

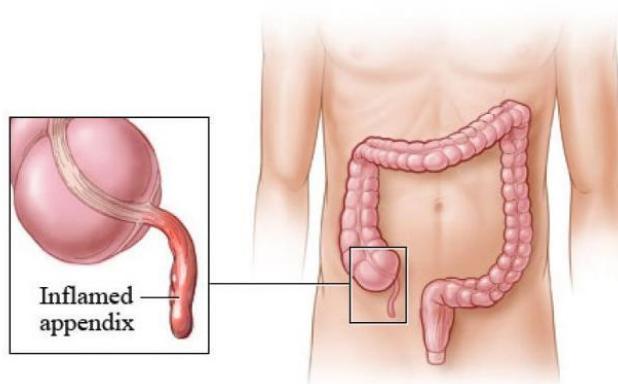
MEDICAL CODING

ABHISHEK-CPC

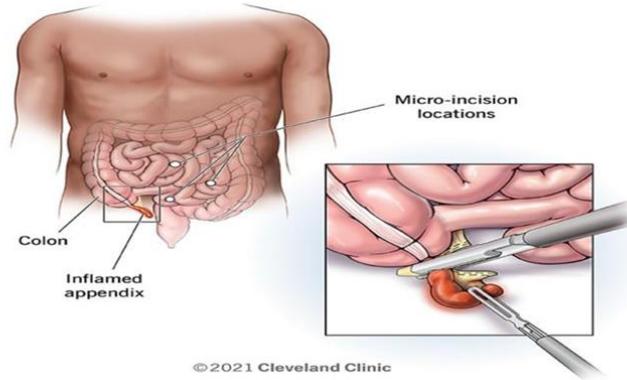


Medical coding is a translation or conversion of diseases or conditions, procedures or surgeries, and materials or supplies into universally accepted codes.

Ex: for diseases are: Appendicitis, Fever, Rhinitis, Nephritis, HIV, Sepsis etc.



EX: for procedures are: Appendectomy, Rhinotomy, x-ray, MRI, Anaesthesia etc.



EX: Materials: Ambulance services, wheelchair equipment's, Bandages, injections, Durable medical equipment.



CODES: 3 TYPES

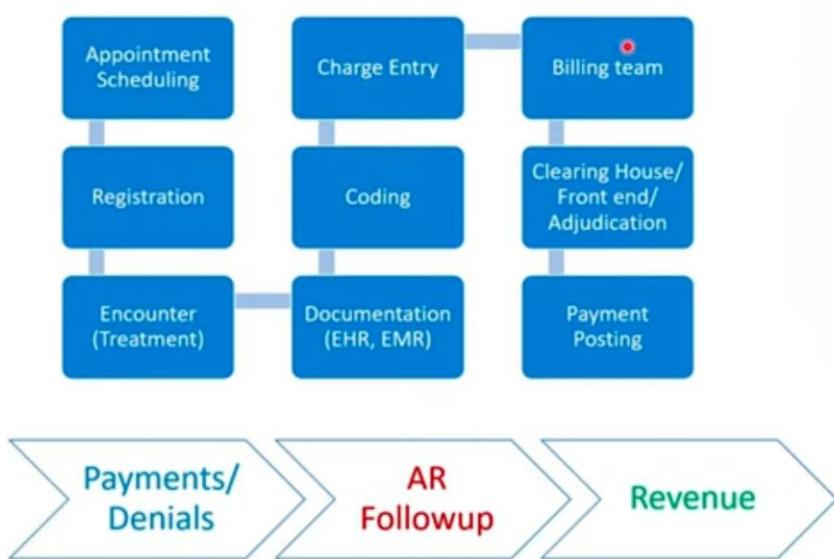
Alphabetical, Numeric, Alpha+numeric.

Numeric: only numbers

Alphanumeric: alphabets+ numbers

Alphabetical: only alphabets.

RCM CYCLE (REVENUE CYCLE MANAGEMENT)



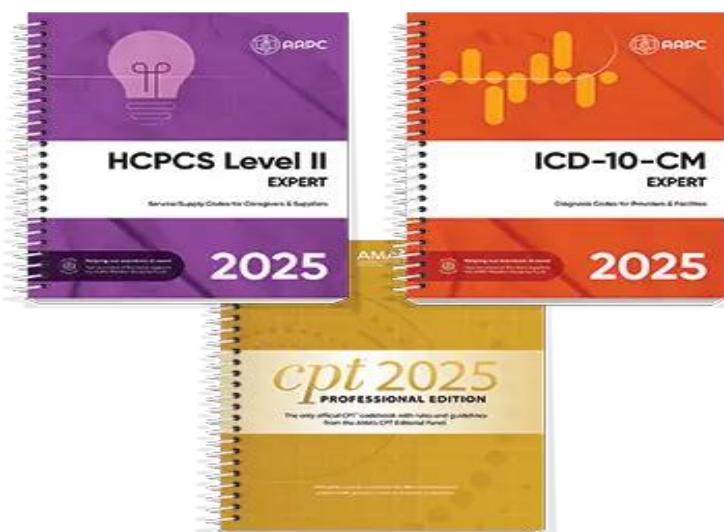
Patients come to hospital with disease, physician provides treatment to patient, insurance company pays fees for physician, patient pays premium to the insurance company.

