cancer to metastasize to the maxillofacial region is the

- A. anterior maxilla.
- B. anterior mandible.
- C. posterior maxilla.
- D. posterior mandible.
- E. hard palate.

Erratic and inconsistent electric pulp test results can be explained by all of the following EXCEPT

- A. the presence of multiple canals in various stages of pulp pathosis.
- B. failure to isolate and dry the tooth.
- C. tooth mobility.
- D. poor contact between the electrode and the tooth.

The highest incidence of congenitally missing lateral incisors is most likely seen in a patient with

- A. unilateral cleft lip and palate.
- B. congenital heart disease.
- C. Down's syndrome.
- D. hyperthyroidism.

A surgical template (stent/guide) for an immediate maxillary denture is used to

- A. control hemorrhage while the new denture is being fabricated.
- B. protect the extraction sites while fitting the denture.
- C. assist in remounting the denture prior to refining the occlusion.
- D. indicate areas that require additional hard or soft tissue reduction.

Which of the following muscles is a depressor of the mandible?

- A. Temporalis.
- B. Lateral pterygoid.
- C. Masseter.
- D. Medial pterygoid.

The base of a distal extension partial denture should cover the maximum support area because

- A. the force transmitted per unit area will be kept to a minimum.
- B. maximum number of artificial teeth can be placed.
- C. phonetics is improved.
- D. strength of the base is increased.

Disuse atrophy of the periodontium causes

- A. changes in the arrangement of fibre bundles.
- B. narrowing of the periodontal ligament.
- C. osteoporosis of the alveolar process.
- D. decrease in tooth mobility.
- E. All of the above.

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A salivary calculus is a

- A. sialolith.
- B. rhinolith.
- C. phlebolith.
- D. thrombolith.

Which treatment procedure is indicated for a patient with asymptomatic age related gingival recession?

- A. Connective tissue graft.
- B. Gingivoplasty.
- C. Lateral sliding flap.
- D. Gingival graft.
- E. No treatment.

Which of the following conditions would NOT require antibiotic premedication before endodontic therapy?

- A. Valvular heart disease.
- B. Cardiac prosthesis.
- C. Persistent odontogenic fistula.
- D. Immunosuppressive therapy.
- E. Organ transplant.

Which of the following drugs is used in the treatment of mild allergic reactions?

- A. Isoproterenol.
- B. Meperidine hydrochloride.
- C. Diphenhydramine hydrochloride.
- D. Propoxyphene.

The radiographic images most suggestive of multiple myeloma is

- A. multiple radiopaque lesions.
- B. punched out radiolucent lesions.
- C. ground glass appearance.
- D. generalized hypercementosis.

Epinephrine is one drug used in the management of an anaphylactic reaction (type I allergic reaction) because it

- A. contracts bronchial muscles.
- B. decreases heart rate.
- C. decreases systolic blood pressure.
- D. causes vasoconstriction in many vascular beds.

In which of the following will the effects of polymerization shrinkage be greatest?

- A. Class I occlusal restoration.
- B. Preventive resin restoration.
- C. Direct veneer restoration.
- D. Class IV restoration.

Sclerosing osteitis/condensing osteitis in the periapical region is indicative of a/an

- A. acute inflammation of the pulp.
- B. pulpal abscess.
- C. chronic inflammation of the pulp.
- D. early apical abscess formation.

From Type I to Type IV gold alloys there is

- A. an increase in gold content.
- B. no change in the gold content.
- C. a reduction in gold content.
- D. a reduction in platinum content.

The most appropriate management of a noncavitated, smooth surface carious lesion is

- A. placing an amalgam restoration.
- B. placing a composite restoration.
- C. applying topical fluoride.
- D. prescribing a chlorhexidine rinse.
- E. observation.

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Which of the following impression materials will still result in an accurate cast when poured two weeks after making the impression?

- A. Polyether.
- B. Polysulfide.
- C. Addition silicone.
- D. Condensation silicone.

The most common site of intraoral squamous cell carcinoma is the

- A. palate.
- B. floor of the mouth.
- C. gingiva.
- D. buccal mucosa.

Patients with resistance to activated protein C (factor V Leiden) are at risk for

- A. fibrinolysis.
- B. bleeding diatheses.
- C. thrombocytopenia.
- D. hypercoagulation.
- E. erythrocytosis.

Moistened dentin is preferred over dry dentin prior to the application of dentin bonding agents because

- A. curing time is reduced.
- B. the collagen matrix is maintained.
- C. the smear layer is removed by the application of water.
- D. enamel bonding is improved.

Which of the following characteristics is NOT seen in all patients with aggressive periodontitis?

- A. Rapid attachment loss and bone destruction.
- B. Amount of microbial deposits inconsistent with disease severity.
- C. Diseased sites infected with *Aggregatibacter (Actinobacillus) actinomycetemcomitans*.
- D. Familial aggregation of diseased individuals.

Administration of which of the following is most likely to predispose a patient to seizures?

- A. Acetaminophen.
- B. Codeine.
- C. Ibuprofen.
- D. Ketorolac.
- E. Meperidine.

Immediately following an inferior alveolar nerve block, the patient exhibits facial paralysis. The needle has penetrated through which ligament?

- A. Sphenomandibular.
- B. Stylomandibular.
- C. Stylohyoid.
- D. Pterygomandibular.

In Canada, the practice of dentistry is regulated through the

- A. Canadian Dental Association.
- B. Provincial Regulatory Authorities.
- C. National Dental Examining Board of Canada.
- D. Commission on Dental Accreditation.

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What is the most appropriate film size for making an occlusal radiograph in a 3 year old patient?

- A. 0.
- B. 1.
- C. 2.
- D. 4.

Lidocaine (Xylocaine®) is an example of a local anesthetic which is chemically classified as an

- A. amide.
- B. ester.
- C. aldehyde.
- D. ethamine.
- E. aminide.

A direct or indirect pulp cap has the greatest chance of clinical success when there is a

- A. history of spontaneous pain.
- B. prolonged response to cold stimulus.
- C. apical lesion.
- D. vital pulp.

Which of the following is consistent with a diagnosis of pulpal necrosis?

- A. Poorly localized spontaneous pain.
- B. Positive response to thermal tests.
- C. Negative response to electric pulp test.
- D. Extreme pain elicited by palpation and percussion tests.

Accessory canals in permanent teeth are most commonly found in the

- A. cervical third of the root.
- B. middle third of the root.
- C. apical third of the root.

Two weeks following the placement of a restoration, a patient complains of pain to hot and cold in the restored tooth. The most likely diagnosis is

- A. galvanic shock.
- B. reversible pulpitis.
- C. gingival irritation.
- D. cracked tooth syndrome.

Which of the following epithelial changes is most likely to be precancerous?

- A. Acanthosis.
- B. Hyperkeratosis.
- C. Parakeratosis.
- D. Dysplasia.

Which of the following processes is NOT active in causing tooth eruption?

- A. Growth of the dentin.
- B. Growth of the root.
- C. Growth of the enamel.
- D. Pressure from periapical tissue.

The periodontal probe should be inserted into the gingival sulcus

- A. parallel to the long axis of the tooth.
- B. parallel to the root surface.
- C. with a firm pushing motion.
- D. with a firm lateral motion.

Which foramen presents as an apical radiolucency in the mandibular premolar region?

- A. Lingual.
- B. Mandibular.
- C. Mental.
- D. Incisive.

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Maximum intercuspation on a complete denture should be established to correspond with centric relation because

- A. chewing occurs in centric relation.
- B. it makes it easier to set up the teeth.
- C. centric relation is a good reference position.
- D. it prevents cheek biting.

When prescribing nonsteroidal anti-inflammatory drugs (NSAIDs), it is important to consider that prostaglandins

- A. impair blood coagulation.
- B. induce vasoconstriction.
- C. prevent edema.
- D. protect the gastric mucosa.

Trauma from occlusion

- A. initiates gingivitis.
- B. affects the blood supply to gingivae.
- C. initiates periodontitis.

Low serum levels of parathyroid hormone and vitamin D combined with low bone mass in the skeleton are consistent with the diagnosis of

- A. hypoparathyroidism.
- B. hypothyroidism.
- C. dietary calcium deficiency.
- D. postmenopausal osteoporosis.

A clenching habit may be a factor in

- A. suprabony periodontal pocket formation.
- B. marginal gingivitis.
- C. increased tooth mobility.
- D. generalized recession.

An article reports that subjects receiving chlorhexidine varnish had significantly lower ($p < 0.05$) *Streptococcus mutans* levels than did those receiving fluoride varnish. What type of reporting error is of the most concern when interpreting these results?

- A. Type II (β) error.
- B. Type I (β) error.
- C. Type II (α) error.
- D. Type I (α) error.

A patient telephones and tells you he has just knocked out his front tooth but that it is still intact. Your instructions should be to

- A. put the tooth in water and come to your office at the end of the day.
- B. wrap the tooth in tissue and come to your office in a week's time.
- C. put the tooth in alcohol and come to your office immediately.
- D. place tooth under the tongue and come to your office immediately.
- E. place the tooth in milk and come to your office immediately.

In primary molars, the cusp with the largest pulp horn is the

- A. distolingual.
- B. distobuccal.
- C. mesiolingual.
- D. mesiobuccal.

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Which of the following is NOT a function of the wedge in the restoration of a Class II cavity with amalgam?

- A. It separates the teeth to allow restoration of the contact.
- B. It assists in the adaptation of the matrix band to the proximal portion of the preparation.
- C. It absorbs moisture from the cavity preparation, allowing the restoration to be placed in a dry field.
- D. It provides stability to the matrix band and retainer assembly.

Enlargement of the gingiva, described as idiopathic fibromatosis, is best described as

- A. degeneration.
- B. inflammation.
- C. hyperplasia.
- D. neoplasia.

Which of the following is most often associated with a nonvital tooth?

- A. Chronic periradicular periodontitis.
- B. Internal resorption.
- C. Periapical cemento-osseous dysplasia.
- D. Hyperplastic pulpitis.

Flurbiprofen is an

- A. antibiotic.
- B. muscular relaxant.
- C. anti-inflammatory.
- D. antidepressant.

The most frequent cause of death occurring under general anesthesia is

- A. overdosage of anesthetic agent.
- B. cardiac arrest.
- C. traction on the viscera.
- D. mismanagement of the airway.
- E. overdosage of premedication.

The most reliable measurement of the effectiveness of root planing at re-evaluation 4-6 weeks later is

- A. root smoothness.
- B. absence of plaque.
- C. absence of bleeding upon probing.
- D. increased sulcular fluid flow.

Premature loss of a primary maxillary second molar usually produces a malocclusion in the permanent dentition that is characterized by

- A. anterior crowding.
- B. labially displaced maxillary canines.
- C. delayed eruption of the permanent first molar.
- D. an Angle Class II molar relationship on the affected side.
- E. an Angle Class III molar relationship on the affected side.

In the keyhole model of the enamel prism

- A. crystallites in the tail are angled compared to the head.
- B. the water is located at the prism edges.
- C. proteins are only present in the tail.
- D. crystallites have an identical molecular structure.

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Which of the following are the most appropriate for use as overdenture abutments?

- A. Central incisors.
- B. Second premolars.
- C. Canines.
- D. First premolars.

A very apprehensive patient experiencing pain may be prescribed a barbiturate, chloral hydrate or an antihistamine to control the anxiety. In which of the following would you expect an exaggerated response to the use of these drugs? A/An

- A. diabetic.
- B. arthritic patient.
- C. patient with chronic renal disease.

When using forceps to extract a maxillary first molar, the forceps movement should be principally in the buccal direction because the

- A. buccal bone is thinner than the palatal bone.
- B. buccal roots are shorter than palatal root.
- C. risk for sinus perforation is minimized.
- D. furcation is more accessible from the buccal.

In dental radiology, patient protection from radiation is most important for

- A. patients receiving antibiotics.
- B. patients receiving corticosteroids.
- C. individuals over fifty-years of age.
- D. pregnant women.
- E. young adults.

Which of the following treatments is CONTRAINDICATED for a patient with necrotizing ulcerative gingivitis?

- A. Antibiotic therapy.
- B. Local debridement.
- C. Topical steroid therapy.
- D. Warm saline solution rinses.

If the lining cement is left on the gingival cavosurface margin of a Class II amalgam restoration,

- A. cement dissolution will lead to leakage.
- B. the preparation will lack retention form.
- C. the preparation will lack resistance form to bulk fracture.
- D. the preparation will lack appropriate outline form.

Percussion of a tooth is used to evaluate

- A. ankylosis.
- B. occlusal trauma.
- C. periapical status.
- D. pulpal status.
- E. mobility.

Mandibular overdentures are used to

- A. increase the strength of the denture.
- B. maintain the alveolar ridge morphology.
- C. improve periodontal health of abutment teeth.
- D. decrease costs.

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Which of the following has the largest effect on caries risk?

- A. Type of desserts eaten with meals.
- B. Total amount of sugar in the diet.
- C. Frequency of fermentable carbohydrate intake.
- D. Quality and range of nutrients in meals and snacks.

Which of the following does NOT describe the energy of x-ray photons exiting the x-ray unit?

- A. Normally distributed.
- B. Mono-energetic.
- C. Proportional to frequency.
- D. Inversely proportional to wavelength.

Bacteria that are strongly associated with the onset of caries are

- A. *Streptococcus mutans*.
- B. *Lactobacillus casei*.
- C. *Veillonella alcalescens*.
- D. *Enterococcus faecalis*.
- E. *Actinomyces viscosus*.

Clinical diagnosis of periodontitis requires the presence of

- A. bleeding upon probing.
- B. loss of periodontal attachment.
- C. a periodontal pocket.
- D. tooth mobility.

Periapical surgery is CONTRAINDICATED for a tooth that has a

- A. large periapical lesion.
- B. sinus tract related to a periapical lesion.
- C. vertical root fracture.
- D. a post and core retained crown.

A silane coupling agent is used to

- A. control polymerization shrinkage in composite resins.
- B. enhance the bond between a porcelain veneer and the resin cement.
- C. reduce the surface tension when investing a wax pattern.
- D. facilitate the soldering of gold castings.

The facial growth spurt

- A. occurs in males before females.
- B. starts on average at 7 years for females.
- C. starts on average at 13 years for males.
- D. parallels body growth.

Local anesthetics block nerve conduction by interfering with ionic movement of

- A. calcium.
- B. potassium.
- C. sodium.
- D. chloride.

A smooth-surfaced, solid, exophytic oral mucosal lesion with no colour change is most likely a/an

- A. mucocoele.
- B. papilloma.
- C. hemangioma.
- D. fibroma.
- E. intramucosal nevus.

The most prevalent inflammatory cells found in gingival tissue 24 hours following flap surgery are

- A. monocytes.
- B. macrophages.
- C. lymphocytes.
- D. polymorphonuclear leukocytes.

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The most effective method for protecting dental personnel who expose radiographs is to have them

- A. stand behind a barrier during exposure.
- B. stand 2 metres away from the x-ray generator during the exposure.
- C. wear a lead apron during exposure.
- D. wear a dosimeter during exposure.

Which of the following phases in the setting reaction of dental amalgam is weak and corrosion-prone?

- A. α_1 .
- B. α_2 .
- C. γ .
- D. γ_1 .
- E. γ_2 .

Which of the following statements about the nutritional management of diabetes is correct?

- A. A diet planned according to Canada's Food Guide to Healthy Eating must be modified for a person with diabetes.
- B. The Glycemic Index of foods should be used when planning the diet.
- C. The fat content of the diet should be 30-35% of energy intake.
- D. Sucrose up to 10% of total daily energy intake (e.g. 50% of 2000 kcal/day) is acceptable.

The purpose of using intensifying screens in extraoral radiography is to

- A. improve resolution.
- B. decrease exposure time.
- C. decrease scatter radiation.
- D. increase sharpness.

Tooth 3.3 has a 9mm probing depth with a 6mm three-wall infrabony mesial defect. It tests vital and is not mobile. Which of the following is the most appropriate treatment?

- A. Gingival curettage.
- B. Modified Widman flap.
- C. Osseous resective surgery.
- D. Guided tissue regeneration.

The retentive arm of a combination clasp (wrought wire retentive arm and cast lingual arm) is better than a cast arm because it

- A. has a lower yield strength.
- B. produces less stress on the abutment tooth during removal and insertion.
- C. can be used to engage deeper undercuts due to a high modulus of elasticity.
- D. is economical to fabricate.

Which of the following bacterial types is implicated in the initiation of gingivitis?

- A. *Streptococcus salivarius*.
- B. *Streptococcus mutans*.
- C. *Leptothrix buccalis*.
- D. *Actinomyces viscosus*.

In a patient with complete dentures, cheek biting may result from

- A. an excessive vertical dimension of occlusion.
- B. the use of steep-cusped posterior teeth.
- C. insufficient coverage of the retromolar pad areas.
- D. insufficient horizontal overlap of the posterior teeth.

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What is the most appropriate appliance to correct an Angle Class I malocclusion with a labially tipped maxillary central incisor and spacing in a 15 year old patient?

- A. Growth modification appliance.
- B. Hawley with an active labial bow.
- C. Molar distalizing appliance.
- D. Bilateral expansion appliance.

Subgingival plaque in deep periodontal pockets consists primarily of

- A. gram-positive microorganisms.
- B. aerobic microorganisms.
- C. gram-negative microorganisms.
- D. viruses.

In an Angle's Class I occlusion, the cusp of which permanent tooth is in contact with the central fossa of the mandibular first molar?

- A. Mesiolingual cusp of the maxillary first molar.
- B. Distolingual cusp of the maxillary first molar.
- C. Mesiolingual cusp of the maxillary second molar.
- D. Distolingual cusp of the maxillary second molar.

What is the most appropriate time to extract a mesiodens?

- A. As soon as diagnosed.
- B. Just prior to the eruption of the first permanent molars.
- C. Just prior to the eruption of the maxillary central incisors.
- D. Just prior to the eruption of the maxillary canines.

A radiograph reveals a radiolucency associated with the apex of tooth 1.5. There is a large restoration but the tooth is asymptomatic and the associated soft tissues appear normal. What is the most likely periapical diagnosis?

- A. Symptomatic apical periodontitis (acute periradicular periodontitis).
- B. Asymptomatic apical periodontitis (chronic periradicular periodontitis).
- C. Acute apical abscess (acute periradicular abscess).
- D. Chronic apical abscess (chronic periradicular abscess).

Which disorder is associated with hypercementosis of teeth?

- A. Paget's disease.
- B. Fibrous dysplasia.
- C. Cherubism.
- D. Hyperparathyroidism.

What is the most frequent malignant tumour of the tongue?

- A. Adenoma.
- B. Adenocarcinoma.
- C. Rhabdomyosarcoma.
- D. Squamous cell carcinoma.
- E. Granular cell myoblastoma.

Procaine (Novocaine®) is an example of a local anesthetic which is chemically classified as an

- A. amide.
- B. ester.
- C. aldehyde.
- D. ethamine.
- E. aminide.

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A decrease of which of the following is indicative of hypoparathyroidism?

- A. Serum phosphorus.
- B. Serum calcium.
- C. Thyroid activity.
- D. Serum alkaline phosphatase.

A post is used in an endodontically treated tooth to

- A. obturate the canal.
- B. reinforce the root.
- C. reinforce the remaining coronal tooth structure.
- D. retain the core build up.

Damage to the lingual nerve following a mandibular third molar extraction is

- A. preventable in most cases.
- B. not likely to recover(?).
- C. more frequent than damage to the inferior alveolar nerve.
- D. too rare to inform the patient during consent.

Immediately following a posterior superior alveolar block injection, the patient's face becomes quickly and visibly swollen. The immediate treatment should be to

- A. use pressure followed by cold packs over the swelling.
- B. use hot packs over the swelling.
- C. refer the patient to a hospital.
- D. administer 100mg hydrocortisone intravenously.
- E. administer diphenhydramine hydrochloride (Benadryl®) 50mg intravenously.

The greatest dimensional change in denture bases will occur

- A. after the dentures have been in the mouth 24 hours.
- B. when the dentures have been stored in tap water at room temperature.
- C. when a complete denture opposes natural teeth.
- D. at the time the dentures are removed from the flask.

The full palatal major connector is indicated where

- A. there is a high, narrow palatal vault.
- B. a well-defined, undercut palatal torus is present.
- C. very few teeth remain in a flat or U-shaped arch.
- D. palatal tissue is soft and compressible.

Fixed partial denture ovate pontics should

- A. have a convex surface touching the mucosa.
- B. have a concave surface touching the mucosa.
- C. have a flat surface touching the mucosa.
- D. hide the porcelain-metal junction on their gingival aspect.

The most common problem associated with two adjacent implants is

- A. peri-implantitis.
- B. lack of interdental papilla.
- C. granulation tissue.

On a semi-adjustable articulator, the incisal guidance is the mechanical analogue of

- A. horizontal guidance.
- B. the curve of Monson.
- C. the curve of Spee.
- D. relationship between the anterior teeth.

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Hydroxyapatite used in dental surgery is

- A. used to fill osseous defects.
- B. derived from tooth enamel.
- C. resistant to fracture.
- D. osteogenic.

Which of the following teeth is LEAST likely to develop a furcation involvement?

- A. 1.4.
- B. 1.5.
- C. 1.6.
- D. 1.7.

A protrusive relation record should be made by instructing the patient to protrude the mandible

- A. 3-6mm.
- B. 7-10mm.
- C. 11-13mm.

Gingival connective tissue fibres are primarily composed of

- A. collagen.
- B. reticulin.
- C. elastin.
- D. oxytalin.

Antibiotic prophylaxis prior to tooth extraction is required for (a)

- A. diabetes mellitus.
- B. mitral valve prolapse with regurgitation.
- C. prosthetic heart valve.
- D. organic heart murmur.
- E. functional heart murmur.

Adjustment of the occlusal plane of natural teeth opposed by a complete or partial denture should be completed

- A. after the teeth have been set on the trial denture.
- B. immediately after making the final casts.
- C. upon delivery of the denture.
- D. after the diagnosis and treatment plan has been established.

In which of the following conditions is there a risk of malignant change after radiotherapy?

- A. Fibrous dysplasia.
- B. Mucocoele.
- C. Lymphangioma.
- D. Torus palatinus.

A patient wearing complete dentures complains of tingling and numbness in the lower lip bilaterally. This is often an indication of

- A. allergy to denture base material.
- B. impingement of denture on mandibular nerves.
- C. defective occlusal contacts.
- D. impingement of denture upon mental nerves.
- E. neoplastic invasion of the inferior mandibular nerves.

Aging pulps show a relative increase in

- A. sensitivity.
- B. cell numbers.
- C. calcification.
- D. vascularity.

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If there is insufficient arch space for a permanent tooth to erupt, the tooth may

- A. cause resorption of the root of another tooth.
- B. erupt out of position.
- C. not erupt.
- D. All of the above.

Gold casting alloys are classified as Type I-IV according to which of the following physical properties?

- A. Percentage of gold present in the alloy.
- B. Surface hardness.
- C. Melting point.
- D. Elastic strength.
- E. Ductility.

The most important advantage of using reinforced zinc oxide eugenol cement as a temporary restoration is that it

- A. stimulates dentin repair.
- B. occludes dentinal tubules.
- C. desensitizes the pulp.
- D. chelates to tooth structure.

Plaque accumulation on tooth surfaces is affected by

- A. the anatomy, position and surface characteristics of the teeth.
- B. the architecture of the gingival tissues and their relationship to the teeth.
- C. friction at the tooth surface from the diet, lips and tongue.
- D. All of the above.

A maxillary central incisor that is erupting in a lingually directed path should be

- A. corrected before it reaches the occlusal plane.
- B. allowed to erupt until all incisors can be banded.
- C. allowed to erupt into cross-bite and then corrected.
- D. ignored because pressures of the tongue will correct it as it erupts.
- E. ignored because pressures of the lip will cause the problem to recur.

Which of the following fibre groups are attached to bone?

- A. Apical.
- B. Interradicular.
- C. Transseptal.
- D. Circular.

To obtain block anesthesia of the second division of the trigeminal nerve, the solution must be deposited in proximity to the

- A. foramen ovale.
- B. pterygoid plexus.
- C. foramen spinosum.
- D. infraorbital foramen.
- E. pterygopalatine fossa.

An end result of ionizing radiation used to treat oral malignancies is

- A. deformity of the jaws.
- B. reduced vascularity of the jaws.
- C. increased vascularity of the jaws.
- D. increased brittleness of the jaws.

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The inorganic ion which is the chief offender in hypertension is

- A. sodium.
- B. ammonium.
- C. magnesium.
- D. potassium.

It is advisable to polish any restorative material as smoothly as possible in order to prevent

- A. microleakage.
- B. accumulation of plaque.
- C. overhanging margins.
- D. electro-chemical action.

Using more water when mixing dental stone will result in a cast that exhibits

- A. increased expansion and decreased strength.
- B. decreased expansion and increased strength.
- C. decreased expansion and decreased strength.
- D. increased expansion and increased strength.

Overadjustment of a wrought wire denture clasp can lead to fracture because of a/an

- A. increase in modulus of elasticity.
- B. decrease in ductility due to strain hardening.
- C. decrease in the yield strength.
- D. increase in fracture toughness.

In domestic violence cases, the highest risk for victim fatality is associated with

- A. an actual or pending separation.
- B. severe depression of the abuser.
- C. prior threats to kill the victim.
- D. a new partner in the victim's life.
- E. a history of abuse of the abuser as a child.

The most common method of entry of infection by the tubercle bacillus is

- A. inhalation.
- B. ingestion.
- C. needle-stick.

A 15 year old presents with hypoplastic enamel on tooth 1.5. All other teeth are normal. This was most probably caused by a/an

- A. vitamin D deficiency.
- B. generalized calcium deficiency.
- C. high fever encountered by the patient when he had measles at age 3.
- D. infection of tooth 5.5 during the development of tooth 1.5.
- E. hereditary factor.

Proper collimation of the useful beam for film size and focal spot-film distance reduces

- A. image definition.
- B. secondary radiation.
- C. radiographic contrast.
- D. intensity of the central beam.

The most appropriate time to select a shade for a composite resin restoration is

- A. before administering local anesthetic.
- B. when the dental operator light is illuminating the entire arch.
- C. after rubber dam placement.
- D. immediately before placement of the composite resin.

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Which of the following statements concerning the airway is correct?

- A. Sympathetic fibres constrict the bronchioles.
- B. The trachea is membranous posteriorly to accommodate the pulsations of the aorta.
- C. The right primary bronchus forms two secondary bronchi.
- D. An aspirated foreign body would likely fall into the right primary bronchus.

Composite resins bond to tooth structure through

- A. Van der Waals forces.
- B. micromechanical retention.
- C. chemical bonding.

A furcation involvement in which the probe extends completely through the furcation is classified as

- A. incipient.
- B. Class I.
- C. Class II.
- D. Class III.

A single hypoplastic defect located on the labial surface of a maxillary central incisor is most likely due to a/an

- A. dietary deficiency.
- B. endocrine deficiency.
- C. tetracycline therapy.
- D. trauma to the maxillary primary central incisor.
- E. high fluoride intake.

Enlargement of the gingiva, described as idiopathic fibromatosis, is best described as

- A. degeneration.
- B. inflammation.
- C. hyperplasia.
- D. neoplasia.

Planing the enamel at the gingival cavosurface of a Class II amalgam preparation on a permanent tooth

- A. should result in a long bevel.
- B. is contraindicated because of the low edge strength of amalgam.
- C. is unnecessary since the tooth structure in this area is strong.
- D. should remove unsupported enamel which may fracture.
- E. should result in a sharp gingivoproximal line angle.

A survey of the master cast shows that the 3.5 and 3.7 abutments for a fixed partial denture have different paths of insertion with respect to 3.7. A semi-precision attachment is chosen rather than preparing the teeth again. Where should the male part of the attachment ideally be located?

- A. Distal of the 3.5 retainer.
- B. Distal of the 3.6 pontic.
- C. Mesial of the 3.7 retainer.
- D. Mesial of the 3.6 pontic.

Reduced mobility of the temporomandibular joint is called

- A. Charcot's arthritis.
- B. osteoarthritis.
- C. ankylosis.
- D. arthrosis.

The primary reason for placing a surgical dressing after a gingivectomy is to

- A. prevent hemorrhage.
- B. protect the wound.
- C. stabilize the teeth.
- D. protect the sutures.

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A dentist infected with Hepatitis C virus but without disease symptoms should

- A. not be allowed to practice.
- B. be allowed to practice but should be excluded from performing exposure prone procedures.
- C. be allowed to practice but should be excluded from performing exposure prone procedures after assessment and agreement by an expert review panel and if there is compliance with standard precautions (routine practices).
- D. be allowed to practice after assessment and agreement by an expert review panel and if there is compliance with standard precautions (routine practices).

Proximal retention grooves are necessary to provide resistance for proximal-occlusal amalgam restorations when the

- A. occlusal extension is wide faciolingually relative to the proximal extension.
- B. restoration is a pin-retained cusp replacement.
- C. occlusal extension is narrow faciolingually relative to the proximal extension.
- D. bonded amalgam technique is not being used.

"Cuspid guided occlusion" occurs when the

- A. teeth on the nonworking side make contact in lateral excursions.
- B. teeth on the working side make contact in lateral excursions.
- C. canine and lateral incisors make contact in lateral excursion.
- D. posterior teeth make no contact in lateral excursions on the working side.

Mucocelles are most commonly found in the

- A. upper lip.
- B. lower lip.
- C. tongue.
- D. buccal mucosa.
- E. soft palate.

The characteristic pain of trigeminal neuralgia is

- A. dull and prolonged.
- B. infrequent, sharp and prolonged.
- C. regularly recurrent, dull and persistent.
- D. annoying but controlled with salicylates.
- E. sharp, stabbing and excruciating.

A patient complains of the discolouration of an upper central incisor. Radiographically, the pulp chamber and the root canal space are obliterated and the periodontal ligament space appears normal. The most appropriate management would be to

- A. perform endodontic treatment and nonvital bleaching.
- B. perform endodontic treatment and fabricate a porcelain veneer.
- C. fabricate a metal-ceramic crown.
- D. fabricate a porcelain veneer.

Which element found in radiograph processing solutions is of most concern environmentally?

- A. Mercury.
- B. Lead.
- C. Silver.
- D. Copper.

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During orthodontic therapy, the width of the periodontal ligament radiographically appears

- A. increased.
- B. decreased.
- C. unchanged.

Patients with a history of ankle swelling, shortness of breath and orthopnea are most likely suffering from

- A. asthma.
- B. emphysema.
- C. congestive heart failure.
- D. constrictive pericarditis.

In an infrabony periodontal pocket, the tip of the periodontal probe is located

- A. at the level of the alveolar crest.
- B. coronal to the level of the alveolar crest.
- C. apical to the level of the alveolar crest.

Which pontic type is best for a knife edge residual ridge where esthetics is not a major concern?

- A. Sanitary.
- B. Conical.
- C. Ridge lap.
- D. Modified ridge lap.

Which of the following is the most frequent cause of ankylosis of the temporomandibular joint?

- A. Intra-articular injection of steroids.
- B. Chronic subluxation.
- C. Trauma.
- D. Anterior disc dislocation.

Bonding composite to enamel is most appropriately performed by isolation with

- A. cotton rolls.
- B. rubber dam.
- C. cheek retractors.
- D. a matrix system.

The most appropriate management for a longstanding, asymptomatic, well demarcated, adherent, white plaque on the ventral tongue of a 66 year old non-smoker is

- A. topical antifungal treatment.
- B. biopsy and long-term clinical follow-up.
- C. re-evaluate in 2 weeks.
- D. refer to their physician.

Which of the following is consistent with a diagnosis of reversible pulpitis?

- A. Lingering pain to cold.
- B. Pain on percussion.
- C. Lingering pain to heat.
- D. No spontaneous pain.

Heavy cigarette smoking significantly increases the incidence of

- A. aphthous stomatitis.
- B. geographic tongue.
- C. lichen planus.
- D. atrophic glossitis.
- E. mucosal pigmentation.

The term applied to a low white blood cell count is

- A. leukocytosis.
- B. leukopenia.
- C. thrombocythemia.
- D. thrombocytopenia.

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Orthodontic uprighting of a mandibular second molar that has tipped mesially into the space of a missing mandibular first molar in an otherwise intact dentition may result in

- A. decreased overbite.
- B. intrusion of the mandibular second molar.
- C. extrusion of the mandibular second premolar.
- D. initial mobility of the mandibular second molar.
- E. development of posterior crossbite.

Which of the following conditions has the WORST prognosis for a furcation involved tooth?

- A. Wide root separation.
- B. Narrow root separation.
- C. A bifurcation ridge.
- D. A cemento-enamel projection.

The principal component of the fibres of the periodontal ligament is

- A. elastin.
- B. reticulin.
- C. fibronectin.
- D. collagen.

A labial frenum causes a diastema between the permanent maxillary central incisors. The lateral incisors and canines have not erupted. The most appropriate immediate management is to

- A. perform a frenectomy.
- B. close the space with a fixed orthodontic appliance.
- C. observe the case until the eruption of permanent maxillary lateral incisors and canines.
- D. close the space with a removable orthodontic appliance.
- E. close the space after the eruption of the permanent lateral incisors.

Treatment of a *S. aureus* infection with penicillin is often complicated by the

- A. inability of penicillin to penetrate the membrane of *S. aureus*.
- B. production of penicillinase by *S. aureus*.
- C. secretion of penicillin acetylase by *S. aureus*.
- D. allergic reaction caused by staphylococcal protein.

Occlusal trauma can

- A. initiate periodontitis.
- B. increase tooth mobility.
- C. exacerbate gingival hyperplasia.
- D. cause gingival recession.

Tachycardia is a term which describes a pulse rate of

- A. less than 50.
- B. less than 60.
- C. less than 70.
- D. more than 70.

The benefits of open flap debridement alone include

- A. direct access for thorough debridement.
- B. pocket reduction.
- C. increased opportunity for new attachment.
- D. A. and B.
- E. All of the above.

Following root canal therapy, the most desirable form of tissue response at the apical foramen is

- A. cementum deposition.
- B. connective tissue capsule formation.
- C. epithelium proliferation from the periodontal ligament.
- D. dentin deposition.

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The "smear layer" is an important consideration in

- A. plaque accumulation.
- B. caries removal.
- C. pulp regeneration.
- D. dentin bonding.

The periodontal ligament

- A. only has oblique fibres during the eruptive stage.
- B. increases in width with age.
- C. achieves its final structural form after complete eruption.
- D. has osteoblasts as its principle cells.

Vestibuloplasty is a preprosthetic surgical procedure used to

- A. facilitate reliable impression making.
- B. provide adequate posterior inter-arch space.
- C. allow placement of teeth over the residual ridge.
- D. increase the supporting surface area.

Cephalometric standards

- A. can be applied to patients universally.
- B. are the basis of orthodontic diagnostic.
- C. vary with patient development.

Radiographically, a keratocystic odontogenic tumour (odontogenic keratocyst) can appear as a

- A. mixed radiolucency and radiopacity.
- B. radiolucency around the crown of an impacted tooth.
- C. radiolucency containing multiple rudimentary teeth.

In the presence of an acute bacterial infection, laboratory tests will show an increase in

- A. polymorphonuclear leukocytes.
- B. plasma cells.
- C. lymphocytes.
- D. monocytes.
- E. eosinophils.

A Class III malocclusion is normally associated with

- A. sleeping habits.
- B. growth discrepancy.
- C. tooth size - jaw size discrepancy.
- D. trauma.

Increasing the kVp results in decreased

- A. density of the image.
- B. contrast of the image.
- C. energy of the x-ray beam.

A patient complains of acute pain 24 hours after the insertion of a restoration in a tooth with no preexisting periapical pathology. The tooth is vital and tender to percussion. The radiograph will show

- A. an apical radiolucency.
- B. acute osteitis.
- C. root resorption.
- D. condensing osteitis.
- E. normal lamina dura.

The efficacy of pit and fissure sealants is affected by

- A. occlusal relationship.
- B. opacity of the sealant.
- C. stage of tooth eruption.
- D. type of polymerization reaction.
- E. systemic fluoride treatment.

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Cleft lip and palate usually result from

- A. failure of proper union of the median and lateral nasal processes.
- B. failure of the union of the median nasal process with the lateral nasal and maxillary processes.
- C. anhidrotic ectodermal dysplasia.
- D. failure of development of both the lateral nasal and maxillary processes.

Radiographic examination reveals early evidence of internal resorption. The most appropriate management is

- A. apical surgical intervention.
- B. immediate pulp extirpation.
- C. immediate pulpotomy.
- D. observation and re-evaluation in 3-6 months.
- E. calcium hydroxide pulpotomy.

The most appropriate radiographic examination for a 4 year old without visible or clinically detectable caries or anomalies, and with open proximal contacts is

- A. maxillary and mandibular anterior occlusals.
- B. a pair of posterior bite-wings.
- C. maxillary and mandibular posterior periapicals.
- D. no radiographic examination.

A 10 year old patient is missing a permanent maxillary left lateral incisor. There are no other orthodontic problems. A dental implant is planned when the patient is an adult. The most appropriate management is to

- A. extract the primary maxillary left canine as soon as possible.
- B. encourage the permanent left canine to erupt into an Angle's Class I relationship.
- C. let the permanent canine erupt into a mesial position and reposition it into an Angle's Class I as soon as possible.
- D. let the permanent canine erupt into a mesial position and reposition it into an Angle's Class I before placing the implant.
- E. let the permanent canine erupt into a mesial position and place the implant distal to the canine.

A Kennedy Class II denture with no provision for indirect retention causes

- A. resorption of the supporting edentulous area.
- B. dislodgement of the saddle area during mastication.
- C. temporomandibular joint dysfunction.
- D. gingivitis.

Enamel pearls form when

- A. ameloblasts migrate apically down the root.
- B. cells of the epithelial root sheath do not migrate away from the dentin.
- C. cells of the dental follicle fail to develop.
- D. epithelial rests transform into ameloblast vesicles.

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What is the most common site for intraoral squamous cell carcinoma?

- A. Gingiva.
- B. Floor of mouth.
- C. Buccal mucosa.
- D. Dorsum of tongue.

In the bisecting angle principle of intraoral radiography, the radiopacity that can obliterate the apices of maxillary molars is the

- A. maxillary sinus.
- B. palatine bone and the zygoma.
- C. orbital process of the zygomatic bone.
- D. zygoma and the zygomatic process of the maxilla.

In an 8 year old patient, the most appropriate management of mild anterior crowding is to

- A. interproximally reduce all proximal contacts.
- B. extract the deciduous canines.
- C. perform a space analysis.
- D. regain space in the arch.

Before performing surgery on a patient who is taking warfarin, which of the following should be evaluated?

- A. Bleeding time.
- B. Clotting time.
- C. Prothrombin time.
- D. Coagulation time.

A patient has significant pain and a fluctuant swelling of the left cheek. Clinical and radiographic examinations confirm a severe odontogenic infection associated with a carious nonrestorable tooth 2.3. The most appropriate initial management is to

- A. establish drainage.
- B. recommend a hot compress.
- C. prescribe an antibiotic.
- D. prescribe analgesics.

The initial appearance of a successful apicoectomy would show on a radiograph as

- A. a radiolucent area.
- B. woven bone.
- C. cortical bone around surgical site.
- D. sclerotic dentin.

Which of the following is the most appropriate management for a dry socket?

- A. Hydrogen peroxide irrigation of the socket.
- B. Vigorous curettage of the socket.
- C. Placement of a dressing in the socket.
- D. A prescription for antibiotics.

Which of the following is the most active cell in synthesizing and secreting antibodies?

- A. Mast cell.
- B. Macrophage.
- C. Eosinophilic granulocyte.
- D. Plasma cell.
- E. T-cell lymphocyte.

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If mucous glands are seen in the epithelial lining of a dentigerous cyst, this is most appropriately called

- A. anaplasia.
- B. metaplasia.
- C. dysplasia.
- D. neoplasia.
- E. hyperplasia.

Which drug is indicated for the management of an acute asthmatic attack

- A. Fluticasone.
- B. Salbutamol.
- C. Triamcinolone.
- D. Budesonide.

The most common cause of malocclusion with a Class I molar relationship is

- A. a thumbsucking habit.
- B. crossbite in the posterior segments.
- C. tooth size and jaw size discrepancy.
- D. improper eruption of permanent first molars.

The most significant factor in determining the prognosis of complete anterior crossbite correction is the

- A. age of patient.
- B. depth of the overbite.
- C. amount of crowding of the mandibular arch.
- D. amount of crowding of the maxillary arch.

On a bite-wing radiograph of posterior teeth, which of the following is most likely to be misdiagnosed as proximal caries?

- A. Cemento-enamel junction.
- B. Marginal ridge.
- C. Carabelli cusp.
- D. Calculus.
- E. Cemental tear.

Which of the following constituents of a local anesthetic cartridge is most likely to be allergenic?

- A. Lidocaine.
- B. Epinephrine.
- C. Metabisulfite.
- D. Hydrochloric acid.

The penetration of a local anesthetic into nerve tissue is a function of the

- A. length of the central alkyl chain.
- B. lipid solubility of the un-ionized form.
- C. ester linkage between the aromatic nucleus and the alkyl chain.
- D. amide linkage between the aromatic nucleus and the alkyl chain.

To ensure maximum marginal strength for an amalgam restoration the cavosurface angle should

- A. approach 45 degrees.
- B. approach 90 degrees.
- C. be beveled.
- D. be chamfered.

When compared to dental amalgams made from lathe cut particles, dental amalgams made from spherical particles

- A. require more mercury.
- B. set more quickly.
- C. are more difficult to adapt to the cavity preparation.
- D. require higher condensation forces.

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The success of replantation of an avulsed tooth is dependent upon

- A. length of time between avulsion and replantation.
- B. completion of endodontic therapy before replantation.
- C. immersing the tooth in fluoride solution before replantation.
- D. using calcium hydroxide as a treatment root canal filling.

An ameloblastoma can develop from the epithelial lining of which of the following cysts?

- A. Periradicular.
- B. Dentigerous.
- C. Residual.
- D. Lateral periodontal.

A 2cm, white lesion of the buccal mucosa has not resolved after elimination of all local irritants. The most appropriate management is to

- A. cauterize it.
- B. apply toluidine blue staining.
- C. perform an incisional biopsy.
- D. re-examine at 6 month intervals.
- E. refer patient to family physician.

Which of the following would differentiate clinically between an acute apical abscess (acute periradicular abscess) and an acute periodontal abscess on a single rooted tooth?

- A. Pain upon palpation.
- B. Tooth mobility.
- C. Pain upon percussion.
- D. Pulp vitality testing.

A 75 year old male patient whose wife died 10 months ago presents for his recall appointment. Looking wasted and fatigued, he confirms he has lost about 6kg in the last 8 months but is otherwise in good health. The most appropriate management for this patient is to

- A. recommend that he drink 3 cans of a nutritional supplement each day.
- B. refer him to a qualified dietician/nutritionist and follow up after his appointment.
- C. refer him back to his physician requesting a more thorough assessment.
- D. provide him with a copy of Canada's Food Guide to Healthy Eating.

A 7 year old child who complains of pain when eating, has a large carious lesion on a permanent molar. A radiograph reveals no periapical change. The most appropriate treatment is a/an

- A. indirect pulp capping.
- B. direct pulp capping.
- C. partial pulpotomy.
- D. pulpotomy.

Which of the following structures may be associated with the role of the central nervous system in sleep (nocturnal) bruxism?

- A. Basal ganglia (nigrostriatal).
- B. A delta and C nerves.
- C. Sphenopalatine ganglion.
- D. Petrous nerves.

Diabetes mellitus is the result of

- A. hypersecretion of the posterior pituitary.
- B. atrophy of the islands of Langerhans.
- C. destruction of the adrenal cortex.
- D. destruction of the posterior pituitary or associated hypothalamic centres.

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Which of the following explanations of the caries process is most appropriate for a 10 year old patient who snacks frequently on soft drinks and doughnuts?

- A. When you eat doughnuts and soft drinks, because of all the sugar in them you'll get cavities.
- B. Bacteria in your mouth are the main cause of caries.
- C. Not brushing your teeth means the sugar from your snack attacks your teeth for about twenty minutes.
- D. The 'bugs' in your mouth eat the sugar in the food you eat, and change it into acid which can make holes in your teeth.

On a bite-wing radiograph of posterior teeth, which of the following is most likely to be misdiagnosed as proximal caries?

- A. Cemento-enamel junction.
- B. Marginal ridge.
- C. Carabelli cusp.
- D. Calculus.
- E. Cemental tear.

The placement of a reverse curve in a Class II amalgam preparation aids in

- A. retention form.
- B. resistance form.
- C. convenience form.
- D. outline form.

In recording centric relation registration, perforation of the recording material must be avoided because

- A. the material will undergo dimensional changes.
- B. contact of teeth could deflect the mandible.
- C. the recording material will be too weak and may fracture or tear.

Which of the following is NOT a true cyst?

- A. Keratocystic odontogenic tumour (odontogenic keratocyst).
- B. Traumatic bone cyst.
- C. Radicular cyst.
- D. Lateral periodontal cyst.

A lateral cephalometric radiograph for a patient with a 3mm anterior functional shift should be taken with the patient in

- A. maximum intercuspation.
- B. initial contact.
- C. normal rest position.
- D. maximum opening.
- E. protrusive position.

Squamous cell carcinomas of the lip occur most frequently on the

- A. commissures.
- B. lower lip near the midline.
- C. inner surface of upper lip.
- D. inner surface of lower lip.
- E. upper lip near the midline.

The Frankel functional regulator appliance performs all of the following EXCEPT

- A. increasing vertical dimension.
- B. repositioning the mandible forward.
- C. retraction of the maxillary molars.
- D. expansion of the dental arches.

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A 50 year old obese patient was diagnosed with type 2 diabetes last year and has recently started taking an oral hypoglycemic. He frequently skips meals in order to reduce his weight. During his 8:30 a.m. appointment, his speech becomes slurred and he is less alert than usual. Which of the following is the most appropriate management?

- A. Have him drink 175ml of diet cola.
- B. Give him 15g of glucose as tablets or in a solution.
- C. Have him eat a chocolate bar.
- D. Dismiss the patient and advise him to eat.

Which of the following is an indication for the use of occlusal sealants?

- A. Teeth showing signs of opacity in pits or fissures.
- B. Teeth that have remained caries-free for 4 years and more.
- C. Teeth that have proximal cavitated lesions.
- D. Patient's water supply is non-fluoridated.

Which of the following is most often associated with a nonvital tooth?

- A. Chronic periradicular periodontitis.
- B. Internal resorption.
- C. Periapical cemento-osseous dysplasia.
- D. Hyperplastic pulpitis.

The radiographs of a 9 year old with tooth 1.1 completely erupted and tooth 2.1 unerupted reveal a palatally located mesiodens. The most appropriate management is to

- A. monitor the eruption of 2.1 for another year.
- B. uncover the mesiodens, wait for eruption and then extract it.
- C. extract the mesiodens and allow passive eruption of 2.1.
- D. extract the mesiodens and orthodontically extrude 2.1.

A zirconia-based ceramic fixed partial denture can be used for a patient with

- A. periodontally involved abutment teeth.
- B. long clinical crowns.
- C. deep vertical anterior overlap.
- D. cantilever pontic.
- E. evidence of bruxism.

Ankylosed primary second molars may clinically exhibit

- A. percussion sensitivity.
- B. discolouration.
- C. temperature sensitivity.
- D. buccolingual displacement.
- E. infra-occlusal position.

Which of the following, if left untreated, is most likely to result in a periapical lesion?

- A. Internal resorption.
- B. Reversible pulpitis.
- C. Acute suppurative pulpitis.
- D. Chronic hyperplastic pulpitis.
- E. Diffuse calcification of the pulp.

Tooth 3.6 has a disto-occlusal amalgam restoration with a gingival overhang. There is radiographic evidence of bone loss and deep probing depths with bleeding upon probing. Which of the following types of microorganisms are most likely associated with the subgingival environment in this site?

- A. Gram-positive and aerobic.
- B. Gram-positive and anaerobic.
- C. Gram-negative and aerobic.
- D. Gram-negative and anaerobic.

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The custom tray used in making a final complete denture impression must

- A. extend to the bottom of the vestibule.
- B. create adequate space for the impression material.
- C. have a horizontal handle.
- D. be stored in water until ready for use.

The term used to describe epithelial changes including nuclear hyperchromatism, alteration of nuclear/cytoplasmic ratio and abnormal mitoses is

- A. acanthosis.
- B. hyperparakeratosis.
- C. dysplasia.
- D. acantholysis.

In a bilateral sagittal split osteotomy, the segments of the mandible with the condyles are referred to as the

- A. anterior segments.
- B. posterior segments.
- C. proximal segments.
- D. distal segments.

Which of the following is true about the supraeruption of unopposed molars?

- A. Supraeruption occurs 60% of the time.
- B. Supraeruption is more prevalent in the mandibular arch.
- C. Unopposed molars have a mean supraeruption of 3.0mm.
- D. Attachment loss is one of the main predictors.

An 8 year old patient with all primary molars still present exhibits a cusp-to-cusp relationship of permanent maxillary and mandibular first molars and good alignment of the lower incisors. The management of this patient should be to

- A. refer for orthodontic consultation.
- B. use a cervical headgear to reposition maxillary molars.
- C. disk the distal surfaces of primary mandibular second molars.
- D. place patient on appropriate recall schedule.

Which of the following would maximize vitamin E intake following osseous surgery?

- A. Lettuce.
- B. Wheat germ.
- C. Eggs.
- D. Fish.

Which virus is the most likely to cause an infection in a healthcare worker following exposure to blood from an individual infected with the virus?

- A. Hepatitis A.
- B. Hepatitis B.
- C. Hepatitis C.
- D. Human immunodeficiency virus.

Chlorpromazine produces all of the following EXCEPT

- A. photosensitivity.
- B. excessive salivation.
- C. anticholinergic effects.
- D. antiadrenergic effects.

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Following the removal of a vital pulp, the root canal is medicated and sealed. The patient returns with apical periodontitis. The most common cause is

- A. over-instrumentation.
- B. lateral perforation.
- C. pulp tissue left in the root canal.
- D. infection.

Ionization of local anesthetics is facilitated by a tissue pH

- A. above 7.4.
- B. at 7.4.
- C. below 7.4.

Clasps should be designed so that upon insertion or removal of a partial denture, the reciprocal arms contact the abutment teeth when the retentive arms pass over the height of contour in order to

- A. prevent distortion of the clasps.
- B. assure complete seating of the framework.
- C. provide needed support to abutment teeth during a period of added stress.

The most effective drug for relief of angina pectoris is

- A. codeine.
- B. digitalis.
- C. quinidine.
- D. nitroglycerin.
- E. pentobarbital sodium.

An antipyretic drug

- A. reduces fever.
- B. provides analgesia.
- C. causes loss of consciousness.
- D. creates heat sensitivity.
- E. counters the tendency for epileptic seizures.

Which anatomical structures form the inverted Y (Y line) in maxillary periapical radiographs?

- A. Nasopalatine/incisive canal and floor of the nasal fossa.
- B. Anterior nasal spine and nasopalatine/incisive canal.
- C. Floor of the nasal fossa and maxillary sinus border.
- D. Zygomatic process of the maxilla and maxillary sinus border.

A silane coupling agent is used to

- A. control polymerization shrinkage in composite resins.
- B. enhance the bond between a porcelain veneer and the resin cement.
- C. reduce the surface tension when investing a wax pattern.
- D. facilitate the soldering of gold castings.

A characteristic of the periodontium which allows safe temporary separation of the teeth is the

- A. nature of acellular cementum.
- B. elasticity of bone.
- C. modified continuous eruption of the teeth.
- D. passive eruption.

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The pulpal floor of an occlusal amalgam preparation on a mandibular first premolar should slope apically from

- A. mesial to distal.
- B. buccal to lingual.
- C. distal to mesial.
- D. lingual to buccal.

Before performing periodontal surgery, it is important to

- A. prescribe a mouthwash.
- B. prescribe systemic antibiotics.
- C. control plaque.

A 7 year old patient has a normal occlusion except that the 2 primary maxillary central incisors have recently exfoliated, creating a tongue thrust. What is the most appropriate management for this patient?

- A. Immediately refer the patient to a speech therapist.
- B. Re-evaluate following the eruption of the permanent maxillary central incisors.
- C. Radiographically monitor the eruption of permanent maxillary central incisors.
- D. Prescribe a tongue crib appliance.
- E. Prescribe an appliance to temporarily replace the missing incisors.

Which of the following teeth are most often lost as a result of periodontitis?

- A. Mandibular molars.
- B. Maxillary molars.
- C. Mandibular incisors.
- D. Maxillary incisors.

Which antibiotic is CONTRAINDICATED for a patient with a history of a Type 1 anaphylactic reaction to penicillin?

- A. Azithromycin.
- B. Cephalexin.
- C. Clindamycin.
- D. Erythromycin.

What is the most appropriate space management for a 4 year old patient who has lost all their primary maxillary incisors due to trauma?

- A. No treatment.
- B. A removable Hawley appliance.
- C. A fixed lingual holding arch.
- D. A fixed Nance button appliance.

The greater palatine foramen is most likely to be radiographically misdiagnosed as a

- A. rarefying osteitis.
- B. nasolabial cyst.
- C. cyst of the incisive papilla.

Heated impression modeling compound is "tempered" in warm water before placement in the mouth in order to

- A. avoid burning the soft tissues.
- B. reduce contraction error.
- C. initiate a chemical reaction.
- D. minimize distortion.

Which of the following is NOT associated with the administration of acetylsalicylic acid?

- A. Tinnitus.
- B. Analgesia.
- C. Antipyresis.
- D. Constipation.
- E. Inhibition of prostaglandin synthesis.

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Which of the following is NOT associated with infectious mononucleosis?

- A. Pharyngitis.
- B. Lymphadenopathy.
- C. Petechiae of the palate.
- D. Gingival enlargement.
- E. Fatigue.

Most of the somatosensory information from the oral cavity reaches the brain through which nerve?

- A. Trochlear.
- B. Hypoglossal.
- C. Trigeminal.
- D. Glossopharyngeal.

The most common clinical finding in the diagnosis of an acute apical abscess is

- A. mobility of the tooth.
- B. pain on percussion.
- C. discoloration of the crown.
- D. presence of a cellulitis.
- E. lymph node enlargement.

A patient fails to demonstrate effective plaque control during initial periodontal therapy for moderate periodontitis. The most appropriate management is

- A. continued initial therapy.
- B. gingival curettage.
- C. gingivectomy.
- D. an apically positioned flap.

In an 11 year old with an otherwise acceptable occlusion, an impacted maxillary canine

- A. could be extracted.
- B. could be retained and the first premolar removed to allow the canine to erupt.
- C. could be surgically exposed to speed its eruption.
- D. could constitute a problem requiring consultation with an orthodontist.
- E. All of the above.

The cells responsible for root resorption are

- A. fibroblasts.
- B. cementoblasts.
- C. osteoblasts.
- D. osteoclasts.

What is the correct position of the needle tip for the administration of local anesthetic for an inferior alveolar nerve block?

- A. Anterior to the buccinator muscle.
- B. Medial to the medial pterygoid muscle.
- C. Lateral to the ramus of the mandible.
- D. Superior to the mandibular foramen.
- E. Inferior to the pterygomandibular raphe.

The inherited defect of teeth that may be associated with osteogenesis imperfecta is

- A. amelogenesis imperfecta.
- B. dentin dysplasia.
- C. dentinogenesis imperfecta.
- D. taurodontism.
- E. regional odontodysplasia.

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Clinical management of gingival enlargement caused by Phenytoin (Dilantin®) therapy includes

- A. the use of analgesics to control pain.
- B. withdrawal of the medication.
- C. extraction of the teeth.
- D. gingivectomy and maintenance of good oral hygiene.
- E. a mouth guard to control mouth breathing.

Absence of occlusal contacts on a provisional restoration may result in the definitive restoration exhibiting

- A. heavy occlusal contact.
- B. no occlusal contact.
- C. tight proximal contacts.
- D. open proximal contacts.

A subluxated tooth will have

- A. mobility and displacement.
- B. no mobility and no displacement.
- C. mobility and no displacement.

Local anesthetics interfere with the transport of which of the following ions?

- A. Sodium.
- B. Calcium.
- C. Chloride.
- D. Potassium.
- E. Magnesium.

In a 5 year old, a small mechanical exposure in a vital primary molar would be treated by

- A. extraction of the tooth.
- B. a pulp capping with calcium hydroxide.
- C. a routine amalgam restoration without any specific treatment for the exposed pulp.
- D. the use of a cavity liner.

The palate grows in length by

- A. endochondral growth.
- B. apposition on the free edge of the palatine bone.
- C. the downward and forward growth of the nasal septum.

Which of the following should NOT be administered to a patient with chest pain consistent with a myocardial infarction?

- A. Epinephrine.
- B. Nitroglycerin.
- C. Oxygen.
- D. Morphine.
- E. Acetylsalicylic acid.

Management of a “dry socket” should include

- A. saline irrigation of socket.
- B. vigorous curettage of the socket.
- C. placement of topical antibiotics in the socket.
- D. a prescription for systemic antibiotics.

Caries in older persons is most frequently found on which of the following locations?

- A. Pits and fissures.
- B. Proximal enamel.
- C. Root surfaces.
- D. Incisal dentin.

Chronic alcoholism causes impairment of liver function and

- A. increased bleeding time.
- B. increased coagulation time.
- C. decreased effectiveness of local anesthetics.
- D. increased risk of secondary infections.
- E. increased risk of hemolysis after antibiotic therapy.

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The prognosis for a replanted developed permanent tooth is most influenced by the

- A. length of time the tooth has been out of the mouth.
- B. use of an antibiotic.
- C. effectiveness of the irrigation of the socket.
- D. rigidity of the splint applied.
- E. thoroughness of the curettage of the root surface.

Papillary hyperplasia under a denture is usually due to

- A. a candida infection.
- B. an ill fitting denture.
- C. failure to remove the denture at night.
- D. an allergy to the denture material.

The lowest level of fluoride in drinking water which will cause enamel mottling is

- A. 0.5ppm.
- B. 1.0ppm.
- C. 3.0ppm.
- D. 5.0ppm.

For sterilization to occur in an autoclave, all of the following must be monitored EXCEPT

- A. chemical levels.
- B. time.
- C. pressure.
- D. temperature.

Which of the following analyses is most appropriate for use in an adult patient?

- A. Moyers.
- B. Bolton.
- C. Tanaka-Johnston.

In a dental office, what is the most common cause of respiratory distress?

- A. Anaphylaxis.
- B. Bronchospasm.
- C. Hyperventilation.
- D. Myocardial infarction.

A benign neoplasm of bone is called a/an

- A. fibrous dysplasia.
- B. osteoma.
- C. torus.
- D. sarcoma.
- E. osteosarcoma.

One week after an amalgam restoration is placed in the mandibular first premolar, the patient returns complaining of a sharp pain of short duration when eating or drinking something cold. Teeth respond normally to electric pulp testing and heat and the radiographs are normal. The most likely diagnosis is

- A. hypercementosis.
- B. reversible pulpitis.
- C. pulpal microabscess.
- D. acute periradicular periodontitis.

In restoring occlusal anatomy, the protrusive condylar path inclination has its primary influence on the morphology of

- A. cusp height.
- B. anterior teeth only.
- C. mesial inclines of maxillary cusps and distal inclines of mandibular cusps.
- D. mesial inclines of mandibular cusps and distal inclines of maxillary cusps.

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The microscopic appearance of the central giant cell granuloma of the jaws is similar to that of lesions which occur in

- A. hyperparathyroidism.
- B. Paget's disease.
- C. cleidocranial dysplasia.
- D. hyperpituitarism.

The most likely cause of postoperative sensitivity following the placement of a posterior composite resin restoration with ideal occlusion is

- A. excessive etching of enamel margins.
- B. inadequate peripheral seal.
- C. excessive Primer resin.
- D. inadequate polymerization of primer resin.

Permanent incisor eruption

- A. is unaffected by the timing of primary incisor loss.
- B. is initiated apical and lingual to the primary incisors.
- C. is unaffected by the gender of the patient.
- D. results in a reduction of arch length.

An extreme overjet, a recessive chin and a deep labial mento-labial sulcus are common findings in which facial type?

- A. Prognathic.
- B. Orthognathic.
- C. Retrognathic.

Which of the following drugs is a natural alkaloid obtained from opium?

- A. Hydromorphone.
- B. Meperidine.
- C. Methadone.
- D. Codeine.
- E. Morphine.

Patients with thrombocytopenia have an increased risk of

- A. bacterial infections.
- B. prolonged bleeding.
- C. exercise intolerance.

A line angle NOT present on a Class I cavity preparation on tooth 1.6 is

- A. mesiopulpal.
- B. buccopulpal.
- C. linguopulpal.
- D. axiopulpal.
- E. None of the above.

Swelling related to increased tissue fluid is called

- A. thrombosis.
- B. edema.
- C. hematoma.
- D. embolism.
- E. surgical emphysema.

The mesial furcation of the permanent maxillary first molar is best assessed from which aspect of the tooth?

- A. Mesiobuccal.
- B. Mesiopalatal.
- C. Midmesial.

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A possible manifestation of an uncomplicated mandibular fracture is

- A. diplopia.
- B. dyspnea.
- C. malocclusion.
- D. facial paralysis.
- E. orbital swelling.

What is the threshold count of *S. mutans* in mixed saliva at which a patient is deemed “high risk” for caries?

- A. 100/ml.
- B. 10,000/ml.
- C. 1,000,000/ml.
- D. 100,000,000/ml.

Ceramics used in dentistry exhibit

- A. greater strength in tension than compression.
- B. a tendency for tensile fracture.
- C. chemical instability.
- D. high thermal coefficients of expansion.

Which of the following is NOT a true cyst?

- A. Dentigerous cyst.
- B. Simple bone cyst/traumatic bone cyst.
- C. Radicular cyst.
- D. Nasopalatine cyst.

Which radiographic finding supports the diagnosis of labial displacement of the root of an intruded primary incisor?

- A. Elongation.
- B. Foreshortening.
- C. Decreased opacity.
- D. Widened periodontal ligament space.

A 57 year old man received 10mg of diazepam intravenously. He becomes unresponsive to verbal stimuli, and his respirations are depressed to 10 per minute. Appropriate treatment is to

- A. administer ephedrine.
- B. observe the patient.
- C. force the patient to drink coffee.
- D. support respiration with oxygen.

Vitamin D is activated in the

- A. skin upon ultraviolet radiation from the sun.
- B. liver upon hydroxylation.
- C. kidney upon hydroxylation.
- D. intestinal mucosa upon absorption.

The periodontal ligament is constantly remodeled due to the activity of

- A. osteoclasts.
- B. fibroblasts.
- C. macrophages.
- D. mesenchymal cells.

Accessory root canals develop because root odontoblasts fail to

- A. produce matrix.
- B. survive.
- C. divide.
- D. differentiate.

The gingival tissues remain healthier when margins of crowns are placed

- A. about 1mm below the gingival crest.
- B. above the gingival crest.
- C. at the gingival crest.

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Which permanent tooth usually erupts first?

- A. Maxillary central incisor.
- B. Maxillary canine.
- C. Mandibular first molar.
- D. Mandibular central incisor.

A patient on anticoagulant drugs who requires an extraction has a prothrombin time of 20 seconds. The normal value is 15 seconds. The most appropriate management is to

- A. administer vitamin K after the extraction.
- B. administer vitamin K before the extraction.
- C. extract the tooth and use local measures to control bleeding.
- D. discontinue anticoagulation drugs one week before extraction.

Patients who have undergone kidney transplantation are at an increased risk of developing

- A. brown tumours.
- B. plasma cell gingivitis.
- C. erosive lichen planus.
- D. squamous cell carcinoma.

When a simple tipping force is applied to the crown of a single-rooted tooth, the centre of rotation is located

- A. at the apex.
- B. at the cervical line.
- C. within the apical half of the root.
- D. within the cervical one third of the root.

An infant has asymptomatic small whitish outgrowths at the junction of the soft palate and hard palate. What is the most likely diagnosis?

- A. Dental lamina cysts.
- B. Epstein pearls.
- C. Bohn nodules.
- D. Fordyce granules.

Angular cheilitis in older patients who wear complete dentures is most likely associated with

- A. antibiotic therapy.
- B. decreased vertical dimension.
- C. decreased salivary flow.
- D. vitamin B deficiency.

What should be the immediate management of an acute anginal episode?

- A. Oral ibuprofen.
- B. Sublingual nitroglycerin.
- C. Subcutaneous epinephrine.
- D. Inhaled salbutamol.

A 5 year old has an enamel fracture of tooth 6.1. What is the most appropriate immediate management?

- A. Pulpotomy.
- B. Smooth sharp edges.
- C. Pulpectomy.
- D. Extraction.

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In a child, correction of a bilateral posterior constriction of the maxillary arch has the WORST long term prognosis for stability if

- A. the maxillary posterior teeth are centred on the alveolar process.
- B. a quadhelix is used for treatment.
- C. there is a functional shift from initial contact to maximum intercuspation.
- D. there is a history of prolonged thumb sucking.

Following orthodontic alignment, relapse of the mandibular incisors CANNOT

- A. be predicted from characteristics of the original malocclusion.
- B. occur if the second or third molars are removed.
- C. occur if retainers are worn until the mandibular growth is complete.
- D. occur if a supracrestal fiberotomy is performed.

A mandibular fracture during normal mastication is most likely to occur in a patient with

- A. osteoporosis.
- B. a large intraosseous lesion.
- C. an impacted tooth at the inferior border.
- D. advanced alveolar atrophy.

When prescribing antibiotics for an orofacial infection in a healthy elderly patient, the usual adult dose and duration of the prescription should be written using the following guidelines. The dose is

- A. decreased by one half, duration unchanged.
- B. decreased by one third, duration unchanged.
- C. unchanged, duration unchanged.
- D. increased by one third, duration unchanged.
- E. unchanged, duration extended by one half.

Trauma from occlusion may

- A. initiate marginal gingivitis.
- B. affect the blood supply to gingiva.
- C. initiate periodontitis.
- D. affect the progression of periodontitis.

What is the most appropriate radiographic survey for a 3 year old patient with generalized open contacts and occlusal caries present?

- A. Two bite-wing radiographs.
- B. Two bite-wing radiographs and a panoramic radiograph.
- C. Four posterior periapical radiographs.
- D. Two anterior occlusal radiographs and 2 bite-wing radiographs.
- E. No radiographs indicated.

The most frequent cause of malocclusion is

- A. thumbsucking.
- B. mouth breathing.
- C. heredity.
- D. ectopic eruption.

The radiographic appearance of internal resorption is

- A. radiolucent enlargement of the pulp cavity.
- B. radiolucency around the apex of the root.
- C. radiolucency on the surfaces of the root.
- D. localized radiopacities in the pulp cavity.
- E. radiopacity around the apex of the root.

Zinc phosphate cement, when used as a luting agent, has which of the following properties?

- A. Mechanical retention.
- B. Insolubility.
- C. Anticariogenicity.
- D. Chemical adhesion.

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The pulpal floor of an occlusal amalgam preparation on a mandibular first premolar should

- A. be 2mm into the dentin.
- B. slope apically from mesial to distal.
- C. be parallel to the buccolingual cusp plane.
- D. be perpendicular to the long axis of the tooth.

The higher modulus of elasticity of a chromium-cobalt-nickel alloy, compared to a Type IV gold alloy, means that chromium-cobalt-nickel partial denture clasp will require

- A. a thicker cross section.
- B. a shorter retentive arm.
- C. more taper.
- D. a shallower undercut.

Which of the following is a characteristic of aggressive periodontitis?

- A. Amount of local factors is consistent with disease severity.
- B. Specific periodontal microbial etiology.
- C. A manifestation of a systemic disease.
- D. Ulcerations of the gingiva.

Marginal leakage of a composite resin restoration will

- A. not be detectable.
- B. be minimized by use of an adhesive resin.
- C. decrease with longevity.

In taking an interocclusal wax record in a protrusive position, the dentist should examine the wax record to insure that

- A. the incisal edges of the anterior teeth have made contact.
- B. the patient has not closed in a lateral position.
- C. all cusps have penetrated the wax record and are in contact with the opposing teeth.
- D. there is no perforation of the wax record.

The dentino-enamel junction is the most sensitive portion of a tooth because

- A. free nerve endings terminate on odontoblasts at this region.
- B. odontoblastic processes branch considerably at this region.
- C. ameloblasts make synaptic connections with odontoblasts at this junction.
- D. odontoblastic tubules help convey hydrostatic forces to the pulp cells.

Unconsciousness in syncope results from

- A. electrolyte imbalance.
- B. neurogenic shock.
- C. cerebral hyperemia.
- D. cerebral hypoxia.

A patient's 4 mandibular incisors were traumatized 3 years ago in an accident. Radiographs now show apical radiolucencies associated with all 4 teeth. The most appropriate management is to

- A. test the pulp vitality and perform root canal therapy on teeth with no response.
- B. perform root canal therapy on all 4 teeth and curette the periapical area.
- C. extract the teeth and place a bonded bridge.
- D. postpone treatment and recheck status periodically.

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The most appropriate time to remove a supernumerary tooth that is disturbing the eruption of a permanent tooth is

- A. as soon as possible.
- B. after $\frac{2}{3}$ to $\frac{3}{4}$ of the permanent root has formed.
- C. after the apex of the permanent root has completely formed.
- D. after the crown appears calcified radiographically.

Premature loss of a primary maxillary second molar usually produces a malocclusion in the permanent dentition that is characterized by

- A. anterior crowding.
- B. labially displaced maxillary canines.
- C. delayed eruption of the permanent first molar.
- D. a Class II molar relationship on the affected side.
- E. a Class III molar relationship on the affected side.

A root fragment of an impacted third molar could be displaced into the submandibular space during its surgical removal when the

- A. attachment of the mylohyoid muscle is apical of the roots.
- B. root of the mandibular third molar lies close to the buccal cortex.
- C. buccal cortical bone in the mandibular third molar area is extremely thin.
- D. bone on the lingual surface is fenestrated below the mylohyoid muscle.

A daily dose of 81 mg of acetylsalicylic acid is used for its

- A. analgesic properties.
- B. antipyretic effect.
- C. antiplatelet action.
- D. anti-inflammatory function.

What is the best imaging modality to assess the TMJ disc?

- A. Arthrography.
- B. Computed tomography.
- C. Magnetic resonance imaging.
- D. Corrected conventional tomography.

The principal ingredient of a zinc phosphate cement powder is

- A. zinc phosphate.
- B. silica.
- C. magnesium oxide.
- D. zinc-oxide.
- E. calcium hydroxide.

If an impression were taken with a polysulfide impression material of teeth exhibiting severe external undercuts a stone model should be poured

- A. immediately.
- B. after 30 minutes.
- C. after 24 hours.

In comparing polysulfide, polyether and addition cured silicone impression materials, which of the following statements is true?

- A. All three of the materials contract slightly during curing.
- B. All three of the materials expand slightly upon cooling from mouth temperature (37°C) to room temperature (20°C).
- C. After one week, addition cured silicones will undergo more distortion than polysulfides.
- D. Lead oxide is used as an activator in silicones.

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A 45 year old with insulin-dependent diabetes mellitus has a morning dental appointment. During the examination, the patient complains of being lightheaded and weak. Sweating is observed. The patient is most likely experiencing

- A. hyperglycemia.
- B. hypoglycemia.
- C. syncope.
- D. hyperventilation.
- E. cerebrovascular accident.

Opioids would be CONTRAINDICATED for the management of

- A. pain.
- B. severe cough.
- C. diarrhea.
- D. depression.

Regardless of the focal spot-to-film distance employed for intraoral radiographic examinations, the diameter of the primary beam at the patient's skin surface should NOT be greater than

- A. the longest side of the film.
- B. the size of the lead diaphragm.
- C. 7cm.
- D. the size of the filter.

A simple bone cyst/traumatic bone cyst is a radiolucency most frequently seen

- A. in the mandibular ramus.
- B. posteriorly to the maxillary molars.
- C. from the symphysis to the ramus of the mandible.
- D. in the maxillary premolar area.

A lowering of serum calcium is the stimulus for the endogenous release of

- A. thyroid hormone.
- B. adrenocortical hormone.
- C. insulin.
- D. parathyroid hormone.
- E. adrenalin.

The primary objective of periodontal debridement is removal of

- A. calculus.
- B. plaque.
- C. cementum.
- D. dentin.

A group of researchers would like to study the relationship between oral health status in childhood and adult systemic health conditions. They have found a 40 year old database that contains information on the oral health of children along with their names. They plan on linking this information with current administrative health care data to conduct this research. What ethical concern(s) would the researchers have to consider?

- A. Selection bias.
- B. Privacy and confidentiality.
- C. Beneficence.
- D. Justice.

Deposition of plaque on teeth occurs in

- A. less than 24 hours.
- B. 24 to 48 hours.
- C. 2 to 4 days.
- D. 5 to 7 days.

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Rests on terminal abutment teeth for a removable partial denture provide

- A. primary retention.
- B. indirect retention.
- C. occlusal force transmission.
- D. lateral force transmission.

Which of the following is most likely to displace the adjacent teeth?

- A. Lateral periodontal cyst.
- B. Dentigerous cyst.
- C. Periapical osseous dysplasia (periapical cemento-osseous dysplasia).
- D. Apical abscess (periradicular abscess).
- E. Radicular cyst.

Isolated gingival recession is most frequently seen on teeth that are

- A. heavily restored.
- B. labially prominent.
- C. mobile.
- D. nonvital.

Which of the following drugs potentiates the action of sedative drugs?

- A. Digitalis.
- B. Phenothiazine.
- C. Propranolol.
- D. Methyldopa.
- E. Spironolactone.

What is the most appropriate orthodontic tooth movement to ensure stability of open bite correction?

- A. Extrusion of the upper incisors.
- B. Intrusion of the upper incisors.
- C. Intrusion of the upper molars.
- D. Extrusion of the upper molars.

A patient had a coronary arterial stent placed 1 year ago following a myocardial infarction and has been asymptomatic since. The most appropriate management is to

- A. avoid using epinephrine impregnated retraction cord.
- B. use local anesthetics without epinephrine.
- C. perform only emergency dental treatment for 1 year.
- D. not recline the patient more than 45 degrees.
- E. prescribe antibiotics to prevent infective endocarditis.

Tooth 4.5 was treated endodontically 2 years ago and is now sensitive to percussion. There is an isolated, narrow 8mm periodontal pocket on the buccal surface of the tooth. Radiographic findings are within normal limits. The most likely diagnosis is a/an

- A. endodontic lesion.
- B. vertical root fracture.
- C. chronic periodontal lesion.

A patient had a myocardial infarction 6 months ago. Which of the following NSAIDs is most appropriate for the patient?

- A. Ibuprofen.
- B. Naproxen.
- C. Celecoxib.
- D. Ketorolac.

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The mesial and distal walls of a Class I amalgam preparation diverge toward the occlusal surface in order to

- A. resist the forces of mastication.
- B. provide resistance and retention form.
- C. prevent undermining of the marginal ridges.
- D. extend the preparation into areas more readily cleansed.

Which of the following is NOT a risk factor for periodontitis?

- A. Smoking tobacco.
- B. Poorly controlled diabetes.
- C. Coronary heart disease.
- D. Poor oral hygiene.

Which of the following diseases predisposes a patient to exaggerated cardiovascular effects of epinephrine?

- A. Hyperparathyroidism.
- B. Hyperthyroidism.
- C. Hypogonadism.
- D. Acromegaly.

A recommended method for disinfecting alginate impressions is to immerse the impression for 10 minutes in

- A. a complex phenolic.
- B. 2% glutaraldehyde.
- C. 10% ethyl alcohol.
- D. a 1:10 dilution of sodium hypochlorite.

Strain hardening a metal will reduce its

- A. modulus of elasticity.
- B. ductility.
- C. proportional limit.
- D. yield strength.

Which of the following is the most potent analgesic?

- A. Acetylsalicylic acid 650mg.
- B. Ibuprofen 600mg.
- C. Acetaminophen 300mg with codeine 30mg.
- D. Codeine 60mg.

Ocular lesions may be associated with

- A. lichen planus.
- B. herpangina.
- C. necrotizing ulcerative gingivitis.
- D. leukoplakia.
- E. mucous membrane pemphigoid (cicatricial pemphigoid).

Which of the following is a sign of local anesthetic overdose?

- A. Rash.
- B. Wheezing.
- C. Fainting.
- D. Convulsions.
- E. Swelling.

Which of the following is a CONTRAINDICATION for placement of a fissure sealant on a permanent molar?

- A. Tooth erupted more than one year.
- B. Deep, narrow fissures.
- C. Inadequate moisture control.
- D. Community water supply fluoridated at 1.0ppm.

Which one of the following would be of greatest value in determining the etiology of an oral ulceration?

- A. History of the oral lesion.
- B. Cytological smear.
- C. Systemic evaluation.
- D. Laboratory tests.

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In the treatment of necrotizing ulcerative gingivitis with associated lymphadenopathy, which of the following medications is the most appropriate?

- A. An anti-inflammatory.
- B. A topical antibiotic.
- C. A systemic antibiotic.
- D. An analgesic.

A smooth-surface proximal carious lesion

- A. initially begins as an enamel defect in the contact area.
- B. in enamel, can be depicted as a cone with the apex of the cone at the dentino-enamel junction.
- C. in enamel, can be depicted as a cone with the base of the cone at the dentino-enamel junction.
- D. initially begins as a subgingival enamel defect covered with plaque.

Compared with zinc-phosphate cement, polycarboxylate cement has

- A. longer working time.
- B. lower film thickness.
- C. increased compressive strength.
- D. superior biologic compatibility.

On a semi-adjustable articulator, the incisal guide table represents

- A. a reference point for the establishment of occlusal vertical dimension.
- B. the anterior equivalent of the condylar guidance.
- C. a mechanical equivalent of the horizontal and vertical overlap of the anterior teeth.
- D. the mechanical equivalent of the Curve of Wilson.

In achieving hemostasis, external cold application produces

- A. positive chemotaxis.
- B. a transient vasoconstriction.
- C. increased vascular permeability.
- D. accelerated healing.

