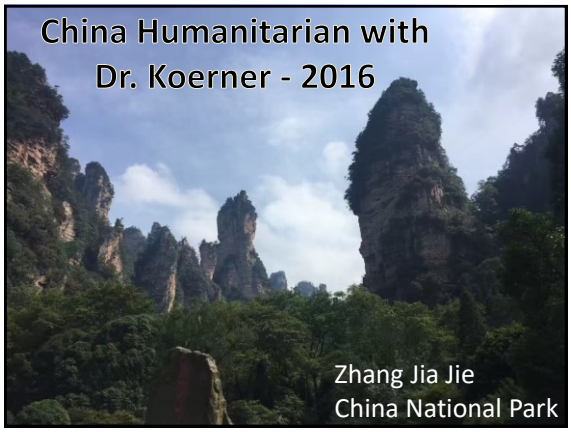
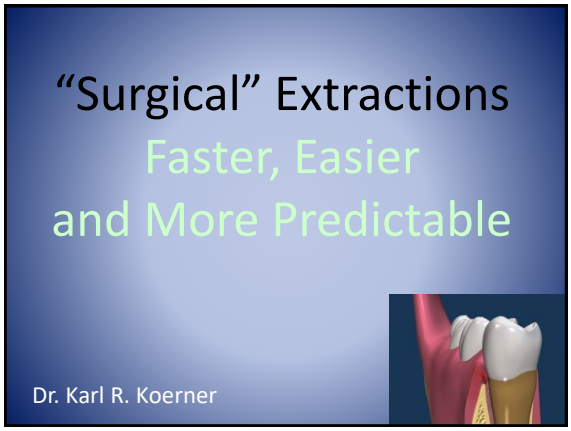
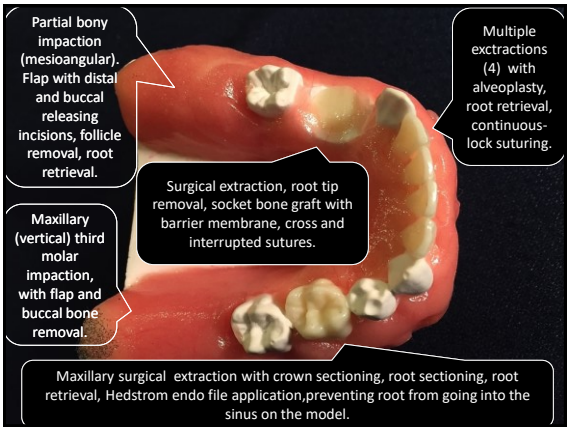
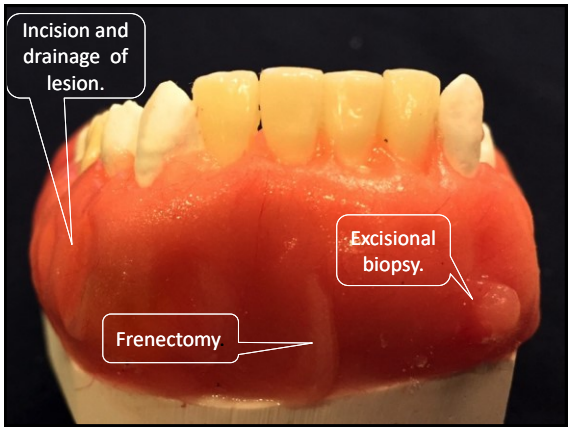
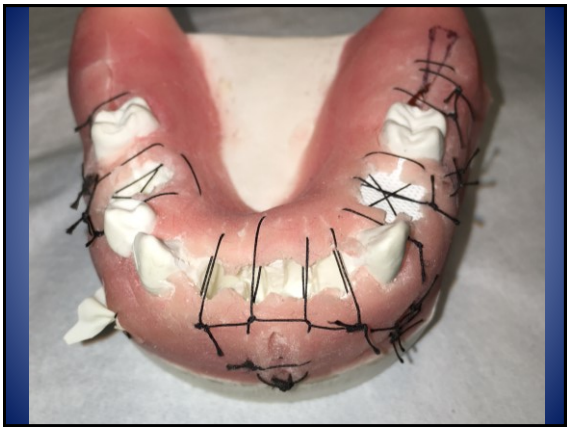

China Humanitarian with
Dr. Koerner - 2016
Zhang Jia Jie
China National Park


Periodontist from Boston.
Treating facial paralysis with
acupressure in Xian


"Surgical" Extractions
Faster, Easier
and More Predictable
Dr. Karl R. Koerner


Partial bony impaction (mesioangular). Flap with distal and buccal releasing incisions, follicle removal, root retrieval.
Multiple exctractions (4) with alveoplasty, root retrieval, continuous-lock suturing.
Surgical extraction, root tip removal, socket bone graft with barrier membrane, cross and interrupted sutures.
Maxillary (vertical) third molar impaction, with flap and buccal bone removal.
Maxillary surgical extraction with crown sectioning, root sectioning, root retrieval, Hedstrom endo file application,preventing root from going into the sinus on the model.


Incision and drainage of lesion.
Excisional biopsy.
Frenectomy



Don't plan on retiring at 55.

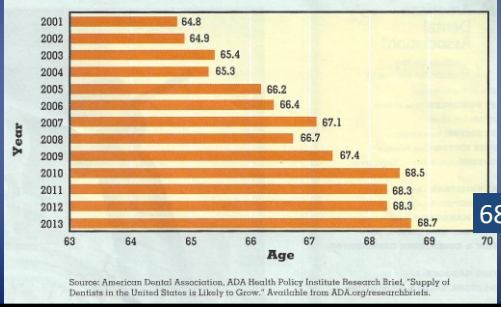
Probably not at 60 or 65 either.

Howard Farran, DDS, MBA

ADA News Nov. 2014.

Dentists' average age at retirement

The average age of a dentist at retirement has increased from 64.8 in 2001 to 68.7 in 2013.



Source: American Dental Association, ADA Health Policy Institute Research Brief, "Supply of Dentists in the United States is Likely to Grow." Available from ADA.org/researchbriefs.

68.7

Answer to 'how to do better':

- Lower expenses
- Increase marketing
  - Have a good website and be "search engine optimized"
  - have a Facebook page
- Add new products and services
- Do root canals, crowns, and dentures
- Pull teeth, even easier wisdom teeth
- Join insurance plans
- Use 3D CBCT
- Don't do gold (overhead too high)
- Place single root-form implants
- Do simple ortho, Invasalign
- Treat sleep apnea and snoring
- Make mouthguards

Level of competence….

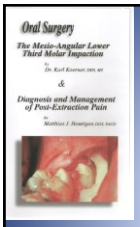
- Recent graduate: minimal experience.
- Recent graduate: experience with "surgical" extractions.
- Surgery oriented GPR, AEGD, or being taught clinically by an experienced "mentor".
- Years of experience doing and learning from many extractions.