Medical Transcript: Translates the Audio file in to Text file.

Medical coder: Converts the Text file in to Coding file.

Medical Biller: Converts coding file in to billing form.

BOOKS USED IN MEDICAL CODING ARE:



ICD-10-CM: International classification of diseases 10th Revision clinical modification.

- This book published by WHO.
- This book is used for to code Diseases.
- They are 3 – 7 digits, Alpha+ numeric codes.

CPT: Current procedural terminology

- Published by American medical association.
- This book is used for to code procedure or surgeries or services.
- They are 5-digit numeric codes

HCPCS: Health care common procedural coding system.

- Published by CMS (centre for Medicare and Medicaid services)
- This book is used to code the supplies or material codes.
- This book contains 5-digit alpha + numeric codes

CPC – CERTIFICATION:

- Certified professional coder exam conducted by AAPC.
- 100 – marks exam 70% is qualifying percentage.
- 4 hours exam Duration.
- Open Book Exam ICD-10-CM, CPT, HCPCS.

CARRIER IN MEDICAL CODING:

- We start our career as Junior medical coder then senior medical coder followed by Team leader and asst manager then manager.
- Packages depend on the companies.
- Cpc certified paid more than non-cerfier.



ABHISHEK-CPC

ANATOMY AND MEDICAL TERMINOLOGY

Anatomy and medical terminology are most important for medical coding.

- To read the patient report we should know the medical terms and anatomical structure and function of the organ.
- Medical terms: medical terms are a language of medicine used to describe the anatomical structures or organ names, disease names and procedures.

Ex1: medical terms for organs are

- Dermo = Skin
- Cardio = Heart
- Dento = Teeth

Ex2: Medical terms for diseases are

- Itis = inflammation or infection
- Gastritis = inflammation of stomach
- Dermatitis = inflammation of skin

Ex 3: medical terms for surgeries or procedure are

- Ectomy = surgical removal
- Otomy = surgical incision

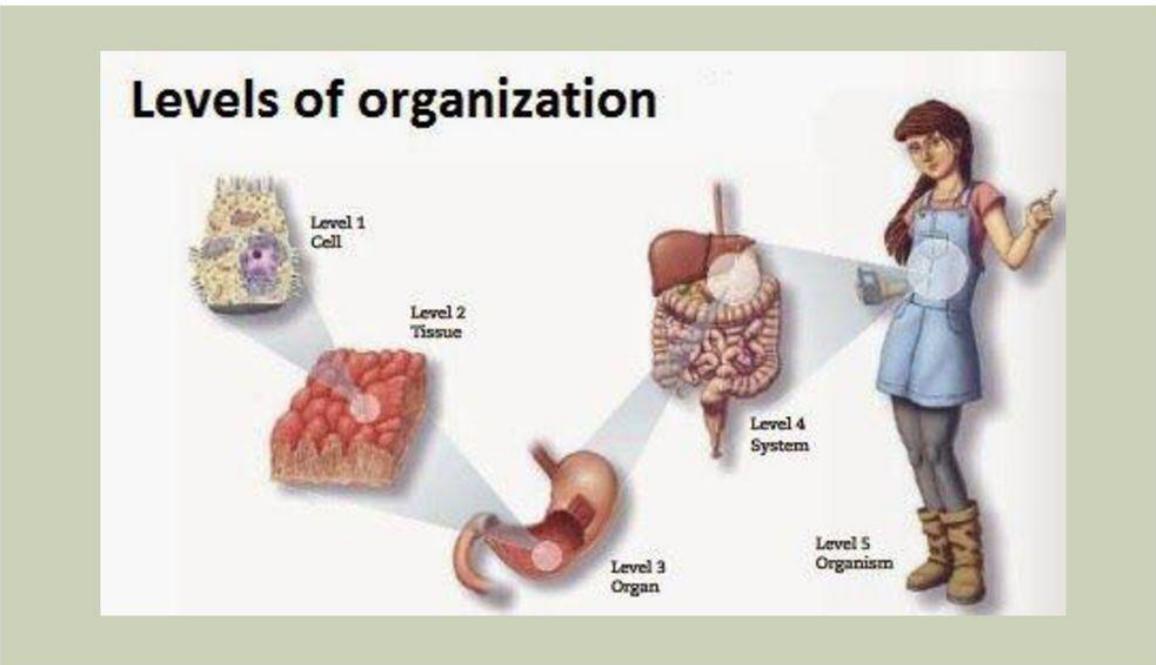
- Scopy = visual examination
- Appendectomy = surgical removal of appendix
- Gastroscopy = visual examination of stomach.
- Dermatology = surgical incision of skin.