Inclusion bodies in the nucleus or cytoplasm of cells are diagnostic of

- A. rickettsia.
- B. parasitic infestations.
- C. bacterial diseases.
- D. viral diseases.

The most likely diagnosis for a child with a painful, fiery-red, diffuse gingivitis is

- A. primary herpetic gingivostomatitis.
- B. aggressive periodontitis.
- C. idiopathic fibromatosis.
- D. aphthous stomatitis.

The principal reason for a cavosurface bevel on an inlay preparation is to

- A. remove undermined enamel.
- B. improve marginal adaptation.
- C. decrease marginal percolation.
- D. increase resistance and retention forms.

Yellow or brown stains appearing on radiographs months after processing result from

- A. processing at an excessive temperature.
- B. storing radiographs at 30°C.
- C. incomplete fixing and/or washing of radiographs.
- D. using expired film.

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Which of the following is the most effective method of cleaning endodontic instruments prior to sterilization?

- A. Manual brushing.
- B. High pressure water jet.
- C. Washing with antimicrobial soap.
- D. Washing in an ultrasonic bath for 5 minutes.

In Turner's syndrome, the patient is most likely to exhibit

- A. delayed tooth eruption.
- B. micrognathia.
- C. a wide maxilla.
- D. oligodontia.

Which of the following does NOT block cyclooxygenase-2?

- A. Acetaminophen.
- B. Acetylsalicylic acid.
- C. Celecoxib.
- D. Diflunisal.
- E. Ibuprofen.

Which of the following microorganisms are most frequently found in infected root canals?

- A. Streptococcus viridans.
- B. Staphylococcus aureus.
- C. Lactobacilli.
- D. Enterococci.
- E. Staphylococcus albus.

When performing a frenectomy, a minimal amount of anesthetic solution is used to prevent

- A. distortion of the tissues.
- B. sloughing.
- C. secondary bleeding.
- D. irritation.

The respiration of a patient with chronic obstructive pulmonary disease (COPD) is primarily controlled by

- A. hypercapnia.
- B. hypoxia.
- C. alkalosis.
- D. baroreceptors.

In radiography, too high a temperature of the developer will cause increased

- A. contrast.
- B. density.
- C. grey levels.
- D. resolution.

Aspiration prior to a local anesthetic injection reduces the

- A. toxicity of local anesthetic.
- B. toxicity of vasoconstrictor.
- C. possibility of intravascular administration.
- D. possibility of paresthesia.

An ankylosed tooth is usually

- A. nonvital.
- B. associated with a root fracture.
- C. infraerupted.
- D. found in the permanent dentition.

Acute anaphylactic reactions to penicillin are LEAST likely to occur

- A. in patients with a negative skin test to penicillin.
- B. within minutes after drug administration.
- C. in patients who have already experienced an allergic reaction to the drug.
- D. when the drug is administered parenterally.

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The most appropriate method to diagnose a cystic tumour is to

- A. examine the fluid under a microscope.
- B. submit the tissue for histological analysis.
- C. perform a cytologic smear.
- D. culture the fluid.
- E. order blood tests.

A 74 year old patient being treated for hypertension requires deep scaling using local anesthesia. It is appropriate to defer treatment if the patient's blood pressure is equal to or above

- A. 120/80.
- B. 140/90.
- C. 160/110.
- D. 180/110.

Recurrent herpes labialis is

- A. caused by a different organism than is primary herpetic gingivostomatitis.
- B. a form of disease which heals by scarring.
- C. occurs more frequently in children.
- D. a contagious lesion.

A patient reports pain on mastication since the placement of a metal-ceramic crown 2 weeks earlier. The most likely cause is

- A. hyperemia.
- B. supraocclusion.
- C. dentin hypersensitivity.
- D. acute pulpitis.

A patient presents with pain from tooth 4.7 which is an abutment for a 4 unit bridge from 4.4 to 4.7. Clinical and radiographic examinations reveal tooth 4.7 has extensive distal caries and apical radiolucency. The most appropriate initial management is to

- A. prescribe an antibiotic and an analgesic and reappoint the patient.
- B. perform endodontic therapy through the 4.7 crown.
- C. section the bridge at 4.4, remove 4.7 crown and assess 4.7.
- D. remove entire bridge and assess restorability of abutments.

Which of the following can cause xerostomia?

- A. Candidiasis.
- B. Acute anxiety.
- C. Crohn disease.
- D. Pilocarpine administration.
- E. McCune Albright syndrome.

Which of the following drugs can interfere with the effectiveness of oral contraceptives?

- A. Codeine.
- B. Penicillin V.
- C. Acetaminophen.
- D. Magnesium trisilicate.
- E. None of the above.

In the treatment of an acute anaphylactic reaction, the first drug that should be administered is

- A. hydroxyzine.
- B. epinephrine.
- C. hydrocortisone.
- D. diphenhydramine.

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The current recommended regimen of antibiotic prophylaxis for a patient with a prosthetic heart valve and an allergy to penicillin is

- A. amoxicillin 3g orally one hour before procedure; then 1.5g six hours after initial dose.
- B. amoxicillin 2g orally one hour before procedure only.
- C. clindamycin 300mg orally one hour before procedure; then 150mg six hours after initial dose.
- D. clindamycin 600mg orally one hour before procedure only.
- E. erythromycin stearate, 2g orally two hours before procedure only.

The electric pulp tester is the most suitable test in cases of teeth with

- A. open apices.
- B. obliterated canals.
- C. full cuspal coverage.
- D. concussion injury.

To prevent mesial drift of a permanent first molar, the ideal time to place a distal extension space maintainer is

- A. as soon as the tooth erupts through the gingival tissue.
- B. after the permanent second molar has erupted.
- C. immediately after extraction of the primary second molar.
- D. as soon as the extraction site of the primary second molar has completely healed.

An overjet of 8mm is most often associated with which molar relationship?

- A. Class I.
- B. Class II.
- C. Class III.

Compared to dental amalgam, posterior composite resins

- A. require less time to place.
- B. allow for conservation of tooth structure.
- C. have higher thermal conductivity.
- D. have greater clinical longevity.

The muscle of the floor of the mouth in the molar region which requires special attention in the final mandibular denture impression is the

- A. genioglossus.
- B. geniohyoid.
- C. mylohyoid.
- D. hyoglossus.

Which of the following medications is CONTRAINDICATED in the management of a patient who is taking warfarin?

- A. Acetaminophen.
- B. Acetylsalicylic acid.
- C. Codeine.
- D. Clindamycin.

When smokers are compared to nonsmokers, probing depths after surgical periodontal treatment are

- A. greater.
- B. smaller.
- C. the same.

For a patient with dementia, aphasia is characterized by a diminished ability to

- A. execute personal oral hygiene tasks.
- B. recognize people.
- C. make decisions.
- D. appreciate the consequences of behaviour.
- E. express ideas or thoughts.

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The effects of polymerization shrinkage of composite resin must be taken into account for all the following EXCEPT the placement of a/an

- A. occlusal restoration.
- B. mesiocclusal restoration.
- C. vestibular restoration.
- D. direct veneer restoration.

Which of the following does NOT improve the retention of a Class II inlay?

- A. Adding an occlusal dovetail.
- B. Placing a gingival bevel.
- C. Increasing the parallelism of walls.
- D. Lengthening the axial walls.

The pterygomaxillary fissure is formed by the maxilla and which other bone?

- A. Temporal.
- B. Sphenoid.
- C. Frontal.
- D. Occipital.

After initiating preventive management for a 16 year old patient with multiple extensive carious lesions, which of the following restorative treatments is most appropriate?

- A. Place amalgam restorations over the next few months.
- B. Excavate caries and place temporary restorations within the next few weeks.
- C. Delay any treatment until the hygiene improves.
- D. Restore all teeth with composite resin over the next few months.

Caries disclosing solution used during the excavation of a deep carious lesion will determine the extent of

- A. infected dentin.
- B. affected dentin.
- C. inorganic dentinal matrix demineralization.
- D. reversibly denatured dentinal matrix.

A radiopaque area within the alveolar process containing several rudimentary teeth suggests a/an

- A. periapical cemento-osseous dysplasia.
- B. ameloblastoma.
- C. compound odontoma.
- D. complex odontoma.
- E. Pindborg tumor.

All of the following drugs are useful in the treatment of cardiac arrhythmias EXCEPT

- A. digitalis.
- B. lidocaine.
- C. procainamide.
- D. aminophylline.

A 45 year old patient has 32 unrestored teeth. The only defects are deeply stained grooves in the posterior teeth. Clinical examination reveals no evidence of caries in the grooves. The most appropriate management is

- A. application of a resin based pit and fissure sealants.
- B. application of a glass ionomer pit and fissure sealants.
- C. conservative Class I amalgams.
- D. prophylactic odontotomy.
- E. no treatment.

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The term used to describe epithelial changes including nuclear hyperchromatism, decreased nuclear-cytoplasmic ratio and abnormal mitoses is

- A. acanthosis.
- B. hyperkeratosis.
- C. dysplasia.
- D. parakeratosis.
- E. hyperparakeratosis.

A 3 year old patient complains of pain of the mouth and headaches for 24 hours. The clinical exam reveals bilateral painful regional lymphadenopathy and bad breath. Vesicles are seen on the hard palate, the soft palate, the gingiva, the tongue and the lips. The patient's temperature is 38.5°C. What is the most probable diagnosis?

- A. Erythema multiforme.
- B. Primary herpetic gingivostomatitis.
- C. Hand-foot-mouth disease.
- D. Herpetiform aphthous ulcers.

Which of the following conditions may result from horizontally brushing the teeth?

- A. Erosion.
- B. Abrasion.
- C. Attrition.
- D. Hypoplasia.

After an inferior alveolar nerve block injection, a patient would develop seventh nerve paralysis if the injection was made into the

- A. internal maxillary artery.
- B. retroparotid space.
- C. internal pterygoid muscle.
- D. retromandibular vein.
- E. pterygoid plexus of veins.

Following successful root canal therapy, the most desirable apical tissue response would be

- A. cementum deposition into the apical foramen.
- B. formation of a connective tissue capsule over the foramen.
- C. proliferation of epithelium from the apical periodontal ligament.
- D. a chronic low grade inflammatory response surrounded by normal bone.

Which of the following would require a custom incisal guide table for a patient with mutually protected occlusion?

- A. A fixed partial denture from tooth 3.5-3.7.
- B. An all ceramic crown on tooth 1.2.
- C. A fixed partial denture from tooth 1.1-1.3.
- D. A single ceramometal crown on tooth 1.4.

Clinical examination of a 15 year old girl shows permanent central incisors, permanent canines and primary canines all in contact and anterior to the premolars. The most likely cause is

- A. ankylosed permanent canines.
- B. ankylosed primary canines.
- C. impacted permanent lateral incisors.
- D. congenitally missing permanent lateral incisors.

The depth of penetration of X rays depends on the

- A. milliamperage.
- B. temperature of the filament.
- C. exposure time.
- D. kilovoltage.

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Epinephrine in a local anesthetic solution

- A. increases absorption of the anesthetic.
- B. assists hemostasis at the site of injection.
- C. decreases the action of the anesthetic agent.
- D. assists in post-operative healing.

Hemangiomas of the jaws

- A. never occur in bone.
- B. are malignant.
- C. can appear cystic radiographically.
- D. are metastatic lesions.

Anginal pain is

- A. provoked by exercise or cold weather.
- B. not relieved by rest.
- C. relieved by digoxin.
- D. aggravated by deep inspiration.

After setting, alginate impressions

- A. absorb water.
- B. remain dimensionally stable for 12 hours.
- C. have higher tear strength than polyvinylsiloxane impressions.
- D. can be poured twice with little effect on accuracy of the resulting cast.

The most common complication of a venipuncture is

- A. syncope.
- B. hematoma.
- C. thrombophlebitis.
- D. embolus.

Which porcelain stain colour is added to give the appearance of translucency?

- A. Grey.
- B. Blue.
- C. Yellow.
- D. White.
- E. Orange.

Which of the following is common to all forms of hemorrhagic shock?

- A. Sepsis.
- B. Hypovolemia.
- C. Hypertension.
- D. Vasoconstriction.
- E. Impaired tissue perfusion.

After initial setting, a chemically cured glass ionomer cement restoration should have a coating agent applied to

- A. hasten the final set.
- B. protect the cement from moisture.
- C. retard the final set.
- D. protect the cement from ultraviolet light.
- E. create a smooth finish.

During normal growth, the gnathion, as viewed on successive cephalograms, will move

- A. downward and backward.
- B. downward and forward.
- C. backward and upward.
- D. forward only.

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The main purpose of collimation of an x-ray beam is to

- A. permit the use of lower kilovoltage during exposure.
- B. filter out useless short wavelength rays.
- C. permit use of the long cone technique.
- D. reduce the diameter of the primary beam.
- E. reduce exposure time.

In the mandibular third molar region, a circumscribed radiolucent area 3cm in diameter contains the crown of the developing third molar. The radiolucent area suggests a/an

- A. simple bone cyst/traumatic bone cyst.
- B. dentigerous cyst.
- C. Stafne bone defect/static bone cavity.
- D. eruption cyst.

The hydrophilicity of an impression material is defined by its

- A. high water absorption.
- B. small contact angle.
- C. osmotic property.
- D. water content.

The purpose of phenidone in radiographic developing solution is to chemically

- A. oxidize silver halide to metallic silver in the emulsion.
- B. reduce silver halide to metallic silver in the emulsion.
- C. remove silver halide from the emulsion that has been exposed to radiation.
- D. remove silver halide from the emulsion that has not been exposed to radiation.

The histopathologic changes in chronic gingivitis are characterized by

- A. loss of rete pegs and destruction of the basement membrane.
- B. hyalinization of the principal fibres of the periodontal ligament.
- C. an inflammatory infiltrate of plasma cells and lymphocytes.
- D. an inflammatory infiltrate in which polymorphonuclear cells predominate.

Which of the following is LEAST likely to cause pain?

- A. Symptomatic apical periodontitis (acute periradicular periodontitis).
- B. Chronic apical abscess (chronic periradicular abscess).
- C. Symptomatic irreversible pulpitis.
- D. Reversible pulpitis.

Assuming the daily maximum is not exceeded, which of the following is/are appropriate for pain management for an adult with a history of severe asthma and nasal polyps following an emergency pulpectomy?

- A. Naproxen 250 mg, every 6 to 8 hours.
- B. Acetylsalicylic acid 650 mg every 4 hours.
- C. Ketorolac 10 mg every 4 hours.
- D. Acetaminophen 1000 mg every 6 hours.

Multiple giant cell lesions of the bone are associated with

- A. hyperthyroidism.
- B. hypothyroidism.
- C. hyperparathyroidism.
- D. hypoparathyroidism.

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Which of the following is NOT used to inhibit calcification of plaque?

- A. Fluoride.
- B. Magnesium.
- C. Pyrophosphate.
- D. Zinc.

A daily chlorhexidine rinse following periodontal flap surgery is primarily used to

- A. enhance regeneration.
- B. encourage wound healing.
- C. facilitate plaque control.
- D. create new attachment.

Abrasion is most commonly seen on the

- A. lingual surface of posterior teeth.
- B. occlusal surface of posterior teeth.
- C. incisal edges.
- D. facial surfaces of teeth.

For acute dental pain, the daily maximum cumulative dose of acetaminophen is

- A. 2400 mg.
- B. 3200 mg.
- C. 3600 mg.
- D. 4000 mg.

Maximum shrinkage after gingival curettage can be expected from tissue that is

- A. fibroedematous.
- B. edematous.
- C. fibrotic.
- D. formed within an infrabony pocket.
- E. associated with exudate formation.

In a sagittal split osteotomy of the mandible, the neurovascular bundle should remain in which segment of the mandible?

- A. Proximal.
- B. Distal.
- C. Lateral.
- D. Condylar.

What type of insurance must a dentist carry in order to practice dentistry in Canada?

- A. Malpractice.
- B. Office overhead.
- C. General liability.
- D. Long term disability.
- E. Employment.

In the Vita® Classical Shade Guide, the hue of the D shade series is

- A. red.
- B. grey.
- C. yellow.
- D. brown.

During radiographic film processing, silver halide is removed from the emulsion during the

- A. developing stage.
- B. post-developing rinse stage.
- C. fixing stage.
- D. post-fixing wash stage.

Antihistamines act by

- A. increasing the action of histaminase.
- B. altering the formation of histamine.
- C. blocking the actions of histamine by competitive inhibition.
- D. interfering with the degradation of histamine.

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Which of the following should be corrected through orthodontic intervention?

- A. Maxillary mesiolingual cusps that interdigitate with the central fossa of the mandibular molars.
- B. Maxillary mesiobuccal cusp tips that contact the mandibular mesiobuccal cusp tips.
- C. Angle Class I occlusion with 30% overbite and 2mm overjet with mild maxillary spacing.
- D. Angle Class II molar relationship with 30% overbite, 2mm overjet and good arch alignment.

Angle's "subdivision" refers to a molar relationship that is

- A. bilateral.
- B. unilateral.
- C. functional.
- D. transitional.
- E. traumatic.

What is the most appropriate management for nocturnal bruxism in the presence of malocclusion?

- A. Occlusal appliance, control of parafunctional habits and stress reduction techniques.
- B. Muscle relaxants, calcium channel blockers and benzodiazepines.
- C. Prosthetic reconstruction.
- D. Physiotherapy and removal of occlusal interferences.

Which of the following lesions has a tendency to bleed easily?

- A. Pyogenic granuloma.
- B. Osteoma.
- C. Fibroma.
- D. Papilloma.
- E. Lipoma.

Hypercementosis may be associated with

- A. Paget's disease.
- B. ameloblastoma.
- C. hypophosphatasia.
- D. multiple myeloma.

A possible complication of acute osteomyelitis of the mandible is

- A. trismus.
- B. cavernous sinus thrombosis.
- C. facial nerve paralysis.
- D. paresthesia of the inferior alveolar nerve.

Daily fluid loss from a healthy individual at rest in a temperate climate is approximately

- A. 250ml.
- B. 500ml.
- C. 1.0L.
- D. 2.5L.
- E. 5.0L.

What is the most important factor to consider when deciding whether or not to use pulp protection?

- A. depth of the pulpal floor.
- B. thickness of the remaining dentin.
- C. amount of carious material removed.
- D. location of the carious lesion.

Alginate impression material

- A. is a reversible hydrocolloid.
- B. sets by condensation polymerization.
- C. is a rigid material.
- D. is an irreversible material.
- E. is a thermoplastic material.

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The most appropriate time to begin orthodontic correction of an Angle Class II malocclusion is

- A. following eruption of the maxillary first permanent molars.
- B. following eruption of the maxillary permanent central and lateral incisors.
- C. several months prior to the pubertal growth spurt.
- D. during the pubertal growth spurt.

The maxillary central incisors of a 2 year old child have been traumatically intruded 4mm. The most appropriate immediate management is to

- A. carefully remove both incisors.
- B. reposition the intruded teeth.
- C. make the patient comfortable without disturbing the teeth.
- D. reposition and splint the intruded teeth.
- E. order an occlusal radiograph.

The hybrid layer is composed of resin tags and

- A. decalcified peritubular dentin.
- B. intertubular dentin.
- C. resin plugs in the dentin surface.
- D. bonding agent at the interface.

The roots of the first permanent molar should be completely formed by the age of

- A. six years.
- B. seven years.
- C. nine years.
- D. eleven years.
- E. thirteen years.

A positive and prolonged reaction to a heat stimulus indicates that the pulp is

- A. normal.
- B. reversibly inflamed.
- C. irreversibly inflamed.
- D. necrotic.

Which of the following drugs is indicated for the management of a Gram-negative anaerobic infection?

- A. Clotrimazole.
- B. Metronidazole.
- C. Omeprazole.
- D. Sulfamethoxazole.

A 14 year old boy presents with bilateral white thickening of the buccal mucosa which has been present since birth. His brother has similar lesions. The most likely diagnosis is

- A. leukoplakia.
- B. lichen planus.
- C. mucous patches.
- D. white sponge nevus.

A 4 year old has a primary central incisor that is yellow but asymptomatic. The most probable diagnosis is

- A. pulpal necrosis.
- B. pulpal calcification.
- C. internal resorption.
- D. external resorption.

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Which of the following will increase resistance to dislodging forces on a removable partial denture?

- A. Locating direct and indirect retainers as close as possible to the distal extension base(s).
- B. Locating direct and indirect retainers as far as possible from the distal extension base(s).
- C. Locating direct retainers as close as possible to the distal extension base(s) and the indirect retainers as far as possible from the distal extension base(s).
- D. Locating direct retainers as far as possible from the distal extension base(s) and the indirect retainers as close as possible to the distal extension base(s).

The mesial furcation of maxillary permanent first molars is best probed from the

- A. buccal.
- B. buccal or lingual.
- C. lingual.

Which of the following teeth is the LEAST desirable to use as an abutment tooth for a fixed partial denture?

- A. Tooth with pulpal involvement.
- B. Tooth with minimal coronal structure.
- C. Tooth rotated and tipped out of line.
- D. Tooth with short, tapered root and a long clinical crown.

A 22 year old presents with a fracture of the incisal third of tooth 2.1 exposing a small amount of dentin. The fracture occurred one hour previously. There is no mobility of the tooth but the patient complains that it is rough and sensitive to cold. The most appropriate emergency treatment is to

- A. open the pulp chamber, clean the canal and temporarily close with zinc oxide and eugenol.
- B. smooth the surrounding enamel and apply glass ionomer cement.
- C. smooth the surrounding enamel and apply a calcium hydroxide cement.
- D. place a provisional (temporary) crown.

An ameloblastoma can develop from the epithelial lining of which of the following cysts?

- A. Periradicular.
- B. Dentigerous.
- C. Residual.
- D. Lateral periodontal.

For a patient with complete dentures, insufficient space between the maxillary tuberosity and the retromolar pad will require

- A. avoiding covering the pad with the mandibular base.
- B. not covering the tuberosity with the maxillary base.
- C. surgically reducing the retromolar pad.
- D. surgically reducing the maxillary tuberosity.

For which of the following teeth is the risk of root fracture increased if a rotational force is used during extraction?

- A. Upper canine.
- B. Lower canine.
- C. Upper first bicuspid.
- D. Lower first bicuspid.
- E. Upper lateral incisor.

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The use of conscious sedation for a restorative procedure in an office environment

- A. requires the services of an anesthesiologist.
- B. is contraindicated in children.
- C. precludes the use of local anesthesia.
- D. requires effective local anesthesia.
- E. may be used in conjunction with narcotics.

Which of the following is increased after stimulating α_1 -adrenergic receptors?

- A. Contractility of the heart.
- B. SA node activity.
- C. Blood vessel constriction.
- D. Bronchial dilation.

Which of the following pontic designs will make it most difficult to maintain optimal oral hygiene?

- A. Modified ridge lap.
- B. Hygienic.
- C. Saddle.
- D. Conical.
- E. Ovoid.

A patient has a history of shortness of breath and ankle edema. You would suspect

- A. asthma.
- B. emphysema.
- C. rhinophyma.
- D. cardiac insufficiency.

A dentist must be prudent in deciding how far to follow a patient's informed choice for suboptimal treatment because

- A. the law protects a patient's right to make poor decisions.
- B. a patient's informed choice must always be honoured.
- C. the principle of do-no-harm overrides the patient's personal choice.

A 1.5mm diameter carious pulp exposure occurs on a permanent first molar of a 7 year old child. The tooth is vital and has no periapical involvement. The most appropriate initial treatment is to perform a/an

- A. pulp capping.
- B. partial pulpotomy
- C. pulpotomy.
- D. pulpectomy.
- E. extraction.

A healthy 38 year old has a well-defined radiolucency 2mm in diameter at the apex of tooth 4.1. The tooth responds within normal limits to all tests performed. What is the most appropriate management?

- A. Extraction.
- B. Apicoectomy.
- C. Incision and drainage.
- D. Follow-up in 6 months.
- E. Open the tooth for drainage.

DMF-S is an index for expressing

- A. dental needs.
- B. tooth mortality.
- C. extent of dental neglect.
- D. dental caries.

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The epithelial attachment does not migrate apically in

- A. juvenile periodontitis.
- B. hyperplastic gingivitis.
- C. chronic periodontitis.
- D. rapidly progressive periodontitis.

Which of the following has/have analgesic, antipyretic and anti-inflammatory effects?

- A. Acetaminophen.
- B. Acetylsalicylic acid.
- C. Bradykinin.
- D. A. and B.
- E. None of the above.

Conversion of a flush terminal plane to a mesial step/Class I terminal plane in the absence of orthodontics is primarily the result of

- A. loss of the mandibular primate space.
- B. greater maxillary than mandibular forward growth.
- C. differences in leeway between the maxillary and mandibular arches.
- D. distal movement of the maxillary first permanent molars.

Firm contact between approximating teeth is important because it

- A. locates the marginal ridges of each tooth.
- B. keeps the teeth from having any movement during function.
- C. insures proper cusp form and increases masticatory efficiency.
- D. stabilizes the dental arches and gives protection to the gingival papillae.

Which of the following radiographs is best to diagnose caries and early alveolar bone loss?

- A. Periapical.
- B. Occlusal.
- C. Bitewing.
- D. Lateral jaw.
- E. Panoramic.

Excessively dark radiographs result from

- A. underdevelopment.
- B. overexposure.
- C. backward placement of the film.
- D. too little milliamperage.

Which of the following medications is most appropriate in the management of a patient experiencing an acute asthmatic attack?

- A. Salbutamol.
- B. Sodium cromoglycate.
- C. Fluticasone.
- D. Zileuton.

Microdontia occurs during what stages of dental development?

- A. Initiation.
- B. Histodifferentiation.
- C. Morphodifferentiation.
- D. Apposition.
- E. Mineralization.

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Following administration of a posterior superior alveolar nerve block, a hematoma occurs. Which of the following statements is correct?

- A. The formation of this hematoma indicates poor injection technique.
- B. This nerve block is not commonly associated with hematoma formation.
- C. Management of this hematoma includes immediate application of heat for at least the first 6 hours.
- D. The patient may experience trismus the next day.

A cold stimulus applied to a tooth will produce a hypersensitive response if the tooth

- A. is nonvital.
- B. has a periodontal pocket.
- C. has a hyperemic pulp.
- D. has chronic proliferative pulpitis.

Cold working a metal increases its

- A. ductility.
- B. hardness.
- C. resistance to corrosion.
- D. strength.

Generalized aggressive periodontitis is characterized by attachment loss affecting the first molars and incisors and at least

- A. 1 other permanent tooth.
- B. 3 other permanent teeth.
- C. 5 other permanent teeth.
- D. 7 other permanent teeth.

Which of the following is a sign of a severe toxic reaction to ketoconazole?

- A. Jaundice.
- B. Hypertension.
- C. Xerostomia.
- D. Salivary gland swelling.

Most cases of erosive oral lichen planus are effectively treated with

- A. antifungals.
- B. antibacterials.
- C. antimalarials.
- D. corticosteroids.

In an edentulous maxilla, the direction of resorption of the alveolar ridge is

- A. upward and palatally.
- B. upward and facially.
- C. uniform in all directions.
- D. upward only.

When preparing a posterior tooth for an extensive amalgam restoration, a retentive pin hole preparation should be placed

- A. perpendicular to the pulpal floor.
- B. parallel to the contour of the final restoration.
- C. angled 30° away from the pulp chamber.
- D. parallel to the external root contour.

Which of the following statements is true?

- A. A major percentage of radiographically detected proximal radiolucencies in enamel are cavitated.
- B. Caries progression through enamel can take as long as 6 to 8 years.
- C. Caries progression can only be arrested in enamel.
- D. Arrested carious lesions in enamel are softer than intact enamel.

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Upon examination of an edentulous patient, it is observed that the tuberosities contact the retromolar pads at the correct occlusal vertical dimension. The treatment of choice is to

- A. reduce the retromolar pads surgically to provide the necessary clearance.
- B. reduce the tuberosities surgically to provide the necessary clearance.
- C. construct new dentures at an increased occlusal vertical dimension to gain the necessary clearance.
- D. proceed with construction of the denture and reduce the posterior extension of the mandibular denture to eliminate interferences.

Fractured incisal angles in the permanent teeth of adolescent patients are best restored using

- A. glass-ionomer.
- B. gold castings.
- C. full coverage restorations.
- D. acid etch composite resin techniques.

The primary stimulus for growth of the mandible is

- A. genetic.
- B. epigenetic.
- C. environmental.
- D. functional.
- E. A. and D.

Hutchinson's incisors and mulberry molars are associated with

- A. congenital porphyria.
- B. fluorosis.
- C. rickets.
- D. congenital syphilis.
- E. cleidocranial dysplasia.

The antibiotic of choice for a periradicular dental abscess is

- A. penicillin V.
- B. cephalosporin.
- C. erythromycin.
- D. metronidazole.
- E. ampicillin.

Epinephrine should NOT be used as a vasoconstrictor for patients with uncontrolled

- A. hyperthyroidism.
- B. hyperparathyroidism.
- C. myxedema.
- D. asthma.

Histologically, periodontitis is distinguished from gingivitis by

- A. increased collagen destruction.
- B. increased gingival inflammation.
- C. apical migration of dentogingival epithelium.

Which of the following findings is most likely to lead to tooth loss?

- A. Recurrent bleeding on probing.
- B. Recurrent periodontal abscess.
- C. Class II furcation on a mandibular molar.
- D. Cemental tears.

A 6 year old patient has an intrusive injury to tooth 5.2. All of the following are possible sequelae to the permanent successor EXCEPT

- A. enamel hypoplasia.
- B. root dilaceration.
- C. delayed eruption.
- D. ectopic eruption.

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Extreme resorption of an edentulous mandible can bring the alveolar ridge to the level of the attachment of the

- A. buccinator, styloglossus and geniohyoid muscles.
- B. mylohyoid, buccinator and styloglossus muscles.
- C. superior constrictor, mylohyoid and buccinator muscles.
- D. mylohyoid, buccinator and genioglossus muscles.

The lamina dura is

- A. spongy bone.
- B. cribriform plate.
- C. hypercalcified bone.
- D. compact bone.

Salbutamol is the most appropriate drug to manage

- A. acute asthma.
- B. angina pectoris.
- C. myocardial infarction.
- D. epilepsy.
- E. vasodepressor syncope.

The most likely diagnosis for a 5 year old patient with multiple well-defined multilocular radiolucencies of the maxilla and mandible is

- A. ameloblastic fibromas.
- B. ameloblastomas.
- C. cherubism.
- D. hyperthyroidism.
- E. hypophosphatasia.

What is the maximum number of cartridges (1.8ml) of a 2% local anesthetic solution that can be administered without exceeding a total dose of 300mg?

- A. 2.
- B. 4.
- C. 6.
- D. 8.
- E. 10.

A patient with a tumor in the right infratemporal fossa shows a significant shift of the mandible to the right when opening. Which nerve is involved?

- A. Facial nerve VII.
- B. Glossopharyngeal nerve IX.
- C. Trigeminal nerve V.
- D. Hypoglossal nerve XII.

Acetylsalicylic acid should be avoided in each of the following EXCEPT

- A. gastric ulcer.
- B. gout.
- C. severe asthma.
- D. hyperlipidemia.
- E. type 2 diabetic.

Which of the following conditions requires further information prior to making a decision regarding antibiotic prophylaxis before a surgical procedure?

- A. Previous coronary bypass.
- B. Presence of a coronary artery stent.
- C. Existing mitral valve prolapse.
- D. Repaired congenital heart disease.

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Which of the following is characteristic of an antral pseudocyst?

- A. Pain and soreness of the face.
- B. Dome-shaped appearance on a radiograph.
- C. Buccal expansion of the maxillary sinus.

Patients with primary herpetic gingivostomatitis should NOT receive

- A. acetaminophen.
- B. acyclovir.
- C. benzocaine.
- D. prednisone.
- E. chlorhexidine.

An epinephrine-containing retraction cord has the potential of

- A. interfering with the setting of the impression material.
- B. causing tissue necrosis.
- C. producing a systemic reaction.
- D. discolouring gingival tissue.

Which of the following is the most acceptable extraction pattern in the management of an Angle Class II malocclusion in a non-growing patient? Extraction of

- A. mandibular first or second premolars.
- B. maxillary first or second premolars.
- C. mandibular incisors.
- D. maxillary first molars.

The most common sensory change in the healthy elderly is a decrease in

- A. hearing.
- B. taste.
- C. touch perception.
- D. olfaction.

A significant mechanism by which acetylsalicylic acid produces its analgesic and anti-inflammatory effect is

- A. antagonism of histamine.
- B. inhibition of prostaglandin synthesis.
- C. local anesthetic effect on pain fibres.
- D. release of adrenal steroids from the adrenal cortex.
- E. synaptic inhibition in the dorsal column.

After many caries free years, a 78 year old patient develops multiple root surface caries. This is most likely the result of

- A. changes in cementum composition.
- B. exposure of the cemento-enamel junctions.
- C. decreased salivary flow.
- D. changes in dietary pattern.

A patient in the late mixed dentition stage has an end-to-end first molar relationship with normal skeletal and incisor relationships. What is the most probable occlusal relationship at age 20?

- A. Angle Class II without anterior overlap.
- B. Angle Class II with anterior overlap.
- C. Angle Class I without anterior overlap.
- D. Angle Class I with anterior overlap.

One week following extraction of teeth 1.8 and 4.8, an 18 year old male returns to the dental office complaining of persistent bleeding from the extraction sites. The medical history is unremarkable, except for episodes of bruising and joint swelling as a child. Subsequent blood tests show normal bleeding time and a factor VIII level of 14%. The most likely cause of the bleeding is

- A. a dry socket.
- B. ibuprofen intake.
- C. hemophilia A.
- D. cirrhosis of the liver.
- E. vitamin K deficiency.

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For sterilization to occur in an autoclave, the packaged instruments are subjected to pressurized

- A. steam.
- B. chemical vapour.
- C. boiling water.
- D. heated air.

Which of the following lesions is always associated with an impacted tooth?

- A. Ameloblastoma.
- B. Dentigerous cyst.
- C. Cementoblastoma.
- D. Keratocystic odontogenic tumour (odontogenic keratocyst).
- E. Adenomatoid odontogenic tumour.

Dental plaque

- A. contains insoluble glucans.
- B. contains food particles.
- C. contains predominantly Gram-negative organisms.
- D. becomes less anaerobic as it matures.

Angle's classification of occlusion is based on

- A. a full complement of teeth.
- B. antero-posterior skeletal relationship of maxilla to mandible.
- C. antero-posterior relationship of maxillary and mandibular first permanent molars.
- D. vertical relationships in the lower face.

Which type of headgear is most appropriate for the management of a 10 year old patient with an increased lower third of the face, incompetent lips, an Angle Class II malocclusion and vertical maxillary excess?

- A. High-pull.
- B. Cervical.
- C. Combination.
- D. Protraction.

The greatest cariogenic potential is exhibited by

- A. cheese.
- B. apples.
- C. chewing gum.
- D. raisins.

Pulpotomy is the treatment of choice in carious pulp exposures of

- A. asymptomatic vital teeth with completely formed apices.
- B. asymptomatic vital teeth with incompletely formed apices.
- C. asymptomatic necrotic teeth with completely formed apices.
- D. asymptomatic necrotic teeth with incompletely formed apices.

Which of the following is the greatest risk factor for rampant caries in children?

- A. Frequent ingestion of polysaccharides.
- B. Frequent ingestion of high sucrose-containing foods.
- C. Severe enamel hypoplasia.
- D. Deficiency of vitamin D.

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The primary function of root canal sealer is to

- A. prevent discolouration of the tooth.
- B. stimulate healing in the apical region.
- C. medicate the canal to eliminate remaining bacteria.
- D. fill space between gutta-percha and pulp canal wall.

Informed consent includes all of the following EXCEPT

- A. disclosure of all probable complications.
- B. allowing for questions posed by the patient.
- C. alternative treatment options, including no treatment.
- D. informed consent form signed and witnessed.

The proposed mechanism by which a calcium hydroxide preparation initiates secondary dentin formation in direct pulp cappings is by

- A. releasing calcium ions.
- B. stimulating differentiated ameloblasts to lay down dentin.
- C. stimulating fibroblasts to elaborate nuclei of the first order.
- D. stimulating undifferentiated cells of the tissue to differentiate into odontoblasts.

A strict vegetarian is at greatest risk for developing a deficiency of which one of the following nutrients?

- A. Ascorbic acid.
- B. Potassium.
- C. Vitamin B₁₂.
- D. Sodium.

The volumetric polymerization shrinkage of a hybrid composite resin is in the order of

- A. 0%.
- B. 0.1 – 1.0%.
- C. 2 – 8%.
- D. 10 – 15%.

Orthodontic closure of a 2mm maxillary midline diastema is most appropriately accomplished

- A. prior to complete eruption of the maxillary central incisors.
- B. prior to eruption of the maxillary lateral incisors.
- C. after complete eruption of the maxillary lateral incisors.
- D. during intra-oral emergence of the maxillary canines.
- E. after complete eruption of the maxillary canines.

A 45 year old, overweight man reports that his wife complains that he snores. The initial management of the patient's snoring problem is to

- A. fabricate an appliance to reduce snoring.
- B. fabricate restorations to increase the patient's vertical dimension of occlusion.
- C. refer for an orthognathic surgery consultation.
- D. refer for a sleep assessment.

When placed into sound dentin, a self-threading pin will

- A. increase tensile strength of an amalgam restoration.
- B. strengthen the amalgam.
- C. cause pulpal inflammation.
- D. increase the retention of an amalgam restoration.

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Polymerization reactions which create water or alcohol by-products are called

- A. addition reactions.
- B. ring-opening.
- C. cross-linking.
- D. condensation reactions.

A posterior crossbite in the deciduous dentition will most likely

- A. be present in the permanent dentition.
- B. self-correct with the eruption of the permanent teeth.
- C. self-correct with the cessation of an associated habit.
- D. result in inadequate arch length.

Which of the following instruments is CONTRAINDICATED when extracting primary teeth?

- A. Rongeur.
- B. Root tip elevator.
- C. Cow horn forceps.
- D. Maxillary universal forceps.

Severe throbbing tooth pain which increases when the patient lies down is a symptom of

- A. a pulp polyp (chronic hyperplastic pulpitis).
- B. late stage of acute pulpitis (acute suppurative pulpitis).
- C. chronic pulpitis (chronic ulcerative pulpitis).
- D. chronic apical abscess.
- E. pulp hyperemia.

Which of the following is the most characteristic gingival feature of agranulocytosis?

- A. Hematoma.
- B. Ulceration.
- C. Erythema.
- D. Fibromatosis.

At the preparation stage for a 4.6 DO restoration, a brown, non-cavitated lesion is observed on the 4.7 mesial proximal surface. There is no evidence on a bitewing radiograph of a radiolucency extending into the dentin. What is the most appropriate management of the mesial surface of tooth 4.7?

- A. Perform no operative treatment and apply fluoride.
- B. Prepare the lesion with a ball diamond and restore with a flowable composite resin.
- C. Prepare and restore with a mesio-occlusal slot resin modified glass ionomer.
- D. Prepare and restore with a mesio-occlusal slot composite resin.

Which of the following will increase image sharpness on radiographs?

- A. Small focal spot.
- B. Long source-film distance.
- C. Short object-film distance.
- D. All of the above.

Which of the following foods is the most cariogenic?

- A. Cheese.
- B. Dark chocolate.
- C. Jam.
- D. Toffee.

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When compared to permanent molars, primary molars have

- A. longer roots.
- B. proportionally narrower occlusal tables buccolingually.
- C. thicker enamel.
- D. smaller pulp chambers relative to the crown.

What type of lesions are seen in primary herpetic gingivostomatitis, herpes simplex, herpes zoster and varicella?

- A. Macules.
- B. Papules.
- C. Vesicles.
- D. Pustules.

A 55 year old patient wants to maintain bone mass following implant surgery and plans to take extra calcium. Supplemental calcium is most beneficial when consumed in

- A. divided doses with meals.
- B. divided doses between meals.
- C. a single dose with meals.
- D. a single dose between meals.

Which of the following is necessary for collagen formation?

- A. Vitamin A.
- B. Vitamin C.
- C. Vitamin D.
- D. Vitamin E.
- E. Vitamin K.

The disease-control phase of treatment includes

- A. pit and fissure sealants.
- B. fixed prosthodontics.
- C. occlusal therapy.
- D. orthodontic treatment.
- E. scaling and root planning.

A rubber dam in which there is leakage interproximally most likely has

- A. holes punched too far apart.
- B. holes punched too close together.
- C. too broad a rubber dam arch form.
- D. too much tension on the rubber dam holder.

Marsupialization is the most appropriate surgical technique in the management of

- A. hygroma.
- B. cystic ameloblastoma.
- C. ranula.
- D. osteomyelitis.

A major clinical problem of penicillin therapy is its

- A. high toxicity.
- B. allergenicity.
- C. rapid development of tolerance.
- D. narrow spectrum.

Which of the following occurs when epinephrine is administered intravenously?

- A. Decrease in diastolic pressure.
- B. Decrease in glycogenolysis.
- C. Increase in arrhythmias.
- D. Increase in muscular contractility.

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Which of the following statements is INCORRECT?

- A. Chronic pain has somatosensory and psychosocial impacts.
- B. Pain persists only as long as the injury exists.
- C. Perception of acute and chronic pain involves the same regions of the CNS.
- D. Pain is a protective mechanism.

Which local anesthetic is subject to inactivation by plasma esterases?

- A. Procaine.
- B. Lidocaine.
- C. Prilocaine.
- D. Mepivacaine.
- E. Bupivacaine.

The legally set age for authorization of health care treatment

- A. is 16 years of age.
- B. indicates 'mature minor' status.
- C. presumes capacity.
- D. applies universally.

The greatest single factor in reducing radiation exposure in dentistry is

- A. higher kVp.
- B. proper filtration.
- C. high speed film.
- D. collimation of the X-ray beam.

A 10-15 second application of 37% phosphoric acid on prepared dentin will result in all of the following EXCEPT

- A. elimination of the smear layer.
- B. increased diameter of the dentinal tubules.
- C. demineralization of the superficial dentin.
- D. elimination of the collagen fibres.

The most likely cause of tooth loss following a tunneling procedure to provide complete access for a mandibular Class III furcation involvement is

- A. root caries.
- B. root sensitivity.
- C. pulpal involvement.
- D. recurrent pocketing.

A hardened gold alloy will exhibit

- A. less plastic deformation per unit of stress than the same alloy in a softened condition.
- B. greater plastic deformation per unit of stress than the same alloy in a softened condition.
- C. no difference in the plastic deformation per unit of stress of the alloy in hard or soft condition.

The best way to protect the abutments of a Class I removable partial denture from the negative effects of the additional load applied to them is by

- A. splinting abutments with adjacent teeth.
- B. keeping a light occlusion on the distal extensions.
- C. placing distal rests on distal abutments.
- D. using cast clasps on distal abutments.
- E. regular relining of the distal extensions.

Which of the following sites for squamous cell carcinoma has the best prognosis?

- A. Lower lip.
- B. Retromolar area.
- C. Gingiva.
- D. Buccal mucosa.
- E. Hard palate.

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During an endodontic access preparation on tooth 3.6, a small perforation was produced in the furcation area. What is the most appropriate management?

- A. Immediate seal of the perforation.
- B. Delayed seal of the perforation.
- C. Immediate surgical repair.
- D. Extraction.

The most appropriate antibiotic for a periapical dental abscess is

- A. penicillin V.
- B. cephalosporin.
- C. erythromycin.
- D. metronidazole.
- E. ampicillin.

The residual mercury content of the amalgam restoration is significantly affected by

- A. cavity outline.
- B. amount of amalgam used.
- C. condensation technique.
- D. carving technique.

Secondary dentin formation may be stimulated by

- A. pulp necrosis.
- B. fluorosis.
- C. attrition.
- D. vitamin D therapy.

Which is the LEAST common type of adverse reaction associated with the use of latex gloves?

- A. Immediate type I allergic reaction.
- B. Delayed hypersensitivity.
- C. Type IV immunologic reaction.
- D. Irritant contact dermatitis.

The most appropriate procedure when a glove has been punctured during a restorative appointment is to

- A. wash the gloved hands using antimicrobial soap and complete the procedure.
- B. change the glove as soon as possible.
- C. put on an overglove and complete the procedure.
- D. complete the procedure as expeditiously as possible.

The most likely reason for extracting four first premolars in orthodontics is because of

- A. retrusive maxillary incisors.
- B. an excessive overbite.
- C. a tooth size/arch size discrepancy.
- D. posterior crossbite.

In the Vita® Classical Shade Guide, the hue of the A shade series is

- A. red.
- B. grey.
- C. yellow.
- D. brown.

When gold or a gold alloy changes from a liquid to a solid state it

- A. expands.
- B. contracts.
- C. corrodes.
- D. becomes brittle.
- E. work hardens.

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Which of the following antibiotics is the most appropriate for a patient with an open fracture of the mandible?

- A. Clarithromycin.
- B. Tetracycline.
- C. Amoxicillin.
- D. Erythromycin.

An odour of acetone on the breath can be found in patients with

- A. bronchiectasis.
- B. rhinitis.
- C. salicylate poisoning.
- D. diabetes mellitus.

Hyperkeratosis, acanthosis, dysplasia, increased mitosis, intact basal cell layer and chronic inflammatory cells are histologic features that may be found in

- A. squamous cell carcinoma.
- B. carcinoma in situ.
- C. papillofibroma.
- D. endothelioma.

A 32 year old female patient complains of fever, weight loss and general malaise. She has a rash on the malar area and nose, as well as some irregularly shaped ulcerations on the buccal mucosa. The most likely diagnosis is

- A. lichen planus.
- B. lupus erythematosus.
- C. erythema multiforme.
- D. bullous pemphigoid.
- E. pemphigus.

Ankyloglossia may

- A. result from the fusion of dentin to alveolar bone.
- B. lead to gingival stripping of the labial gingiva.
- C. cause ectopic eruption.
- D. result in speech problems.

In a teenage patient with normal gingiva, interdental plaque removal is best accomplished with

- A. a regular toothbrush.
- B. a hard nylon bristle brush.
- C. an interproximal brush.
- D. dental floss.
- E. an interdental wood stick.

The extraction of a primary maxillary central incisor at the age of 2 years will cause

- A. loss of intercanine space.
- B. increased intercanine space.
- C. no change in intercanine space.
- D. decreased overjet.

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A tooth with a nonvital pulp may occasionally present radiographically with shortening or blunting of the apical tip of a root. The loss of apical cementum and dentin would be classified as what type of resorption?

- A. Surface.
- B. Inflammatory.
- C. Replacement.
- D. Ankylosis.

The blood vessel which may be injured when harvesting a connective tissue graft from the palatal mucosa is the

- A. sphenopalatine.
- B. nasopalatine.
- C. posterior superior alveolar.
- D. greater palatine.

An increased heart rate may be associated with

- A. hypothyroidism.
- B. prolonged corticosteroid therapy.
- C. hyperthyroidism.
- D. Down syndrome.

Extraction of a tooth is CONTRAINDICATED in the dental office for a patient who

- A. is 4 months pregnant.
- B. has a Factor-VIII deficiency.
- C. is hypothyroid.
- D. had a myocardial infarct six months ago.

Which of the following drugs is used in treating opioid-dependent individuals?

- A. Codeine.
- B. Methadone.
- C. Naloxone.
- D. Pentazocine.
- E. Meperidine.

Generalized redness and atrophy of the tongue are most often associated with

- A. lichen planus.
- B. burning mouth syndrome.
- C. endocrinopathy.
- D. nutritional deficiency.

Which one of the following is the most appropriate initial treatment for internal resorption?

- A. Pulpectomy.
- B. Pulpotomy.
- C. Pulp capping.
- D. Apicoectomy.

Melanoma differs from physiologic pigmentation because it

- A. is macular.
- B. contains melanin.
- C. affects the gingiva.
- D. changes clinically.

The developing permanent tooth

- A. lies apically and lingually to primary teeth in the anterior region.
- B. may show deviated eruption times if the primary tooth is lost prematurely.
- C. has a more protrusive path of eruption in the anterior region.
- D. All of the above.

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In chronic periodontitis, the causative microorganisms are found in

- A. the periodontal ligament.
- B. the connective tissues of the gingiva.
- C. the alveolar bone.

Orthodontic growth modification should be

- A. started as early as possible.
- B. individualized to maximize effect.
- C. delayed until the eruption of the permanent dentition.
- D. used in adult treatment.

A known insulin-dependent diabetic patient feels unwell following the administration of a local anesthetic and becomes pale and sweaty. This condition does not respond to placing the patient in a supine position. The most likely cause is

- A. syncope.
- B. adrenal insufficiency.
- C. hyperglycemia.
- D. hypoglycemia.
- E. carotid sinus reflex.

During the act of swallowing, the auditory (pharyngotympanic) tube is

- A. opened by the tensor tympani muscle.
- B. closed by the tensor tympani muscle.
- C. opened by the tensor veli palatine muscle.
- D. closed by the levator veli palatine muscle.
- E. closed by the superior constrictor muscle.

In complete denture construction, custom trays are recommended for polyvinyl siloxane and polysulfide rubber base impression materials to

- A. obtain a uniform thickness of material.
- B. facilitate removal of the impression.
- C. allow for a more uniform setting of the material.
- D. eliminate the need for a tray adhesive.

Proper collimation of the useful beam for the film size and target-film distance will reduce the

- A. intensity of the primary beam.
- B. secondary radiation.
- C. radiographic contrast.
- D. resolution of the image.

In a general dental practice setting, patients who are actively infectious with *Mycobacterium tuberculosis* CANNOT be safely treated

- A. unless there is adherence to standard precautions.
- B. even if standard precautions are used.
- C. unless a preoperative antimicrobial rinse is used in addition to standard precautions.
- D. unless preoperative prophylactic antibiotic coverage and standard precautions are used.

Adjustments made to Class II amalgam preparations to ensure the tooth structure does not fracture under masticatory forces is a part of the

- A. convenience form.
- B. retention form.
- C. outline form.
- D. resistance form.

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During rapid head movement, that occurs on activities such as running, the mandible is held in place due to activation of

- A. temporomandibular proprioceptors.
- B. fast adapting periodontal pressoreceptors.
- C. slow adapting periodontal pressoreceptors.
- D. primary muscle spindle fibres.

Oral lesions that do NOT cross the midline are most likely

- A. herpes zoster.
- B. varicella.
- C. an allergic response.
- D. recurrent herpes.

Which of the following may be associated with a fracture of the mandible?

- A. Diplopia.
- B. Malocclusion.
- C. Swelling of the orbit.
- D. Bleeding from the nose.

Chlorhexidine is a

- A. quaternary ammonium compound.
- B. bisbiguanide compound.
- C. phenol.
- D. plant extract.

Dental amalgams that are made from alloys containing 6% copper, compared to those made from alloys containing 13% copper

- A. are less resistant to tarnish and corrosion.
- B. demonstrate more creep or flow.
- C. demonstrate less marginal breakdown in clinical service.
- D. generally have lower compressive strength.

Whooping cough is caused by

- A. bacteria.
- B. a virus.
- C. mycoplasma.
- D. yeast.

The gingival margin of the preparation for a full crown on a molar, that satisfies the requirements for retention and resistance, ideally should be placed

- A. 0.5mm subgingivally.
- B. 1.0mm subgingivally.
- C. at the gingival margin.
- D. supragingivally.

Which of the following occurs if there is a defective development of the epithelial root sheath?

- A. Hypomineralized dentin.
- B. No cementum.
- C. Brittle dentin.
- D. No eruption.

A 78 year old patient presents with several carious lesions on the root surfaces of the maxillary posterior teeth. The restorative material of choice is a

- A. microfilled composite resin.
- B. hybrid composite resin.
- C. silver amalgam.
- D. glass ionomer cement.
- E. reinforced zinc oxide and eugenol cement.

Smoker's melanosis

- A. is painful.
- B. may be precancerous.
- C. most commonly affects the anterior gingiva.
- D. resolves within a few weeks after quitting smoking.

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The rate limiting step of tooth movement is

- A. bone deposition.
- B. bone resorption.
- C. force application.
- D. occlusal interference.

In a tooth with pulpal necrosis, the periradicular region is affected if

- A. there is pain to thermal stimuli.
- B. the tooth throbs when the patient is lying down.
- C. there is pain on percussion.
- D. there is no response to an electric pulp test.

A decrease in the neutrophil count is present in

- A. granulocytopenia (agranulocytosis).
- B. iron deficiency anemia.
- C. myeloid leukemia.
- D. leukocytosis.
- E. thrombocytopenic purpura.

Which of the following results from a necrotic pulp?

- A. Dentigerous cyst.
- B. Lateral periodontal cyst.
- C. Chronic periradicular periodontitis.
- D. Pulp polyp.

In alginate impression materials, sodium phosphate (Na_3PO_4) is the

- A. reactor.
- B. catalyst.
- C. retarder.
- D. disinfectant.
- E. cross linking agent.

Which of the following signs or symptoms is characteristic of a symptomatic irreversible pulpitis?

- A. Spontaneous pain.
- B. Tenderness to pressure.
- C. Palpation sensitivity.
- D. Non-lingering thermal pain.

After tooth eruption, which of the following materials gradually decreases in concentration from the enamel surface ?

- A. Carbonate.
- B. Protein.
- C. Fluoride.
- D. Calcium.
- E. Chloride.

Which of the following muscles is most likely to be affected by a depressed fracture of the zygomatic arch?

- A. Lateral pterygoid.
- B. Temporalis.
- C. Masseter.
- D. Medial pterygoid.

A decrease in the particle size of the amalgam alloy will affect the amalgam by

- A. increasing flow.
- B. decreasing expansion.
- C. retarding setting rate.
- D. increasing early strength.

Which microorganism does NOT contribute significantly to the progression of dentinal caries?

- A. *Actinomyces naeslundii*.
- B. *Lactobacillus casei*.
- C. *Actinomyces viscosus*.
- D. *Streptococcus salivarius*.

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A patient presents with a dislocated mandible after an accident. After reduction, the management of this patient should be to

- A. inject the joint with hydrocortisone.
- B. refer for joint surgery.
- C. advise vigorous exercise of the mandible.
- D. recommend mandibular movement be minimized.

Which of the following is the most important factor in the preoperative evaluation of a patient?

- A. Medical history.
- B. Laboratory data.
- C. Electrocardiogram.
- D. Pulse and blood pressure.

Which of the following best describes the radiation produced by high voltage?

- A. Short wavelength, low energy.
- B. Short wavelength, high energy.
- C. Long wavelength, high energy.
- D. Long wavelength, low energy.

When a removable partial denture is fabricated to occlude with natural teeth, the occlusal form of the artificial teeth is influenced by the

- A. endodontic condition of the abutment teeth.
- B. occlusal form of the remaining teeth.
- C. need to produce a fully balanced occlusion.

Ankylosis of the primary maxillary central incisors is commonly related to

- A. trauma.
- B. thumbsucking.
- C. chronic gingivitis.
- D. delayed eruption of the permanent teeth.

A patient who uses nitroglycerine has

- A. rheumatic heart disease.
- B. asthma.
- C. coronary artery disease.
- D. high blood pressure.
- E. cardiac arrhythmia.

Polysulfide impression materials

- A. have a lower "tear strength" than condensation silicone.
- B. have a better dimensional stability than addition cured silicones.
- C. have a better detail reproduction than both condensation and addition polymerization silicones.
- D. demonstrate, after polymerization, cross-linking chains.

Severe chronic periodontitis is defined by

- A. attachment loss greater than 5mm.
- B. periodontal pockets greater than 5mm.
- C. presence of purulent exudate.
- D. presence of a Class I furcation involvement.

A study examined caries in 349 children 2 to 6 years of age living in the Northwest Territories. The odds ratio for severe caries based upon whether the child drank milk was 0.44 (95% CI = 0.23 to 0.84). Which of the following is the most appropriate interpretation of these results? Drinking milk

- A. was protective against caries.
- B. was not protective against caries.
- C. had no effect on caries.

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Overhangs on restorations initiate chronic inflammatory periodontal disease by

- A. increasing plaque retention.
- B. increasing food retention.
- C. causing traumatic occlusion.
- D. causing pressure atrophy.

An excessively thick palatal bar of a maxillary partial denture will

- A. cause injury to the abutment teeth.
- B. distort under occlusal stress.
- C. irritate the palatal tissues.
- D. cause difficulty in swallowing.

Generalized loss of lamina dura is an early sign of

- A. Addison's disease.
- B. Cushing's disease.
- C. hyperparathyroidism.
- D. hyperthyroidism.

Facial nerve paresthesia is most likely to occur from which of the following injections?

- A. Posterior superior alveolar block.
- B. Inferior alveolar block.
- C. Posterior palatine block.
- D. Extraoral maxillary division block.

Most of the problems associated with direct posterior composite resin restorations are related to

- A. high thermal conductivity.
- B. galvanic conduction.
- C. polymerization shrinkage.
- D. poor shade selection.

The most appropriate way to disinfect gutta-percha cones prior to obturation is to

- A. immerse in a 5.25% sodium hypochlorite solution.
- B. immerse in ethyl alcohol.
- C. autoclave for a full cycle.
- D. wipe with an alcohol soaked gauze.

A lateral functional shift due to bilateral constriction of the maxilla in a 10 year old patient

- A. requires rapid palatal expansion.
- B. requires occlusal equilibration.
- C. is diagnosed in maximum intercuspation.
- D. is most appropriately treated following the pubertal growth spurt.

The re-evaluation of periodontal debridement effectiveness after 4 to 6 weeks is best assessed by examining clinical attachment levels and

- A. radiographic bone density.
- B. plaque index.
- C. bleeding index.
- D. mobility.

An overjet of 8mm is usually associated with

- A. Angle Class I cuspid relationship.
- B. Angle Class II cuspid relationship.
- C. Angle Class III cuspid relationship.
- D. Angle Class I molar relationship.

In a fully erupted tooth with a healthy periodontium, the apical end of the junctional epithelium is located

- A. in the cervical third of the crown.
- B. at the cemento-enamel junction.
- C. 1.5 mm below the cemento-enamel junction.
- D. in the cervical third of the root.

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Which of the following pontic designs is most likely to cause soft tissue irritation?

- A. Polished gold.
- B. Polished acrylic.
- C. Polished porcelain.
- D. Glazed porcelain.

After the initial incision and raising of a flap in the modified Widman technique, the next step is

- A. debridement of the roots.
- B. decortication of bony defects.
- C. denudation of the periosteum.
- D. removal of inflammatory tissue.

An amalgam coronal-radicular core build-up for endodontically treated molar teeth requires

- A. an adequate pulp chamber and ferrule.
- B. a pulp chamber, ferrule and amalgam bonding.
- C. the presence of a post.
- D. the use of retentive threaded pins.

An end result of ionizing radiation used to treat oral malignancies is

- A. deformity of the jaws.
- B. reduced vascularity of the jaws.
- C. increased vascularity of the jaws.
- D. increased brittleness of the jaws.

The permanent tooth with the highest prevalence of impaction is

- A. mandibular second premolar.
- B. maxillary lateral incisor.
- C. mandibular canine.
- D. maxillary canine.

The most frequent cause of tooth loss in the elderly is

- A. bruxism.
- B. caries.
- C. periodontal disease.
- D. use of a removable partial denture.
- E. extraoral trauma.

A 29 year old patient has had multiple painful ulcerated lesions on the buccal attached gingiva for one day. No fever, malaise or lymphadenopathy is present. The most appropriate initial management is (a)

- A. topical steroid.
- B. palliative mouth rinse.
- C. systemic antibiotic.
- D. systemic antiviral therapy.

Before performing surgery on a patient who is taking warfarin, which of the following should be evaluated?

- A. Bleeding time.
- B. Clotting time.
- C. Prothrombin time.
- D. Coagulation time.

After performing an apicoectomy, which of the following should be placed in the bony defect prior to suturing the flap?

- A. Corticosteroids.
- B. Antibiotic powder.
- C. Oxidized cellulose.
- D. Bone wax.
- E. Nothing.

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A physical sign of impending syncope is

- A. pallor.
- B. elevation of blood pressure.
- C. tachycardia.

A laboratory remount of processed dentures is done in order to correct occlusal disharmony produced by errors primarily in the

- A. mounting of the casts on the articulator.
- B. registration of jaw relation records.
- C. processing of acrylic.
- D. setting of condylar guidance.

An occlusal rest preparation should be

- A. angular and box shaped with parallel vertical walls.
- B. rounded and spoon shaped.
- C. flat and with an obtuse angle to the proximal surface of the tooth.

A vertical cross-section of a smooth surface carious lesion in enamel appears as a triangle with the

- A. base at the dentino-enamel junction.
- B. base facing toward the pulp.
- C. apex pointing to the enamel surface.
- D. apex pointing to the dentino-enamel junction.

An endomorph is characterized as a person who

- A. is short and fat.
- B. is tall and thin.
- C. is muscular.
- D. matures early.
- E. matures late.

For a Class II amalgam restoration, if the liner extends to the gingival cavosurface margin, it is likely that

- A. liner dissolution will lead to leakage.
- B. the tooth will have reduced temperature sensitivity.
- C. the preparation will have reduced resistance to fracture.
- D. the liner will leach fluoride and provide caries resistance.

The extension of the lingual anterior border of a mandibular denture is limited by the

- A. mylohyoid muscle.
- B. geniohyoid muscle.
- C. genioglossus muscle.
- D. digastric muscle.

For an acid-etched Class III composite resin, the cavosurface margin of the cavity can be bevelled to

- A. eliminate the need for internal retention.
- B. improve convenience form.
- C. aid in finishing.
- D. increase the surface area for etching.

The typical history of a mucocoele is

- A. a slowly growing tumour mass.
- B. a pain immediately before eating.
- C. a trauma, swelling, rupture, disappearance and recurrence.
- D. an ulcerated area on buccal mucosa.
- E. frequent bleeding.

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Which of the following is NOT a malignancy?

- A. Leukemia.
- B. Lymphoma.
- C. Leiomyoma.
- D. Melanoma.

Unsupported, hyperplastic tissue in an edentulous maxilla is most often found

- A. near the tuberosities.
- B. in the vault.
- C. in the anterior segment of the arch.

The facial profile most often associated with an Angle's Class III malocclusion is

- A. concave.
- B. convex.
- C. straight.

With the development of gingivitis, the sulcus becomes predominantly populated by

- A. gram-positive organisms.
- B. gram-negative organisms.
- C. diplococcal organisms.
- D. spirochetes.

When odontoblasts are destroyed as a result of cavity preparation

- A. adjacent fibroblasts differentiate into new odontoblasts.
- B. a permanent defect results in the odontoblast layer.
- C. surrounding odontoblasts are stimulated to divide.
- D. new cells differentiate from pulpal mesenchyme cells.

The test(s) diagnostic for primary hyperparathyroidism in a patient with multiple brown tumours is/are

- A. parathyroid biopsy.
- B. multiple jaw biopsies.
- C. radiographic skeletal survey.
- D. serum calcium and PTH level.
- E. creatine clearance and BUN.

Osteoporosis is linked to

- A. low estrogen levels.
- B. high testosterone levels.
- C. low androgen levels.
- D. high progesterone levels.

Assuming there is adequate tooth structure remaining, composite resins can be used as a core material for endodontically treated teeth to be crowned provided

- A. the resin has a high contrast colour with tooth structure.
- B. there is an adequate ferrule.
- C. the resin is autopolymerizing.
- D. subsequent crown margins are not located on cementum.

Resin bonding of composites to acid-etched enamel results in

- A. decreased polymerization shrinkage of the resin.
- B. decreased crack formation in the enamel.
- C. reduced microleakage.
- D. elimination of post-operative sensitivity.
- E. improved wear resistance of the composite.

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A loss of sensation in the lower lip may be produced by

- A. Bell's palsy.
- B. trigeminal neuralgia.
- C. malignancy in the body of the mandible.
- D. fracture in the mandibular canine region.

Which of the following does NOT contribute to the porcelain to metal bond in metal-ceramic crown restorations?

- A. Removing the chemical debris from the metal surface.
- B. Forming a mixed oxide layer between the porcelain and the metal.
- C. Adding Sn, In and Fe to the metal.
- D. Creating a thick oxide layer on the metal.

In addition to plaque index and probing depths, which of the following must be re-examined following the completion of initial periodontal therapy?

- A. Bleeding on probing.
- B. Bone level.
- C. Root sensitivity.

Which of the following can be mistaken on a radiograph for a rarefying osteitis?

- A. Zygomatic process of the maxilla.
- B. Periapical osseous dysplasia (periapical cemento-osseous dysplasia).
- C. Posterior palatine foramen.
- D. Mandibular foramen.

Which of the following root surfaces present the most pronounced concavities that will make thorough root debridement difficult?

- A. Mesial of teeth 1.1/2.1.
- B. Mesial of teeth 1.2/2.2.
- C. Mesial of teeth 1.3/2.3.
- D. Mesial of teeth 1.4/2.4.

The advantage of a high copper amalgam is

- A. high early strength.
- B. low post operative sensitivity.
- C. high formation of the γ_2 phase.
- D. increased polishability.

A 28 year old male patient works long days that typically include numerous soft drinks and candy bars, but no opportunity to brush his teeth. He has continued to experience one to two carious lesions per year and now wants orthodontic treatment to straighten his teeth. Which of the following is the most appropriate initial step in addressing behavior modification for this patient?

- A. Providing a new toothbrush and sample tube of dentifrice.
- B. Illustrating, with the aid of drawings the basic caries process.
- C. Explaining how his present habits increase his caries risk.
- D. Explain that treatment cannot be initiated until he can keep his teeth clean.

In the early stage, a periapical abscess can be differentiated from a lateral periodontal abscess by

- A. pain.
- B. type of exudate.
- C. tenderness to percussion.
- D. response of pulp to electrical stimulation.
- E. radiographic examination.

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Space closure is LEAST likely to occur following the loss of the deciduous

- A. mandibular canine.
- B. maxillary first molar.
- C. mandibular second molar.
- D. maxillary central incisor.

The usual adult dosage of codeine administered orally is

- A. 500-1000mg.
- B. 250-500mg.
- C. 30-60mg.
- D. 2-5mg.

An ankylosed tooth is usually

- A. nonvital.
- B. associated with a root fracture.
- C. infraerupted.
- D. found in the permanent dentition.

The eruption of a maxillary permanent first molar is prevented by a slight interference with the crown of the primary second molar. Which of the following is the most appropriate management?

- A. Extract the primary molar.
- B. Reduce the distal surface of the primary molar.
- C. Unlock the permanent first molar with elastic and (or) separation wire.
- D. Remove the soft tissue overlying the occlusal surface of the permanent molar.
- E. Wait until more tuberosity growth occurs.

The most significant factor contributing to the long-term success of the restoration of an endodontically treated tooth is the

- A. type of post utilized.
- B. remaining coronal tooth structure.
- C. presence of extracoronary coverage.
- D. type of core material used.

Nonintegration of dental implants in a 76 year old patient taking anti-rheumatic drugs and glucocorticoids is most likely due to

- A. anemia.
- B. immunosuppression.
- C. osteodystrophy.
- D. hyperglycemia.

A 55 year old Caucasian with a long-term tobacco habit has diffuse pigmentation involving only the anterior mandibular labial gingiva. The most likely diagnosis is

- A. Addison's disease.
- B. hemochromatosis.
- C. physiologic pigmentation.
- D. smoker's melanosis.
- E. drug-induced pigmentation.

The most toxic form of mercury is

- A. organo mercurial compounds.
- B. inorganic mercuric compounds.
- C. inorganic mercurous compounds.
- D. elemental mercury.

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Which one of the following statements is true as defined in endodontics?

- A. Overfilling refers to the incomplete filling of the canal system with a surplus of material extruding beyond the apical foramen.
- B. Underfilling refers to the complete filling of the canal space, but leaving voids in the pulp chamber for possible recontamination or infection.
- C. Overextension refers to the extrusion of filling material through an accessory canal.
- D. Underextension refers to the vertical extent of the filling material regardless of its completeness of obturation.
- E. All of the above.

Space closure is LEAST likely to occur following the premature loss of the primary

- A. maxillary second molar.
- B. mandibular second molar.
- C. maxillary first molar.
- D. mandibular canine.
- E. maxillary central incisor.

The occlusal parameter that is most useful to differentiate between an overbite of dental or skeletal origin is the

- A. mandibular curve of Spee.
- B. mandibular curve of Wilson.
- C. molar sagittal relationship.
- D. mandibular anterior lack of space.
- E. maxillary curve of Wilson.

Which tooth movement is NOT possible with a Hawley-type appliance?

- A. Crown tipping.
- B. Root uprighting.
- C. Crown rotation.

A periodontal dressing is placed following a gingivectomy to:

- A. Promote wound healing.
- B. prevent microbial colonization of the wound.
- C. protect the wound from mechanical injury.
- D. achieve hemostasis.

When the gingival margin of a Class II composite resin preparation is located less than 1mm occlusal to the cemento-enamel junction, the risk of marginal leakage is reduced by

- A. incremental curing.
- B. placing a glass ionomer liner.
- C. placing an initial increment of flowable resin.
- D. beveling the gingival margin.

On a semi-adjustable articulator, the incisal guide table represents

- A. a reference point for the establishment of occlusal vertical dimension.
- B. the anterior equivalent of condylar guidance.
- C. a mechanical equivalent of the horizontal and vertical overlap of the anterior teeth.
- D. the mechanical equivalent of the Curve of Wilson.

The maxilla is formed from

- A. bundle bone.
- B. endochondral bone.
- C. membranous bone.
- D. lamellar bone.

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What is the best predictor of success for a composite resin restoration?

- A. Depth of the restoration.
- B. Size of the restoration.
- C. Presence of enamel on the entire periphery.
- D. Presence of flat dentinal walls.

A flush terminal plane will convert to an Angle Class I occlusion by

- A. closure of mandibular primate space.
- B. mandibular forward growth exceeding maxillary growth.
- C. mesial movement of the mandibular first permanent molars into the leeway space.
- D. distal movement of the maxillary first permanent molars.

In a patient with an adequate band of keratinized tissue, gingivectomy is indicated for all EXCEPT

- A. gingival pockets.
- B. suprabony pockets.
- C. gingival overgrowths.
- D. infrabony pockets.

The statute of limitations states that the period during which an action in negligence against a dentist can be initiated starts when the

- A. patient first meets the dentist.
- B. treatment is rendered.
- C. treatment is paid for.
- D. patient first becomes aware of the problem.
- E. patient seeks a second opinion about the problem.

In addition to oxygen, the drug of choice for the management of angina is

- A. epinephrine.
- B. acetylsalicylic acid.
- C. diphenhydramine.
- D. nitroglycerin.
- E. atropine.

Extreme widening of the periodontal ligament may be seen in

- A. Parkinson's disease.
- B. Raynaud's disease.
- C. Bell's palsy.
- D. Osteosarcoma.
- E. Ménière's syndrome.

Which one of the following luting agents has been shown to reduce the incidence of fracture in an all-ceramic restoration?

- A. Resin modified glass ionomer cement.
- B. Zinc phosphate cement.
- C. Composite resin cement.
- D. Glass ionomer cement.

The permanent first molars of a 7 year old patient have pronounced, deep occlusal fissures that are stained. Bite-wing radiographs show a normal dentino-enamel junction. The most appropriate treatment is

- A. conservative amalgam restorations.
- B. glass-ionomer restorations.
- C. application of pit and fissure sealants.
- D. topical fluoride application.
- E. observation.

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In periodontics, the best prognosis for bone regeneration follows the surgical treatment of

- A. suprabony pockets.
- B. one-wall infrabony pockets.
- C. two-wall infrabony pockets.
- D. three-wall infrabony pockets.

Calculus contributes to gingival inflammation by

- A. having a porous surface.
- B. having cytotoxic bacterial products.
- C. promoting bacterial colonization.
- D. all of the above.

The occlusal parameter most likely associated with maxillary anterior spacing is a/an

- A. Class II, division 2 dental malocclusion.
- B. Class III skeletal malocclusion.
- C. accentuated maxillary curve of Wilson.
- D. reverse maxillary curve of Wilson.

Objects that absorb x-ray radiation are referred to on a radiographic image as being

- A. radiodense.
- B. radiolucent.
- C. radiopaque.

Serial extraction in the mixed dentition may result in

- A. a reduction of the overbite.
- B. extraction of the first premolars.
- C. labial tipping of the mandibular incisors.
- D. bodily movement/translation of the permanent teeth.

A rubber dam should be used in

- A. pulp capping procedures.
- B. amalgam placement.
- C. composite placement.
- D. removing carious dentin from deep lesions.
- E. all of the above.

The antibiotic of choice for infections of pulpal origin is

- A. penicillin V.
- B. metronidazole.
- C. erythromycin.
- D. tetracycline.

Elective endodontic treatment may be safely and successfully undertaken for all of the following EXCEPT

- A. hemophiliacs.
- B. patients with a history of rheumatic fever.
- C. pregnant patients during first trimester.
- D. pregnant patients during second trimester.

Reversible hydrocolloids transform from sol to gel and gel to sol as a function of the

- A. concentration of the fillers and plasticizers.
- B. percent composition by weight of water.
- C. concentration of potassium sulfate.
- D. temperature.

Which of the following is LEAST likely to cause swelling of the gingiva adjacent to an endodontically treated tooth?

- A. Internal root resorption.
- B. Vertical root fracture.
- C. Periradicular abscess.
- D. Periodontal abscess.

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Which one of the following is the most common tumour of the salivary glands?

- A. Adenocystic carcinoma.
- B. Adenoma.
- C. Pleomorphic adenoma.
- D. Muco-epidermoid carcinoma.

A 10 year old patient has poorly formed, distorted permanent right maxillary canine, lateral and central incisors. The remaining teeth and supporting structures are unremarkable. The patient most likely has

- A. ectodermal dysplasia.
- B. radicular dentin dysplasia.
- C. regional odontodysplasia.
- D. coronal dentin dysplasia.

With respect to extraction of teeth, forceps beaks should?

- A. allow for a 180° rotation.
- B. be applied parallel to the long axis of the tooth.
- C. be pulled coronally during extraction.
- D. be placed on the crown of the tooth.

Regarding dental caries, which of the following is correct?

- A. All carbohydrates are equally cariogenic.
- B. More frequent consumption of carbohydrates increases the risk.
- C. The rate of carbohydrate clearance from the oral cavity is not significant.
- D. Increased dietary fat increases the risk.

Which muscle is primarily responsible for moving the mandible to the right or the left?

- A. Masseter.
- B. Lateral pterygoid.
- C. Medial pterygoid.
- D. Buccinator.
- E. Temporalis.

Movement of a mandibular distal extension (Class 1) partial denture away from the denture bearing tissues when the patient opens is primarily caused by

- A. group function occlusion.
- B. non-passive retentive arms.
- C. overextended borders.

The best space maintainer to prevent the lingual collapse that often occurs following the early loss of a mandibular primary canine is a

- A. Nance expansion arch.
- B. lingual arch.
- C. band and loop space maintainer.
- D. distal shoe space maintainer.

The most reliable diagnostic sign of gingival inflammation is

- A. retractability.
- B. edema.
- C. bleeding.
- D. cratering.
- E. altered texture.

Which of the following maxillary teeth are more likely to present with a palatal abscess?

- A. Lateral incisors.
- B. Central incisors.
- C. First molars.
- D. First premolars.

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Which is a characteristic of a patient with myxedema?

- A. Exophthalmos.
- B. Weight loss.
- C. Heat intolerance.
- D. Lethargic appearance.
- E. Tachycardia.

A single hypoplastic defect located on the labial surface of a maxillary central incisor is most likely due to a/an

- A. dietary deficiency.
- B. endocrine deficiency.
- C. tetracycline therapy.
- D. trauma to the maxillary primary central incisor.
- E. high fluoride intake.

Biopsy of a recent solitary painless ulcer on the lip in a 20 year old patient shows the presence of *Treponema pallidum*. The ulcer is called (a)

- A. lupus vulgaris.
- B. facies leprosa.
- C. chancre.
- D. noma.

A pale 8 year old patient has generalized gingival enlargement and spontaneous bleeding. The most appropriate initial management of this patient is to

- A. perform an incisional biopsy.
- B. obtain a cytologic smear.
- C. order a complete blood count.
- D. obtain bacterial cultures.
- E. obtain a fasting blood glucose level.

A carious lesion on tooth 1.6 appears close to the pulp on the bitewing radiograph. A diagnosis of irreversible pulpitis can be made based on

- A. proximity of the radiolucency to the pulp.
- B. a lower electric pulp test reading compared to the control.
- C. the symptoms reported by the patient.

Which of the following is true about incision and drainage of an acute apical abscess (acute periradicular abscess)?

- A. A rubber dam drain is always placed and sutured to assist drainage.
- B. The procedure is only indicated with a localized, fluctuant swelling.
- C. Profound anesthesia of the surgical site is always possible.
- D. Immediate cessation of pressure and pain.

Which source delivers the highest dose of radiation to humans?

- A. Cosmic.
- B. Medically-related.
- C. Radon.
- D. Terrestrial.

A dental radiograph will accurately indicate

- A. periodontal pocket depth.
- B. the height of the bone on the facial surfaces of the teeth.
- C. the extent of furcation involvements.
- D. infrabony pocket topography.
- E. None of the above.

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A patient presenting with diplopia, exophthalmos, nasal bleeding and swelling, may suffer from a fracture of the

- A. neck of the condyle.
- B. body of the mandible.
- C. zygomatic bone.
- D. maxillary tuberosity.

The tooth preparation for a porcelain veneer must have a/an

- A. incisal reduction of 0.5mm.
- B. space for the veneer material.
- C. margin at least 1mm supragingivally.
- D. butt joint gingival margin.

Which of the following lesions is most appropriately treated by curettage?

- A. Ameloblastoma.
- B. Pleomorphic adenoma.
- C. Central giant cell granuloma.
- D. Squamous cell carcinoma.

What is the most appropriate endodontic management for a 9 year old patient for tooth 1.1, with an open apex and a necrotic pulp?