What should you refer? Ask yourself:

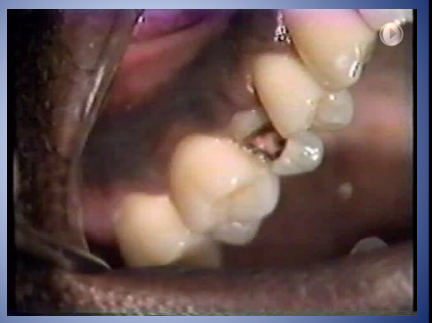
- What is your level of competence with exodontia?
- How stressful does it become?
- How long does it take you to remove a difficult tooth?
- What is in your comfort zone?

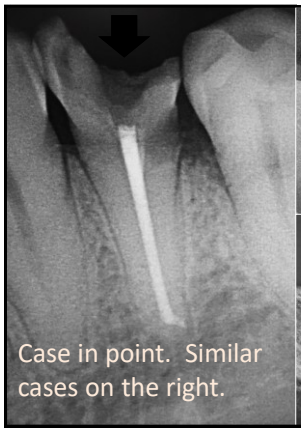
So, when do you refer?
(Depends on your level.)

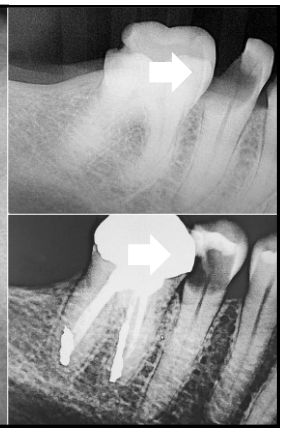
- Seriously medically compromised patient.
- Anxious patient, requiring IV sedation.
- Likely to take too much time.
- Likely to become "surgical" and outside your capability and "comfort" level.
- Predisposed to various complications.



The "standard" from the past.

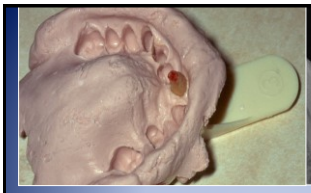


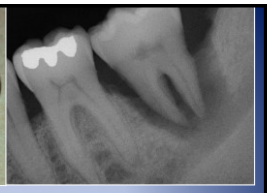




Case in point. Similar cases on the right.

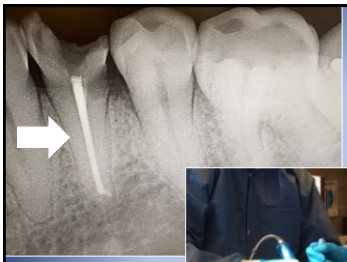
Step-by-step "surgical" extraction of a brittle non-vital tooth, broken at the bone level, in the dense bone of a 60 year old.



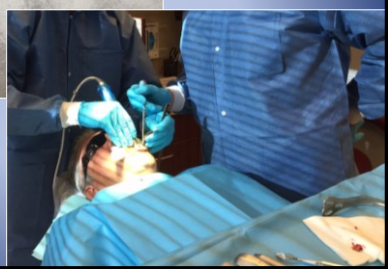


If only they were all this easy…

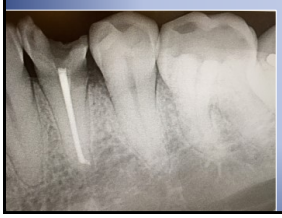
but they're not.

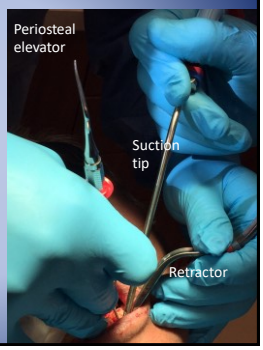


"Surgical" extraction.



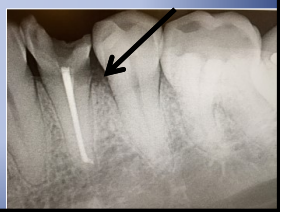
1. Anesthetize
   - Mandibular block, long buccal injection
2. Reflect soft tissue coronally.
   Use scalpel / periosteal elevator.

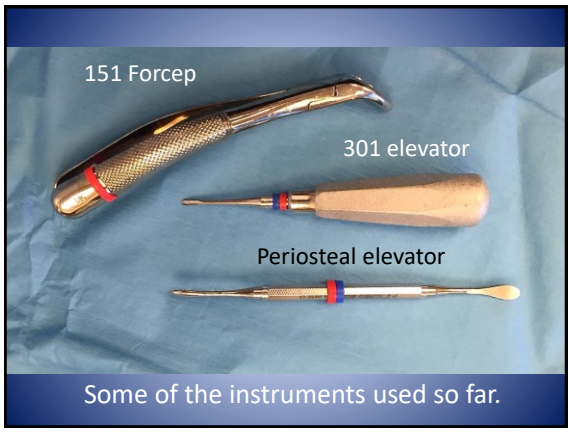




3. 301 elevator (don't use where there is a crown [prosthesis] on the adjacent tooth)
   - mesial and distal, clockwise, counterclockwise, sustained pressure (8-10 seconds each direction)
   - don't fulcrum against adjacent tooth
   - Luxate for a few minutes
4. 151 forcep
   – buccal – lingual, sustained pressure
   - for a few minutes

CROWN BROKE OFF
AT CRESTAL BONE LEVEL

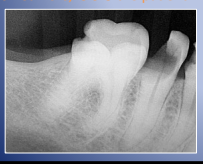


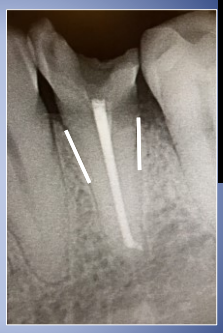


Some of the instruments used so far.