ANATOMY: Branch of science concerned with bodily structures of humans and other living organisms.

CELL: Structural and functional unit of the body or organism.

- Group of cells forms **tissues**
- Group of tissues forms **organs**
- Group of organs forms **organ system**
- Group of organ systems forms **human body**.

CELLS AND ORGANS

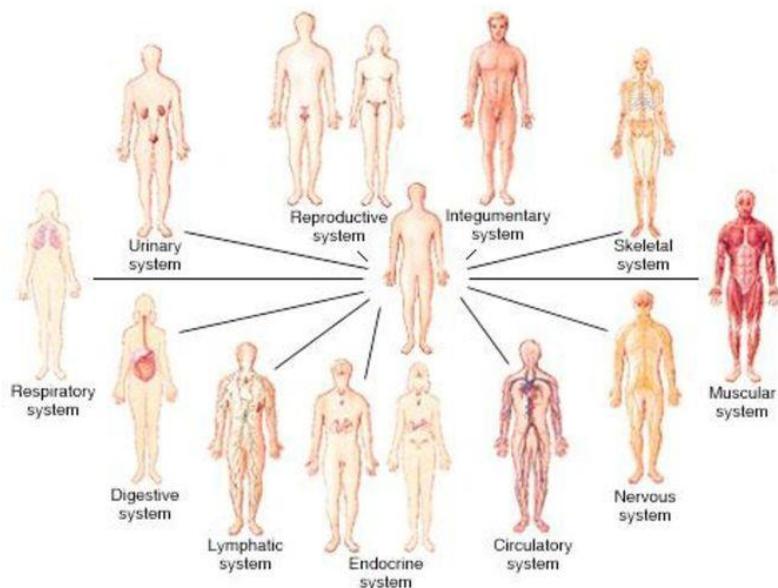


To form human body there is a need of 11 systems.

1) Integumentary system (skin, nails, hair)

- 2) Muscular system (muscles)
- 3) Skeletal system (bones)
- 4) Nervous system (brain, spinal cord)
- 5) Endocrine system (Glands)
- 6) Respiratory system (lungs)
- 7) Digestive system (mouth, stomach, intestine etc)
- 8) Cardiovascular system (Heart, blood vessels)
- 9) Renal system (kidney, urinary bladder etc)
- 10) Reproductive system
 - Male reproductive system
 - Female reproductive system
- 11) Lymphatic system (immune system)

11 Body Systems



A we start the training from basics like medical terms and entire 11 systems of anatomy

- If your is non – life science graduate also u can crack the CPC exam and interview if u know the basics like medical terms, anatomy and guidelines.

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MEDICAL TERMINOLOGY

Medical term contains 4 parts.

Prefix: Starting of medical term and it Changes the entire meaning of the medical term.

Example: PHAGIA means Swallowing.

- Euphagia = normal swallowing.
- Dysphagia = difficulty in swallowing.
- Aphagia = absence of swallowing.

ROOT WORD: Root word is a foundation of medical term Generally it is a name of the organ and it is noun.

EXAMPLE:

- Gastr = stomach
- Cardi = heart
- Hepat = liver
- Enter = small intestine.
- Col = large intestine.

COMBINING VOWEL: (a, e, i, o, u): combining vowel which combines the

ROOT WORD+ ROOT WORD and ROOT WORD + SUFFIX.

EXAMPLE: GASTROENTEROLOGY = Here O is the combining vowel which combining Root word + Root word.

Second O combining the Root word + suffix (logy)

2) GASTROLOGY: Here O combining the Root word + suffix.

NOTE: when suffix starts with vowel, we should not use another vowel.

Example: GASTRITIS = here ITIS means inflammation and (I) is the vowel and

suffix is starting with the vowel we are not using another vowel.

SUFFIX: Suffix is the ending of the medical term and it changes the entire meaning of the medical term.

Example: logy = study of, Itis = inflammation, Magaly = enlargement.

- GASTROLOGY = Study of stomach.
- GASTRITIS = Inflammation of stomach
- GASTROMEGALY = Enlargement of stomach.