- A. Pulpotomy.
- B. Apexification.
- C. Pulpectomy.
- D. Revascularization.
- E. Apical surgery.

The palatine tonsils are found

- A. surfacing the posterior third of tongue dorsum.
- B. between the palatoglossal and palatopharyngeal arches.
- C. on the posterior wall of the nasopharynx.
- D. on the bilateral lateral ventral aspects of the tongue.

What is the most likely cause of food impaction at the site of a recently placed Class II composite resin restoration?

- A. Inadequate proximal contact.
- B. Gingival overhang.
- C. Inadequate marginal ridge morphology.
- D. Poor oral hygiene.

Local anesthetics are less effective in inflamed tissue because they are

- A. diluted by the edematous fluid.
- B. rapidly redistributed by the increased blood flow.
- C. ionized by the acidic pH.
- D. rapidly degraded by released enzymes.

Which of the following has the highest rate of recurrence?

- A. Odontogenic keratocyst.
- B. Nasoalveolar cyst.
- C. Median palatal cyst.
- D. Incisive canal cyst.

In primary or secondary hyperparathyroidism, which of the following will NOT be found?

- A. Hyperplasia of the gingiva.
- B. Alteration of the trabecular bone pattern.
- C. Generalized loss of lamina dura.
- D. Giant cell tumours of bone.

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Abnormalities in blood clotting may be associated with a deficiency of vitamin

- A. B12.
- B. C.
- C. E.
- D. K.

Which of the following does NOT relieve pain?

- A. Codeine.
- B. Methadone.
- C. Meperidine.
- D. Hydromorphone.
- E. Chloral hydrate.

The most common cause of bilateral swelling of the parotid glands in children is

- A. Mikulicz's disease.
- B. mumps or acute infectious parotitis.
- C. mixed salivary tumours.
- D. sialolithiasis.

Management of a "dry socket" should include

- A. hydrogen peroxide irrigation of socket.
- B. vigorous curettage of the socket.
- C. placement of a dressing in the socket.
- D. a prescription for antibiotics.

In the treatment of necrotizing ulcerative gingivitis with associated lymphadenopathy, which of the following medications is the most appropriate?

- A. An anti-inflammatory.
- B. A topical antibiotic.
- C. A systemic antibiotic.
- D. An analgesic.

Long term stability in partial dentures is best ensured by

- A. use of cast clasps.
- B. establishing harmonious occlusion.
- C. incorporating all undercut areas available.
- D. use of indirect retention.

Wolff's Law states that bone elements

- A. rearrange themselves in the direction of functional pressures.
- B. increase their mass to reflect functional stress.
- C. decrease their mass to reflect functional stress.
- D. All of the above.

The oral mucosa covering the base of the alveolar bone

- A. is normally non-keratinized but can become keratinized in response to physiological stimulation.
- B. is closely bound to underlying muscle and bone.
- C. does not contain elastic fibres.
- D. merges with the keratinized gingiva at the mucogingival junction.
- E. has a tightly woven dense collagenous corium.

Gingival enlargement associated with use of phenytoin is primarily characterized by an increase of

- A. plasma cells.
- B. edema.
- C. collagen.
- D. keratinocytes.

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A decrease of which of the following is indicative of hypoparathyroidism?

- A. Serum phosphorus.
- B. Serum calcium.
- C. Thyroid activity.
- D. Serum alkaline phosphatase.

For which of the following malocclusions is serial extraction most appropriate?

- A. Angle Class I.
- B. Angle Class II.
- C. Angle Class III.

The primary purpose of an indirect retainer in a distal extension removable partial denture is to

- A. increase the retention of the removable partial denture.
- B. prevent the distal extension moving away from the tissues.
- C. increase stress distribution among the abutment teeth.
- D. increase stability of the remaining abutment teeth.

Healing of extraction wounds is sometimes complicated by a condition known as a "dry socket". In this condition

- A. no fibrin is formed in the extraction socket.
- B. routine use of antibiotics is advised as a prophylactic measure.
- C. a focal osteomyelitis exists in which the clot has disintegrated.
- D. healing is painful but not delayed.

AIDS should be suspected in a patient who does not take any medications and who presents with

- A. actinic cheilitis.
- B. fissured tongue.
- C. erythema multiforme.
- D. granulomatous gingivitis.
- E. hairy leukoplakia.

The Controlled Drugs and Substances Act controls the distribution and use of which of the following?

- A. Diazepam.
- B. Carbamazepine.
- C. Gabapentin.
- D. Celecoxib.

The most important diagnostic element in assessing the periodontal status of a patient is the

- A. results of vitality testing.
- B. depth of periodontal pockets.
- C. mobility of the teeth.

A 3 year old, 16kg child is given 2 cartridges of 4% prilocaine with 1:200,000 epinephrine for extraction of primary teeth. After a few minutes the child becomes lethargic, disorientated and eventually begins to convulse. The most probable cause of this reaction is

- A. epinephrine.
- B. allergic reaction to the local anesthetic.
- C. overdose of local anesthetic.
- D. epilepsy precipitated by epinephrine.

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The redness of an inflammatory lesion of oral mucosa is due to

- A. increased number of capillaries.
- B. increased size of capillaries.
- C. decreased thickness of epithelium.
- D. decreased connective tissue elements.
- E. All of the above.

A 4 year old child has a chronically infected non-restorable primary first molar. The most appropriate management is to

- A. extract it and place a space maintainer.
- B. observe it until it exfoliates.
- C. extract it.
- D. observe it until it becomes symptomatic.

Which of the following statements regarding periapical radiographs is true?

- A. A definitive diagnosis of an apical lesion can be made on a periapical radiograph alone.
- B. The true dimension of the lesion can be predicted from a periapical radiograph.
- C. A definitive diagnosis between granuloma versus cyst can be established from a periapical radiograph.
- D. Pulp diagnosis cannot be made on a periapical radiograph alone.

Which of the following is NOT a feature of bruxism?

- A. Radiographic evidence of the widening of the periodontal ligament.
- B. Increased mobility of teeth.
- C. Premature wear of occlusal surfaces.
- D. Erosion.

The rate of set of alginate impression materials can be increased by

- A. increasing the water/powder ratio.
- B. increasing the temperature of the mixing water.
- C. adding sodium phosphate to the mixing water.
- D. decreasing the amount of mixing.

The leeway space in an 8 year old child

- A. will provide space for eruption of the permanent incisors.
- B. is greater in the maxillary arch than in the mandibular arch.
- C. occurs with premature loss of primary molars.
- D. is approximately 3.5mm in the mandibular arch.
- E. allows accommodation of premolars that are larger than the primary molars.

The prognosis for an avulsed tooth is mainly affected by

- A. storage solution.
- B. length of extraoral time.
- C. necrotic cementum removal.
- D. pulp extirpation.

Which of the following is NOT an indication for the removal of impacted mandibular third molars?

- A. Recurrent pericoronitis.
- B. Crowding of incisors.
- C. Pain.
- D. Resorption of the distal aspect of the second molar.

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Which of the following is the most common tumour of the parotid gland?

- A. Pleomorphic adenoma.
- B. Oncocytoma.
- C. Warthin's tumor.
- D. Canalicular adenoma.

In facial injury management, the most important first aid measure is to

- A. control the bleeding.
- B. prevent shock.
- C. establish and maintain an airway.
- D. control infection.

What statement related to self-threaded pins is FALSE?

- A. The ideal depth for the pin hole is 3mm.
- B. The pin does not increase fracture resistance of the restoration.
- C. The pin can increase retention of the restoration.
- D. The drill has a smaller diameter than the pin.

In a healthy patient whose chief complaint is bleeding gums after tooth brushing, what is the most appropriate initial management?

- A. Elimination of local plaque retention sites.
- B. Dietary analysis.
- C. Periodontal examination and recording.
- D. Occlusal examination and recording.

Sympathetic reflexes accompanying hemorrhage

- A. allow blood loss up to 60% of the total volume.
- B. have no effect on the amount of blood that can be lost.
- C. are part of the long-term compensatory response mechanism.
- D. have a greater effect on arterial pressure than on cardiac output.

The most important principle dictating location and size of access to the root canal system is

- A. preservation of tooth structure.
- B. removal of all caries.
- C. straight line access to the canal.
- D. removal of all pulp horns.

A patient complains of intermittent spontaneous pain in a tooth that was previously treated with a direct pulp cap. The tooth is not sensitive to percussion. Both hot and cold produce severe pain. The most likely diagnosis is

- A. reversible pulpitis.
- B. symptomatic irreversible pulpitis.
- C. cracked tooth syndrome.
- D. symptomatic apical periodontitis (acute periradicular periodontitis).

Which of the following anesthetic agents is metabolized by plasma cholinesterase?

- A. Prilocaine.
- B. Lidocaine.
- C. Mepivacaine.
- D. Procaine.

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The gingival aspect of a modified ridge lap pontic which touches the alveolar ridge should be

- A. slightly concave in all directions.
- B. slightly concave faciolingually and convex mesiodistally.
- C. slightly small and convex in all directions.
- D. fabricated to produce slight tissue compression.

Which of the following clinical signs/symptoms is characteristic of symptomatic irreversible pulpitis?

- A. Swelling.
- B. Lingering thermal pain.
- C. Pus formation.
- D. Presence of a sinus tract.

The selective grinding rule for removing premature contacts on the working side of complete dentures is to grind

- A. only the fossae of teeth.
- B. the buccal cusps of maxillary and lingual cusps of mandibular teeth.
- C. only the mandibular teeth.
- D. lingual and buccal cusps of maxillary teeth.
- E. the maxillary and mandibular cuspids.

Enamel hypoplasia, blunted roots and abnormal dentin are indicative of

- A. hyperparathyroidism.
- B. hyperthyroidism.
- C. hypoparathyroidism.
- D. hypothyroidism.

For a removable partial denture, tripoding a cast is used to

- A. determine the path of insertion.
- B. locate unfavorable tissue undercuts.
- C. locate the height of contour.
- D. return the cast to the surveyor.

Upon setting, a mixture of plaster of Paris and water will exhibit

- A. loss in compressive strength.
- B. expansion.
- C. gain in moisture content.
- D. contraction.

Vestibuloplasty is a preprosthetic surgical procedure used to

- A. facilitate reliable impression making.
- B. provide adequate posterior inter-arch space.
- C. allow placement of teeth over the residual ridge.
- D. increase the supporting surface area.

Pain one day after a mandibular third molar tooth extraction is most likely

- A. caused by an abscess.
- B. caused by alveolar osteitis.
- C. caused by a mandibular fracture.
- D. a normal postoperative sequela.

The Controlled Drugs and Substances Act controls the distribution and use of which of the following?

- A. Amitriptyline.
- B. Amoxicillin.
- C. Ibuprofen.
- D. Oxycodone.

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Acquired immunodeficiency syndrome (AIDS) is caused by a/an

- A. adenovirus.
- B. retrovirus.
- C. picovirus.
- D. coronavirus.

Spontaneous fracture of the mandible may occur during mastication if the patient

- A. has an impacted third molar close to the inferior alveolar canal.
- B. is edentulous and there is advanced atrophy of the mandible.
- C. is a child with unerupted premolars.
- D. is a postmenopausal woman with a full dentition and generalized osteoporosis.

Histoplasmosis is a

- A. non-specific bacterial infection.
- B. protean disease.
- C. viral disease.
- D. fungal disease.

Diagnosis of periodontitis is clinically demonstrated by

- A. bleeding from the base of the periodontal pocket.
- B. loss of periodontal attachment.
- C. pain upon probing.

Which of the following statements about alternate sweeteners is INCORRECT?

- A. Saccharin alone is not carcinogenic.
- B. Xylitol is a polyol with the same sweetness as sucrose.
- C. Aspartame is a dipeptide of aspartic acid and glutamic acid.
- D. Cyclamate is not approved as a food additive.

What is the most appropriate management of an ectopically erupting premolar with the primary predecessor firmly in place?

- A. Natural exfoliation of the primary tooth.
- B. Luxation of the primary tooth.
- C. Extraction of the primary tooth and monitor.
- D. Extraction of the primary tooth and space maintenance.

Shortly after the administration of a local anesthetic for the removal of tooth 2.8, the patient complains of a tenseness in the left cheek and left cheek swelling is observed. What is the most likely diagnosis?

- A. Surgical emphysema.
- B. Immediate allergic reaction.
- C. Herniation of buccal fat pad.
- D. Hematoma.

A 32 year old patient presents with several shallow, round ulcers, 3-5mm in diameter, on the left and right buccal mucosa. The most likely diagnosis is

- A. recurrent herpes.
- B. traumatic ulcers.
- C. pemphigus vulgaris.
- D. aphthous ulcers.

Amphetamines

- A. increase mental alertness.
- B. increase salivation.
- C. are antidopaminergics.
- D. are useful in controlling arrhythmias.

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A well-controlled type 1 diabetic requires an MOD amalgam restoration. What is the most appropriate management for this patient?

- A. Afternoon appointments should be scheduled.
- B. Insulin should be increased prior to treatment.
- C. Insulin should be decreased prior to treatment.
- D. The patient should follow their normal dietary and insulin regimen.

A patient dislocates his mandible for the first time. After reduction, the most appropriate management is to

- A. inject the joint with hydrocortisone.
- B. inject the joint with a sclerosing solution.
- C. have the patient exercise the mandible to avoid trismus.
- D. immobilize for ten days.

In the mandible, the main growth site is in the

- A. gonial angle.
- B. condylar cartilage.
- C. posterior border of the ramus.
- D. inferior and lateral aspects of the body of the mandible.

A cast partial denture replacing teeth 3.5 - 3.8 and 4.5 - 4.8 was permanently relined with acrylic resin. At the delivery appointment, when the rests of the framework are fully seated on the abutment teeth, the denture base does not contact the supporting tissues. The most likely cause of the problem is

- A. the denture reline resin shrunk during polymerization.
- B. excess pressure was placed on the rests during the impression procedure.
- C. excess pressure was placed on the denture base area during the impression procedure.
- D. the patient's tissues have remodelled.

An infected pulp may cause a/an

- A. keratocystic odontogenic tumour (odontogenic keratocyst).
- B. dentigerous cyst.
- C. periapical osseous dysplasia (periapical cemento-osseous dysplasia).
- D. simple bone cyst/traumatic bone cyst.
- E. periradicular cyst.

The Silness-Löe Index measures

- A. periodontal disease.
- B. oral hygiene.
- C. attachment level.
- D. probing depth.

A ghost-like opaque image in a panoramic radiograph caused by a metal earring worn in the lobe of the left ear will be superimposed over the

- A. left mandibular ramus.
- B. right mandibular ramus.
- C. left posterior maxilla.
- D. right posterior maxilla.

What is the most reliable indicator with respect to the timing of treatment for growth modification?

- A. Chronologic age.
- B. Dental age.
- C. Skeletal age.
- D. Tanner weight chart.

A functional parathyroid adenoma would most likely result in

- A. generalized loss of lamina dura.
- B. nervousness, exophthalmos and heat intolerance.
- C. an increased caries rate.
- D. multiple recurrent periodontal abscesses.

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Epidemiology of disease is best described as the

- A. data obtained from sickness surveys.
- B. usual low level of disease normally found within a population.
- C. control of disease.
- D. study of disease patterns in a population.

A 25 year old female in her third trimester of pregnancy presents with an acute dental infection. Which of the following is CONTRAINDICATED for this patient?

- A. Prescription of clindamycin.
- B. Prescription of penicillin V.
- C. Extraction using 2% lidocaine with 1:100,000 epinephrine.
- D. prescription of ibuprofen.

The most appropriate gingival contour of a fixed partial denture connector is

- A. concave.
- B. convex.
- C. flat.

The primary function of gingival retraction cord is to

- A. ensure adequate impression material in the sulcus.
- B. displace the epithelial attachment.
- C. control the salivary flow.
- D. eliminate the intrasulcular debris.

Centric relation is a

- A. relation of the maxilla to the rest of the skull.
- B. vertical relationship of the mandible to the maxilla.
- C. horizontal relationship of the mandible to the maxilla.
- D. rest position of the mandible.

With the development of gingivitis, the sulcus becomes predominantly populated by

- A. gram-positive organisms.
- B. gram-negative organisms.
- C. diplococcal organisms.
- D. spirochetes.

Which of the following medications does NOT cause gingival hyperplasia?

- A. Cyclosporine.
- B. Nifedipine.
- C. Phenytoin.
- D. Carbamazepine.

Nicotinic stomatitis is

- A. associated with squamous cell carcinoma of the palate.
- B. caused by smokeless tobacco.
- C. characterized by small red dots on an elevated pale mucosa.
- D. characterized by dysplastic changes.
- E. irreversible.

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The anatomical landmarks used to help establish the location of the posterior palatal seal of a maxillary complete denture include the

- A. pterygomaxillary notches and the fovea palatinae.
- B. pterygomaxillary notches and the posterior nasal spine.
- C. posterior border of the tuberosities and the posterior border of the palatine bone.
- D. anterior border of the tuberosities, the palatine raphe and the posterior border of the palatine bone.

A cement base under an amalgam restoration should have

- A. high modulus and high thermal diffusivity.
- B. high modulus and low thermal diffusivity.
- C. low modulus and high thermal diffusivity.
- D. low modulus and low thermal diffusivity.

Which of the following is true regarding the incision and drainage of an acute periradicular abscess?

- A. Profound, deep anesthesia is needed to perform the procedure.
- B. Relief of the pressure and pain will take 24 hours to occur.
- C. The procedure is indicated for a localized, fluctuant swelling.
- D. A drain should not be used if drainage occurs during the procedure.

Which one of the following describes the position of the needle tip during administration of local anesthetic for the inferior alveolar nerve block?

- A. Anterior to the pterygomandibular raphe.
- B. Medial to the medial pterygoid muscle.
- C. Superior to the lateral pterygoid muscle.
- D. Lateral to the sphenomandibular ligament.

The concept of continuous tooth eruption is described as

- A. the movement of the teeth in the direction of the occlusal plane.
- B. the exposure of teeth via apical migration of the gingiva.
- C. consisting of both an active and a passive phase.
- D. being complete when teeth reach their functional antagonists.

In an infection caused by non-penicillinase producing staphylococcus, the drug of choice is

- A. penicillin V.
- B. cephalexin.
- C. tetracycline.
- D. vancomycin.

The muscle attached to the labial surface of the maxilla above the region of the central incisors is

- A. labii inferioris.
- B. labii superioris.
- C. orbicularis oris.
- D. risorius.
- E. caninus.

A differential diagnosis for gingival hyperplasia should include which of the following conditions?

- A. Multiple myeloma.
- B. Monocytic leukemia.
- C. Erythema multiforme.
- D. Pemphigus vulgaris.

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The normal differential white cell count for neutrophils is

- A. 10-19%.
- B. 20-29%.
- C. 30-39%.
- D. 40-65%.
- E. 66-90%.

A previously well-controlled periodontal patient now demonstrates the presence of bleeding in 60% of sites and significantly increased probing depths. The patient has most likely developed

- A. diabetes mellitus.
- B. hyperchromatosis.
- C. osteoporosis.
- D. hypercalcemia.

Which of the following is a feature of dentin dysplasia type I?

- A. Enlarged of pulp chambers.
- B. Bulbous clinical crowns.
- C. Short and underdeveloped roots.
- D. Periapical radiopaque areas.

Which of the following is the most appropriate management for a tooth displaying crazing of the enamel?

- A. Splinting of teeth.
- B. Stainless steel band.
- C. Endodontic treatment.
- D. Periodic observation.

Which of the following diseases may cause an enlargement of the jaws, development of diastemas and/or a poorly fitting denture?

- A. Phantom bone disease.
- B. Rickets.
- C. Paget's disease.
- D. Osteoporosis.
- E. Hypophosphatasia.

All of the following are possible effects of acetylsalicylic acid EXCEPT

- A. reduction of fever.
- B. shortening of bleeding time.
- C. suppression of inflammatory response.
- D. bleeding from the gastrointestinal tract.

Radiographic examination of a 9 year old patient reveals the pre-eruptive position of a mandibular second premolar is tipped 20 degrees from vertical. The primary second molar exhibits no root resorption. The most appropriate management is to

- A. surgically upright the premolar.
- B. remove the primary second molar and place a space maintainer.
- C. recall the patient for reassessment in 6 months.

The most appropriate management for a 4 year old patient with a primary molar that caused a severe, throbbing toothache the previous night is to

- A. prescribe an analgesic.
- B. prescribe an antibiotic.
- C. remove caries and place a temporary restoration.
- D. perform a pulpotomy.
- E. perform a pulpectomy.

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A patient receiving a daily replacement dose of corticosteroid for the past 6 years requires surgical extraction of tooth 3.8. Prior to the surgery, this patient's drug therapy should be modified by

- A. stopping corticosteroid therapy for one week.
- B. stopping corticosteroid therapy for the day of operation.
- C. increasing corticosteroid intake for one week.
- D. increasing corticosteroid intake for the day of operation, and up to one day after.

What is the most likely cause of long term clinical failure for a metal-ceramic crown with porcelain occlusal coverage on a molar?

- A. Recurrent caries.
- B. Cohesive porcelain fracture.
- C. Adhesive porcelain fracture.
- D. Loss of retention.

The most likely diagnosis of a patient with pain, swelling, numbness of the jaw and unexplained tooth mobility is

- A. hyperparathyroidism.
- B. fibrous dysplasia.
- C. malignant neoplasm.
- D. giant cell granuloma.
- E. syphilis.

Death from barbiturates is the result of

- A. alkalosis.
- B. irreversible hypotension.
- C. toxic effects on the liver.
- D. depression of the centres of respiration.
- E. allergy.

Examination of a 32 year old pregnant woman reveals that she has generalized periodontal probing depths of 4-6mm, most of which bleed on probing. She is otherwise healthy, but asks "If I don't get the proper periodontal treatment, am I more likely to deliver a pre-term, low-birth weight baby?" Which type of study design would provide the best answer to her question?

- A. A prospective cohort involving pregnant women, some of whom have periodontal disease and some of whom do not.
- B. A randomized clinical trial of pregnant women with periodontal disease, some of whom receive periodontal therapy and some of whom do not.
- C. Comparing the rates of pre-term low birth weight babies, between women with no risk factors to those with periodontal disease.
- D. A systematic review comparing the risk of delivering pre-term low birth weight babies among women with various risk factors, including the presence of periodontal disease.

Which of the following is NOT appropriate for the immediate management of a hematoma resulting from a local anesthetic injection?

- A. Direct pressure to the site.
- B. Use of analgesics.
- C. Heat application to the area.
- D. Reassuring the patient.

Lacrimation and flushing of the face are autonomic phenomena that are occasionally associated with trigeminal neuralgia involving the maxillary nerve. This can be explained by the nerve's association with which ganglion?

- A. Pterygopalatine.
- B. Submandibular.
- C. Trigeminal.
- D. Otic.
- E. Nasociliary.

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The surgical procedure indicated for odontogenic cysts is

- A. enucleation.
- B. cauterization.
- C. incision and drainage.
- D. segmental resection.

The location and extent of subgingival calculus is most accurately determined clinically by

- A. radiopaque solution used in conjunction with radiographs.
- B. disclosing solution.
- C. probing with a fine instrument.
- D. visual inspection.

Patients with occlusal parafunctional habits may have

- A. soreness in masticatory muscles.
- B. occlusal wear facets.
- C. tooth mobility.
- D. All of the above.

A known insulin-dependent diabetic patient feels unwell following the administration of a local anesthetic and becomes pale and sweaty. This condition does not respond to placing the patient in a supine position. The most likely cause is

- A. syncope.
- B. adrenal insufficiency.
- C. hyperglycemia.
- D. hypoglycemia.
- E. carotid sinus reflex.

Chronic gingival inflammation is best eliminated by

- A. gingival surgery.
- B. regular use of a water-irrigating device.
- C. root planing and curettage.
- D. occlusal correction.
- E. splinting.

Cementicles

- A. contain pulp tissue.
- B. have the same composition as cementum.
- C. are a response to trauma.
- D. develop from excess dental follicle cells.

The function of the compensating curve is

- A. to help provide a balanced occlusion in complete dentures when the mandible is protruded.
- B. to aid in establishing an incisal guide plane.
- C. the same as the function of the curve of Spee.

A young adult has generalized areas of chalky, opaque, cavitated lesions on the vestibular surface of multiple teeth and interproximal gingiva that is red and swollen. Which of the following is the most appropriate diagnosis?

- A. Smooth surface caries.
- B. Rampant caries.
- C. Interproximal caries.
- D. Secondary caries.
- E. Arrested caries.

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A tooth with 3mm of gingival recession and a probing depth of 5mm at the same site has an attachment loss of

- A. 2mm.
- B. 3mm.
- C. 5mm.
- D. 8mm.

Trismus is most frequently caused by

- A. tetanus.
- B. muscular dystrophy.
- C. infection.
- D. mandibular fracture.

A preparation for a metal-ceramic crown with a porcelain butt joint margin must have a

- A. 90° cavosurface margin.
- B. subgingival margin.
- C. 1.2mm shoulder.
- D. 90° axiokingival angle.

Which of the following types of bone contain the insertions of the periodontal ligament fibres?

- A. Woven.
- B. Bundle.
- C. Lamellar.
- D. Cortical.

The most common soft tissue calcification or ossification found on a panoramic radiograph is (a)

- A. lymph node.
- B. sialolith.
- C. phlebolith.
- D. stylohyoid ligament.

The etiology of noncarious cervical lesions is

- A. multifactorial in nature.
- B. determined by the shape of the lesion.
- C. determined by an occlusal analysis.
- D. associated with the dominant hand used for brushing.

A 3 year old complains of a sore left arm for 10 days. A physician has diagnosed a fracture and a radiograph reveals an old fracture. The most appropriate diagnosis is

- A. infantile osteoporosis.
- B. osteogenesis imperfecta.
- C. battered child syndrome.
- D. Münchhausen syndrome.

If the norm for the cephalometric angle SNA is 82 degrees and a patient's SNA is 90 degrees, this would likely indicate

- A. protrusive maxillary incisors.
- B. dysplasia of the anterior cranial base.
- C. maxillary prognathism.
- D. mandibular prognathism.

Titanium implants in the oral cavity are CONTRAINDICATED for patients who

- A. are over age 75.
- B. are on thyroid replacement therapy.
- C. have a terminal disease.
- D. have diabetes mellitus (controlled).

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In the embryo which of the following could be missing if pharyngeal pouch development is disrupted?

- A. Thyroid.
- B. Maxillary sinus.
- C. Thymus.
- D. Inner ear.

Primary herpes simplex virus infection

- A. usually occurs after the age of 20.
- B. has a slow onset.
- C. may be subclinical.
- D. lasts for 1 - 2 days.
- E. affects only the gingiva.

During dental treatment, a 62 year old insulin-dependent diabetic, suddenly complains of severe, crushing, retrosternal pain. What is the most appropriate initial management?

- A. Administer sublingual nitroglycerin.
- B. Administer 100% oxygen.
- C. Monitor the patient.
- D. Administer 50% dextrose intravenously.

A common filler added to resin to produce dental composites is

- A. calcium salt.
- B. quartz.
- C. zinc oxide.

After a clinical examination, a panoramic radiograph and bite-wings are required as part of an examination for a new patient. The patient states that radiographs had been taken in the last year by another dental office. The most appropriate management is to

- A. make a panoramic radiograph and bite-wings.
- B. make a panoramic radiograph only.
- C. make bite-wings radiographs only.
- D. request the existing radiographs.

Selection of the appropriate kilovoltage for dental films is influenced by

- A. line voltage fluctuation.
- B. diameter of the primary beam of radiation.
- C. type of timer.
- D. tissue density.
- E. filter thickness.

The eruption of a permanent central incisor may be delayed by

- A. a supernumerary tooth.
- B. dense fibrous tissue.
- C. a retained deciduous incisor.
- D. All of the above.

Mercury content in an amalgam can be reduced by using

- A. fast setting amalgam.
- B. adequate condensation.
- C. high zinc content alloy.
- D. low copper content alloy.

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A radiopaque area within the alveolar process containing several rudimentary teeth suggests a/an

- A. adenomatoid odontogenic tumour.
- B. compound odontoma.
- C. complex odontoma.
- D. calcifying epithelial odontogenic tumour.

Which of the following tissues is LEAST sensitive to ionizing radiation?

- A. Enamel.
- B. Oral mucosa.
- C. Salivary gland.
- D. Bone.

Which of the following is consistent with reversible pulpitis?

- A. Discontinuous lamina dura and a periapical radiolucency.
- B. Draining sinus tract that traces to the apex of the tooth.
- C. Pain to cold that ceases after removal of the stimulus.
- D. Painful response to percussion and palpation.

A patient must push up on his mandible to close his mouth. The most likely cause is

- A. Bell's palsy.
- B. muscular dystrophy.
- C. multiple sclerosis.
- D. necrotizing fasciitis.
- E. myasthenia gravis.

The dentino-enamel junction is the most sensitive portion of a tooth because

- A. free nerve endings terminate on odontoblasts at this region.
- B. odontoblastic processes branch considerably at this region.
- C. ameloblasts make synaptic connections with odontoblasts at this junction.
- D. odontoblastic tubules help convey hydrostatic forces to the pulp cells.

Papillary hyperplasia on the palate of a patient wearing a maxillary complete denture is most likely to be associated with

- A. heavy smoking.
- B. an allergy to the acrylic resin.
- C. an ill-fitting denture and poor oral hygiene.
- D. occlusion with posterior natural teeth.

Excessive formation of scar tissue beyond the wound margin is called

- A. a fibroma.
- B. a keloid.
- C. a fibro-epithelial polyp.
- D. epithelial hyperplasia.

The area most susceptible to excessive space loss following premature loss of a primary tooth is in the region of the

- A. mandibular first premolar.
- B. maxillary first premolar.
- C. mandibular second premolar.
- D. maxillary second premolar.

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A 58 year old woman complains of electric shock-like pain on the left side of the chin and lip when eating or taking a hot shower. Which of the following medications is most appropriate to confirm the diagnosis?

- A. Amoxicillin.
- B. Carbamazepine.
- C. Acetaminophen and codeine.
- D. Ibuprofen.

Hypoglycemia in the conscious patient is most appropriately managed with

- A. oxygen.
- B. epinephrine.
- C. carbohydrates.
- D. glucagon.
- E. insulin.

The last bone in the craniofacial complex to stop growing is the

- A. frontal bone.
- B. nasal bone.
- C. maxilla.
- D. mandible.

The most appropriate suture combination for a through laceration of the lower lip would be

- A. skin: 5.0 nylon, muscle: 3.0 vicryl, mucosa: 3.0 gut.
- B. skin: 3.0 silk, muscle: 3.0 silk, mucosa: 3.0 silk.
- C. skin: 3.0 gut, muscle: 3.0 vicryl, mucosa: 3.0 silk.
- D. skin: 5.0 nylon, muscle: 3.0 silk, mucosa: 3.0 gut.
- E. skin: 3.0 gut, muscle: 3.0 vicryl, mucosa: 3.0 gut.

Which of the following muscles causes displacement of the condyle in a subcondylar fracture of the mandible?

- A. Medial pterygoid.
- B. Lateral pterygoid.
- C. Masseter.
- D. Temporalis.
- E. Superior pharyngeal constrictor.

Osteomalacia is seen in

- A. Vitamin C deficiency.
- B. adult rickets.
- C. protein deficiency.
- D. hyperparathyroidism.

Which of the following conditions is characterized by abnormally large pulp chambers?

- A. Amelogenesis imperfecta.
- B. Regional odontodysplasia.
- C. Dentinogenesis imperfecta.
- D. Dentinal dysplasia Type I.

Astrocytes are cells found in the

- A. brain.
- B. peripheral nerves.
- C. tongue.
- D. blood.

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Which of the following represents the normal relationship of the primary canines?

- A. The distal inclined plane of the maxillary canine articulates with the mesial inclined plane of the mandibular canine.
- B. The mesial inclined plane of the maxillary canine articulates with the distal inclined plane of the mandibular canine.
- C. Normal articulation of primary canines is end-to-end.

The most accurate indicator of caries activity in root caries lesions is to

- A. assess the colour.
- B. evaluate the hardness.
- C. use bite-wing radiographs.
- D. apply caries detector dyes.

Following extraction of teeth, root fragments can be left in place when

- A. there is no plan to place a dental implant in the site.
- B. the root is small, not infected and located deep in the bone.
- C. the maxillary sinus is pneumatized and close to the tooth roots.
- D. the root fragment is mobile and no more than 7-8mm in length.

Which of the following is NOT a sign or symptom of the myofascial pain dysfunction syndrome?

- A. Pain.
- B. Muscle tenderness.
- C. Limitation of jaw motion.
- D. "Clicking" or "popping" noise in the joints.
- E. Radiographic changes of the joint.

The following are possible effects of acetylsalicylic acid EXCEPT

- A. reduction of fever.
- B. shortening of bleeding time.
- C. suppression of inflammatory response.
- D. bleeding from the gastrointestinal tract.

The oral mucosa covering the base of the alveolar bone

- A. is normally non-keratinized but can become keratinized in response to physiological stimulation.
- B. is closely bound to underlying muscle and bone.
- C. does not contain elastic fibres.
- D. merges with the keratinized gingiva at the mucogingival junction.
- E. has a tightly woven dense collagenous corium.

The radiographic change most suggestive of multiple myeloma is

- A. punched-out radiolucent lesions.
- B. multiple radiopaque lesions.
- C. ground glass appearance.
- D. generalized demineralization.

Which of the following is the most powerful jaw-closing muscle?

- A. Temporalis.
- B. Lateral pterygoid.
- C. Masseter.
- D. Medial pterygoid.

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A new patient had an acute pulpitis. Treatment included a pulpotomy and a prescription for 30 tabs of Percocet®. Known to local police as a drug user, the patient subsequently bragged to a police officer that it was very easy to get narcotics from his new dentist. Several weeks later, a police officer attends the office explaining that he is conducting an investigation into health professionals complicit in narcotic trafficking. Which of the following statements is correct?

- A. There is a legal duty to assist in any criminal investigation.
- B. Patient files must be released to police upon request.
- C. A subpoena is required for the dentist to present relevant documents.

Dietary deficiency of vitamin D can result in

- A. abnormal formation of osteoid.
- B. osteitis fibrosa cystica.
- C. Paget's disease.
- D. myositis ossificans.
- E. osteogenesis imperfecta.

Gigantism is caused by

- A. a hyperactive thyroid.
- B. atrophy of the posterior pituitary.
- C. hyperplasia of the anterior pituitary.
- D. hyperplasia of the parathyroids.

For a patient who exhibits bruxism, a cast gold inlay is superior to an amalgam because the inlay has

- A. better adaptation to the cavity walls.
- B. greater thermal conductivity.
- C. better ability to withstand masticatory forces.
- D. easier placement into the cavity preparation.

A fracture is considered to be favourable when

- A. healing is expected to be uncomplicated.
- B. operating time will be short.
- C. fragments are not displaced by muscle pull.
- D. not exposed to the oral environment.

Which of the following increases the sharpness of a radiograph?

- A. Small focal spot.
- B. Short focal spot-to-film distance.
- C. Long object-to-film distance.

Which of the following is the most appropriate in the management of chronic periodontitis?

- A. Chlorhexidine.
- B. Doxycycline.
- C. Nystatin.
- D. Acyclovir.
- E. Isoniazid.

At initial examination, a 2 year old child is diagnosed with severe early childhood caries. The parent does not understand why treatment of primary teeth is necessary. The most appropriate management of this situation is to

- A. explain disease progression and why treatment is required.
- B. report the parent for dental neglect.
- C. have the parent call for an appointment if pain develops.
- D. place fluoride every 6 months until cooperation improves.

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A patient is currently on warfarin. Before a planned extraction of tooth 3.4, the patient's coagulation mechanisms should be evaluated using which test?

- A. Bleeding time.
- B. Partial thromboplastin time.
- C. INR (International Normalized Ratio).
- D. Complete blood count.

Which of the following would NOT be expected to cause hypokalemia?

- A. Metabolic acidosis.
- B. Lactate accumulation.
- C. Increased plasma insulin.
- D. Excess aldosterone secretion.
- E. Beta-adrenergic stimulation of cells.

A 10 year old has diffuse bilateral white areas on the buccal mucosa, dorsum of the tongue and the floor of the mouth. The mother tells the dentist that she has noticed this appearance for at least 3 years, but she was not concerned since she has had a similar condition all of her life. The most likely diagnosis is

- A. leukoplakia.
- B. white sponge nevus.
- C. frictional keratosis.
- D. allergic reaction to cinnamon.

Which sound is associated with the most common speech defect in complete denture patients?

- A. M.
- B. S.
- C. F.
- D. J.
- E. V.

Which of the following can be characterized by a narrowing of pulp chambers and root canals?

- A. Aging.
- B. Acute trauma.
- C. Amelogenesis imperfecta.
- D. Taurodontism.

Hardening of Type IV cast gold dental alloys by heat treatment increases

- A. ductility.
- B. yield strength.
- C. coring.
- D. elastic modulus.
- E. malleability.

A 75 year old female patient is being treated for oral lichen planus with a topical corticosteroid. She also has low vitamin D. The most likely cause of a reduced alveolar bone mass in this patient is

- A. postmenopausal osteoporosis.
- B. senile osteoporosis.
- C. drug-induced osteoporosis.
- D. osteomalacia.

One millilitre of a 2% solution of lidocaine hydrochloride contains how many milligrams of the drug?

- A. 2
- B. 20
- C. 200
- D. 2000

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An acute oral infection is of most concern in a patient with

- A. pemphigus.
- B. Crohn's disease.
- C. otitis media.
- D. a prosthetic heart valve.

A patient complains of acute pain 24 hours after the insertion of a restoration in a tooth with no preexisting periapical pathology. The tooth is vital and tender to percussion. The radiograph will show

- A. an apical radiolucency.
- B. acute osteitis.
- C. root resorption.
- D. condensing osteitis.
- E. normal lamina dura.

Which of the following root surfaces are most likely to have concavities that will make root planing difficult?

- A. Mesial surfaces of maxillary first premolars.
- B. Mesial surfaces of maxillary first molars.
- C. Mesial surfaces of maxillary incisors.
- D. Distal surfaces of mandibular second premolars.

The most appropriate vertical angulation to make a bite-wing radiograph in the primary dentition is

- A. -10° .
- B. -5° .
- C. 0° .
- D. $+5^{\circ}$.
- E. $+10^{\circ}$.

What is the most effective local anesthetic technique for a patient with trismus who requires a pulpectomy on a mandibular molar?

- A. Mental nerve block.
- B. Gow-Gates block.
- C. Vazirani-Akinosi block.
- D. Inferior alveolar nerve block.
- E. Buccal nerve block.

The instrument best suited for root planing is a/an

- A. hoe.
- B. file.
- C. curette.
- D. sickle scaler.
- E. ultrasonic scaler.

A patient with suspected hyperthyroidism may display all of the following early symptoms EXCEPT

- A. fine and brittle hair.
- B. excessive sweating.
- C. tachycardia.
- D. weight loss.
- E. tendency to bruise easily.

A patient has gingival epithelium that spontaneously sloughs and can be removed with minor manipulation. The most likely diagnosis is

- A. hyperplastic candidiasis.
- B. aphthous stomatitis.
- C. herpetic gingivostomatitis.
- D. mucous membrane pemphigoid.

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A patient who is 4 months pregnant requires an extraction. A radiograph

- A. can be taken only if difficulty is encountered during surgery.
- B. can be taken.
- C. is contra-indicated.
- D. can be taken by panoramic radiography only.

The mechanism of adjustment to maintain the shape and proportions of bone throughout its growth period is called

- A. remodeling.
- B. cortical drift.
- C. area relocation.
- D. translatory growth.

"Dental age" is defined as the

- A. stage of dental maturation.
- B. eruption time of a given tooth.
- C. number of years elapsed since a given tooth has erupted.

Cleidocranial dysplasia is distinguished by

- A. bulky forehead.
- B. delayed suture closure.
- C. persistence of primary teeth.
- D. clavicles absent or maldeveloped.
- E. all of the above.

Which of the following analgesics is CONTRAINDICATED for a 76 year old patient with angina?

- A. Acetaminophen.
- B. Ibuprofen.
- C. Codeine.
- D. Tramadol.

A patient complains of tooth pain which is sharp and stabbing when chewing sweet or cold foods. Pain is relieved by warmth and direct pressure. The most likely diagnosis is

- A. a carious lesion with pulpal inflammation.
- B. a carious lesion with pulp degeneration.
- C. traumatic occlusion.
- D. a cracked tooth.

The diagnosis of a 1.5cm white patch after incisional biopsy is severe epithelial dysplasia. The most appropriate management is

- A. complete excision.
- B. repeat biopsy.
- C. radiation therapy.
- D. observation.

Which of the following is NOT a risk factor for primary molar ankylosis?

- A. Bruxism.
- B. Genetics.
- C. Trauma.
- D. Missing permanent successor.

What are the dimensions of pain?

- A. Intensive and sensory.
- B. Sensory and peripheral.
- C. Affective and peripheral.
- D. Sensory and affective.

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A panoramic radiograph taken at 10 years of age is indicated to

- A. measure the space between the temporomandibular joint disc and the condyle.
- B. calculate the amount of crowding in the maxilla.
- C. predict the probability of canine impaction.
- D. assess the severity of midline deviation.

The incidence of tooth loss due to periodontal disease is highest for

- A. maxillary molars.
- B. maxillary premolars.
- C. mandibular incisors.
- D. mandibular premolars.
- E. mandibular molars.

Which of the following is the maximum daily dose of acetaminophen for a healthy adult?

- A. 2,000 mg.
- B. 4,000 mg.
- C. 6,000 mg.
- D. 8,000 mg.

Wrought gold alloy clasps when compared to cast gold clasps of the same cross-sectional area

- A. are coarser grained.
- B. exhibit greater flexibility
- C. are more accurately adapted to the tooth.

If a child's teeth do NOT form, the primary effect will be on the growth of the

- A. alveolar bone.
- B. mandible.
- C. maxilla.
- D. palate.

Which of the following statements is correct with respect to zinc containing amalgams?

- A. High copper amalgam restorations containing zinc demonstrate better overall survival rates.
- B. Amalgams containing zinc should be used when contamination with moisture is unavoidable during condensation.
- C. Zinc is added during the manufacturing operation to increase the solubility of tin in silver.
- D. Amalgams containing zinc produce a significantly better seal than zinc-free amalgams.

A 70 year old insulin-dependent patient has just completed a 7-day course of ampicillin for a respiratory infection. He has signs and symptoms consistent with oral candidiasis. Which of the following drugs is the most appropriate treatment?

- A. Nystatin.
- B. Acyclovir.
- C. Clindamycin.
- D. Ampicillin.
- E. Metronidazole.

Which statement is true?

- A. Radiographs can differentiate between a granuloma and a cyst.
- B. A definitive diagnosis of an apical lesion cannot be made using radiography alone.
- C. Periapical radiolucencies are indicative of loss of pulp vitality.
- D. A periapical radiograph can be used to locate the buccal bone level.

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Five percent fluoride varnish is most appropriately applied to the teeth of high caries risk young children

- A. following eruption of all primary teeth.
- B. by parents at least once per week.
- C. after white spot carious lesions develop.
- D. twice per year by health professionals.

Which of the following muscles contribute to the protrusion of the mandible?

- A. Medial pterygoids.
- B. Geniohyoids.
- C. Lateral pterygoids.
- D. Temporalis.

Correction of an inadequate zone of attached gingiva on several adjacent teeth is best accomplished with a/an

- A. apically repositioned flap.
- B. laterally positioned sliding flap.
- C. double-papilla pedicle graft.
- D. coronally positioned flap.
- E. free gingival graft.

A periodontal screening and recording (PSR) score of 3 for a sextant indicates that probing depth does NOT exceed

- A. 3.0mm.
- B. 3.5mm.
- C. 4.0mm.
- D. 5.5mm.
- E. 6.0mm.

Ultrasonic scalers are most effective in

- A. removal of supragingival calculus.
- B. removal of subgingival calculus.
- C. removal of toxins from cementum.
- D. planing root surfaces.

Which of the following conditions is most likely to be associated with a sinus tract?

- A. Acute apical abscess (acute periradicular abscess).
- B. Chronic apical abscess (chronic periradicular abscess).
- C. Hypercementosis.
- D. Simple bone cyst/traumatic bone cyst.

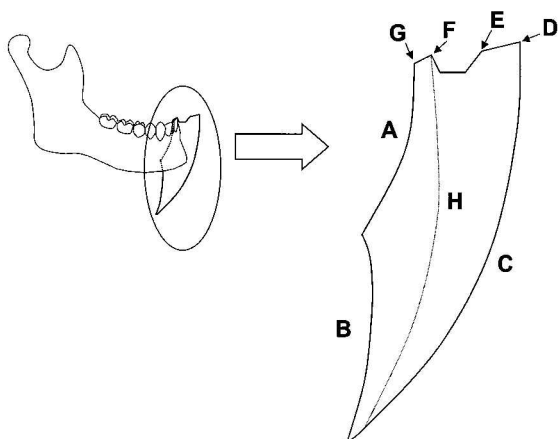
A dentist can refuse to treat a patient on the basis of

- A. religious beliefs.
- B. infectious disease.
- C. physical handicap.
- D. recognition of lack of skill or knowledge.

A large Class III preparation on tooth 1.1 extends 2mm on the labial, 4mm on the lingual and onto the root surface. Which of the following cavosurface margins should be prepared at 90 degrees?

- A. Incisal.
- B. Gingival.
- C. Labial.
- D. Lingual.

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The above diagram demonstrates a lateral view of a tracing illustrating the border movements of a mandibular incisor point in an Angle's Class I occlusion. The opening pathway from maximum intercuspation follows

- A. pathway A.
- B. pathway A and B.
- C. pathway C.
- D. pathway H.
- E. none of these pathways.

In the formulation of composite resins

- A. decreasing filler content increases the modulus of elasticity.
- B. increasing filler content decreases polymerization shrinkage.
- C. increasing filler content increases the degree of conversion.
- D. decreasing filler content increases radiopacity of the restoration.

A large encapsulated fluid-filled tumour is removed from the hard palate. The most appropriate method of determining the nature of this lesion is to

- A. examine the fluid under a microscope.
- B. culture the fluid and examine for bacterial growth.
- C. submit the tissue for histological examination
- D. submit the tissue for exfoliative cytological study.
- E. aspirate the fluid for electrophoresis study.

Which impression material can be stored for more than 24 hours before being poured and still produce accurate dies?

- A. Polysulfide.
- B. Condensation reaction silicone.
- C. Reversible hydrocolloid.
- D. Polyvinylsiloxane.
- E. Irreversible hydrocolloid.

A dental restoration with a marginal discrepancy (void) located 1mm subgingivally can affect gingival health by

- A. creating an environment conducive to an altered microbial flora.
- B. impinging on the biologic width.
- C. causing furcation involvement.
- D. causing leaching of restorative materials into the gingival crevice.

Periodontitis

- A. affects individuals with various susceptibility at different rates.
- B. affects different parts of dentition in the same individual similarly.
- C. is generally not progressive in nature.

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When percussion on the occlusal surface of a tooth results in a positive response, the most likely etiology of inflammation is

- A. pulpal.
- B. periodontal.
- C. periapical.

Defects in the outflow tract of the heart in individuals with craniofacial malformations are caused by the disruption of

- A. mesoderm development.
- B. neurulation.
- C. folding of the embryo.
- D. neural crest development.

Calculus causes gingival inflammation by

- A. mechanical irritation.
- B. stimulating auto immune responses.
- C. retaining micro-organisms.
- D. releasing toxins.

The most appropriate radiograph to assess an interproximal vertical bony defect of the alveolar bone is the

- A. bite-wing.
- B. periapical.
- C. occlusal.
- D. panoramic.

The gingivectomy approach to pocket elimination results in

- A. healing by primary intention.
- B. adequate access to correct irregular osseous contours.
- C. retention of all or most of the attached gingiva.
- D. None of the above.

A survey of the master cast shows that the 3.5 and 3.7 abutments for a fixed partial denture have different paths of insertion with respect to 3.7. A semi-precision attachment is chosen rather than preparing the teeth again. Where should the male part of the attachment ideally be located?

- A. Distal of the 3.5 retainer.
- B. Distal of the 3.6 pontic.
- C. Mesial of the 3.7 retainer.
- D. Mesial of the 3.6 pontic.

The primary etiologic factor for gingivitis is

- A. a faulty restoration.
- B. ascorbic acid deficiency.
- C. dental calculus.
- D. occlusal trauma.
- E. dental plaque.

A patient who is four months pregnant requires an extraction. A radiograph may

- A. be taken only for surgical purposes.
- B. be taken for diagnostic or treatment purposes.
- C. not be taken until end of second trimester.
- D. be taken by panoramic radiography only.

The main purpose of flux in soldering is to

- A. dissolve surface oxides and prevent further oxidation.
- B. prevent recrystallization and grain growth.
- C. prevent oxidation and lower the melting range of the solder.
- D. dissolve surface oxides and lower the melting range.

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The placement of a retentive pin in the proximal regions of posterior teeth would most likely result in periodontal ligament perforation in the

- A. mesial of a mandibular first premolar.
- B. distal of a mandibular first premolar.
- C. distal of a mandibular first molar.
- D. mesial of a mandibular first molar.

Gold contributes which of the following properties to a gold-copper alloy?

- A. Corrosion resistance.
- B. Increased strength.
- C. Lowered specific gravity.
- D. Increased hardness.

Which of the following dental procedures could be performed with minimal risk for a 35 year old patient with a severe bleeding disorder?

- A. Inferior alveolar nerve block anesthesia.
- B. Supragingival calculus removal.
- C. Incisional biopsy.
- D. Subgingival restoration.

Local anesthetic injected into dental abscesses is rarely effective because

- A. bacteria can metabolize the local anesthetic.
- B. edema dilutes the local anesthetic.
- C. the tissue is too acidic.
- D. there is excessive vasoconstriction.

A 65 year old, underweight patient confirms a longstanding problem with alcohol abuse. The medical history reveals complaints of muscle weakness, low appetite, lack of energy and forgetfulness, which the patient attributes to getting old. The patient's diet is most likely deficient in

- A. ascorbic acid.
- B. folic acid.
- C. thiamin.
- D. retinol.

Marginal gingiva

- A. is demarcated from the attached gingiva by the free gingival groove.
- B. is demarcated from the attached gingiva by the mucogingival junction.
- C. is firmly attached to the tooth.

All of the following are ways of characterizing the resistance of a material to permanent deformation EXCEPT

- A. yield stress.
- B. proportional limit.
- C. elastic limit.
- D. ultimate stress.

In a 51 year old patient with well-controlled type 2 diabetes and generalized moderate chronic periodontitis, which of the following is the most appropriate management of the periodontal pockets?

- A. Subgingival irrigation with antiseptic solution.
- B. Placement of tetracycline in the pockets.
- C. Low-power laser disinfection.
- D. Scaling and root planing.

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For which of the following pathological conditions would a lower central incisor tooth be expected to respond to heat, cold and electric pulp test?

- A. Apical cyst.
- B. Acute apical abscess.
- C. Periapical cemento-osseous dysplasia.
- D. Chronic apical periodontitis.

In an acute upper airway obstruction, the entry to the airway on an emergency basis should be made at the

- A. cricoid cartilage.
- B. thyroid notch.
- C. thyroid membrane.
- D. cricothyroid membrane.
- E. first tracheal ring.

Which of the following disinfectant is NOT appropriate for dental impressions?

- A. Phenols.
- B. Iodophors.
- C. Chlorine compounds.
- D. Formaldehyde.
- E. Glutaraldehydes.

Normal aging changes in the tooth tissues include

- A. continuous deposition of cementum.
- B. augmented dentin sensitivity.
- C. increased porosity of enamel.

A fixed partial denture is an appropriate treatment option for replacing a missing mandibular first permanent molar when the

- A. adjacent teeth are heavily restored.
- B. incisors and contralateral molars are missing.
- C. abutment crown to root ratios are 1:1.
- D. second and third molars are tipped mesially.

Which of the following is NOT associated with an aphthous ulcer?

- A. Pain.
- B. Pseudomembrane.
- C. Vesicle.
- D. Inflammation.

Preoperative endodontic radiographs will show the

- A. presence of a pulp exposure.
- B. exact location of the apical foramen.
- C. presence of active infection.
- D. vitality of the pulp.
- E. size of the pulp chamber and root canal(s).

The binder in casting investments not only strengthens the investment, but also

- A. creates a reducing atmosphere in the mold.
- B. reduces both hygroscopic and thermal expansions.
- C. increases the thermal expansion of the mold.
- D. contributes to the overall expansion of the mold.

Prevention of gingival irritation by a major connector of a removable partial denture is accomplished by

- A. using split palatal bars.
- B. reducing the size of the connector.
- C. ensuring maximum distribution of occlusal forces.
- D. providing relief between the connector and the gingiva.

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The minimum time to wait before placing composite restorations after the completion of a bleaching (whitening) treatment is

- A. 2 hours.
- B. 2 days.
- C. 2 weeks.
- D. 2 months.

A patient with a pre-existing MOD amalgam restoration has just had endodontic therapy completed on tooth 4.6 but cannot afford a laboratory fabricated final restoration. Interim restorative management of 4.6 with the best prognosis is to

- A. restore with a MOD amalgam.
- B. reduce the occlusal out of occlusion and restore with a MOD amalgam.
- C. cusp cap the buccal and lingual cusps and restore with a MOD amalgam.
- D. restore with a bonded MOD composite resin.

Gold contributes which of the following properties to a gold-copper alloy?

- A. Corrosion resistance.
- B. Increased strength.
- C. Lowered specific gravity.
- D. Increased hardness.

Which of the following is necessary for collagen formation?

- A. Vitamin A.
- B. Vitamin C.
- C. Vitamin D.
- D. Vitamin E.
- E. Vitamin K.

The microorganisms that initially colonize the tooth surface are associated with the genus

- A. *Porphyromonas*.
- B. *Actinobacillus*.
- C. *Streptococcus*.
- D. *Prevotella*.

A protective mechanism of the dental pulp to external irritation or caries is the formation of

- A. pulp stones.
- B. secondary dentin.
- C. secondary cementum.
- D. primary dentin.

Which of the following local anesthetics is classified as an ester?

- A. Articaine.
- B. Bupivacaine.
- C. Lidocaine.
- D. Mepivacaine.
- E. Procaine.

The shape of the distobuccal border of a mandibular denture is determined primarily by the

- A. buccinator muscle.
- B. tendon of the temporalis muscle.
- C. masseter muscle.

Ludwig's angina initially involves a massive infection of the

- A. parapharyngeal and retropharyngeal spaces.
- B. submandibular and sublingual regions.
- C. buccal superficial fascial and canine spaces.
- D. maxillary and ethmoidal sinuses.

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Dentigerous cysts are usually found

- A. periapically.
- B. pericoronally.
- C. interradicularly.
- D. mid-root.

Which of the following symptoms is always present with a diagnosis of alveolar osteitis?

- A. Swelling.
- B. Erythema.
- C. Fever.
- D. Pain.

What is the purpose of having a radiometer in a dental office?

- A. To track the number of x-rays taken in a month.
- B. To measure the output of the visible light-curing unit.
- C. To measure the wavelength of the x-ray machine.
- D. To measure the wavelength of the visible light-curing unit.

With respect to local anesthetic, which of the following will elicit the most rapid response in a patient?

- A. Too large a dose.
- B. Rapid absorption.
- C. Slow elimination.
- D. Intravascular injection.
- E. Slow biotransformation.

Which of the following statements regarding Informed Consent is FALSE? It is

- A. always necessary.
- B. given only by the person receiving the treatment.
- C. able to be withdrawn.
- D. procedure specific.

Which of the following steroids can produce Cushing syndrome?

- A. Estradiol.
- B. Testosterone.
- C. Prednisolone.
- D. Progesterone.
- E. Diethylstilbestrol.

The higher modulus of elasticity of a chromium-cobalt-nickel alloy, compared to a Type IV gold alloy, means that chromium-cobalt-nickel partial denture clasp will require

- A. a heavier cross section for a clasp arm.
- B. a shorter retentive arm.
- C. more taper.
- D. a shallower undercut.

The extraction of a primary maxillary central incisor at the age of 6 years will cause

- A. loss of intercanine space.
- B. increased intercanine space.
- C. no change in intercanine space.
- D. decreased overjet.

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A crossbite of a maxillary central incisor is most appropriately treated

- A. following eruption of the maxillary permanent canines.
- B. following eruption of the maxillary permanent central incisors.
- C. following eruption of the maxillary permanent lateral incisors.
- D. during the eruption of the maxillary permanent central incisors.

The most effective appliance to correct mid-face retrusion in the early mixed dentition is (a)

- A. inter-arch elastics.
- B. chin cup.
- C. reverse-pull headgear.
- D. bionator.

Which of the following may affect the results of electric pulp testing?

- A. Emotional factors.
- B. Pain threshold.
- C. Analgesics.
- D. Recent trauma.
- E. All of the above.

Twenty-four hours after placement of a Class II amalgam restoration, a patient returns complaining of discomfort when "biting". There are no other symptoms. It is most likely that the

- A. pulp was exposed.
- B. restoration is leaking.
- C. restoration is in supraocclusion.
- D. amount of base material is inadequate.

Leeway space is most efficiently maintained by a/an

- A. lingual arch.
- B. tongue crib.
- C. anterior bite plate.
- D. functional appliance.

Which of the following is the most appropriate for determining the morphology of the temporomandibular joint disc?

- A. Arthrography.
- B. Cone beam CT.
- C. Magnetic resonance imaging.
- D. Corrected tomography.

Which of the following materials are LEAST suitable for impressions for cast gold restorations?

- A. Polysulfides.
- B. Polyvinyl siloxanes.
- C. Polyethers.
- D. Irreversible hydrocolloids.

Excessive formation of scar tissue beyond the wound margin is called

- A. a fibroma.
- B. a keloid.
- C. a fibro-epithelial polyp.
- D. epithelial hyperplasia.

Pulp reactions to caries include all of the following, EXCEPT

- A. decrease in dentin permeability.
- B. tertiary dentin formation.
- C. evaporation of the intratubular fluid.
- D. inflammatory and immune reactions.

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Primary herpetic gingivostomatitis most frequently occurs

- A. before age 10.
- B. between 10 and 20 years of age.
- C. between 20 and 30 years of age.
- D. after age 30.
- E. at any age.

A patient presents with a chronic, purulent draining fistula in the right submandibular area. Culture results are inconclusive but actinomycosis is suspected. Which of the following intravenous antibiotics is most appropriate for the management of the condition?

- A. Sulfonamide.
- B. Aminoglycoside.
- C. Cephalosporin.
- D. Erythromycin.
- E. Penicillin.

Intraosseous nutrient canals are most frequently seen on which of the following radiographs?

- A. Mandibular posterior periapical.
- B. Mandibular anterior periapical.
- C. Maxillary posterior periapical.
- D. Maxillary anterior periapical.

It is ethical to replace amalgam restorations

- A. on request from an informed patient.
- B. to relieve symptoms of multiple sclerosis.
- C. to reduce the risk of developing Alzheimer's disease.
- D. to eliminate toxins from the patient.

Which of the following is most indicative of a sialolith in the submandibular duct?

- A. Periodic swelling of the cheek.
- B. Fluctuant bluish swelling in the floor of the mouth.
- C. Drainage of pus from Stensen's duct.
- D. Pain and swelling associated with eating.

In pin-retained restorations, the pin holes should be parallel to the

- A. long axis of the tooth.
- B. nearest external surface.
- C. pulp chamber.
- D. axial wall.

In general anaesthesia, the last part of the CNS (Central Nervous System) to be depressed is the

- A. medulla.
- B. oblongata.
- C. midbrain.
- D. cerebellum.
- E. spinal cord.

Polyether impression materials should be used with caution for full arch impressions of dentate patients because they

- A. exhibit viscoelasticity.
- B. exhibit a high elastic modulus.
- C. are thixotropic.
- D. are hydrophilic.
- E. are exothermic.

An enameloma is

- A. an odontoma.
- B. an ameloblastoma.
- C. a pearl of enamel.
- D. an enamel hypocalcification.

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The primary etiological factor for the development of root caries is

- A. gingival recession.
- B. acquired xerostomia.
- C. poor oral hygiene.
- D. cigarette smoking.

In the early stage, a periradicular abscess can be differentiated from a lateral periodontal abscess by

- A. pain.
- B. type of exudate.
- C. tenderness to percussion.
- D. response of pulp to electrical stimulation.
- E. radiographic examination.

Which radiographic examination provides the most diagnostic information for the replacement of a permanent mandibular first molar with an osseointegrated implant?

- A. Periapical.
- B. Occlusal.
- C. Panoramic.
- D. Cone beam computed tomography.

Following the extraction of a primary tooth, when is it appropriate to leave root tips in the socket?

- A. There is infection in the area.
- B. The root tip is greater than 2 mm in size.
- C. The root tips will not interfere with ensuing restorative procedures.
- D. The root tips will interfere with development or eruption of the permanent teeth.

Radiographically, the lamina dura is a

- A. thick layer of bone forming the inner surface of the alveolus.
- B. thin radiolucent line around the roots of the teeth.
- C. thick layer of cortical bone.
- D. thin radiopaque line around the roots of the teeth.

Papillary hyperplasia under a denture is usually due to (an)

- A. moniliasis.
- B. ill fitting denture.
- C. allergy to denture cleanser.
- D. avitaminosis.

The earliest colonizers of dental plaque are

- A. Gram-positive rods.
- B. Gram-positive cocci.
- C. Gram-negative rods.
- D. Gram-negative cocci.

Eliminating periodontal pockets by gingivectomy results in

- A. healing by primary intention.
- B. adequate access to correct irregular osseous contours.
- C. retention of all or most of the attached gingiva.
- D. healing by secondary intention.

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In determining the ideal proximal outline form for a Class II amalgam cavity preparation in a molar the

- A. axial wall should be 1.5mm deep.
- B. gingival cavosurface margin must be placed supragingivally.
- C. proximal walls diverge occlusally.
- D. facial and lingual proximal cavosurface margins must just clear contact with the adjacent tooth.

Early detection of a noncavitated smooth surface caries lesion allows for a

- A. conservative preparation for a composite resin restoration.
- B. conservative preparation for an amalgam restoration.
- C. preventive regimen to be implemented to arrest the demineralization and remineralize.
- D. conservative preparation for a resin-modified glass ionomer restoration.

An Angle Class II dental malocclusion in the mixed dentition will most likely

- A. develop into an Angle Class I malocclusion with normal exfoliation of the primary molars.
- B. worsen with forward growth of the maxilla.
- C. develop into an Angle Class I malocclusion with late mandibular growth.
- D. develop into a skeletal malocclusion with growth of the maxilla and mandible.
- E. not change as the maxilla and mandible grow.

A 4 year old child presents with a history of trauma and an asymptomatic discoloured primary maxillary left incisor. A periapical radiograph reveals no abnormalities. The most appropriate management is a/an

- A. regular recall for observation.
- B. pulpotomy.
- C. pulpectomy.
- D. extraction.

Twenty-four hours following the simple extraction of tooth 4.7, a patient presents with severe bleeding from the extraction site. The most likely cause of this bleeding is a/an

- A. disturbance of the hemostatic plug.
- B. infection of the socket.
- C. undiagnosed coagulopathy.
- D. dry socket.

The anatomical landmarks used to help establish the location of the posterior palatal seal of a maxillary complete denture include the

- A. pterygomaxillary notches and the fovea palatinae.
- B. pterygomaxillary notches and the posterior nasal spine.
- C. posterior border of the tuberosities and the posterior border of the palatine bone.
- D. anterior border of the tuberosities, the palatine raphe and the posterior border of the palatine bone.

When an orthodontic force is applied to a tooth, blood flow to the periodontal ligament is altered within

- A. seconds.
- B. minutes.
- C. hours.
- D. days.

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Compared to nonsmokers, patients who smoke have

- A. increased salivary antibodies (immunoglobulin A).
- B. increased serum IgG antibody response to periodontal pathogens.
- C. decreased serum T lymphocytes.
- D. decreased collagenase in periodontal tissue.

Enamel hypoplasia in a newly-erupted permanent incisor is most likely caused by

- A. trauma to predecessor primary incisor.
- B. a hypertrophic labial frenum.
- C. an eruption hematoma.
- D. premature tooth eruption.

During healing following implant placement, the cells that generate new bone tissue are

- A. osteoblasts.
- B. osteocytes.
- C. osteoclasts.
- D. osteophytes.

Carious lesions are most likely to develop if a patient has

- A. a high lactobacillus count.
- B. saliva with low buffering capacity.
- C. plaque on his teeth.
- D. lactic acid in his mouth.

What is the most appropriate medication to control the dental pain following the adjustment of orthodontic appliances in a child?

- A. Acetaminophen.
- B. Ibuprofen.
- C. Naproxen.
- D. Aspirin.

Type I hypersensitivity results from cross-linking of which immunoglobulin on mast cells?

- A. IgA.
- B. IgD.
- C. IgE.
- D. IgG.
- E. IgM.

Improper temporary coverage of bridge abutments can cause

- A. increased tooth sensitivity.
- B. gingival recession.
- C. tooth migration.
- D. occlusal prematurities.
- E. All of the above.

A patient on hemodialysis

- A. should receive dental treatment only on the day of hemodialysis.
- B. should not be administered lidocaine for local anesthesia.
- C. is likely to have an increased red blood cell count.
- D. is at greater risk for infection.

Cleidocranial dysplasia can be associated with (a)

- A. premature loss of teeth.
- B. micrognathia.
- C. high incidence of palatal clefts.
- D. associated high caries index.
- E. multiple supernumerary and unerupted teeth.

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Gingival enlargement associated with use of cyclosporine is primarily characterized by an increase of

- A. plasma cells.
- B. edema.
- C. collagen.
- D. keratinocytes.

A tooth with a mild pulpitis should be sedated with

- A. polycarboxylate cement.
- B. composite resin.
- C. silicophosphate cement.
- D. zinc-oxide-eugenol cement.

For a complete denture patient, which letter or sound is a guide for the position of the incisal edge of the maxillary incisors?

- A. M.
- B. S.
- C. F.
- D. P.
- E. J.

The absence of adequate drainage in a periodontal pocket may result in

- A. cyst formation.
- B. abscess formation.
- C. epithelial hyperplasia.
- D. increased calculus formation.

Interceptive orthodontic treatment has NO effect on the

- A. final basal bone width of the mandible.
- B. direction of growth of the mandible.
- C. space available for the eruption of the permanent dentition.
- D. angulation of the teeth in the permanent dentition.

Mandibular growth

- A. is sustained over a longer period of time in girls.
- B. is sustained over a longer period of time in boys.
- C. occurs at the same chronologic age in both sexes.
- D. occurs two years earlier in boys than in girls.

The technique of amalgam bonding can be

- A. used as the primary means of retaining an amalgam restoration.
- B. relied upon to reinforce severely weakened cusps.
- C. effective in providing an improved initial seal.
- D. used in conjunction with copal varnish.

Which of the following is the best indication for the removal of mandibular third molars?

- A. Recurrent pericoronitis.
- B. Prevention of crowding of mandibular incisors.
- C. Generalized aggressive periodontitis.
- D. Impaction.

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There is an acute apical abscess (acute periradicular abscess) on tooth 1.3. The tooth must be extracted. In addition to a palatal injection, the most appropriate local anesthetic technique would be

- A. vestibular infiltration.
- B. infraorbital.
- C. middle superior alveolar.
- D. intraligamentary.

An alcoholic patient with bleeding tendencies may require injection of which vitamin prior to an extraction?

- A. Vitamin B₁₂.
- B. Vitamin C.
- C. Vitamin D.
- D. Vitamin K.

A 50 year old female had intravenously administered bisphosphonates for the past 3 years. She now has an area of exposed necrotic bone with sharp edges in an edentulous maxilla. The most appropriate management is to perform

- A. minimal surgical debridement immediately.
- B. aggressive surgical debridement immediately.
- C. minimal surgical debridement after delaying 3 months.
- D. aggressive surgical debridement after delaying 3 months.

Which of the following sweeteners used in sugarless gum is most effective in preventing caries?

- A. Xylitol.
- B. Sorbitol.
- C. Mannitol.
- D. Glycerol.

Which of the following impression materials has the best dimensional stability?

- A. Polysulfide rubber.
- B. Condensation silicone.
- C. Polyvinylsiloxane.
- D. Irreversible hydrocolloid.

Teeth 4.5 and 4.7 are restored with very large, deep MOD amalgams. For the extraction of tooth 4.6, which of the following sequences of instruments would be LEAST appropriate?

- A. Periosteal elevator, forceps.
- B. Periosteal elevator, dental elevator, forceps.
- C. Bur to section tooth, periosteal elevator, forceps.
- D. Scalpel, periosteal elevator, bur to section tooth, forceps.
- E. Scalpel, periosteal elevator, bur to section tooth, dental elevator, forceps.

In patients with cleft palates there may be

- A. an increase in supernumerary teeth.
- B. an increase in congenitally missing teeth.
- C. a higher incidence of crown defects.
- D. All of the above.

A patient with hyperthyroidism may exhibit

- A. weight gain.
- B. delayed eruption of teeth.
- C. exophthalmos.
- D. gingival inflammation.

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When used alone, which of the following agents will not produce satisfactory anesthesia?

- A. Isoflurane.
- B. Sevoflurane.
- C. Nitrous oxide.
- D. Desflurane.

After a tooth surface has been completely cleaned, the new glycoprotein coating which forms on the surface is called

- A. pellicle.
- B. plaque.
- C. materia alba.
- D. biofilm.

For a ceramometal crown, the thermal expansion coefficient of the ceramic (porcelain) should be

- A. slightly lower than that of the underlying metal structure.
- B. equal to that of the underlying metal structure.
- C. slightly higher than that of the underlying metal structure.
- D. significantly higher than that of the underlying metal structure.

An ankylosed deciduous molar can cause

- A. delayed eruption of the succeeding premolar.
- B. alteration of arch length.
- C. difficulty with extraction.
- D. All of the above.

Cephalometrics is useful in assessing which of the following relationships?

- A. Tooth-to-tooth.
- B. Bone-to-bone.
- C. Tooth-to-bone.
- D. All of the above.

At the wax rim stage of jaw relation records for complete dentures, phonetic tests can be used to determine

- A. flange extension.
- B. protrusion.
- C. esthetics.
- D. centric relation.
- E. vertical dimension of occlusion.

The purpose of a post and core restoration is to

- A. seal the root canal treatment.
- B. reinforce the remaining tooth structure.
- C. retain the crown.
- D. prevent root discolouration.

Which of the following teeth are most commonly lost due to periodontal disease?

- A. Maxillary first and second premolars.
- B. Maxillary first and second molars.
- C. Mandibular first and second premolars.
- D. Mandibular central and lateral incisors.

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Habitual thumbsucking that continues after the age of six commonly results in

- A. anterior open bite.
- B. skeletal malocclusion.
- C. mouth breathing.
- D. sinusitis.

Radiographs of a periodontally related osseous defect can be used to confirm the

- A. number of bony walls.
- B. extent of the defect.
- C. location of the epithelial attachment.
- D. presence of a furcation involvement.

A feature of primary syphilis is

- A. atrophic glossitis.
- B. a gumma.
- C. a chancre.
- D. a mucous patch.

The most appropriate management for a patient with bilateral temporomandibular joint clicking without pain is

- A. no treatment.
- B. temporomandibular joint surgery.
- C. an anterior repositioning splint.
- D. cortisone injections.

Glass ionomer cement restorations are indicated for

- A. root caries.
- B. incisal edge fractures.
- C. Class II lesions in adults.
- D. locations where esthetics are important.

An abnormal decrease in the flow of saliva is

- A. ptyalism.
- B. sialometaplasia.
- C. xerostomia.
- D. pyroglossia.

The following violations provide grounds for a criminal action in battery EXCEPT

- A. intentional touching.
- B. defamation causing harm.
- C. treatment without consent.
- D. harmful contact.

A 27 year old woman complains of burning mouth, fatigue, palpitations and lack of energy. An oral exam shows angular cheilitis and atrophic glossitis. What is the most likely diagnosis?

- A. Iron deficiency anemia.
- B. Crohn's disease.
- C. Chronic lymphocytic leukemia.
- D. Vitamin B deficiency.

Which of the following statements is correct with respect to root caries lesions?

- A. A specific microorganism causes root caries.
- B. Early lesions involve adjacent enamel.
- C. Colour of the lesion is a reliable indicator of caries activity.
- D. The majority of lesions begin interproximally.

A CONTRAINDICATION for a pulpectomy on a primary molar is

- A. pulpal hyperemia.
- B. spontaneous nocturnal pain.
- C. pulp tissue necrosis.
- D. less than 1/3 of the root structure remaining.

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Antibiotics are indicated for management of which of the following conditions?

- A. Chronic apical abscess.
- B. Previously treated tooth with acute periapical periodontitis.
- C. Acute apical abscess with cellulitis.
- D. Irreversible pulpitis.

When a partial denture is to be fabricated where occlusal adjustment of the natural teeth is required, this should be performed

- A. prior to taking the final impressions.
- B. prior to registering centric relation but after final impression taking.
- C. after the framework has been constructed.

A 23 year old female complains of bilateral stiffness and soreness in the preauricular region. Her symptoms have been present for the past week and are most pronounced in the morning. The most likely cause is

- A. fibrous ankylosis of the temporomandibular joints.
- B. nocturnal bruxism.
- C. early osteoarthritis.
- D. mandibular subluxation.

Epinephrine antagonizes the effects of histamine by

- A. preventing the release of histamine.
- B. acting on the central nervous system.
- C. producing physiologic actions opposite to that of histamine.
- D. competitive blocking of histamine at the cellular receptor site.

Cleidocranial dysplasia can be associated with

- A. fragile bones.
- B. multiple supernumerary teeth.
- C. keratocystic odontogenic tumours.
- D. high incidence of facial clefts.

Which of the following procedures will NOT improve the retention of a fissure sealant?

- A. Use of separate etching and bonding agents rather than a self-etching bonding agent.
- B. Roughening of the enamel with a 2 round bur.
- C. Maintaining a dry field until the sealant is set.
- D. Use of a bonding agent prior to sealant application.

Which of the following is NOT a manifestation of hyperglycemia?

- A. Moist skin.
- B. Acetone breath.
- C. Abdominal pain.
- D. Decreased consciousness.

Which of the following procedures requires antibiotic prophylaxis for a patient with a prosthetic heart valve?

- A. Inferior alveolar nerve block.
- B. Postoperative suture removal.
- C. Restoration of occlusal caries.
- D. Making an alginate impression.

Root resorption of primary teeth can be delayed by

- A. the absence of a permanent replacement.
- B. the premature loss of adjacent primary teeth.
- C. the presence of premature occlusal contact.
- D. inflammation of the pulp.
- E. occlusal crossbite.

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A modified hinge non-adjustable articulator is limited in its accuracy to reproduce dynamic jaw movements because it can only reproduce

- A. large centric relation-maximum intercuspation slides.
- B. one hinge axis movement.
- C. eccentric movements by multiple lateroprotrusive registrations.

There is a differential between girls and boys with respect to the age at which the growth velocity reaches its peak. That difference is

- A. boys six months ahead of girls.
- B. girls six months ahead of boys.
- C. girls one year ahead of boys.
- D. girls two years ahead of boys.

A syphilitic gumma is most commonly found on the

- A. lip.
- B. tongue.
- C. palate.
- D. buccal mucosa.
- E. gingiva.

All of the following are signs of occlusal trauma EXCEPT

- A. tooth mobility.
- B. tooth sensitivity.
- C. radiographic evidence of increased periodontal ligament space.
- D. loss of pulp vitality.

A pontic should

- A. exert no pressure on the ridge.
- B. be contoured by scraping the master cast.
- C. have a large surface area in contact with the ridge.
- D. contact nonkeratinized tissue.

Oral leukoplakia has the most favourable prognosis when it is

- A. present in a non-smoker.
- B. accompanied by pain.
- C. infected with *Candida albicans*.
- D. speckled in appearance.
- E. on the hard palate.

During tooth development, vitamin A deficiency may result in

- A. peg-shaped teeth.
- B. partial anodontia (hypodontia).
- C. Hutchinson's incisors.
- D. enamel hypoplasia.
- E. dentinogenesis imperfecta.

Which of the following would you prescribe for an anxious dental patient with a peptic ulcer?

- A. Reserpine.
- B. Scopolamine.
- C. Silica gel.
- D. Diazepam.
- E. Calcium carbonate.

Facial paralysis following an inferior alveolar nerve block is a result of injecting the solution too far

- A. inferiorly.
- B. superiorly.
- C. posteriorly.
- D. anteriorly.

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After placement of the rubber dam you notice that the interdental papilla is protruding from beneath the rubber dam. The reason for this is that

- A. a rubber dam frame was used.
- B. the holes were placed too far apart.
- C. a light weight dam was used.
- D. the holes were placed too close together.
- E. the teeth were not individually ligated.

Which of the following has been implicated in the development of oral pigmentation?

- A. Atorvastatin.
- B. Chloroquine.
- C. Fluoxetine.
- D. Omeprazole.
- E. Valsartan.

Which drug is indicated as part of the management for a codeine overdose?

- A. Atropine.
- B. Diphenhydramine.
- C. Epinephrine.
- D. Flumazenil.
- E. Naloxone.

Which of the following lesions is most commonly found in the anterior region of the mandible?

- A. Ameloblastoma.
- B. Calcifying epithelial odontogenic tumour.
- C. Central cementifying fibroma.
- D. periapical osseous dysplasia (periapical cemento-osseous dysplasia).

The pain associated with pulpitis often disappears when a patient visits a dental office. This occurs due to which of the following events?

- A. Stress-induced sympathetic activity inhibits pulpal sensory fibres that cause pain.
- B. Stress-induced sympathetic activity causes vasodilatation of pulpal blood vessels.
- C. Local mediators of pulpal pain are not released when a stress-induced rise in blood pressure occurs.
- D. Pulpal pain receptors undergo fatigue.

Which of the following is necessary to make a diagnosis of a keratocystic odontogenic tumour (odontogenic keratocyst)?

