Surgical Extractions
(Nearly no bone removal, timely surgery.)

Howard Farran, DDS, MBA
Dental Town

Don’t plan on retiring at 55.
Probably not at 60 or 65 either.

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
- Freeze wages (after all, yours is going down)
- 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, Invisalign
- Treat sleep apnea and snoring
- Make mouth guards

Basics that are still valid!

- Sever gingival fibers attached to the root
- Luxate the tooth - stretch and snap PDL fibers
  - Place fingers of opposite hand on adjacent teeth to detect any unwanted mobilization

Extractions

Stretch ligament. Expand bone.
The basics are still valid:

- Use firm and deliberate movements with “sustained” pressure (8-10 seconds in each direction)
- Luxate tooth as much as possible BEFORE sectioning.
- Don’t take too long for an extraction
- Avoid excessive force
- Section teeth as needed
- Be aware of major nerves, blood vessels, and the maxillary sinus during the procedure
Avoiding Opioids

• Previous research has shown that combining analgesics that work differently provides more pain relief than a single analgesic can provide on its own.


• For moderate to severe pain: 400 to 600 mg ibuprofen with 500 mg acetaminophen every 6 hours for 24 hours. Then 400 mg ibuprofen with 500 mg acetaminophen after the first day.

• It is important to avoid daily doses of more than 3000 mg acetaminophen or 2400 mg ibuprofen.

• In addition, they cited a study by Daniels et al comparing various combinations of ibuprofen, codeine, and acetaminophen for treating the pain of third molar extractions.

• Not only did the patients receiving the ibuprofen/acetaminophen combination experience less pain than those receiving codeine and acetaminophen but they also had fewer adverse reactions such as nausea, vomiting, headache, and dizziness.

Age 27
Wife: age 27
Husband: Emergency room physician
600 mg ibuprofen with 500 mg acetaminophen every 6 hours for 24 hours. Then 400 mg ibuprofen with 500 mg acetaminophen after the first day.
Oxycodone (without acetaminophen) 5 mg X 12, 1 q4-6 h in case of "breakout" pain
Zofran 8 mg X 12, 1 tab tid in case of nausea.
Dexamethasone 8 mg IV or IM pre-op, 1.5 mg qid starting the next day for 10 doses (for swelling but also cuts pain in half).
Two sides of “minimally traumatic” extractions (both with no buccal bone removal)

- Soft tissue elevation: periosteal elevator
- Bisect the papillae (between buccal and lingual) with just the periosteal elevator
- Soft tissue elevation: #12 blade and periote
e
- Bisect the papillae with a blade

Two sides of “minimally traumatic” extractions (both with no buccal bone removal)

- Luxate with an elevator and a regular forcep
- Use buccal/lingual luxation, then traction
- Luxate with a periote
down the PDL, then rotate tooth out with a thin-beaked forcep
- Avoid buccal/lingual luxation, only use rotation and traction

One side: very conservative.

Flaps and Sutures
Surgeon’s knot summary.
- 2 throws one way
- 1 throw the opposite way
- 1 throw the same way as how you started (optional)
- Clockwise twice around
- Counter-clockwise once around

Triangular flap:
- One release on side of a papilla
- Envelope flap can be converted to a triangular flap
- Sutures as needed: 3 mm apart AND to stabilize papillae
- Bone removal not appropriate any more

‘Triangular flap’
Angled release one tooth away from the one worked on.
Simple horizontal mattress.
(instead of two interrupteds)


8 mm

Bleeding Rate During Oral Surgery of Oral Anticoagulant Therapy Patients With Ass

FIGURE 5. Typical evolution of surgery with no palpable artery. Extraction of 4th tooth was performed simultaneous in a patient with a mediocrity heart rate.

**Suture Material**

- **Plain gut**: tensile strength lasts 24-48 hours. Need minimum of 5 days. Usually too short.
- **Chromic gut**: tensile strength lasts 3 days. Resorbs in 7-10.
- **Polyglactin (Vicryl)**: absorbable but works like a non-absorbable. Tensile strength for 14 days gone in 21-28.
- **Non-absorbables**: Silk, PTFE, polyester... have good tensile strength.
- **Needle**: 3/8 circle most common.