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PREFIX	MEANING	EXAMPLE
1) A	No, NOT, WITHOUT, ABSENCE OF.	APHAGIA
2) AN	No, NOT, WITHOUT, ABSENCE OF.	ANHYDROUS
3) AB	AWAY FROM	ABNORMAL
4) AD	TOWARDS	ADDUCTION
5) CONTRA	AGAINST OR OPPOSITE	CONTRALATERAL
6) DYS	DIFFICULTY	DYSPHAGIA
7) HYPER	EXCESSIVE	HYPERTENSION
8) HYPO	LESS OR DEFICIENT	HYPOTENSION
9) NEO	NEW	NEONATAL
10) ANTE	BEFORE	ANTENATAL
11) POLY	MANY	POLYDACTYLISM
12) NOCTO	NIGHTTIME	NOCTURIA
13) ERYTHRO	RED	ERYTHROCYTES
14) LEUKO	WHITE	LEUKOCYTES
15) MELANO	BLACK	MELANOCYTES
16) XANTHO	YELLOW	XANTHOCHROMIA
17) CYANO	BLUE	CYANOSIS

18) ORTHO	STRAIGHT	ORTHOPNEA
19) PRE	BEFORE	PREOPERATIVE
20) POST	AFTER	POSTOPERATIVE
21) HEMI	HALF	HEMIPLEGIA
22) SEMI	HALF	SEMILUNAR
23) MONO/UNI	ONE/SINGLE	MONOCYTE, UNILATERAL
24) BI	TWO	BILATERAL
25) TRI	THREE	TRIAD
26) QUADRI	FOUR	QUADRIPLEGIA
27) HEX	SIX	HEXOSE
28) DIPLO	DOUBLE	DIPLOPIA
29) AMBI	BOTH	AMBIDEXTROUS
30) ISO	EQUAL	ISOMETRIC
31) ECTO/EXO	OUTSIDE	ECTODERM, EXOCRINE GLAND
32) ENDO	WITHIN/INSIDE	ENDOCRINE GLAND
33) IPSI	SAME	IPSILATERAL
34) MESO	MIDDLE	MESODERM
35) PERI	SURROUNDING/AROUND	PERICARDIUM
36) TRANS	THROUGH, ACROSS	TRANSORAL
37) MEGALO	ENLARGEMENT	GASTROMEGALY
38) HOMO	SAME	HOMOGENIOUS
39) ANISO	UNEQUAL	ANISOCYTOSIS
40) EU GOOD	NORMAL	EUPHAGIA
41) HETERO	DIFFIRENT	HETEROCHROMIA
42) INTRA	INSIDE	INTRACELLULAR
43) INTER	INBETWEEN	INTERCELLULAR

44) PACHY	THICK	PACHYDERMA
45) TACHY	FAST OR RAPID	TACHYCARDIA
46) BRADY	SLOW	BRADYCARDIA
47) SUPRA	ABOVE	SUPRARENAL
48) INFRA	BELOW	INFRAMAMMARY
49) EN	INSIDE	ENCEPHALO
50) EPI	ABOVE	EPIGASTRIC
51) SUB	BELOW/ UNDER	SUBCUTANEOUS
52) LITHO/CALCULO	STONE	NEPHROLITHIASIS
53) CHEMO	CHEMICAL	CHEMOTHERAPY
54) AUTO	SELF	AUTOLYSIS
55) PSEUDO	FALSE	PSUDOCYST
56) PAN	ALL	PANGASTRITIS
57) MAL	BAD	MALNUTRITION
58) DESI	1/10TH	DECIMETER
59) CENTI	1/100TH	CENTIMETRE
60) MILLI	1/1000TH	MILLIMETRE.

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SUFFIX	MEANING	EXAMPLE
1) al	PERTAINING TO (OR) REFERRING TO	ABDOMINAL
2) ic	PERTAINING TO (OR) REFERRING TO	EPIGASTRIC
3) ac	PERTAINING TO (OR) REFERRING TO	CARDIAC
4) eal	PERTAINING TO (OR) REFERRING TO	ESOPHAGEAL
5) ous	PERTAINING TO (OR) REFERRING TO	SUB CUTANEOUS