- A. Aspiration cytology.
- B. Exfoliative cytology.
- C. Radiographic examination alone.
- D. Histopathologic examination.

When cavitated carious lesions are present there is

- A. exposure of the dentin protein matrix.
- B. demineralization by matrix metalloproteinases.
- C. bacterial protease inhibition.
- D. a denatured inorganic phase.

Lidocaine (Xylocaine) is an example of a local anesthetic which is chemically classified as an

- A. amide.
- B. ester.
- C. aldehyde.
- D. ethamine.
- E. aminide.

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Which is the most appropriate treatment for a patient who reports persistent thermal sensitivity 4 weeks after placement of a posterior composite resin restoration with acceptable occlusion?

- A. Adjust the restoration slightly out of occlusion.
- B. Replace the restoration with a reinforced zinc oxide eugenol restoration.
- C. Replace the restoration with a bonded amalgam restoration.
- D. Replace the restoration with a bonded composite resin restoration.

Which of the following is NOT associated with cancer chemotherapy in an adult?

- A. Candida infection.
- B. Gingival bleeding.
- C. Enamel staining.
- D. Dysgeusia.

During initial endodontic preparation of the apical portion of the canal,

- A. integrity of the apical one third should be maintained.
- B. sodium hypochlorite should be used sparingly.
- C. use the next larger file as soon as a tight fit of the preceding file is achieved.
- D. if there is a canal restriction, enlarge with a wider file.
- E. use Gates-Glidden drills as end-cutting instruments to open the coronal portion of canal.

Which of the following should NOT be prescribed for a patient receiving warfarin?

- A. Acetylsalicylic acid.
- B. Oxycodone.
- C. Acetaminophen.
- D. Codeine.

Which of the following statements is correct about Quantitative Light or Laser Induced Fluorescence used to aid in the early detection of caries?

- A. Low specificity when used to detect smooth surface caries.
- B. Unable to detect caries around existing restorations.
- C. High sensitivity when used to detect interproximal caries.
- D. Assesses light reflection as opposed to light transmission.

During dental treatment, a 45 year old male patient complains of a tight constriction of his chest, becomes pale and sweaty, feels nauseous and attempts to vomit. The most likely diagnosis is

- A. pulmonary embolus.
- B. stroke.
- C. pneumonia.
- D. myocardial infarction.

During the setting phase, a dental stone mixture will exhibit

- A. expansion.
- B. contraction.
- C. loss in compressive strength.
- D. gain in moisture content.

Short-acting barbiturates are metabolized mainly in the

- A. liver.
- B. kidneys.
- C. small intestine.
- D. pancreas.
- E. spleen.

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Which of the following is NOT a consequence of vital bleaching with 10% carbamide peroxide?

- A. Reversible tooth sensitivity.
- B. Soft tissue sloughing.
- C. Sore throat.
- D. Weakening of the enamel.

In a safe general anesthetic mixture, the MINIMALLY acceptable percentage of oxygen is

- A. 5%.
- B. 10%.
- C. 20%.
- D. 50%.
- E. 80%.

Which of the following restorations is the most appropriate for a primary molar with 3 or more carious surfaces in a high caries-risk child?

- A. Bonded amalgam.
- B. Composite resin.
- C. Stainless steel crown.
- D. Resin modified glass ionomer cement.

Light-cured dental composites set when exposed to light. Light is the

- A. initiator.
- B. reactor.
- C. catalyst.
- D. activator.
- E. terminator.

Mouth breathing is most commonly associated with Angle's malocclusion Class

- A. I.
- B. II, Division 1.
- C. II, Division 2.
- D. III.
- E. None of the above.

Which of the following is the most appropriate management for a child with acute primary herpetic gingivostomatitis?

- A. Analgesic and hydration therapy.
- B. Antibiotic therapy.
- C. Topical corticosteroid therapy.
- D. Topical antifungal therapy.

The primary stress bearing area of the maxillary complete denture is the

- A. hard palate.
- B. alveolar ridge.
- C. median palatal raphe.
- D. zygoma.

Between the ages of 5 and 18 years, mandibular arch length

- A. increases 0-1mm.
- B. increases 3-4mm.
- C. decreases 0-1mm.
- D. decreases 3-4mm.

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Appropriate forces for orthodontic tooth movement are

- A. intermittent and light.
- B. continuous and heavy.
- C. intermittent and heavy.
- D. continuous and light.

The desirable relationship between the coefficients of thermal expansion of an alloy (ϵ_{metal}) and a ceramic ($\epsilon_{\text{ceramic}}$) used for a metallo-ceramic restoration is

- A. ϵ_{metal} significantly higher than $\epsilon_{\text{ceramic}}$.
- B. ϵ_{metal} significantly lower than $\epsilon_{\text{ceramic}}$.
- C. ϵ_{metal} equal to $\epsilon_{\text{ceramic}}$.
- D. ϵ_{metal} slightly higher than $\epsilon_{\text{ceramic}}$.
- E. ϵ_{metal} slightly lower than $\epsilon_{\text{ceramic}}$.

The etiology of an Angle Class II malocclusion in a 12 year old with an SNA = 82° and an SNB = 75° is most likely

- A. dental.
- B. skeletal.
- C. neuromuscular.
- D. dental and neuromuscular.
- E. skeletal and dental.

The most common location of a lateral periodontal cyst is in the area of the

- A. maxillary incisors.
- B. maxillary molars.
- C. mandibular premolars.
- D. mandibular molars.

Tetracycline therapy instituted either in the second trimester or post partum to the infant is responsible for all the following EXCEPT

- A. discolouration of deciduous teeth and permanent teeth.
- B. minor changes in the hydroxyapatite of the enamel.
- C. predisposing the infant to candidal infections.
- D. forming a complex with the developing tooth material.

A patient who has until recently been on prolonged corticosteroid therapy may have

- A. increased bleeding time.
- B. hyposensitivity to pain.
- C. decreased tolerance to physiological stress.
- D. an increased metabolic rate.
- E. high level of plasmatic cortisol.

The tooth preparation for a porcelain veneer must create a/an

- A. rough surface for improved bonding.
- B. space for an appropriate thickness of the veneering material.
- C. margin well below the gingival crest.
- D. definite finish line.

A metal in the wrought condition differs from the same metal in the cast condition in that

- A. the grains are deformed.
- B. the yield strength and hardness are increased.
- C. the resistance to corrosion is decreased.

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An apprehensive 77 year old patient, weighing approximately 60kg, requires the removal of several mandibular teeth under local anesthesia. The most appropriate method to manage this patient's anxiety is to administer

- A. 20mg of diazepam, intravenously.
- B. 20mg of diazepam, orally.
- C. 100mg of secobarbital, orally.
- D. nitrous oxide and oxygen.

The tissue which cannot be seen on dental radiographs is

- A. dentin.
- B. enamel.
- C. cementum.
- D. pulp.
- E. periodontal ligament.

A 72 year old male patient complains of bone pain, fever and fatigue. Clinical examination shows petechiae on the skin and oral mucosa. The tongue has a nodular appearance. A craniofacial radiograph shows punched-out radiolucencies. The most likely diagnosis is

- A. Burkitt's lymphoma.
- B. chondrosarcoma.
- C. acute lymphocytic leukemia.
- D. multiple myeloma.

Increasing the amount of network modifiers (e.g. CaO, Na₂O) in porcelain will

- A. increase its fusion temperature.
- B. decrease its thermal expansion.
- C. increase its chemical reactivity.
- D. decrease its potential for devitrification upon heating.

Primary herpetic gingivostomatitis most frequently occurs

- A. before age 10.
- B. between 11 and 20 years of age.
- C. between 21 and 30 years of age.
- D. after age 31.

Following a simple extraction of tooth 4.7, hemostasis was achieved. Four hours later, there is renewed bleeding from the extraction site. The most appropriate initial management is to

- A. administer local anesthetic with epinephrine and suture.
- B. apply firm pressure for ten minutes.
- C. obtain an INR and complete blood count.
- D. apply dry socket dressing.

The sharpness of a radiographic image can be improved by

- A. increasing the object-to-film distance.
- B. using a larger focal spot.
- C. using a larger collimator.
- D. increasing the focal spot-to-film distance.

Filters are placed in the path of the x-ray beam to

- A. increase contrast.
- B. reduce film density.
- C. reduce exposure time.
- D. reduce patient radiation dose.

The rate of "set" of polysulfide impression materials is accelerated by

- A. increasing the mixing temperature.
- B. decreasing the mixing temperature.
- C. adding oleic acid to the mix.
- D. increasing the base/catalyst ratio.

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Which of the following is NOT a sign of occlusal trauma?

- A. Fremitus.
- B. Gingival recession.
- C. Widened periodontal ligament.
- D. Tooth migration.

Achieving root coverage with a connective tissue graft is most dependent on the presence of sufficient

- A. interdental soft and hard tissue.
- B. buccal and lingual soft and hard tissue.
- C. unattached gingiva adjacent to the site.
- D. attached gingiva adjacent to the site.

Which of the following is correct with respect to the hand-wrist radiograph?

- A. Skeletal age may be estimated by comparing the image to a standard.
- B. It provides a precise measure of skeletal development.
- C. It is of minimal value in orthodontic diagnosis.
- D. It is only determinate of skeletal age.

A periradicular granuloma can be differentiated from a periradicular cyst by the

- A. radiographic appearance.
- B. patient's symptoms.
- C. response to percussion testing.
- D. results of the biopsy.

A 42 year old healthy patient had a simple extraction of a periodontally involved tooth 3.7. Immediately postoperatively there is significant hemorrhage. What is the most appropriate initial management?

- A. Pack the extraction site with absorbable gelatin sponge.
- B. Call patient's physician for bleeding disorders assessment.
- C. Have the patient rinse vigorously with water and spit repeatedly.
- D. Instruct patient to bite on gauze over extraction site firmly for 30 minutes.

Chronically inflamed submandibular lymph nodes are

- A. soft.
- B. not palpable.
- C. firm.
- D. fixed.

What is the maximum number of cartridges (1.8ml) of a 2% local anesthetic solution that can be administered without exceeding a total dose of 300mg?

- A. 2.
- B. 4.
- C. 6.
- D. 8.
- E. 10.

Spirochete activity is seen by

- A. staining with Gram's method.
- B. staining with methylene blue.
- C. observation with dark-field microscopy.
- D. observation with conventional microscopy.

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Residual root tips will not be visible on panoramic radiographs of a completely edentulous patient if

- A. they are not close enough to the focal trough of the machine.
- B. the patient is wearing dentures when the image is produced.
- C. a digital panoramic machine is used.
- D. the patient moves during production of the image.

The enamel structures most resistant to the action of acids are

- A. cuticles.
- B. lamellae.
- C. rods.
- D. interprismatic substances.

Lancinating paroxysmal pain in the posterior part of the tongue, tonsil, nasopharynx and pharynx is most likely diagnostic of

- A. Ménière's disease.
- B. trigeminal neuralgia.
- C. sphenopalatine neuralgia.
- D. glossopharyngeal neuralgia.
- E. psychotic glossopharyngitis.

Leeway space is the difference in size between the

- A. maxillary and the mandibular tooth material.
- B. primary and the permanent incisors.
- C. primary molars and the premolars.
- D. maxillary and the mandibular primate spaces.

Recurrent unilateral submandibular swelling and pain just prior to meals is indicative of

- A. an odontogenic infection.
- B. sialolithiasis.
- C. ranula.
- D. sarcoidosis.
- E. Sjögren syndrome.

The immediate treatment of a periodontal abscess is to

- A. establish drainage.
- B. prescribe an analgesic.
- C. relieve the occlusion.
- D. prescribe an antibiotic.

Which of the following is a principle of closed fracture management?

- A. Incision at fracture site.
- B. Rigid fixation of fragments.
- C. Debridement of fracture site.
- D. Immobilization of fracture.

The most common clinical characteristic of a posterior crossbite with a functional shift is

- A. midline deviation.
- B. arch asymmetry.
- C. pain on closure.
- D. severe crowding.

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A periapical radiograph of a 7 year old child reveals an inverted mesiodens. Tooth 1.1 is partially erupted and tooth 2.1 has not yet erupted. The most appropriate management is to

- A. allow the mesiodens to erupt.
- B. remove the mesiodens and orthodontically erupt the central incisor.
- C. remove the mesiodens and re-assess.
- D. wait for the mesiodens and the tooth 2.1 to erupt.

The ANB angle in severe Class II malocclusions is most often

- A. large.
- B. small.
- C. within normal limits.

After initiating preventive management for a 16 year old patient with multiple extensive carious lesions, which of the following restorative treatments is most appropriate?

- A. Place amalgam restorations over the next few months.
- B. Excavate caries and place temporary restorations within the next few weeks.
- C. Delay any treatment until the hygiene improves.
- D. Restore all teeth with composite resin over the next few months.

Cartilage grows by

- A. interstitial growth.
- B. appositional growth.
- C. both appositional and interstitial growth.
- D. None of the above.

Which of the following is most radiopaque?

- A. Lamina dura.
- B. Enamel.
- C. Cortical bone.
- D. Gold inlay.
- E. Composite restoration.

On bite-wing radiographs, the normal alveolar crest on a young adult is

- A. at the cemento-enamel junction.
- B. 1-2mm apical to the cemento-enamel junction.
- C. 3-4mm apical to the cemento-enamel junction.

The benign neoplasm that originates from squamous epithelium is called a/an

- A. adenoma.
- B. choriocarcinoma.
- C. chondroma.
- D. lipoma.
- E. papilloma.

What is the most likely cause of voids in a maxillary diagnostic cast?

- A. Poor mix of the impression material, incorporating air into the material.
- B. Formation of saliva droplets on the palate while the impression is setting.
- C. Poor mix of the stone.
- D. Too high a water:powder ratio of the stone.
- E. Poor flow of the impression material.

A radicular cyst

- A. enlarges rapidly.
- B. infiltrates bone.
- C. contains fluid.
- D. is associated with a vital tooth.

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A dentist who has been diagnosed as a chronic Hepatitis B carrier can perform exposure prone procedures

- A. using Standard precautions.
- B. in the absence of HBeAg.
- C. following a review by an Expert Panel.

Which of the following drugs has the strongest antisialagogue properties?

- A. Codeine.
- B. Atropine.
- C. Acetylsalicylic acid.
- D. Ibuprofen.
- E. Penicillin.

In radiology, if target-skin distance is doubled, the exposure time must be

- A. doubled.
- B. tripled.
- C. quadrupled.
- D. increased 10 times.

A patient with Alzheimer's dementia presents with his personal care worker. His daughter, who is his legal guardian, is unavailable. What is required to obtain informed consent for an elective invasive procedure?

- A. The patient's presence implies consent.
- B. Obtain written consent from the patient.
- C. Obtain written consent from the personal care worker.
- D. Obtain consent from the patient's daughter.

Inefficient progress in permanent molar uprighting is most likely due to

- A. chronic periodontitis.
- B. heavy force application.
- C. lack of anchorage.
- D. occlusal interference.

Which of the following tissues is the LEAST sensitive to the effects of x-radiation?

- A. Hematopoietic.
- B. Gonadal.
- C. Bone.
- D. Glandular.

A healthy 78 year old patient presents with three new carious lesions on root surfaces. This is most likely the result of

- A. age related changes in cementum composition.
- B. the architecture at the CEJ.
- C. age related decrease in salivary flow.
- D. changes in dietary pattern.
- E. chronic periodontal disease.

During periodontal wound healing, when osteoclasts reach the root surface first, this will result in

- A. a long junctional epithelial attachment.
- B. connective tissue adhesion.
- C. root resorption and/or ankylosis.
- D. regenerated periodontium.

In minimizing the firing shrinkage of porcelain, the principal factor is the

- A. fusion temperature.
- B. ratio of flux to feldspar.
- C. uniformity of particle size.
- D. thoroughness of condensation.

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Subgingival calculus

- A. does not have a definite predilection for a specific site or sites.
- B. derives from subgingival plaque.
- C. may take longer to form compared to supragingival calculus.
- D. All of the above.

The most appropriate radiographic examination for a new patient with an extensively restored dentition and generalized periodontal disease is (a)

- A. full mouth periapicals.
- B. full mouth periapicals and bitewings.
- C. panoramic radiograph.
- D. panoramic radiograph and bitewings.
- E. cone beam computed tomography.

The minimum time to re-evaluate tissue response after initial therapy for a patient with generalized moderate chronic periodontitis is

- A. 1-10 days.
- B. 11-20 days.
- C. 21-30 days.
- D. 31-40 days.

A normal postoperative sequela of third molar surgery is

- A. infection.
- B. pain.
- C. paresthesia.
- D. Alveolar osteitis.

Dietary consumption of which of the following inhibits the cytochrome P450 system?

- A. Meat.
- B. Broccoli.
- C. Decaffeinated tea.
- D. Grapefruit juice.

Juvenile periodontitis

- A. is associated with gram-negative anaerobic flora.
- B. is associated with gram-positive anaerobic flora.
- C. is associated with root caries.
- D. has a definite predilection toward males.

In the mandibular first premolar, the occlusal dovetail of an ideal disto-occlusal amalgam preparation is usually not extended into the mesial fossa because of the

- A. small lingual lobe.
- B. large buccal cusp.
- C. large buccal pulp horn.
- D. prominent transverse ridge.

The depth of penetration of a periodontal probe in a sulcus is LEAST affected by the

- A. amount of clinical attachment loss.
- B. diameter of the probe.
- C. force used on the probe.
- D. level of inflammation.

Which of the following procedures is NOT indicated for the management of infrabony defects?

- A. Gingivectomy.
- B. Regenerative surgery.
- C. Flap surgery.
- D. Gingival graft.

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A patient is currently on warfarin. Before a planned extraction of tooth 3.4, the patient's coagulation mechanism should be evaluated using which test?

- A. Bleeding time.
- B. Partial thromboplastin time.
- C. Prothrombin time or INR.
- D. Von Willebrand's Factor.

The main purpose of flux in soldering is to

- A. dissolve surface oxides and prevent further oxidation.
- B. prevent recrystallization and grain growth.
- C. prevent oxidation and lower the melting range of the solder.
- D. dissolve surface oxides and lower the melting range.

In an adult, continued growth of the mandibular condyles, an increase in size of the bones and soft tissues of the hands, feet, supraorbital ridges and air sinuses suggest

- A. Addison's disease.
- B. hyperthyroidism.
- C. pituitary adenoma.
- D. gigantism.

The periodontal condition showing localized advanced vertical bone loss involving the first molars and the incisors is diagnosed as

- A. necrotizing ulcerative periodontitis.
- B. aggressive localized periodontitis.
- C. chronic localized periodontitis.
- D. periodontitis as a manifestation of a systemic disease.

An overdose of acetaminophen can result in

- A. nephrotoxicity.
- B. cardiotoxicity.
- C. neurotoxicity.
- D. hepatotoxicity.

Which of the following restorations is the most appropriate for the replacement of a maxillary permanent lateral incisor where there is 4.5mm of mesial-distal space and an intact central incisor?

- A. Implant supported restoration.
- B. Cantilever pontic FPD using canine abutment.
- C. Removable partial denture.
- D. Three-unit metal-ceramic full-coverage fixed dental prosthesis.

Trismus is most frequently caused by

- A. tetanus.
- B. muscular dystrophy.
- C. infection.
- D. mandibular fracture.

Which of the following statements about dental caries is INCORRECT?

- A. Caries development requires a tooth, saliva, plaque bacteria and dietary carbohydrate.
- B. The earliest clinical evidence of caries is a "white spot" lesion, which is reversible.
- C. Some areas of enamel are more susceptible to demineralization.
- D. Frequency of sugar intake is less important than total consumption.
- E. High salivary or plaque counts of *S. mutans* and *Lactobacillus* spp. may be related to high caries risk.

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In periodontal ligaments, enzymatic hydroxylation of proline and lysine residues on nascent procollagen requires

- A. vitamin C.
- B. lysyl oxidase.
- C. calcium ions.
- D. decorin.
- E. matrix metalloproteinase.

The minimum time to wait before placing composite restorations after the completion of a bleaching (whitening) treatment is

- A. 1 to 2 hours.
- B. 24 to 48 hours.
- C. 1 to 2 weeks.
- D. 4 to 5 weeks.

A study has been conducted comparing rates of dental caries in 25 cities with differing levels of fluoride in the water supply. This study is a/an

- A. cross-sectional study.
- B. community trial.
- C. ecological study.
- D. case series.

A smooth surface coronal white spot carious lesion that is visible when the tooth is both wet and dry indicates that the

- A. lesion is less than halfway through the enamel.
- B. enamel is stained and not demineralized.
- C. lesion is more than halfway through the enamel.
- D. caries involves the inner half of the dentin.

A patient with complete dentures complains of clicking. The most common causes are

- A. reduced vertical dimension and improperly balanced occlusion.
- B. excessive vertical dimension and poor retention.
- C. use of too large a posterior tooth and too little horizontal overlap.
- D. improper relation of teeth to the ridge and excessive anterior vertical overlap.

A 4 year old child has a normal complement of deciduous teeth, but in appearance they are grayish and exhibit extensive occlusal and incisal wear. Radiographic examination indicates some extensive deposits of secondary dentin in these teeth. This condition is typical of

- A. cleidocranial dysplasia.
- B. amelogenesis imperfecta.
- C. neonatal hypoplasia.
- D. dentinogenesis imperfecta.

What is the most probable complication of a local anesthetic injection into the parotid gland?

- A. Infection.
- B. Trismus.
- C. Diplopia.
- D. Facial paralysis.

Which of the following is/are vital signs?

- A. Pulse and respiratory rate.
- B. Complete blood count.
- C. Pupil size and reactivity.
- D. Height and weight.

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Which of the following conditions is an example of a mucous retention phenomenon?

- A. Nicotine stomatitis.
- B. Koplik's spots.
- C. Ranula.
- D. Residual cyst.
- E. Nasopalatine cyst.

Which of the following muscles has two separate functions in mandibular movement?

- A. Masseter.
- B. Geniohyoid.
- C. External (lateral) pterygoid.
- D. Buccinator.

To improve denture stability, mandibular molar teeth should normally be placed

- A. over the crest of the mandibular ridge.
- B. buccal to the crest of the mandibular ridge.
- C. over the buccal shelf area.
- D. lingual to the crest of the mandibular ridge.

What is the minimum CD4 count to perform elective dental treatment?

- A. 100 cells/mm³.
- B. 200 cells/mm³.
- C. 300 cells/mm³.
- D. 400 cells/mm³.
- E. 1000 cells/mm³.

Which articular disease most often accompanies Sjögren's syndrome?

- A. Suppurative arthritis.
- B. Rheumatoid arthritis.
- C. Degenerative arthrosis.
- D. Psoriatic arthritis.
- E. Lupus arthritis.

In gingivitis, the sulcular epithelium has the following characteristics EXCEPT it

- A. is a barrier to bacterial invasion.
- B. is permeable to bacterial enzymes and toxins.
- C. may be ulcerated.
- D. undergoes both degenerative and proliferative changes.

In a standard dental cartridge (carpule) containing 1.8ml 2% lidocaine with epinephrine 1/100,000, the amount of vasoconstrictor is

- A. 18.0 mg.
- B. 0.018 mg.
- C. 1.8 mg.
- D. 0.18 mg.
- E. 180.0 mg.

A tissue-level implant should be used when

- A. the edentulous site is in the esthetic zone.
- B. platform switching is desired.
- C. a 2-stage surgical approach is planned.
- D. ease for oral hygiene is desired to preserve crestal bone.

An 8 year old has lost tooth 1.1. Tooth 1.2 will most likely erupt

- A. without encroaching upon the space for tooth 1.1.
- B. encroaching upon the space for tooth 1.1.
- C. distally to the space for tooth 1.2.

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Which of the following is a principle of mucoperiosteal flap design?

- A. The base of the flap should be narrower than the free margin.
- B. The flap margins should be approximated over the bony defect.
- C. The base of the flap should not be under tension.
- D. The height of the flap should be more than the width of the base.

An immediate toxic reaction to a local anesthetic administration is caused by a/an

- A. deterioration of the anesthetic agent.
- B. hypersensitivity to the vasoconstrictor.
- C. hypersensitivity to the anesthetic agent.
- D. excessive blood level of the anesthetic agent.

A patient presents with hypodontia, conical teeth, fine, scanty, fair hair, and an intolerance to hot weather. The most likely diagnosis is

- A. achondroplasia.
- B. malignant hyperthermia.
- C. ectodermal dysplasia.
- D. cystic fibrosis.

When managing patients with true latex allergies, which of the following statements is true?

- A. The sterilization process effectively removes latex proteins from instruments handled with latex gloves.
- B. Latex protein antigens can exist in the ambient air for a maximum of 10 minutes following operative procedures.
- C. Emergency kits should be available that contain latex-free materials.
- D. Patients should be scheduled at the end of the day to avoid any exposure to latex products in the dental office.

Which of the following movements is most appropriately managed with an orthodontic finger spring?

- A. Crown tipping.
- B. Root uprighting/torquing.
- C. Bodily movement/translation.
- D. Intrusion.
- E. Rotation.

The daily maximum dose of ibuprofen for an adult is

- A. 1,200 mg.
- B. 1,600 mg.
- C. 2,000 mg.
- D. 2,400 mg.

Which disease could cause both renal and cardiac complications?

- A. Measles.
- B. Scarlet fever.
- C. Rubella.
- D. Rosacea.

The finding of “acid-fast” microorganisms in sputum suggests the presence of

- A. *Mycobacterium tuberculosis*.
- B. *Diplococcus pneumoniae*.
- C. *Streptococcus pyogenes*.
- D. *Neisseria gonorrhoeae*.

Which of the following mucosae is normally keratinized?

- A. Soft palate.
- B. Hard palate.
- C. Lateral tongue.
- D. Ventral tongue.

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Epinephrine should NOT be used as a vasoconstrictor for patients with uncontrolled

- A. hyperthyroidism.
- B. hyperparathyroidism.
- C. myxedema.
- D. asthma.

Permanent first molars begin to calcify at

- A. 1 to 4 months in utero.
- B. birth.
- C. 3 to 6 months.
- D. 7 to 11 months.
- E. 12 to 15 months.

Generally, glass ionomer cements contain

- A. zinc oxide and distilled water.
- B. zinc oxide and polyacrylic acid.
- C. fluoroaluminosilicate powder and orthophosphoric acid.
- D. fluoroaluminosilicate powder and polyacrylic acid.

Which antibiotic is primarily bactericidal?

- A. Penicillin.
- B. Erythromycin.
- C. Tetracycline.
- D. Chloramphenicol.
- E. Clindamycin.

The most likely cause of loss of a pit and fissure sealant is the

- A. placement of the sealant over enamel caries.
- B. the failure to use primer prior to its placement.
- C. moisture contamination during placement.
- D. use of a chemical-cured sealant.

The disappearance of a calcium hydroxide liner under a restoration after a length of time is most likely a result of

- A. microleakage.
- B. gradual dissolution of the liner into the restorative material.
- C. residual bacterial action on the hydroxyl ions.
- D. incorporation into the adhesive agent.

There is a difference between girls and boys with respect to the age at which the growth velocity reaches its peak.

- A. Boys are six months ahead of girls.
- B. Girls are six months ahead of boys.
- C. Girls are one year ahead of boys.
- D. Girls are two years ahead of boys.

Radiation dose to the patient is reduced by

- A. using a low speed film.
- B. using an aluminum filter.
- C. decreasing the target-film distance.
- D. using a low kVp.

Folate deficiency is associated with an increased risk of

- A. birth defects.
- B. microcytic anemia.
- C. low serum homocysteine.
- D. elevated high-density lipoprotein cholesterol.

For a 4 year old patient, the most appropriate management for a chronically infected, non-restorable primary first molar is to

- A. extract it and place a space maintainer.
- B. observe it until it exfoliates.
- C. extract it only.
- D. observe it until it becomes symptomatic.
- E. prescribe antibiotics

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The DMF (decayed, missing, filled) index for dental caries in adults

- A. measures dental caries experience.
- B. does not apply to all populations.
- C. ignores recurrent dental caries.
- D. includes teeth missing for any reason.

The teeth of a Miller bone file are designed to smooth bone with a

- A. pull stroke.
- B. push stroke.
- C. sawing motion.
- D. circular motion.

The roots of the first permanent molar should be completely formed by the age of

- A. six years.
- B. seven years.
- C. nine years.
- D. eleven years.
- E. thirteen years.

What is the most likely diagnosis of a 9 year old with speech problems, macroglossia, unilateral premature eruption of teeth, and moderate scoliosis?

- A. Down syndrome.
- B. Hemihypertrophy.
- C. Gigantism.
- D. Cleidocranial dysplasia.

If an alginate impression must be stored for a few minutes before the cast is poured, it should be placed in

- A. water.
- B. 100% relative humidity.
- C. a 1% aqueous calcium sulfate solution.

A smooth, elevated, red patch devoid of filiform papillae, located in the midline of the dorsum of the tongue immediately anterior to the circumvallate papillae is indicative of

- A. benign migratory glossitis.
- B. median rhomboid glossitis.
- C. a granular cell tumor.
- D. iron deficiency anemia.
- E. a fibroma.

Following the extraction of a primary first molar in a 4 year old child, the most appropriate management is to

- A. regularly assess the arch development.
- B. perform space analysis.
- C. insert a space maintainer.
- D. extract the contra-lateral molar.
- E. extract the opposing molar.

A patient presents with 5mm of gingival recession on the labial of tooth 1.3. The most predictable surgical procedure to achieve root coverage on this tooth is a

- A. free autogenous gingival graft.
- B. subepithelial connective tissue graft.
- C. laterally positioned flap.
- D. double papilla pedicle graft.

In a fixed bridge, the most favorable ratio for an abutment tooth is when the root

- A. and clinical crown are equal in length.
- B. is twice the length of the clinical crown.
- C. is half the length of the clinical crown.

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Laboratory examination of the blood of a patient with an acute bacterial infection would show

- A. lymphocytosis.
- B. leukocytosis.
- C. monocytosis.
- D. leukopenia.
- E. eosinophilia.

A patient complains of fatigue, abdominal pain and lack of appetite. The clinical examination shows that the sclera of the eyes are yellow. There is also a yellowish diffuse discolouration of the oral mucosa. What is the most likely diagnosis?

- A. Viral hepatitis.
- B. Iron deficiency anemia.
- C. Hypercarotenemia.
- D. Thrombocytopenic purpura.

Radiographs of a periodontally related osseous defect can be used to confirm the

- A. number of bony walls.
- B. measurement of the clinical attachment loss.
- C. location of the epithelial attachment.
- D. presence of bone loss.

The vibrating line in a completely edentulous maxilla is

- A. the junction between the hard and soft palate.
- B. a well-defined line that maintains a distinct shape and location.
- C. the junction between the movable and immovable soft palate.
- D. an imaginary line that crosses the soft palate posterior to the fovea palatini.

An indirect pulp capping procedure for primary molar teeth is indicated when

- A. caries involves dentin to a depth of 1mm.
- B. there is continuous pain.
- C. there is radiolucency in the bifurcation.
- D. removal of caries will lead to pulp exposure.

Pain upon vertical percussion on the incisal edge of an anterior tooth may indicate the possible presence of

- A. pulp polyp.
- B. reversible pulpitis.
- C. asymptomatic apical periodontitis (chronic periradicular periodontitis).
- D. symptomatic apical periodontitis (acute periradicular periodontitis).

The primary use of nitrous oxide and oxygen in dentistry today is as a(n)

- A. substitute agent for local anesthesia.
- B. general anesthetic agent.
- C. agent for conscious sedation.
- D. agent for the management of chronic obstructive pulmonary disease.

Collagenase activity is inhibited by

- A. clindamycin.
- B. tetracycline.
- C. penicillin.
- D. metronidazole.

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A patient with end-stage renal disease has several multilocular radiolucent lesions associated with vital mandibular teeth. A histopathologic analysis reveals the presence of multinucleated giant cells. The most appropriate management for this patient is to

- A. initiate endodontic treatments.
- B. perform a mandibular resection.
- C. extract the involved teeth.
- D. obtain a serum parathormone (PTH) level.
- E. commence antibiotic therapy.

The appearance of a rash, itching, bronchoconstriction and fever after the administration of a drug are the result of

- A. allergy.
- B. tolerance.
- C. idiosyncrasy.
- D. teratogenicity.

An early radiographic sign of chronic periodontitis is

- A. widening of vascular canals.
- B. "notching" of the crestal lamina dura.
- C. enlargement of the interdental medullary spaces.
- D. decreased radiolucency of the interdental trabeculae.

Radiographs of a periodontally related osseous defect show the

- A. number of bony walls.
- B. extent of the defect.
- C. location of the epithelial attachment.
- D. loss of crestal cortication.

To ensure maximum marginal strength for an amalgam restoration the cavosurface angle should

- A. approach 45 degrees.
- B. approach 90 degrees.
- C. be bevelled.
- D. be chamfered.

The term "carcinoma in situ" implies that the lesion shows

- A. metaplasia.
- B. early invasion of malignant cells through the basement membrane.
- C. dysplasia of cells confined within the epithelium.
- D. distant metastasis of a malignant tumour.

Reciprocation as applied to removable partial dentures design refers to the

- A. function of the occlusal rest to counteract occlusal forces.
- B. resistance to flexion of the retentive clasp arm.
- C. return to a passive state of the flexed clasp.
- D. function of the reciprocal clasp arm to counteract the retentive clasp arm.

Extending a crown margin slightly subgingival is acceptable if required

- A. for esthetics.
- B. to reinforce a small root fracture.
- C. facilitate oral hygiene.
- D. for caries prevention.

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A characteristic of a group function occlusion is

- A. the teeth on the nonworking side contact in lateral excursion.
- B. the teeth on the working side contact in lateral excursion.
- C. the canine and lateral incisors contact in lateral excursion.
- D. the posterior teeth on both working and nonworking sides contact in lateral excursion.

In a young patient living in an area with communal water fluoridation, the fluoride concentration of an erupted tooth is greatest

- A. at the dentino-enamel junction.
- B. on the surface of the clinical crown.
- C. at the layer of dentin nearest the pulp chamber.
- D. evenly throughout the enamel.

The periodontium is best able to tolerate forces directed to a tooth

- A. horizontally.
- B. laterally.
- C. obliquely.
- D. vertically.

A new bone grafting material has been demonstrated to generate bone tissue through the recruitment of progenitor cells. This potential can best be described as an example of

- A. osteoconduction.
- B. osteogenesis.
- C. osteoinduction.
- D. osteopenia.

Which of the following should NOT be prescribed for a patient receiving warfarin?

- A. Acetaminophen.
- B. Metronidazole.
- C. Penicillin.
- D. Codeine.

In a healthy 75 year old, which of the following would be considered normal blood pressure?

- A. 175/95 mmHg.
- B. 135/86 mmHg.
- C. 130/100 mmHg.
- D. 185/94 mmHg.

Pain caused by trauma to the oral mucosa would activate

- A. muscle spindles.
- B. low-threshold mechanoreceptors.
- C. nociceptors.
- D. pacinian corpuscles.
- E. merkel disks.

When making intermaxillary records for a complete denture patient, the vertical dimension of occlusion is acceptable when

- A. interocclusal distance (freeway space) is 8-10mm.
- B. occlusal rims contact evenly and bilaterally at the same time as the lips touch.
- C. the maxillary rim shows just below the upper lip and the mandibular rim is even with the corners of the mouth.
- D. it is equal to the rest vertical dimension.
- E. the difference between the occlusal vertical dimension and the rest vertical dimension is 2-4mm.

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The collagen fibres of the periodontal ligament that insert into bone are called

- A. Müller's fibres.
- B. reticular fibres.
- C. Sharpey's fibres.
- D. oxytalan fibres.

Non-steroidal anti-inflammatory drugs, such as ketorolac, are beneficial in the treatment of periodontal disease because they

- A. stimulate cyclo-oxygenase activity.
- B. reduce prostaglandin E₂ synthesis.
- C. promote wound healing.

Following the administration of a right inferior alveolar nerve block, right facial paralysis is noted. Which of the following muscles is NOT affected?

- A. Levator palpebrae superioris.
- B. Buccinator.
- C. Mentalis.
- D. Nasalis.
- E. Orbicularis oris.

As the mandible grows downward and forward, bone deposition takes place

- A. on all surfaces of the mandible.
- B. on the posterior border of the ramus.
- C. on the anterior border of the ramus.
- D. on the alveolar margins.
- E. B. and D.

The retention of an indirect, extra-coronal restoration can be improved by

- A. increasing the taper of the axial walls.
- B. increasing the occlusal surface area.
- C. lengthening the axial walls.
- D. adding an antirotation element.

Studying models of an edentulous arch can be used to

- A. determine the thickness of the mucosa.
- B. the extent of undercut areas.
- C. the presence of bony small spicules under the mucosa.
- D. the arch form.

The principal action of caffeine is on the

- A. cerebral cortex.
- B. corpus callosum.
- C. hypothalamus.
- D. spinal cord.

A 12 year old female patient has a developmental age of 8 years. Radiographic examination reveals mandibular dysplasia, delayed growth of the cranial vault and reduced facial height. Dental development is equivalent to 10 years. Panoramic radiographs reveal an abnormal tooth eruption pattern, crowding of the primary and permanent teeth, delayed eruption of the permanent canines and absence of the premolars.

The most likely diagnosis is

- A. hypogonadism.
- B. hypoparathyroidism.
- C. hypothyroidism.
- D. hyposecretion of growth hormone.

Which of the following is NOT a sign of pulpal necrosis in immature teeth?

- A. Loss of thermal sensitivity.
- B. Coronal discolouration.
- C. Periradicular radiolucency.
- D. Abnormal mobility.

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If post-exposure prophylaxis is recommended following a significant percutaneous injury from an HIV-positive patient, the antiviral drugs should ideally be administered within

- A. 1-2 hours of the injury.
- B. 1-2 days of the injury.
- C. 2 weeks of the injury.
- D. 4 weeks of the injury.

A patient returns to his dentist four days following the extraction of a grossly carious 4.6. There is a fluctuant swelling involving the submandibular space. The last time the patient was prescribed penicillin, he developed a generalized rash. What is the most appropriate antibiotic to prescribe?

- A. Metronidazole.
- B. Amoxicillin.
- C. Clindamycin.
- D. Tetracycline.

An anemia in which the red blood cells are smaller and less intense in color than normal is called a

- A. microcytic hypochromic anemia.
- B. microcytic hyperchromic anemia.
- C. macrocytic hypochromic anemia.
- D. macrocytic hyperchromic anemia.
- E. None of the above.

Streptococcus mutans selectively colonizes

- A. enamel.
- B. cementum.
- C. tongue.
- D. buccal mucosa.

The normal growing mandible exhibits which of the following characteristics?

- A. Resorbs along the posterior rami.
- B. Grows more vertically than horizontally.
- C. Has completed 100% of its growth by age 13 in females.
- D. Has latent post-pubertal growth potential.

The most effective agent used to etch enamel and dentin is

- A. 5-10% tartaric acid.
- B. 30-40% phosphoric acid.
- C. 15-20% maleic acid.
- D. 40-50% citric acid.

After initial setting, glass ionomer cements should have a coating agent applied in order to

- A. hasten the final set.
- B. protect the cement from moisture.
- C. retard the final set.
- D. protect the cement from ultraviolet light.
- E. create a smooth finish.

In composite resin restorations, glass ionomer cements can be used as a base because they are

- A. sedative to a hyperemic pulp.
- B. neutral in colour.
- C. biocompatible.
- D. compatible with the expansion of composite resins.

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Which of the following increases the risk for bronchospasm in asthmatic patients?

- A. Prednisone.
- B. Ibuprofen.
- C. Lidocaine.
- D. Nitrous oxide.
- E. Oxycodone.

Which of the following is NOT considered a risk factor for periodontal disease?

- A. Diabetes.
- B. Genetics.
- C. Heart disease.
- D. Tobacco use.

All afferent impulses from the pulp result in the sensation of

- A. heat.
- B. pain.
- C. proprioception.
- D. cold.

Increasing the crystalline content of a dental ceramic will generally decrease its

- A. fracture toughness.
- B. opacity.
- C. translucency.
- D. proportional limit.

Although a dentist recommends an all-ceramic crown to a patient who requires restoration of a fractured maxillary lateral incisor, the patient requests a full gold crown be placed. The most appropriate management is to

- A. insist on placing a more esthetic crown.
- B. place a provisional crown on the tooth indefinitely.
- C. place a full gold crown as the patient requested.
- D. restore the tooth with composite until the patient reconsiders.

Which of the following should be checked first when a cast gold crown that fits on its die cannot be seated on its abutment?

- A. The occlusal contacts.
- B. The taper of the preparation.
- C. The proximal contacts.
- D. The impression used to pour the cast.

Systemic or topical cortisone therapy is used in the treatment of

- A. necrotizing ulcerative gingivitis.
- B. erythema multiforme.
- C. submaxillary cellulitis.
- D. ptyalism.
- E. herpes simplex.

Endodontic therapy is CONTRAINDICATED in teeth with

- A. inadequate periodontal support.
- B. pulp stones.
- C. constricted root canals.
- D. accessory canals.
- E. curved roots.

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A radiographic examination of a 10 year old child reveals retention of deciduous teeth and presence of many unerupted supernumerary teeth. This is characteristic of

- A. cleidocranial dysplasia.
- B. ectodermal dysplasia.
- C. dentinogenesis imperfecta.
- D. congenital hypothyroidism.

Carious lesions are most likely to develop if a patient has

- A. a high lactobacillus count.
- B. saliva with low buffering capacity.
- C. plaque on his teeth.
- D. lactic acid in his mouth.

Which treatment procedure is indicated for a patient with asymptomatic age related gingival recession?

- A. Connective tissue graft.
- B. Gingivoplasty.
- C. Lateral sliding flap.
- D. Gingival graft.
- E. No treatment.

The Controlled Drugs and Substances Act controls the distribution and use of which of the following?

- A. Acetaminophen.
- B. Diazepam.
- C. Ibuprofen.
- D. Penicillin V.

Which of the following features would be most indicative of a cracked tooth?

- A. Periapical radiolucency.
- B. Hypersensitivity to thermal stimuli.
- C. Pain upon biting pressure.
- D. Absent vitalometric response.

A healthy 66 year old patient who had a myocardial infarct eight years previously requires an extraction. The most appropriate management is to

- A. admit the patient to hospital for extraction with local anesthesia.
- B. admit the patient to hospital for extraction with general anesthesia.
- C. extract the tooth in the office using preoperative sedation and local anesthesia without a vasoconstrictor.
- D. extract the tooth in the office using local anesthesia with a vasoconstrictor.

Which of the following conditions is most likely to lead to thrombosis?

- A. Stasis of blood.
- B. Presence of bacteria in blood.
- C. Deficiency of circulating platelets.
- D. Increased concentration of plasma.
- E. Lowered oxygenation of hemoglobin.

A lower molar requiring a crown has an amalgam restoration extending 1.0mm subgingivally. The crown is most appropriately placed

- A. on the existing amalgam.
- B. at the amalgam/tooth junction.
- C. 1mm apical to the amalgam margin.
- D. 2mm apical to the amalgam margin.

What is the most appropriate location for the placement of a retentive pin?

- A. At the dentino-enamel junction.
- B. In dentin a minimum 0.5mm from the dentino-enamel junction.
- C. In enamel a minimum 0.5mm from the dentino-enamel junction.
- D. At least 2.5mm from the cavosurface margin.

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A 55 year old patient had a squamous cell carcinoma of the oral cavity 5 years previously. His medical management involved surgery, chemotherapy and intensity-modulated radiotherapy (IMRT) of 65 Gy which included the mandible. The most appropriate management for the extraction of tooth 3.7 under local anesthesia is

- A. transfusion with packed red blood cells.
- B. hyperbaric oxygen treatment prior to tooth extraction.
- C. hyperbaric oxygen treatment prior to and following tooth extraction.
- D. using local anesthetic without epinephrine.

In designing a removable partial denture, an effort is made to secure parallel tooth surfaces to act as

- A. guiding planes.
- B. occlusal rest areas.
- C. bracing areas.
- D. indirect retention.

A diagnostic test for dental caries which has low sensitivity and high specificity will result in

- A. unnecessary treatment being provided.
- B. disease that was not detected.
- C. patients being alarmed unnecessarily.
- D. a test whose performance does not justify its cost.

Which disease is associated with a higher proportion of *Fusobacterium*, *Porphyromonas*, *Prevotella*, and spirochetes?

- A. Necrotizing ulcerative periodontitis.
- B. Chronic periodontitis.
- C. Aggressive periodontitis.
- D. Root caries.
- E. Early childhood caries.

The mandibular intercanine width increases until full eruption of the permanent

- A. incisors.
- B. canines.
- C. second molars.
- D. third molars.

Which one of the following teeth is most frequently impacted?

- A. Maxillary canine.
- B. Mandibular second molar.
- C. Mandibular canine.
- D. Maxillary first premolar.

A 2cm, discrete, white lesion of the buccal mucosa has not resolved after elimination of all local irritants. The most appropriate management would be to

- A. cauterize it.
- B. apply toluidine blue staining.
- C. perform an incisional biopsy.
- D. re-examine at 6 month intervals.
- E. refer patient to family physician.

Healthy attached gingiva

- A. has no basal cell layer.
- B. is closely bound to underlying periosteum.
- C. contains elastic fibers.
- D. has no rete pegs.

Which of the following penicillins is most effective against Gram-negative organisms?

- A. Nafcillin.
- B. Ampicillin.
- C. Methicillin.
- D. Penicillin V.
- E. Phenethicillin.

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Which mucogingival surgical procedure does NOT increase the zone of attached gingiva?

- A. Free autogenous gingival graft.
- B. Laterally positioned flap.
- C. Coronally positioned flap.
- D. Subepithelial connective tissue graft for root coverage.

What is the most significant radiographic finding in hyperparathyroidism?

- A. Demineralization of teeth.
- B. Multiple keratocystic odontogenic tumors.
- C. Hypercementosis.
- D. Rampant caries.
- E. Generalized loss of lamina dura.

All the following medications can be used for the treatment of *Candida albicans* EXCEPT

- A. nystatin.
- B. fluconazole.
- C. chlorhexidine.
- D. amoxicillin.

Which of the following can cause a contact stomatitis?

- A. Dentifrice.
- B. Lipstick.
- C. Acrylic.
- D. Antibiotics.
- E. All of the above.

When epinephrine 1:1000 is administered intramuscularly for the management of anaphylaxis in an adult, the most appropriate volume for an initial dose is

- A. 0.02 – 0.04ml.
- B. 0.3 – 0.5ml.
- C. 1.0 – 1.5ml.
- D. 1.6 – 1.8ml.

When a pit and fissure sealant is placed over early but noncavitated caries

- A. the sealant retention rate is greatly reduced.
- B. bacterial loads generally increase under the sealant.
- C. the likelihood of caries progression is reduced.
- D. the caries will be arrested only if it is a primary tooth.

A facebow relates the

- A. mandibular arch to the glenoid fossa.
- B. vertical axis of the maxilla to the mandible.
- C. hinge axis to the maxillary arch.
- D. maxilla to the mandible at the vertical dimension of occlusion.

Which of the following conditions has the POOREST prognosis?

- A. Gingival tissue with edematous red interdental papillae.
- B. Gingival tissue with 1mm pocket labial to a mandibular incisor.
- C. Firm gingival tissue with generalized 5 and 6mm pockets.
- D. Class II furcation involvement in maxillary molars.

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Unbagged sterilized instruments

- A. can be stored for up to 24 hours if placed in an airtight container after sterilization.
- B. can be stored for up to 7 days if placed in sterile bags after sterilization.
- C. can be stored for up to 1 year if wrapped after sterilization.
- D. must not be stored after sterilization.

Immediately following a posterior superior alveolar block injection, the patient's face becomes quickly and visibly swollen. The immediate treatment should be to

- A. use pressure followed by cold packs over the swelling.
- B. use hot packs over the swelling.
- C. refer the patient to a hospital.
- D. administer 100mg hydrocortisone intravenously.
- E. administer diphenhydramine hydrochloride (Benadryl) 50mg intravenously.

The parasympathetic post ganglionic fibers leaving the otic ganglion will travel along which cranial nerve?

- A. Glossopharyngeal.
- B. Branch of the mandibular.
- C. Temporal.
- D. Facial.

The gypsum material used for fabrication of dies exhibits a higher crushing strength than does regular stone because of

- A. difference in particle shape and density.
- B. difference in the chemical composition of the powder particles.
- C. exothermic heat of setting.

Hypernatremia may be induced by

- A. elevated synthesis of atrial natriuretic peptide.
- B. excessive vasopressin secretion.
- C. impaired aldosterone secretion.
- D. diabetes insipidus.

Fluoridated toothpaste will be most effective in remineralizing

- A. smooth surface decalcification.
- B. interproximal caries.
- C. bruxism-related attrition.
- D. pit and fissure caries.

A 67 year old patient with xerostomia presents with root caries. The most appropriate material to restore these lesions is

- A. flowable composite resin.
- B. hybrid composite resin.
- C. silver amalgam.
- D. glass ionomer cement.

If an alginate impression must be stored for a few minutes before the cast is poured, it should be placed in

- A. water.
- B. 100% relative humidity.
- C. a 1% aqueous calcium sulfate solution.

The cell of the dental pulp most capable of transforming into other cells is the

- A. fibroblast.
- B. undifferentiated mesenchymal cell.
- C. odontoblast.
- D. histiocyte.

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Under normal conditions, the most definitive test to confirm the loss of pulp vitality is

- A. applying warm gutta percha to the crown.
- B. cutting into the dentin without anesthetic.
- C. applying ethyl chloride to the crown.
- D. performing a radiographic examination of the tooth.
- E. performing an electric pulp test.

Which of the following is most likely related to the administration of excessive vasoconstrictor?

- A. Flushing of the skin and tremors.
- B. Sudden pallor, sweating, weak but regular pulse, occasional loss of consciousness.
- C. Convulsions and loss of consciousness.
- D. Tachycardia, palpitations, headache, cardiac arrhythmia, elevated blood pressure.

Oral peripheral giant cell lesions of the periodontium are most likely

- A. non-neoplastic granulomatous lesions.
- B. precursors of sarcoma.
- C. malignant neoplasms.
- D. benign neoplasms.
- E. tuberculomas.

Which of the following drugs is used in the treatment of *Candida albicans* infections?

- A. Penicillin.
- B. Nystatin.
- C. Chlorhexidine.
- D. Tetracycline.

The risk of contracting hepatitis B following a percutaneous injury from an occupational exposure to the contaminated blood of a patient has been shown to be in the range of

- A. 6-30%.
- B. 35-66%.
- C. 72-90%.

The most significant modifiable risk factor for periodontitis is

- A. cigarette smoking.
- B. bacterial plaque.
- C. psychological stress.
- D. dental calculus.

Thumbsucking does NOT usually affect the permanent dentition if the habit is

- A. discontinued before four years of age.
- B. discontinued before eight years of age.
- C. associated with sleeping.
- D. is of low intensity.

The subgingival microbial flora isolated from sites of peri-implantitis is most similar to the flora of

- A. periradicular abscess.
- B. gingivitis.
- C. periodontitis.

Which of the following is an etiologic factor in the development of necrotizing ulcerative gingivitis?

- A. Gluten intolerance.
- B. Acute stress.
- C. Lack of attached gingiva.
- D. Gingival trauma.

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Which of the following applies to gutta-percha?

- A. It can be softened by heat.
- B. It is a good thermal conductor.
- C. It can be inserted easily into fine canals.
- D. It is resorbable.

Which microorganism does NOT contribute significantly to the progression of dentinal caries?

- A. *Actinomyces naeslundii*.
- B. *Lactobacillus casei*.
- C. *Actinomyces viscosus*.
- D. *Streptococcus salivarius*.

The chief mechanism by which the body metabolizes short-acting barbiturates is

- A. oxidation.
- B. reduction.
- C. hydroxylation and oxidation.
- D. sequestration in the body fats.

During the fabrication of a removable complete denture, block out and relief is placed on the

- A. diagnostic cast.
- B. master cast.
- C. refractory cast.
- D. remount cast.

Where cavity preparations are extensive, polycarboxylate cement can be used as a base material because

- A. its pH stimulates secondary dentin formation.
- B. it interacts with setting amalgam to form a weak chemical union.
- C. it is biocompatible with the pulp.
- D. it is compressible when set.

To minimize fractures of Class II amalgam restorations in primary teeth, cavity preparations should have

- A. concave pulpal floors.
- B. rounded axiopulpal line angles.
- C. bevelled cavosurface margins.
- D. lateral walls parallel to the external surface of the tooth.

The defining feature of a skeletal crossbite is

- A. coincident midlines.
- B. an interference free closure to maximal intercuspitation.
- C. a deviated closure to maximal intercuspitation.
- D. a large mandible.

A patient presents with a 3 week history of prolonged tooth pain to hot and cold. Three days ago the symptoms changed to moderate pain on biting combined with a dull, spontaneous ache relieved by cold. The most likely diagnosis is

- A. chronic apical abscess.
- B. a cracked tooth.
- C. pulpal necrosis.
- D. reversible pulpitis.
- E. a vertical root fracture.

The rotational path of insertion for the Class IV partially edentulous patient uses which of the following components for direct retention on the anterior abutments?

- A. Cingulum rests.
- B. Cast I-bars.
- C. Double embrasure clasps.
- D. Proximal plates.

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In determining the ideal proximal outline form for a Class II amalgam cavity preparation in a molar the

- A. axial wall should be 1.5mm deep.
- B. gingival cavosurface margin must clear contact with the adjacent tooth.
- C. proximal walls diverge occlusally.
- D. gingival margin need to be bevelled.

A 9 year old patient has a right posterior crossbite and a mandibular midline shift to the right. Which of the following is the most appropriate appliance for this patient?

- A. Headgear.
- B. Hyrax appliance.
- C. Fixed brackets.
- D. Functional appliance.

The size of pores or cracks in a material

- A. determines a material's fracture toughness.
- B. influences the strength of metals more than ceramics.
- C. decreases with cyclic or fatigue loading.
- D. is not typically a function of a material's processing.

Untreated diabetes mellitus characteristically demonstrates

- A. hypoglycemia.
- B. hyperglycemia.
- C. hypophagia.
- D. hyperlipidemia.
- E. dysuria.

In a standard inferior alveolar nerve block, which muscle is penetrated by the needle?

- A. Buccinator.
- B. Mylohyoid.
- C. Superior constrictor.
- D. Masseter.
- E. Medial (internal) pterygoid.

The most likely cause of tooth loss following a tunneling procedure to provide complete access for a mandibular Class III furcation involvement is

- A. root caries.
- B. root sensitivity.
- C. pulpal involvement.
- D. recurrent pocketing.

A filter is inserted in the path of the x-ray beam to

- A. limit the area of surface exposure.
- B. absorb scatter radiation.
- C. absorb long wavelength radiation of the primary beam.
- D. make it possible to use higher kilovoltage for improving image quality.

The most typical location for the development of early childhood caries is the

- A. incisal edges of the mandibular incisors.
- B. incisal edges of the maxillary incisors.
- C. gingival area of the mandibular incisors.
- D. gingival area of the maxillary incisors.

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A significant anatomic difference between the peri-implant marginal soft tissue and the gingival marginal tissue of a tooth exists in the

- A. epithelial attachment.
- B. type of collagen.
- C. vascular supply.
- D. sulcular epithelium.

The gingival margin of the preparation for a full crown on a posterior tooth, with a clinical crown that satisfies the requirements for retention and resistance, should be placed

- A. 0.5mm subgingivally.
- B. on the enamel.
- C. at least 1mm supragingivally.
- D. at the cemento-enamel junction.
- E. at the gingival margin.

Pleomorphic adenomas exhibit

- A. rapid growth with death of patient.
- B. early metastasis.
- C. slow growth but tendency to local recurrence.
- D. early ulceration and bleeding.

A protective mechanism of the dental pulp to external irritation or caries is the formation of

- A. pulp stones.
- B. tertiary dentin.
- C. secondary cementum.
- D. primary dentin.

A 45 year old patient has 32 unrestored teeth. The only defects are deeply stained grooves in the posterior teeth. Clinical examination reveals no evidence of caries in the grooves. The most appropriate management is

- A. application of pit and fissure sealants.
- B. preventive resin restorations.
- C. conservative Class I amalgams.
- D. prophylactic odontotomy.
- E. no treatment.

The most practical method to significantly reduce the setting time of stone and plaster is to use

- A. warm mixing water.
- B. a calcium sulfate dihydrate nucleating agent.
- C. a sodium sulfate nucleating agent.
- D. a longer mixing time.

During an incisal clench, the activity of the elevator muscles is

- A. increased.
- B. decreased.
- C. unaffected.

A 12 year old male with a history of thumbsucking has an Angle Class II malocclusion with a $SNA = 82^\circ$ and a $SNB = 80^\circ$. The most likely etiology of the malocclusion is

- A. dental.
- B. skeletal.
- C. neuromuscular.
- D. dental and neuromuscular.
- E. skeletal and neuromuscular.

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The clinical appearance and texture of an early carcinoma of the floor of the mouth can be

- A. red and soft.
- B. white and rough.
- C. ulcerated and indurated.
- D. All of the above.

Renal excretion of drug metabolites is influenced by all of the following EXCEPT

- A. plasma protein binding.
- B. tissue redistribution.
- C. volume of distribution.
- D. glomerular filtration.

Multiple osteomas and supernumerary teeth may be associated with

- A. Gorlin syndrome.
- B. Rubenstein – Taybi syndrome.
- C. Gardner syndrome.
- D. Cleidocranial dysplasia.
- E. Ectodermal dysplasia.

Flux is added to the casting metal during melting to

- A. minimize oxidation.
- B. enhance melting.
- C. increase stiffness.
- D. decrease fluidity.

Plaque accumulation is an etiologic factor in caries as it

- A. is a good source of fermentable carbohydrates.
- B. is an acidic environment.
- C. is composed of bacteria and their by-products.
- D. allows only *S. mutans* species to flourish.

The immersion of a hydrocolloid impression in 2% potassium sulphate for 2 to 5 minutes will

- A. retard the set of the stone.
- B. accelerate the set of the stone.
- C. inhibit the formation of bubbles in the stone.
- D. minimize the distortion of the hydrocolloid material during the storage time.

The most appropriate oral drugs for control of anxiety in a dental patient are

- A. benzodiazepines.
- B. phenothiazines.
- C. barbiturates.
- D. tricyclic antidepressants.

Serial extraction

- A. involves the 4 permanent first premolars.
- B. is the treatment for Class II skeletal malocclusions with severe space shortage.
- C. is commenced with bilateral expansion of the arches.
- D. is best suited to Class I dental and skeletal malocclusions with minimal space shortage.
- E. requires leeway space maintenance.

The "smear layer" is an important consideration in

- A. plaque accumulation.
- B. caries removal.
- C. pulp regeneration.
- D. dentin bonding.

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Which of the following does NOT influence the rate of induction during inhalation anesthesia?

- A. Pulmonary ventilation.
- B. Blood supply to the lungs.
- C. Hemoglobin content of the blood.
- D. Concentration of the anesthetic in the inspired mixture.
- E. Solubility of the anesthetic in blood.

A 9 year old presents for treatment immediately following a facial injury resulting in a fracture of a maxillary central incisor that involves the enamel only. The tooth tests negative to an electric pulp tester. This finding indicates that the tooth

- A. is nonvital and should be extracted.
- B. is nonvital and endodontic therapy is indicated.
- C. has a root fracture and should be extracted.
- D. should be observed and tested again at a later date.

What is the most appropriate reason to delay the extraction of a mandibular third molar with acute pericoronitis?

- A. Risk of osteomyelitis.
- B. Risk of trismus.
- C. Difficulty achieving anesthesia.
- D. Risk of spread of infection.

The mesial furcation of maxillary first molars is best probed from the

- A. buccal.
- B. buccal or lingual.
- C. lingual.

The permanent teeth most commonly transposed are the

- A. mandibular incisor and mandibular canine.
- B. mandibular canine and mandibular first premolar.
- C. maxillary upper lateral incisor and maxillary canine.
- D. maxillary canine and maxillary first premolar.

A 5 year old child is diagnosed with leukocyte adherence deficiency and is also affected with generalized severe bone loss adjacent to his primary teeth. What is the diagnosis?

- A. Generalized aggressive periodontitis.
- B. Generalized chronic periodontitis.
- C. Gingival diseases modified by systemic factors.
- D. Periodontitis as a manifestation of systemic disease.

“Tripoding” of casts is a method used for

- A. determining the position for precision attachments.
- B. locating undercuts.
- C. locating the height of contour.
- D. returning the cast to the surveyor.

The principal internal retention for a Class V amalgam cavity preparation is established at the

- A. occluso-axial and gingivo-axial line angles.
- B. mesio-axial and disto-axial line angles.
- C. mesio-gingival and disto-gingival line angles.

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A patient is hit in the right eye with a baseball. Which of the following would indicate a right orbital floor fracture?

- A. Right periorbital edema.
- B. Right periorbital ecchymosis.
- C. Limited upward movement of the right eye.
- D. Premature occlusal contact on the maxillary right.

Which of the following muscles of mastication is associated with the condylar head and articular disc?

- A. Masseter.
- B. Temporalis.
- C. Medial pterygoid.
- D. Lateral pterygoid.

Proportionally, how far inferior to the superior border of the lower $\frac{1}{3}$ of the face should the commissures of the mouth be located?

- A. $\frac{1}{4}$.
- B. $\frac{1}{3}$.
- C. $\frac{2}{3}$.
- D. $\frac{3}{4}$.

Planing the enamel at the gingival cavosurface of a Class II amalgam preparation on a permanent tooth

- A. should result in a long bevel.
- B. is contraindicated because of the low edge strength of amalgam.
- C. is unnecessary since the tooth structure in this area is strong.
- D. should remove unsupported enamel which may fracture.
- E. should result in a sharp gingivoproximal line angle.

Erythroblastosis fetalis may be a cause of

- A. supernumerary incisors.
- B. pigmented teeth.
- C. peg lateral incisors.
- D. Fordyce's granules.
- E. blue sclerae.

A patient is not able to close her left eye, wrinkle her forehead or smile on the left side. The most likely diagnosis is

- A. contralateral subarachnoid hemorrhage.
- B. fracture of the base of the skull.
- C. Horner's syndrome.
- D. acute mastoiditis.
- E. facial nerve paralysis.

A 78 year old patient presents with several carious lesions on the root surfaces of the maxillary posterior teeth. The most appropriate restorative material for these lesions is

- A. microfilled composite resin.
- B. hybrid composite resin.
- C. amalgam.
- D. Resin-modified glass ionomer.

Dentist supervised at-home bleaching technique is NOT indicated for a patient who

- A. is unhappy with the natural colour of their teeth.
- B. has existing all-ceramic crowns that are lighter than the natural teeth.
- C. has a single dark coloured tooth.
- D. has teeth discoloured by tetracycline.
- E. has extrinsic stains.

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Anaphylactic reaction to penicillin is most likely to occur

- A. when the drug is administered orally.
- B. 24 hours after drug administration.
- C. in patients who have already experienced an allergic reaction to the drug.
- D. in patients with a negative skin test to penicillin allergy.

In metal-ceramic crowns, the bond between the materials is

- A. mainly mechanical.
- B. mainly chemical.
- C. decreased by oxides on the metal surface.
- D. decreased when the metal has a high yield point.

An anterior cross-bite of a permanent maxillary incisor in a mixed dentition is often associated with

- A. a functional shift.
- B. unexplainable genetic factors.
- C. lingually situated supernumerary teeth.
- D. prolonged retention of a primary incisor.
- E. premature eruption of a maxillary incisor.

Which of the following medications can cause gingival enlargement?

- A. Diuretics.
- B. Beta blockers.
- C. Calcium channel blockers.
- D. Angiotensin converting enzyme inhibitors.

The tissues of the epithelial attachment

- A. are dynamic rather than static.
- B. can be reconstituted by repair.
- C. exhibit a high rate of biologic turnover.
- D. All of the above.
- E. None of the above.

The first sensation lost after administration of a local anesthetic is

- A. pain.
- B. touch.
- C. pressure.
- D. proprioception.

In which of the following will the effects of polymerization shrinkage be greatest?

- A. Class I occlusal restoration.
- B. Preventive resin restoration.
- C. Direct veneer restoration.
- D. Class IV restoration.

Elevated serum parathyroid hormone levels result in Ca^{2+} being released from bone through receptor-mediated actions on

- A. osteoclasts.
- B. osteoblasts.
- C. osteocytes.
- D. chondroblasts.

A patient has a history of shortness of breath and ankle edema. You would suspect

- A. asthma.
- B. emphysema.
- C. rhinophyma.
- D. cardiac insufficiency.

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The most common presenting feature of bilateral maxillary constriction of moderate is

- A. diastemas.
- B. deep overbite.
- C. increased overjet.
- D. unilateral crossbite.

Two millimeters of maxillary incisor spacing in a 3 year old is indicative of a

- A. tooth size-arch size discrepancy.
- B. maxillary Bolton deficiency.
- C. persistent tongue thrusting.
- D. normal pattern of development.

The percentage of documented child abuse cases estimated to involve orofacial injuries is

- A. 10-20.
- B. 30-40.
- C. 50-60.

A 45 year old, overweight man reports that his wife complains that he snores. The initial management of the patient's snoring problem is to

- A. fabricate an appliance to reduce snoring.
- B. fabricate restorations to increase the patient's vertical dimension of occlusion.
- C. refer for an orthognathic surgery consultation.
- D. refer for a sleep assessment.

Gloves should

- A. be washed with mild soap and warm water after a dental procedure before treating the next patient.
- B. be removed after use and replaced with new gloves before treating another patient.
- C. not be used if the patient reports a latex allergy.
- D. not be used in dental procedures requiring fine tactile discrimination.
- E. be placed on the hands before tying on a mask.

Crusted hemorrhagic and ulcerative lesions of the lips in a patient with target-like skin lesions are typical of

- A. lupus erythematosus.
- B. Reiter's syndrome.
- C. Behçet's syndrome.
- D. erythema multiforme.
- E. pemphigus vulgaris.

Tell-show-do technique when used for behaviour management of pediatric patients

- A. works best for children under 3 years of age.
- B. involves using scientific dental terminology in all explanations.
- C. will decrease a child's fear of the unknown and their anticipation of pain.
- D. requires a written consent from the parents.

The most appropriate management of an 8 year old patient with cavitated occlusal enamel lesion of the permanent first molars is

- A. tooth brushing and oral hygiene instruction.
- B. topical fluoride application.
- C. pit and fissure sealants.
- D. preventive resin restorations.

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In processing (polymerizing) an acrylic denture in a water bath, a correct temperature control is desired because of the possibility of

- A. shrinkage of the denture.
- B. volumetric expansion of the denture causing an open bite.
- C. warpage.
- D. porosity due to boiling of the monomer.
- E. crazing of the denture base around the necks of the teeth.

Polymerization shrinkage in a composite resin is reduced by

- A. placing a glass ionomer liner on all exposed dentin before placing composite resin.
- B. doubling the curing time of the resin in preparations that are deep.
- C. using a flowable composite on the gingival floor of Class II preparations.
- D. incremental placement of no more than 2mm thicknesses of composite resin.

Which drug should be administered as the initial management for a patient with chest pain consistent with a myocardial infarction?

- A. Epinephrine.
- B. Atropine.
- C. Diphenhydramine.
- D. Lidocaine.
- E. Acetylsalicylic acid.

Which statement best describes hand washing for the prevention of disease transmission?

- A. Hands should be washed for at least 15 seconds, always with an antimicrobial soap.
- B. Hands should be washed thoroughly and vigorously prior to placement and upon removal of gloves.
- C. Transient flora is more difficult to remove during routine hand washing and needs vigorous scrubbing action.
- D. An alcohol hand rub is an acceptable alternative to hand washing.

In designing a removable partial denture, the location of clasps is determined on

- A. a master cast after tooth preparations are completed.
- B. a surveyed diagnostic cast prior to preparation of occlusal rest areas.
- C. the refractory cast.

Tetracyclines have all of the following properties EXCEPT

- A. absorption is impaired when taken with milk.
- B. they predispose patients to candidial infection.
- C. they form stable complex with the developing tooth matrix.
- D. they may be substituted for amoxicillin in patients that require coverage to prevent subacute bacterial endocarditis.

A bacterial infection causes the most significant increase in

- A. basophils.
- B. neutrophils.
- C. lymphocytes.
- D. monocytes.
- E. eosinophils.

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To assess factors affecting the utilization of dental services, a cross-sectional study surveyed adults on a number of variables. Considering the study design, which of the following findings CANNOT be derived from the results?

- A. Satisfaction with the services.
- B. Gender differences.
- C. Caries incidence.
- D. Utilization of dental services.

Compared to nonsmokers, cigarette smokers are more likely to have

- A. less bone loss.
- B. less gingival recession.
- C. more bleeding on probing.
- D. more attachment loss.

An acute periapical abscess originating from a mandibular third molar generally points and drains in the

- A. submandibular space.
- B. pterygomandibular space.
- C. buccal vestibule.
- D. buccal space.

Healing of a recurrent herpes simplex lesion occurs within

- A. 7-14 days without scar formation.
- B. 7-14 days with scar formation.
- C. 2-4 weeks without scar formation.
- D. 2-4 weeks with scar formation.

Which of the following is used in the emergency management of a patient suffering status epilepticus?

- A. Gabapentin.
- B. Diazepam.
- C. Morphine.
- D. Valproic acid.

Which of the following structures may be mistaken as a pathologic finding on periapical radiographs of the premolar segments of the maxilla?

- A. Bony septa in the maxillary sinus.
- B. Nasopalatine foramen.
- C. Nasolacrimal canal.
- D. Mental foramen.

In orthodontic treatment, extraction of premolars will help to

- A. open the vertical dimension.
- B. labialize the incisors.
- C. correct a midline deviation.
- D. improve stability.

Which one of the following would be of greatest value in determining the etiology of an oral ulceration?

- A. History of the oral lesion.
- B. Cytological smear.
- C. Systemic evaluation.
- D. Laboratory tests.

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The most likely diagnosis for a patient with an interincisal opening of 30mm before feeling pain and a maximum opening of 44mm with pain is

- A. internal derangement of the TMJ with reduction.
- B. internal derangement of the TMJ without reduction.
- C. trismus of the masticatory muscles.
- D. subluxation of the TMJ.
- E. myofascial pain.

Acetylsalicylic acid is indicated for the management of which of the following?

- A. Myocardial infarction.
- B. Asthma.
- C. Gastric ulcer.
- D. Hemophilia.

A congenitally missing permanent second premolar will likely result in

- A. normal exfoliation of the primary second molar.
- B. delayed exfoliation of the primary second molar.
- C. early exfoliation of the primary second molar.

Growth in maxillary width occurs mainly via

- A. bone apposition laterally.
- B. endochondral ossification.
- C. expansion of the palatal suture.
- D. buccinator muscular pull.

Which of the following statements about chlorhexidine is INCORRECT?

- A. It disrupts bacterial cell membranes.
- B. It binds tenaciously to oral surfaces.
- C. It interferes with adherence of plaque-forming microorganisms.
- D. Mutans streptococci are preferentially destroyed.
- E. It is commonly used for long-term therapy.

A 28 year old patient who has severe anterior crowding, an Angle Class II malocclusion, and a high DMFS score wants orthodontic treatment. Which of the following is the most appropriate initial step in management of this case?

- A. Cephalometric analysis.
- B. Diagnostic wax-up.
- C. Caries risk assessment.
- D. Fluoride rinse prescription.

In a removable partial denture, a palatal strap is used instead of a narrow bar because it is

- A. more rigid with less thickness.
- B. easier to polish.
- C. more stable.
- D. less irritating to the soft tissues.
- E. more hygienic.

In restoring occlusal anatomy, the protrusive condylar path inclination has its primary influence on the morphology of

- A. cusp height.
- B. anterior teeth only.
- C. mesial inclines of maxillary cusps and distal inclines of mandibular cusps.
- D. mesial inclines of mandibular cusps and distal inclines of maxillary cusps.

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Heart rate is increased by

- A. hyperkalemia.
- B. reduced α_1 -adrenergic receptor activity.
- C. atropine.
- D. acetylcholine.
- E. elevated vagal tone.

The most common type of collagen found in the gingival connective tissue, periodontal ligament, and cementum is composed primarily of

- A. type I.
- B. type II.
- C. type III.
- D. type IV.

In an Angle Class I occlusion the

- A. distal inclined plane of the maxillary canine articulates with the mesial inclined plane of the mandibular canine.
- B. mesial inclined plane of the maxillary canine articulates with the distal inclined plane of the mandibular canine.
- C. the primary canines are end-to-end.
- D. the permanent canines are end-to-end.

In a child with a high caries risk, the most appropriate cement for a band and loop space maintainer is

- A. zinc phosphate.
- B. glass-ionomer.
- C. zinc oxide eugenol.
- D. polycarboxylate.

An ameloblastoma is most frequently found in

- A. the anterior region of the maxilla.
- B. the mandible, near the junction of the body and the ramus.
- C. the posterior region of the maxilla.
- D. in the anterior region of the mandible near the midline.

The most serious complication for a patient with Ludwig's angina is a/an

- A. mediastinal sepsis.
- B. septic shock.
- C. optic nerve involvement.
- D. cavernous sinus thrombosis.
- E. airway obstruction.

In acutely inflamed gingival tissue, there is an increase in the

- A. number of mast cells.
- B. number of plasma cells.
- C. level of histamine.
- D. A. and B.
- E. A. and C.

What is an early clinical manifestation of local anesthetic toxicity (overdose)?

- A. Decreased blood pressure.
- B. Lightheadedness.
- C. Vomiting.
- D. Inability to focus.

In children, the most common cause of a fistula is a/an

- A. acute periradicular abscess.
- B. suppurative periradicular periodontitis.
- C. acute periodontal abscess.
- D. dentigerous cyst.

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What is the primary source of elevated collagenolytic activity in chronic periodontitis?

- A. *P. gingivalis*.
- B. Macrophages.
- C. Neutrophils.
- D. *P. intermedia*.

Which of the following is NOT an advantage of using an etchant and bonding system before insertion of a composite resin restoration?

- A. Improved retention.
- B. Decreased marginal leakage.
- C. Greater strength of the restoration.
- D. Reduced polymerization shrinking effect.

The outline form for a Class I amalgam preparation is determined by all of the following EXCEPT the

- A. extent to which the enamel has been involved by the carious process.
- B. lateral spread of caries along the dentino-enamel junction.
- C. extension that must be made along the fissures in order to achieve sound and smooth margins.
- D. need to terminate the margins on a cusp ridge or marginal ridge crest.
- E. extent of undermining of the enamel by the carious process.

A 29 year old patient developed multiple ulcerated lesions on the buccal attached gingiva one day ago. No fever, malaise or lymphadenopathy is present. The most likely diagnosis is

- A. primary herpetic gingivostomatitis.
- B. recurrent herpes simplex infection.
- C. aphthous ulcers.
- D. necrotizing ulcerative gingivitis.

Which of the following is the strongest stimulus to respiration?

- A. Decrease in arterial pH.
- B. Increase in arterial oxygen.
- C. Decrease in arterial oxygen.
- D. Increase in arterial carbon dioxide.
- E. Decrease in arterial carbon dioxide.

For patients with prion disease such as Creutzfeldt-Jacob disease,

- A. the disease is transmissible through air or by casual contact.
- B. no additional precautions beyond standard procedures are recommended for dental treatment.
- C. the disease is usually fatal within one year.
- D. the disease has an incubation time of 3-6 months.

The best means of extending the working time of an irreversible hydrocolloid impression material is to

- A. extend spatulation time.
- B. add additional water.
- C. use cold water.
- D. add a small amount of borax.
- E. add potassium sulfate.

Which type of legal action can result in the payment of damage?

- A. Causation.
- B. Discipline.
- C. Intention.
- D. Tort.

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In health, the crest of the alveolar bone, as seen in a radiograph, is situated 1~to~2mm apical to the cemento-enamel junction. .sp 1 Radiographically, the normal alveolar crest should parallel an imaginary line drawn between the cemento-enamel junction of adjacent teeth.

- A. The first statement is true, the second is false.
- B. The first statement is false, the second is true.
- C. Both statements are true.
- D. Both statements are false.

Which clinical sign indicates palatal impaction of the permanent maxillary canines?

- A. Buccally positioned first premolars.
- B. Early exfoliation of primary canines.
- C. Midline central diastema.
- D. Lack of canine labial bulges in a 10 year old patient.

A3 shades of composite resins should be light-cured in increments limited to a maximum of

- A. 0.50mm.
- B. 1.00mm.
- C. 1.50mm.
- D. 2.00mm.

In an Angle Class I occlusion, which cusp of which permanent tooth moves between the mesiolingual and distolingual cusps of the mandibular second molar in a working side movement?

- A. Mesiolingual cusp of the maxillary first molar.
- B. Distolingual cusp of the maxillary first molar.
- C. Mesiolingual cusp of the maxillary second molar.
- D. Distolingual cusp of the maxillary second molar.

Displacement of fractures is influenced by

- A. age.
- B. hemorrhage.
- C. edentulism.
- D. muscle attachments.

The radiographic term used to describe the more radiopaque bone of the socket and septal crest is

- A. periodontal ligament space.
- B. cancellous bone.
- C. cribriform plate.
- D. lamina dura.
- E. cortical bone.

A 50 year old woman has a history of rheumatoid arthritis, bilateral enlargement of one or more salivary glands and lacrimal glands, as well as dryness of the eyes, nose, mouth and throat. The diagnosis is

- A. erythema multiforme.
- B. Reiter syndrome.
- C. Gardner syndrome.
- D. Sjögren syndrome.
- E. Plummer-Vinson syndrome.

In mucous membrane pemphigoid (cicatricial pemphigoid), a positive Nikolsky sign is the result of a/an

- A. separation at the basement membrane.
- B. intraepithelial separation.
- C. separation of the lamina propria and submucosa.
- D. intraepithelial bulla formation.

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The psychomotor recovery time from nitrous oxide sedation is

- A. immediate.
- B. 1 to 2 minutes.
- C. 10 minutes.
- D. 30 minutes.