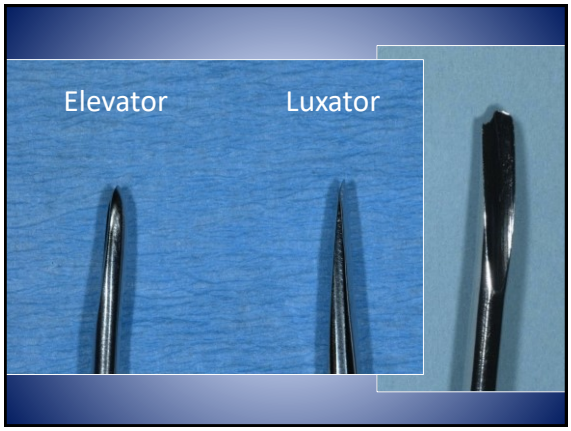
5. 3 mm wide straight Luxator.
   - push and wiggle vertically into the PDL space about 4 mm deep
   - mesial and distal only
   - turn clockwise and counter-clockwise with "sustained" pressure
   - for a few minutes

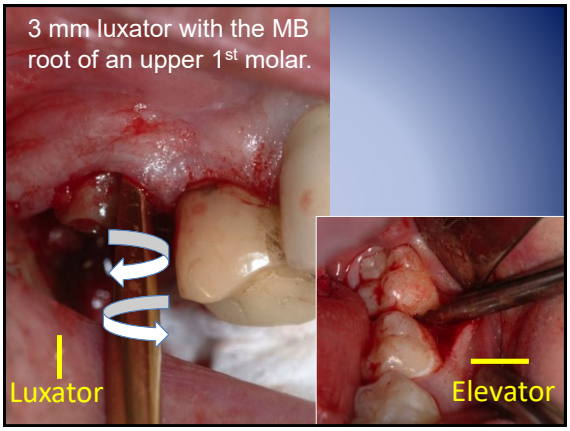
It worked here, but the patient was 30.





It usually works for a case like this but didn't here because of denser bone.





Don't try one modality for too long. When things aren't working for you (after 2-3 minutes), do something different.

Oral surgeons pride themselves in taking out teeth quickly.

When rules change that you can't remove facial bone to extract a tooth, how can you still do it in a short time?

You need a viable alternative to facial bone removal.

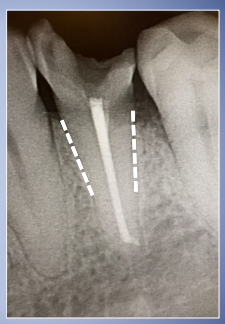
Solution: Periotome (skinny) bur vertically into the PDL.

6. Use 700 (or 701) bur into the PDL

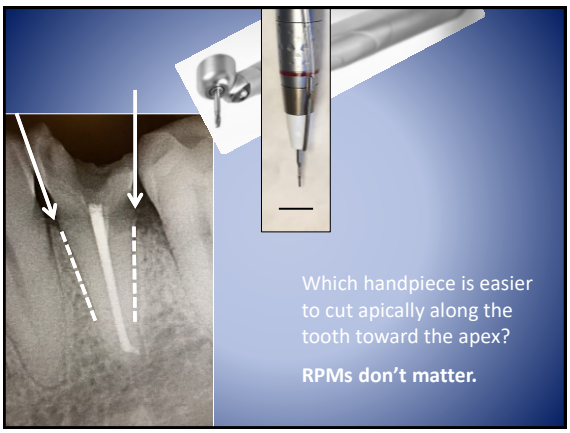
   mesial and distal 2/3 to 3/4 of root length.

   - half root, half bone removal
   - only cut as wide as the bur

7. Then Luxator to depth (white lines)
   - turn clockwise and counter-clockwise (sustained pressure)
   - for a few minutes



Only on mesial and distal.



Which handpiece is easier to cut apically along the tooth toward the apex?

RPMs don't matter.

"Another removal technique is to take a **long, thin diamond** *[or carbide]* **and go around the tooth on the mesial, distal, and the palatal** (if the bone is thick)."

"To preserve bone, it is preferable when creating a trough around the tooth, to **cut slightly into the tooth rather than the adjacent bone.**"


IMPLANTS

Clinical Pearls for Surgical Implant Dentistry: Part 3

Dennis P. Tarnow, DDS

Cavallaro JS, Greenstein G and Tarnow DP. Clinical pearls for surgical implant dentistry, Part 3. Dentistry Today. Oct. 2010.

ORAL SURGERY

Test 178
dentalCEtoday.com

Extracting Teeth in Preparation for Dental Implants

John Cavallaro, DDS

Gary Greenstein, DDS, MS

The atraumatic removal of a tooth enhances patient comfort and preserves bone. Traditionally, the sequence for tooth removal after anesthesia consists of severing gingival fibers by running a periosteal elevator in the sulcus. Then an elevator is used to loosen the tooth, and forceps are employed to luxate it buccolingually, thereby expanding the alveolar socket and facilitating its removal. However, a tooth may be difficult to extract due to root length, root dilaceration, gnarled or bulbous roots, and thickness of supporting bone, ankylosis, or subcrestal fracture. Furthermore, if a site is to receive an implant, a tooth must be removed atraumatically to avoid fracturing walls of the alveolus, especially a thin buccal plate in the aesthetic zone. This article discusses tooth removal techniques which employ dental burs as adjunctive aids. In addition, various issues associated with extractions in preparation for

Figure 1a. An extra-long carbide fissure bur (700XXL [Salvin Dental Specialties]) is very effi-

Figure 1b. A diamond bur is also an efficient rotary instrument for sectioning teeth prior to extractions (No. 859 [Brasseler USA]).

Cavallaro J, Greenstein G, & Greenstein B. Extracting teeth in preparation for dental implants. Dent Today (Peer reviewed article for CE credit). Oct. 2014. Pp 92-99.

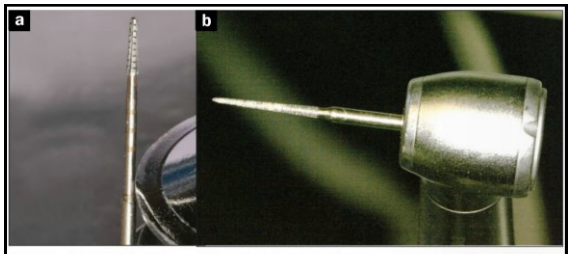
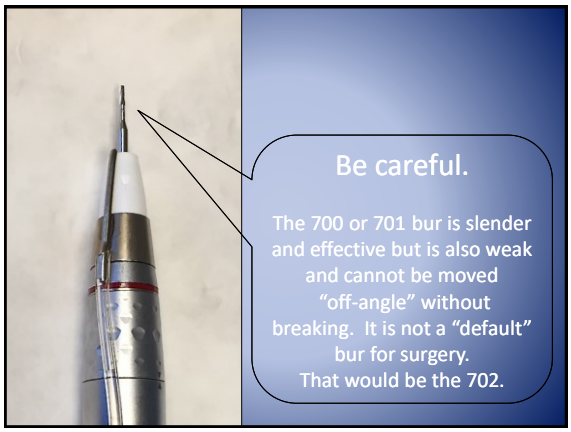


Figure 1a. An extra-long carbide fissure bur (700XXL [Salvin Dental Specialties]) is very efficient for sectioning multirooted and single-rooted teeth.