6) ive	PERTAINING TO (OR) REFERRING TO	PREOPERATIVE
7) ary	PERTAINING TO (OR) REFERRING TO	INFRAMAMMARY
8) ose	PERTAINING TO (OR) REFERRING TO	ADIPOSE
9) gram	RECORD (OR) IMAGE	ELECTROCARDIOGRAM
10) graph	INTSTRUMENT USED TO RECORD	ELECTROCARDIOGRAPH
11) graphy	PROCESS OF RECORDING	ELECTROCARDIOGRAPHY
12) meter	INSTRUMENT USED TO MEASURE	THERMOMETER
13) metry	PROCESS OF MEASURING	THERMOMETRY
14) scope	INSTRUMENT USED TO SEE	MICROSCOPE
15) scopy	PROCESS OF VISUAL EXAMINATION	MICROSCOPY
16) blast	IMMATURE CELL	OSTEOBLAST
17) cyte	CELL	OSTEOCYTE
18) gen	AN AGENT THAT CAUSES OR PRODUCES	CARCINOGEN
19) itis	INFLAMATION	APPENDICITIS
20) phagia	SWALLOWING	EUPHAGIA
21) logy	STUDY OF	GASTROLOGY
22) poiesis	FORMATION OF	HEMOPOIESIS
23) lysis	DESTRUCTION	HEMOLYSIS
24) stasis	TO STOP	HEMOSTASIS
25) algia	PAIN	MYALGIA
26) dynia	PAIN	DENTODYNIA
27) ist	A SPECIALIST	CARDIOLOGIST
28) form	RESEMBLING OR LIKE	FUNGIFORM
29) oid	RESEMBLING OR LIKE	LIPOID
30) ule	SMALL	VEINULE
31) ole	SMALL	ARTERIOLE

32) oma	TUMOR	CARCINOMA
33) emesis	VOMITHING	HEMATEMESIS
34) edema	SWELLING	PERIPHERAL EDEMA
35) iasis	FORMATION OF	NEPHROLITHIASIS
36) megaly	ENLARGEMENT	HEPATOMEGLY
37) osis	CONDITION OF	CYANOSIS
38) penia	ABNORMAL REDUCTION	ERYTHROCYTOPENIA
39) phasia	SPEAKING	DYSPHASIA
40) phobia	FEAR OF	HYDROPHOBIA
41) phile	ABNORMAL ATTRACTION	PEDOPHILE
42) rrhexis	RUPTURING OR BREAKDOWN	TRICHLORRHEXIS
43) rrhage	ABNORMAL FLOW OR DISCHARGE	HEMORRHAGE
44) rrhea	FLOW OR DISCHARGE	SIALORRHEA
45) trophy	DEVELOPMENT OR NOURISHMENT	HYPERTROPHY
46) centesis	SURGICAL PUNCTURE TO REMOVE FLUID	ARTHROCENTESIS
47) plasty	SURGICAL REPAIR	DERMOPLASTY
48) rrhaphy	SURGICAL SUTURING	CUTANEORRHAPHY
49) ectomy	SURGICAL REMOVAL	APPENDECTOMY
50) otomy	SURGICAL INCISION OR CUT	THORACOTOMY
51) ostomy	PERMANENT OPENING	TRACHEOSTOMY
52) pexy	SURGICAL FIXATION	ORCHIOPEXY
53) tripsy	SURGICAL CRUSHING OR FRAGMENTATION	LITHOTRIPSY
54) emia	BLOOD CONDITION	ANEMIA
55) pathy	DISEASE	MYOPATHY
56) plasia	GROWTH	HYPERPLASIA

57) pnea

BREATHING

APNEA

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COMBINIG FORM = ROOT WORD + COMBINING VOWEEL