The maximum recommended thickness of an incremental composite resin to be light cured is

- A. 2mm.
- B. 3mm.
- C. 4mm.
- D. 5mm.

In an adult, continued growth of the mandibular condyles, an increase in size of the bones and soft tissues of the hands, feet, supraorbital ridges and air sinuses suggest

- A. Addison's disease.
- B. hyperthyroidism.
- C. pituitary adenoma.
- D. gigantism.

A surgical flap for the extraction of a tooth should be designed to

- A. avoid attached gingiva.
- B. remain coronal to the mucogingival junction.
- C. be partial thickness.
- D. have a wide base.

Treatment options for an immature tooth with a necrotic pulp include

- A. apexogenesis and revascularization.
- B. apexogenesis and conventional nonsurgical root canal treatment.
- C. apexification and conventional nonsurgical root canal treatment.
- D. apexification and revascularization.

Which of the following clinical conditions is the most serious?

- A. Acute apical abscess (acute periradicular abscess) of a mandibular central incisor.
- B. Middle face cellulitis.
- C. Chronic apical abscess (chronic periradicular abscess) of a mandibular third molar.
- D. Infected dentigerous cyst.

What is the earliest age that the diagnosis of a congenitally missing mandibular second bicuspid can be confirmed?

- A. 2 years.
- B. 4 years.
- C. 6 years.
- D. 8 years.

Proper lip support for a maxillary complete denture is provided primarily by which of the following?

- A. Labial surface of the teeth and simulated gingiva.
- B. Thickness of the border in the vestibule.
- C. Festooned carvings on the labial surface of the simulated gingiva.
- D. Convex surface of the labial flange.

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During tooth development, vitamin A deficiency may result in

- A. peg-shaped teeth.
- B. partial anodontia (hypodontia).
- C. Hutchinson's incisors.
- D. enamel hypoplasia.
- E. dentinogenesis imperfecta.

The highest incidence of congenitally missing lateral incisors is most likely seen in a patient with

- A. unilateral cleft lip and palate.
- B. congenital heart disease.
- C. Down's syndrome.
- D. hyperthyroidism.

Voids in a gypsum cast are most likely the result of

- A. low surface tension of a silicone impression material.
- B. high surface tension of an irreversible hydrocolloid.
- C. using a hydrophilized addition silicone.
- D. spraying a surfactant on the impression.

Which of the following is a CONTRAINDICATION for a single tooth extraction in a general dental office?

- A. The patient is severely hyperthyroid and not under treatment.
- B. The patient is a well-controlled diabetic.
- C. The tooth is seated in a pneumatized maxillary sinus.
- D. The tooth has internal root resorption.

Which of the following nerves should be anesthetized for extraction of a maxillary lateral incisor?

- A. Nasociliary.
- B. Nasopalatine.
- C. Sphenopalatine.
- D. Infra-orbital.

Recurrent caries

- A. is caused by microleakage at the restoration-tooth interface.
- B. is initiated primarily on the tooth surface beyond the restoration.
- C. is caused by voids within the restoration entirety.
- D. occurs in the pits of tooth structure.

Aspiration is carried out prior to a local anaesthetic injection in order to reduce the

- A. toxicity of local anaesthetic.
- B. toxicity of vasoconstrictor.
- C. possibility of intravascular administration.
- D. possibility of paraesthesia.

Muscle spindles associated with stretch reflexes

- A. are composed of extrafusal muscle fibres.
- B. are innervated by alpha motor neurons.
- C. mediate autogenic inhibition of muscle contraction.
- D. possess fibres that are capable of contraction.
- E. contribute to the main force production properties of muscle.

The layer of intermingled collagen and resin located beneath a restoration is called the

- A. smear layer.
- B. hybrid layer.
- C. Weil layer.
- D. decalcification layer.

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In an edentulous patient, the coronoid process

- A. limits the distal extent of the mandibular denture.
- B. affects the position and arrangement of posterior teeth.
- C. aids in determining the location of the posterior palatal seal.
- D. limits the thickness of the maxillary buccal denture flange.

The major connector of a removable partial denture should be designed to

- A. rigidly connect the denture components.
- B. act as a stress-breaker.
- C. dissipate vertical forces.
- D. distribute forces to the soft tissues.

Mobility of teeth WITHOUT loss of bone support suggests

- A. a primary occlusal trauma.
- B. a secondary occlusal trauma.
- C. an atrophic condition of the periodontium.

For acute dental pain, the daily maximum cumulative dose of acetylsalicylic acid is

- A. 2,400 mg.
- B. 3,200 mg.
- C. 3,600 mg.
- D. 4,000 mg.

A 7 year old patient presents 4 hours post-trauma with an oblique crown fracture of tooth 2.1 exposing 2mm of vital pulp. The most appropriate treatment is

- A. vital pulpotomy and placement of calcium hydroxide.
- B. pulpectomy and obturation with calcium hydroxide.
- C. extraction and prosthesis.
- D. pulpectomy and obturation with gutta-percha.

Lidocaine has

- A. analgesic properties.
- B. anti-inflammatory properties.
- C. antiarrhythmic properties.
- D. anticonvulsant properties.

After the cementation of a crown, chronic gingivitis would most likely be the result of a/an

- A. subgingival finish line.
- B. supragingival finish line.
- C. undercontoured crown.
- D. overcontoured crown.

Which of the following is most likely associated with a periradicular granuloma?

- A. Erodes rapidly through bone.
- B. Asymptomatic.
- C. Young adults.
- D. Occurs at the apex of a vital tooth.

A squamous cell carcinoma located near the midline of the anterior floor of the mouth normally spreads to which of the following lymph nodes?

- A. Unilateral neck lymph nodes.
- B. Mediastinal lymph nodes.
- C. Bilateral neck lymph nodes.
- D. Retropharyngeal lymph nodes.

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Patients who are positive for the interleukin-1 (IL-1)

- A. are at increased risk for severe periodontal disease.
- B. have a decreased inflammatory response in the presence of bacteria.
- C. are more likely to respond favourably to periodontal therapy.
- D. have decreased bacterial pathogens associated with active periodontal disease.

A well circumscribed 3mm radiolucent lesion is present in the apical region of the mandibular second premolar. The tooth responds normally to vitality tests. The radiolucency is most likely

- A. a periradicular periodontitis.
- B. a dentigerous cyst.
- C. a rarefying osteitis.
- D. the mental foramen.

Bone tissue grows by

- A. interstitial growth.
- B. osteoclastic activity.
- C. proliferation of endodermal tissue.
- D. differentiation of cartilaginous tissue.

The most likely cause of postoperative sensitivity with Class II composite resin restorations is

- A. acid etching of dentin.
- B. microleakage at the interface.
- C. toxicity of the restorative material.
- D. overheating during the finishing process.

Which of the following conditions is characterized by abnormally large pulp chambers?

- A. Amelogenesis imperfecta.
- B. Regional odontodysplasia.
- C. Dentinogenesis imperfecta.
- D. Dentinal dysplasia Type I.

What is the most appropriate action for a dentist to take for a female patient experiencing spousal abuse?

- A. Speak to the alleged abuser to assess the level of threat to the patient.
- B. Offer resource materials and referrals to community agencies to the patient.
- C. Focus on dental matters and consider the abuse issues in the future.
- D. Counsel the patient to leave the abuser.

The principal reason for a needle aspiration of an intraosseous radiolucent lesion of the mandible is to

- A. obtain a specimen for histopathological analysis.
- B. determine the presence of a vascular lesion.
- C. decompress a fluid-filled lesion.
- D. drain purulent material.

Which of the following conditions is the most likely cause of a maxillary midline diastema?

- A. Mesiodens.
- B. Space shortage.
- C. Gemination.
- D. Dens invaginatus.

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What is the earliest age that a congenitally missing mandibular second bicuspid can be confirmed?

- A. 2 years.
- B. 4 years.
- C. 6 years.
- D. 8 years.

Following an inferior alveolar block injection of 2% lidocaine with 1:100,000 epinephrine, a patient experiences a transient tachycardia. Which is the most likely cause of this reaction?

- A. Vasovagal syncope.
- B. An allergic reaction.
- C. Myocardial infarction.
- D. Intravascular injection.
- E. An anaphylactoid reaction.

Fordyce's granules are

- A. ectopic sebaceous glands.
- B. ectopic sweat glands.
- C. small calcified nodules.
- D. aberrant mucous glands.

In the restoration of an endodontically treated tooth, increasing the post preparation diameter will most likely increase

- A. post stability.
- B. cervical resistance.
- C. stress to the root.
- D. crown retention.

Crestal bone loss around implants prior to occlusal loading is more significantly associated with

- A. smooth collars.
- B. roughened collars.
- C. internal connections.
- D. external connections.

On an edentulous patient, a panoramic radiograph is used to

- A. determine the level of muscle attachments.
- B. identify systemic problems affecting the soft tissues of the mouth.
- C. reveal retained roots or residual areas of infection.
- D. assess the vertical dimension.

Which of the following conditions produces a radiolucent image?

- A. Sialolith.
- B. Osteosclerosis.
- C. Odontoma.
- D. Ameloblastic fibroma.

What is the minimum number of nucleotides that can be deleted from a gene that will result in the smallest change in the amino acid sequence of the encoded protein?

- A. 1.
- B. 2.
- C. 3.
- D. 4.
- E. 5.

The best time to begin interceptive orthodontic treatment for a patient with a skeletal Class II malocclusion is

- A. as soon as the malocclusion is diagnosed.
- B. immediately following complete eruption of the deciduous dentition.
- C. immediately following complete eruption of the first permanent molars.
- D. several months prior to the pre-pubertal growth spurt.
- E. after skeletal maturity.

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Which of the following is characteristic of periapical osseous dysplasia (periapical cemento-osseous dysplasia)?

- A. Pain.
- B. Expansion.
- C. Biopsy is not necessary.
- D. Requires endodontics or extraction.

Which of the following must be instituted prior to exodontia for a patient with symptoms of mild hypothyroidism?

- A. An INR test within 24 hours prior to appointment.
- B. Constant blood pressure monitoring.
- C. Short early morning appointments.
- D. Supine or head down chair positioning.
- E. No special considerations are required.

For a 1 year old child with primary herpetic gingivostomatitis, the most appropriate management is to

- A. prescribe antibiotics.
- B. immunize against chicken pox.
- C. maintain adequate fluid intake.
- D. debride the lesions.
- E. swab the lesions with chlorhexidine.

The most appropriate management of an intruded 5.1 with the apex displaced toward the labial bone plate is to

- A. extract.
- B. leave in place and perform a pulpectomy.
- C. reposition and perform a pulpectomy.
- D. allow spontaneous repositioning.

The accuracy of alginate impression materials will be improved if

- A. the space between the tray and the teeth is 1-2mm.
- B. the space between the tray and the teeth allows 4-5mm of alginate.
- C. the impression is removed slowly from the undercuts around the teeth.
- D. the impression is soaked in water for 1 hour.

An end result of ionizing radiation used to treat oral malignancies is

- A. deformity of the jaws.
- B. reduced vascularity of the jaws.
- C. increased vascularity of the jaws.
- D. increased brittleness of the jaws.

Maxillary furcation involvements are best assessed clinically by probing with a

- A. Williams probe.
- B. Nabers probe.
- C. Michigan "O" probe.
- D. Periodontal Screening and Recording (PSR) probe.

The last primary tooth to be replaced by a permanent tooth is usually the

- A. maxillary canine.
- B. mandibular canine.
- C. maxillary first molar.
- D. mandibular second molar.

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The most appropriate time to initiate surgical treatment of a prognathic mandible immediately follows the

- A. primary dentition.
- B. early mixed dentition.
- C. late mixed dentition.
- D. cessation of growth.

Maxillary incisor protrusion in a 12 year old patient is most appropriately treated by

- A. orthodontic retraction of the incisors following the creation of space.
- B. bilateral sagittal split osteotomy of the mandible.
- C. surgical repositioning of anterior maxilla following extraction of first maxillary premolars.
- D. prosthetic replacement of the incisors following their extraction.

Overcontouring in the gingival third of a provisional restoration contributes to the

- A. retention of the provisional restoration.
- B. accumulation of plaque and gingival inflammation.
- C. displacement of the gingiva for future impression making.
- D. marginal integrity of the provisional restoration.

"Dens in dente" is most commonly associated with

- A. supernumerary teeth.
- B. dentinogenesis imperfecta.
- C. osteogenesis imperfecta.
- D. anterior teeth.
- E. amelogenesis imperfecta.

Which of the following hemostatic agents is most likely to create a systemic reaction?

- A. Aluminum sulphate (Pascord®).
- B. Aluminum chloride (Hemodent®).
- C. Epinephrine (Racord®).
- D. Ferric sulphate (Astringent®).

A 10 year old child with no previous caries experience has proximal carious lesions in the enamel only of several primary molars. What is the most appropriate management for the lesions?

- A. No treatment.
- B. Be treated with topical fluoride, proper home care and observation.
- C. Be smoothed with abrasive strips.
- D. Be treated with fissure sealants.
- E. Be restored with composite resin.

Which line angle is NOT present in a Class V amalgam cavity preparation?

- A. Mesioaxial.
- B. Axiopulpal.
- C. Gingivoaxial.
- D. Distoaxial.
- E. Occlusoaxial.

The prime advantage of vacuum firing of porcelain is

- A. better colour.
- B. less shrinkage.
- C. more translucency.
- D. increased strength.

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Spontaneous hemorrhage from the gingiva may be indicative of

- A. parotitis.
- B. Hodgkin's disease.
- C. diabetes.
- D. leukemia.

Orthognathic surgery for the treatment of sleep apnea

- A. will usually lead to an unesthetic facial appearance.
- B. affects multiple levels of airway.
- C. requires preoperative orthodontics.
- D. is the most effective of all treatment modalities.

Over time, the effectiveness of a Light Emitting Diode curing light will be

- A. improved.
- B. the same.
- C. reduced.

The chief mechanism by which the body metabolizes short-acting barbiturates is

- A. oxidation.
- B. reduction.
- C. hydroxylation and oxidation.
- D. sequestration in the body fats.

A 22 year old patient, who is otherwise healthy, has severe pain and discomfort in the mouth. Clinical findings are gingival ulceration in the anterior region of both arches, gingiva covered by a yellow-grey slough, ulcerated papillae, gingival bleeding upon slight provocation, a fetid odor but no radiographic evidence of bone loss. What is the most probable diagnosis?

- A. Localized aggressive periodontitis.
- B. Localized aggressive gingivitis.
- C. Necrotizing ulcerative periodontitis.
- D. Necrotizing ulcerative gingivitis.

The most appropriate type of bone grafting material for use in the maxillofacial region is

- A. allogenic.
- B. alloplastic.
- C. autogenous.
- D. xenogenic.

Which of the following is NOT characteristic of periodontitis?

- A. Hypertrophy of the gingiva.
- B. Pocket formation without suppuration.
- C. Destruction of the periodontal ligament.
- D. Alveolar bone resorption.

The yield strength of an orthodontic wire is

- A. the same as the proportional limit.
- B. decreased by work hardening.
- C. the same as the stress at fracture.
- D. higher than the proportional limit.

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The most likely diagnosis for a child with a painful, fiery-red, diffuse gingivitis is

- A. primary herpetic gingivostomatitis.
- B. aggressive periodontitis.
- C. idiopathic fibromatosis.
- D. aphthous stomatitis.

It is ethical for a dentist in Canada to decline to treat a patient due to

- A. a difference in religious beliefs.
- B. the patient's infectious status.
- C. a patient being physically challenged.
- D. a patient being mentally challenged.
- E. the dentist's lack of skill or knowledge.

Which of the following is the most frequent major congenital malformation of the head and neck?

- A. Cystic hygroma.
- B. Cleft palate.
- C. Encephalotrigeminal angiomas.
- D. Double lip.

The body of the mandible increases in length to accommodate the permanent second molar by

- A. apposition of bone in the condyle.
- B. resorption of bone along the anterior border of the ramus and apposition of bone on the posterior border of the ramus.
- C. apposition of bone on the alveolar margin and lower border of the body of the mandible.
- D. apposition of bone at the symphysis and posterior border of the ramus of the mandible.
- E. anterior growth.

Which viral hepatitis does NOT have a chronic carrier state?

- A. Hepatitis A.
- B. Hepatitis B.
- C. Hepatitis C.
- D. Hepatitis D.

An anterior endodontically treated tooth has been restored with a carbon fibre, a direct restorative core and a porcelain fused to metal crown. What is the most important factor influencing the prognosis of this tooth?

- A. Type of core material.
- B. Type of luting cement.
- C. Amount of remaining coronal tooth structure.
- D. Alloy composition of the post.

Intermittent painful swelling in the submandibular region that increases at mealtime is indicative of

- A. a ranula.
- B. a blockage of Wharton's duct.
- C. Ludwig's angina.
- D. a blockage of Stensen's duct.
- E. an epidemic parotitis.

Cements used as cavity liners

- A. provide a barrier to the passage of irritants from restorative materials.
- B. reduce sensitivity of freshly cut dentin.
- C. provide thermal insulation to the pulp.
- D. All of the above.

Which of the following dentinal caries zones is capable of remineralization?

- A. Infected.
- B. Turbid.
- C. Transparent.

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An increase of immunoglobulins is consistent with increased numbers of

- A. fibroblasts.
- B. neutrophils.
- C. lymphocytes.
- D. plasma cells.

A patient presents with wear facets, increased tooth mobility and percussion sensitivity of tooth 3.4. Radiographic evaluation of this tooth would likely indicate

- A. subgingival restoration overhangs.
- B. loss of epithelial attachment.
- C. widening of the periodontal ligament.
- D. pocket formation.

What is the most serious complication of an acute apical abscess (acute periradicular abscess) in the maxilla?

- A. Pericementitis.
- B. Periostitis.
- C. Cavernous sinus thrombosis.
- D. Spontaneous drainage of pus.

The gingival margin of the preparation for a full crown on a posterior tooth, with a clinical crown that satisfies the requirements for retention and resistance, should be placed

- A. 0.5mm subgingivally.
- B. on the enamel.
- C. at least 1mm supragingivally.
- D. at the cemento-enamel junction.
- E. at the gingival margin.

A positive Nikolsky's sign is a diagnostic feature of

- A. lichen planus.
- B. erythema multiforme.
- C. pemphigus vulgaris.
- D. chronic marginal gingivitis.
- E. lupus erythematosus.

Intensifying screens are used when exposing extraoral analogue radiographic films to

- A. improve detail.
- B. decrease exposure time.
- C. decrease scatter radiation.
- D. increase penetration.

Hutchinson's triad is a consequence of

- A. gonorrhea.
- B. herpes simplex.
- C. congenital syphilis.
- D. chlamydia.

A survey of a random sample of 5,586 Canadians found that 63% of older adults had visited a dentist in the last year. The 95% confidence interval was 56% to 70%. This means that

- A. between 56% and 70% of older adults account for 95% of the dental visits.
- B. there is 95% certainty that 63% of older adults had dental visits.
- C. no more than 70% of dental visits occurred in 95% of older adults.
- D. there is 95% certainty that 56% to 70% of older adults had dental visits.

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A space maintainer in the posterior segment will

- A. prevent extrusion of opposing teeth.
- B. prevent the eruption of the permanent teeth.
- C. retard eruption of the permanent teeth.
- D. maintain arch length.

In a dental office, all of the following should be used to reduce the risk of Hepatitis B infection for staff and patients EXCEPT

- A. steam sterilization.
- B. chemical sterilization.
- C. standard precautions.
- D. medical history.
- E. staff education.

What is the most likely diagnosis of a tooth presenting spontaneous pain of rapid onset and swelling of associated soft tissues?

- A. Acute apical abscess (acute periradicular abscess).
- B. Chronic apical abscess (chronic periradicular abscess).
- C. Vertical root fracture.
- D. Internal root resorption.

Coxsackie A virus is the etiologic agent in

- A. thrush.
- B. herpangina.
- C. lichen planus.
- D. aphthous stomatitis.

In periodontal flap surgery, the design of the incision is influenced by the

- A. frenum attachment.
- B. depth of the vestibule.
- C. amount of attached gingiva.
- D. presence of infrabony defects.
- E. All of the above.

After initial setting, a chemically cured glass ionomer cement restoration should have a coating agent applied to

- A. hasten the final set.
- B. protect the cement from moisture.
- C. retard the final set.
- D. protect the cement from ultraviolet light.
- E. create a smooth finish.

A 70 year old insulin-dependent patient has just completed a 7 day course of ampicillin for a respiratory infection. He presents with signs and symptoms consistent with a diagnosis of oral candidiasis. Which of the following drugs is the most appropriate to manage this condition?

- A. Fluconazole.
- B. Metronidazole.
- C. Demerol.
- D. Diflunisal.

Generalized enlarged fibrotic interdental papillae of 2 months duration are interfering with orthodontic treatment. There is no evidence of attachment loss. Scaling and root planing have not resolved the condition. Which of the following is the most appropriate intervention?

- A. Gingival curettage.
- B. Gingivoplasty.
- C. Osseous resective surgery.
- D. Guided tissue regeneration.

The etiologic agent for necrotizing ulcerative gingivitis (NUG) is

- A. bacterial.
- B. viral.
- C. fungal.
- D. protozoan.

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Cultures made from a dental abscess indicate the infection is caused by beta hemolytic streptococcus. Which of the following is the drug of choice?

- A. Penicillin.
- B. Erythromycin.
- C. Tetracycline.
- D. Cloxacillin.

Doubling the diameter of a round stainless steel orthodontic wire decreases its springiness how many times?

- A. 4.
- B. 8.
- C. 12.
- D. 16.

Amalgam is condensed to

- A. further break down the alloy particles.
- B. force the alloy particles together.
- C. complete the trituration process.
- D. coat all alloy particles with mercury.

A 3 year old requires the extraction of a deciduous maxillary second molar. The local anesthetic technique of choice is

- A. a posterior superior alveolar block.
- B. buccal and palatal infiltration.
- C. a tuberosity block plus subperiosteal infiltration of the mesio-buccal root.
- D. an infra-orbital block.

Which of the following drugs will NOT cause gingival hyperplasia?

- A. Cyclosporine.
- B. Doxepin.
- C. Phenytoin.
- D. Verapamil.

Tooth 1.1 has a small fractured mesioincisal corner into dentin. Which of the following is true with respect to the preparation for the restoration?

- A. Pins are usually necessary to achieve adequate retention.
- B. A lingual dovetail is usually required for retention.
- C. An enamel bevel of 1mm is placed where enamel thickness allows.
- D. Dentin coves are the primary form of retention for the restoration.

An accurate interproximal probing depth is obtained by walking the probe parallel to the long axis of the tooth until the

- A. line angle is reached, then angling at least 45° to reach the col area.
- B. line angle is reached, then angling slightly to reach the col area.
- C. contact area is reached, then angling slightly to reach the col area.
- D. contact area is reached, then angling at least 45° to reach the col area.

A 30 year old HIV positive patient presents for the removal of an abscessed second molar. The most appropriate management is to

- A. refer to another dentist because universal infection control procedures are insufficient.
- B. schedule appointments at the end of the day.
- C. treat the patient in the same way as all other patients.
- D. double glove before starting any surgical procedures.

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What is the dose of epinephrine in an EpiPen® Jr.?

- A. 0.15.
- B. 0.20.
- C. 0.25.
- D. 0.30.
- E. 0.35.

Which of the following should NOT be prescribed for a patient receiving warfarin?

- A. Acetaminophen.
- B. Oxycodone.
- C. Ketorolac.
- D. Codeine.

The direct immunofluorescence pattern seen in pemphigus vulgaris has been described as

- A. target-like.
- B. chicken wire.
- C. soap-bubble.
- D. corrugated.
- E. cotton wool.

If an odontogenic infection involves the pterygomandibular space, the most obvious clinical sign will be

- A. trismus.
- B. facial swelling.
- C. swelling in the submandibular area.
- D. rise in body temperature above 39°C (102°F).

Median anterior maxillary cysts occur in the

- A. nasal bone.
- B. incisive canal and in the palatine process.
- C. zygomatic process.
- D. hamular process.

Root resorption of primary teeth can be accelerated by

- A. the absence of a permanent replacement.
- B. the premature loss of the adjacent primary teeth.
- C. the presence of premature occlusal contact.
- D. inflammation of the pulp.

A high neutrophil count is indicative of a/an

- A. allergic reaction.
- B. bacterial infection.
- C. blood clotting defect.
- D. decrease in antibody production.

The most important diagnostic element in assessing the periodontal status of a patient is the

- A. results of vitality testing.
- B. radiographic appearance.
- C. depth of periodontal pockets.
- D. mobility of the teeth.

The prime advantage of vacuum firing of porcelain is

- A. better colour.
- B. less shrinkage.
- C. more translucency.
- D. increased strength.

What is the most appropriate design for a study that is started after the exposure to a risk factor but before the disease started?

- A. Case series.
- B. Randomized trial.
- C. Case-control.
- D. Cohort.

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The most logical explanation for causing swelling beneath the eye caused by an abscessed maxillary canine is that the

- A. lymphatics drain superiorly in this region.
- B. bone is less porous superior to the root apex.
- C. infection has passed into the angular vein which has no valves.
- D. the root apex lies superior to the attachment of the caninus and levator labii superioris muscles.

The Dietary Reference Intake (DRI) recommendation for fat is

% Fat of Total Energy Intake

	Children (4-18 yr)	Adult
A.	20-30%	20-30%
B.	20-35%	25-35%
C.	25-35%	20-35%
D.	25-40%	20-30%

The form of hepatitis that poses the greatest risk of transmission from patient to dental health care worker is

- A. hepatitis A.
- B. hepatitis B.
- C. hepatitis C.
- D. hepatitis D.

Median palatine cysts are classified as

- A. developmental.
- B. residual.
- C. idiopathic.
- D. odontogenic.

In complete denture fabrication, the angulation of the horizontal condylar guidance plane of the articulator is determined by the

- A. cuspal inclination of the teeth selected.
- B. orientation of the occlusal plane.
- C. incisal guidance.
- D. centric relation interocclusal record.
- E. protrusive interocclusal record.

The coefficient of thermal expansion of the metal relative to the porcelain for constructing a metal-ceramic crown should be

- A. slightly less.
- B. the same.
- C. slightly more.
- D. significantly less.

Which impacted mandibular third molar is usually easiest to remove?

- A. Mesio-angular.
- B. Horizontal.
- C. Disto-angular.
- D. Inverted.

In fibrous dysplasia

- A. foci of cartilage are a common histological finding.
- B. an inflammatory infiltrate is characteristically present.
- C. there are characteristic changes in the blood chemistry.
- D. a ground-glass appearance is present on radiographs.

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What is the most appropriate management for erythroleukoplakia?

- A. Observation.
- B. Replacement of amalgam restorations.
- C. Change in diet.
- D. Biopsy.
- E. Carbon dioxide laser ablation.

Periapical odontogenic cysts are primarily associated with

- A. impacted wisdom teeth.
- B. congenitally missing teeth.
- C. nonvital teeth.

The esthetics of a large Class IV composite resin restoration of a maxillary incisor will be improved by

- A. sealing with bonding agent.
- B. using flowable resin.
- C. using more than one shade.

Which of the following is the most likely diagnosis in a patient with bilateral parotid enlargement, enamel erosion, and normal salivary flow?

- A. Bulimia.
- B. Diabetes mellitus.
- C. HIV-associated salivary gland disease.
- D. Sjögren's syndrome.

Which of the following impression materials is NOT recommended for making a final impression for fabrication of dies for a porcelain fused to metal crown?

- A. Addition silicone.
- B. Condensation silicone.
- C. Irreversible hydrocolloid.
- D. Polyether.

Upon completion of primary dentin formation in a healthy permanent tooth, the majority of the inner dentinal tubules contain

- A. capillary extensions.
- B. stellate reticulum cells.
- C. odontoblast projections.
- D. neuronal projections.

The most complex surgical procedure where there is a bone defect is implant placement with

- A. simultaneous membrane application.
- B. the osteotome technique.
- C. bone splitting the alveolar crest.
- D. sinus floor elevation with window technique.

Which of the following is NOT a clinical predictor of successful vital pulp therapy?

- A. Preoperative health of the pulp.
- B. Elimination of the source of inflammation.
- C. Exclusion of future microbial microleakage.
- D. Presence of calcifications within the root canal.

Which of the following is a CONTRAINDICATION to the use of Tylenol 3®?

- A. Concurrent use of penicillin V.
- B. Asthmatic reaction to acetylsalicylic acid.
- C. An allergy to acetaminophen.
- D. A gastric ulcer.

During the setting phase, a dental stone mixture will exhibit

- A. expansion.
- B. contraction.
- C. loss in compressive strength.
- D. gain in moisture content.

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Which of the following may be used to disinfect gutta-percha points?

- A. Glass bead sterilizer.
- B. Autoclave.
- C. Chemical solutions.
- D. Flame sterilization.
- E. Dry heat sterilization.

In a free-end distal extension partial denture, the most effective means of limiting applied loads to abutment teeth is by

- A. splinting abutments to adjacent teeth.
- B. using the abutment teeth without splinting.
- C. using monoplane denture teeth.
- D. maintaining a stable base-tissue relationship.

Epidemiology of disease is best described as the

- A. data obtained from sickness surveys.
- B. usual low level of disease normally found within a population.
- C. control of disease.
- D. study of disease patterns in a population.

Which of the following has analgesic, antipyretic and anti-inflammatory effects?

- A. Acetaminophen.
- B. Acetylsalicylic acid.
- C. Bradykinin.
- D. Diazepam.

In primary molars, radiographic bony changes from an infection are initially seen

- A. at the apices.
- B. in the furcation area.
- C. at the alveolar crest.
- D. at the base of the developing tooth.

When using alginate impression material, which one of the following statements is correct?

- A. Store the impression in water at 37°C prior to pouring the cast.
- B. Remove the impression slowly from the undercuts.
- C. Control the setting time by changing the water/powder ratio.
- D. Pour the cast immediately following disinfection.

A furcation-involved tooth has a better prognosis if it has

- A. wide root separation.
- B. short tapered roots.
- C. concavities on the root surfaces.
- D. a cemento-enamel projection.

For a cast gold restoration, a gingival bevel is used instead of a shoulder because a bevel

- A. protects the gingiva.
- B. increases retention.
- C. improves marginal adaptation.
- D. increases the thickness of gold.

Which of the following drugs is LEAST likely to cause gingival hyperplasia?

- A. Cyclosporine.
- B. Fluoxetine.
- C. Phenytoin.
- D. Nifedipine.

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A removable partial denture rest should be placed on the lingual surface of a canine rather than on the incisal surface because

- A. less leverage is exerted against the tooth by the rest.
- B. the enamel is thicker on the lingual surface.
- C. visibility and access are better.
- D. the cingulum of the canine provides a natural recess.

A pale 8 year old patient presents with generalized gingival enlargement with spontaneous bleeding. Which of the following is most appropriate to establish the diagnosis?

- A. Excisional biopsy.
- B. Obtain a cytologic smear from the gingiva.
- C. Order a complete blood count.
- D. Obtain bacterial cultures.

Coronary artery occlusion can lead to

- A. thrombosis.
- B. embolism.
- C. infarction.
- D. fatty degeneration.

Trauma from occlusion may be diagnosed radiographically by the presence of

- A. cemental tears.
- B. horizontal bone loss.
- C. widening of the periodontal ligament space.
- D. narrowing of the periodontal ligament space.

In which of the following pathological conditions would a lower central incisor tooth be expected to respond to heat, cold and an electric pulp test?

- A. Chronic apical abscess (chronic periradicular abscess).
- B. Acute apical abscess (acute periradicular abscess).
- C. Periapical osseous dysplasia (periapical cemento-osseous dysplasia).
- D. Asymptomatic apical periodontitis (chronic periradicular periodontitis).

A healthy, 55 year old female patient has alveolar bone loss on 40% of teeth, 3-4mm of clinical attachment loss and probing pocket depths ranging between 5-6mm with bleeding upon probing. The most likely diagnosis is

- A. mild generalized chronic periodontitis.
- B. mild localized chronic periodontitis.
- C. moderate generalized chronic periodontitis.
- D. moderate localized chronic periodontitis.

Following periodontal surgery, the most important factor to promote healing is

- A. a salt water rinse.
- B. thorough plaque control.
- C. gingival massage.
- D. leaving the site undisturbed for a period of 3 months.

Hypothyroidism affects the dental developmental pattern by

- A. interfering with jaw growth.
- B. delaying the eruption timetable.
- C. causing sclerotic bone to form over the occlusal surface of erupting teeth.
- D. accelerating the eruption timetable.

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The maxillary cast partial denture major connector design with the greatest potential to cause speech problems is

- A. a thick narrow major connector.
- B. an anterior and a posterior bar.
- C. a thin broad palatal strap.
- D. narrow horseshoe shaped.

Lymphatic spread from a carcinoma on the tip of the tongue would initially involve which nodes?

- A. Submandibular.
- B. Submental.
- C. Deep parotid.
- D. Mastoid.
- E. Jugulo-omohyoid.

The primary objective of initial periodontal therapy is to

- A. reduce occlusal trauma.
- B. make adequate dietary and nutritional adjustments.
- C. remove the colonized masses of microorganisms and calculus.
- D. eliminate crowded and tilted teeth.

Which of the following conditions is most likely to result in new periosteal bone formation?

- A. Fibrous dysplasia.
- B. Paget's disease of bone.
- C. Chronic osteomyelitis.
- D. Hyperparathyroidism.

Which of the following is used to verify the effectiveness of instrument sterilization?

- A. Gram-negative bacteria.
- B. Anerobic bacteria.
- C. Spores.
- D. Oral microorganisms.

Which of the following malocclusions is most appropriately corrected immediately upon diagnosis?

- A. Angle Class II division 1.
- B. Angle Class II division 2.
- C. Cross-bite with a lateral functional shift.
- D. Midline diastema.

When compared to a conventional complete denture, an overdenture

- A. is more fracture resistant.
- B. preserves more alveolar bone.
- C. causes less soft tissue inflammation.
- D. is less expensive.

A patient presents with apparent paralysis of one side of the face which appeared the day before. What is the most likely diagnosis?

- A. Glossodynia.
- B. Bell's palsy.
- C. Myasthenia gravis.
- D. Trigeminal neuralgia.

Which of the following has anticonvulsant properties?

- A. Acetaminophen.
- B. Codeine.
- C. Diazepam.
- D. Diphenhydramine.
- E. Nitrous oxide.

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In a 4 year old patient, with an otherwise normal occlusion, the most appropriate management of an ankylosed tooth 8.4 is

- A. immediate extraction.
- B. luxation to facilitate eruption.
- C. monitoring of development.

Which of the following removable partial dentures has the LEAST amount of rotation around the fulcrum?

- A. Kennedy Class I.
- B. Kennedy Class II.
- C. Kennedy Class III.

The antithrombotic effects of acetylsalicylic acid may be compromised by

- A. codeine.
- B. acetaminophen.
- C. ibuprofen.
- D. tramadol.

A patient presents complaining of spontaneous pain from a tooth. Pain persists following thermal testing by cold. What is the most likely pulpal diagnosis?

- A. Reversible pulpitis.
- B. Asymptomatic irreversible pulpitis.
- C. Symptomatic irreversible pulpitis.
- D. Pulp necrosis.

Recurring tooth rotations occur most frequently after orthodontic correction due to

- A. density of the cortical bone.
- B. persistence of tongue and finger habits.
- C. free gingival and transseptal fibres.
- D. oblique fibres of the periodontal ligament.

Epinephrine in local anesthetic solutions

- A. increases the duration of anesthesia.
- B. reduces the likelihood of an allergic reaction.
- C. balances the pH of the solution.

Unilateral numbness of the chin is associated with

- A. malignancy.
- B. Bell's palsy.
- C. apical abscess.
- D. trigeminal neuralgia.

During general anesthesia, all of the following should be monitored EXCEPT

- A. pupil diameter.
- B. blood pressure.
- C. heart rate.
- D. oxygen saturation.
- E. respiratory rate.

Adrenal corticosteroids

- A. increase heart rate.
- B. cause vasodilation.
- C. increase protein synthesis.
- D. reduce inflammation.

A removable orthodontic appliance, producing a light force on the labial of a proclined maxillary central incisor will cause

- A. lingual movement of the crown and lingual movement of the root apex.
- B. intrusion of the central incisor and lingual movement of the crown.
- C. lingual movement of the crown and labial movement of the root apex.
- D. intrusion of the central incisor.

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Which of the following should be performed to ensure a well-adapted and functional stainless steel crown?

- A. Prepare the tooth with sharp line angles.
- B. Break interproximal contacts using a tapered bur.
- C. Prepare a well-defined chamfer margin.
- D. Cement the crown with rubber dam in place.

The flexibility of a retentive clasp arm is affected by the

- A. location of the reciprocal arm.
- B. length of the retentive arm.
- C. position on the abutment tooth.
- D. location of the occlusal rest.

Typically, vital pulps of elderly patients

- A. show a decrease in the number of collagenous fibres.
- B. have decreased reparative capacity compared to younger adults.
- C. form dentinal bridges after appropriate pulp capping procedures.
- D. show an increase in myelinated nerves when compared to pulps of younger adults.

Which of the following traumatic injuries does NOT require immediate management?

- A. Avulsion.
- B. Alveolar fracture.
- C. Uncomplicated crown-root fracture.
- D. Extrusion.

Which of the following clinical findings is NOT associated with combination (Kelly's) syndrome?

- A. Reduction in morphologic face height.
- B. Advanced anterior maxillary ridge resorption.
- C. Down growth of the maxillary tuberosities.
- D. Advanced alveolar bone resorption under the posterior partial denture base areas.

High telomerase activity is associated with

- A. diabetes mellitus.
- B. malignant tumours.
- C. hyperthyroidism.
- D. cystic fibrosis.

Regarding the Dietary Reference Intake (DRI) for calcium,

- A. adult men and women require the same amount.
- B. more calcium is required during pregnancy and lactation.
- C. women over 70 years require more than men over 70 years.
- D. under the age of 18, boys require more calcium than girls.

Direct pulp capping of permanent teeth in children under the age of 12 years is most likely to be successful for

- A. teeth that are symptomatic.
- B. teeth that are hyperemic.
- C. teeth with open apices.
- D. pulp exposures 3-5mm in size.

Which of the following is LEAST likely to be associated with fissured tongue?

- A. Oral lichen planus.
- B. Melkersson-Rosenthal syndrome.
- C. Geographic tongue.

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The predominant cells in the inflammatory exudate of an acute periodontal abscess are

- A. neutrophils.
- B. eosinophils.
- C. basophils.
- D. lymphocytes.
- E. monocytes.

In permanent teeth, two pulp canals are most commonly found in the

- A. distobuccal root of maxillary molars.
- B. distal root of mandibular first molars.
- C. palatal root of maxillary first premolars.
- D. mesial root of mandibular first molars.

Aggressive periodontitis has all of the following features EXCEPT

- A. rapid attachment loss.
- B. specific periodontal microbial pathogens.
- C. radiographic evidence of bone loss.
- D. ulcerations of the gingiva.

Which of the following lesions is most radiopaque?

- A. Calcifying odontogenic cyst.
- B. Fibrous dysplasia.
- C. Ameloblastoma.
- D. Complex odontoma.

To maintain pulp health and vitality, the preferred treatment for asymptomatic teeth with very deep dentinal caries is

- A. direct pulp capping using a dentin bonding agent.
- B. to avoid pulp exposure and use indirect pulp capping.
- C. direct pulp capping using calcium hydroxide.
- D. to remove all affected dentin.

Occlusal (night) guards are used to

- A. treat bruxism.
- B. reduce pocket formation.
- C. prevent pulpitis.
- D. permit eruption or elongation of teeth.

The most appropriate treatment for a vital primary molar with carious pulp exposure and cusp fracture is a/an

- A. pulp capping and amalgam restoration.
- B. pulpotomy and stainless steel crown.
- C. pulp capping and composite resin restoration.
- D. extraction and placement of a space maintainer.

The removal of a partially impacted mandibular third molar is appropriate for the prevention of

- A. anterior crowding.
- B. root caries of the adjacent tooth.
- C. jaw fracture from contact sports.

Periodontal pockets CANNOT be reduced by

- A. occlusal adjustment.
- B. scaling and root planing.
- C. open flap curettage.
- D. guided tissue regeneration.

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What is the goal of dentin conditioning?

- A. Remove the smear layer.
- B. Reduce the dentinal fluids in the tubules.
- C. Expose the hydroxyapatite.
- D. Eliminate the collagen fibrils.

Regarding dental caries, which of the following is correct?

- A. All carbohydrates are equally cariogenic.
- B. More frequent consumption of carbohydrates increases the risk.
- C. The rate of carbohydrate clearance from the oral cavity is not significant.
- D. Increased dietary fat increases the risk.

Which of the following best describes the squamous cell carcinoma?

- A. Sore shallow ulcer, present for a few days.
- B. Burning red plaque, present for several weeks.
- C. Asymptomatic gray macule, present for several months.
- D. Occasionally tender normal coloured nodule, present for several years.

A 7 year old patient becomes disruptive during a dental appointment. The dentist may use voice control

- A. without parental consent.
- B. to regain the patient's attention.
- C. to reprimand the patient.
- D. to explain the procedures.

A patient presents with a non-healing lesion on the side of the nose. It has a rolled border and has been increasing in size. The most likely diagnosis is

- A. a sebaceous cyst.
- B. a basal cell carcinoma.
- C. lupus erythematosus.
- D. verruca vulgaris.
- E. an epulis.

The earliest radiographic sign of occlusal trauma is

- A. hypercementosis.
- B. root resorption.
- C. alteration of the lamina dura.
- D. widening of the periodontal ligament space.
- E. ankylosis.

A patient complains of acute pain 24 hours after the insertion of a restoration in a tooth with no pre-existing periapical pathology. The tooth is vital and tender to percussion. The radiograph will show

- A. an apical radiolucency.
- B. osteosclerosis.
- C. condensing osteitis/sclerosing osteitis.
- D. a normal apex.

The minimal occlusal reduction for a porcelain onlay is

- A. 1mm.
- B. 2mm.
- C. 3mm.

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Which cells migrate into the gingival sulcus in the largest numbers in response to the accumulation of plaque?

- A. Plasma cells and monocytes.
- B. Polymorphonuclear leukocytes.
- C. Macrophages.
- D. Lymphocytes.
- E. Mast cells.

When the primary maxillary second molar is lost prematurely, the permanent first molar usually moves with the

- A. mesiobuccal cusp rotating lingually.
- B. mesiobuccal cusp rotating buccally.
- C. crown tipping buccally.
- D. crown tipping lingually

Which of the following barbiturates can be used to reduce the frequency of seizures in persons with grand mal seizure disorder?

- A. Thiopental.
- B. Amobarbital.
- C. Secobarbital.
- D. Pentobarbital.
- E. Phenobarbital.

Inadequate space for the eruption of the maxillary second premolar is most frequently caused by the premature loss of the deciduous

- A. first molar.
- B. second molar.
- C. central incisor.
- D. canine.

Dens invaginatus is associated with

- A. supernumerary teeth.
- B. dentinogenesis imperfecta.
- C. osteogenesis imperfecta.
- D. anterior teeth.
- E. amelogenesis imperfecta.

Enamel maturation is completed

- A. when the enamel organ is complete.
- B. prior to eruption but after root formation has begun.
- C. at eruption.
- D. following eruption.

Mucocles are most commonly found in the

- A. upper lip.
- B. lower lip.
- C. tongue.
- D. buccal mucosa.
- E. soft palate.

Granulation tissue which extends coronally from the pulp of a carious tooth is known as a/an

- A. pyogenic granuloma.
- B. pulp polyp.
- C. epulis granulomatousum.
- D. fibroma.

The arrangement and character of the principal fibres of the periodontal ligament are modified by

- A. tooth morphology.
- B. occlusal function.
- C. cementum.
- D. alveolar bone.

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A bevel is CONTRAINDICATED on the cavosurface margins of a Class I amalgam cavity preparation because

- A. this type of margin would tend to leak.
- B. as the tooth undergoes natural attrition, the bevel would be worn away.
- C. a thin flange of the amalgam restorative material is prone to fracture.
- D. the restoration is more difficult to polish.

Varying the mercury content of an amalgam results in which of the following?

- A. The higher the mercury content the greater the strength.
- B. The higher the mercury content the less the flow.
- C. The lower the mercury content the greater the flow.
- D. The lower the mercury content the greater the strength.

One of the mechanisms of bacterial adherence to the dental pellicle is through

- A. positively charged bacteria with the pellicle.
- B. interaction of cations such as calcium.
- C. hydrophilic interactions.
- D. interaction of salivary anions.

Basal cell carcinoma on the nose

- A. normally metastasizes to the submental lymph nodes.
- B. normally metastasizes to the submaxillary lymph nodes.
- C. normally metastasizes to the cervical lymph nodes.
- D. normally metastasizes to the pre-auricular lymph nodes.
- E. does not normally metastasize.

Generalized malaise and elevated body temperature may be associated with

- A. asymptomatic apical periodontitis.
- B. acute apical abscess.
- C. symptomatic irreversible pulpitis.
- D. asymptomatic irreversible pulpitis.

In which of the following situations can topical corticosteroids be used?

- A. Angular cheilitis.
- B. Candidiasis.
- C. Herpes labialis.
- D. Erosive lichen planus.
- E. Necrotizing ulcerative gingivitis.

A healthy 78 year old patient presents with three new carious lesions on root surfaces. This is most likely the result of

- A. age related changes in cementum composition.
- B. the architecture at the CEJ.
- C. changes in dietary pattern.
- D. chronic periodontal disease.

The degree of curing of a composite resin is dependent on all of the following EXCEPT the

- A. wavelength of the emitted light.
- B. intensity of the light source.
- C. duration of light exposure.
- D. distance from the light tip to the composite surface.
- E. amount of light reflected by the composite surface.

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Which patient would NOT be predisposed to liver toxicity following a dose of 1000mg of acetaminophen?

- A. An adult with liver cirrhosis.
- B. An alcoholic.
- C. A diabetic.
- D. A 15kg, 4 year old child.

Which of the following lesions has the LEAST favourable prognosis?

- A. Basal cell carcinoma.
- B. Ameloblastoma.
- C. Melanoma.
- D. Verrucous carcinoma.

The stiffness of a material can best be described by the

- A. modulus of elasticity.
- B. percentage elongation.
- C. modulus of resilience.
- D. elastic limit.

Which of the following diseases may cause an enlargement of the jaws, development of diastemas and/or a poorly fitting denture?

- A. Phantom bone disease.
- B. Rickets.
- C. Paget's disease.
- D. Osteoporosis.
- E. Hypophosphatasia.

Gingival crevicular fluid

- A. never varies in volume.
- B. is a transudate.
- C. is derived from mast cells.
- D. is an exudate.
- E. B. and D.

The interdental gingival col is the area between the

- A. facial and lingual interdental gingiva.
- B. facial and lingual attached gingiva.
- C. distal and mesial interdental gingiva.

Which of the following permanent restorations is the most appropriate after a formocresol pulpotomy has been completed on a primary molar?

- A. A stainless steel crown placed at the same appointment.
- B. A stainless steel crown placed when a radiograph demonstrates no internal resorption.
- C. An amalgam placed at the same appointment.
- D. An amalgam placed when a radiograph indicates no bone destruction between the roots.

A 3 year old, cooperative patient has a complete set of primary teeth with poor oral hygiene and tight contacts between all teeth. Which dental radiographs are most appropriate?

- A. No radiographs.
- B. Bite-wing radiographs.
- C. Panoramic radiograph.
- D. Cone beam computed tomography (CBCT).

Cementum

- A. contains minimal amounts of collagen.
- B. has areas devoid of matrix-forming cells.
- C. vascularized at its periphery.

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Which of the following bacterial components is considered to be of key importance in initiating and sustaining inflammatory responses in gingiva and other periodontal tissues?

- A. Fimbriae.
- B. Capsule.
- C. Lipopolysaccharides.
- D. Flagella.

Which one of the following tests is used to confirm the presence of an acute infection?

- A. Erythrocyte sedimentation rate.
- B. Urinalysis.
- C. Differential white cell count.
- D. Serum alkaline phosphatase.

All of the following are strategies for increasing the fracture toughness of dental ceramics EXCEPT

- A. slow cooling after sintering.
- B. tetragonal zirconia addition.
- C. self-glazing.
- D. crystalline phase dispersion.

With respect to the use of gloves in dentistry,

- A. gloves may be reused on the same patient if they can be removed without contaminating the operator.
- B. utility gloves are appropriate for patient care when no other options are available.
- C. gloves may be used on more than one patient as long as there are no identified risks in that patient's medical history.
- D. sterile gloves should be used during a surgical procedure.

Which of the following structures affects the thickness of the flange of a maxillary complete denture?

- A. Malar process.
- B. Coronoid process.
- C. Mylohyoid ridge.
- D. Zygomatic process.
- E. Genial tubercle.

Five years ago, a 55 year old patient was treated for squamous cell carcinoma of the oral cavity with ablative surgery, chemotherapy and intensity-modulated radiotherapy. The posterior mandible received a dose of 70 Gy. The extraction of tooth 3.7 with local anesthesia is planned because the tooth cannot be restored. The most appropriate management is extraction with

- A. transfusion of packed red blood cells prior to the extraction.
- B. hyperbaric oxygen treatment prior to the extraction.
- C. hyperbaric oxygen treatment prior to and following the extraction.
- D. local anesthetic containing no vasoconstrictor.

An 8 year old patient fell and has a dentin-enamel fracture of tooth 2.1 but does not have the fragment. A laceration is found on the lower lip. In addition to a periapical radiograph of 2.1, what other radiograph should be taken initially?

- A. Lower lip radiograph.
- B. Chest radiograph.
- C. Panoramic radiograph.
- D. Lateral cephalogram.
- E. Maxillary occlusal radiograph.

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The use of a maxillary anterior bite plane may result in

- A. translation of the maxillary incisors.
- B. extrusion of the mandibular incisors.
- C. extrusion of the maxillary posterior teeth.
- D. no occlusal changes.

Which of the following conditions is managed by the administration of bisphosphonates?

- A. Osteonecrosis.
- B. Osteopetrosis.
- C. Osteoporosis.
- D. Osteomyelitis.

Myxedema is associated with

- A. insufficient parathyroid hormone.
- B. excessive parathyroid hormone.
- C. insufficient thyroid hormone.
- D. excessive thyroid hormone.

The need to frequently replace intact orthodontic elastics is a direct consequence of

- A. creep.
- B. low modulus.
- C. stress relaxation.
- D. high ductility.

Sclerosing osteitis differs from osteosclerosis in that sclerosing osteitis is

- A. expansile.
- B. radiopaque.
- C. duffuse.
- D. associated with a vital tooth.

An epinephrine-containing retraction cord has the potential of

- A. interfering with the setting of the impression material.
- B. causing tissue necrosis.
- C. producing a systemic reaction.
- D. discolouring gingival tissue.

The extraction of a maxillary primary central incisor at the age of 6 years will cause

- A. loss of intercanine space.
- B. increased intercanine space.
- C. no change in intercanine space.
- D. increased overbite.
- E. decreased overjet.

For a patient taking warfarin, which laboratory test provides the most accurate information on coagulation time?

- A. Activated partial thromboplastin time.
- B. Ivy bleeding time.
- C. Platelet count.
- D. INR.
- E. Thrombin time.

The most appropriate management for the replantation of an avulsed permanent tooth is

- A. upon arrival at a dental clinic, within 60 minutes of avulsion.
- B. upon arrival at a dental clinic, after soaking it in saline for 5 minutes.
- C. on the site where avulsion happened, immediately after avulsion.
- D. on the site where avulsion happened, after soaking it in milk for 5 minutes.

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Upon setting, a mixture of plaster of Paris and water will exhibit

- A. loss in compressive strength.
- B. expansion.
- C. gain in moisture content.
- D. contraction.

For an otherwise healthy patient, with an acute localized periodontal abscess, initial treatment must include

- A. scaling and root planing.
- B. occlusal adjustment.
- C. prescription of an antibiotic.
- D. prescription of an analgesic.

Which of the following is the most severe adverse effect of antibiotic therapy?

- A. Urticaria.
- B. Angioneurotic edema.
- C. Diarrhea.
- D. Anaphylactic reaction.
- E. Flatulence.

Which of the following space maintainers is/are most appropriate for a 4 year old child whose mandibular first primary molars have been extracted?

- A. Bilateral band and loops.
- B. Lingual holding arch.
- C. A removable appliance.
- D. Distal shoe appliances.

An alginate impression is made of the maxillary arch and there is abundant unset alginate remaining on the teeth. Excess of which of the following components may contribute to the slow setting?

- A. Zinc oxide.
- B. Calcium sulfate.
- C. Potassium alginate.
- D. Sodium phosphate.

The correlation between malocclusion and temporomandibular dysfunction is

- A. weak.
- B. moderate.
- C. strong.
- D. definitive.

Which of the following would maximize vitamin E intake following osseous surgery?

- A. Lettuce.
- B. Wheat germ.
- C. Eggs.
- D. Fish.

For complete dentures, the most important factor affecting speech is the

- A. reproduction of the palatal rugae.
- B. position of the molar teeth.
- C. position of the anterior teeth.
- D. palatal thickness.

Hypercementosis at the root apex is often associated with

- A. hypothyroidism.
- B. Paget's disease.
- C. orthodontic tooth movement.
- D. normal occlusal function.
- E. hyperparathyroidism.

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When closing a diastema with direct composite, care must be taken to ensure that

- A. only supragingival enamel is etched.
- B. primer is used to increase bond strength.
- C. glass-ionomer cement is used subgingivally.
- D. interproximal gingiva is adequately retracted.

In a young patient living in an area with communal water fluoridation, the fluoride concentration of an erupted tooth is greatest

- A. at the dentino-enamel junction.
- B. on the surface of the clinical crown.
- C. at the layer of dentin nearest the pulp chamber.
- D. evenly throughout the enamel.

Oral lichen planus has lesions which

- A. bleed readily.
- B. occur in the debilitated.
- C. exhibit a positive Nikolsky's sign.
- D. histopathologically show lymphocytic infiltration.

The most likely complication associated with the extraction of an isolated maxillary second molar is

- A. a dry socket.
- B. nerve damage.
- C. fracture of the malar ridge.
- D. fracture of the tuberosity.

A 55 year old has a 12mm diameter well-circumscribed, elevated, palpable mass of normal colour located on the buccal mucosa. You suspect a traumatic fibroma and proceed with an excisional biopsy. What is the appropriate margin of normal tissue to include around the perimeter of the lesion?

- A. 2-3mm.
- B. 4-5mm.
- C. 6-7mm.
- D. 8-9mm.
- E. None.

Restoration of non-carious cervical lesions may be the appropriate management in all of the following situations EXCEPT when

- A. the area is to be included in a partial denture design.
- B. there is increasing thermal sensitivity.
- C. a brown lesion is present in an elderly patient.
- D. the defect compromises structural integrity of the tooth.

Bone laid down by the periosteum is

- A. endochondral.
- B. cartilaginous.
- C. appositional.
- D. cancellous.

Pulpectomy is the most appropriate treatment in a primary tooth with

- A. reversible pulpitis.
- B. advanced internal root resorption.
- C. advanced external root resorption.
- D. radicular pulp necrosis.

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A child has a carious exposure of the pulp in the first primary molar. The cavity is filled with pink tissue which bleeds when punctured by the explorer. What is the pulpal diagnosis?

- A. Normal pulp.
- B. Reversible pulpitis.
- C. Symptomatic irreversible pulpitis.
- D. Asymptomatic irreversible pulpitis.

A patient has an asymptomatic, adherent, white patch on the oral mucosa. Which of the following is most appropriate to confirm a diagnosis?

- A. Biopsy.
- B. Culture.
- C. Exfoliative cytology.
- D. Direct visual fluorescent examination (VELscope®).

A thumbsucking habit should be

- A. ignored.
- B. of concern if it persists beyond 5 years of age.
- C. considered a manifestation of the natural nutritional needs of the child.
- D. considered a primary cause of Angle Class II division 1 malocclusion.

Local anesthetic containing epinephrine is CONTRAINDICATED for a patient with

- A. Addison's disease.
- B. congenital methemoglobinemia.
- C. diabetes mellitus.
- D. pseudocholinesterase deficiency.
- E. sulfite sensitivity.

The earliest clinical sign of gingivitis is

- A. increased tooth mobility.
- B. bleeding on probing.
- C. change in color of the attached gingiva.
- D. change in consistency of the attached gingiva.

In a patient with liver disease, a possible complication is

- A. syncope or shock.
- B. postoperative infection.
- C. prolonged bleeding.
- D. allergic reaction to the anesthetic solution.

Following the insertion of complete dentures, a generalized soreness over the entire mandibular alveolar ridge can be caused by

- A. Inadequate interocclusal distance.
- B. impingement on the buccal frenum.
- C. high muscle attachments.
- D. excess border thickness.

The primordial cyst probably results from

- A. cystic degeneration of the stellate reticulum early in the formation of the tooth.
- B. epithelial remnants in the periodontal ligament.
- C. an extension of pulpal inflammation after death of the pulp.
- D. failure of formation of the enamel matrix.
- E. transformation of the dental lamina.

When a simple tipping force is applied to the crown of a single-rooted tooth, the centre of rotation is located

- A. at the apex.
- B. at the cervical line.
- C. within the apical half of the root.
- D. within the cervical one third of the root.

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Which of the following is NOT a sign of occlusal trauma?

- A. Fremitus.
- B. Gingival recession.
- C. Widened periodontal ligament.
- D. Tooth migration.

The most appropriate management of a 4mm diameter carious exposure on a vital permanent first molar in a 7 year old is

- A. direct pulp capping.
- B. partial pulpotomy.
- C. pulpectomy.
- D. extraction.

Which of the following is NOT suggestive of a diagnosis of necrotizing ulcerative gingivitis (NUG)?

- A. Bleeding from the gingiva.
- B. "Punched-out" papillae with necrotic slough.
- C. Bad breath.
- D. Metallic taste.
- E. Periodontal pocketing.

Which of the following is a characteristic of primary molars with taurodontism that should be considered when planning treatment?

- A. Ankylosis.
- B. Large pulp chambers.
- C. Enamel evaginations.
- D. Pulp stones.

Following root planing, a patient experiences thermal sensitivity. This pain is associated with which of the following?

- A. Golgi receptor.
- B. Free nerve endings.
- C. Odontoblastic processes.
- D. Cementoblasts.

The mucogingival line denotes the

- A. separation between the marginal gingiva and the alveolar mucosa.
- B. separation between the attached gingiva and the marginal gingiva.
- C. junction between the attached gingiva and the alveolar mucosa.
- D. junction between the mucoperiosteum and gingiva.

The most appropriate management for atypical swallowing is

- A. tongue trap appliance.
- B. occipital traction.
- C. myofunctional treatment.
- D. Hawley appliance.

A magenta-coloured tongue and angular cheilitis may be associated with a deficiency of

- A. ascorbic acid.
- B. niacin.
- C. riboflavin.
- D. thiamine.

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The microscopic appearance of the central giant cell granuloma of the jaws is similar to that of lesions which occur in

- A. hyperparathyroidism.
- B. Paget's disease.
- C. cleidocranial dysplasia.
- D. hyperpituitarism.

The youngest age at which tetracycline ingestion will NOT cause discolouration of any tooth crowns except third molars is

- A. 6 months in utero.
- B. 5 years.
- C. 10 years.
- D. 15 years.

What is the most appropriate initial management of a tooth which is sensitive to percussion but responds normally to electric pulp testing?

- A. Pulpectomy.
- B. Occlusal assessment.
- C. Pulpotomy.
- D. Restoration replacement.

Healthy attached gingiva

- A. has no basal cell layer.
- B. is closely bound to underlying muscle.
- C. contains elastic fibres.
- D. is keratinized.

Which of the following cysts is most likely to undergo transformation into an ameloblastoma?

- A. Radicular.
- B. Dentigerous.
- C. Fissural.
- D. Traumatic.

An advantage of an implant supported overdenture compared to a conventional complete denture is

- A. maintenance of proprioception from the periodontal ligament.
- B. reduction of residual ridge resorption.
- C. improvement of appearance.
- D. decreased frequency of maintenance and recall appointments.

A patient complains of pain in a mandibular molar when chewing hard foods and drinking cold liquids. Electric pulp tests and radiographic appearance are normal. The pain is most likely caused by

- A. symptomatic apical periodontitis (acute periradicular periodontitis).
- B. asymptomatic apical periodontitis (chronic periradicular periodontitis).
- C. a cracked tooth.
- D. internal resorption.

A bacterial enzyme capable of altering the ground substance of the periodontal ligament is

- A. amylase.
- B. hyaluronidase.
- C. dextranase.
- D. streptokinase.

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Which of the following is consistent with the features of an arrested carious lesion in an occlusal fissure?

- A. A small cavitated lesion with exposed dentin.
- B. A white spot lesion with a frosty surface.
- C. A lesion extending into dentin on a bite-wing radiograph.
- D. A brown spot lesion with a hard surface.

During matrix band removal, the risk of marginal ridge fracture of an amalgam restoration is reduced by

- A. completing most of the shaping of the marginal ridge before removal.
- B. leaving an excess of amalgam in the occlusal area before removal.
- C. contouring and wedging the band.
- D. using universal circumferential retainers and bands.

If a complete occlusal adjustment is necessary, interferences should be corrected

- A. after all restorative procedures are completed.
- B. after each restorative procedure.
- C. before starting any restorative treatment.
- D. during treatment.

A nonsurgical endodontic treatment was completed on tooth 1.6 six months ago. The temporary restoration was lost two months ago. The tooth has no caries or fractures. All cusps are present but are weak and unsupported. What is the most appropriate management prior to placing a full gold crown?

- A. Placing a bonded composite resin restoration to seal the access.
- B. Post placement in the palatal canal followed by a core build-up.
- C. Removal of 4-5mm of coronal gutta-percha from all canals followed by a core build-up.
- D. Endodontic retreatment followed by a core build-up.

A 57 year old man received 10mg of diazepam intravenously. He becomes unresponsive to verbal stimuli, and his respirations are depressed to 10 per minute. Appropriate treatment is to

- A. administer ephedrine.
- B. observe the patient.
- C. force the patient to drink coffee.
- D. support respiration with oxygen.

Which of the following is NOT a significant component of dental plaque?

- A. Lipids.
- B. Collagen.
- C. Carbohydrates.
- D. DNA.

The eruption of a maxillary permanent central incisor may be delayed by

- A. a supernumerary tooth.
- B. an antero crossbite.
- C. moderate maxillary crowding.
- D. excessive overbite.
- E. excessive overjet.

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Which one of the following factors is LEAST important in determining the appropriate dose of drug for a patient?

- A. Weight.
- B. Medical history.
- C. Age.
- D. Gender.

Which of the following space maintainers is/are most appropriate for a patient with the bilateral loss of mandibular first primary molars prior to the eruption of the permanent molars and permanent incisors?

- A. Lingual holding arch.
- B. Bilateral distal shoes.
- C. Bilateral band and loop.
- D. Fixed palatal arch with an anterior button (a Nance appliance).

All of the following are oral complications of uncontrolled diabetes mellitus EXCEPT for

- A. periodontal bone loss.
- B. delayed healing.
- C. hairy leukoplakia.
- D. oral candidiasis.

Mesiolingual rotation of permanent first maxillary molars

- A. increases arch length.
- B. results in an Angle Class II molar relationship.
- C. causes impaction of the second permanent molars.

An open proximal contact on an amalgam restoration can be prevented by

- A. appropriate wedge selection.
- B. tightening the matrix band.
- C. light condensing forces.
- D. simultaneous placement of adjacent proximal restorations.

In a Tanaka and Johnson mixed dentition analysis, the mesiodistal width of permanent maxillary canines and premolars is determined by the width of the

- A. permanent maxillary incisors.
- B. permanent mandibular incisors.
- C. primary canines and maxillary molars.
- D. primary canines and mandibular molars.

Which of the following foods is the most cariogenic?

- A. Cheese.
- B. Dark chocolate.
- C. Jam.
- D. Toffee.

For which of the following pathological conditions would a lower central incisor tooth be expected to respond to heat, cold and electric pulp test?

- A. Apical cyst.
- B. Acute apical abscess.
- C. Periapical cemento-osseous dysplasia.
- D. Chronic apical periodontitis.

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An abused woman is most at risk of being murdered when she

- A. Argues with the abuser in front of their children.
- B. Separates from her abusive spouse.
- C. Confides in friends and asks for help.
- D. Reports the abuse to law enforcement.

Embryologically, fusion of the palatal shelves should be completed by the

- A. fifth week.
- B. tenth week.
- C. fifteenth week.
- D. twentieth week.

A patient successfully treated 8 years ago for moderate chronic periodontitis now presents with generalized erythematous and edematous gingiva with bleeding on probing. There is no clinical or radiographic evidence of further attachment loss. The most likely diagnosis is

- A. gingivitis.
- B. chronic periodontitis.
- C. aggressive periodontitis.
- D. recurrent periodontitis.

A clenching habit may be a factor in

- A. suprabony periodontal pocket formation.
- B. marginal gingivitis.
- C. increased tooth mobility.
- D. generalized recession.

Patients who have been prescribed an acetaminophen/codeine combination must be advised

- A. to complete the prescribed medication.
- B. that it can cause diarrhea.
- C. that it can cause hypertension.
- D. to avoid consuming alcohol.

For a patient allergic to penicillin, what is the most appropriate drug for antibiotic prophylaxis?

- A. Ampicillin.
- B. Cephalexin.
- C. Clindamycin.
- D. Erythromycin.
- E. Metronidazole.

Which is the most appropriate prophylactic antibiotic for a patient with mitral valve prolapse with regurgitation undergoing a surgical dental procedure?

- A. Clindamycin.
- B. Vancomycin.
- C. Erythromycin.
- D. Amoxicillin.
- E. None of the above.

Which of the following is the hardest?

- A. Amalgam.
- B. Enamel.
- C. Composite resin.
- D. Type IV alloy.

Which of the following unilateral fixed partial dentures is most likely to have insufficient periodontal support? A fixed partial denture extending from the

- A. maxillary first premolar to the first molar.
- B. maxillary canine to the first molar.
- C. mandibular central incisor to the first premolar.
- D. mandibular second premolar to the second molar.

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During the administration of local anesthesia, an intravascular injection will occur most often in a/an

- A. incisive block.
- B. posterior superior alveolar block.
- C. inferior alveolar block.
- D. anterior superior alveolar block.
- E. long buccal block.

Which of the following is NOT a risk factor for periodontitis?

- A. Smoking.
- B. Poorly controlled diabetes.
- C. Coronary heart disease.
- D. Poor oral hygiene.

Which of the following drugs is used in the treatment of mild allergic reactions?

- A. Isoproterenol.
- B. Meperidine hydrochloride.
- C. Diphenhydramine hydrochloride.
- D. Propoxyphene.

A lateral cephalometric radiograph for a patient with a 3mm anterior functional shift should be taken with the patient in

- A. maximum intercuspation.
- B. initial contact.
- C. normal rest position.
- D. maximum opening.
- E. protrusive position.

The undesirable side-effect most commonly associated with use of a finger spring to tip the crown of an anterior permanent tooth is

- A. pain.
- B. gingival irritation.
- C. tendency for the tooth to intrude.
- D. severe mobility of the tooth.

A 50 year old edentulous patient is complaining that spicy foods are no longer enjoyable since he received his new complete upper and lower dentures. The most likely reason for this occurrence is that the

- A. dentures cover his taste buds.
- B. free nerve endings are now covered by the dentures.
- C. dentures are obstructing air flow to the olfactory epithelium.

The most appropriate treatment for an 11 year old who has intermittent swelling and pain associated with a central incisor which was traumatized 6 months ago is

- A. pulpotomy.
- B. pulpectomy.
- C. apexification
- D. extraction.
- E. observation.

A single tooth anterior crossbite found in a 9 year old should

- A. self-correct.
- B. be treated with a removable appliance.
- C. have 2 arch orthodontic treatment.
- D. be treated in the complete permanent dentition.
- E. be observed and treated when the cuspids have erupted.

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Endodontic therapy is CONTRAINDICATED in teeth with

- A. inadequate periodontal support.
- B. pulp stones.
- C. constricted root canals.
- D. accessory canals.
- E. curved roots.

Which of the following is associated with Gardner syndrome?

- A. Osteosarcoma.
- B. Oligodontia.
- C. Osteomas.
- D. Osteomyelitis.

A patient wants to reduce her caries risk and asks her dentist to recommend an alternate sweetener that can be used in baking. Which of the following should NOT be recommended?

- A. Equal® (aspartame).
- B. Splenda® (sucralose).
- C. Sugar Twin® (sodium cyclamate).
- D. Xyla® (xylitol).

A patient with pain, fever and unilateral parotid swelling following a general anesthetic most likely has

- A. Mumps.
- B. sialolithiasis.
- C. acute bacterial sialadenitis.
- D. Sjögren's syndrome.
- E. sarcoidosis.

The physical properties of alginate impression materials will be adversely affected by

- A. "tumbling" the alginate container prior to filling the dispensing scoop.
- B. adding powder to the water in the mixing bowl.
- C. using room temperature water.
- D. mixing beyond the recommended time.

During the administration of local anesthesia, positive aspiration of blood will occur most often in a/an

- A. mental or incisive block.
- B. posterior superior alveolar block.
- C. inferior alveolar block.
- D. anterior superior alveolar block.
- E. long buccal nerve block.

Which class of drugs should first be considered for oral sedation in the adult patient?

- A. Antihistamines.
- B. Barbiturates.
- C. Benzodiazepines.
- D. Opioids.
- E. Phenothiazines.

The coefficient of thermal expansion of the metal relative to the porcelain for constructing a metal-ceramic crown should be

- A. slightly less.
- B. the same.
- C. slightly more.
- D. significantly less.

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With two rescuers performing cardiopulmonary resuscitation (CPR) on an adult patient, how many external chest compressions are given per minute?

- A. 40.
- B. 60.
- C. 80.
- D. 100.

Which is the most appropriate initial treatment for a 16 year old patient presenting with multiple extensive carious lesions on 20 teeth?

- A. Place amalgam restorations as quickly as possible.
- B. Excavate and place provisional restorations.
- C. Place the patient on a preventive regime and delay any treatment.
- D. Restore all teeth with gold inlays to utilize the strength of the material.

The principal reason for a cavosurface bevel on a gold inlay preparation is to

- A. remove undermined enamel.
- B. improve marginal adaptation.
- C. decrease marginal percolation.
- D. increase resistance and retention forms.

The most common site and patient age for a solid (conventional) ameloblastoma are the posterior

- A. mandible; 20 years.
- B. mandible; 40 years.
- C. maxilla; 20 years.
- D. maxilla; 40 years.

A large pericoronal radiolucency associated with an impacted third molar tooth is most likely a/an

- A. ameloblastoma.
- B. traumatic bone cyst.
- C. eruption cyst.
- D. dentigerous cyst.
- E. calcifying odontogenic cyst.

Compared to the bisecting angle technique, the paralleling technique will result in a

- A. reduced dose to the thyroid gland.
- B. increased magnification of the image.
- C. increased distortion of the image.
- D. increased penumbra of the image.

Which of the following could be a complication when performing a dental extraction on an insulin-dependent diabetic patient?

- A. Diabetic acidosis.
- B. Increased bleeding.
- C. Hypoglycemic shock.
- D. Incomplete anesthesia.
- E. Acute adrenocortical insufficiency.

Exfoliative cytology can be of value in the diagnosis of

- A. lichen planus.
- B. aphthous ulceration.
- C. herpes simplex.
- D. erythema multiforme.
- E. mucous membrane pemphigoid (cicatricial pemphigoid).

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All of the following are side effect of prolonged tetracycline therapy EXCEPT

- A. superinfection.
- B. photosensitivity.
- C. vestibular disturbances.
- D. discoloration of newly forming teeth.
- E. gastrointestinal symptoms (when administered orally).

A positive pulp response to the application of cold indicates

- A. pulp necrosis.
- B. an acute apical abscess (acute periradicular abscess).
- C. a chronic apical abscess (chronic periradicular abscess).
- D. a vital tooth.

The width of the attached gingiva can be accurately measured if

- A. gingival inflammation in the area has been eliminated.
- B. there is an increase in crevicular fluid.
- C. the probing depth is 3mm or less.
- D. scaling has not been done.

Incomplete polymerization of composite resin will occur when the resin comes in contact with

- A. zinc phosphate cement.
- B. calcium hydroxide lining.
- C. zinc oxide eugenol base.
- D. glass-ionomer lining.
- E. polycarboxylate cement.

In an Angle Class I occlusion, the mesiobuccal cusp of the maxillary first molar occludes with

- A. mesiobuccal cusp of the mandibular first molar.
- B. mesiobuccal groove of the mandibular first molar.
- C. mesial marginal ridge of the mandibular first molar.
- D. central fossa of the mandibular first molar.

What is the most appropriate medication to manage postoperative pain for an asthmatic patient taking beclomethasone and salbutamol?

- A. Acetylsalicylic acid.
- B. Acetylsalicylic acid/codeine combination.
- C. Ibuprofen.
- D. Acetaminophen/codeine combination.
- E. Naproxen.

A "pregnancy tumor" is

- A. not associated with local irritants.
- B. a benign neoplasm.
- C. clinically identical to a pyogenic granuloma.

If adjustment of the occlusal plane of natural teeth opposed by a complete or partial denture is required, it should be completed

- A. after the teeth have been set on the trial denture.
- B. immediately after making the final casts.
- C. upon delivery of the denture.
- D. after the diagnosis and treatment plan has been established.

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Which of the following should NOT be prescribed to a pregnant patient?

- A. Erythromycin.
- B. Cloxacillin.
- C. Tetracycline.
- D. Cephalosporins.

A patient telephones and tells you he has just knocked out his front tooth but that it is still intact. Your instructions should be to

- A. put the tooth in water and come to your office at the end of the day.
- B. wrap the tooth in tissue and come to your office in a week's time.
- C. put the tooth in alcohol and come to your office immediately.
- D. place tooth under the tongue and come to your office immediately.
- E. place the tooth in milk and come to your office immediately.

Which of the following is the most appropriate indication for resective osseous periodontal surgery?

- A. Advanced attachment loss.
- B. Class III furcation defect.
- C. Inadequate clinical crown length.
- D. Vertical root fracture.

At the first post-insertion appointment, a patient with a new removable partial denture complains of a tender abutment tooth. The most likely cause is

- A. an overextended border on the partial.
- B. inadequate polishing of the framework.
- C. improper path of insertion.
- D. traumatic occlusion.

A clinical finding common to alcoholism, poorly-controlled diabetes mellitus, uremia and liver disease is

- A. a smooth tongue.
- B. increased blood pressure.
- C. a coated tongue.
- D. labial fissures.
- E. halitosis.

Difficulty in mouth opening, dysphagia, tongue stiffness and generalized induration of the skin are characteristic of

- A. lupus erythematosus.
- B. scleroderma (systemic sclerosis).
- C. erythema multiforme.
- D. lichen planus.
- E. malignant tumour.

Enameloplasty can be used when

- A. caries has reached the DEJ.
- B. caries is detected radiographically.
- C. the pit or groove is less than full enamel thickness.
- D. the pit or groove is the full enamel thickness.

Cephalometrics is used in orthodontics to

- A. treat malocclusions.
- B. study growth changes.
- C. aid in diagnosis and case analysis.
- D. B. and C.
- E. All of the above.

Alveolar bone is undergoing remodeling

- A. through the primary dentition.
- B. until the end of mixed dentition.
- C. until the complete eruption of permanent teeth.
- D. throughout life.

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In the context of informed consent, choice means the ability

- A. to accept recommended beneficial treatment voluntarily.
- B. to refuse recommended beneficial treatment voluntarily.
- C. to refuse recommended beneficial treatment with an understanding of foreseeable consequences.

The accuracy of alginate impression materials will be improved if

- A. the space between the tray and the teeth is 1-2mm.
- B. the space between the tray and the teeth allows 4-5mm of alginate.
- C. the impression is removed slowly from the undercuts around the teeth.
- D. the impression is immersed in disinfectant for one hour before pouring.

In a developing crown, ameloblasts and odontoblasts

- A. are polarized in opposite directions.
- B. initially produce an organic nonmineralized matrix.
- C. begin to produce matrix simultaneously.
- D. have rapid cell division.

When evaluating an individual primary tooth for the suitability of a pulpectomy procedure, the amount of root resorption on a radiograph should be less than

- A. 1mm.
- B. 2mm.
- C. 3mm.
- D. 4mm.

Zinc oxide eugenol cement is a/an

- A. phosphate cement.
- B. phenolic cement.
- C. resin modified glass ionomer cement.
- D. polyalkenoic acid cement.
- E. adhesive resin cement.

A patient with bulimia who purges several times a day should be advised to increase intake of

- A. lean chicken.
- B. bananas.
- C. whole wheat bread.

Which of the following dental health recommendations is consistent with the general nutrition guidelines?

- A. Diet soft drinks and potato chips are an acceptable snack.
- B. A piece of fruit and plain yogurt is an acceptable snack.
- C. Eat a bigger lunch and not snack.
- D. Brush your teeth well after snacks.

The percent of elderly persons known to colonize asymptomatic *C. difficile* in the gut is typically in a range of up to

- A. 3%.
- B. 10%.
- C. 30%.
- D. 50%.

Enlargement of the thyroid gland can be caused by

- A. insufficient fluoride.
- B. excess iodine.
- C. insufficient iodine.
- D. excess calcium.
- E. excess sodium.

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Cardiac arrhythmias are most commonly seen during administration of

- A. thiopental.
- B. halothane.
- C. ethyl ether.
- D. nitrous oxide.

Which of the following dental procedures could be performed with minimal risk for a 35-year old patient with a severe bleeding disorder?

- A. Mandibular block anesthesia.
- B. Supragingival calculus removal.
- C. Incisional biopsy.
- D. Subgingival restoration.

Following root planing, reduction in pocket depth is due to

- A. shrinkage of the gingival tissue.
- B. epithelial attachment.
- C. connective tissue attachment.
- D. All of the above.

The organisms associated with a carious pulpitis are

- A. streptococci.
- B. staphylococci.
- C. spirochetes.
- D. viruses.

