NOVEMBER 29 - DECEMBER 4, 2019

Advanced Surgical Extractions for the General Practitioner

Karl R. Koerner
Welcome to the Greater New York Dental Meeting

Greater New York Dental Meeting™
Executive Headquarters
200 West 41st Street, Ste. 1101, New York, NY 10036
Tel. (212) 398-6922, Fax. (212) 398-6934
E-mail: victoria@gnydm.com
www.gnydm.com
Sponsored by New York County & Second District Dental Societies

All programs and exhibits are held at the Jacob K. Javits Convention Center (unless otherwise indicated)
11th Avenue between 34th and 39th Street, New York City

General Registration Hours
Friday, November 29 12:00 Noon - 4:30 P.M.
Saturday, November 30 8:00 A.M. - 4:30 P.M.
Sunday, December 1 - Tuesday, December 3 8:00 A.M. - 5:30 P.M.
Wednesday, December 4 8:00 A.M. - 4:30 P.M.

Exhibit Hall Hours
Sunday, December 1 - Tuesday, December 3 9:30 A.M. - 5:30 P.M.
Wednesday, December 4 9:30 A.M. - 5:00 P.M.

COURSE REGISTRATION
Pre-registration is required for all continuing education courses with the exception of the “Live” Dentistry and Affiliated Groups. Your seat will be held for 15 minutes after the start of the course; after that, those without tickets will be seated according to space availability. When the room is filled, no additional people will be admitted due to fire department regulations. If you have not pre-registered, please be prepared to select an alternate session to attend.

Tickets
Tickets are required for all courses excluding Live Dentistry. Tickets for all functions can be purchased at all general registration booths located in the Registration Area on the Upper Level in the Crystal Palace and online.

6 Days of Education Seminars, Hands-on Workshops & Essays
Friday - Wednesday
4 Days of Exhibits
Sunday - Wednesday

FREE “Live” Dentistry
Hi-Tech 450 Seat Arena

SUNDAY
9:45 - 11:45
VOCO America, Inc. Drs. Ron Kaminer & Marc Geissberger Restorative

1:30 - 2:45
Philips Sonicare Dr. Gerard Kugel Whitening

3:30 - 5:15
3Shape Dr. Sundeep Rawal Digital

MONDAY
9:45 - 11:45
Shofu Dr. Ron Kaminer Restorative

1:30 - 2:45
First Fit Drs. Frederick E. Solomon Cyrus Tahmasebi Digital

3:30 - 5:15
Align I Invisalign I Itero Drs. Karla Soto & Christian Coachman Restorative

TUESDAY
9:45 - 12:00
Millennium Dr. Sunil D. Thanhik Laser

2:00 - 4:15
GlideWell Dr. Justin Chi Digital

WEDNESDAY
9:45 - 12:00
Apa / CareCredit Drs. Michael Apa Aesthetic

2:00 - 4:15
Benco / Vatech Dr. Aeklayya Panjali Implant

Celebrity Luncheon Speaker
John Quiñones
Monday, December 2nd
12:00 - 2:00 - Ticket 4010
$125.00

3D Printing & Digital Dentistry Conference

Dental Laboratory
Technicians Programs

Sleep Apnea Symposium

Oral Cancer Symposium

World Implant Expo

5th Annual Global Orthodontic Conference

3rd Annual Pediatric Dentistry Summit

12th Annual INVISALIGN® - GNYDM EXPO
4 Days of Programming:
Sunday - Wednesday

Botox and Facial Fillers Seminar & Workshop

Over 1,700 Exhibit Booths

Dr. Karl R. Koerner

Surgical Extractions, Part 1

- Patient of record
- Current health history reviewed
- Base-line vital signs, pre-op vital signs
- Treatment plan
- Consent form
- Sedation?
- Radiographs
Case Report
85 y.o. lady

“Surgical” Extraction

Tooth #30
How much time for the procedure?
• Elevator?

Soft tissue reflection
• scalpel in sulcus
• periosteal elevator in sulcus
• enough room to slip in forcep beaks down to bone (Most likely cowhorn.)

Crown part breaks off.

How deep is the section cut?
How wide M-D?
How wide B-L?

Do all you can luxating one root against the other.

Section cut.

• Luxator into mesial PDL
• Push and wiggle 4 mm down
• Turn clockwise/counterclockwise
  Hold for 8-10 seconds (sustained pressure)
• Don’t pry back

• Periotome bur in PDL
• 6 mm past Luxator depth
• Turn clockwise/counterclockwise

Straight OR highspeed!
• Then Luxator into mesial PDL 10 mm
• Turn each way and hold 8-10 sec.
• Try larger instrument (34 elevator)

• Inter-radicular bone removal - if necessary and
• Instead of buccal bone removal....
• Then Luxator at 10 mm

• Mini-Cryer
• Fulcrumed against bone, not soft tissue
• Cryer point into root

Then...
• Mini-Cryer from within the socket, and
• Luxator in the PDL on the distal of the distal root

THEN SUCCESS!
Roots out, BUT buccal plate fractured in the process. See video clip below.

Bone was attached to the periosteum so the root was kept and not removed.

“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.”

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

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

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

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

RPMs don’t matter.

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.

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.
ROOT FRACTURED, LEAVING A 7 MM LONG ROOT TIP.

Root tip deep in the socket. Try removing with some hand instruments first. But if it doesn’t work...

With 701 bur in a straight handpiece, trough around the root cutting about 2-3 mm apically.
Be careful of the mental nerve.