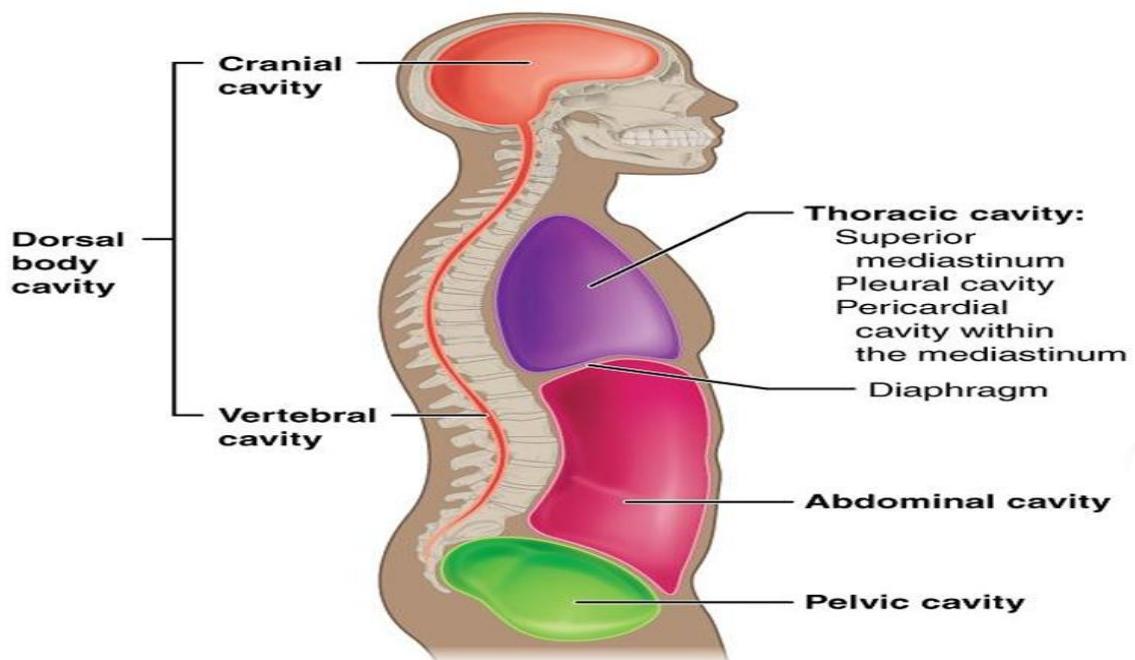
<u>COMBINING FORM</u>	<u>MEANING</u>	<u>EXAMPLE</u>
1) ABDOMEN/O	ABDOMEN	ABDOMINOPLASTY
2) ANGI/O	BLOOD VESSEL	ANGIOGRAM
3) PHLEB/O	VEINS	PHLEBITIS
4) ATHER/O	ARTERIES	ATHEROSCLEROSIS
5) BI/O	LIFE	BIOLOGY
6) CARCIN/O	CANCER	CARCINOGEN
7) CEPHALO	HEAD	CEPHALODYNIA
8) CARDI/O	HEART	CARDITIS
9) CYST/O	URINARY BLADDER	CYSTITS
10) ELECTR/O	ELECTRICITY	ELECTROCARDIOGRAM
11) ENTER/O	SMALL INTERSTINE	ENTERITIS
12) GNATH/O	JAW	GNATHODYNIA
13) GYNAC/O	WOMEN	GYNACOLOGIST
14) HEPAT/O	LIVER	HEPATITIS
15) LIP/O	LIPID/FAT	LIPOLYSIS
16) MAST/O	MAMMARY GLAND/BREAST	MASTECTOMY
17) NECR/O	DEAD TISSUE	NECROSIS
18) NECROPSY	EXAMINATION OF DEAD TISSUE	SKIN NECROPSY
19) BIOPSY	EXAMINATION OF LIVING TISSUE	SKIN BIOPSY
20) NEPHR/O	KIDNEY	NEPHRORRHAPHY

21) ARTHR/O	JOINT	ARTHROCENTESIS
22) BUCC/O	CHEEKS	BUCCODYNIA
23) CEREBR/O	BRAIN	CEREBROMEGALY
24) CERVIC/O	NECK	CERVICALGIA
25) AB/O	FOOD/MEAL	ABOPHOBIA
26) COST/O	RIBS	COSTOCHRONITIS
27) CHONDRO	CARTILAGE	CHONDRITIS
28) CRANI/O	SKULL	CRANIOPLASTY
29) CUTANEO	SKIN	SUBCUTANEOUS
30) DACTYL/O	FINGERS	POLYDACTYLISM
31) DENT/O	TEETH	DENTIST
32) GINGIV/O	GUMS	GINGIVITIS
33) GLASS/O	TONGUE	GLASSECTOMY
34) LINGU/O	TONGUE	SUBLINGUAL
35) LABI/O	LIPS	LABIORRHEXIS
36) ILEO	ILEUM (SMALL INTERSTINE)	ILEORRHAPHY
37) ILIO	ILIUM	ILIOPLASTY
38) LAPAR/O	ABDOMEN	LAPAROSCOPIC
39) MENING/O	MENINGES	MENINGITIS
40) MORPH/O	SHAPE	MORPHOLOGY
41) MY/O	MUSCLE	MYALGIA
42) NEUR/O	NERVES	NEURAIGIA
43) ONYCH/O	NAIL	ONYCOMYCOSIS
44) UNGU/O	NAIL	SUBUNGUAL
45) OT/O	EAR	OTALGIA
46) PHARYNG/O	THROAT	PHARYNGITIS

47) OPHTHALM/O	EYE	OPHTHALMOLOGIST
48) PULMONO/PNEUMANO	LUNGS	PULMONOLOGIST
49) PY/O	PUSS	PYORRHEA
50) REN/O	KIDNEY	RENAL
51) SIAL/O	SALIVA	SIALORRHEA
52) RHIN/O	NOSE	RHINITIS
53) SPONDYL/O	VERTEBRAE	SPONDYLITIS
54) STOMAT/O	MOUTH	STOMATITIS
55) THROMB/O	BLOODCLOT	THROMBOLYSIS
56) OOPHAR/O	OVARIES	OOPHARECTOMY
57) HYSTERO/METRO	UTERUS	HYSTERECTOMY
58) SALPING/O	FALLOPIAN TUBES	SALPINGITIS
59) COLP/O	VEGINA	COLPOTOMY
60) ORCHI/O	TESTIS	ORCHITIS.