The most important principle dictating location and size of access to the root canal system is

- A. preservation of tooth structure.
- B. removal of all caries.
- C. straight line access to the canal.
- D. removal of all pulp horns.

In providing maxillary anterior esthetic dentistry, optimal results are obtained by considering all the following EXCEPT

- A. midline orientation of the incisors.
- B. age and gender of the patient.
- C. Curve of Wilson.
- D. lower lip line.

During cardiopulmonary resuscitation (CPR), external chest compression of an adult patient should be

- A. 1 - 2cm.
- B. 4 - 5cm.
- C. 7 - 10cm.
- D. 10 - 20cm.

The buccal (long buccal) nerve is a branch of

- A. V₃ and provides motor innervation to the buccinator muscle.
- B. V₂ and provides sensory innervation to the posterior mandibular buccal gingiva.
- C. V₃ and provides sensory innervation to the posterior mandibular buccal gingiva.
- D. V₂ and provides motor innervation to the buccinator muscle.

In an ideal Class I occlusion, the cusp of which mandibular tooth is in contact with the central fossa of the maxillary second molar?

- A. Mesibuccal cusp of the first molar.
- B. Distobuccal cusp of the first molar.
- C. Mesibuccal cusp of the second molar.
- D. Distobuccal cusp of the second molar.

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In comparison to gold alloys, base metal alloy removable partial denture frameworks can be made

- A. more corrosion resistant.
- B. lighter.
- C. more ductile.
- D. with greater casting accuracy.

Which of the following is NOT associated with osteogenesis imperfecta?

- A. Brown teeth.
- B. Brittle bones.
- C. Thin enamel.
- D. Blue sclerae.

The terminal plane relationship of primary second molars determines the

- A. arch length between permanent second molars.
- B. future anteroposterior positions of permanent first molars.
- C. vertical dimensions of the mandible upon eruption of permanent first molars.
- D. amount of leeway space that is available for permanent premolars and canines.

Which of the following materials is most likely to initiate a hypersensitivity reaction?

- A. Titanium.
- B. Gold.
- C. Nickel-chromium.
- D. Chrome-cobalt.
- E. Silver amalgam.

In the surgical removal of an impacted mandibular third molar, which of the following would be considered to be the most difficult?

- A. Mesio-angular.
- B. Horizontal.
- C. Vertical.
- D. Disto-angular.

A hereditary condition affecting odontoblasts can result in

- A. regional odontodysplasia.
- B. fusion or gemination.
- C. dilaceration.
- D. hypercementosis.
- E. radicular dentin dysplasia.

A patient presents with apparent paralysis of one side of the face which appeared the day before. What is the most likely diagnosis?

- A. Glossodynia.
- B. Bell's palsy.
- C. Myasthenia gravis.
- D. Trigeminal neuralgia.

Chlorhexidine is an effective antiplaque agent due to its ability to

- A. bind to the positively charged pellicle.
- B. damage the microbial cell membrane.
- C. neutralize the bacterial end-products such as lactic acid.
- D. non-selectively reduce the oral microbial flora.

Acquired pellicle

- A. is composed of salivary glycoproteins.
- B. takes 24 hours to establish.
- C. is difficult to remove.
- D. causes inflammation.

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A drug with anticholinergic side effects may cause

- A. convulsions.
- B. diarrhea.
- C. tremors.
- D. xerostomia.

The Root Caries Index may underestimate the amount of disease because

- A. the number of surfaces at risk cannot be determined.
- B. it excludes subgingival lesions.
- C. root caries is difficult to diagnose.
- D. it treats filled and decayed surfaces as the same.

A healthy 66 year old patient who had a myocardial infarct eight years ago requires an extraction. The most appropriate management is to

- A. admit the patient to hospital for extraction with local anesthesia.
- B. admit the patient to hospital for extraction with general anesthesia.
- C. extract the tooth in the office using preoperative sedation and local anesthetic without a vasoconstrictor.
- D. treat the patient in the office as a normal patient.

Adrenal corticosteroids

- A. increase heart rate.
- B. cause vasodilation.
- C. increase gastric motility.
- D. reduce inflammation.

In cephalometry, the most stable point in a growing skull is the

- A. sella turcica.
- B. nasion.
- C. Broadbent's point.
- D. Bolton point.

Which of the following is NOT a component of a dental cartridge containing 2% lidocaine with 1:100,000 epinephrine?

- A. Methylparaben.
- B. Water.
- C. Metabisulphite.
- D. Sodium chloride.

Tell-show-do technique when used for behaviour management of pediatric patients

- A. works best for children under 3 years of age.
- B. involves using scientific dental terminology in all explanations.
- C. will decrease a child's fear of the unknown and their anticipation of pain.

The permanent maxillary canine most commonly erupts

- A. before the permanent mandibular canine.
- B. before the maxillary first premolar.
- C. before the permanent maxillary second molar.
- D. after the permanent maxillary second molar.

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Interceptive orthodontic treatment using appliances to treat the effects of oral habits should

- A. start in the primary dentition.
- B. occur during the early to middle mixed dentition.
- C. start at the same time as comprehensive orthodontic treatment.
- D. be delayed until the completion of growth.

Regular use of oral irrigators will

- A. prevent plaque formation.
- B. remove plaque.
- C. remove calculus.
- D. remove debris.
- E. prevent bacteremia.

The maxillary cast partial denture major connector design with the greatest potential to cause speech problems is

- A. a thick narrow major connector.
- B. an anterior and a posterior bar.
- C. a thin broad palatal strap.
- D. narrow horseshoe shaped.

A drug that affects alkaline phosphatase activity would target

- A. muscles and bones.
- B. skin and teeth.
- C. bones and teeth.
- D. muscles and skin.

A 4 year old with a thumbsucking habit presents with a 1.5cm anterior open bite. If the habit ceases within six months, the anterior open bite will, over time, most likely

- A. remain the same.
- B. increase.
- C. decrease.

Which of the following laws is the LEAST relevant to the dental patient record as a legal document?

- A. Provincial.
- B. Criminal.
- C. Consumer.
- D. Common.

Which procedure(s) require(s) antibiotic prophylaxis in a patient susceptible to bacterial endocarditis?

- A. Impressions for partial dentures.
- B. Suture removal.
- C. Mandibular block anesthetic injection.
- D. Orthodontic bracket placement.

Which of the following statements is correct?

- A. Epithelial cells are united to the basal lamina by hemidesmosomes.
- B. The basal lamina is divided into lamina lucida and lamina densa.
- C. The basal lamina is a product of epithelial cells.
- D. All of the above.

Ludwig's angina may cause

- A. respiratory obstruction.
- B. cavernous sinus thrombosis.
- C. suppurative encephalitis.
- D. subdural empyema.

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A 12 year old patient with a complete dentition has enamel hypoplasia of tooth 1.4. This condition was most likely caused by

- A. low calcium intake.
- B. high fluoride intake.
- C. an abscessed tooth 5.4.
- D. systemic tetracycline.
- E. a febrile illness.

A Le Fort I fracture is a

- A. fracture of the zygomatic arch.
- B. horizontal fracture of the maxilla.
- C. fracture involving the orbital floor.
- D. pyramidal fracture of the maxilla.
- E. cranio-facial dysjunction.

Which of the following is NOT a recognized ethics-based principle?

- A. Beneficence.
- B. Justice.
- C. Non maleficence.
- D. Autonomy.
- E. Scholarship.

Which of the following contains microorganisms?

- A. Acquired pellicle.
- B. Calculus.
- C. Dental plaque.
- D. B. and C.
- E. All of the above.

A dental laboratory has fabricated a removable partial denture framework. The framework fits the master cast well but when tried in the mouth a stable fit cannot be achieved. The most likely cause is

- A. improper major connector design.
- B. distortion in the final impression.
- C. shrinkage of the alloy during casting.
- D. improper casting temperature.

Which statement is true with respect to Class II composite resin preparations?

- A. Extension for prevention is a key element.
- B. Fissures are only included when carious.
- C. Including occlusal grooves makes the restoration more fracture-resistant compared to a slot preparation.
- D. The preparation has a “standard” shape for each individual tooth.

Ankylosis of primary teeth is most frequently observed in

- A. maxillary molars.
- B. mandibular molars.
- C. maxillary canines.
- D. mandibular incisors.

Which of the following medications increases a patient’s risk for intraoral candidiasis?

- A. Warfarine (Coumadin®).
- B. Cyclosporine.
- C. Pentobarbital.
- D. Ibuprofen.
- E. Pilocarpine.

Geographic tongue is characterized by

- A. congenital soft tissue deformity.
- B. atrophic filiform papillae.
- C. association with hairy tongue.
- D. predominance in elderly patients.

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The most appropriate treatment for an endodontically treated molar with an existing MOD restoration is a

- A. cast gold inlay.
- B. bonded composite resin.
- C. bonded silver amalgam.
- D. cast restoration with cuspal coverage.

If there is persistent pain after a thermal stimulus has been removed from a tooth, the most likely diagnosis is

- A. pulp necrosis.
- B. reversible pulpitis.
- C. irreversible pulpitis.

The antithrombotic effects of aspirin may be compromised by

- A. codeine.
- B. acetaminophen.
- C. ibuprofen.
- D. tramadol.

Radiographic examination of a healthy 38 year old patient shows a 4mm diameter, well-defined radiolucency at the apex of tooth 4.1. The tooth has a normal response to vitality tests. The most appropriate management is

- A. incision and drainage.
- B. endodontic treatment.
- C. observation.
- D. apicoectomy.
- E. to open the tooth for drainage.

During apical surgical, an apicoectomy of approximately 3mm is recommended because

- A. most accessory and lateral canals will be eliminated.
- B. it will minimally affect the crown to root ratio.
- C. a greater resection may expose a post in the canal.
- D. it will allow better access for retrofill placement.

Which of the following modifications to the standard procedure for mixing gypsum products will increase the compressive strength of the set material?

- A. Adding a small amount of salt to the water before mixing.
- B. Decreasing the water/powder ratio by a small amount.
- C. Using warmer water.
- D. Decreasing the mixing time.

The risk of a health care worker contracting hepatitis B through a needlestick injury from a chronic hepatitis B carrier is increased when the patient's serology report indicates the presence of

- A. HBsAg.
- B. anti-HBcAg.
- C. HBeAg.
- D. anti-HBsAg.

After completion of root canal therapy on a maxillary first premolar with moderate mesial and distal lesions and intact buccal and lingual surfaces, the restoration of choice is a/an

- A. MOD composite resin.
- B. MOD onlay.
- C. MOD pin retained amalgam.
- D. MOD bonded amalgam.

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Shortly after the administration of an inferior alveolar nerve block, a healthy adult patient rapidly develops a facial rash. Which of the following signs and symptoms should be watched for before initiating the planned dental treatment?

- A. Pallor and perspiration.
- B. Shortness of breath.
- C. Hyperventilation.
- D. Temperature elevation.

Ground glass appearance is the classical description of the radiographic appearance found in

- A. acute osteomyelitis.
- B. fibrous dysplasia.
- C. early periapical osseous dysplasia (periapical cemento-osseous dysplasia).
- D. Paget's disease.

The vibrating line of the palate

- A. delineates the movement of the soft palate.
- B. is always on the hard palate.
- C. is a well-defined line across the palate.
- D. is not a useful landmark in complete denture fabrication.

The coronal collagen fibres of the periodontium are

- A. circular.
- B. transeptal.
- C. suprapariosteal.
- D. All of the above.

An exchange of calcium ions between saliva and enamel is

- A. not affected by fluoride.
- B. a component of remineralization and demineralization.
- C. not important in tooth structure.
- D. not pH dependent.

Which of the following physical properties would be least important for an impression material for partially edentulous patients?

- A. Biocompatibility.
- B. Dimensional stability.
- C. Ease of manipulation.
- D. Adhesion to calcium.
- E. Elasticity.

Which of the following conditions should NOT commonly be treated during the mixed dentition stage?

- A. Anterior crossbite.
- B. Posterior crossbite.
- C. Maxillary incisor rotation.
- D. Class II molar relationship.

Repeated clasp adjustment can result in fracture due to

- A. strain hardening.
- B. increased ductility.
- C. increasing of the modulus of elasticity.
- D. lowering of the yield strength.

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A patient has suffered a blow four hours previously resulting in the loosening of three maxillary incisors. There is no response to vitality testing. The most appropriate initial management would be to

- A. perform pulpectomies on the teeth.
- B. remove the teeth, fill the root canals and reimplant.
- C. splint the teeth, check vitality in one month.
- D. splint the teeth and treat endodontically immediately.

If a patient is allergic to penicillin, the most appropriate antibiotic for an odontogenic infection would be

- A. ampicillin.
- B. cephalexin.
- C. clindamycin.
- D. declomycin.
- E. streptomycin.

Which of the following impression materials has the best dimensional stability?

- A. Polysulfide rubber.
- B. Condensation silicone.
- C. Polyvinylsiloxane.
- D. Irreversible hydrocolloid.

Interproximal reduction of the mesial of the lower primary cuspids is indicated to

- A. encourage mesial movement of the deciduous molars.
- B. provide space for alignment of the permanent incisors when crowding is 1-3mm.
- C. provide space for alignment of the permanent incisors when crowding is 3-5mm.
- D. decrease inter-cuspid arch width.

The mechanism of adjustment to maintain the shape and proportions of bone throughout its growth period is called

- A. remodeling.
- B. cortical drift.
- C. area relocation.
- D. translatory growth.

Total removal of subgingival calculus on a tooth with pockets more than 5mm deep is best achieved by

- A. ultrasonic scaling.
- B. root planing.
- C. surgery and scaling.
- D. subgingival irrigation.

Antibiotic coverage should be provided when performing periodontal surgery for patients with

- A. myocardial infarction.
- B. dental implants.
- C. prosthetic heart valve.
- D. coronary artery disease.

What is the primary function of the dental pulp?

- A. Defensive.
- B. Sensory.
- C. Nutrition.
- D. Dentin formation.
- E. Dentin repair.

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Correction of an inadequate zone of attached gingiva on several adjacent teeth is best accomplished with a/an

- A. apically repositioned flap.
- B. laterally positioned sliding flap.
- C. double-papilla pedicle graft.
- D. coronally positioned flap.
- E. free gingival graft.

Radiographs of a periostitis show

- A. formation of sequestra.
- B. a worm-eaten pattern of bone destruction.
- C. thickening of the cortex.
- D. sinus tracts.

To advance a patient's welfare, dentists should refer to a specialist considering all of the following EXCEPT

- A. experience.
- B. fees.
- C. knowledge.
- D. skills.

The purpose of hand hygiene in infection control is primarily to reduce the

- A. resident microflora in the deep tissue layers.
- B. quantity of transient microorganisms on the surface of the hands.
- C. dryness of the skin prior to donning gloves.
- D. risk of patient contamination.

Which of the following clinical protocols is the most appropriate next step in the management of an avulsed permanent tooth, which has just been replanted?

- A. Splinting with composite resin only.
- B. Splinting with flexible wire.
- C. Splinting with rigid wire.
- D. Pulpectomy.

Which of the following drugs should NOT be administered to a patient in order to alleviate symptoms of an acute asthmatic attack?

- A. Isoproterenol.
- B. Metaproterenol.
- C. Epinephrine.
- D. Hydrocortisone.

An excisional biopsy of a nodule 5mm in diameter on the lateral border of the tongue was diagnosed as a fibroma. This patient should have

- A. hemisection of the tongue.
- B. radiotherapy to site of biopsy.
- C. no additional therapy.
- D. re-excision with wider margins.
- E. radium implantation around biopsy site.

During extraction of a permanent maxillary first molar, a sinus communication is suspected but not visualized. Which of the following is the most appropriate management?

- A. No further treatment or investigation is required.
- B. Probe the socket with an instrument to rule out an opening.
- C. Place Gelfoam® into the socket, suture and prescribe antibiotic, a sinus decongestant and sinus precautions.
- D. Proceed with a buccal flap closure and prescribe antibiotics, a sinus decongestant and sinus precautions.

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Which of the following is suggestive of a malignant tumour of the parotid gland?

- A. Excessive salivation.
- B. Seventh cranial nerve paralysis.
- C. Sudden swelling.
- D. Fluctuation.

Necrotizing ulcerative gingivitis (NUG) and acute herpetic gingivostomatitis can be differentiated clinically by (the)

- A. location of the lesions.
- B. temperature of the patient.
- C. pain.
- D. lymphadenopathy.

Which of the following is LEAST likely to influence the development of plaque induced gingivitis?

- A. Pregnancy.
- B. Diabetes.
- C. Traumatic occlusion.
- D. Dental plaque.
- E. Calculus.

Koplik's spots are seen in the oral cavity of patients with

- A. chickenpox.
- B. mumps.
- C. measles.
- D. scarlet fever.
- E. smallpox.

A new patient is a heavy smoker and has severe periodontitis. When asked if interested in quitting smoking in the next month, the patient replies, "I don't smoke that much so it's not a big deal". What is the most appropriate strategy to encourage behaviour change?

- A. Encourage the patient to identify an alternate date to stop smoking.
- B. Explain the benefits of quitting smoking as soon as possible.
- C. Personalize the risk of continuing smoking to the patient's oral health.
- D. Ask the patient what would be the easiest first step to take toward quitting.

When the gingival margin is at the level of the cemento-enamel junction (CEJ), the loss of attachment is

- A. less than the pocket depth.
- B. greater than the pocket depth.
- C. equal to the pocket depth.

Which of the following fibre groups are attached to bone?

- A. Transeptal.
- B. Oblique.
- C. Circular.

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Dentists in a prosthetic study club have been asked to recruit subjects for a clinical trial of a new dental implant system. Dentists will receive a \$500 finder's fee for each subject recruited. Subjects will receive the treatment for free. Which of the following statements is correct?

- A. Subjects in this trial are protected by the clinical trial regulations of the *Food and Drugs Act*.
- B. Ethics review of clinical trials in Canada is legislated to follow the Tri-Council Policy Statement.
- C. The finder's fee is justified because of the time required to identify suitable subjects.
- D. Free treatment for subjects is justified due to the time and inconvenience.

Which of the following will result from a 2 week regimen of tooth whitening using a 10% carbamide peroxide gel in a custom tray for 8 hours each night?

- A. Moderate demineralization of enamel.
- B. Significant incidence of irreversible pulpitis.
- C. Decreased bonding potential to enamel.
- D. Decreased enamel surface porosity.

In treatment planning for a removable partial denture, a knife-edge bony ridge will

- A. make impression-making difficult.
- B. necessitate relief to the partial denture.
- C. cause difficulty in tooth selection.

The principal use of the rubber dam during placement of a composite resin restoration is to provide

- A. interproximal gingival retraction.
- B. contrast between the tooth and the operating field.
- C. access to the operating field.
- D. protection from fluid contamination.

A primary infection of syphilis occurring on the tongue is referred to as a/an

- A. herpetic ulcer.
- B. aphthous ulcer.
- C. gumma.
- D. chancre.
- E. mucous patch.

The postnatal increase in width of the maxilla results from

- A. sutural growth.
- B. appositional growth.
- C. both appositional and sutural growth.

Loss of taste to the anterior two thirds of the tongue and a lack of secretion of submandibular glands indicates nerve damage to the

- A. mandibular division of cranial V.
- B. long buccal nerve.
- C. chorda tympani nerve.
- D. cranial VII.

A patient with new complete dentures complains of a burning sensation in the palate. The most likely area requiring relief is at the

- A. frenum.
- B. post dam.
- C. incisive foramen.
- D. foveae palatinae.

Which of the following has the potential for malignant transformation?

- A. Osteomalacia.
- B. Albright's syndrome.
- C. Paget's disease.
- D. Osteogenesis imperfecta.

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Probing depth reduction following scaling and root planing alone will occur if the patient's periodontal condition includes

- A. hyperemic and edematous gingival tissue.
- B. gingival hyperplasia due to phenytoin therapy.
- C. chronic periodontal pockets.
- D. necrotizing ulcerative gingivitis.

When removing bone or sectioning roots of teeth with a high-speed handpiece, the air/water combination should be set with

- A. air and water on.
- B. water only.
- C. air only.
- D. neither air nor water.

An elderly female patient with a history of osteoporosis has been taking oral alendronate (Fosamax™) for 4 years. She requires the extraction of tooth 4.5. Which of the following is the most appropriate management?

- A. Proceed with the extraction without adjusting the dose of alendronate.
- B. Use hyperbaric oxygen before and after the extraction.
- C. Order a bone density test.
- D. Discontinue the alendronate preoperatively.

Which of the following drugs inhibits salivary flow?

- A. Penicillin V.
- B. Loratadine.
- C. Probantheline.
- D. Nystatin.

In which salivary gland is a pleomorphic adenoma most frequently found?

- A. Parotid.
- B. Submandibular.
- C. Sublingual.

Which of the following dental materials is the most radiolucent?

- A. Porcelain.
- B. Gutta-percha.
- C. Acrylic.
- D. Zinc oxide-eugenol.

In its classic form, serial extraction is best applied to patients with Class I occlusions with crowding of

- A. less than 10mm in each of the upper and lower arches and 35% overbite.
- B. 10mm or more in each of the upper and lower arches and 35% overbite.
- C. less than 10mm in each of the upper and lower arches and 70% overbite.
- D. 10mm or more in each of the upper and lower arches and 70% overbite.

The preconditioning of a high glass content all-ceramic restoration prior to bonding is achieved by

- A. sandblasting.
- B. acid etching with phosphoric acid.
- C. roughening the surface with a diamond bur.
- D. acid etching with hydrofluoric acid.
- E. degreasing with acetone.

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The failure of a commercially pure titanium dental implant to osseointegrate can potentially be attributed to each of the following EXCEPT

- A. type III/IV bone at the implant site.
- B. titanium oxide formation on the implant surface.
- C. habitual smoking.
- D. uncontrolled diabetes.

The type of amalgam requiring the least volume of mercury for its setting reaction is

- A. low copper.
- B. high copper.
- C. admixed.
- D. lathe cut.
- E. spherical.

Propoxyphene has the potential for drug abuse because

- A. it is a potent analgesic with a euphoriant activity equal to morphine.
- B. in combination with alcohol its effects are greatly intensified.
- C. it cannot be detected in the bloodstream.

The most appropriate treatment of a true combined endodontic-periodontal lesion is

- A. periodontal surgical therapy only.
- B. nonsurgical root canal therapy only.
- C. periodontal surgical therapy before nonsurgical endodontic treatment.
- D. nonsurgical root canal therapy before periodontal therapy.

Rests on terminal abutment teeth for a cast metal removable partial denture provides

- A. primary retention.
- B. indirect retention.
- C. vertical stability.
- D. lateral force transmission.

An inflammatory cellular infiltrate found in the connective tissue of healthy gingiva is

- A. a routine microscopic finding.
- B. an indication of systemic disease.
- C. composed chiefly of macrophages.
- D. a tissue response to food decomposition.

Which of the following is NOT an early clinical manifestation of local anesthetic overdose?

- A. Nystagmus.
- B. Slurred speech.
- C. Decreased heart rate.
- D. Increased respiratory rate.

The most important factor in stainless steel crown retention in a primary tooth is the

- A. preservation of the coronal bulge.
- B. maintenance of parallelism.
- C. placement of accessory grooves.
- D. insertion of retentive pins.

Over time, the effectiveness of a quartz tungsten halogen curing light will be

- A. improved.
- B. the same.
- C. reduced.

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A patient has an acute apical abscess (acute periradicular abscess) on tooth 1.3. The tooth must be extracted. In addition to a palatine injection, the most appropriate local anesthetic technique is a/an

- A. buccal infiltration.
- B. infraorbital block.
- C. middle superior alveolar block.
- D. intraligamentary injection.

When given prophylactically to prevent infective endocarditis, oral amoxicillin should be taken

- A. immediately prior to the dental procedure.
- B. one hour prior to the dental procedure.
- C. four hours prior to the dental procedure.
- D. one day prior to the dental procedure.
- E. two days prior to the dental procedure.

Which of the following can result in post-developmental jaw growth?

- A. Hyperparathyroidism.
- B. Hyperthyroidism.
- C. Adult hypothyroidism.
- D. Osteitis deformans (Paget's).
- E. Hypoparathyroidism.

At a six month recall visit, which of the following indicates that gingivitis has progressed to periodontitis?

- A. Attachment loss.
- B. Bleeding upon probing.
- C. Change in gingival colour.
- D. Increased tooth mobility.

It is difficult to obtain satisfactory anesthesia in the presence of infection near the injection site because

- A. the swelling causes increased pressure on the nerves.
- B. increased blood supply carries the anesthetic solution away too fast.
- C. acidity of the infected tissue inhibits action of the anesthetic agent.
- D. alkalinity of the infected tissue inhibits action of the anesthetic agent.

The Plaque Index of Silness and Loe measures

- A. quantity of plaque at the gingival margin.
- B. colony forming units of Gram-negative bacteria.
- C. weight of plaque obtained from facial surfaces.

A removable orthodontic appliance, producing a light force on the labial of a proclined maxillary central incisor will cause

- A. lingual movement of the crown and lingual movement of the root apex.
- B. intrusion of the central incisor and lingual movement of the crown.
- C. lingual movement of the crown and labial movement of the root apex.
- D. intrusion of the central incisor.

A Class II dental occlusion in the mixed dentition will likely

- A. develop into a Class I occlusion after normal exfoliation of the primary molars.
- B. worsen with forward growth of the maxilla.
- C. develop into a Class I occlusion with late mandibular growth.
- D. develop into a skeletal malocclusion with growth of the maxilla and mandible.
- E. not change as the maxilla and mandible grow.

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An occluded submandibular duct can be diagnosed by

- A. history.
- B. palpation.
- C. sialography.
- D. occlusal radiographs.
- E. All of the above.

Which of the following would you prescribe for an anxious dental patient with a peptic ulcer?

- A. Reserpine.
- B. Scopolamine.
- C. Silica gel.
- D. Diazepam.
- E. Calcium carbonate.

A patient with a unilateral left disc displacement without reduction is most likely to present with

- A. normal left excursion and limited right excursion.
- B. limited left excursion and normal right excursion.
- C. normal bilateral excursions.
- D. limited bilateral excursions.

The predominant organism associated with chronic periodontitis is

- A. *Prevotella intermedia*.
- B. *Pseudomonas aeruginosa*.
- C. *Actinomyces viscosus*.
- D. *Helicobacter pylori*.

Which statement is true regarding electric pulp testing?

- A. It does not confirm health of the pulp.
- B. Vascularity can be determined.
- C. True vitality can be determined.
- D. Thicker enamel will lead to a quicker response.

The severity of the course of periodontal disease depends upon the

- A. resistance of the host.
- B. virulence of the organism.
- C. number of organisms present.
- D. A. and B.
- E. A., B. and C.

A 23 year old patient presents with severe pain originating from the lower incisor region. The interdental papillae are cratered and covered with a greyish-white membrane. Abundant calculus is present. The most likely diagnosis is

- A. atrophic candidiasis.
- B. necrotizing ulcerative gingivitis.
- C. herpetic gingivostomatitis.
- D. desquamative gingivitis.

The initiation of cemental caries differs from enamel caries because

- A. dental plaque is not involved.
- B. the age of onset is younger.
- C. it is usually associated with abrasion.
- D. it progresses more quickly.

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Which of the following conditions is NOT a possible sequela of a tooth completely impacted in bone?

- A. Development of a dentigerous cyst around its crown.
- B. External resorption of the tooth.
- C. Osteonecrosis of the adjacent bone.
- D. Development of a benign neoplasm adjacent to its crown.

Patient nausea during nitrous oxide administration is an indication that the patient

- A. is nervous.
- B. has not eaten for some time.
- C. is allergic to nitrous oxide.
- D. has received the nitrous oxide too quickly.

Bilateral posterior constriction in the permanent dentition may result in which of the following?

- A. Uneven wear of the buccal cusps of the maxillary posterior teeth.
- B. Uneven wear of the lingual cusps of the maxillary posterior teeth.
- C. Uneven wear of the maxillary and mandibular incisal edges.
- D. A mandibular midline shift to the side of the crossbite.

During setting, a gypsum-bonded investment material will undergo an additional expansion if it occurs

- A. under water.
- B. under vacuum.
- C. in a cold environment.
- D. in a dry environment.

Filters are placed in the path of the x-ray beam to

- A. increase contrast.
- B. reduce film density.
- C. reduce exposure time.
- D. reduce patient radiation dose.

The most common order of serial extraction in the maxillary arch is

- A. primary canines, first premolars, primary first molars.
- B. primary canines, primary first molars, first premolars.
- C. first premolars, primary canines, primary first molars.
- D. primary first molars, primary canines, first premolars

Hydrocolloid impressions are removed from the mouth with a snap because they exhibit

- A. syneresis.
- B. imbibition.
- C. viscoelasticity.
- D. low elastic recovery.
- E. low tear strength.

When using the periodontal probe to measure pocket depth, the measurement is taken from the

- A. base of the pocket to the cementoenamel junction.
- B. free gingival margin to the cementoenamel junction.
- C. base of the pocket to the crest of the free gingiva.
- D. base of the pocket to the mucogingival junction.

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Which of the following conditions is an indication for the removal of impacted mandibular third molars?

- A. Recurrent pericoronitis.
- B. Prevention of mandibular incisor crowding.
- C. Reduction of mandibular fracture risk.
- D. Horizontal impaction.

Following root planing, a patient experiences thermal sensitivity. This pain is associated with which of the following?

- A. Golgi receptor.
- B. Free nerve endings.
- C. Odontoblastic processes.
- D. Cementoblasts.

A protective mechanism of the dental pulp to external irritation or caries is the formation of

- A. pulp stones.
- B. tertiary dentin.
- C. secondary cementum.
- D. primary dentin.

The most appropriate indication for double gloving is

- A. patient-specific.
- B. for a procedure on a patient with AIDS.
- C. procedure-specific.
- D. for a procedure that requires a high degree of tactile sensitivity.

A removable partial denture rest should

- A. be extended for retention.
- B. increase retention of the partial denture.
- C. direct forces parallel to the long axis of the abutment.
- D. be located on a centric contact.

The host defense mechanisms of the gingival sulcus do NOT include

- A. production of agglutinins and antibodies.
- B. flushing action of crevicular fluid.
- C. local antibody production.
- D. low tissue turnover rate.

In the formation of the tooth, Tome's processes are responsible for

- A. laying down the enamel prisms.
- B. forming the odontoblastic tubules.
- C. reorganizing the collagen fibres.
- D. generating the incremental lines.
- E. secreting the calcospherites.

The full palatal strap major connector is indicated where

- A. there is a high, narrow palatal vault.
- B. a well-defined, undercut palatal torus is present.
- C. very few teeth remain in a flat or U-shaped arch.
- D. palatal tissue is soft and compressible.

When gypsum is mixed with water and sets to form a dental cast, the powder particles are replaced by crystals of

- A. potassium sulfate.
- B. potassium phosphate.
- C. calcium sulfate.
- D. trisodium phosphate.

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Which ethical principle is involved with a dentist's duty to recognize signs of abuse and neglect and to know appropriate interventions?

- A. Autonomy.
- B. Beneficence.
- C. Justice.
- D. Non maleficence.
- E. Veracity.

The single most important measure to reduce the risk of transmitting organisms to patients is

- A. use of personal protective barriers: masks, eyewear, outerwear and gloves.
- B. sterilization of instruments and disinfection of the operatory.
- C. handwashing.
- D. introduction of single use instruments and disposables.

For which of the following medical emergencies is atropine most commonly used?

- A. Anaphylaxis.
- B. Bradycardia.
- C. Bronchospasm.
- D. Hypotension.

In its classic form, serial extraction is best applied to patients with Class I occlusions with crowding of

- A. less than 10mm in each of the upper and lower arches and 35% overbite.
- B. 10mm or more in each of the upper and lower arches and 35% overbite.
- C. less than 10mm in each of the upper and lower arches and 70% overbite.
- D. 10mm or more in each of the upper and lower arches and 70% overbite.

Erythroblastosis fetalis may be a cause of

- A. supernumerary incisors.
- B. pigmented teeth.
- C. peg lateral incisors.
- D. Fordyce's granules.
- E. blue sclerae.

Tissue from a multilocular radiolucent area of the posterior mandible histologically shows follicular areas lined with columnar cells resembling the enamel organ. The most probable diagnosis is a/an

- A. neurofibroma.
- B. ameloblastoma.
- C. central ossifying fibroma.
- D. lateral periodontal cyst.
- E. dentigerous cyst.

A full coverage all-ceramic anterior crown requires

- A. a sloping shoulder (long bevel) margin.
- B. a minimum margin depth of 0.5mm lingually.
- C. rounded internal line angles.
- D. a minimum incisal reduction of 1.0mm.

Oral hygiene for infants' teeth should begin when

- A. the first primary molars erupt.
- B. all primary teeth erupt.
- C. the first tooth erupts.
- D. the infant is weaned from the nursing bottle or breast.

Which of the following is LEAST likely to share histological features with lichen planus?

- A. White sponge nevus.
- B. Oral mucosal cinnamon reaction.
- C. Oral graft-versus-host disease.
- D. Lupus erythematosus.

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When used as a direct pulp capping material, which of the following produces the best pulp healing?

- A. Zinc-oxide eugenol.
- B. Glass-ionomer.
- C. Calcium hydroxide.
- D. Resin-modified glass ionomer.
- E. Adhesive resin.

When compared with admixed amalgams, spherical amalgams

- A. require less condensation pressure.
- B. require shorter trituration time.
- C. are stronger (24 hour compressive strength).
- D. have better resistance to marginal fracture.
- E. tarnish more.

Which of the periodontal ligament fibres are most commonly associated with orthodontic relapse?

- A. Oblique.
- B. Diagonal.
- C. Horizontal.
- D. Supracrestal.

During the pharyngeal phase of swallowing, motor neurons in the swallowing center are activated to

- A. open the lower esophageal sphincter.
- B. inhibit respiration.
- C. initiate the secondary peristaltic wave.
- D. open the palatopharyngeal folds.

Flexing of a fixed partial denture under occlusal loads is

- A. proportional to the cube of the width of its pontics.
- B. linearly proportional to the length of the span.
- C. decreased with the use of a high strength material.

The speed of propagation of action potentials along axons is

- A. faster for myelinated fibres than for unmyelinated fibres.
- B. slower for myelinated fibres than for unmyelinated fibres.
- C. independent of myelination.
- D. independent of the axon diameter.

The most appropriate management for a concussed tooth is

- A. observation.
- B. pulpotomy.
- C. pulpectomy.
- D. splinting.

When a patient experiences continuous pain in the maxillary premolar and molar areas and there is no evidence of dental infection, the most likely diagnosis is

- A. trigeminal neuralgia.
- B. acute maxillary sinusitis.
- C. impacted maxillary canine.
- D. impacted maxillary third molar.
- E. glossopharyngeal neuralgia.

When a radiographic examination is warranted for a 10 year old child, the most effective way to decrease radiation exposure is to

- A. use a thyroid collar and lead apron.
- B. apply a radiation protection badge.
- C. use high speed film.
- D. decrease the kilovoltage to 50kVp.
- E. take a panoramic film only.

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In periodontal flap surgery, the initial incision is made to

- A. expose the sulcular lining of the pocket.
- B. aid in healing.
- C. sever the attachment of the oblique fibres of the periodontal ligament.
- D. excise the keratinized gingiva.

In cephalometry, the most stable point in a growing skull is the

- A. sella turcica.
- B. nasion.
- C. Broadbent's point.
- D. Bolton point.

Antihistamines act by

- A. increasing the action of histaminase.
- B. altering the formation of histamine.
- C. blocking the actions of histamine by competitive inhibition.
- D. interfering with the degradation of histamine.

A daily dose of 81 mg of acetylsalicylic acid is used for its

- A. analgesic properties.
- B. antipyretic effect.
- C. antiplatelet action.
- D. anti-inflammatory function.

Following root canal therapy, the most desirable form of tissue response at the apical foramen is

- A. cementum deposition.
- B. connective tissue capsule formation.
- C. epithelium proliferation from the periodontal ligament.
- D. dentin deposition.

Ethically, a dentist can

- A. compensate a referring dentist.
- B. collect the third party payment without requesting the patient's portion.
- C. bill an insurance company a higher than usual fee, for the patient's benefit.
- D. charge different fees when warranted by clinical conditions.

Methyl methacrylate resins will perform better than composite resins for long span, temporary bridges because of superior

- A. hardness.
- B. fracture toughness.
- C. wear resistance.
- D. dimensional stability.

An 89 year old patient has rampant caries secondary to vestibular food pocketing. The LEAST likely predisposing disease is

- A. Parkinson.
- B. Lewy body dementia.
- C. Alzheimer.
- D. Addison.

Voids on a dental cast could be caused by the high

- A. surface tension of a silicone impression material.
- B. surface tension of an irreversible hydrocolloid.
- C. wettability of the dental stone.
- D. wettability of the impression material.

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A well circumscribed 3mm radiolucent lesion is present in the apical region of the mandibular second premolar. The tooth responds normally to vitality tests. The radiolucency is most likely

- A. a periradicular periodontitis.
- B. a dentigerous cyst.
- C. a rarefying osteitis.
- D. the mental foramen.

The usual adult dosage of codeine administered orally is

- A. 500-1000 mg.
- B. 250-500 mg.
- C. 30-60 mg.
- D. 2-5 mg.
- E. None of the above.

The most common form of latex allergy is a/an

- A. immediate localized (Type 1) contact urticaria and erythema.
- B. immediate generalized (Type 1) conjunctivitis and rhinitis.
- C. immediate generalized (Type 1) bronchospasm and anaphylaxis.
- D. delayed (Type IV) contact dermatitis.

In removable partial denture design, the surface of the abutment tooth most often altered to provide clasp reciprocity is

- A. mesial.
- B. distal.
- C. occlusal.
- D. buccal.
- E. lingual.

When resecting the apical aspect of a tooth during endodontic apical surgery, it is appropriate to

- A. perform a 90-degree bevel.
- B. remove as little of the root as possible.
- C. avoid curettage of the periradicular lesion.
- D. place an amalgam retrofill.

A midfacial probing depth measurement where the base of the pocket extends beyond the mucogingival junction indicates that

- A. gingival hyperplasia is present.
- B. there is no attached gingiva.
- C. occlusal trauma is present.
- D. gingival recession is present.

Lidocaine is an

- A. amide.
- B. ester.
- C. aldehyde.
- D. acid.

The cell-mediated immune response to bacterial plaque in chronic periodontitis is regulated by

- A. neutrophils.
- B. T cells.
- C. B cells.
- D. plasma cells.

Which of the following medications can be taken by a patient who has been prescribed lithium?

- A. Acetaminophen.
- B. Flurbiprofen.
- C. Ibuprofen.
- D. Naproxen.

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The major stimulator of respiration is

- A. low blood pressure.
- B. high percentage of blood oxygen.
- C. low percentage of blood carbon dioxide.
- D. high percentage of blood carbon dioxide.

A 70 year old insulin-dependent patient has just completed a 7 day course of ampicillin for a respiratory infection. He presents with signs and symptoms consistent with a diagnosis of oral candidiasis. Which of the following is the most appropriate management for this patient?

- A. Double the patient's insulin dose.
- B. Reduce the patient's insulin dose.
- C. Prescribe a topical steroid.
- D. Prescribe clindamycin.
- E. Prescribe nystatin.

Xerostomia in the elderly is most likely due to

- A. degeneration of salivary glands.
- B. increased use of prescription drugs.
- C. loss of carbonic anhydrase.
- D. vitamin D deficiencies.

All of the following appear as midline structures on periapical radiographs EXCEPT

- A. nasopalatine/incisive canal.
- B. anterior nasal spine.
- C. nasal septum.
- D. zygomatic process of the maxilla.

A periapical radiograph reveals a mesiodens in a 7 year old. The maxillary right central incisor has erupted only partially. The maxillary left central incisor has not yet appeared. The most appropriate management is to

- A. remove the mesiodens and observe progress carefully.
- B. allow the mesiodens to erupt before attempting extraction.
- C. remove the mesiodens, immediately band the unerupted central incisor and initiate orthodontic therapy.
- D. allow the mesiodens and the right central incisor to erupt into the oral cavity to determine their relative positions.

All of the following appear as midline structures on periapical radiographs EXCEPT

- A. nasopalatine/incisive canal.
- B. anterior nasal spine.
- C. nasal septum.
- D. zygomatic process of the maxilla.

Undercontoured restorations on the vestibular and lingual surfaces of posterior teeth can immediately lead to

- A. deflection of food particles.
- B. gingival recession.
- C. increased root sensitivity.
- D. food impaction.

Guided tissue regeneration surgery selectively promotes the growth of all of the following EXCEPT

- A. epithelial cells
- B. endothelial cells.
- C. osteoblasts.
- D. cementoblasts.

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Which of the following is NOT a direct physiological response to additional forces placed on abutment teeth?

- A. Resorption of bone.
- B. Increase thickness of cementum.
- C. Increased density in cribiform plate.
- D. Decrease in width of periodontal ligament.

A 9 year old boy sustains a fracture of the crown of his central incisor with minimal pulp exposure. He is brought to your office within one hour of the injury. A periapical radiograph reveals that the apex is incompletely formed. The most appropriate management is

- A. pulp cap and restore.
- B. pulpotomy and seal temporarily.
- C. pulpectomy and seal temporarily.
- D. endodontic treatment.

Premature eruption of primary teeth is associated with

- A. congenital gingival fibromatosis.
- B. congenital hypothyroidism.
- C. osteopetrosis.
- D. cleidocranial dysplasia.
- E. juvenile hyperthyroidism.

When compared to quaternary ammonium oral rinses, 0.12% chlorhexidine oral rinses have a higher antimicrobial activity due to increased

- A. toxicity.
- B. potency.
- C. concentration.
- D. substantivity.

Which of the following bacterial components is a potent inducer of proinflammatory cytokines and can cause fever and shock?

- A. Lipopolysaccharide.
- B. Peptidoglycan.
- C. Teichoic acid.
- D. Porins.

An 8 year old patient with all primary molars still present exhibits a cusp-to-cusp relationship of permanent maxillary and mandibular first molars. The management of this patient should be to

- A. plan serial extractions for more normal adjustment of the occlusion.
- B. refer the patient to an orthodontist for consultation.
- C. place a cervical headgear to reposition maxillary molars.
- D. disk the distal surfaces of primary mandibular second molars to allow normal adjustment of permanent molars.
- E. observe.

Which of the following orthodontic alloy wires has the greatest effectiveness of activation?

- A. Nickel-titanium.
- B. Stainless-steel.
- C. β -titanium.
- D. Cobalt chromium.

The objective of root planing during periodontal therapy is to remove

- A. plaque, calculus, contaminated cementum and junctional epithelium.
- B. plaque and calculus exclusively.
- C. plaque, calculus and crevicular epithelium.
- D. plaque, calculus and contaminated cementum.
- E. all cementum associated with periodontitis.

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Under normal conditions, the most definitive test to confirm the loss of pulp vitality is

- A. applying warm gutta percha to the crown.
- B. cutting into the dentin without anesthetic.
- C. applying ethyl chloride to the crown.
- D. performing a radiographic examination of the tooth.
- E. performing an electric pulp test.

Which of the following is/are NOT usually affected by hereditary ectodermal dysplasia?

- A. Salivary glands.
- B. Teeth.
- C. Sweat glands.
- D. Hair.
- E. Fingernails.

Crown-root ratio and residual bone support can best be seen radiographically in a

- A. panoramic radiograph.
- B. bite-wing radiograph.
- C. periapical radiograph using the bisecting angle technique.
- D. periapical radiograph using the paralleling technique.

A dry and crumbly mix of amalgam can be the result of

- A. under trituration.
- B. over trituration.
- C. high copper content.
- D. lack of zinc content.

The prognosis of guided tissue regeneration (GTR) is best for the treatment of

- A. horizontal bone loss.
- B. one-wall osseous defects.
- C. two-wall osseous defects.
- D. three-wall osseous defects.

The most appropriate treatment following the extraction of a first primary molar in a 4 year old child is

- A. regular assessment of arch development.
- B. to perform space analysis.
- C. insertion of a space maintainer.
- D. extraction of the contra-lateral molar.
- E. extraction of the opposing molar.

A healthy 40 year old female patient complains of periodic acute, excruciating pain in the right infraorbital region. The pain is of short duration and can be elicited by lightly touching the skin of the area. Which of the following drugs is the most appropriate management?

- A. Carbamazepine.
- B. Acetazolamide.
- C. Succinylcholine.
- D. Penicillin.

Frankfort plane extends from

- A. Porion to Orbitale.
- B. Porion to Gnathion.
- C. Condylion to Gnathion.
- D. Condylion to Menton.

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Meta-analyses are important to the practice of dentistry because they

- A. minimize publication bias.
- B. define who is at risk for a disease.
- C. guide statistical testing for clinical procedures.
- D. provide a quantitative summary measure from many studies.

In the design of a removable partial denture, guiding planes are made

- A. parallel to the long axis of the tooth.
- B. parallel to the path of insertion.
- C. at a right angle to the occlusal plane.
- D. at a right angle to the major connector.

Seating of a fixed partial denture may be hindered if

- A. a void exists on the internal surface of the casting.
- B. the gingival margins are overcontoured.
- C. the gingival margins are open.
- D. the pontic is overcontoured gingivally.

The lamina dura is

- A. cortical bone.
- B. spongy bone.
- C. immature bone.
- D. a cribiform plate perforated by nutrient canals.
- E. None of the above.

Repeat panoramic radiographs are indicated to

- A. identify early signs of disease.
- B. follow-up a specific clinical concern or condition.
- C. monitor high caries risk patients.
- D. monitor patients with fixed dental prostheses.

Sodium hypochlorite in endodontic therapy dissolves

- A. only organic matter.
- B. only inorganic matter.
- C. both organic and inorganic matter

What is the most likely diagnosis for a patient who complains of dull, constant pain in his jaws upon awakening?

- A. Acute pulpitis.
- B. Sinusitis.
- C. Bruxism.
- D. Chronic gingivitis.

The primary use of nitrous oxide and oxygen is as a(n)

- A. substitute agent for local anesthesia.
- B. general anesthetic agent.
- C. agent for conscious sedation.

Pins for cusp replacement should ideally be placed

- A. within enamel.
- B. at the dentino-enamel junction.
- C. a minimum of 0.5-1.0mm from the dentino-enamel junction.
- D. a minimum of 1.5-2.0mm from the dentino-enamel junction.

Which of the following is/are correct?

- A. Basal and alveolar bone are histologically identical.
- B. Basal and alveolar bone respond identically to pressure.
- C. Osteoid is a highly mineralized bundle bone.

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The Frankfort-plane is a reference plane constructed by joining which of the following landmarks?

- A. Porion and sella.
- B. Porion and nasion.
- C. Porion and orbitale.
- D. Nasion and sella.

A Class II amalgam preparation on a primary tooth does NOT require a gingival bevel because the enamel rods in the area incline

- A. gingivally.
- B. horizontally.
- C. occlusally.
- D. vertically.

Primary occlusal trauma can cause

- A. gingival recession.
- B. furcation involvement.
- C. horizontal bone loss.
- D. tooth sensitivity.

In a 12 year old patient, a mandibular shift from bilateral crossbite with coincident midlines to a right-sided posterior crossbite with non-coincident midlines is indicative of

- A. temporomandibular joint dysfunction
- B. a true unilateral crossbite.
- C. skeletal asymmetry.
- D. mandibular fracture.
- E. occlusal interference and mandibular displacement.

Primary personal protective equipment includes all of the following EXCEPT

- A. protective clothing.
- B. gloves.
- C. masks.
- D. protective eyewear.
- E. glove liners.

A chronic alcohol abuser has just been diagnosed with Wernicke-Korsakoff's syndrome. He complains of pain and burning mouth and presents with angular cheilitis and glossitis. He is suffering from a severe deficiency of

- A. vitamin A.
- B. ascorbic acid.
- C. vitamin K.
- D. thiamin.

The leeway space is

- A. the distance between the maxillary and mandibular occlusal surfaces when the mandible is in rest position.
- B. the difference in size between the combined widths of the primary cuspids and molars and the permanent cuspids and bicuspid.
- C. the space distal to the mandibular primary canine and mesial to the maxillary primary canine.
- D. the space between primary anterior teeth.

In a restoration following endodontic therapy, the primary function of the post is to improve

- A. distribution of forces along the long axis.
- B. resistance of the tooth to fracture.
- C. sealing of the root canal.
- D. retention of the definitive restoration.

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If an alginate impression must be stored for a few minutes before the cast is poured, it should be placed in

- A. water.
- B. 100% relative humidity.
- C. A 1% aqueous calcium sulfate solution.
- D. None of the above.

A zinc phosphate cement base

- A. has the same radiopacity as amalgam.
- B. is less radiopaque than amalgam.
- C. has the same radiopacity as gold.
- D. cannot be seen on a radiograph.

Early orthodontic treatment of a retrognathic mandible should occur

- A. before age 5.
- B. between the ages of 6 and 8.
- C. just prior to the pubertal growth spurt.
- D. after skeletal maturity.

Postoperative sensitivity associated with the placement of direct posterior composite resin restorations is most often the result of

- A. polymerization shrinkage.
- B. large particle size of macrofilled composite resins.
- C. inadequate etching of the dentin.
- D. excessive thickness of a glass ionomer base.

Changes in direction of groups of enamel prisms

- A. have no functional importance.
- B. result from incremental growth.
- C. make enamel resistant to fracture.
- D. extend to the enamel surface.

Epstein-Barr virus is associated with which of the following?

- A. Shingles.
- B. Hairy leukoplakia.
- C. Chickenpox.
- D. Smallpox.

The pulpal floor of an occlusal amalgam preparation on a mandibular first premolar should slope apically from

- A. mesial to distal.
- B. buccal to lingual.
- C. distal to mesial.
- D. lingual to buccal.

An impression of a full metal crown preparation is made. Assessment of the impression reveals that there is superficial damage to an adjacent tooth not involving the proximal contact. At the next appointment, the most appropriate management is to

- A. cement the finished crown, then apply topical fluoride to the involved enamel surface.
- B. cement the finished crown, then polish the involved enamel using a polishing strip.
- C. polish the enamel surface and then cement the finished crown.
- D. polish the enamel surface and remake the impression and then cement a new crown.

In necrotizing ulcerative gingivitis the deepest penetrating microorganisms are

- A. cocci.
- B. spirochetes.
- C. diplococci.
- D. filamentous rods.

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An 8 year old patient presents with 4mm crowding of the mandibular incisors. The patient has a Class I malocclusion and the arches are well aligned. All cephalometric values are normal. The most appropriate management for this patient is

- A. monitor and recall in 6 months.
- B. perform pulpotomies and interproximal discing on the mandibular primary canines.
- C. extract the primary mandibular canines only.
- D. extract the primary mandibular canines and place a lower lingual holding arch.

A 58 year old patient is being managed with topical corticosteroids for ulcerative oral mucosal lesions. A recall examination reveals widespread, loosely adherent, soft white plaques. The most appropriate management would be

- A. a more potent topical corticosteroid.
- B. a systemic corticosteroid.
- C. antibiotic therapy.
- D. antifungal medication.
- E. incisional biopsy.

Which of the following is the most appropriate early management for a patient with primary herpetic gingivostomatitis? Prescribing

- A. corticosteroids locally and systemically.
- B. a systemic antiviral.
- C. a systemic antibiotic.
- D. a systemic antifungal.

The most appropriate analgesic for a pregnant patient is

- A. acetaminophen.
- B. acetylsalicylic acid.
- C. hydrocodone and acetaminophen.
- D. ibuprofen.

The central action of caffeine is principally on the

- A. cerebral cortex.
- B. corpus callosum.
- C. hypothalamus.
- D. spinal cord.

In a normal eruption pattern, the last primary tooth to be lost is the

- A. maxillary canine.
- B. mandibular canine.
- C. maxillary first molar.
- D. mandibular second molar.
- E. maxillary second molar.

The presurgical assessment of a permanent maxillary first molar reveals roots which are trifurcated and widely divergent. The maxillary antrum encroaches into the area of trifurcation. Which of the following should be done during extraction of this tooth?

- A. Reflect a split-thickness flap.
- B. Reduce the palatal bone to the level of the trifurcation.
- C. Reduce the buccal bone to the level of the trifurcation.
- D. Amputate the crown and section the roots.

Which one of the following cements is anticariogenic because of fluoride ion release?

- A. Resin.
- B. Polycarboxylate.
- C. Zinc phosphate.
- D. Glass ionomer.

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Splinting of a permanent maxillary incisor following trauma is required in the management of a

- A. concussion injury.
- B. luxation injury.
- C. Class II fracture.
- D. Class IV fracture.

A drug inhibiting ATP release at a site of injury could be a potential analgesic because ATP

- A. inhibits nociceptors.
- B. activates nociceptors.
- C. causes vasoconstriction.
- D. prevents vasoconstriction.

The aluminum filter in an x-ray machine prevents which of the following from reaching the patient?

- A. Long wavelength x-rays.
- B. High frequency x-rays.
- C. X-rays at the edge of the x-ray beam.
- D. Gamma radiation.

High plasma levels of local anesthetics may cause

- A. inhibition of peristalsis.
- B. stimulation of the central nervous system.
- C. inhibition of the vagus nerve to the heart.
- D. depression of the central nervous system.

Which of the following is the most appropriate for pain management following an emergency pulpectomy for an adult with a history of severe asthma and nasal polyps?

- A. Naproxen.
- B. Acetylsalicylic acid.
- C. Ketorolac.
- D. Acetaminophen.

In partial denture design, the major connector should

- A. rigidly connect the bilateral components.
- B. act as a stress-breaker.
- C. not interfere with lateral forces.
- D. dissipate vertical forces.

In endodontic therapy, the most effective irrigating solution for dissolving organic debris is

- A. ethylenediaminetetraacetic acid (EDTA).
- B. sodium hypochlorite.
- C. chlorhexidine.
- D. hydrogen peroxide.

A 7 year old has just lost a permanent maxillary central incisor due to trauma. The tooth cannot be found. The most appropriate immediate management is to

- A. take radiographs.
- B. test adjacent teeth for vitality.
- C. maintain space with a removable appliance.
- D. prescribe an antibiotic.

Metabolism of ibuprofen is NOT affected by

- A. decreased cardiac output.
- B. plasma protein binding.
- C. gastric emptying rate.
- D. hepatic enzyme activity.

Which of the following is the LEAST likely primary site for the development of oral squamous cell carcinoma in the elderly?

- A. Dorsum of the tongue.
- B. Floor of the mouth.
- C. Lateral border of the tongue.
- D. Tonsillar fossa.

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Condensing osteitis differs from idiopathic osteosclerosis because it is

- A. expansile.
- B. painful.
- C. associated with fever.
- D. associated with pulpal inflammation.

Which of the following structures affects the thickness of the flange of a maxillary complete denture?

- A. Malar process.
- B. Coronoid process.
- C. Mylohyoid ridge.
- D. Zygomatic process.
- E. Genial tubercle.

The most important objective of occlusal adjustment of a natural dentition is to

- A. prevent temporomandibular joint syndrome.
- B. increase the shearing action in mastication.
- C. improve oral hygiene by preventing food impaction.
- D. achieve a more favorable direction and distribution of forces of occlusion.

Juvenile periodontitis

- A. is associated with gram-negative anaerobic flora.
- B. is associated with gram-positive anaerobic flora.
- C. is associated with root caries.
- D. has a definite predilection toward males.

For adjunctive treatment of periodontal diseases, systemic tetracyclines have largely been replaced by other antibiotics because

- A. they commonly interact with other medications.
- B. concurrent ingestion of alcohol can result in flu-like symptoms.
- C. many bacteria have developed resistance to tetracycline.
- D. patient compliance is low due to the frequent dosing schedule.

In a mixed dentition analysis, using the Moyers statistical method, choosing a 75% probability factor means that the mass of permanent teeth is

- A. underestimated.
- B. overestimated.
- C. accurately predicted.
- D. unpredictable.

Crown-root ratio and residual bone support can best be seen radiographically in

- A. a panoramic film.
- B. a bite-wing film.
- C. a periapical film - bisecting angle technique.
- D. a periapical film - paralleling technique.

Which of the following is the most important preventive therapy for an 8 year old living in a non-fluoridated community, with closed contacts in the posterior quadrants and disto-occlusal restorations on all primary first molars?

- A. Daily sodium bicarbonate rinse.
- B. Fluoride varnish at 1 month intervals.
- C. Weekly 0.2% NaF rinse.
- D. Twice daily brushing with fluoride toothpaste.

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Which of the following agents is most effective in cold testing?

- A. Ice water.
- B. Air jet.
- C. Ice stick.
- D. Ethyl chloride.

The greatest single factor in reducing radiation exposure in dentistry is

- A. higher kVp.
- B. proper filtration.
- C. high speed film.
- D. collimation of the X-ray beam.

A 2½ year old child has intruded maxillary central incisors which are not in proximity to the permanent successors. What is the most appropriate management?

- A. Reposition the teeth and splint.
- B. Reposition the teeth and do not splint.
- C. Monitor the teeth for re-eruption.
- D. Extract the teeth.

The descending (or repolarizing) phase of the action potential is caused by

- A. opening potassium channels.
- B. closing potassium channels.
- C. opening chloride channels.
- D. closing calcium channels.

Vitamin D is a factor in

- A. caries susceptibility.
- B. calculus formation.
- C. calcium absorption.
- D. repair of hypoplastic defects of the enamel.

An advantage of a metal-ceramic crown over an all-ceramic crown is

- A. superior esthetics.
- B. more conservative vestibular preparation.
- C. increased restoration strength.
- D. superior translucency.

In addition to the advancement of knowledge, health research is intended to produce value for research subjects, for other individuals, and/or for society as a whole. What ethical principle does this refer to?

- A. Autonomy.
- B. Non-maleficence.
- C. Beneficence.
- D. Justice.

Sucralose

- A. breaks down at high temperatures and cannot be used in baking.
- B. is a derivative of sucrose.
- C. is twice as sweet as table sugar.
- D. causes constipation when ingested in excessive amounts.

Post-immunization serological test results for a health care worker who has completed the series of vaccinations against hepatitis B is informed that their anti-HBsAg is less than the value required for immunity. The health care worker should

- A. receive one additional vaccination followed by post-immunization testing.
- B. undergo the full series of hepatitis B vaccinations followed by post-immunization testing.
- C. refrain from performing any exposure-prone procedures for a period of 3-6 months followed by a full series of hepatitis B vaccinations.
- D. have liver function tests performed to assess liver damage from a previous hepatitis B infection.

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In radiography, minimum magnification and maximum definition are achieved by

- A. minimum OFD (object-film distance) and minimum FFD (focal-film distance).
- B. minimum OFD (object-film distance) and maximum FFD (focal-film distance).
- C. maximum OFD (object-film distance) and maximum FFD (focal-film distance).
- D. maximum OFD (object-film distance) and minimum FFD (focal-film distance).

A definitive diagnosis of osteosarcoma is established by

- A. radiographic examination.
- B. clinical examination.
- C. aspiration cytology.
- D. biopsy.

Radiologic interradicular scalloping of bone is a characteristic of a

- A. residual cyst.
- B. simple bone cyst/traumatic bone cyst.
- C. dentigerous cyst.
- D. radicular cyst.

Which condition produces a radiopaque image?

- A. Osteomalacia.
- B. Multiple myeloma.
- C. Osteopetrosis.
- D. Langerhans cell histiocytosis.
- E. Central giant cell granuloma.

A primary molar, in the absence of its permanent successor,

- A. should be treated endodontically to prevent root resorption.
- B. may remain for years with no significant resorption.
- C. will undergo normal root resorption.
- D. should be extracted.
- E. is more susceptible to dental caries.

In a 17 year old, which traumatic dental injury is most likely to result in pulp necrosis on tooth 1.1?

- A. Extrusion.
- B. Intrusion.
- C. Luxation.
- D. Subluxation.

Combined orthodontic and orthognathic surgical treatments primarily address

- A. dentoalveolar malocclusions.
- B. moderate to severe dentoskeletal discrepancies.
- C. occlusal discrepancies due to multiple tooth loss.
- D. vertical growth anomalies in a prepubescent child.

Pathologic migration of teeth is associated with

- A. lip incompetence.
- B. tongue thrust.
- C. bruxism.
- D. periodontitis.

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The mandibular primary second molar is extracted in a 5 year old patient. The most appropriate time to construct a space maintainer is

- A. during eruption of the mandibular permanent first molar.
- B. one year after eruption of the mandibular permanent first molar.
- C. one year before eruption of the mandibular permanent first molar.
- D. immediately.

Between the ages of 6 and 12, mandibular arch length will normally

- A. increase with the eruption of the permanent mandibular canines.
- B. increase with eruption of the mandibular premolars.
- C. remain the same.
- D. decrease with the eruption of the permanent mandibular incisors.
- E. decrease with the eruption of the mandibular premolars.

For an acid etched Class III composite resin, the cavosurface margin of the cavity can be bevelled to

- A. eliminate the need for internal retention.
- B. improve convenience form.
- C. aid in finishing.
- D. increase the surface area for etching.

Which of the following patients has the POOREST prognosis when placing dental implants? A patient who

- A. is over age 80 years old.
- B. is on thyroid replacement therapy.
- C. smokes 2 packs of cigarettes daily.
- D. has generalized osteoporosis.

The percussion test is used to test nerve response in the

- A. pulp.
- B. alveolar bone.
- C. attached gingiva.
- D. periodontal ligament.
- E. mucosa.

In orthodontics, how much activation is produced from a single turn of a palatal expansion screw?

- A. 0.25mm.
- B. 0.5mm.
- C. 0.75mm.
- D. 1.0mm.

When odontoblasts are destroyed or undergo degeneration, they are replaced by

- A. ameloblasts.
- B. undifferentiated mesenchymal cells.
- C. multinucleated giant cells.
- D. osteoblasts.

According to the Glickman classification for furcation involvement, a Grade I furcation is a/an

- A. incipient or early stage furcation involvement.
- B. furcation lesion that is essentially a cul-de-sac with a definite horizontal component.
- C. probeable vertical depth of 1 to 3mm.
- D. probeable horizontal depth of 1 to 3mm.

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Radiographic image distortion can be minimized by

- A. decreasing focal spot-to-object distance and decreasing object-to-film distance.
- B. decreasing focal spot-to-object distance and increasing object-to-film distance.
- C. increasing focal spot-to-object distance and decreasing object-to-film distance.
- D. increasing focal spot-to-object distance and increasing object-to-film distance.

Which of the following is the most appropriate solution for controlling pulpal bleeding after a pulp exposure prior to pulp capping?

- A. Saline.
- B. Chlorhexidine.
- C. Sodium hypochlorite.
- D. Ferric sulfate.

Dietary deficiency of vitamin D can result in

- A. abnormal formation of osteoid.
- B. osteitis fibrosa cystica.
- C. Paget's disease.
- D. myositis ossificans.
- E. osteogenesis imperfecta.

The main reason for adding copper to a dental amalgam alloy is to

- A. increase expansion.
- B. reduce tarnish resistance.
- C. make amalgamation easier.
- D. reduce the tin-mercury phase.

A fluctuant, painless submucosal swelling of the lower labial mucosa is most likely a

- A. pleomorphic adenoma.
- B. canalicular adenoma.
- C. mucoepidermoid carcinoma.
- D. mucocele.

Which Angle classification is most commonly associated with mouth breathing?

- A. Class I.
- B. Class II, division 1.
- C. Class II, division 2.
- D. Class III.

One week after an amalgam restoration is placed in the mandibular first premolar, the patient returns complaining of a sharp pain of short duration when eating or drinking something cold. Teeth respond normally to electric pulp testing and heat and the radiographs are normal. The most likely diagnosis is

- A. hypercementosis.
- B. reversible pulpitis.
- C. pulpal microabscess.
- D. acute periradicular periodontitis.

The risk of transmission of hepatitis B Virus (HBV) is greater than that of Human Immunodeficiency Virus (HIV) because HBV is

- A. less resistant than HIV to high level surface disinfectants.
- B. Less transmissible through saliva.
- C. in higher numbers in blood than HIV.
- D. autoclave resistant.

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The area of the tooth that is most sensitive during cavity preparation is

- A. dentin.
- B. cementum.
- C. cementoenamel junction.
- D. dentinoenamel junction.

Which of the following outcomes may be the result of probing a healthy periodontium with excessive force?

- A. Underestimation of attachment loss.
- B. Bleeding on probing.
- C. Angular bony defect.
- D. Gingival recession.

A mandibular central incisor is to be extracted and added to a partial denture. The impression to add a tooth to the denture should be made

- A. before the extraction with the denture in the mouth, removing the denture from the impression then pouring the impression.
- B. after the extraction without the denture in the mouth.
- C. after the extraction with the denture in the mouth and pouring the impression leaving the denture in the impression.
- D. after the extraction with the denture in the mouth, removing the denture from the impression then pouring the impression.

Primary teeth start to calcify in the fetus at approximately the

- A. first month.
- B. third month.
- C. fifth month.
- D. seventh month.

When compared with that of its permanent successor, the occlusal surface of the primary mandibular second molar is

- A. larger mesiodistally.
- B. equal mesiodistally.
- C. narrower mesiodistally.
- D. equal buccolingually and mesiodistally.

A syphilitic gumma is most commonly found on the

- A. lip.
- B. tongue.
- C. palate.
- D. buccal mucosa.
- E. gingiva.

Radiographs of the mandibular incisor teeth of a 45 year old healthy patient reveal periapical radiolucencies. The teeth are unrestored, vital and asymptomatic. The most appropriate management is to

- A. perform a biopsy of the concerned lesion.
- B. perform endodontic therapy on the four incisors.
- C. place a drain in the affected area.
- D. observe periodically.

A patient is in intense pain with a left hemifacial swelling, which is beginning to affect the eye. Examination reveals a fluctuant swelling over tooth 2.2, which has deep caries, and is tender to palpation and percussion. The most likely periapical diagnosis is

- A. symptomatic apical periodontitis (acute periradicular periodontitis).
- B. asymptomatic apical periodontitis (chronic periradicular periodontitis).
- C. acute apical abscess (acute periradicular abscess).
- D. chronic apical abscess (chronic periradicular abscess).

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A smooth, elevated, red patch devoid of filiform papillae, located in the midline of the dorsum of the tongue immediately anterior to the circumvallate papillae is indicative of

- A. benign migratory glossitis.
- B. median rhomboid glossitis.
- C. a granular cell tumor.
- D. iron deficiency anemia.
- E. a fibroma.

The epithelial attachment does NOT migrate apically in

- A. aggressive periodontitis.
- B. gingival hyperplasia.
- C. chronic periodontitis.
- D. necrotizing ulcerative periodontitis.

The vertical relation of rest is

- A. the same as the vertical relation of occlusion.
- B. greater than the vertical relation of occlusion.
- C. less than the vertical relation of occlusion.
- D. the same as the interocclusal distance.

A child on antibiotic therapy would be more likely to develop

- A. herpangina.
- B. pemphigus.
- C. candidiasis.
- D. herpetic gingivostomatitis.

A 60 year old patient in chronic renal failure has bilateral radiolucent mandibular lesions. Histological analysis reveals that these are giant cell lesions. This patient should be evaluated for

- A. hyperparathyroidism.
- B. hyperthyroidism.
- C. hyperpituitarism.
- D. hypoparathyroidism.

The orifice to the fourth canal in a permanent maxillary first molar is most often found

- A. under the distobuccal cusp.
- B. lingual to the orifice of the mesiobuccal canal.
- C. between the distobuccal and the mesiobuccal orifices.
- D. between the palatal and the distobuccal orifices.

A patient with a history of hypertension presents for an emergency dental extraction. His blood pressure is 158/100 mmHg. The dentist intends to use lidocaine 2% with 1:100,000 epinephrine for local anesthesia. The most appropriate management is to

- A. direct the patient to a hospital emergency room.
- B. extract the tooth using a maximum of four cartridges.
- C. extract the tooth using a maximum of two cartridges.
- D. extract the tooth and advise the patient to take additional antihypertensive medication.

Which tooth has the best prognosis in a patient with generalized periodontal disease?

- A. 1.1.
- B. 1.3.
- C. 1.4.
- D. 1.6.

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The principal purpose of amalgam trituration is to

- A. coat the alloy particles with mercury.
- B. dissolve all the alloy particles in the mercury.
- C. reduce the size of the crystals as rapidly as they form.
- D. reduce mercury content of the restoration.

The most appropriate radiographic examination for a 4 year old without visible or clinically detectable caries or anomalies, and with open proximal contacts is

- A. maxillary and mandibular anterior occlusals.
- B. a pair of posterior bite-wings.
- C. maxillary and mandibular posterior periapicals.
- D. no radiographic examination.

Which of the following is most often associated with a nonvital tooth?

- A. Periapical cyst.
- B. Internal resorption.
- C. Periapical osseous dysplasia (periapical cemento-osseous dysplasia).
- D. Hyperplastic pulpitis.

Irregularly distributed shallow to moderate craters in the interseptal bone are best eliminated by

- A. osteoplasty.
- B. gingivoplasty.
- C. deep scaling.
- D. bone grafting.

Supragingival calculus is most often found on the

- A. lingual of mandibular anterior teeth.
- B. buccal of mandibular anterior teeth.
- C. palatal of maxillary molars.
- D. lingual of mandibular molars.

What localized changes occur in soft tissue when it becomes infected?

- A. Increased pH, increased blood flow.
- B. Decreased pH, increased blood flow.
- C. Increased pH, decreased blood flow.
- D. Decreased pH, decreased blood flow.

The thickness of the labial bony wall of a maxillary anterior tooth is typically

- A. < 1mm.
- B. 1 - 2mm.
- C. > 2mm.

I-bar clasp arms and circumferential clasp arms both

- A. terminate in retentive undercuts lying gingival to the height of contour.
- B. originate from the framework and approach the tooth undercut area from a gingival direction.
- C. are circular in cross-section.

Which of the following is NOT associated with an impacted tooth?

- A. Adenoameloblastoma.
- B. Odontogenic myxoma.
- C. Pindborg tumor.
- D. Primordial cyst.
- E. Ameloblastoma.

During periodontal disease activity, the loss of clinical attachment

- A. precedes alveolar bone loss.
- B. follows alveolar bone loss.
- C. is concomitant with alveolar bone loss.

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Which of the following is appropriate to provide postoperative pain control for an 80kg, 20 year old patient with an allergy to codeine following the removal of 4 erupted third molars?

- A. Hydromorphone 2 mg, every 4-6 hours prn.
- B. Ibuprofen 800 mg, 1 hour preoperatively, followed by 400 mg, every 4-6 hours prn.
- C. Acetaminophen 650 mg, with oxycodone 10 mg, every 4-6 hours prn.

Which of the following statements about fats/lipids is correct?

- A. Naturally occurring trans fats have been confirmed to increase disease risk.
- B. LDL-cholesterol is found in foods of only animal origin.
- C. Most of the cholesterol circulating in the human body is synthesized by the body.
- D. The essential fatty acids are only the omega-3 fats.

The most common etiology of an Angle's Class I malocclusion is

- A. unusual dental arch development.
- B. tooth size - arch size discrepancy.
- C. congenitally missing teeth.
- D. extra teeth.

The optimal time for orthodontic treatment involving growth modification is during the

- A. late primary dentition.
- B. early mixed dentition.
- C. late mixed dentition.
- D. early permanent dentition.

Cleft lip is caused by the failure of which of the following processes to fuse?

- A. Maxillary.
- B. Maxillary and lateral nasal.
- C. Palatine.

A 70 year old female has consumed optimal levels of fluorides all her life. She could be expected to have a reduced incidence of which of the following?

- A. Paget's disease.
- B. Dental caries.
- C. Osteoporosis.
- D. Hyperparathyroidism.

Which of the following drugs has antisialagogue effects?

- A. Acetaminophen.
- B. Atropine.
- C. Acetylsalicylic acid.
- D. Fluconazole.

The proper placement of a lower universal extraction forceps for the removal of tooth 4.6 involves placing the beaks of the forceps

- A. as far apically on the tooth root as possible and applying apical pressure during luxation.
- B. on the lingual and buccal enamel of the crown and applying apical pressure during luxation.
- C. at the cemento enamel junction of the tooth and gently pulling upward during luxation.
- D. as far apically on the tooth root as possible and gently pulling upward during luxation.
- E. at the cemento enamel junction of the tooth and applying a rotational force during luxation.

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Which of the following sweeteners used in sugarless gum is most effective in preventing caries?

- A. Xylitol.
- B. Sorbitol.
- C. Mannitol.
- D. Glycerol.

Thumbsucking after the age of six most often results in

- A. a dental malocclusion.
- B. a skeletal malocclusion.
- C. mouth breathing.
- D. temporomandibular disorder.

Which two muscles are involved in sucking?

- A. Caninus and depressor angularis.
- B. Risorius and buccinator.
- C. Buccinator and orbicularis oris.
- D. Levator labii superioris and zygomaticus major.

A Le Fort I or Guerin fracture is a

- A. fracture of the zygomatic arch.
- B. horizontal fracture of the maxilla.
- C. fracture of the malar complex involving the floor of the orbit.
- D. pyramidal fracture of the maxilla.
- E. craniofacial dysjunction.

Which one of the following is the initial treatment for internal resorption?

- A. Pulpectomy.
- B. Pulpotomy.
- C. Pulp capping.
- D. Apicoectomy.

When performing a functional analysis of occlusion, the mandible may be observed to exhibit a shift from centric relation to centric occlusion in all but one of the following directions

- A. forward.
- B. backward.
- C. upward.
- D. lateral.

Immediately following a left posterior superior alveolar nerve block injection, the patient's face becomes quickly and visibly swollen on the left side. The immediate treatment should be to

- A. apply a cold compress.
- B. administer 0.3 mg epinephrine sublingually.
- C. apply a hot compress.
- D. refer for immediate medical treatment.

Granulation tissue is composed of

- A. plasma cells and giant cells.
- B. fibroblasts, capillaries and chronic inflammatory cells.
- C. fibroblasts and eosinophils.
- D. epithelial cells and tissue phagocytes.

The principal cellular sites of the cytochrome P450 system are

- A. cardiomyocytes.
- B. pneumocytes.
- C. splenocytes.
- D. hepatocytes.

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Which of the following is characteristic of a periapical granuloma?

- A. Radiopaque.
- B. Rapid growth.
- C. Inflammatory origin.
- D. Multilocular.

A mesial step relationship most commonly results in which of the following permanent first molar relationships?

- A. Angle Class I.
- B. Angle Class II.
- C. Angle Class III.

Which of the following has the highest rate of recurrence?

- A. Odontogenic keratocyst.
- B. Nasoalveolar cyst.
- C. Median palatal cyst.
- D. Incisive canal cyst.

When removing mandibular teeth from an area previously exposed to radiotherapy, the most serious complication is

- A. fracture.
- B. osteonecrosis.
- C. prolonged hemorrhage.
- D. localized osteitis.

A material undergoing plastic deformation

- A. will typically fail in a sudden, catastrophic manner.
- B. is experiencing stress below its proportional limit.
- C. will recover its original dimensions upon unloading.
- D. is experiencing a breaking of bonds within the structure.

The vibrating line of the palate is

- A. always on the hard palate.
- B. an area which marks the movement of the soft palate.
- C. easily located on a cast.

The working time of zinc-phosphate cement

- A. is shortened if moisture condenses on the mixing slab during the mixing process.
- B. is lengthened if the powder is mixed with the liquid as quickly as possible.
- C. is shortened if the mixing slab is cooled.
- D. is shortened by adding a small quantity of powder to the liquid a minute prior to start mixing.

When producing a metal-ceramic crown restoration

- A. the body-porcelain layer should be rich in opacifying oxides.
- B. oversizing the body-porcelain layer prior to sintering should be avoided.
- C. the porcelain thermal expansion coefficient should be slightly lower than the metal.
- D. fusing should be followed by quenching.

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The most likely cause of localized facial gingival recession in a healthy 17 year old individual is

- A. minimal attached gingiva.
- B. occlusal trauma.
- C. traumatic toothbrushing.
- D. factitious injury.

A 20 year old patient presents with a three-day history of an acute generalized gingivitis. He has malaise, fever and bilateral cervical lymphadenopathy. A blood examination reveals

Hb: 8.9g/100ml

Platelets: 82,000/mm³

Red blood cell count: 3,900,000/mm³

White blood cell count: 870,000/mm³

Normal Values:

Hb: 14-18g/100ml

Platelets: 150,000-400,000/mm³

Red blood cell count: 4-5million/mm³

White blood cell count: 5,000-10,000/mm³

The most likely diagnosis is

- A. thrombocytopenic purpura.
- B. acute myelogenous leukemia.
- C. infectious mononucleosis.
- D. necrotizing ulcerative gingivitis.

Using a high speed dental handpiece WITHOUT water coolant will

- A. produce a smoother surface.
- B. decrease pulpal damage if used with light pressure.
- C. reduce clogging of dental bur.
- D. reduce debris accumulation.
- E. increase frictional heat.

Which of the following drugs controls and reduces inflammation?

- A. Codeine.
- B. Acetaminophen.
- C. Ibuprofen.
- D. Meperidine HCl.

A 52 year old patient presents with restricted or limited mouth opening. The patient has loss of attached gingiva and multiple areas of gingival recession and tight skin. A panoramic radiograph shows diffuse widening of the periodontal ligament. What is the most likely diagnosis?

- A. Scleroderma (systemic sclerosis).
- B. Hyperparathyroidism.
- C. Mucous membrane pemphigoid (cicatrical pemphigoid).
- D. Erythema multiforme.
- E. Advanced adult periodontitis.

Maintenance of pulpal vitality following a small mechanical pulp exposure is best achieved by the

- A. placement of calcium hydroxide.
- B. placement of glass ionomer.
- C. placement of a self-etching resin.
- D. use of a two stage re-entry technique.

Extensive caries located only on the primary maxillary incisors of a 2 year old is generally indicative of

- A. fluorosis of the primary dentition.
- B. fever related hypoplasia.
- C. amelogenesis imperfecta.
- D. demand breast or bottle feeding.

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Which of the following is the most effective pharmacologic treatment for angular cheilitis?