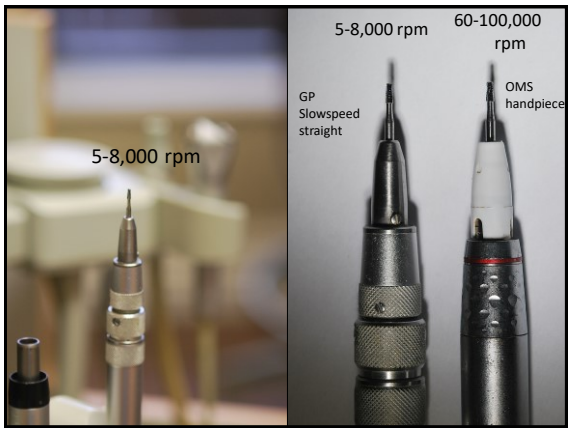
Figure 1b. A diamond bur is also an efficient rotary instrument for sectioning teeth prior to extractions (No. 859 [Brasseler USA]).

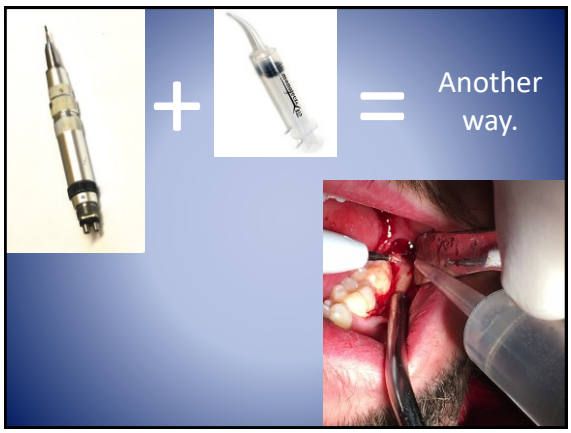
Authors suggest: "Bur into the PDL -- up to three-quarters of the root length."



Be careful.

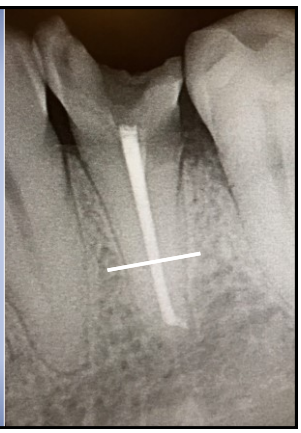
The 700 or 701 bur is slender and effective but is also weak and cannot be moved "off-angle" without breaking. It is not a "default" bur for surgery. That would be the 702.

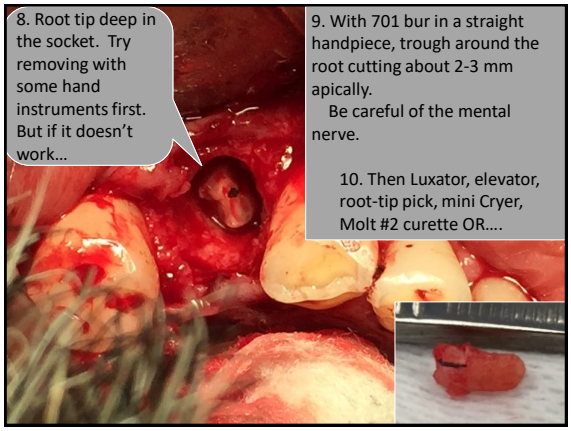


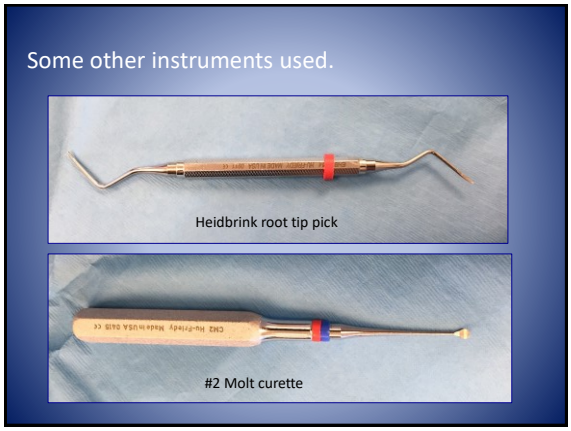


Another way.

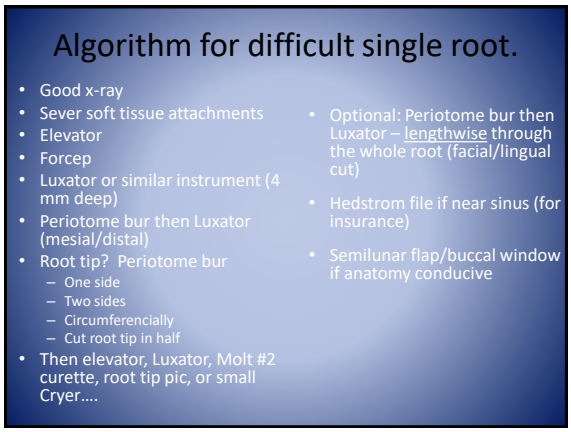
ROOT FRACTURED, LEAVING A 7 MM LONG ROOT TIP.

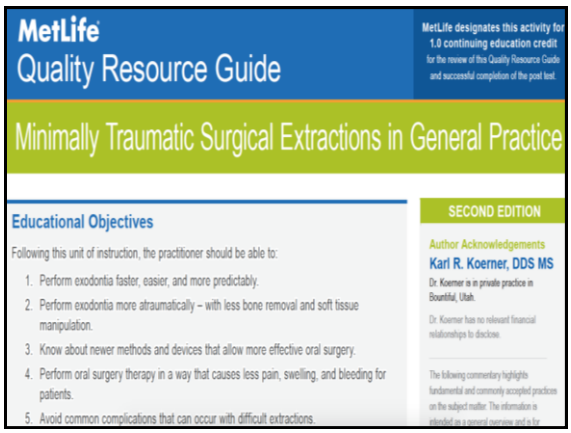



8. Root tip deep in the socket. Try removing with some hand instruments first. But if it doesn't work…
9. With 701 bur in a straight handpiece, trough around the root cutting about 2-3 mm apically.
Be careful of the mental nerve.
10. Then Luxator, elevator, root-tip pick, mini Cryer, Molt #2 curette OR….


Some other instruments used.
Heidbrink root tip pick
#2 Molt curette


Successfully and smoothly removed buccal crestal bone totally preserved.