ABHISHEK-CPC

CAVITIES: - cavities are the hollow spaces present inside the human body.



1) CRANIAL CAVITY: space present inside the head/skull it is also called house of the brain.

- The major organs present in cranial cavity are –BRAIN, ENDOCRINEGLANDS, MENINGES.

2) THORACIC CAVITY: - Present in chest region, second largest cavity.

- The major organs present in these cavities are – HEART, LUNGS. THORAX IS ALSO CALLED CHEST CAVITY.

3) ABDOMINAL CAVITY: - Present in stomach region, largest cavity in human body.

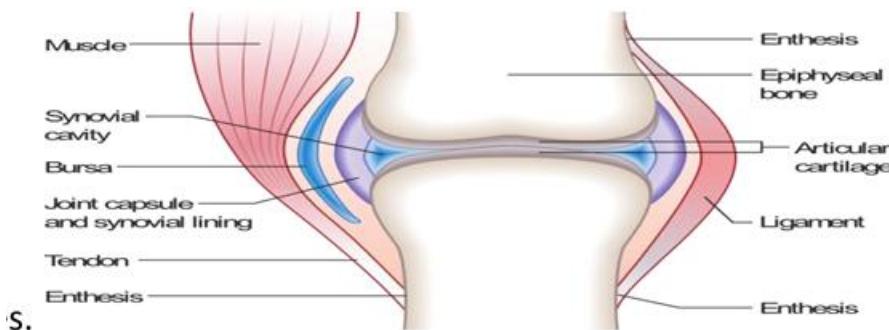
- The major organs present in these cavities are – STOMACH, LIVER, GALLBLADDER, PANCREAS, KIDNEYS, PARTS OF INTERSTINE. TRUNK – THORACIC CAVITY + ABDOMINAL CAVITY

4) PELVIC CAVITY: - present below the abdominal cavity

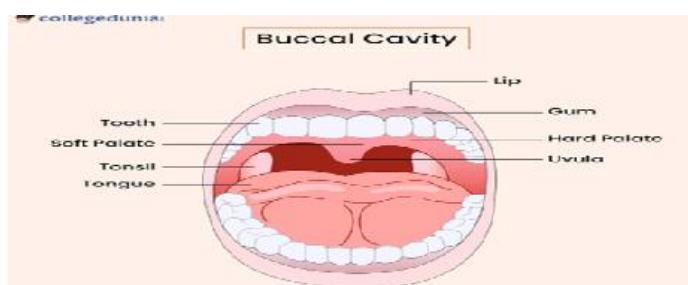
- Major organs present in Pelvic cavity are – URINARY BLADDER, UTERUS, FALLOPIAN TUBES, OVARIES ETC. -

5) SYNOVIAL CAVITY: the space present between two bones is called synovial cavity.

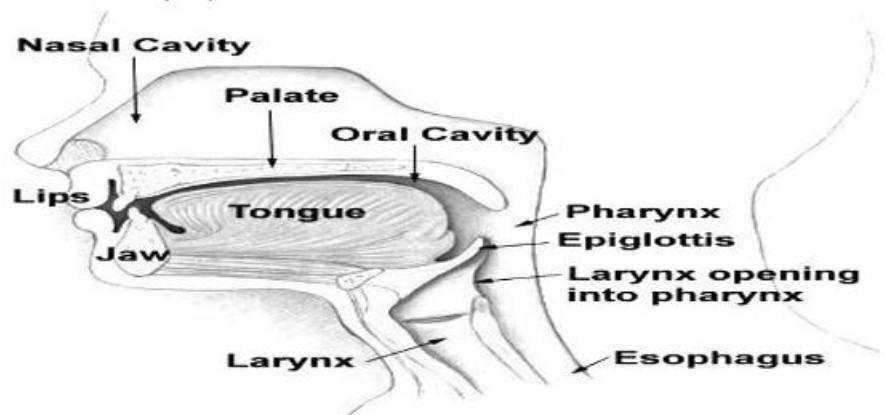
- Synovial cavity contains synovial fluid which prevent friction between two bones