- A. Penicillin.
- B. Erythromycin.
- C. Tetracycline.
- D. Clindamycin.
- E. Nystatin.

Special attention is given to matrix adaptation for the insertion of amalgam in a MO cavity in a maxillary first premolar because of the

- A. concavity in the cervical third of the mesial surface of the crown.
- B. restoration being in the esthetic zone.
- C. unusual position of the contact area.
- D. buccolingual width of the tooth's mesial marginal ridge.
- E. size of the interproximal gingival embrasure.

Which of the following is directly involved in the conversion of prothrombin to thrombin?

- A. Sodium.
- B. Calcium.
- C. Fluoride.
- D. Potassium.
- E. Bicarbonate.

A patient returns three days following the extraction of a carious mandibular first molar, complaining of a foul smell, bad taste and worsening pain. There is normal post-operative swelling with no evidence of fluctuance or discharge. The most appropriate management is to

- A. incise and drain.
- B. prescribe an antibiotic.
- C. place an intra-socket dressing.
- D. prescribe a muscle relaxant.

Regeneration of periodontal tissue is the replacement of lost tissue with one that is similar in

- A. function.
- B. structure.
- C. structure and function.

When odontoblasts are destroyed or undergo degeneration, they are replaced by

- A. ameloblasts.
- B. undifferentiated mesenchymal cells.
- C. multinucleated giant cells.
- D. osteoblasts.

A small hinge articulator was used for the fabrication of a cast gold onlay for tooth 4.6. Which of the following movements will result in the greatest discrepancy between the articulator and the patient?

- A. Laterotrusive.
- B. Mediotrusive.
- C. Protrusive.
- D. Retrusive.

Inlay wax patterns should be invested as soon as possible in order to decrease distortion caused by

- A. reduced flow.
- B. drying-out of the wax.
- C. release of internal stress.
- D. continued expansion of the wax.

Which of the following nerves does NOT require anesthesia for the extraction of a permanent maxillary first molar?

- A. Greater palatine.
- B. Nasopalatine.
- C. Middle superior alveolar.
- D. Posterior superior alveolar.

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Which of the following statements about incision and drainage of an acute apical abscess (acute periradicular abscess) is FALSE?

- A. The incision should be sutured after achieving drainage.
- B. The procedure is only indicated with a localized, fluctuant swelling.
- C. Profound anesthesia of the surgical site is not always possible.
- D. Relief of the pressure and pain is immediate after treatment.

During the extraction of an impacted tooth 3.8 the lingual nerve is damaged. All of the following can occur EXCEPT a

- A. loss of taste from the anterior 2/3 on the left side of the tongue.
- B. deviation of the tongue to the left on protrusion.
- C. decreased salivary output from the left sublingual gland.
- D. decreased salivary output from the left submandibular gland.
- E. numbness of the floor of the mouth on the left side.

Loops and helices are placed in stainless steel archwires in order to

- A. increase levels of force application.
- B. decrease the range of activation.
- C. counteract periodontal response to force.
- D. improve patient compliance.
- E. minimize undermining resorption.

The most appropriate management of a maxillary central incisor in crossbite in a 7 year old is

- A. monitor until eruption of all permanent teeth.
- B. immediate orthodontic correction.
- C. immediate orthodontic correction only with sufficient overbite.
- D. serial extraction.

A 16 year old patient has multiple extensive carious lesions. The most appropriate management is to place the patient on a preventive regime and to

- A. place amalgam restorations over the next few months.
- B. excavate caries and place temporary restorations within the next few weeks.
- C. delay any treatment until the hygiene improves.
- D. restore all teeth with composite resin over the next few months.

Radiographically, the lamina dura is a

- A. thick layer of bone forming the inner surface of the alveolus.
- B. thin radiolucent line around the roots of the teeth.
- C. thick layer of cortical bone.
- D. thin radiopaque line around the roots of the teeth.

A cold stimulus applied to a tooth will produce a hypersensitive response if the tooth

- A. is nonvital.
- B. has a periodontal pocket.
- C. has a hyperemic pulp.
- D. has chronic proliferative pulpitis.

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The coronoid process of the mandible can be seen in all of the following types of radiographs EXCEPT

- A. periapical.
- B. maxillary occlusal.
- C. panoramic.
- D. lateral cephalometric.

A 50 year old obese patient with type 2 diabetes takes oral hypoglycemics. He is frequently skipping meals in order to reduce his weight. During his 8:30 a.m. appointment, his speech becomes slurred and he is less alert than usual. Which of the following is the most appropriate management of this patient?

- A. 175ml of diet cola.
- B. 15g of glucose as tablets or in solution.
- C. 175ml unsweetened orange juice.
- D. Dismissal of the patient to have his breakfast.

The primary muscle of the cheek is the

- A. orbicularis oris.
- B. masseter.
- C. zygomaticus major.
- D. buccinator.

A 4 year old child has a normal complement of deciduous teeth, but in appearance they are grayish and exhibit extensive occlusal and incisal wear. Radiographic examination indicates some extensive deposits of secondary dentin in these teeth. This condition is typical of

- A. cleidocranial dysplasia.
- B. amelogenesis imperfecta.
- C. neonatal hypoplasia.
- D. dentinogenesis imperfecta.

In patients with advanced periodontitis, mobile teeth should be splinted in order to

- A. reduce gingival inflammation.
- B. accelerate epithelialization after periodontal surgery.
- C. enhance formation of a new connective tissue attachment after surgery.
- D. None of the above.

A characteristic sign of aggressive periodontitis in an adolescent (juvenile periodontitis) is

- A. marginal gingivitis.
- B. painful, burning gingivae.
- C. hyperplastic gingivitis.
- D. drifting of the teeth.

In a peripheral nerve such as the trigeminal, unmyelinated C type fibres convey

- A. muscle spindle information.
- B. reflexes such as the jaw jerk reflex.
- C. nociceptive pain information.
- D. reflexes such as the jaw opening reflex.

The major stimulator of respiration is

- A. low blood pressure.
- B. high percentage of blood oxygen.
- C. low percentage of blood carbon dioxide.
- D. high percentage of blood carbon dioxide.

Decreasing the amount of network modifiers in a dental porcelain will

- A. decrease its fusion temperature.
- B. increase its thermal expansion .
- C. decrease its chemical reactivity.
- D. increase its potential for devitrification upon heating.

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Asthmatic patients using corticosteroid inhalers may develop candidiasis on the dorsal surface of the tongue because of

- A. a systemic antibacterial action.
- B. local destruction of normal oral flora.
- C. prolonged local vasoconstriction.
- D. cross-reacting antigens in the tongue.
- E. local immunosuppression.

Which of the following drugs is most appropriate first line management for a patient experiencing an acute asthmatic attack?

- A. Isoproterenol.
- B. Salbutamol.
- C. Epinephrine.
- D. Hydrocortisone.

Which of the following is the LEAST likely primary site for the development of oral squamous cell carcinoma in the elderly?

- A. Dorsum of the tongue.
- B. Floor of the mouth.
- C. Lateral border of the tongue.
- D. Tonsillar fossa.

Which of the following has clinically active metabolites?

- A. Alprazolam.
- B. Diazepam.
- C. Lorazepam.
- D. Midazolam.
- E. Triazolam.

A 7 year old child presents with a 3mm coronal fracture with pulp exposure of tooth 2.1 following a trauma 24 hours ago. The tooth is sensitive to hot and cold fluids. The most appropriate management is a

- A. MTA direct pulp capping.
- B. MTA pulpotomy.
- C. gutta-percha pulpectomy.
- D. gutta-percha pulpectomy followed by an apical surgery.
- E. MTA apexification.

Attached gingival tissue is primarily composed of

- A. collagenous fibres.
- B. keratinized squamous epithelium.
- C. elastic fibres.
- D. A. and B.
- E. A., B. and C.

Eosinophilic granulomas

- A. are found at the apices of nonvital teeth.
- B. occur in infants.
- C. are a nonlipid reticulo-endotheliosis.
- D. are caused by a virus.

Over the lifetime of a patient, the relative position of the midface in comparison to the mandible is

- A. anterior.
- B. constant.
- C. posterior.

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The mucogingival junction with no interproximal attachment loss is a Miller Class. What is the Miller's class for gingival recession that extends beyond the mucogingival junction with no interproximal attachment loss?

- A. I.
- B. II.
- C. III.
- D. IV.

Acute overdose of acetaminophen is most likely to lead to

- A. depression of the respiratory centre.
- B. severe gastric bleeding.
- C. hepatic toxicity.
- D. anaphylactic shock.

The recommended cavity access for a Class III carious lesion is from the lingual because it

- A. permits less removal of intact enamel.
- B. preserves the labial enamel for esthetic purposes.
- C. is easier than from the vestibular.
- D. permits the use of a larger bur.

Calcification of the permanent first molars normally begins at

- A. 6 months in utero.
- B. birth.
- C. 6 months.
- D. 12 months.

A patient complains of irritability, fatigue and weakness. She is losing weight and has diarrhea. The clinical examination shows diffuse brown macular pigmentation of the oral mucosa. The pigmentation appeared recently. The most likely diagnosis is

- A. iron deficiency anemia.
- B. Addison disease.
- C. acute myeloid leukemia.
- D. Crohn disease.

Hemorrhagic shock is a circulatory disturbance characterized by

- A. increase in blood pressure.
- B. alteration in circulating blood volume.
- C. elevation of temperature.
- D. decrease in amount of interstitial fluid.

The cell of the dental pulp most capable of transforming into other cells is the

- A. fibroblast.
- B. mesenchymal cell.
- C. odontoblast.
- D. histiocyte.

In horizontal alveolar bone loss, the pathway of inflammation is

- A. through the periodontal ligament.
- B. through the epithelial attachment.
- C. through the cortical bone of the alveolar process.
- D. perivascularly, into the marrow spaces of the crestal bone.

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Which type of periodontitis is generally treated WITHOUT systemic antibiotics?

- A. Localized severe aggressive periodontitis in a 16 year old patient.
- B. Localized severe aggressive periodontitis in a 25 year old patient.
- C. Severe refractory chronic periodontitis.
- D. Severe generalized chronic periodontitis.
- E. Generalized severe aggressive periodontitis in a 30 year old patient.

Based on radiographic appearance alone, which orientation of mandibular third molars presents the greatest degree of difficulty for extraction?

- A. Mesioangular.
- B. Distoangular.
- C. Vertical.
- D. Horizontal.

One week after receiving a complete denture a patient returns with an isolated sore spot. The most likely cause is

- A. incorrect vertical dimension.
- B. localized pressure.
- C. an inaccurate centric relation record.
- D. decreased tissue tolerance.

The higher modulus of elasticity of a chromium-cobalt-nickel alloy, compared to a Type IV gold alloy, means that chromium-cobalt-nickel partial denture clasp will require

- A. a heavier cross section for a clasp arm.
- B. a shorter retentive arm.
- C. more taper.
- D. a shallower undercut.

The best space maintainer to prevent the lingual collapse that often occurs following the early loss of a mandibular primary canine is a

- A. Nance expansion arch.
- B. lingual arch.
- C. band and loop space maintainer.
- D. distal shoe space maintainer.

Which of the following tests can be used to determine the pulp status of a tooth with an all-ceramic crown?

- A. Cold test with ethyl chloride spray.
- B. Electric pulp test.
- C. Cold test with ice stick.
- D. Heat test.

Which of the following teeth is most likely to have two roots and two canals?

- A. Maxillary second premolar.
- B. Mandibular second premolar.
- C. Maxillary first premolar.
- D. Mandibular first premolar.

Enamel spindles are

- A. aberrant dentinal tubules that cross the dentinoenamel junction.
- B. structural faults that span the entire thickness of the enamel.
- C. responsible for the incremental lines in enamel.
- D. seen as perikymata on the surface of newly erupted teeth.

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Which of the following is an indication to prescribe antibiotics?

- A. Irreversible pulpitis.
- B. Cellulitis.
- C. Dental infection and temperature less than 37°C.
- D. Post root canal treatment in a diabetic patient.
- E. Alveolar osteitis.

When cementing an inlay, the best procedure to ensure accurate seating is a

- A. continuous firm pressure on the inlay until the cement is set.
- B. thick mix of cement.
- C. rapid and heavy application of pressure until the inlay is seated.
- D. very thin mix of cement.

Which of the following constituents of a local anesthetic cartridge is most likely to be allergenic?

- A. Lidocaine.
- B. Epinephrine.
- C. Metabisulfite.
- D. Hydrochloric acid.

Irregularly distributed shallow to moderate craters in the interseptal bone are best eliminated by

- A. osteoplasty.
- B. gingivoplasty.
- C. deep scaling.
- D. bone grafting.

The primary function of a post used in an endodontically treated tooth is to

- A. strengthen the root.
- B. maximize esthetics.
- C. avoid leakage into the root canal.
- D. retain the core.

Which of the following is NOT a malignant lesion of the gingiva?

- A. Neurofibroma.
- B. Proliferative verrucous leukoplakia.
- C. Sarcoma.
- D. Squamous cell carcinoma.

Gingival hyperplasia may be

- A. familial.
- B. idiopathic.
- C. drug induced.
- D. All of the above.
- E. None of the above.

Which of the following is a CONTRAINDICATION for the use of a resin bonded fixed partial denture (acid etched bridge or “Maryland Bridge”)?

- A. Angle Class II malocclusion.
- B. An opposing free end saddle removable partial.
- C. Previous orthodontic treatment.
- D. Heavily restored abutment.

An ankylosed tooth is

- A. associated with a nonvital pulp.
- B. the result of a root fracture.
- C. associated with a root penetrating cavity.
- D. found in permanent teeth.
- E. infraerupted.

Gutta-percha may be softened or dissolved within the root canal by using

- A. alcohol.
- B. ethyl chloride.
- C. eugenol.
- D. xylene (xylol®).

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The most appropriate management for a tooth with a history of previous trauma and internal resorption is

- A. observation over 6 months for further resorption.
- B. nonsurgical endodontic therapy.
- C. nonsurgical endodontic therapy followed by apical curettage.
- D. extraction and replacement with a fixed or removable prosthesis.

Which of the following statements is true regarding the radiographic appearance of furcation involvements?

- A. A definitive diagnosis can be made from a radiograph.
- B. Bone loss is greater than it appears on a radiograph.
- C. They are best evaluated with periapical radiographs.
- D. Furcation involvements cannot be seen on radiographs.

Physiologic pigmentation differs from melanoma because melanoma

- A. is macular.
- B. contains melanin.
- C. affects the gingiva.
- D. undergoes clinical changes.

After latex gloves have been put on, washing the gloved hands with an antimicrobial soap

- A. adds a further layer of safety to barrier protection.
- B. is unnecessary but acceptable practice.
- C. can compromise the integrity of the glove.
- D. should be done if a surgical procedure is planned.

Idiopathic osteosclerosis is

- A. painful.
- B. found mostly in the maxilla.
- C. radiolucent.
- D. nonexpansile.

Which muscle is LEAST likely to dislodge a mandibular denture?

- A. Masseter.
- B. Buccinator.
- C. Mentalis.
- D. Mylohyoid.

DMF-S is an index for expressing

- A. dental needs.
- B. tooth mortality.
- C. extent of dental neglect.
- D. dental caries.

When using a zinc phosphate cement to lute a full crown, it is recommended to

- A. mix the cement on a waxed paper pad.
- B. leave the tooth moist but not wet.
- C. apply continuous occlusal loading while the cement sets.
- D. remove any excess before the cement is set.

Which of the following is NOT a direct physiological response to additional forces placed on abutment teeth?

- A. Resorption of bone.
- B. Increase in trabeculation.
- C. Increase in width of cementum.
- D. Decrease in width of periodontal ligament.

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Exfoliative cytology is indicated in the diagnosis of

- A. lichen planus.
- B. aphthous ulceration.
- C. herpes simplex.
- D. mucous membrane pemphigoid (cicatricial pemphigoid).
- E. erythema multiforme.

A patient wearing complete dentures has angular cheilitis. The most likely cause is

- A. increased vertical dimension.
- B. insufficient horizontal overlap (overjet).
- C. decreased vertical dimension.
- D. excessive vertical overlap (overbite).

The best means of extending the working time of an irreversible hydrocolloid impression material is to

- A. extend spatulation time.
- B. add additional water.
- C. use cold water.
- D. add a small amount of borax.
- E. add potassium sulfate.

Generalized widening of the periodontal ligament space is a radiologic characteristic of

- A. lupus erythematosus.
- B. scleroderma (systemic sclerosis).
- C. Stevens-Johnson syndrome.
- D. Paget's disease.
- E. acromegaly.

A 5 year old child has yellow pigmentation of the primary teeth which under ultraviolet light gives a bright yellow fluorescence. The most likely diagnosis is

- A. tetracycline pigmentation.
- B. pigmentation associated with chromogenic bacteria.
- C. amelogenesis imperfecta.
- D. enamel hypoplasia.

Periodontitis is differentiated from gingivitis by the amount of

- A. plaque accumulation.
- B. apical migration of the epithelial attachment.
- C. gingival inflammation.
- D. discomfort of the patient.
- E. subgingival calculus.

A 16 year old patient has multiple painful vesicles on the vermillion border of his lower lip. He has had the same symptoms once or twice a year for the last 3 years. What is the most likely diagnosis?

- A. Primary herpetic gingivostomatitis.
- B. Recurrent herpes labialis.
- C. Herpes zoster.
- D. Herpetiform aphthous stomatitis.

Maximum shrinkage after gingival curettage can be expected from tissue that is

- A. fibroedematous.
- B. edematous.
- C. fibrotic.
- D. formed within an infrabony pocket.
- E. associated with exudate formation.

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The average annual dose of ionizing radiation that a patient receives from dental radiographs is

- A. greater than the average amount received from natural sources.
- B. about the same as the average amount received from medical sources.
- C. about the same as the average amount received from cosmic radiation.
- D. low when compared to the average total amount of radiation received.

Which patient is LEAST likely to be predisposed to liver toxicity following a dose of 1,000 mg of acetaminophen?

- A. An adult with liver cirrhosis.
- B. A chronic alcoholic.
- C. A diabetic.
- D. A 15kg, 4 year old child.

The most likely diagnosis of a proliferative lesion found at a denture periphery is a/an

- A. epulis granulomatosum.
- B. epulis fissuratum.
- C. giant cell granuloma.
- D. squamous cell carcinoma.

Which of the following is NOT a recognized ethics-based principle?

- A. Citizenship.
- B. Justice.
- C. Non maleficence.
- D. Autonomy.
- E. Veracity.

A 60 year old patient requests the replacement of tooth 4.6, which was extracted many years ago. Tooth 1.6 has extruded 1.8mm into the space of the missing tooth. The three unit fixed bridge replacing the mandibular first molar should be fabricated

- A. to the existing occlusion.
- B. after extracting tooth 1.6 and replacing it with a fixed partial denture.
- C. after restoring tooth 1.6 to a more normal plane of occlusion.
- D. after devitalizing and preparing tooth 1.6 for a cast crown.

Nitrous oxide

- A. may supplement behavioural management of an anxious patient.
- B. is a substitute for behavioural management of an anxious patient.
- C. is a substitute for local anesthesia for a dental extraction.
- D. would have no analgesic effect at a dose of 60%.

Mottled enamel is associated with

- A. regional odontodysplasia.
- B. fluorosis.
- C. amelogenesis imperfecta.
- D. tetracycline therapy.

Salivary secretion

- A. increases with age.
- B. decreases with age.
- C. shows no difference with age.
- D. shows a decrease in mineral content in the elderly.

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Recurring tooth rotations occur most frequently after orthodontic correction due to

- A. density of the cortical bone.
- B. persistence of tongue and finger habits.
- C. free gingival and transseptal fibres.
- D. oblique fibres of the periodontal ligament.

In a post-endodontic restoration, the function of the post is to insure

- A. distribution of forces along the long axis.
- B. resistance of the tooth to fracture.
- C. sealing of the root canal.
- D. retention of the definitive restoration.

The use of a retraction cord impregnated with 8% racemic epinephrine may be hazardous for some patients because of its

- A. local caustic action on the gingival tissue.
- B. potential for systemic reaction.
- C. local astringent action.

In placing an amalgam, interproximal wedging will be most effective in controlling the

- A. buccal contour.
- B. gingival contour.
- C. lingual contour.
- D. marginal ridge contour.

Which of the following analgesics is CONTRAINDICATED for the long-term management of myofascial pain syndrome?

- A. Acetylsalicylic acid with codeine.
- B. Ibuprofen.
- C. Oxycodone.
- D. Acetaminophen with codeine.

The most likely complication following surgery for a patient with thrombocytopenic purpura would be

- A. angina.
- B. hemorrhage.
- C. alveolar osteitis.
- D. delayed healing.
- E. infection.

An HIV-positive patient has white lesions on the buccal mucosa. The lesions can be wiped off to reveal an erythematous base. The lesions are most likely caused by

- A. *Streptococcus viridans*.
- B. Epstein-Barr virus.
- C. *Candida albicans*.
- D. *Staphylococcus aureus*.

Which of the following lesions of the oral or maxillofacial region is premalignant?

- A. Focal fibrous hyperplasia.
- B. Smoker's melanosis.
- C. Fibrous dysplasia.
- D. Epithelial dysplasia.

The difference(s) between deciduous and permanent teeth is/are best described by the following statement(s):

- A. The deciduous root trunk is shorter.
- B. The deciduous enamel is thinner and appears whiter.
- C. The deciduous molar roots flare more.
- D. (A) and (C)
- E. All of the above.

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A 12 year old patient has the following cephalometric values:

SNA = 87° (N = 82°)
SNB = 80° (N = 80°)
Mandibular Plane Angle = 32° (N = 32°)
FMA = 26° (N = 26°)

The patient is a skeletal Angle Class II with a

- A. normally protrusive maxilla and a retrognathic mandible.
- B. protrusive maxilla and an orthognathic mandible.
- C. protrusive maxilla and a retrognathic mandible.
- D. retrusive maxilla and an orthognathic mandible.

On a periapical radiograph, the nasopalatine foramen is located between the roots of the maxillary

- A. Incisors, superior to their apices.
- B. central and lateral incisors, inferior to their apices.
- C. central incisors, inferior to their apices.
- D. central and lateral incisors, superior to their apices.

A reciprocal clasp arm on a removable partial denture will provide

- A. support.
- B. indirect retention.
- C. stabilization.
- D. direct retention.

The term "dental age" refers to the

- A. state of dental maturation.
- B. eruption time of a given tooth.
- C. number of years elapsed since a given tooth erupted.
- D. None of the above.

Dental amalgam restorations

- A. have decreased flow when the tin mercury phase is increased.
- B. contain nickel to increase the yield strength.
- C. have decreased corrosion and marginal breakdown when the copper tin phase is increased.
- D. contain zinc to reduce galvanic corrosion.

Predominant organisms in necrotizing ulcerative gingivitis are

- A. spirochetes and fusiforms.
- B. *Porphyromonas gingivalis*.
- C. *Prevotella intermedia*.
- D. *Actinomyces viscosus*.

Infrabony defects occur most frequently in

- A. cancellous bone.
- B. cortical bone.
- C. bundle bone.
- D. interseptal bone.

Which of the following foods is LEAST cariogenic?

- A. Canned fruit.
- B. Potatoes.
- C. Fruit jello.
- D. Cheese.
- E. White bread.

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A 52 year old female patient presents with a limitation of mouth opening. The patient has loss of attached gingiva and multiple areas of gingival recession. A panoramic radiograph shows diffuse widening of the periodontal ligament. The most likely diagnosis is

- A. Scleroderma (systemic sclerosis).
- B. hyperparathyroidism.
- C. mucous membrane pemphigoid (cicatricial pemphigoid).
- D. erythema multiforme.
- E. advanced adult periodontitis.

Which of the following could cause clicking sounds during speech in denture wearers?

- A. Excessive vertical dimension.
- B. Nonbalanced occlusion.
- C. Excessive buccal flange thickness.
- D. Reduced vertical overlap (overbite).

A 17 year old male patient exhibits delayed eruption of permanent teeth. Radiographs indicate multiple, impacted permanent teeth. The patient's head size is large with prominent frontal eminences and slightly constricted facial features. What is the most likely diagnosis?

- A. Osteopetrosis.
- B. Osteitis deformans.
- C. Gardner syndrome.
- D. Acromegaly.
- E. Cleidocranial dysplasia.

Which of the following conditions CONTRAINDICATES treatment with dental implants?

- A. Uncontrolled diabetes mellitus.
- B. Osteoporosis.
- C. Anticoagulant therapy.
- D. Age greater than 80 years.

When a patient has a history of porphyria, which of the following drugs is CONTRAINDICATED for pharmacological sedation?

- A. Minor tranquilizers.
- B. Antihistamines.
- C. Barbiturates.
- D. Opioids.

The mode of action of the sulfonamides upon susceptible bacteria is by

- A. inhibiting the biosynthesis of p-aminobenzoic acid.
- B. competing for nutrients in the tissue environment of the microorganisms.
- C. interfering with the synthesis of cell wall protein.
- D. interfering with the synthesis of folic acid.

A 9 year old presents immediately after the avulsion of a permanent maxillary central incisor. Which of the following is the most appropriate management prior to re-implantation?

- A. Rinse the tooth with saline.
- B. Curette the root surface.
- C. Amputate the apex.
- D. Extirpate the pulp.

The most appropriate time to correct a cross-bite of the permanent maxillary central incisor is

- A. following eruption of the canines.
- B. following eruption of the central incisors.
- C. following eruption of the lateral incisors.
- D. during eruption of the central incisors.

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The most frequent cause for composite resin restoration failure is

- A. brittleness of the composite.
- B. excessive polymerization shrinkage.
- C. presence of voids within the material.
- D. inadequate moisture control during placement.

Prior to the correction of a single tooth anterior crossbite, the principle factor to consider is the

- A. adequacy of mesio-distal space.
- B. developmental age of the patient.
- C. sequence of eruption of the permanent dentition.
- D. morphology of the anterior teeth.

Five years ago, a 35 year old patient received chemotherapy followed by adjuvant intensity-modulated radiotherapy of 3000 cGy to the mandible for treatment of Hodgkin's disease. The extraction of tooth number 3.7 with local anesthesia is planned. The most appropriate management is

- A. hyperbaric oxygen treatment prior to tooth extraction.
- B. to prescribe antibiotics following tooth extraction.
- C. hyperbaric oxygen treatment prior to and following tooth extraction.

The problem most likely to result from a temporary crown with inadequate proximal contacts is

- A. frequent decementation of the temporary crown.
- B. gingival recession.
- C. difficulty in seating the permanent crown.
- D. an esthetically compromised restoration.

Barbiturates

- A. are depressants of the respiratory centre.
- B. are stimulants of the central nervous system.
- C. increase the level of consciousness.
- D. may have convulsant effects.

Which of the following conditions would NOT require antibiotic premedication before endodontic therapy?

- A. Valvular heart disease.
- B. Cardiac prosthesis.
- C. Persistent odontogenic fistula.
- D. Immunosuppressive therapy.
- E. Organ transplant.

What structure is most likely to dislodge a complete mandibular denture?

- A. Retromolar pad.
- B. Buccinator muscle.
- C. Mylohyoid muscle.
- D. Pterygomandibular raphe.

Lack of ramus height is caused by faulty development of

- A. membranous bone.
- B. endochondral bone.
- C. Meckel's cartilage.
- D. the temporomandibular joint.

Which of the following is NOT a common side effect from a tricyclic antidepressant?

- A. Orthostatic hypotension.
- B. Increased urination.
- C. Xerostomia.
- D. Confusion.

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The most appropriate management of a painless ulcer of 2 months duration affecting the lateral border of the tongue is to

- A. prescribe systemic antibiotics.
- B. perform an incisional biopsy.
- C. re-evaluate in 6 months.
- D. obtain a complete blood count.
- E. obtain a cytologic smear.

The polishing of an amalgam restoration

- A. should not be performed before 24 hours after insertion.
- B. completely prevents tarnish from occurring.
- C. removes the mercury rich surface layer of the amalgam.
- D. is more permanent if the surface is heated during the procedure.

The tooth preparation for a porcelain veneer must have a

- A. smooth surface.
- B. 2mm space to place the porcelain.
- C. definite finish line.
- D. margin at least 1mm supragingivally.

Pathologic migration of teeth is a clinical feature of

- A. disuse atrophy.
- B. necrotizing ulcerative gingivitis.
- C. plaque-induced gingivitis.
- D. generalized chronic periodontitis.

What is the most likely cause of the interdental papilla protruding from beneath the rubber dam after placement?

- A. The holes were placed too far apart.
- B. A light weight dam was used.
- C. The holes were placed too close together.
- D. The teeth were not individually ligated.

To achieve adequate retention when placing a post in a molar tooth with a normal canal configuration, the post requires a

- A. length of 7 to 8mm.
- B. length equal to the restored crown height.
- C. parallel sided design.
- D. resin luting cement.

Fixed orthodontic appliances are generally more efficient than removable appliances because conventional fixed appliances

- A. provide 3-dimensional control of tooth movement.
- B. promote improved oral hygiene.
- C. provide intermittent force application.
- D. are individualized to each patient.

A radiographic examination of a 10 year old child reveals retention of deciduous teeth and presence of many unerupted supernumerary teeth. This is characteristic of

- A. cleidocranial dysplasia.
- B. ectodermal dysplasia.
- C. dentinogenesis imperfecta.
- D. congenital hypothyroidism.

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Apical surgery is CONTRAINDICATED when

- A. periodontal disease causes inadequate bony support.
- B. there is a granuloma at the apex of the tooth.
- C. the cortical plate is more than 4mm thick.
- D. the patient is diabetic.

A 50 year old patient, who is a heavy smoker, has developed a barrel chest, has difficulty breathing and has a bluish tinge to his complexion. The most likely diagnosis is

- A. emphysema.
- B. acute upper respiratory infection.
- C. primary cancer of the lung.
- D. cardiac insufficiency.

Which class of drugs does NOT have analgesic effects?

- A. Anticholinergics.
- B. Antidepressants.
- C. Anticonvulsants.
- D. Salicylates.

Which of the following should NOT be corrected with a porcelain veneer?

- A. Peg lateral incisor.
- B. Diastema between 1.1 and 2.1.
- C. Cross bite on tooth 1.3.
- D. Enamel hypoplasia.

Conventional glass ionomer cements

- A. elicit less pulp response than zinc-oxide and eugenol cements.
- B. do not require a protective liner, such as calcium hydroxide in a deep preparation.
- C. have a lower modulus of elasticity than zinc phosphate cements.
- D. bond mechanically to calcium in enamel and dentin.
- E. are superior to zinc phosphate cement for luting porcelain (all ceramic) crowns.

After the crown completion stage, trauma to a developing tooth may be responsible for

- A. enamel hypoplasia.
- B. gemination.
- C. dilaceration.
- D. fusion.

The modulus of elasticity of a material is determined by

- A. dividing stress by strain below elastic limit.
- B. dividing strain by stress.
- C. multiplying proportional limit by strain.
- D. squaring proportional limit and dividing by strain.

Thinned cortical bone, decreased cancellous trabeculation, enlargement of the medullary cavity and decreased bone density are radiographic features of

- A. osteomalacia.
- B. osteopetrosis.
- C. osteoradionecrosis.
- D. osteoporosis.

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After a tooth surface has been completely cleaned, the new mucoprotein coating which forms on the surface is called

- A. pellicle.
- B. plaque.
- C. materia alba.
- D. primary cuticle.
- E. Nasmyth's membrane.

In the bisecting angle principle of intraoral radiography, the radiopacity that can obliterate the apices of maxillary molars is the

- A. maxillary sinus.
- B. palatine bone and the zygoma.
- C. orbital process of the zygomatic bone.
- D. zygoma and the zygomatic process of the maxilla.

The tooth with the largest root surface area is the

- A. maxillary canine.
- B. maxillary first molar.
- C. mandibular canine.
- D. mandibular first molar.

Orthopedic correction of a mild skeletal Angle Class III malocclusion should be started

- A. just prior to the pre-pubertal growth spurt.
- B. immediately following the pre-pubertal growth spurt.
- C. shortly after eruption of the upper first permanent molars.
- D. shortly after eruption of the upper second permanent molars.

Which of the following medications will NOT result in increased postoperative bleeding?

- A. Dabigatran.
- B. Rivaroxaban.
- C. Garlic.
- D. Ginkgo.
- E. Zoledronate.

Zinc-oxide-eugenol cements are less soluble than

- A. zinc phosphate cements.
- B. Bis-GMA resin cements.
- C. glass ionomer cements.
- D. calcium hydroxide cements.

Coxsackie A virus is the etiologic agent in

- A. papilloma.
- B. herpangina.
- C. verruca vulgaris.
- D. condyloma accuminatum.

The inorganic ion that is implicated in primary hypertension is

- A. sodium.
- B. fluoride.
- C. potassium.
- D. magnesium.

Which of the following is NOT a sign or symptom of the myofascial pain dysfunction syndrome?

- A. Pain.
- B. Muscle tenderness.
- C. Limitation of jaw motion.
- D. "Clicking" or "popping" noise in the joints.
- E. Radiographic changes of the joint.

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A radiopaque area within the alveolar process containing several rudimentary teeth suggests a/an

- A. periapical cemento-osseous dysplasia.
- B. ameloblastoma.
- C. compound odontoma.
- D. complex odontoma.
- E. Pindborg tumor.

In treatment planning for a complete denture, severe undercuts on the edentulous ridge should be

- A. considered as retentive aids.
- B. removed surgically.
- C. retained but avoided by the denture base extension.
- D. removed if no cortical bone is involved.

A "butterfly-rash" of the face can sometimes be found in

- A. erythema multiforme.
- B. lupus erythematosus.
- C. pemphigus vulgaris.
- D. acne rosacea.

Which valve is most commonly affected by rheumatic heart disease?

- A. Aortic.
- B. Pulmonary.
- C. Tricuspid.
- D. Mitral.

The most common complication of a venipuncture is

- A. syncope.
- B. hematoma.
- C. thrombophlebitis.
- D. embolus.

A metal-ceramic crown has been cemented on tooth 1.6. Which of the following occlusal contact points should be eliminated?

- A. Inclined lingual plane of the mesiobuccal cusp.
- B. Mesial marginal ridge.
- C. Mesiolingual cusp tip.
- D. Central fossa.

Which of the following may be mistaken as a pathologic finding on periapical radiographs of the premolar segments of the maxillary dental arch?

- A. Pneumatisation of the alveolar process.
- B. Nasopalatine foramen.
- C. Nasolacrimal canal.
- D. Mental foramen.

Which part of the brain is NOT primarily involved in motor control?

- A. Cerebellum.
- B. Basal ganglia.
- C. Occipital lobe.
- D. Frontal lobe.

Which of the following prevents distortion of a reversible hydrocolloid impression material?

- A. Slow removal from undercuts.
- B. Storage in 100% humidity for 30 minutes.
- C. Storage in air.
- D. Storage in 2% solution of potassium sulfate for 60 minutes.

The sensation of sour is mediated by

- A. transducin.
- B. protons blocking K^+ channels.
- C. gustducin.
- D. activation of T1R3 receptors.

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The 2 main conditions complicating the correction of a single tooth anterior crossbite are

- A. lack of spacing and increased overbite.
- B. lack of spacing and decreased overbite.
- C. an increased overbite and a large labial frenum.
- D. a decreased overbite and a large labial frenum.

Which of the following anesthetic agents are hydrolyzed by plasma cholinesterase?

- A. Prilocaine.
- B. Lidocaine.
- C. Mepivacaine.
- D. Procaine.

Pulp vitality tests are used to differentiate between

- A. periapical osseous dysplasia (periapical cemento-osseous dysplasia) and a periapical granuloma.
- B. periapical osseous dysplasia (periapical cemento-osseous dysplasia) and an incisive canal cyst.
- C. periapical granuloma and a periapical cyst.
- D. periapical granuloma and a chronic apical abscess (chronic periradicular abscess).

The CNS depressant effects of midazolam are reversed by the administration of

- A. diphenhydramine.
- B. flumazenil.
- C. naloxone.
- D. ranitidine.

The amount of radiation is best reduced by

- A. using collimation.
- B. decreasing the object-film distance.
- C. lowering kVp and increasing milliamperage.
- D. decreasing the target-object distance.

Which of the following is the dominant inflammatory cell type in the initial lesion of gingivitis?

- A. Neutrophil.
- B. Plasma cell.
- C. Macrophage.
- D. Lymphocyte.

A patient wearing complete dentures complains of tingling and numbness in the lower lip bilaterally. This is often an indication of

- A. allergy to denture base material.
- B. impingement of denture on the mandibular nerve.
- C. defective occlusal contacts.
- D. impingement of denture on the mental nerve.
- E. neoplastic invasion of the inferior mandibular nerve.

A healthy, 23 year old patient experiences a warm sensation, diaphoresis, nausea, light headedness and then loses consciousness approximately 30 seconds following the injection of 1.8ml of 2% lidocaine with 1:100,000 epinephrine for an inferior alveolar nerve block. What is the most likely diagnosis for his situation?

- A. Allergic reaction.
- B. Overdose of local anesthetic.
- C. Syncope.
- D. Intravascular injection.

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Upon returning to the operatory, the dentist notices the patient is looking at the dental chart. Which of the following statements is correct?

- A. The patient has a legal right to access the chart at any time.
- B. The dentist can charge an administrative fee to the patient to view the chart.
- C. A written request is required before access to the chart can be granted.

Which ethical principle is violated when a dentist increases fees solely based on the fact that the patient is covered by dental insurance?

- A. Autonomy.
- B. Beneficence.
- C. Justice.
- D. Nonmaleficence.
- E. Veracity.

Which of the following anatomic spaces is most likely to be involved as a result of an apical infection of a mandibular third molar?

- A. Sublingual.
- B. Submandibular.
- C. Submental.
- D. Submasseteric.

Which of the following substances causes inflammation and pain when released by pulpal fibres?

- A. Prostaglandin E₂.
- B. Calcitonin gene related peptide.
- C. Neuraminase.
- D. Acetylcholine.

Which of the following is NOT a characteristic of cavity liners?

- A. They are placed with minimal thickness.
- B. They provide some type of therapeutic benefit.
- C. They are used as a dentin replacement.
- D. They promote pulpal health.

The facial and lingual walls of the occlusal portion of a Class II cavity preparation for an amalgam in deciduous teeth should

- A. be parallel to each other.
- B. diverge toward the occlusal surface.
- C. converge toward the occlusal surface.
- D. not follow the direction of the enamel rods.

The purpose of a periodontal dressing is to

- A. enhance wound healing.
- B. protect the wound from injury.
- C. increase patient comfort.
- D. All of the above.

Condensing osteitis in the periapical region is indicative of a/an

- A. acute inflammation of the pulp.
- B. pulpal abscess.
- C. chronic inflammation of the pulp.
- D. early apical abscess formation.

The effects of constant mouth breathing include

- A. expansion of the maxilla.
- B. mandibular incisor protrusion.
- C. anterior open bite.
- D. maxillary incisor retrusion.

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The most frequent radiographic appearance of metastatic carcinoma in the jaws is a radiolucency

- A. ill-defined in the anterior maxilla.
- B. ill-defined in the posterior mandible.
- C. well-defined in the anterior maxilla.
- D. well-defined in the posterior mandible.

In an edentulous patient, the coronoid process may

- A. limit the distal extension of the mandibular denture.
- B. affect the position and arrangement of the posterior teeth.
- C. determine the location of the posterior palatal seal.
- D. limit the distal extensions of the maxillary denture.

A patient experiences pain and some gingival swelling in the anterior segment of the mandible. The mandibular lateral incisor has a shallow restoration, is tender to percussion and gives a positive response to an electric pulp test. There is some mobility. What is the most likely diagnosis?

- A. Acute apical abscess (acute periradicular abscess).
- B. Symptomatic irreversible pulpitis.
- C. Periodontal abscess.
- D. Reversible pulpitis.

A 47 year old female patient complains of a “burning sensation” of the tongue. Examination reveals angular cheilitis and a smooth redness on the entire dorsal surface of the tongue. The most likely diagnosis is

- A. anemia.
- B. epithelial dysplasia.
- C. squamous cell carcinoma.
- D. acute herpetic gingivostomatitis (primary herpes).
- E. median rhomboid glossitis.

A cephalosporin

- A. may be cross-allergenic with penicillin.
- B. has a narrower spectrum than penicillin.
- C. is the medication of choice for antibiotic prophylaxis.
- D. may cause cholestatic hepatitis.

Langerhans cell histiocytosis

- A. produces a solitary eosinophilic lesion.
- B. produces bony defects as focal areas of bony rarefaction.
- C. occurs only in adult life.

Which of the following drugs is most likely to induce photosensitivity?

- A. Tetracycline.
- B. Metronidazole.
- C. Acetaminophen.
- D. Oxycodone.

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A strong association exists between the presence of fissured tongue and the presence of

- A. geographic tongue.
- B. hairy tongue.
- C. lingual varicosities.
- D. median rhomboid glossitis.

Which of the following is a reason to perform initial periodontal debridement before periodontal surgery?

- A. Increase the attachment levels.
- B. Reduce infrabony pockets.
- C. Reduce bleeding during the surgery.
- D. Increase the width of keratinized tissue.

A gingivectomy may be performed when there is/are

- A. horizontal bone loss.
- B. no intrabony defects.
- C. an adequate zone of attached gingiva.
- D. a gingival pocket.
- E. All of the above.

Shortly after the administration of a local anesthetic for the removal of tooth 2.8, the patient complains of a tense sensation in the left cheek and left cheek swelling is observed. The most likely diagnosis is

- A. surgical emphysema.
- B. an immediate allergic reaction.
- C. a herniation of the buccal fat pad.
- D. a hematoma.

What is the dose of epinephrine in an Epi Pen®?

- A. 0.20 mg.
- B. 0.25 mg.
- C. 0.30 mg.
- D. 0.35 mg.
- E. 0.40 mg.

The epithelial attachment

- A. in health, is located at the cemento-enamel junction.
- B. with periodontitis, moves apically along the root surface as periodontal disease progresses.
- C. is composed of stratified squamous non-keratinized epithelium.
- D. All of the above.

Which of the following is associated with drug-induced bruxism?

- A. Amitriptyline.
- B. Clonazepam.
- C. Fluoxetine.
- D. Phenelzine.

The accuracy of the polysulfide and silicone rubber impression materials

- A. is better than that of polyethers.
- B. compares favorably with reversible hydrocolloids.
- C. is inversely proportional to temperature and humidity.

Codeine administration is associated with all the following side effects EXCEPT

- A. sedation.
- B. constipation.
- C. gastric ulceration.
- D. nausea.

Which form of hepatitis does NOT have a known carrier state?

- A. Hepatitis A.
- B. Hepatitis B.
- C. Hepatitis C.
- D. Hepatitis D.

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The most appropriate method for a dentist to ensure efficacy in a disinfection solution is to

- A. make a fresh solution every day.
- B. follow the manufacturer's instructions.
- C. increase the concentration of the product.
- D. increase the time of contact with the product.

Which of the following is most likely to affect the difficulty of extraction of an impacted mandibular third molar?

- A. Root width.
- B. Shape of the crown.
- C. Size of the pulp chamber.
- D. Angulation of the impaction.

The radiographic appearance of internal resorption is

- A. radiolucent enlargement of the pulp cavity.
- B. radiolucency around the apex of the root.
- C. radiolucency on the surfaces of the root.
- D. localized radiopacities in the pulp cavity.
- E. radiopacity around the apex of the root.

Which of the following sites is formed exclusively by endochondral bone ossification?

- A. Cranial vault.
- B. Cranial base.
- C. Maxilla.
- D. Mandible.

Which of the following lesions is benign?

- A. Osteosarcoma.
- B. Chondrosarcoma.
- C. Ewing sarcoma.
- D. Osteoblastoma.
- E. Multiple myeloma.

For an avulsed, fully developed permanent tooth that has been reimplanted, a favourable prognosis is most affected by the

- A. length of time the tooth has been out of the mouth.
- B. use of an appropriate antibiotic.
- C. effectiveness of the irrigation of the socket.
- D. rigidity of the splint.
- E. thoroughness of the curettage of the root surface.

A crown with an acceptable marginal fit on the original die has a uniform margin opening of 1mm when placed intraorally. Which of the following should be modified to address this problem?

- A. The proximal surfaces of the crown.
- B. The occlusal surface of the crown.
- C. The internal surfaces of the crown.
- D. The occlusal surface of the preparation.

A metal in the wrought condition differs from the same metal in the cast condition in that

- A. the grains are deformed and elongated.
- B. the yield strength and hardness are increased.
- C. if heated sufficiently, recrystallization can occur.
- D. All of the above.

In an X ray tube, electron emission occurs at the

- A. focusing cup.
- B. filament.
- C. target.
- D. anode.

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For a mandibular denture impression, the muscle determining the form of the lingual flange in the molar region is

- A. mylohyoid.
- B. geniohyoid.
- C. medial pterygoid.
- D. lateral pterygoid.
- E. genioglossus.

Median anterior maxillary cysts are found in

- A. the zygomatic process of the maxilla.
- B. the incisive canal.
- C. the uvula.
- D. the hamular process.

The first drug used for the management of anaphylaxis is

- A. atropine.
- B. diphenhydramine.
- C. epinephrine.
- D. hydrocortisone.
- E. nitroglycerin.

The most appropriate treatment for a permanent molar with occlusal caries confined to the enamel of the central pit is a/an

- A. amalgam.
- B. composite resin.
- C. fluoride varnish application.
- D. preventive resin restoration.

Correction of a lingual crossbite of tooth 1.2 has the best long term prognosis if 1.2 is

- A. lingually inclined, with 50% overbite.
- B. ideally inclined, with 50% overbite.
- C. lingually inclined, with 5% overbite.
- D. ideally inclined, with 5% overbite.

Distortion of a wax pattern is mainly due to

- A. insufficient plasticity during manipulation.
- B. insufficient bulk of material.
- C. relaxation of stresses introduced during manipulation.
- D. insufficient paraffin ingredient.
- E. refrigeration.

During tooth development, epithelial mesenchymal interactions function

- A. only at the initial stages when tooth positions are being laid down.
- B. through the exchange of small molecules.
- C. when preameloblasts signal preodontoblasts to start producing dentin.
- D. only with epithelium and mesenchyme from tooth-forming regions.

The interocclusal distance (freeway space)

- A. is the difference between occlusal vertical dimension and hinge axis registration.
- B. is the difference between occlusal vertical dimension and rest vertical dimension.
- C. is usually 10mm in the premolar region.
- D. is the distance between centric occlusion and centric relation.

Which of the following antibiotics is the LEAST appropriate to be prescribed to a pregnant patient?

- A. Amoxicillin.
- B. Tetracycline.
- C. Erythromycin.
- D. Penicillin.

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Which clinical sign might be associated with an acute apical abscess (acute periradicular abscess)?

- A. A positive reaction to the electric pulp tester.
- B. A positive reaction to percussion.
- C. A positive reaction of short duration to cold.
- D. Presence of a sinus tract.

Bilateral dislocated fractures of the mandibular condyles result in

- A. anterior open bite.
- B. anesthesia of the mental nerves.
- C. inability to open the mouth.
- D. inability to bring the molars into contact.

Which of the following will increase the flexibility of a removable partial denture clasp arm?

- A. Increasing the length.
- B. Increasing the diameter.
- C. Decreasing the taper.
- D. Decreasing the retentive undercut.

Which of the following should be checked first when a cast gold crown that fits on its die cannot be seated on its abutment?

- A. The occlusal contacts.
- B. The taper of the preparation.
- C. The proximal contacts.
- D. The impression used to pour the cast.

A 12 year old child presents with characteristic tetracycline discoloration of the maxillary and mandibular incisors and permanent first molars. The probable age at which this child received tetracycline therapy was

- A. 6 years.
- B. 4 years.
- C. 1 year.
- D. before birth.

Oral foci of infection are of greatest clinical significance in the presence of

- A. polycythemia vera.
- B. iritis and uveitis.
- C. eczema and urticaria.
- D. rheumatoid arthritis.
- E. subacute bacterial endocarditis.

Which of the following types of publications is the most reliable source for making evidence-based clinical decisions?

- A. Dental manufacturer's product information.
- B. Professional association journals.
- C. Systematic review articles from dental research journals.
- D. Case reports in dental journals.

In cephalometric analysis of children with malocclusion, the angle ANB is frequently used. In patients with severe Class II malocclusion, this angle is

- A. greater than the normal.
- B. less than the normal.
- C. normal.

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Gingivitis is characterized by

- A. bleeding on probing.
- B. loss of attachment.
- C. alveolar bone loss.
- D. apical migration of the junctional epithelium.

The most appropriate treatment of a true combined endodontic-periodontal lesion is

- A. periodontal surgical therapy only.
- B. nonsurgical root canal therapy only.
- C. periodontal surgical therapy before non-surgical endodontic treatment.
- D. nonsurgical root canal therapy before periodontal therapy.

Which of the following principle fibre groups of the periodontal ligament is the most numerous and provides the main support for the tooth?

- A. Horizontal.
- B. Transseptal.
- C. Oblique.
- D. Gingival.

A patient, when in full intercuspation, shows a right side posterior crossbite and a lower midline that is deviated to the right. At initial contact there are bilateral posterior crossbites and coincident midlines. The most likely cause of this finding is

- A. severe temporomandibular dysfunction.
- B. two ideal occlusions.
- C. true unilateral crossbite.
- D. occlusal interference and functional shift.

A metal ceramic posterior fixed partial denture pontic should

- A. be constructed to have an occlusal surface one quarter the width of the tooth it replaces.
- B. be constructed to have an occlusal surface wider than the width of the tooth it replaces.
- C. cover as much mucosa as possible.
- D. provide adequate embrasure spaces.

On a bite-wing radiograph, a smooth surface proximal carious lesion in enamel appears as a triangle with the

- A. base at the dentino-enamel junction.
- B. base facing toward the pulp.
- C. apex pointing to the enamel surface.
- D. apex pointing to the dentino-enamel junction.

The protective role of junctional epithelium is aided by its increased number of

- A. cell layers.
- B. intercellular spaces.
- C. cell-cell adhesions.
- D. collagen fibres.

While the teeth are set in wax, dentures are tried in to

- A. verify the maxillomandibular records.
- B. verify the vertical dimension of occlusion.
- C. evaluate esthetics.
- D. All of the above.

Most commonly, palatal exostoses occur at the level of

- A. incisors.
- B. canines.
- C. premolars.
- D. molars.

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The level of orthodontic force should be reduced when translating periodontally involved teeth because of the increased potential for

- A. elevated osteoclastic activity.
- B. occlusal interferences.
- C. gingival recession.
- D. root resorption.
- E. crown tipping

A draining fistula of short duration related to a tooth undergoing endodontic therapy requires

- A. irrigation of canals.
- B. antibiotics.
- C. surgical excision.
- D. no special treatment.

In periodontal flap surgery, the initial incision is made to

- A. remove the sulcular lining of the pocket.
- B. aid in healing.
- C. sever the attachment of the oblique fibres of the periodontal ligament.
- D. excise the keratinized gingiva.

The most common cause of persistent post-operative sensitivity following the placement of posterior composite resin restorations is

- A. hyperocclusion.
- B. microleakage.
- C. acidic primers.
- D. residual caries.

All of the following are parts of the temporal bone EXCEPT the

- A. mastoid.
- B. hamulus.
- C. tympanic.
- D. zygomatic.

Which of the following conditions CONTRAINDICATES routine dental treatment in the dental office?

- A. Hypothyroidism.
- B. Recent (15 days) myocardial infarct.
- C. Second trimester pregnancy.
- D. Insulin-dependent diabetes.

A 3 year old presents with subluxated maxillary central incisors. The occlusion is normal. What is the most appropriate management?

- A. Reposition the teeth and place the child on a soft diet.
- B. Reposition the teeth and splint for 7 to 10 days.
- C. Place the child on a soft diet and monitor the teeth.
- D. Extract the traumatized teeth.

The primary objective of periodontal flap surgery in the treatment of periodontitis is to

- A. remove granulation tissue.
- B. provide access for periodontal debridement.
- C. add bone support.
- D. correct gingival architecture.

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A 4 year old child presents for an emergency examination. The mother is concerned about white patches on the child's tongue. The child has no pain, eats and drinks normally and has a history of repeated use of amoxicillin for otitis media. What is the most likely diagnosis?

- A. Primary herpetic gingivostomatitis.
- B. Geographic tongue.
- C. Candidiasis.
- D. Hairy tongue.

Inflammation involving the bone marrow of the jaw caused by infection from a tooth or the periodontium is called

- A. osteoma.
- B. periostitis.
- C. osteomyelitis.
- D. osteosclerosis.
- E. pericementitis.

A distal extension removable partial denture is one that receives its support

- A. from the tissues only.
- B. mostly from the tissues.
- C. mostly from the abutment teeth.
- D. equally from the abutment teeth and the tissues.

Which of the following drugs will have the most rapid onset of action?

- A. Oral ibuprofen.
- B. Intramuscular penicillin.
- C. Subcutaneous epinephrine.
- D. Inhaled nitrous oxide.

After root planing and plaque control instruction, a 22 year old patient still shows swollen and edematous gingiva with 3mm pockets and a 4 to 6mm band of attached gingiva. The most appropriate management is

- A. an apically repositioned split thickness flap.
- B. an apically repositioned full thickness flap.
- C. gingivectomy.
- D. further plaque control instruction.
- E. occlusal adjustment.

Which of the following is the most likely cause of periodontal pocket formation following crown preparation?

- A. Inadequate use of water with the high-speed handpiece.
- B. Invasion of the biological width.
- C. Existing periodontal disease.
- D. The use of chemical retraction agents.

Which one of the following statements is FALSE?

- A. Stippling in healthy gingiva varies with location.
- B. Healthy gingiva does not bleed.
- C. The interdental papillae in the posterior regions are broader than in the anterior region.
- D. Healthy gingiva is bright red in color.

Cardiovascular collapse caused by a high circulating dose of a local anesthetic is due to

- A. vagal stimulation.
- B. histamine release.
- C. myocardial depression.
- D. medullary stimulation.

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In general, a pigmented macule measuring 4mm in diameter should be treated by

- A. incisional biopsy.
- B. excisional biopsy.
- C. exfoliative cytology.
- D. carbon dioxide laser.
- E. electrocautery.

Excessively dark analog radiographs are the result of

- A. underdevelopment.
- B. insufficient exposure.
- C. backward placement of the film.
- D. excessive milliamperage.

A 3 year old requires the extraction of a deciduous maxillary second molar. The local anesthetic technique of choice is

- A. a posterior superior alveolar block.
- B. buccal and palatal infiltration.
- C. a tuberosity block plus subperiosteal infiltration of the mesio-buccal root.
- D. an infra-orbital block.

Which of the following is a possible cause of a single tooth anterior crossbite?

- A. An abnormal labial frenum.
- B. A skeletal Angle Class II malocclusion.
- C. The early loss of a primary maxillary canine.
- D. An over-retained primary maxillary incisor.

A 51 year old patient is scheduled for extraction of two carious mandibular molars. The patient has a history of deep vein thrombosis for which he is taking warfarin. Which presurgical laboratory test result must be known?

- A. Platelet count.
- B. Bleeding time.
- C. Complete blood count.
- D. International Normalized Ratio (INR).

Which of the following is the most potent corticosteroid?

- A. Cortisone.
- B. Dexamethasone.
- C. Hydrocortisone.
- D. Prednisone.
- E. Triamcinolone.

Following radiation therapy to the mandible, extraction of mandibular teeth is most likely to result in

- A. fracture.
- B. actinomycosis.
- C. osteoradionecrosis.
- D. soft tissue necrosis.
- E. development of malignancy.

Failure of bone resorption over an erupting tooth is due to lack of

- A. fibroblasts.
- B. osteocytes.
- C. osteoclasts.
- D. neutrophils.

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Which of the following is associated with the use of penicillin?

- A. High toxicity.
- B. Allergenicity.
- C. Development of tolerance.
- D. Renal failure.

The absence of lamina dura on a dental radiograph is suggestive of

- A. hyperparathyroidism.
- B. Paget's disease.
- C. hyperthyroidism.
- D. vitamin D deficiency.
- E. acromegaly.

When developer solution is old and oxydized, radiographs will appear

- A. blue.
- B. brown.
- C. gray.
- D. black.

In a 4 year old child, the primary central incisor has discoloured following a traumatic injury. The treatment of choice is

- A. pulpotomy.
- B. pulpectomy.
- C. observation.
- D. extraction.

Dental plaque developing on tooth surfaces will result in

- A. demineralization of enamel.
- B. periodontal disease.
- C. amelogenesis imperfecta.
- D. A. and B.

A child has received an inferior alveolar nerve block using 1.5ml of lidocaine 2% with 1:100,000 epinephrine and shows signs that the block was effective. However, during placement of a rubber dam clamp on the permanent first molar, the child complains that the "tooth ring" is hurting. Which of the following is the most appropriate management?

- A. Wait 15 minutes until more profound anesthesia is achieved.
- B. Anesthetize the lingual nerve with the remaining lidocaine.
- C. Anesthetize the long buccal nerve with the remaining lidocaine.
- D. Proceed with treatment without rubber dam.

In an 8 year old patient the most appropriate treatment of a vital first permanent molar with closed apices and a large carious exposure is

- A. pulpotomy with MTA.
- B. pulpectomy.
- C. direct pulp capping with calcium hydroxide.
- D. indirect pulp capping.

Sodium salicylate is administered to a patient with rheumatoid arthritis because it is a/an

- A. anti-inflammatory agent.
- B. sedative.
- C. antiseptic.
- D. antiplatelet agent.

Polymerization shrinkage associated with the setting of composite resins is a result of

- A. primary bonds replacing secondary bonds.
- B. reaction by-products evaporating from the set material.
- C. unreacted monomer evaporating from the set material.
- D. temperature changes occurring during the polymerization reaction.

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In a removable partial denture, the major connector should begin 3-6mm from the free gingival margin in order to

- A. improve phonetics.
- B. allow sufficient length for the minor connectors.
- C. prevent inflammation of the gingival tissues.
- D. prevent rotation of the major connector in an antero-posterior direction.

When performing a periodontal screening and recording (PSR) for a patient, the code asterisk (*) is used for a sextant when

- A. a tooth in the sextant needs to be extracted.
- B. all the teeth in the sextant are missing.
- C. a mucogingival problem is present.
- D. a tooth in the sextant has supraerupted.

Compared to acetylsalicylic acid, long-term use of celecoxib is associated with

- A. reduced gastrointestinal ulcerations.
- B. increased cardiac protection.
- C. lower renal toxicity.
- D. increased safety for asthmatic patients.
- E. increased platelet aggregation inhibition.

Tissue from a multilocular radiolucent area of the posterior mandible microscopically shows follicular areas lined with cylindrical cells resembling the enamel organ. The most likely diagnosis is a/an

- A. neurofibroma.
- B. ameloblastoma.
- C. central fibroma.
- D. periodontal cyst.
- E. dentigerous cyst.

Tooth 2.5 had nonsurgical root canal treatment performed 10 years ago. The tooth became sensitive to percussion in the last 6 months and the radiograph shows apical rarefaction. What is the most appropriate management?

- A. Prescribe an antibiotic.
- B. Prescribe an analgesic.
- C. Follow-up in 6 months.
- D. Endodontic retreatment.

The most likely reason for porcelain fracturing off a long and narrow metal-ceramic fixed partial denture is that the framework alloy had an inadequate

- A. elastic modulus.
- B. proportional limit.
- C. fracture toughness.
- D. tensile strength.

Myxedema is associated with

- A. insufficient parathyroid hormone.
- B. excessive parathyroid hormone.
- C. insufficient thyroid hormone.
- D. excessive thyroid hormone.

The most common complaint of a patient with gingivitis is

- A. bleeding on brushing.
- B. painful gums.
- C. changes in the texture of the gingiva.
- D. bad breath.

Which one of the following is NOT a contraindication to ibuprofen?

- A. Concurrent use of alcohol.
- B. Asthmatic reaction to acetylsalicylic acid.
- C. An allergy to acetaminophen.
- D. A gastric ulcer.

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A diastema between two maxillary central permanent incisors could be associated with the following, EXCEPT

- A. a mesiodens.
- B. a congenital absence of permanent maxillary lateral incisors.
- C. a large labial frenum.
- D. large nasal septum.

Characteristics of Peutz-Jeghers syndrome include

- A. melanin pigmentation of the lips.
- B. yellowish spots on the oral mucosa.
- C. small, papillary lesions on the palate.
- D. a rhomboid-shaped red patch on the dorsum of the tongue.

Intermittent painful swelling in the submandibular region that increases at mealtime is indicative of

- A. a ranula.
- B. a blockage of Wharton's duct.
- C. Ludwig's angina.
- D. a blockage of Stensen's duct.
- E. an epidemic parotitis.

A therapeutic advantage of penicillin V over penicillin G is

- A. greater resistance to penicillinase.
- B. broader antibacterial spectrum.
- C. greater absorption when given orally.
- D. slower renal excretion.
- E. None of the above.

Which is the most appropriate method to minimize loss of dental amalgam and mercury from dental offices into sewage systems?

- A. Use of ISO approved amalgam separators.
- B. Storage of amalgam capsules in sealed containers.
- C. Use of mercury vapour scavengers.
- D. Disposal of scrap amalgam in a landfill site.

Which of the following studies provides the best evidence for the possible association between community water fluoridation and hip fracture?

- A. Ecological.
- B. Case-series.
- C. Cross-sectional.
- D. Retrospective cohort.

A 6 year old patient has a larger than average diastema between the maxillary central incisors. The radiographic examination shows a mesiodens. In order to manage the diastema, you should extract the mesiodens

- A. after its complete eruption.
- B. once the patient has reached the age of 12.
- C. only if it develops into a cystic lesion.
- D. as soon as possible.

Which of the following statements is true regarding endodontically treated teeth?

- A. These teeth are more brittle than teeth with vital pulps due to desiccation.
- B. Fracture of these teeth are usually due to loss of coronal tooth structure.
- C. These teeth require full coverage to prevent fracture.
- D. A post provides strength for these teeth.

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Post-immunization serological test results for a health care worker who has completed the series of vaccinations against hepatitis B reveals that their anti-HBsAg is less than the value required for immunity. The health care worker should

- A. receive one additional vaccination followed by post-immunization testing.
- B. repeat the full series of hepatitis B vaccinations followed by post-immunization testing.
- C. refrain from performing any exposure-prone procedures for a period of 3-6 months followed by a full series of hepatitis B vaccinations.
- D. have liver function tests performed to assess liver damage from a previous hepatitis B infection.

The highest risk of radiation-induced congenital malformation occurs during the

- A. first trimester.
- B. second trimester.
- C. third trimester.
- D. neonatal period.

Dysplastic lesions of squamous epithelium occur most often on the

- A. palate.
- B. gingiva.
- C. buccal mucosa.
- D. dorsum of the tongue.
- E. floor of the mouth.

When odontoblasts are destroyed, new odontoblasts are derived from

- A. existing odontoblasts.
- B. macrophages.
- C. neural crest cells.
- D. undifferentiated cells.

C-factor (configuration factor) is defined as the ratio of

- A. width to height in the upper anterior teeth.
- B. mercury to alloy in a dental amalgam.
- C. bonded to unbonded surfaces in a preparation.
- D. filler to monomer in a composite resin.

Alveolar bone is undergoing remodeling

- A. through the primary dentition.
- B. until the end of mixed dentition.
- C. until the complete eruption of permanent teeth.
- D. throughout life.

Which permanent maxillary molar root has a higher incidence of two canals?

- A. Distobuccal root of the first molar.
- B. Distobuccal root of the second molar.
- C. Mesibuccal root of the first molar.
- D. Mesibuccal root of the second molar.

The joining together of two teeth in the root portion through cemental union is known as

- A. gemination.
- B. fusion.
- C. twinning.
- D. concrescence.

Ludwig's angina may cause death by

- A. heart failure.
- B. asphyxia.
- C. convulsions.
- D. paralysis of muscles of respiration.
- E. pyemia.

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Hydantoin treatment causes gingival hyperplasia as a result of a/an

- A. increased number of epithelial cells.
- B. thickening of the basement membrane.
- C. increased production of proteoglycans.

All of the following are well documented initiating factors of hairy tongue EXCEPT

- A. candidiasis.
- B. mouth rinses.
- C. antibiotics.
- D. systemic corticosteroids.
- E. radiotherapy to the head and neck.

A clinical sign of an acute disc dislocation without reduction in the right TMJ is

- A. deflection of the mandible to the left at maximal mouth opening.
- B. deflection of the mandible to the right during protrusion.
- C. maximal opening of 55mm.
- D. reciprocal click in the right TMJ.
- E. limitation in right laterotrusion.

Tooth 3.6 had endodontic treatment completed 10 years ago. It is asymptomatic but a periapical radiograph reveals a 5mm radiolucency associated with the distal root apex. The surrounding soft tissues are within normal limits. The most likely diagnosis for tooth 3.6 is a/an

- A. symptomatic apical periodontitis (acute periradicular periodontitis).
- B. acute apical abscess (acute periradicular abscess).
- C. asymptomatic apical periodontitis (chronic periradicular periodontitis).
- D. chronic apical abscess (chronic periradicular abscess).

Following a simple extraction of tooth 4.7, hemostasis was achieved. Forty-eight hours later, there is renewed bleeding from the extraction site. Firm pressure fails to achieve hemostasis. The most appropriate management is to

- A. give local anesthetic, pack and suture.
- B. apply firm pressure and ice for 10 minutes.
- C. obtain an international normalized ratio (INR) and a complete blood count.
- D. give local anesthetic and electrocauterize the socket.

Which properties increase the tendency of a drug to cross cell membranes?

- A. Non-ionized and high lipid solubility.
- B. Non-ionized and low lipid solubility.
- C. Ionized and low lipid solubility.
- D. Ionized and water solubility.

Which of the following has both ectodermal and mesodermal tissues?

- A. Ameloblastoma.
- B. Cementoblastoma.
- C. Odontoma.
- D. Odontogenic myxoma.

The most likely diagnosis of a 1cm mobile mass in the parotid is

- A. mucoepidermoid carcinoma.
- B. pleomorphic adenoma.
- C. adenoid cystic carcinoma.
- D. acinic cell carcinoma.
- E. Warthin's tumour.

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Premature loss of primary molars may result in

- A. decrease in the curve of Spee.
- B. decrease in the overbite and overjet.
- C. increase in frequency of eruption irregularities.
- D. increase in vertical dimension.

Ethics is most concerned with

- A. patient rights.
- B. standard of right and wrong.
- C. legal liability.
- D. provincial codes of conduct.

Which thermal property is most important in selecting a restorative material to protect the pulp from excessive temperature changes?

- A. conductivity.
- B. diffusivity.
- C. expansion coefficient.
- D. modulus.

A fracture through the angle of the mandible may result in an upward displacement of the proximal fragment. Which of the following groups of muscles produce this movement?

- A. Digastric and geniohyoid.
- B. Masseter, digastric and lateral pterygoid.
- C. Masseter, temporal and lateral pterygoid.
- D. Masseter, temporal and medial pterygoid.

Which of the following does NOT need to be considered when assessing whether exposure of bodily fluids to a dental health care personnel is significant?

- A. Patient's gender.
- B. Type of bodily fluid.
- C. Infectious disease status of the patient.
- D. Amount of bodily fluid involved in the injury.

Patients with anemia have an increased risk of

- A. bacterial infections.
- B. prolonged bleeding.
- C. exercise intolerance.

In periodontal surgery, it is important to determine the position of the base of the pocket to the

- A. cemento-enamel junction.
- B. tip of the inter-dental papilla.
- C. furcation.
- D. mucogingival junction.

Which of the following does NOT influence the rate of induction during inhalation anesthesia?

- A. Pulmonary ventilation.
- B. Blood supply to the lungs.
- C. Hemoglobin content of the blood.
- D. Concentration of the anesthetic in the inspired mixture.
- E. Solubility of the anesthetic in blood.

A 10-15 second application of 37% phosphoric acid on prepared dentin will result in all of the following EXCEPT

- A. elimination of the smear layer.
- B. opening of the dentinal tubules.
- C. demineralization of the superficial dentin.
- D. elimination of the collagen fibres.

Administration of succinylcholine to a patient deficient in serum cholinesterase would most likely result in

- A. convulsions.
- B. hypertension.
- C. prolonged apnea.
- D. acute asthmatic attack.

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Sensitivity related to a noncarious cervical lesion is most likely explained by the

- A. thermal conductivity of dentin.
- B. hydrodynamic theory.
- C. dentinogenesis process.
- D. neurogate mechanism.
- E. inorganic component of dentin.

What is the most likely cause of sensitivity related to a noncarious cervical lesion?

- A. Loss of dentin bulk.
- B. Increased number of open dentinal tubules.
- C. Bacterial contamination.
- D. Hyperocclusion.

After a thermal stimulus has been removed from a tooth persistent pain suggests

- A. a normal pulp.
- B. pulp necrosis.
- C. reversible pulpitis.
- D. irreversible pulpitis.
- E. exposed cervical dentin.

Which of the following indicates a failure of a dental implant?

- A. Gingival inflammation.
- B. Horizontal bone loss of one third of the implant length.
- C. Mobility.
- D. Increased probing depths.

When compared to parallel-sided posts, tapered posts

- A. require less dentin removal.
- B. exert a wedge effect on the remaining dentin.
- C. are less consistent with root anatomy.
- D. provide better retention.

An 8 year old patient has a 3mm diastema between the erupting permanent maxillary central incisors. What is the most likely cause?

- A. Failure of fusion of the premaxillae.
- B. Abnormal labial frenum.
- C. Supernumerary tooth in the midline.
- D. Normal eruption pattern.

Which of the following conditions should NOT commonly be treated during the mixed dentition stage?

- A. Anterior cross-bite.
- B. Posterior cross-bite.
- C. Maxillary incisor rotation.
- D. Class II molar relationship.

Which of the following is NOT a characteristic of an acute apical abscess (acute periradicular abscess)?

- A. Pain on percussion.
- B. Tooth feels elongated.
- C. Pain to a cold stimulus.
- D. Pain on palpation.

Subgingival calculus

- A. accumulates predominantly on mandibular incisors and maxillary molars.
- B. derives its dark colour from food and drinks.
- C. is the cause of periodontitis.
- D. is mineralized subgingival plaque.

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Polysulfide rubber base impressions should be

- A. poured immediately.
- B. poured within an hour.
- C. immersed in a fixing solution before pouring.
- D. immersed in water 10 minutes before pouring.
- E. coated with a thin film of separating medium.

Fibrous dysplasia of the jaws

- A. is of known etiology.
- B. is premalignant.
- C. has monostotic and polyostotic forms.
- D. begins in the fifth decade.
- E. is bilaterally symmetrical.

Enlargement of the thyroid gland can be caused by

- A. insufficient fluoride.
- B. excess iodine.
- C. insufficient iodine.
- D. excess calcium.
- E. excess sodium.

Which of the following is NOT correct regarding nitroglycerin used for medical emergencies?

- A. It is indicated for the definitive management of angina pectoris.
- B. It is indicated for the early management of a myocardial infarction.
- C. It should be administered sublingually.
- D. Its administration will increase blood pressure.
- E. Exposure to air or light shortens the shelf-life of the tablets.

Which of the following is the greatest risk factor for rampant caries in children?

- A. Frequent ingestion of polysaccharides.
- B. Frequent ingestion of high sucrose-containing foods.
- C. Severe enamel hypoplasia.
- D. Deficiency of vitamin D.

Impression trays should be

- A. rigid.
- B. flexible enough to permit easy insertion.
- C. carefully polished on the interior.
- D. held in place by the patient.

A 3 year old presents 30 minutes after facial trauma. Tooth 5.1 is avulsed. The father has recovered the tooth and has kept it in a wet napkin. Which of the following is the most appropriate management?

- A. Replant the tooth followed by endodontic treatments in 2 weeks.
- B. Perform a pulpectomy, then replant the tooth.
- C. Replant the tooth and monitor for possible endodontic treatment.
- D. Do not replant the tooth.

Which of the following types of bone contain the insertions of the periodontal ligament fibres?

- A. Woven.
- B. Bundle.
- C. Lamellar.
- D. Cortical.

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A 22 year old presents with a fracture of the incisal third of tooth 2.1 exposing a small amount of dentin. The fracture occurred one hour previously. There is no mobility of the tooth but the patient complains that it is rough and sensitive to cold. The most appropriate emergency treatment is to

- A. open the pulp chamber, clean the canal and temporarily close with zinc oxide and eugenol.
- B. smooth the surrounding enamel and apply glass ionomer cement.
- C. smooth the surrounding enamel and apply a calcium hydroxide cement.
- D. place a provisional (temporary) crown.

GABA is a/an

- A. drug binding to benzodiazepine receptor.
- B. neurotrophic factor.
- C. inhibitory neurotransmitter.
- D. excitatory neurotransmitter.

In the development of gingivitis, the fibre groups first lost are

- A. oblique.
- B. horizontal.
- C. transeptal.
- D. free gingival.

Composite resin is a satisfactory core material for endodontically treated teeth provided

- A. the resin has a high contrast colour with tooth structure.
- B. there is an adequate ferrule.
- C. the resin is autopolymerizing.
- D. subsequent crown margins are not located on cementum.

Osteoradionecrosis and medication related osteonecrosis

- A. have identical pathophysiology.
- B. demonstrate similar clinical presentation.
- C. occur more frequently in the maxilla.
- D. can be prevented by hyperbaric oxygen therapy.

Which of the following materials/techniques is CONTRAINDICATED when using polyvinyl siloxane impression materials?

- A. Displacement cords.
- B. Electrosurgery.
- C. Aluminum sulfate saturated cord.
- D. Aluminum chloride impregnated cord.

Which of the following is NOT a component of a dental cartridge containing 2% lidocaine with 1:100,000 epinephrine?

- A. Methylparaben.
- B. Water.
- C. Sodium metabisulphite.
- D. Sodium chloride.

The most common medical emergency in the dental office is a/an

- A. allergic reaction.
- B. cerebrovascular accident.
- C. myocardial infarction.
- D. seizure.
- E. syncopal episode.

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A patient with a history of infective endocarditis is currently taking penicillin for an unrelated condition. The most appropriate management for periodontal therapy for this patient is to

- A. prescribe a different antibiotic.
- B. increase the dosage of penicillin.
- C. maintain penicillin at the present level.
- D. use chlorhexidine solution as a rinse prior to therapy.

The predominant type of movement produced by a finger spring on a removable appliance is

- A. torque.
- B. tipping.
- C. rotation.
- D. translation.

A characteristic sign of aggressive periodontitis in an adolescent (juvenile periodontitis) is

- A. marginal gingivitis.
- B. painful, burning gingivae.
- C. hyperplastic gingivitis.
- D. drifting of the teeth.

The majority of nitrous oxide is eliminated from a patient's circulatory system through the

- A. lungs.
- B. kidneys.
- C. liver enzymes.
- D. plasma.
- E. GI tract.

The most appropriate emergency management of a mature permanent tooth with symptomatic irreversible pulpitis is

- A. pulpectomy.
- B. incision and drainage.
- C. trephination.
- D. apical surgery.

Which of the following types of permanent teeth is more likely to present with a C-shape canal anatomy?

- A. Mandibular first premolars.
- B. Maxillary first premolars.
- C. Mandibular second molars.
- D. Maxillary second molars.

Gingival enlargement observed in acute leukemia is due to

- A. reactive fibrosis.
- B. edema.
- C. tissue infiltration by neoplastic cells.
- D. capillary fragility.

Following periodontal flap surgery, the most common cause of recurrence of pockets is

- A. systemic disease.
- B. traumatic occlusion.
- C. failure to splint.
- D. poor oral hygiene.

Which of the following does NOT affect probing depth measurement?

- A. Probing force.
- B. Diameter of the probe tip.
- C. Angulation of the probe.
- D. Subgingival calculus.
- E. Position of the mucogingival junction.

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Which of the following is an indication for a pulpotomy on a primary tooth?

- A. Radiographic evidence of internal root resorption.
- B. Involvement of interradicular bone with no fistula.
- C. Involvement of interradicular bone with a fistula.
- D. Signs and symptoms of reversible pulpitis.

A 25 year old female in her first trimester of pregnancy presents with an acute dental infection. Which of the following is CONTRAINDICATED for this patient?

- A. Take a radiograph.
- B. Prescription of penicillin V.
- C. Administration of 2% xylocaine with 1:100,000 epinephrine.
- D. Acetylsalicylic acid for pain control.

The use of benzodiazepine in the elderly to manage anxiety

- A. should be done with caution as it is metabolized more slowly.
- B. is a safe and reliable practice.
- C. increases the incidence of insomnia.
- D. requires higher doses for clinical effects.

The periodontium is best able to tolerate forces directed to a tooth

- A. horizontally.
- B. laterally.
- C. obliquely.
- D. vertically.

A removable full-arch occlusal splint is used to

- A. reduce pocket formation.
- B. allow for individual tooth movement.
- C. reduce unfavorable forces on teeth.
- D. permit eruption or elongation of teeth.

A removable partial denture is preferable to a fixed bridge when the

- A. edentulous areas are large.
- B. abutment teeth have large undercuts.
- C. abutment teeth are rotated.
- D. abutment teeth are tipped.
- E. residual ridges are severely resorbed.

A patient presenting with diplopia, exophthalmos, nasal bleeding and swelling, may suffer from a fracture of the

- A. neck of the condyle.
- B. body of the mandible.
- C. zygomatic bone.
- D. maxillary tuberosity.

Which of the following muscles has two separate functions in mandibular movement?

- A. Masseter.
- B. Geniohyoid.
- C. External (lateral) pterygoid.
- D. Buccinator.

The most radiosensitive salivary gland is the

- A. sublingual.
- B. submandibular.
- C. parotid.

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When comparing ibuprofen and celecoxib used in therapeutic doses, which of the following statements is true?

- A. Ibuprofen inhibits mostly COX-1, celecoxib inhibits mostly COX-2.
- B. Ibuprofen inhibits both COX-1 and COX-2, celecoxib inhibits mostly COX-2.
- C. Ibuprofen inhibits mostly COX-1, celecoxib inhibits both COX-1 and COX-2.
- D. Both ibuprofen and celecoxib are potent inhibitors of COX-1 and COX-2.