Algorithm for difficult single root.
Good x-ray
Sever soft tissue attachments
Elevator
Forcep
Luxator or similar instrument (4 mm deep)
Periotome bur then Luxator (mesial/distal)
Root tip? Periotome bur
One side
Two sides
Circumferencially
Cut root tip in half
Then elevator, Luxator, Molt #2 curette, root tip pic, or small Cryer….
Optional: Periotome bur then Luxator – lengthwise through the whole root (facial/lingual cut)
Hedstrom file if near sinus (for insurance)
Semilunar flap/buccal window if anatomy conducive


MetLife
Quality Resource Guide
MetLife designates this activity for 1.0 continuing education credit for the review of this Quality Resource Guide and successful completion of the post test.
Minimally Traumatic Surgical Extractions in General Practice
SECOND EDITION
Educational Objectives
Following this unit of instruction, the practitioner should be able to:
1. Perform exodontia faster, easier, and more predictably.
2. Perform exodontia more atraumatically – with less bone removal and soft tissue manipulation.
3. Know about newer methods and devices that allow more effective oral surgery.
4. Perform oral surgery therapy in a way that causes less pain, swelling, and bleeding for patients.
5. Avoid common complications that can occur with difficult extractions.
Author Acknowledgements
Karl R. Koerner, DDS MS
Dr. Koerner is in private practice in Bountiful, Utah.
Dr. Koerner has no relevant financial relationships to disclose.
The following commentary highlights fundamental and commonly accepted practices on the subject matter. The information is

- Access the mobile friendly version of the handouts, articles, and schedule of courses at:
- http://oralsurgeryservices.com/app


Walking a trail through the terraced rice fields.


Treating handicapped patients.

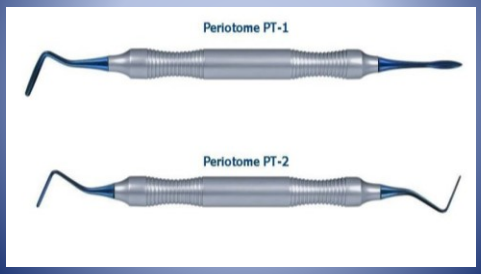

Lecture on implants. by a dentist from Utah.

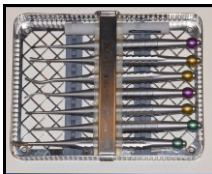
The following are alternatives to the Luxator and periotome bur for removing a root. They were not presented first (above) because they:

- Use devices that are too expensive, or
- Are too slow, or
- Are somewhat unpredictable, or
- Are somewhat ineffective, or
- Have a more difficult learning curve

Double-ended Periotomes

(also have single-ended that can be hand-held or malleted.)

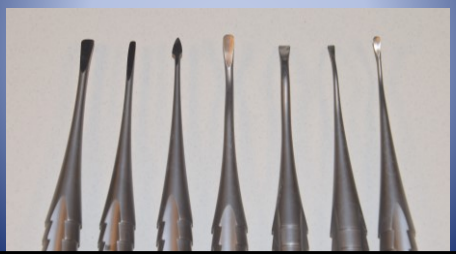


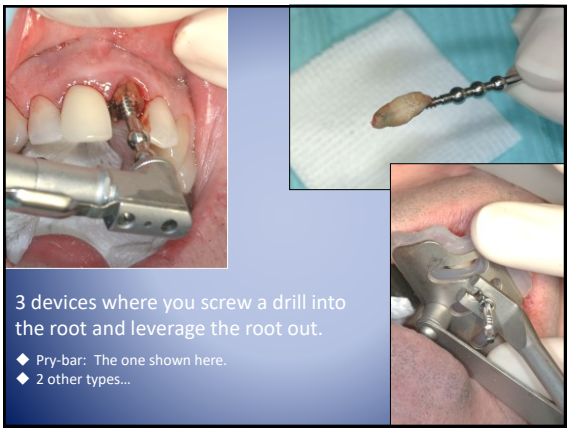


Mainly luxator Osteotomes

(many choices)

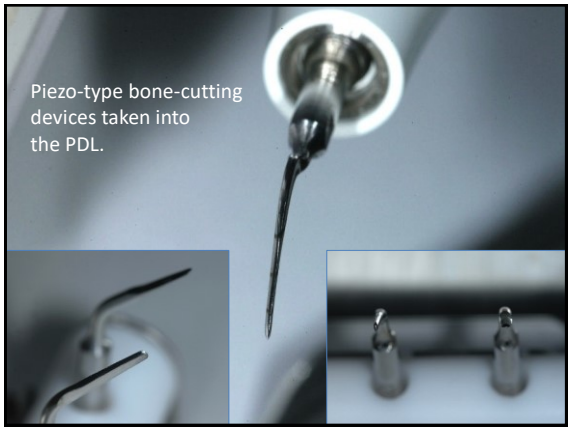
hand-held or malleted

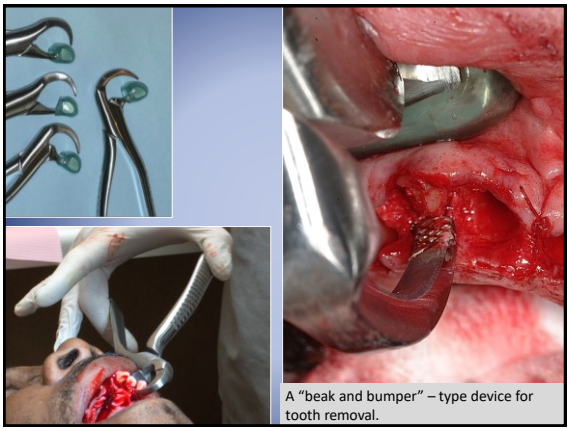




3 devices where you screw a drill into the root and leverage the root out.

- Pry-bar: The one shown here.
- 2 other types…



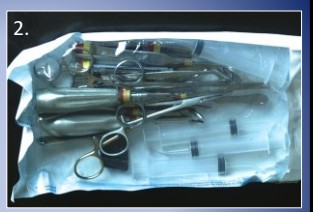


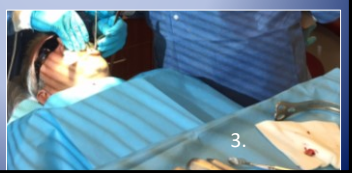
A "beak and bumper" – type device for tooth removal.

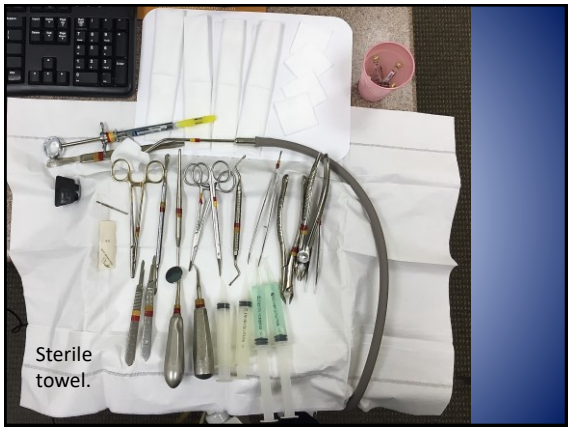
The Most Effective Instruments for Surgery: Basic

- Periosteal elevator
- Straight elevator
- Surgical scissors
- Needle holder
- Retractor (Seldin or Minn.)
- Apical forceps (2)
- Surgical spoon curette
- Scalpel handle (flat or round)
- Bite block (child)
- Suction tip

Ways to organize and sterilize.