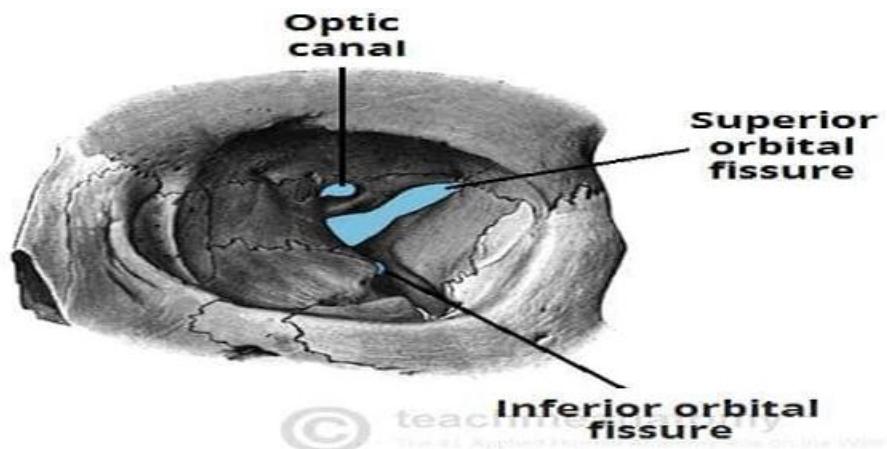
6) Buccal cavity: present inside mouth.



7) Nasal cavity: present inside nose.

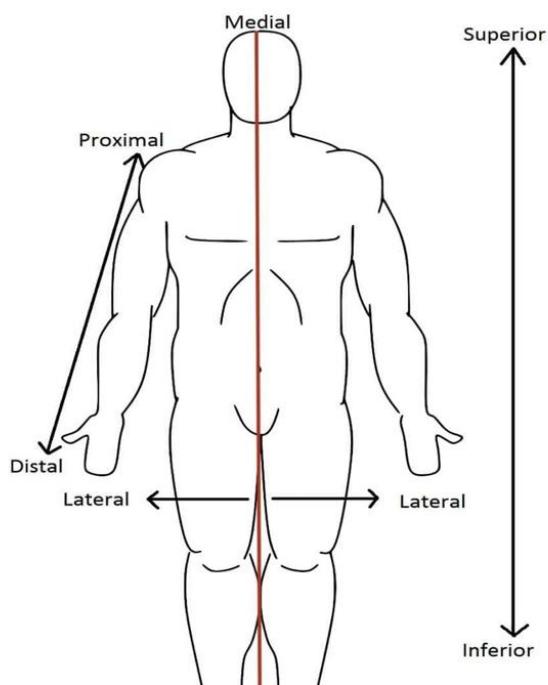


8) Orbital cavity: The eye ball present inside orbital cavity.

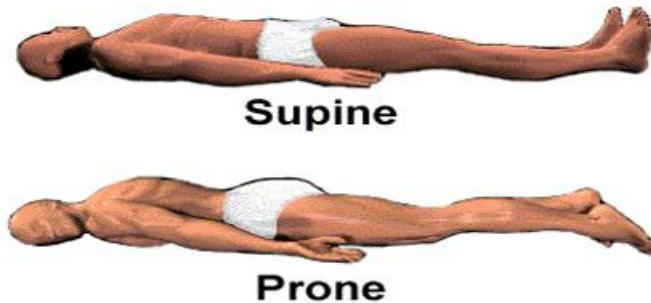


DIRECTIONS:

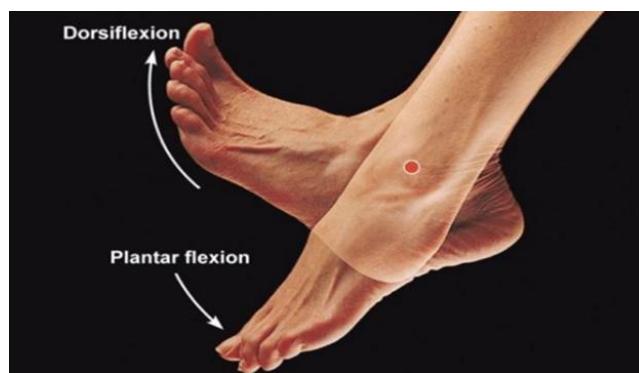
ABHISHEK-CPC



- 1) Anterior or Ventral = front side
- 2) Posterior or Dorsal = Back side
- 3) AP = anterior to posterior front to back.
- 4) PA = posterior to anterior back to front.
- 5) Lateral = side
- 6) Unilateral = single side
- 7) Bilateral = both sides
- 8) Contralateral = opposite side
- 9) Ipsilateral = side by side.
- 10) Proximal = Towards the body
- 11) Distal = Away from the body.
- 12) Supine = facing upward
- 13) Prone = facing down ward



- 14) Dorsiflexion = moving foot towards the ankle.
- 15) Plantarflexion = moving foot towards ground.



16) Extremities = Means hands and feet.



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