Which of the following lesions is most commonly found in the anterior region of the mandible?

- A. Ameloblastoma.
- B. Calcifying epithelial odontogenic tumor.
- C. Central cementifying fibroma.
- D. Periapical osseous dysplasia (periapical cemento-osseous dysplasia).

Resective osseous surgery is best suited for periodontal sites with

- A. severe attachment loss.
- B. severe intrabony defects.
- C. teeth with short roots.
- D. early to moderate bone loss.

The predominant microorganisms in deep dental caries are

- A. *Streptococcus mutans*.
- B. *Lactobacillus* species.
- C. *Streptococcus salivarius*.
- D. *Actinomyces* species.

The greatest risk to dental health care personnel for acquiring a blood-borne pathogen is through

- A. blood spatter on intact skin.
- B. salivary contamination of clinic jackets.
- C. manufacturing defects in gloves.
- D. percutaneous injury.

Multiple supernumerary teeth are most commonly found in

- A. cherubism.
- B. cretinism.
- C. hypothyroidism.
- D. cleidocranial dysplasia.
- E. Down's syndrome.

A gingival pocket (pseudopocket) is characterized by

- A. loss of attachment.
- B. loss of alveolar bone.
- C. deepened probing depth.

Which of the following instruments can be used for placing gingival bevels on cast gold inlay preparations?

- A. Margin trimmers.
- B. Enamel hatchets.
- C. Diamond burs.
- D. Small diamond discs.

Which permanent teeth will commonly be present in an 8 year old child?

- A. All central and lateral incisors.
- B. All central and lateral incisors and first molars.
- C. All central and lateral incisors, first molars and first premolars.
- D. Only mandibular central and lateral incisors and first molars.

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In severe gingival recession, if the marginal tissue extends to the mucogingival junction, and there is loss of interdental tissue, the likelihood of complete root coverage after gingival grafting is

- A. greater than 75%.
- B. between 25 and 50%.
- C. less than 20%.

The anticariogenic effect of systemic fluoride is related principally to the

- A. bactericidal action on oral flora.
- B. bacteriostatic action on oral flora.
- C. buffering effect on acids produced by cariogenic bacteria.
- D. alteration in the composition of the enamel.

Which of the following clinical conditions is the most serious?

- A. Acute apical abscess of a mandibular central incisor.
- B. Mid facial cellulitis.
- C. Chronic apical abscess of a mandibular third molar.
- D. Infected dentigerous cyst.

Gold alloy can be given a white colour by introducing sufficient

- A. zinc.
- B. copper.
- C. cadmium.
- D. palladium.

Detection of periodontal pockets is done by

- A. visual examination.
- B. radiographic examination.
- C. testing for mobility of teeth.
- D. probing.

In the absence of its permanent successor, a primary first molar in a 7 year old

- A. should be treated endodontically to prevent root resorption.
- B. may remain for years with no significant resorption.
- C. should be extracted.
- D. is more susceptible to dental caries.

When making an indirect wax pattern on a stone die, improved adaptation will result from

- A. the use of a separating medium.
- B. soaking the die in cold water.
- C. burnishing the wax to the die.
- D. melting the wax onto the die.

A 43 year old patient with a history of severe asthma and nasal polyps has an emergency pulpotomy. Assuming daily recommended doses are followed, which of the following is the most appropriate drug management?

- A. Acetaminophen 650 mg every 4 hours.
- B. Naproxen 250 mg every 6-8 hours.
- C. Ketorolac 10 mg every 4 hours.
- D. Acetylsalicylic acid 650 mg every 4 hours.

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In addition to iron, calcium and folate, which of the following nutrients is of special concern during pregnancy?

- A. Vitamin B₁₂.
- B. Pyridoxine.
- C. Vitamin D.
- D. Ascorbic acid.

In an acute apical abscess (acute periapical abscess), which of the following teeth is most likely to spread infection to the submandibular space?

- A. Mandibular second bicuspid.
- B. Maxillary third molar.
- C. Mandibular first molar.
- D. Mandibular third molar.
- E. Mandibular lateral incisor.

The most frequent cause of malocclusion is

- A. thumbsucking.
- B. mouth breathing.
- C. heredity.
- D. ectopic eruption.

Coxibs are more appropriate than standard NSAIDs for patients with a history of

- A. renal dysfunction.
- B. asthma.
- C. gastrointestinal bleeding.
- D. cardiac problems.

A 78 year old patient presents for the extraction of a symptomatic carious erupted tooth 1.8. Upon elevation, a loud cracking sound is heard and excessive mobility is noted. Upon palpation, 2/3 of the tuberosity is involved. What is the most appropriate next step?

- A. Continue with extraction and remove tooth and bone with forceps, then suture to stabilize.
- B. Discontinue extraction, splint tooth and wait 6 to 8 weeks to extract surgically.
- C. Remove bone from the tooth without separating it from soft tissue, then suture to stabilize.
- D. Perform a surgical extraction immediately with full thickness flap to visualize tooth and bone, then suture to stabilize.

Ideal orthodontic tooth movement involves

- A. large forces.
- B. undermining resorption.
- C. frontal resorption.
- D. subcrestal incisions.

The main purpose of X-ray collimation is to

- A. lower the kilovoltage.
- B. filter out low energy X-rays.
- C. reduce the diameter of the primary beam.
- D. reduce the exposure time.

As gingival inflammation progresses to marginal periodontitis, the associated changes are:

- A. Apical migration and disintegration of the epithelial attachment.
- B. Resorption of the alveolar crest.
- C. Destruction of the alveolar crest and periodontal ligament fibres.
- D. All of the above.
- E. None of the above.

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For an acid-etched Class III composite resin, the cavosurface margin of the cavity can be bevelled to

- A. eliminate the need for internal retention.
- B. improve convenience form.
- C. aid in finishing.
- D. increase the surface area for etching.

The most damaging characteristic of an Angle Class II, division 2 malocclusion is the

- A. deep overbite.
- B. crowding of the mandibular incisors.
- C. relationship of the molars.
- D. impaction of the maxillary canines.
- E. malposition of the maxillary lateral incisors.

Which has the WORST prognosis?

- A. Occlusal traumatism.
- B. Gingivitis.
- C. Aggressive periodontitis.
- D. Periodontal atrophy.
- E. Chronic periodontitis.

Soft, white, elevated plaques of the oral mucosa are characteristic of

- A. angioma.
- B. candidiasis.
- C. actinomycosis.
- D. herpes simplex.
- E. submucous fibrosis.

Necrotizing ulcerative gingivitis (NUG) and acute herpetic gingivostomatitis can be differentiated clinically by (the)

- A. location of the lesions.
- B. temperature of the patient.
- C. pain.
- D. lymphadenopathy.

The major advantage of glass ionomer cement as a restorative material is that it is

- A. highly translucent.
- B. a fluoride releasing material.
- C. highly esthetic.
- D. unaffected by moisture during the setting reaction.

A lingual plate is indicated as a major connector for a removable partial denture when

- A. insufficient room exists for a lingual bar.
- B. a palatal torus is present.
- C. a retromylohyoid undercut is present.
- D. there is a low attachment of the lingual frenum.

In gingivitis, the initial cellular immune response predominantly involves

- A. T lymphocytes.
- B. B lymphocytes.
- C. neutrophils.
- D. plasma cells.

A patient has a displaced right subcondylar fracture of the mandible. On opening, the mandible deflects to the right. Which muscle is prevented from functioning appropriately?

- A. Medial pterygoid.
- B. Temporalis.
- C. Masseter.
- D. Lateral pterygoid.

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Molecular attraction between unlike substances is called

- A. adhesion.
- B. cohesion.
- C. syneresis.
- D. absorption.

Which of the following is NOT associated with Cushing disease?

- A. Buffalo hump.
- B. Osteoporosis.
- C. Hirsutism.
- D. Hypertension.
- E. Diabetes insipidus.

Gingival bleeding associated with plaque induced gingivitis is due to

- A. a vitamin C deficiency.
- B. destruction of vessels of the periodontal ligament.
- C. excessive pocket depth.
- D. microulceration of sulcus epithelium.

Using a high speed handpiece WITHOUT water coolant will

- A. produce a smoother surface.
- B. decrease pulpal damage if used with light pressure.
- C. reduce clogging of dental bur.
- D. reduce debris accumulation.
- E. increase frictional heat.

An endomorph is typically

- A. short and fat.
- B. tall and thin.
- C. an early maturer.
- D. a late maturer.

Which of the following is the most common site in the oral cavity for a squamous cell carcinoma?

- A. Floor of the mouth.
- B. Buccal mucosa.
- C. Palate.
- D. Gingiva.

If a periodontal probe is inserted 4 or 5mm to the base of a pocket on the mesialbuccal of a tooth and then pushed facially causing blanching, this indicates that

- A. gingival hyperplasia exists.
- B. there is an inadequate zone of attached gingiva.
- C. the lateral wall of the pocket does not consist of bone.

The benign neoplasm that originates from squamous epithelium is called a/an

- A. adenoma.
- B. choriocarcinoma.
- C. chondroma.
- D. lipoma.
- E. papilloma.

Microbial virulence factors

- A. are produced by non-pathogenic microbes.
- B. are always pathogenic.
- C. include exotoxins, capsules, endotoxins and enzymes.
- D. are caused only by Gram-positive microbes.

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The highest incidence of congenitally missing lateral incisors is most likely seen in a patient with

- A. unilateral cleft lip and palate.
- B. congenital heart disease.
- C. Down syndrome.
- D. hyperthyroidism.

In order to achieve a proper interproximal contact when using a spherical amalgam alloy, which of the following is/are essential?

- A. Smaller sized condenser.
- B. Thicker matrix band.
- C. Properly placed wedge.
- D. Use of mechanical condensation.

Which of the following lesions is most likely to occur in the floor of the mouth?

- A. Pleomorphic adenoma.
- B. Mucoepidermoid carcinoma.
- C. Lymphangioma.
- D. Ranula.
- E. Granular cell myoblastoma.

Appropriate management for the relief of symptoms of primary herpetic gingivostomatitis in an immunocompromised patient may include

- A. penicillin V.
- B. triamcinolone acetonide in Orabase®.
- C. acyclovir capsules.
- D. dexamethasone elixir.

A patient has been taking a systemic corticosteroid for 10 years. Which skeletal disorder would the patient most likely have as a result of this medication?

- A. Osteopetrosis.
- B. Osteogenesis imperfecta.
- C. Skeletal hyperostosis.
- D. Osteoporosis.
- E. Osteoarthritis.

A vitamin B₂ (riboflavin) deficiency usually arises in patients

- A. who are elderly.
- B. with acute infection.
- C. consuming dairy products.
- D. taking systemic antibiotics.

The masseter muscle originates from the

- A. angle of the mandible.
- B. coronoid process.
- C. pterygoid fossa.
- D. zygomatic arch.

Which of the following antibiotics may be cross-allergenic with penicillin?

- A. Neomycin.
- B. Cephalexin.
- C. Clindamycin.
- D. Erythromycin.
- E. Tetracycline.

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On a panoramic radiograph, the root apex of a third molar is positioned below the inferior alveolar nerve canal. The upper and lower borders of the canal cannot be discerned and the root in this area is more radiolucent. The nerve is most likely

- A. buccal to the root.
- B. indented into the root.
- C. passing through the root.

A 64 year old patient with a history of multiple myocardial infarctions requires extraction of tooth 1.6. Which of the following choices is the most appropriate?

- A. 5 cartridges of prilocaine 3% with 1:200,000 epinephrine.
- B. 2 cartridges of articaine 4% with 1:100,000 epinephrine.
- C. 2 cartridges of lidocaine with 1:50,000 epinephrine.

Fremitus is

- A. tooth mobility of grade II.
- B. mobility during occlusion.
- C. vertical tooth mobility.
- D. tooth pain upon percussion.

Which of the following may result in acetone breath?

- A. Prolonged fasting.
- B. High carbohydrate diet.
- C. High protein diet.
- D. Poor oral hygiene.

Gingival response to plaque microorganisms in elderly patients is

- A. exaggerated due to an altered host immune response.
- B. exaggerated due to a change in the type of infecting microorganisms.
- C. the same in all ages.
- D. decreased due to an altered host immune response.

A clinical diagnostic indication of palatal impaction of maxillary permanent canines does NOT include

- A. proclined and laterally flared permanent lateral incisors.
- B. delayed exfoliation of primary canines.
- C. midline central diastema.
- D. lack of canine buccal bulges in a 10 year old patient.

A cementoblastoma is typically a solitary circumscribed

- A. radiopacity with a radiolucent rim involving the apices of a mandibular molar.
- B. radiolucency involving the apices of the mandibular incisors.
- C. radiopacity with a radiolucent rim involving the apex of a mandibular incisor.
- D. radiolucency in an edentulous area.

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A patient has been receiving dental treatment over a period of 1 year. A root canal treatment has recently been started but not completed when she declares that her husband has lost his job and she is not able to pay the balance of the fee assessed for her root canal treatment. She is presently free of pain. The dentist can terminate treatment

- A. only after completion of the root canal treatment.
- B. for failure to honor financial commitments.
- C. until the patient is able to pay for it.
- D. only after completion of the root canal treatment and a full crown restoration.
- E. by referring the patient to an endodontist.

A 19 year old female with an otherwise healthy dentition presents with erosion of the lingual surfaces of all maxillary anterior teeth. This is most likely caused by

- A. xerostomia.
- B. occlusal parafunction.
- C. diet high in citrus fruit.
- D. bulimia.

Which muscle is primarily responsible for moving the mandible to a lateral position?

- A. Masseter.
- B. Lateral pterygoid.
- C. Medial pterygoid.
- D. Buccinator.
- E. Temporalis.

Nystatin is the most appropriate drug to treat

- A. aphthous stomatitis.
- B. candidiasis.
- C. acute apical abscess (acute periradicular abscess).
- D. necrotizing ulcerative gingivitis.

A patient with leukoplakia had an incisional biopsy. Which of the following diagnosis does NOT require complete excision?

- A. Carcinoma *in situ*.
- B. Severe epithelial dysplasia.
- C. Hyperkeratosis.
- D. Invasive carcinoma.

Following root planing, the amount of gingival shrinkage depends upon

- A. the thickness of the gingiva.
- B. the degree of gingival edema present.
- C. whether the pocket orifice is broad or narrow.
- D. the degree of suppuration present.
- E. All of the above.

Protracted use of tetracycline may produce symptoms of vitamin K deficiency because tetracycline

- A. is detoxified by the liver.
- B. combines chemically with vitamin K.
- C. inhibits growth of intestinal bacteria.
- D. interferes with the conversion of prothrombin to thrombin.

Orthodontic headgear can be used for all of the following EXCEPT

- A. anchorage augmentation.
- B. molar distalization.
- C. maxillary skeletal expansion.
- D. growth modification.

When restoring an endodontically treated tooth, the post

- A. reinforces the root.
- B. needs to end within 1mm of the apex.
- C. retains the core.

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Following the premature loss of the deciduous molars, the Angle classification is most accurately determined using the

- A. facial profile.
- B. permanent molars.
- C. permanent canines.
- D. permanent incisors.

The cells responsible for antibody production are called

- A. polymorphonuclear leukocytes.
- B. mast cells.
- C. plasma cells.
- D. macrophages.
- E. megakaryocytes.

Which one of the following effects is typically observed with a therapeutic dose of acetaminophen?

- A. Gastrointestinal irritation.
- B. Increased bleeding.
- C. Anti-inflammatory action.
- D. Antipyretic action.

Which articular disease most often accompanies Sjögren's syndrome?

- A. Suppurative arthritis.
- B. Rheumatoid arthritis.
- C. Degenerative arthrosis.
- D. Psoriatic arthritis.
- E. Lupus arthritis.

Which of the following is NOT a contributor to the pathogenesis of stomatitis?

- A. TNF- α .
- B. Bradykinin.
- C. Substance P.
- D. Glucocorticoids.

The findings from a meta-analysis of 24 clinical trials conducted over 20 years, involving vitamin D supplementation to prevent dental caries in children aged 5-14 years, reveal there is wide variation in the results between the studies. Which of the following differences is LEAST likely responsible for this variation?

- A. Age of the children.
- B. Stage of dentition of children.
- C. Years when the studies were conducted.
- D. Baseline caries levels of children.

Which of the following CANNOT be viewed on a lateral cephalometric radiograph?

- A. Upper airway clearance.
- B. Mandibular dimensions.
- C. Maxillary constriction.
- D. Lower face height.

While the teeth are set in wax, dentures are tried in to

- A. verify the maxillomandibular records.
- B. verify the vertical dimension of occlusion.
- C. evaluate esthetics.
- D. All of the above.

When removal of carious dentin results in an exposure of nonvital pulp, the most appropriate management is to

- A. cap the exposed pulp horn with calcium hydroxide.
- B. occlude the cavity with a light packing of cotton moistened with eugenol.
- C. place a temporary restoration and observe.
- D. perform endodontic treatment.

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When a patient experiences continuous pain in the maxillary premolar and molar areas and there is no evidence of dental infection, the most likely diagnosis is

- A. trigeminal neuralgia.
- B. acute maxillary sinusitis.
- C. impacted maxillary canine.
- D. impacted maxillary third molar.
- E. glossopharyngeal neuralgia.

Dental polysulfide rubber impression materials are polymerized with the following initiator:

- A. lead peroxide.
- B. sodium peroxide.
- C. carbon disulfide.
- D. hydrogen peroxide.
- E. phosphorus pentoxide.

Histological sections of a lesion removed from the apex of a carious tooth show fibrous tissue and chronic inflammatory cells. The most likely diagnosis is a/an

- A. odontogenic fibroma.
- B. periradicular cyst.
- C. periradicular granuloma.
- D. central ossifying fibroma.

In a patient who is allergic to penicillin, the most appropriate antibiotic to treat an infection of endodontic origin is

- A. amoxicillin.
- B. azithromycin.
- C. clindamycin.
- D. tetracycline.

Which of the following drugs is most likely to cause gingival overgrowth?

- A. Tetracycline.
- B. Nifedipine.
- C. Insulin.
- D. Hydrochlorothiazide.

Immediately after tooth extraction, a patient with a known cardiac problem experiences angina. This is most likely precipitated by

- A. the patient's upright position in the chair.
- B. an allergy to the anesthetic agent.
- C. anxiety and anticipation of pain.
- D. the epinephrine in the anesthetic agent.

Dental amalgam

- A. is subject to solubility and disintegration in the oral fluids.
- B. has a satisfactory resistance to compressive stress.
- C. adheres chemically to the walls of the cavity.

When light-cured composite resins are placed

- A. surface polymerization is inhibited by carbon dioxide (CO₂).
- B. the degree of conversion is 85-95%.
- C. increments of resin should not exceed 2mm.
- D. polymerization shrinkage increases with filler content.

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Residual soft tissue interdental craters NOT associated with underlying bony changes are eliminated by

- A. root planing.
- B. subgingival curettage.
- C. flap operation.
- D. gingivoplasty.

A 60 year old patient presents with lingual erosion of the maxillary incisors. The most likely cause is

- A. alcoholism.
- B. ulcerative colitis.
- C. diabetes mellitus.
- D. mitral valve prolapse.
- E. rheumatoid arthritis.

Localized gingival recession of a permanent mandibular incisor in an 8 year old patient can be caused by

- A. ankyloglossia.
- B. localized aggressive periodontitis.
- C. traumatic occlusion.
- D. necrotizing ulcerative gingivitis (NUG).
- E. all of the above.

A circumscribed radiolucent lesion associated with a retained root tip should be curetted because

- A. pus in the lesion will infect the blood clot.
- B. the fibrous tissue of the lesion will prevent new bone formation.
- C. the capillaries of the lesion will cause prolonged bleeding.
- D. the lesion may undergo cystic degeneration.

A patient with an orofacial infection is most at risk for spread of infection by bacteria travelling through

- A. arteries.
- B. airways.
- C. peripharyngeal spaces.
- D. the maxillary sinus.

The apex of the heart lies deep to the

- A. 2nd left intercostal space.
- B. 3rd left intercostal space.
- C. 5th left intercostal space.
- D. 7th left intercostal space.
- E. 9th left intercostal space.

The greatest period of cranial growth occurs between

- A. birth and 5 years.
- B. 6 and 8 years.
- C. 10 and 12 years.
- D. 14 and 16 years.

A 6 year old child has a non-vital primary mandibular second molar which has a draining sinus tract from the bifurcation area. The most appropriate management is

- A. extraction.
- B. observation.
- C. pulpotomy.
- D. direct pulp capping.

Which of the following is a basic design principle for a mucoperiosteal flap?

- A. Narrow based.
- B. Limited bone exposure.
- C. Able to be repositioned over bone.
- D. Mesial release incision.

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Which of the following is NOT a clinical finding of hypothyroidism?

- A. Anxiety.
- B. Mild tremor.
- C. Puffy eyelids.
- D. Exophthalmos.

A large carious exposure occurs on a permanent first molar of a 7 year old. There is no periapical involvement and the tooth is vital. The treatment should be to

- A. cap the exposure with calcium hydroxide and place zinc-oxide and eugenol.
- B. perform a pulpotomy and place calcium hydroxide.
- C. perform a pulpectomy.
- D. extract the tooth and place a space maintainer.

Which of the following impression materials is the LEAST flexible when set?

- A. Polyvinyl siloxane.
- B. Condensing silicone.
- C. Polyether.
- D. Polysulfide.

Which of the following is the most important determinant for the maximum length of a post in an endodontically treated tooth?

- A. Distance between the crestal bone and root apex.
- B. Crown/root ratio.
- C. Maintenance of an apical gutta-percha seal.

The most appropriate management for a permanent central incisor with a necrotic pulp and a wide open apex is

- A. pulpotomy.
- B. pulpectomy.
- C. regenerative endodontics.
- D. root canal therapy using gutta-percha.
- E. root canal therapy followed by a retrograde filling.

The marginal fit of the retainers in a 5-unit fixed partial denture is optimized by casting the framework in

- A. sections and then soldered using an index made on the master cast.
- B. sections and then soldered using an index made intraorally.
- C. one piece and then sectioned and soldered using an index made on the master cast.
- D. one piece and then sectioned and soldered using an index made intraorally.
- E. one piece and not sectioned or soldered.

Bone loss at menopause accelerates because estrogens

- A. are necessary for calcium absorption from the small intestine.
- B. inhibit bone resorbing cytokine synthesis.
- C. inhibit osteoblast activity.
- D. promote osteoclast proliferation and differentiation.

During endodontic treatment, which of the following microorganisms is most likely to cause endocarditis in a patient with valvular heart disease?

- A. *Streptococci* species.
- B. *Staphylococcus* species.
- C. *Candida albicans*.
- D. *Prevotella* species.

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The diagnosis for a patient having a sinus tract associated with a nonvital pulp who presents with no symptoms is

- A. acute apical abscess (acute periradicular abscess).
- B. asymptomatic apical periodontitis (chronic periradicular periodontitis).
- C. periodontal abscess.
- D. chronic apical abscess (chronic periradicular abscess).

Which of the following is a possible side effect of chemotherapy on oral mucosa?

- A. Hyperkeratosis.
- B. Ulceration.
- C. Acanthosis.
- D. Basal cell hyperplasia.

Which of the following may be used as a local anesthetic in a patient allergic to both amide and ester-type local anesthetics?

- A. Nitrous oxide.
- B. Bupivacaine.
- C. Phenylephrine.
- D. Diphenhydramine.
- E. Ethyl aminobenzoate.

A patient complains of sensitivity following placement of a conservative posterior composite resin restoration. The most probable cause is

- A. acid etching.
- B. polymerization shrinkage.
- C. unpolymerized resin.
- D. prolonged application of the curing light.
- E. inadequate base thickness.

What is the name of the process by which carbamide peroxide bleaches the teeth?

- A. Oxidation.
- B. Addition.
- C. Subtraction.
- D. Hydrogenation.

The angle SNA can be used to evaluate the

- A. maxillary protrusion.
- B. overbite.
- C. upper incisor inclination.
- D. facial height.
- E. mandibular angle.

Zinc phosphate cement, when used as a luting agent for cast restorations, has which of the following properties?

- A. Insolubility.
- B. Anticariogenicity.
- C. Chemical adhesion.
- D. Mechanical retention.

The finding of “acid-fast” microorganisms in sputum suggests the presence of

- A. Mycobacterium tuberculosis.
- B. Diplococcus pneumoniae.
- C. Streptococcus pyogenes.
- D. Neisseria gonorrhoeae.

Which of the following is characteristic of irreversible pulpitis?

- A. Coronal discolouration.
- B. Canal calcifications.
- C. Transient response to cold.
- D. Lingering response to heat.

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A Le Fort I or Guerin fracture is a

- A. fracture of the zygomatic arch.
- B. horizontal fracture of the maxilla.
- C. fracture of the malar complex involving the floor of the orbit.
- D. pyramidal fracture of the maxilla.
- E. craniofacial dysjunction.

Down syndrome is associated with

- A. hypertelorism.
- B. papular rash.
- C. mandibular prognathism.
- D. Hutchinson's teeth.
- E. macroglossia.

A dentoalveolar abscess most frequently originates from

- A. a post-extraction infection.
- B. trauma.
- C. periodontal inflammation.
- D. pulpal necrosis.

The line drawn through the occlusal rests of two principal abutments for a removable partial denture is the

- A. survey line.
- B. terminal line.
- C. axis of rotation.

Which anatomical structures form the inverted Y (Y line) in maxillary periapical radiographs?

- A. Nasopalatine/incisive canal and floor of the nasal fossa.
- B. Anterior nasal spine and nasopalatine/incisive canal.
- C. Floor of the nasal fossa and maxillary sinus border.
- D. Zygomatic process of the maxilla and maxillary sinus border.

To ensure the greatest accuracy, polysulfide base impressions should be poured

- A. within 10 minutes.
- B. within 1 hour.
- C. within 8 hours.
- D. after 24 hours.

The residual mercury content of an amalgam restoration is significantly affected by

- A. size of the preparation.
- B. amount of amalgam used.
- C. type of amalgam used.
- D. burnishing technique.

Which of the following statements is FALSE with respect to rounded internal line angles in preparations for Class II composite resins?

- A. Tooth structure is conserved.
- B. Stress concentration is reduced.
- C. Resistance form is compromised.
- D. Adaptation of the resin during placement is enhanced.

The principal advantage of polyether impression materials over polysulfide polymer impression materials is

- A. longer shelf life.
- B. superior accuracy.
- C. superior surface on the cast.
- D. less dimensional change with time.

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Patterns of exposure to a risk factor in a population is important because it helps

- A. understand where preventive interventions can be targeted.
- B. define the prevalence of a disease.
- C. define the population attributable fraction of a disease.
- D. give an insight into what statistical tests to use.

The elastic limit of a material is the greatest load to which a material can be subjected to in order that it will

- A. fracture.
- B. remain distorted.
- C. return to its original dimension.
- D. return to a point beyond its original dimension.

In a standard inferior alveolar nerve block, which muscle is penetrated by the needle?

- A. Buccinator.
- B. Mylohyoid.
- C. Superior constrictor.
- D. Masseter.
- E. Medial (internal) pterygoid.

Multiple supernumerary teeth are most commonly found in

- A. cherubism.
- B. cretinism.
- C. hypothyroidism.
- D. cleidocranial dysplasia.
- E. Down's syndrome.

Radiographic examination reveals early evidence of internal resorption. Which is the most appropriate initial management?

- A. Perform an apicoectomy.
- B. Perform a pulp extirpation.
- C. Perform a pulpotomy.
- D. Observe and re-evaluate in 3-6 months.

Multiple “punched-out” radiolucencies of the skull and jaws are most commonly seen with

- A. metastatic carcinoma.
- B. plasmacytoma.
- C. multiple myeloma.
- D. chondrosarcoma.
- E. osteosarcoma.

A removable partial denture rest should be placed on the lingual surface of a canine rather than on the incisal surface because

- A. less leverage is exerted against the tooth by the rest.
- B. the enamel is thicker on the lingual surface.
- C. visibility and access are better.
- D. the cingulum of the canine provides a natural recess that does not need to be prepared.

The appropriate management for an avascular white lesion, 5 x 3mm in size, that has been present on the buccal mucosa for 6 months and has recently become ulcerated is

- A. observation.
- B. excisional biopsy.
- C. incisional biopsy.
- D. aspiration biopsy.
- E. cytologic examination.

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A 30 year old male suffers an orbital injury. How many bones form the orbit?

- A. 4.
- B. 5.
- C. 6.
- D. 7.
- E. 8.

Which of the following plasma proteins has the greatest ability to bind drugs?

- A. Albumin.
- B. Fibrinogen.
- C. Hemoglobin.
- D. Gamma globulin.
- E. B-lipoprotein.

Wettability is NOT a desirable property for which of the following?

- A. Dental impression materials.
- B. Acrylic resin for denture bases.
- C. Uncured composite resins.
- D. Hand instruments for placing resins.
- E. Trituration of amalgam.

A rotary endodontic file separates in the canal. The most appropriate management is to

- A. inform the patient of the separated file at the time of the incident.
- B. inform the patient of the separated file if the tooth becomes symptomatic.
- C. make a notation in the patient's chart without informing the patient.
- D. recommend an apicoectomy.

The most efficient cutting instrument used during endodontic procedures is a

- A. barbed broach.
- B. reamer.
- C. k-type file.
- D. Hedstrom file.

A characteristic of malignant tumors is the capability to

- A. invade and metastasize.
- B. grow to large size and remain within their capsule.
- C. remain localized.
- D. grow slowly.

Following the administration of a right inferior alveolar nerve block, right facial paralysis is noted. This condition was caused by inadvertent injection into the

- A. pterygopalatine fossa.
- B. facial canal.
- C. parotid gland.
- D. submandibular region.
- E. sublingual gland.

During the extraction of an isolated maxillary second molar, the bony floor of the sinus is removed with the tooth. Your immediate treatment would be to

- A. place a large strip of iodoform gauze, filling the tooth socket.
- B. irrigate the sinus repeatedly and place a dressing in the tooth socket.
- C. approximate the soft tissue as accurately as possible without irrigating.
- D. prescribe an antibiotic and recall after 24hrs.

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Which of the following is a major risk factor for the progression of chronic periodontitis?

- A. Osteoporosis.
- B. Human papillomavirus infection.
- C. Hypothyroidism.
- D. Cigarette smoking.

At his first post insertion appointment, a patient with a new removable partial denture complains of a tender abutment tooth. The most likely cause is

- A. overextended borders of the partial.
- B. inadequate polishing of the framework.
- C. improper path of insertion.
- D. the occlusion.

Which of the following analgesics can exacerbate peptic ulcers?

- A. Acetaminophen.
- B. Ibuprofen.
- C. Codeine.
- D. Tramadol.

The Controlled Drugs and Substances Act controls the distribution and use of which of the following?

- A. Carbamazepine.
- B. Celecoxib.
- C. Codeine.
- D. Gabapentin.

Tetracycline therapy instituted either in the second trimester or post partum in the infant is responsible for

- A. minor changes in the hydroxyapatite of the enamel.
- B. discolouration of deciduous teeth.
- C. discolouration of permanent teeth.
- D. discolouration of the deciduous or permanent teeth.

Following the insertion of complete dentures, a generalized soreness over the entire mandibular alveolar ridge can be caused by

- A. Inadequate interocclusal distance.
- B. impingement on the buccal frenum.
- C. high muscle attachments.
- D. excess border thickness.

Sclerotic dentin is

- A. soft.
- B. hypersensitive.
- C. resistant to caries.
- D. injurious to the pulp.

Infections transmitted in dental offices have been documented

- A. at a rate comparable to health care associated infections in hospitals.
- B. occasionally, primarily with hepatitis B.
- C. with equal frequency for viruses and bacteria.
- D. primarily in offices, which do not control bacterial levels in water from dental units.

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The most appropriate treatment of an ameloblastoma is

- A. chemotherapy.
- B. enucleation.
- C. resection.
- D. radiotherapy.

Clinically, the progression of periodontitis can be determined best by the increasing

- A. number of bleeding sites on probing.
- B. severity of gingival inflammation.
- C. depth of periodontal probing.
- D. clinical attachment loss.

A positive tuberculin test means that the patient

- A. should be vaccinated against tuberculosis.
- B. is susceptible to tuberculosis.
- C. has had prior exposure to *Mycobacterium* species.
- D. has a cutaneous erythematous reaction at the site of injection.

A characteristic of a periodontal pocket is

- A. gingival edema.
- B. gingival hyperplasia.
- C. alveolar bone loss.

Which of the following lesions may appear radiolucent on a radiograph?

- A. Dense bone island.
- B. Periapical osseous dysplasia.
- C. Sialolith.
- D. Osteopetrosis.

When a second canal is located in mandibular incisors, it is most frequently found

- A. labial to the main canal.
- B. lingual to the main canal.
- C. mesial to the main canal.
- D. distal to the main canal.

The absence of a pulp chamber in a deciduous maxillary incisor is most likely due to

- A. amelogenesis imperfecta.
- B. hypophosphatasia.
- C. trauma.
- D. ectodermal dysplasia.
- E. cleidocranial dysostosis.

Trauma from occlusion may

- A. initiate marginal gingivitis.
- B. affect the blood supply to gingiva.
- C. initiate periodontitis.
- D. affect the progression of periodontitis.

In alginate impression materials, sodium phosphate (Na_3PO_4) is the

- A. reactor.
- B. catalyst.
- C. retarder.
- D. disinfectant.
- E. cross linking agent.

The most common malignant tumour of the tongue is a/an

- A. adenocarcinoma.
- B. fibrosarcoma.
- C. squamous cell carcinoma.
- D. granular cell myoblastoma.

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Dentinal pain is explained by

- A. hydraulic pressure theory.
- B. hydrodynamic theory.
- C. mechanical deformation theory.
- D. osmotic pressure theory.

The principal internal retention for a Class V amalgam cavity preparation is established at the

- A. occluso-axial and gingivo-axial line angles.
- B. mesio-axial and disto-axial line angles.
- C. mesio-gingival and disto-gingival line angles.

Which valve is most commonly affected by rheumatic heart disease?

- A. Aortic.
- B. Pulmonary.
- C. Tricuspid.
- D. Mitral.

When an oxygen tank is half full, what is the pressure gauge reading?

- A. 500 psig.
- B. 1000 psig.
- C. 1500 psig.
- D. 2000 psig.

General anesthetics can do all of the following EXCEPT

- A. produce delirium.
- B. stimulate medullary centers.
- C. produce a state of unconsciousness.
- D. reduce perception of painful stimuli.
- E. decrease excitability of the motor cortex.

Use of nitrous oxide analgesia produces tinnitus as a result of

- A. central nervous system reaction.
- B. peripheral action on the eardrum.
- C. increased pressure in the middle ear.
- D. cochlea effect.
- E. dysphoria.

The white appearance of the oral mucosa following extended local application of acetylsalicylic acid is

- A. hyperparakeratosis.
- B. acanthosis.
- C. coagulation necrosis.
- D. edema.

Tooth development begins when the basal layer of cells proliferates to form a ridge called the

- A. dental lamina.
- B. dental papilla.
- C. odontoblastic matrix.

A patient has a proven allergy to para-amino benzoic acid derivatives. Which local anesthetic solution can be used safely?

- A. Procaine.
- B. Benzocaine.
- C. Tetracaine.
- D. Lidocaine.

A protective bite plate is indicated in all of the following EXCEPT to

- A. reduce tooth mobility.
- B. prevent excessive tooth wear.
- C. control a bruxism habit.
- D. manage temporomandibular joint pain dysfunction syndrome.
- E. prevent migration of teeth.

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When a partial denture framework fits the master cast but does not fit properly in the mouth, the error is likely to be in the

- A. impression making.
- B. casting of the framework.
- C. design of the framework.
- D. preparation of the teeth.

Which of the following best describes drug synergism?

- A. The effect of the combination of two drugs is equal to the sum of their individual effects.
- B. The effect of the combination of two drugs is greater than the sum of their individual effects.
- C. The effect of the combination of two drugs is less than the sum of their individual effects.
- D. One drug's action blocks the effect of the second drug's action.

At what age is a child expected to have 12 erupted primary teeth and 12 erupted permanent teeth?

- A. 4½ years.
- B. 6½ years.
- C. 8½ years.
- D. 11½ years.

The most common location for periapical osseous dysplasia (periapical cemento-osseous dysplasia) is the

- A. maxillary anterior region.
- B. mandibular anterior region.
- C. mandibular premolar region.
- D. maxillary posterior region.

The x-rays which are most apt to be absorbed by the skin and cause an injury are

- A. central rays.
- B. deep penetrating rays.
- C. aluminum filtered rays.
- D. rays of long wavelength.

On an occlusal radiograph, it is possible to misdiagnose the midline palatal suture as a

- A. fracture.
- B. palatal cyst.
- C. granuloma.
- D. abscess.

One function of the striated ducts in the parotid and submandibular glands is to

- A. add Na⁺ ions to saliva.
- B. help form a hypertonic saliva (relative to serum).
- C. add bicarbonate ions to saliva.
- D. remove K⁺ ions from saliva.
- E. add salivary amylase to saliva.

The washing of hands must be performed before putting on and after removing gloves because it

- A. completely eliminates skin bacteria.
- B. minimizes the transient bacteria which could contaminate hands through small pinholes.
- C. allows gloves to slide on easier when the hands are moist.

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Light-cured dental composites set when exposed to light. Light is the

- A. initiator.
- B. reactor.
- C. catalyst.
- D. activator.
- E. terminator.

In the processing of methyl methacrylate, denture porosity is most likely to appear in the

- A. thickest portion.
- B. thinnest portion.
- C. buccal surface.
- D. palatal area.

The most appropriate antibiotic for a patient with an odontogenic infection and a history of penicillin allergy is

- A. methicillin.
- B. clindamycin.
- C. tobramycin.
- D. tetracycline.

Following periodontal debridement, reduction in pocket depth is primarily due to

- A. decreased inflammation.
- B. reattachment of gingival fibers.
- C. epithelial "adhesion" to the tooth.
- D. connective tissue regeneration.

In a normally developing occlusion, spaces between primary incisors are called

- A. physiological spaces.
- B. primate spaces.
- C. leeway spaces.
- D. freeway spaces.

Which of the following drugs is CONTRAINDICATED in patients with Long QT syndrome?

- A. Azithromycin.
- B. Clotrimazole.
- C. Diazepam.
- D. Acyclovir.

In an infrabony pocket, the epithelial attachment is located

- A. within basal bone.
- B. coronal to alveolar bone crest.
- C. apical to alveolar bone crest.

It may be possible to prepare a tooth for a restoration without anesthesia in an elderly patient due to an increase in

- A. the number of pulp stones found in first molars with advancing age.
- B. the deposition of secondary and tertiary dentin.
- C. hypercementosis.
- D. neurotransmitters in pulpal tissues.

Water irrigation devices have been shown to

- A. eliminate plaque.
- B. dislodge food particles from between teeth.
- C. disinfect pockets for up to 18 hours.
- D. prevent calculus formation.

Creutzfeldt-Jacob disease is caused by (a)

- A. virus.
- B. bacteria.
- C. fungus.
- D. prion.

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Glass ionomer cements contain

- A. zinc oxide and distilled water.
- B. zinc oxide and polyacrylic acid.
- C. fluoro aluminosilica powder and orthophosphoric acid.
- D. fluoro aluminosilica powder and polyacrylic acid.

Caries in older persons is most frequently found on which of the following locations?

- A. Pits and fissures.
- B. Proximal enamel.
- C. Root surfaces.
- D. Incisal dentin.

Prevotella intermedia increases significantly in pregnancy gingivitis because of increased

- A. gingival blood vessels with increased inflammation.
- B. colonization of shallow pockets.
- C. levels of plaque fluid in deep periodontal pockets.
- D. steroid hormones act as growth factors.

A conical pontic replacing a mandibular first molar should be designed so that

- A. it seals the mucogingival fold.
- B. it has open gingival embrasures.
- C. the porcelain to metal junction is on its gingival surface.
- D. the gingival surface is concave buccolingually.

In patients wearing complete dentures, the most frequent cause of tooth contact (clicking) during speaking is

- A. nervous tension.
- B. incorrect centric relation position.
- C. excessive occlusal vertical dimension.
- D. lack of vertical overlap.
- E. unbalanced occlusion.

When a radiographic examination is warranted for a 10 year old child, the most effective way to decrease radiation exposure is to

- A. use a thyroid collar and lead apron.
- B. apply a radiation protection badge.
- C. use high speed film.
- D. decrease the kilovoltage to 50kVp.
- E. take a panoramic film only.

What is the most significant radiographic finding in hyperparathyroidism?

- A. Demineralization of teeth.
- B. Multiple odontogenic keratocysts.
- C. Hypercementosis.
- D. Rampant caries.
- E. Generalized loss of lamina dura.

Which of the following procedures will increase the retention of a Class III composite resin restoration in primary incisor and canine teeth?

- A. Keeping the preparation as small as possible.
- B. Using labial or lingual dovetails.
- C. Etching the preparation for an additional 30 seconds.

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The absence of adequate drainage in a periodontal pocket may result in

- A. cyst formation.
- B. abscess formation.
- C. epithelial hyperplasia.
- D. increased calculus formation.

What is the most likely diagnosis for a patient who exhibits elevated blood pressure, swollen ankles, distended neck veins and difficulty breathing when lying down?

- A. Congestive heart failure.
- B. Bronchitis.
- C. End stage renal disease.
- D. Hypertension.

Naloxone reverses respiratory depression caused by

- A. meperidine.
- B. lorazepam.
- C. alcohol.
- D. phenobarbital.

Which of the following agents is most effective in cold testing?

- A. Ice water.
- B. Air jet.
- C. CO₂ (dry ice).
- D. Ethyl chloride.

A 6 year old patient has a larger than average diastema between the maxillary central incisors. The radiographic examination shows a mesiodens. In order to manage the diastema, you should extract the mesiodens

- A. after its complete eruption.
- B. once the patient has reached the age of 12.
- C. only if it develops into a cystic lesion.
- D. as soon as possible.

Procaine (Novocaine®) is an example of a local anesthetic which is chemically classified as an

- A. amide.
- B. ester.
- C. aldehyde.
- D. ethamine.
- E. aminide.

All of the following are common features of a malignant neoplasm of the jaws EXCEPT

- A. moth-eaten radiolucencies.
- B. irregular radiopacities.
- C. widening of periodontal ligament spaces.
- D. well-circumscribed periapical radiolucencies.
- E. paresthesia and tooth loosening.

Smooth surface coronal caries begins at localized areas on the

- A. outer surface of enamel and dentin.
- B. inner surface of the enamel.
- C. outer surface of the dentin.
- D. outer surface of the enamel.
- E. inner surface of the dentin.

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A 65 year old patient who has recovered from a stroke 6 months previously and has a history of endocarditis requires the extraction of a mandibular molar. The vital signs are

Blood Pressure: 135/85 mmHg

Pulse: 76/min

Respiratory Rate: 16/min

The most appropriate immediate management of this patient is to

- A. proceed with the treatment.
- B. use prophylactic antibiotics.
- C. use local anesthetic with no epinephrine.
- D. delay treatment for 3 months.

Which of the following is NOT commonly used by general dentists to treat temporomandibular disorders and bruxism?

- A. Hard acrylic splints.
- B. Nonsteroidal anti-inflammatory drugs (NSAIDs).
- C. Corticosteroids.
- D. Muscle relaxants.

Severe throbbing tooth pain which increases when the patient lies down is a symptom of

- A. symptomatic apical periodontitis (acute periradicular periodontitis).
- B. acute apical abscess (acute periradicular abscess).
- C. symptomatic irreversible pulpitis.
- D. chronic apical abscess (chronic periradicular abscess).

Which of the following local anesthetics provide the longest duration of anesthesia?

- A. Lidocaine 2% with 1:100,000 epinephrine.
- B. Prilocaine 4% with 1:200,000 epinephrine.
- C. Bupivacaine 0.5% with 1:200,000 epinephrine.
- D. Articaine 4% with 1:100,000 epinephrine.

The epithelium covering the lesions of hyperplastic pulps is believed to be derived from the

- A. reduced enamel epithelium.
- B. epithelium of the gingiva.
- C. odontoblastic layer.
- D. epithelial rests of Malassez.
- E. remnants of the dental lamina.

Histological sections of a lesion removed from the apex of a carious tooth show immature fibrous tissue and chronic inflammatory cells. The most likely diagnosis is a/an

- A. acute periapical abscess.
- B. odontogenic fibroma.
- C. radicular cyst.
- D. periapical granuloma.
- E. central fibroma.

Zinc oxide eugenol cement is a/an

- A. phosphate cement.
- B. phenolic cement.
- C. resin modified glass ionomer cement.
- D. polyalkenoic acid cement.
- E. adhesive resin cement.

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For which of the following reasons would a dentist administer epinephrine?

- A. Angina.
- B. Vasovagal syncope.
- C. Acute adrenal insufficiency.
- D. Anaphylaxis.

Which of the following basic forcep movements is NOT used for extracting teeth?

- A. Apical.
- B. Rotational.
- C. Mesial.
- D. Lingual (palatal).

Which local anesthetic should be used to achieve the longest pain relief for a patient requiring the surgical extraction of tooth 3.8?

- A. Articaine 4%, with epinephrine 1:100,000.
- B. Bupivacaine 0.5%, with epinephrine 1:200,000.
- C. Lidocaine 2%, with epinephrine 1:100,000.
- D. Mepivacaine 3% plain.
- E. Prilocaine 4%, with epinephrine 1:200,000.

Streptococcus mutans colonizes

- A. cusp surfaces of teeth.
- B. pits and fissures of teeth.
- C. on the tongue.
- D. at pH of 2.5.

The characteristics of "Group function occlusion" are:

- A. The teeth on the non-working side make contact in lateral excursion.
- B. The teeth on the working side make contact in lateral excursion.
- C. Only canine and lateral incisors make contact in lateral excursion.
- D. The posterior teeth on both sides make contact in lateral excursion.

Vertical releasing incisions for a full-thickness flap should cross the free gingival margin at the

- A. line angles of the tooth.
- B. midfacial aspect of the tooth.
- C. tip of the interdental papillae.
- D. most prominent aspect of the root.

Osteoporosis may result from

- A. hypothyroidism.
- B. acromegaly.
- C. diabetes.
- D. prolonged steroid therapy.

What is the most likely diagnosis of a small well-circumscribed radiolucency at the apex of a vital mandibular incisor?

- A. Periapical granuloma.
- B. Sclerosing osteitis.
- C. Radicular cyst.
- D. Periapical osseous dysplasia (periapical cemento-osseous dysplasia).

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A clinical finding common to alcoholism, poorly-controlled diabetes mellitus, uremia and liver disease is

- A. smooth tongue.
- B. increased blood pressure.
- C. coated tongue.
- D. labial fissures.
- E. halitosis.

Guided tissue regeneration is a surgical procedure used to

- A. repair connective tissue.
- B. repair cemental defects.
- C. regenerate long junctional epithelial attachment.
- D. regenerate the periodontium.

An acute lateral periodontal abscess associated with a lateral periodontal cyst can be differentiated from an acute abscess of pulpal origin by the

- A. type of exudate.
- B. intensity of pain.
- C. nature of swelling.
- D. degree of tooth mobility.
- E. response to a vitality test.

A lingual approach for a conservative Class III preparation for a composite resin requires

- A. a retentive internal form.
- B. parallelism of the incisal and gingival walls.
- C. maintenance of the incisal contact area.
- D. All of the above.

In Canada, it is ethical for a dentist to refuse to treat a patient on the basis of the

- A. patient's religious beliefs.
- B. patient's physical handicap.
- C. patient's infectious disease status.
- D. complexity of the required treatment.

Which of the following is NOT an effect of acetaminophen?

- A. Analgesia.
- B. Anti-inflammatory effect.
- C. Inhibition of CNS cyclooxygenase.
- D. Antipyretic effect.

A patient with multiple small bruises (purpura) most likely has a low count of

- A. lymphocytes.
- B. Tcells.
- C. platelets.
- D. erythrocytes.
- E. eosinophils.

Which two muscles are involved in sucking?

- A. Caninus and depressor angularis.
- B. Risorius and buccinator.
- C. Buccinator and orbicularis oris.
- D. Levator labii superioris and zygomaticus major.

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A 65 year old patient has a tendency for urinary tract stones. Radiographic examination shows generalized loss of the lamina dura and a “ground glass” appearance of the bone. What is the most likely diagnosis?

- A. Hyperthyroidism.
- B. Addison’s disease.
- C. Hypothyroidism.
- D. Hyperparathyroidism.
- E. Hypoparathyroidism.

Which of the following statements concerning root canals and their foramina is NOT true?

- A. Root canals bifurcate and have dual foramina.
- B. The major foramen is precisely at the apex of the tooth.
- C. The root canals may join and have a single foramen.
- D. The dentino-cemental junction is precisely at the apex of the tooth.
- E. A cross section of the canal in the apical region is relatively round.

Which of the following medications increases a patient’s risk for intraoral candidiasis?

- A. Warfarin.
- B. Cyclosporine.
- C. Pentobarbital.
- D. Ibuprofen.
- E. Pilocarpine.

A patient has suffered a blow resulting in the loosening of 3 maxillary incisors. Vitality tests give negative readings. The most appropriate management is to

- A. perform pulpectomies on the teeth.
- B. remove the teeth, fill the root canals and replant.
- C. splint the teeth, check vitality regularly for the next 3 months.
- D. splint the teeth and treat endodontically immediately.

A patient suddenly becomes pale and sweaty after an injection of 4ml of lidocaine 2% with epinephrine 1:100,000. The radial pulse is slow and steady. The respiration is slow. The blood pressure is 80/60. What is the most probable diagnosis?

- A. A toxic reaction to lidocaine.
- B. A toxic reaction to epinephrine.
- C. An allergic reaction to the local anesthetic.
- D. Incipient syncope.
- E. An impending adrenal insufficiency.

Metronidazole has been prescribed for a patient taking warfarin daily for the last 2 years. Which of the following must be closely monitored?

- A. Platelet count.
- B. Hematocrit.
- C. Bleeding time.
- D. INR.

The most likely diagnosis of a non-healing indurated ulcer on the lateral border of the tongue in a 60 year old patient is

- A. a traumatic ulcer.
- B. major aphthous ulcer.
- C. squamous cell carcinoma.
- D. a deep fungal infection.

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Which of the following is a possible cause for a low density radiograph (light film)?

- A. Cold developer.
- B. Over exposure.
- C. Improper safety light.
- D. Excessive developing time.

Sterilization of carious dentin without pulp injury is assured by the application of

- A. phenol.
- B. 70% ethyl alcohol.
- C. chlorhexidine.
- D. absolute alcohol.
- E. None of the above.

An excisional biopsy of a nodule 5mm in diameter on the lateral border of the tongue was diagnosed as a fibroma. This patient should have

- A. hemisection of the tongue.
- B. radiotherapy to site of biopsy.
- C. no additional therapy.
- D. re-excision with wider margins.
- E. radium implantation around biopsy site.

The most appropriate treatment for a unicystic ameloblastoma is

- A. root canal therapy.
- B. hemimandibulectomy.
- C. block resection.
- D. curettage.
- E. radiotherapy.

In a 12 year old child, what is the most likely radiographic diagnosis for a radiolucent, expansive, multilocular lesion in the anterior mandible?

- A. Ameloblastoma.
- B. Simple bone cyst/traumatic bone cyst.
- C. Keratocystic odontogenic tumor.
- D. Central giant cell granuloma.

The lamina dura is a/an

- A. regular radiolucent line around the roots.
- B. regular radiopaque line around the roots.
- C. irregular radiolucent line around the roots.
- D. irregular radiopaque line around the roots.

Which of the following drugs inhibits salivary flow?

- A. Alendronate.
- B. Pilocarpine.
- C. Glycopyrrolate.
- D. Nystatin.

Which of the following requires antibiotic prophylaxis for a patient with a prosthetic heart valve?

- A. Inferior alveolar nerve block.
- B. Endodontic instrumentation beyond apex.
- C. Restoration of occlusal caries.
- D. Making an alginate impression.

Which of the following features would be most indicative of a cracked tooth?

- A. Periapical radiolucency.
- B. Hypersensitivity to thermal stimuli.
- C. Pain upon biting pressure.
- D. Absent vitalometric response.

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The instrument best suited for root planing is a/an

- A. hoe.
- B. file.
- C. curette.
- D. sickle scaler.
- E. ultrasonic scaler.

Which of the following is a possible cause for a low density radiograph (light film)?

- A. Cold developer.
- B. Over exposure.
- C. Improper safety light.
- D. Excessive developing time.

When preparing a cavity in a primary molar, there is a small mechanical exposure of one of the pulp horns. There is a slight hemorrhage and the dentin surrounding the exposure is sound. The most appropriate treatment is

- A. extraction and space maintenance.
- B. pulp capping, a base and restoration.
- C. pulpectomy and restoration.
- D. base and restoration.

Alginate hydrocolloids

- A. shrink when stored in air.
- B. show syneresis.
- C. expand when stored in water.
- D. All of the above.

To ensure maximum marginal strength for an amalgam restoration the cavosurface angle should

- A. approach 45 degrees.
- B. approach 90 degrees.
- C. be bevelled.
- D. be chamfered.

Guiding planes on abutment teeth for a removable partial denture should be prepared before the occlusal rests are prepared in order to

- A. avoid post-insertion adjustment.
- B. facilitate surveying of the cast.
- C. improve the retention of the direct retainer assembly.
- D. finalize the location of the occlusal rest.
- E. minimize the preparation needed for the occlusal rests.

A patient has a one year history of recurrent pain that lasts less than one minute. The pain is extreme, of short duration and lancinating, affecting the lower right face and jaw and can be brought on by light touch of the skin on both the lower lip and chin on the right side. The most likely diagnosis is

- A. trigeminal neuralgia.
- B. cluster headache.
- C. myofascial pain.
- D. migraine.

Which of the following resorbable sutures has the smallest thread size?

- A. 3.0 polyglycolic acid.
- B. 4.0 silk.
- C. 5.0 chromic gut.
- D. 6.0 nylon.

An incipient carious lesion on an interproximal surface is usually located

- A. vestibular to the contact area.
- B. lingual to the contact area.
- C. gingival to the contact area.
- D. occlusal to the contact area.

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Mandibular condylar region grows by

- A. sutural and interstitial proliferation.
- B. interstitial and appositional proliferation.
- C. appositional and sutural proliferation.
- D. interstitial proliferation only.
- E. appositional proliferation only.

Which of the following is the most appropriate analgesic for a patient taking hydrochlorothiazide?

- A. Acetaminophen.
- B. Celecoxib.
- C. Ibuprofen.
- D. Naproxen.

Developing roots will split when the

- A. epithelial diaphragm forms too many lateromedial extensions.
- B. dental follicle cells migrate into the epithelial diaphragm.
- C. cementoblasts fail to develop on and stabilize the root's surface.
- D. periodontal ligament forms too soon.

Petechiae are

- A. macules.
- B. papules.
- C. nodules.
- D. vesicles.
- E. bullae.

A common feature of the oral mucosal lesions of lichen planus, leukoplakia, hyperkeratosis and discoid lupus erythematosus is that they are

- A. premalignant.
- B. hyperkeratotic.
- C. due to chronic infection.
- D. granulomatous proliferations.
- E. associated with drug use.

Immediate toxic reactions to local anesthetic administration are most commonly due to

- A. deterioration of the anesthetic agent.
- B. hypersensitivity to the vasoconstrictor.
- C. hypersensitivity to the anesthetic agent.
- D. excessive blood level of the anesthetic agent.

Regarding dental caries, which of the following is correct?

- A. All carbohydrates are equally cariogenic.
- B. More frequent consumption of carbohydrates increases the risk.
- C. The rate of carbohydrate clearance from the oral cavity is not significant.
- D. Increased dietary fat increases the risk.

During the intravenous administration of diazepam, which of the following arteries may accidentally be entered in the antecubital fossa?

- A. Ulnar.
- B. Radial.
- C. Brachial.
- D. Deep brachial.
- E. Radial recurrent.

Propylthiouracil is a drug used in the treatment of

- A. leukemia.
- B. hyperthyroidism.
- C. sodium retention.
- D. intestinal parasites.

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The manufacturer's maximum recommended number of 1.8ml cartridges of 3% mepivacaine that may be safely administered to a 65kg adult is

- A. 5.
- B. 6.
- C. 7.
- D. 8.
- E. 9.

Irreversible hydrocolloid materials are best removed from the mouth by

- A. a quick snap.
- B. a slow teasing motion.
- C. twisting and rocking.
- D. having the patient create a positive pressure.

In pin-retained restorations, the pin holes should be parallel to the

- A. long axis of the tooth.
- B. nearest external surface.
- C. pulp chamber.
- D. axial wall.

Blue sclera is characteristic of

- A. osteopetrosis.
- B. osteogenesis imperfecta.
- C. osteitis deformans.
- D. fibrous dysplasia.

In complete denture fabrication, the most appropriate interocclusal position to mount the mandibular cast is obtained from recording

- A. laterotrusive movements.
- B. protrusive relation.
- C. centric relation.
- D. maximum intercuspation.

Chelating agents are useful to treat a tooth with a/an

- A. curved canal.
- B. sclerotic canal.
- C. apical abscess (periradicular).
- D. root perforation.

A 39 year old patient has lingering pain to heat in the area of tooth 3.6 and has referred pain to the left ear. There is a large MOD amalgam on tooth 3.6. The most likely diagnosis is

- A. normal pulp.
- B. reversible pulpitis.
- C. asymptomatic irreversible pulpitis.
- D. symptomatic irreversible pulpitis.
- E. pulpal necrosis.

The characteristic colour seen in the crowns of teeth with internal resorption is due to

- A. deposition of pigment in the cells of the odontoblast layer.
- B. the presence of hyperplastic vascular pulp tissue.
- C. a change in the consistency of the dentin.
- D. the difference in the refractive indices of the normal and affected areas.
- E. the degeneration and necrosis of the pulp tissue.

The upper lip is the result of fusion between the

- A. maxillary and mandibular processes.
- B. maxillary and lateral nasal processes.
- C. maxillary and medial nasal processes.
- D. medial and lateral nasal processes.
- E. lateral and medial palatine processes.

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A diet survey can provide which of the following information for the prevention of dental caries?

- A. Total carbohydrate consumption.
- B. Frequency of fermentable carbohydrate consumption.
- C. Total protein consumption.
- D. Daily calcium intake.

A tongue thrust is most often found in a child with

- A. a deep overbite.
- B. an anterior open-bite.
- C. an Angle Class II, division 2 malocclusion.
- D. a bimaxillary protrusion.

Botulinum neurotoxins cause which type of paralysis?

- A. Spastic.
- B. Flaccid.
- C. Periodic.
- D. Brachiofacial.

Alveolar osteitis is

- A. a local infection.
- B. osteomyelitis.
- C. bone inflammation.
- D. osteonecrosis.

Which primary molar terminal plane relationship is most likely to develop into an Angle Class II relationship?

- A. Straight.
- B. Distal step.
- C. Mesial step.

A patient who is jaundiced because of liver disease has an increased risk of

- A. postextraction bleeding.
- B. cardiac arrest.
- C. anaphylactic shock.
- D. pulmonary embolism.

A child has received a successful inferior alveolar nerve block using 1.5ml of 2% lidocaine with 1:100,000 epinephrine. However, during placement of a rubber dam clamp on the first permanent molar, the child complains that the “tooth ring” is hurting. Which of the following is the most appropriate management?

- A. Wait 15 minutes until more profound anesthesia is achieved.
- B. Anesthetize the lingual nerve with the remaining lidocaine.
- C. Anesthetize the long buccal nerve with the remaining lidocaine.
- D. Proceed with treatment without rubber dam.

It is difficult to obtain satisfactory anesthesia in the presence of infection near the injection site because

- A. the swelling causes increased pressure on the nerves.
- B. increased blood supply carries the anesthetic solution away too fast.
- C. acidity of the infected tissue inhibits action of the anesthetic agent.
- D. alkalinity of the infected tissue inhibits action of the anesthetic agent.

In which of the following patients can you safely extract a tooth in a dental office setting?

- A. Two weeks after a myocardial infarct.
- B. Four months into pregnancy.
- C. Suffering from Factor VIII deficiency.
- D. Presenting with bilateral submandibular space abscess.

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Hyperemia of the pulp is

- A. an acute inflammation with intermittent paroxysms of pain which may become continuous.
- B. an increased volume of blood within dilated vessels and increased blood flow.
- C. a chronic situation whereby minute arterioles of pulpal tissue are engorged for long periods creating temporary episodes of pain.
- D. a transient invasion of bacterial elements into the outer lying stroma of the pulpal tissue.

Longer trituration of alloy and mercury will result in an amalgam restoration which will have

- A. greater expansion during setting.
- B. reduced strength.
- C. increased flow.

The most appropriate immediate management of a hematoma following a posterior superior alveolar nerve block is to

- A. incise into the buccal sulcus.
- B. apply firm direct pressure.
- C. aspirate with a wide bore needle.
- D. place hot towels over the cheek.

The surgical risk for a patient with organic heart disease depends upon

- A. cardiac reserve.
- B. blood pressure.
- C. respiration.
- D. pulse rate.
- E. cardiac output.

When a painful muscle is palpated, the provoked pain is

- A. localized.
- B. referred to another area.
- C. described as a dull ache.
- D. described as a burning sensation.

One of the physiologic functions of adrenal corticosteroids is to

- A. reduce glycemia.
- B. increase salivation.
- C. promote retention of sodium and fluids.
- D. reduce arterial blood pressure.
- E. increase the immune response to infection.

A 20 year old student presents with clinical symptoms of necrotizing ulcerative gingivitis (NUG). Food intake for the last 24 hours indicates a soft diet lacking in fruits and vegetables. The patient's diet is important to investigate further because

- A. a deficiency of certain nutrients causes NUG.
- B. NUG may be limiting the food choices the patient is making.
- C. NUG can be cured through modification of diet.
- D. patients with NUG lose interest in eating.

A large, deeply furrowed tongue is commonly found in patients with

- A. Pierre Robin Syndrome.
- B. geographic tongue.
- C. ectodermal dysplasia.
- D. Down Syndrome.

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A sign of gingivitis is

- A. bone loss.
- B. progressive attachment loss.
- C. the presence of minimal attached gingiva.
- D. bleeding on probing.

A facebow record provides an approximation of the

- A. horizontal transverse axis and defines the position of the maxillary cast.
- B. horizontal transverse axis and defines the position of the mandibular cast.
- C. vertical axis and defines the position of the maxillary cast.
- D. vertical axis and defines the position of the mandibular cast.

Which of the following is NOT typically associated with failed endodontic treatment?

- A. *Enterococcus faecalis*.
- B. *Actinomyces israelii*.
- C. *Streptococcus mutans*.
- D. *Candida albicans*.
- E. *Prevotella intermedia*.

A centric relation record must be used to articulate casts in which of the following cases?

- A. More than one third of the patients occlusal contacts are to be restored.
- B. The vertical dimension of occlusion will be modified on the articulator.
- C. The patient shows signs of a temporomandibular disorder.
- D. The patient's maximum intercuspation and centric relation do not match.

When probing a healthy gingival sulcus with a 20g force, the tip of the periodontal probe is most likely located

- A. coronal to the junctional epithelium.
- B. at the level of the junctional epithelium.
- C. apical to the junctional epithelium.

Decreased size or obliteration of pulp chambers and canals is diagnostic of

- A. Hand-Schuller-Christian disease.
- B. cleidocranial dysplasia.
- C. amelogenesis imperfecta.
- D. osteogenesis imperfecta.

The use of a reservoir on the sprue of a wax pattern decreases

- A. volumetric changes in the casting.
- B. casting porosity from inclusion of gases.
- C. casting porosity from inclusion of foreign bodies.
- D. casting porosity during solidification.

Which of the following is the principal muscle of the floor of the mouth?

- A. Stylohyoid.
- B. Digastric.
- C. Geniohyoid.
- D. Mylohyoid.
- E. Platysma.

A delayed allergic reaction is called a

- A. Type I reaction.
- B. Type II reaction.
- C. Type III reaction.
- D. Type IV reaction.

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When light cured composite resin restorations are polymerized

- A. a conversion rate of 80-95% is achieved.
- B. oxygen improves polymerization of the surface.
- C. cross-linking increases the stiffness of the material.
- D. shrinkage decreases as conversion rate increases.

The main reason for adding copper to a dental amalgam alloy is to

- A. increase expansion.
- B. reduce tarnish resistance.
- C. make amalgamation easier.
- D. increase lustre.
- E. reduce the tin-mercury phase.

Which type of bone grafting material is most likely to have a successful result?

- A. Allogenic.
- B. Alloplastic.
- C. Autogenous.
- D. Xenogenic.

In the design of a removable partial denture, guiding planes are made

- A. parallel to the long axis of the tooth.
- B. parallel to the path of insertion.
- C. at a right angle to the occlusal plane.
- D. at a right angle to the major connector.

What percentage of 5 - 17 year olds in North America are caries free?

- A. 15 - 25
- B. 30 - 45
- C. 50 - 60
- D. 65 - 75

After processing, complete dentures on the original stone casts are rearticulated in order to correct occlusal disharmony produced by

- A. flasking and processing procedures.
- B. inaccurate jaw relation records.
- C. errors in registering of centric relation record.

A 16 year old healthy patient has good oral hygiene with minimal plaque and calculus, but severe interproximal attachment loss affecting the first molars and incisors. The most likely diagnosis is

- A. localized aggressive periodontitis.
- B. localized chronic periodontitis.
- C. generalized aggressive periodontitis.
- D. generalized chronic periodontitis.

What is the most likely diagnosis of a white, diffuse, wrinkled appearing lesion of the buccal mucosa which diminishes in prominence or disappears upon stretching?

- A. Leukoedema.
- B. Lichen planus.
- C. Candidiasis.
- D. Linea alba.
- E. White sponge nevus.

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Which of the following is the most appropriate treatment for an endodontically treated mandibular first molar with a previously placed MOD amalgam restoration?

- A. Bonded amalgam restoration.
- B. Composite resin restoration.
- C. Ceramic inlay.
- D. Crown.

When probing the sulcus of healthy gingiva, the tip of the periodontal probe extends

- A. to the coronal aspect of the epithelial attachment.
- B. to the alveolar bone crest.
- C. apical to the epithelial attachment.

The most appropriate opportunity for orthodontic treatment involving growth manipulation is

- A. during the late primary dentition.
- B. after the eruption of third molars.
- C. after skeletal growth is complete.
- D. during the period of greatest growth velocity.

Which of the following dental materials shows a chemical bond to clean dentin?

- A. Calcium hydroxide.
- B. Zinc-phosphate.
- C. Zinc-oxide and eugenol.
- D. Glass ionomer.

The Bass tooth brushing technique is appropriate for oral hygiene instruction because

- A. plaque beneath the gingival margin is removed.
- B. debris is forced from the embrasures.
- C. the horizontal, vertical and circular motions.
- D. it increases circulation to the gingiva.

Which analgesic interferes with platelet aggregation?

- A. Acetaminophen.
- B. Ibuprofen.
- C. Oxycodone.
- D. Codeine.

Which of the following, if left untreated, is most likely to result in a periapical lesion?

- A. Internal resorption.
- B. Reversible pulpitis.
- C. Acute suppurative pulpitis.
- D. Chronic hyperplastic pulpitis.
- E. Diffuse calcification of the pulp.

Compared to a full thickness flap, a partial-thickness (split-thickness) flap will

- A. increase the loss of marginal bone.
- B. reduce infraosseous defects.
- C. provide improved surgical access.
- D. increase the amount of attached gingiva.
- E. reduce healing time.

Which of the following statements regarding geriatric patients is correct?

- A. Drugs that primarily depend on pulmonary excretion for elimination should be prescribed in smaller doses or at greater time intervals.
- B. Multiple drug ingestion is less likely to result in toxicity due to inhibition of biotransformation.
- C. Multiple drug use predisposes the elderly to multiple side effects that may impact on their oral health.

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A patient who uses nitroglycerine has

- A. rheumatic heart disease.
- B. asthma.
- C. coronary artery disease.
- D. high blood pressure.
- E. cardiac arrhythmia.

When comparing opioids with NSAIDS which of the following is correct?

- A. Opioids impair gastric motility to a greater extent.
- B. NSAIDS cause more constipation.
- C. Opioids predispose to more bleeding.
- D. NSAIDS cause more drowsiness.

Which of the following does NOT have a multilocular radiolucent appearance?

- A. Ameloblastoma.
- B. Odontogenic myxoma.
- C. Stafne bone defect/static bone cavity.
- D. Central giant cell granuloma.
- E. Cherubism.

Isthmus fracture during function in a recently placed proximal-occlusal silver amalgam restoration (with occlusal extension through the occlusal fissure system), is most likely due to a preparation with

- A. inadequate isthmus depth.
- B. inadequate isthmus width.
- C. a stepped buccal or lingual wall.
- D. subgingival proximal extension.

The muscles used when closing the jaws to maximum intercuspsation include

- A. medial pterygoid, lateral pterygoid and masseter muscles.
- B. temporalis, medial pterygoid, masseter and geniohyoid muscles.
- C. medial pterygoid, temporalis and masseter muscles.
- D. lateral pterygoid, masseter, temporalis and geniohyoid muscles.

In drug synergism

- A. the effect of the combination of two drugs is greater than the sum of their individual effects.
- B. a drug accumulates in the body at a faster rate than it is destroyed or removed.
- C. a drug is concentrated in the kidneys.
- D. a drug produces active metabolites.
- E. the concentration of the drug increases with time.

Systemic antibiotics may be indicated for patients presenting with generalized

- A. chronic periodontitis.
- B. aggressive periodontitis.
- C. gingivitis.
- D. gingival hyperplasia.

Which of the following is caused by a microorganism?

- A. Geographic tongue.
- B. Lichen planus.
- C. Median rhomboid glossitis.
- D. Pyogenic granuloma.

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Exophthalmia may be a sign of

- A. hypoadrenalism.
- B. hyperadrenalism.
- C. hypothyroidism.
- D. hyperthyroidism.
- E. hypoparathyroidism.

Increased bleeding may be associated with a prolonged administration of

- A. acyclovir.
- B. codeine.
- C. ibuprofen.
- D. acetaminophen.
- E. lithium

A well-controlled, type 1 diabetic patient requires extraction of 3 teeth. Which of the following considerations is most appropriate preoperatively?

- A. Schedule surgery in the morning.
- B. Prophylactic antibiotics are advised for invasive treatments.
- C. If sedation is utilized, there should be no alteration in patient's insulin regime.
- D. Treatment should take place in a hospital setting.

Which of the following drug groups is LEAST likely to cause xerostomia?

- A. Diuretics.
- B. Antibiotics.
- C. Antidepressants.
- D. Anticholinergics.

In which of the following defects is bone regeneration most likely to occur?

- A. One-wall bony defect.
- B. Two-wall bony defect.
- C. Three-wall bony defect.

A patient has a prosthetic heart valve and is allergic to penicillin. The most appropriate antibiotic to be used prophylactically is

- A. erythromycin.
- B. metronidazole.
- C. amoxicillin.
- D. tetracycline.
- E. clindamycin.

A 6 year old has an open bite caused by active thumbsucking. The most appropriate management is to

- A. insert a habit-breaking appliance.
- B. refer to a psychologist for evaluation.
- C. encourage habit cessation and observe.
- D. bond limited fixed bracket.

In the mixed dentition, an end-to-end first permanent molar relationship is indicative of

- A. normally developing occlusion.
- B. Angle Class II malocclusion.
- C. Angle Class III malocclusion.
- D. ideal molar occlusion.

Which of the following is NOT a feature of aggressive periodontitis?

- A. Localized and generalized forms.
- B. Familial aggregation.
- C. Necrotic tissue.
- D. Presence of *Aggregatobacter actinomycetemcomitans*.

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During preparation of a subgingival Class V on tooth 3.6, a patient suddenly develops a swelling of the left face and neck with crepitation. The most probable diagnosis is a/an

- A. anaphylactoid reaction.
- B. hematoma.
- C. cervicofacial emphysema.
- D. type 1 allergic reaction.

Radiographically, an osteoma appears

- A. radiopaque.
- B. radiolucent.
- C. either radiopaque or radiolucent.
- D. radiolucent, surrounded by a radiopaque line.

Which of the following is the best predictor for successful periodontal flap surgery?

- A. Position of the flap after suturing.
- B. Extent of flap reflection.
- C. Level of plaque control.
- D. Type of initial incision.

An incipient carious lesion is described as being in

- A. dentin without pulpal involvement.
- B. the cementum only.
- C. the enamel and in the dentin up to 1mm.
- D. the enamel only.

The polymerization of methyl methacrylate is

- A. endothermic.
- B. hydrophilic.
- C. hydrolytic.
- D. exothermic.

The incidence of a second mesiobuccal canal in the maxillary first molar is

- A. 40%
- B. 60%.
- C. 80%.
- D. 100%.

Following the injection of 1.8ml of 2% lidocaine with 1:100,000 epinephrine, a nervous 22 year old male with well controlled insulin dependent diabetes states that he feels dizzy and weak. Beads of sweat have accumulated on his forehead and upper lip. He is quite pale. The initial management of this patient is to

- A. administer glucagon 1.0mg.
- B. administer epinephrine 0.5mg.
- C. administer diphenhydramine 50mg.
- D. elevate the patient's legs and administer 100% oxygen.
- E. call 911 and begin CPR.

A circumferential clasp arm

- A. originates above the height of contour.
- B. approaches the undercut from a gingival direction.
- C. extends more than 180° around the tooth.

Radiographic examination of an intruded primary maxillary central incisor reveals no root fracture and no displacement in the permanent tooth germ. The most appropriate management would be to

- A. extract the tooth.
- B. bring the tooth into position and ligate it.
- C. observe periodically.
- D. remove the tooth and replant it in a more favorable position.

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Overlapped interproximal contacts in a bite-wing radiograph are caused by an X-ray tube cone

- A. with incorrect vertical angulation.
- B. with incorrect horizontal angulation.
- C. of incorrect length.
- D. of incorrect shape.

Roots of the permanent maxillary central incisors are completed by what age?

- A. 8 years.
- B. 10 years.
- C. 12 years.
- D. Later than 12 years.

In cases of suspected fluoride overdose, following a call to medical emergency services, a patient should drink

- A. juice.
- B. milk.
- C. water.

During cavity preparation with a rubber dam, a small mechanical pulp exposure occurs. The most appropriate management is to

- A. swab the exposure with chlorhexidine.
- B. place a pulp capping material.
- C. perform a pulpotomy.
- D. perform a pulpectomy.

A patient who is a hepatitis B carrier presents for an extraction. The extraction should be delayed and

- A. rescheduled at the end of the day for infection control.
- B. an antibiotic prescribed prophylactically.
- C. the patient referred to a hospital dental department.
- D. an evaluation of liver function performed.

Unmyelinated nerves found in the pulp that respond to thermal, mechanical, chemical and inflammatory stimuli are called

- A. C fibres.
- B. A delta fibres.
- C. sympathetic fibres.
- D. dentinal tubules.

Which one of the following describes the position of the needle tip during administration of local anesthetic for the inferior alveolar nerve block?

- A. Anterior to the pterygomandibular raphe.
- B. Medial to the medial pterygoid muscle.
- C. Superior to the lateral pterygoid muscle.
- D. Lateral to the sphenomandibular ligament.

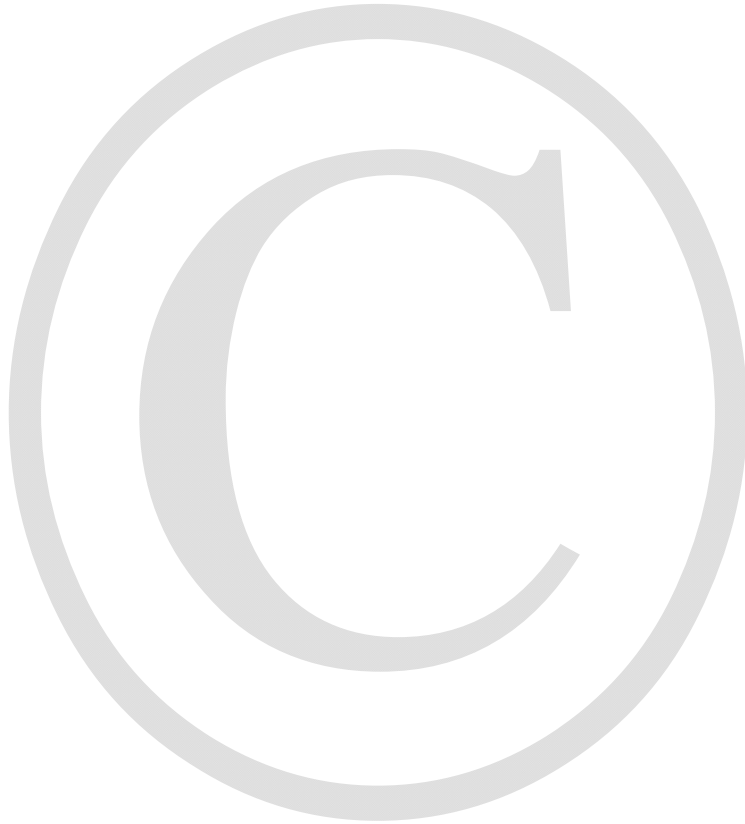
Which of the following statements is true regarding local anesthetic syringes and needles for dental anesthesia?

- A. Bending a needle is an acceptable practice for injections when the needle is inserted more than 5mm into soft tissue.
- B. To avoid percutaneous injury, needles may be left uncapped away from the working area after use.
- C. A new anesthetic needle should be used when the elapsed time between multiple injections is more than 30 minutes.
- D. Needles should be recapped after use, using a scoop method or mechanical device.

In soldering nickel-cobalt-chromium alloys and stainless steel, the function of the fluoride flux is

- A. to lower the melting temperature of the solder.
- B. to reduce the copper-oxide content of the alloy.
- C. to stop the flow of the molten solder onto undesired areas.
- D. to reduce the formation of chromium oxide during soldering.

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