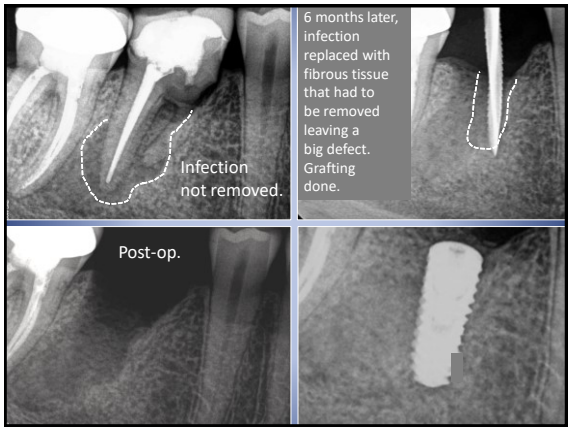


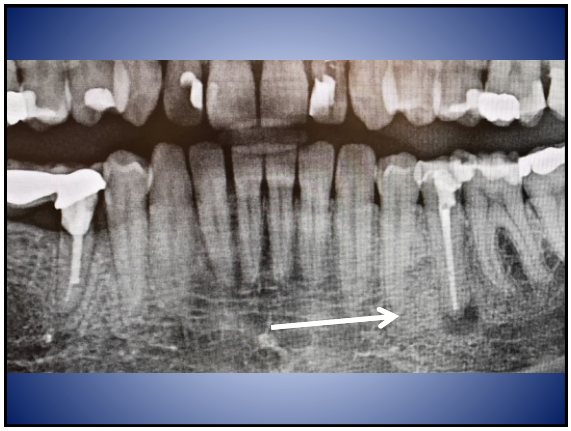


Dr. Karl Koerner

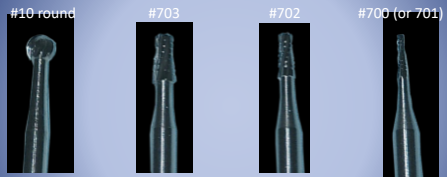
Oral Surgery Kit

Part Code	Description	QTY
IMOSX	Oral Surgery Cassette	
10-130-03	#3 Scalpel Handle	
P23	23 Seldin Periosteal	
P9X	9 Molt Periosteal, Black Line	
NH5042	Mayo-Hegar Perma Sharp Needle Holder 16cm/6.25"	
FAF151	Apical Forceps 151	
FAF150	Apical Forceps 150	
E301	301 Apexo Elevator	
S1	1 Curved Kelly Scissors 16cm/6.25"	
EHB2	2 Heidbrink Root Tip Pick	
EHB3	3 Heidbrink Root Tip Pick	
CL86X	86 Lucas Surgical Curette, Black Line	
EBSM	B Cogswell Elevator, Small Handle	
E21	Mini Cryer Elevator, Left	
E22	Mini Cryer Elevator, Right	
EL3SX	3mm Straight Luxating Elevator, Black Line	
BF2X	2X Miller-Colburn Bone File	
RBL	30 Deg. Standard Blumenthal Rongeur	
EPTSSP	Luxating Hybrid - Straight Spade	
TP43	#43 Adson-Brown Tissue Pliers	
CRM	Minnesota Retractor	
H2	Kelly Curved Hemostat	
PSN683S	4-0 Black Silk 18", C-6 Needle 3/8 Circle Rev. Cut	





Burs For Oral Surgery



- 3rd molar impactions
- Bulk buccal bone removal
- FG or straight

- 3rd molar impactions
- Troughing, section cuts,
- FG or straight

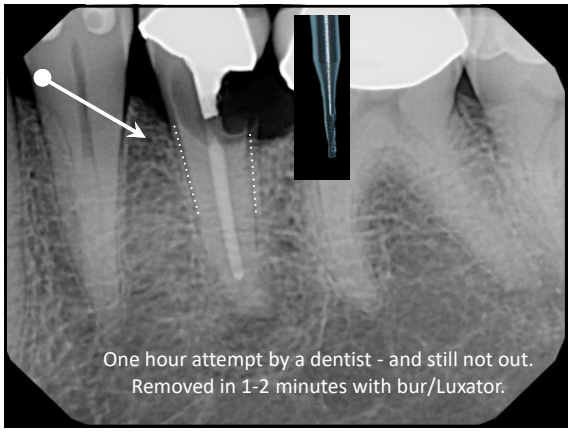
- Routine extractions
- FG or straight
- FG: 19,25,30 mm

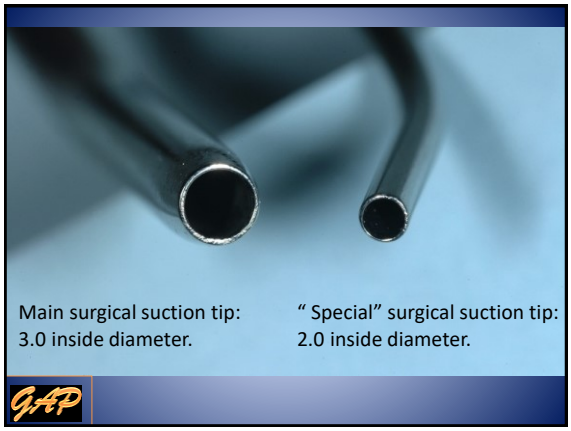
- "Periotome" or "skinny" bur
- Routine extractions
- Down PDL at expense of root
- FG or straight
- FG:: 19, 25, 30 mm

For FG, recommend at least surgical length (25 mm).

Highspeed friction-grip burs:
For a General Dentist highspeed:
700 surgical length (25 mm) Brasseler
701 surgical length (25 mm) Brasseler
702 surgical length (25 mm) Brasseler
700 XXL extra long (30 mm long)
(from Sabra Dental Products and Salvin)
1702 (round end) extra long (30 mm)
(from Sabra Dental Products)

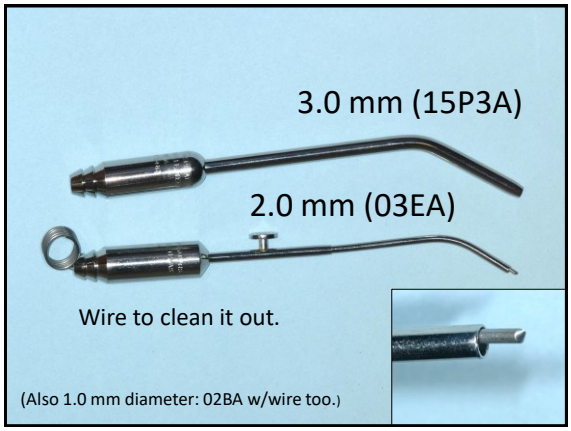
Straight Handpiece Burs (Brasseler 5 packs)
For a General Dentist straight handpiece
702 001220U0 44.5 mm long
701 001219U0 44.5 mm long
700 001218U0 44.5 mm long