Then Luxator, elevator, root-tip pick, mini Cryer, Molt #2 curette OR...

Root tip deep in the socket. Try removing with some hand instruments first. But if it doesn’t work...

Some other instruments used.

Heidbrink root tip pick

#2 Molt curette

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? Hand instruments. (elevator, Luxator, Molt #2 curette, root tip pic, or small Cryer...)
- If does not work then periotome bur:
  - One side
  - Two sides
  - Circumferentially
  - Cut root tip in half
- Followed by a hand instrument again.

Successfully and smoothly removed. Buccal crestal bone totally preserved.
Which is better?

"Surgical" highspeed: no air.

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

Lowest 1st molar extraction.

Acute subcutaneous swelling.

Hospitalized, iv antibiotics, discharged in 2 days, swelling down in 1 week.

TX: Observation, diagnosis, may want referral, CT scan, hospitalization, iv antibiotics.

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

No air in the water is best.

3.0 mm (15P3A)

2.0 mm (03EA)

Wire to clean it out.

(Also 1.0 mm diameter: 02BA w/wire too.)
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 periotome
- Straight periotome
- Use mallet?
- Spear-point
- Leverage device 1-3
- Bone-cutting piezo
- Autotome
- Physics Forceps

Double-ended Periotomes (also have single-ended that can be hand-held or malleted.)
Straight "periotomes".
More effective than double ended.

3 devices where you screw a drill into the root and leverage the root out.
- Pry-bar: The one shown here.
- 2 other types...

Piezo-type bone-cutting devices taken into the PDL.

Autotome. Similar to the PowerTome. Pneumatic.

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 handpieces
701 001220U0 44.5 mm long
701 001219U0 44.5 mm long
700 001218U0 44.5 mm long
Prolonged attempt by a dentist - and still not out. Removed in 1-2 minutes with bur/Luxator.

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

Mini Cryers.

Very effective.
Not as effective.

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.

Multiple Extractions – Steps to Prevent Patient Pain and Other Problems

Dr. Karl R. Koerner
Lower molar extractions.

One week post-op. Patient has been and continues to be in extreme pain. Bone not smoothed after the extractions. No suture.

One month postop.

No alveoplasty. Severe pain.

Bone bur, 703 fissure bur, bone file, Blumenthal 30 degree medium-sized rongeur.

Sockets are debrided of any infection and any granulation tissue is removed from the flaps. Papillae can be retained and even be interdigitated during suturing -- but in some cases of infection they may be excised.

Granulation tissue hiding under the papilla.

Sharpness to trim.
Treatment Sequence

- Extract
- Apical debridement of pathology
- Granulation tissue removal
- Compression of socket
- Smooth sharp bone
- Irrigation
- Suture

Ridge with periodontal disease.

Frenectomy

Maxillary – one way to do it.

Cut the frenum off on the outside of the lower hemostat.
Cut the frenum off on the outside of the upper hemostat.

1. Excising the frenum.

2. Trimming some tags.

Top: starting to close.

Right: anchor suture being placed.

More suturing for hemostasis and closure.
Preop and postop.

General Dentist-friendly Socket Grafting (to compensate for not being able to do periosteal release)

• Especially for a molar (more vulnerable).
  May need more protection for the graft for 4 weeks.
  – PTFE ($37)
  – PGA (like Vicryl) $127
  – Laminar bone (thin, bendable cortical bone) $110
  – Amnion/chorion $80

Easy-to-use socket grafts... (more non-traditional) (need a buccal plate)

• Foundation (J. Morita) – “bone-precursor collagen
• OsteoGen Plug – alloplast bone mixed with collagen

How can a socket graft fail??

• Used collagen and open too wide.
• Used collagen and patient not compliant:
  – Consumes acidic foods / drinks
  – Uses alcohol mouthwashes
  – Chews on the site with hard food
  – Brushes the site too vigorously
• PTFE membrane comes out prematurely
  – Not tucked under periosteum properly
  – PTFE put in upside down (rough side down)

Effect of patient compliance?
Will the patient be compliant with:

• Taking the antibiotic properly
• Not brushing the site
• Rinsing with saline or chlorhexidine
• Not chewing on the site
• Not ingesting acidic foods/beverages (sodas, citrus drinks, etc.)
• Make it to their 2-week appointment

Everything you did can be undone.
The problem (socket).

Part of the solution (the bone graft).

Types of membranes:
- Collagen
  BioGide, Osse Plus, Mem-Lok, Cress Xenoprotect, etc.
  Pericardium
- Cytoplast (PTFE / Teflon)
- Epiguide (PGA resorbable)
- Laminar bone
- BioXclude (amnion/chorion)

Example of a resorbable membrane.

Case 1
PTFE (Teflon) membrane

If nearly closed (within 3-4 mm)
can use collagen membrane.
(Unless can cover with provisional, then can be open more.)
If open more than that, PTFE more predictable.

2 week post-op.

1 month post-op.

Non-resorbable

**e-PTFE.** Effective but can become infected after about 4-6 weeks if exposed.

**d-PTFE.**

**Advantages:**
- Need not be submerged.
- Don’t need primary closure.
- Don’t need periosteal release.
- Can remain open the width of the socket.
- 4 week removal. Could be as long as 6.
- Assures the presence of keratinized tissue.

**Disadvantages:**
- Needs to be removed.
- Can blunt papillae in anterior with thin phenotype cases.
- Needs to be sealed.

7 mm instead of 10-12

One month post-op.