**Burs For Oral Surgery**

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

**Routine extractions**

- **FG or straight**
- **FG: 19, 25, 30 mm**
- *(30 mm FG from Sabra Dental)*
- “Periotome” or “skinny” bur
- **For FG, recommend at least surgical length (25 mm).**

One hour attempt by a dentist - and still not out. Removed in 2 minutes with better methods.

“Another 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.”

Prior to bone graft.

Inter-radicular bone removal instead of buccal bone removal.

Starting today:
Access to an additional surgical instrument worth hundreds of dollars.

No extra charge.

Dental slowspeed. About 8,000 rpm.

Can drill bone with both Stryker and regular straight handpiece.

Both require irrigation. Monoject syringe (12cc) commonly used.
Increased effectiveness and production.

More length than a highspeed when needed.

Extracting Teeth in Preparation for Dental Implants

Main surgical suction tip: 3.0 inside diameter.
“Special” surgical suction tip: 2.0 inside diameter.

Quality Aspirators

3.0 mm (15P3A)
2.0 mm (03EA)

Wire to clean it out.

(Also 1.0 mm diameter: 02BA w/wire too.)
Case Report

#29 non-restorable decay
Bridge cut (twice)
Extraction of #29
2 implants (29,30)
Facial bone graft

Exostoses cuts made with a 700 carbide.

Luxator mesial/distal – didn’t work.
Skinny bur distal/mesial then Luxator – didn’t work.
Root tip pick – didn’t work
2 mm luxator with the MB root of an upper 1st molar.

Luxator

Elevator

Which is better?

“Surgical” highspeed: no air.
Can’t find a rear exhaust air turbine highspeed (surgically) without the 45 degree head.

No air in the water is best.

Air + Water = Possible Serious Complication

- Immediate air emphysema
- Infraorbital area to anterior neck (subcutaneous)
- Also to mediastinum and carotid sheath
- Hard to breath

Treatment
- Steroids, oral antibiotics, pain meds (no decompression)


Another alternative. Keeps together instruments often used for an extraction.

Common practice.
Where do you put your sterile instruments?

Readily available sterile 18 x 26 inch latex-free, plastic-lined, towel for placing under instruments or as a sterile bib for patients.

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

Periosteal Elevator – Forceps

- Molt Periosteal
- Apical Forceps
- Traditional
My evaluation for CR:

- **Good**
  - Generally, they do work.
  - They conserve bone by pushing the tooth coronally enough to snap the ligament.
  - It is a faster extraction.
  - Patients are impressed by the ease and quickness.

- **Challenges**
  - Need to be careful in the mental nerve area.
  - Harder for 2nd molars because of the cheek.
  - Steep learning curve, especially not to squeeze.
  - Need to section lower molars.
  - Gauze in undercuts
  - Fairly expensive.
In lung (right main-stem bronchus).

Aspirated denture a year ago. Didn’t know it. Had a cough. Developed headaches from a brain abscess.

One in the set of “Apical” forceps. Schumacher: 1174 “birdbeak” for crowded teeth.

Some of the best instruments:

**Supplemental**

- Root tip pics (2)
- Small Cryers (2)
- Periotomes
- Luxators
- Cogswell B elevator
- Other special elevators
- Tissue pickups
  - (for bone grafting)
- Curved Kelly Hemostat
- Peet Forcep
- Bone file (2X)
- Bone file (2X)
- Ronguer (Blumenthal 30°)
- Other forceps

Chinese dinner.

Small Cryers.

Very effective.

Not as effective.
What happens when you “slip” with a Luxator or elevator?

Facial artery

Slipped to buccal

Prevents slipping.
Four Osteotomy Methods With Piezosurgery to Remove Complicated Mandibular Third Molars: A Retrospective Study

Is it malpractice to leave a root?
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.