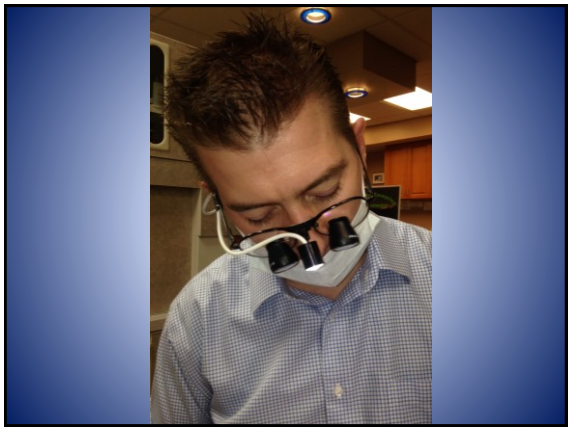


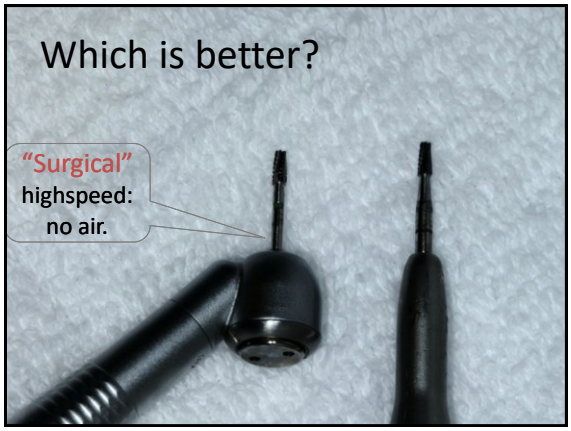


Main surgical suction tip:
3.0 inside diameter.

" Special" surgical suction tip:
2.0 inside diameter.





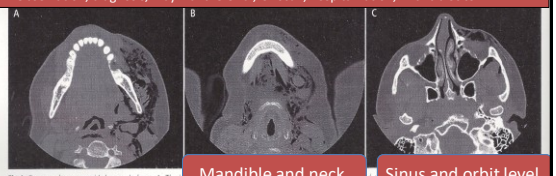


Cervicofacial subcutaneous emphysema: a clinical case and review of the literature

Richard J. Vargo, DMD • Anitha Potluri, DMD, MDS • Alison Y. Yeung, DDS, MD • Abdulaziz Aldojain, BDS, MMS
Elizabeth A. Bilodeau, DMD, MD, MSEd

Lower 1st molar extraction.
Tooth sectioning with regular highspeed handpiece.
Acute subcutaneous swelling.
Extension to contralateral side, crepitus.
Hospitalized, IV antibiotics, discharged in 2 days, swelling down in 1 week.
Can go to thorax and mediastinum.
TX: Observation, diagnosis, may want referral, CT scan, hospitalization, IV antibiotics.

Gen Dent.
May-June, 2016.

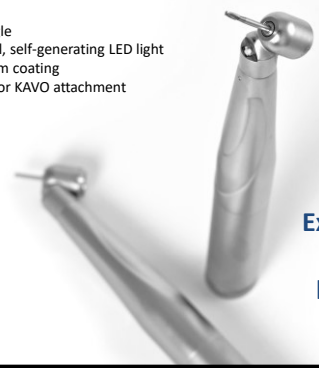


Mandible and neck.

Sinus and orbit level.

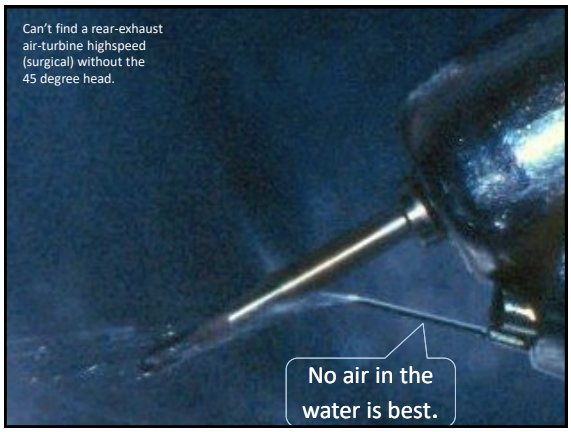
Fig 1. Computed tomographic bone windows. A. The l... level of mandible and neck inferiorly shows the exten... extension of the air pockets.

- 45° angle
- Internal, self-generating LED light
- Titanium coating
- 4-hole or KAVO attachment



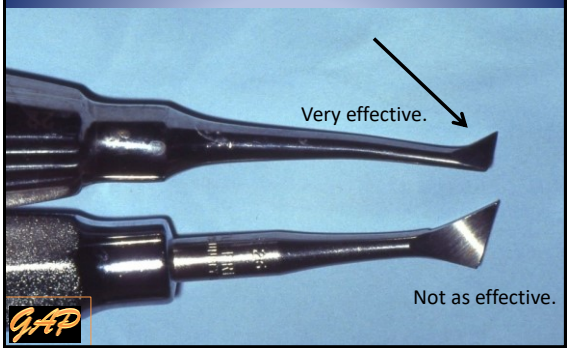
Example of a "surgical" highspeed.

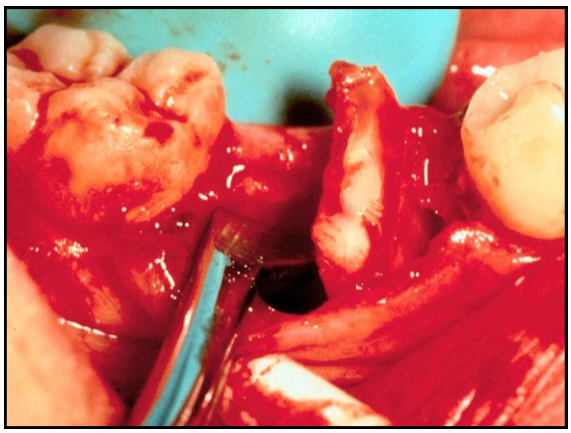
Can't find a rear-exhaust air-turbine highspeed (surgical) without the 45 degree head.

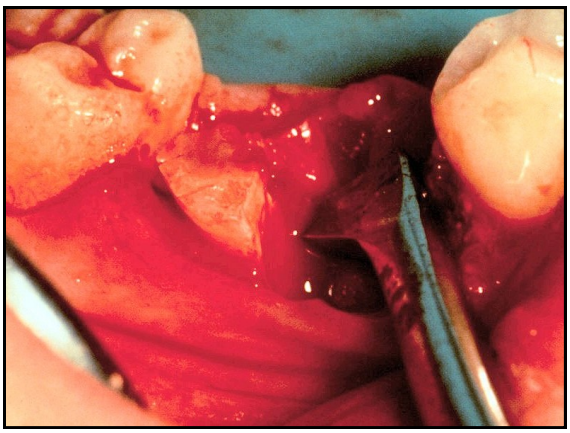


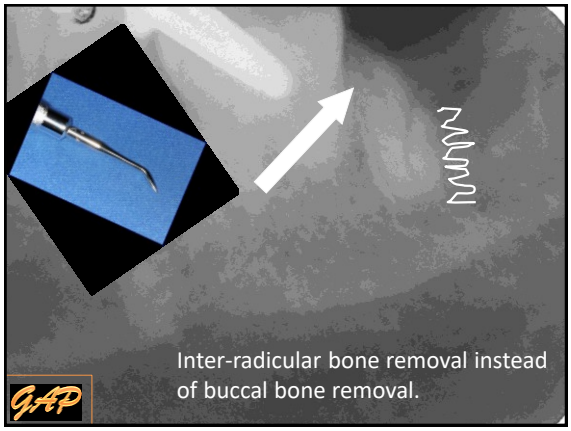
No air in the water is best.

Small Cryers.

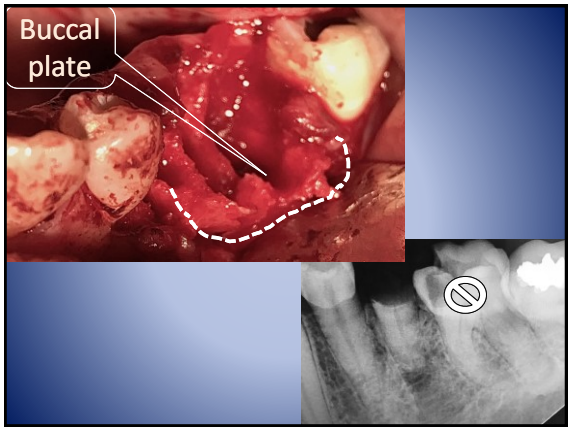


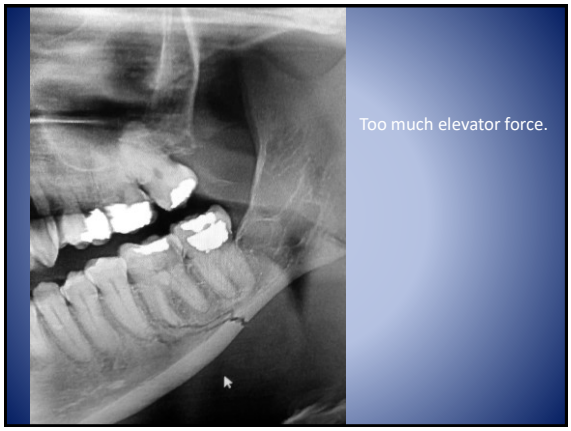


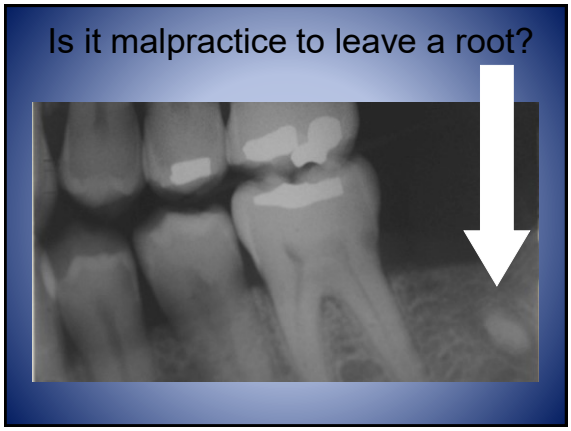


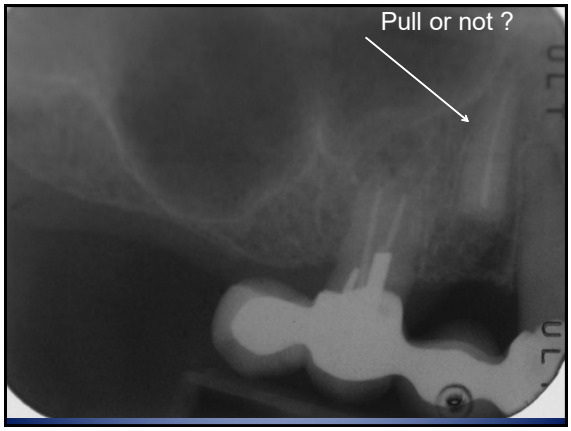

Inter-radicular bone removal instead of buccal bone removal.

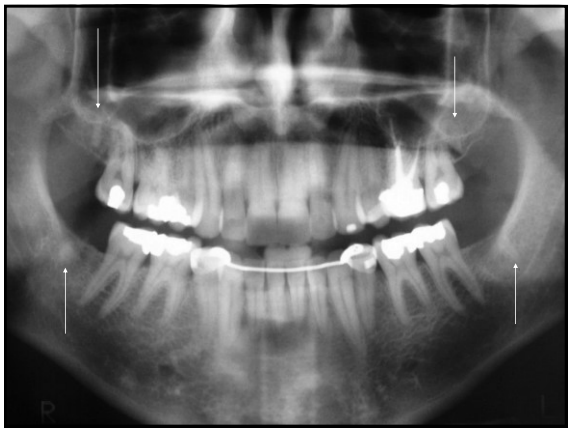

Buccal plate and other bone.
1 X 0.7 mm
Too much forcep force.

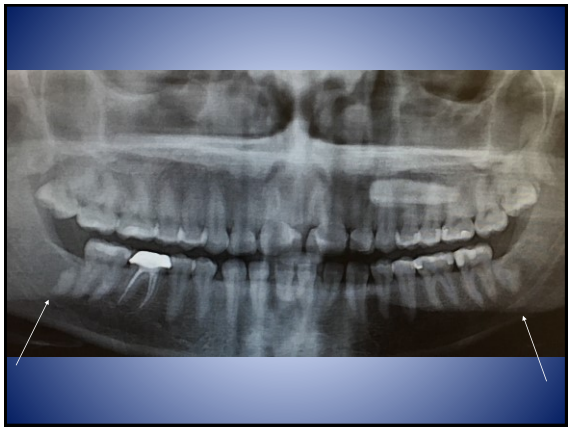

Buccal plate


Too much elevator force.


Is it malpractice to leave a root?


Pull or not ?





Not malpractice if..

1. The root is small (5 mm or less) not loose, and not infected.
2. You feel that it is in the best interest of the patient to leave it.
3. The patient is informed.
4. The occurrence is recorded in the patient's chart.
5. An x-ray is taken for documentation.
6. Follow-up is scheduled.