

PRACTICAL ORAL SURGERY FOR THE GENERAL DENTIST



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PRACTICAL ORAL SURGERY FOR THE GENERAL DENTIST

TODAY'S TOPICS

- ▶ Pre-surgical evaluation
- ▶ Pre-Op preparation
- ▶ Extractions
 - Non-Surgical
 - Surgical
- ▶ Intraoperative complications
- ▶ Site preparation for implants
- ▶ Impacted Teeth
- ▶ Post-Extraction site management
 - ─ Complications
- ▶ Odontogenic Infections



PRACTICAL ORAL SURGERY FOR THE GENERAL DENTIST

TODAY'S GOALS

- ▶ Typical GP's training in Oral Surgery consists of:
 - Lecture course in 2nd year
 - 1-3 weeks in Dental School Clinic
 - 1 week Hospital rotation
- ▶ GPR?
- ▶ Military?



OMFS TRAINING

4 YEARS DENTAL SCHOOL
4 YEARS HOSPITAL RESIDENCY

- Anesthesia
- Surgery (General and Subspecialties)
- Internal Medicine
- Oral and Maxillofacial Surgery

MEDICAL DEGREE
➢ 10,000 HOURS



GOALS OF THIS COURSE

I CANNOT MAKE YOU AN
ORAL AND MAXILLOFACIAL SURGEON
IN ONE DAY...



In search of Good Clean Fun

I CAN TRY TO MAKE YOU
THINK LIKE ONE.




UNDERSTANDING

THE TECHNICIAN UNDERSTANDS "THE HOW"

THE DOCTOR ALSO UNDERSTANDS...
"THE WHY ... THE WHY NOT...
AND THE WHAT IF..."



IT'S NOT ENOUGH JUST TO RECOGNIZE A PROBLEM...

You have  about it!



DON'T FORGET THIS...

ORAL SURGERY IS...

SURGERY

STRATEGY "THINK LIKE A SURGEON"

- MENTALLY VISUALIZE THE PROCEDURE FROM START TO FINISH
- ANTICIPATE WHAT INSTRUMENTS WILL BE NEEDED, AND HAVE THEM READY/ READILY AVAILABLE
- ANTICIPATE COMPLICATIONS
- HEADLIGHT, LOUPES
- "MEASURE TWICE, CUT ONCE"



TO DO SURGERY?

- WHAT IS YOUR EXPERIENCE/ COMFORT LEVEL
- "HASSLE FACTOR"
- 30 - 60 MINUTE TIME LIMIT
- DEALING WITH COMPLICATIONS
 - ↳ Backup
- GP DOING SURGERY IS HELD TO THE SAME STANDARD OF CARE AS A SPECIALIST



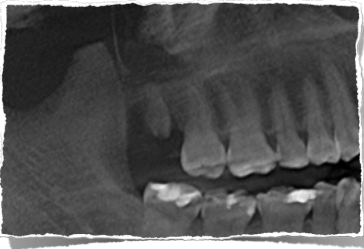
TO DO SURGERY?

- JUST BECAUSE YOU HAVE AN EMPTY DENTAL CHAIR, THAT DOESN'T MEAN YOU SHOULD **NOT** REFER THE PATIENT.
- EVERYTHING YOU DO IN YOUR OFFICE SHOULD BE A "PRACTICE BUILDER"
- REFERRING THE PATIENT TO THE RIGHT SPECIALIST MAKES YOU LOOK GREAT TO THE PATIENT
- STAY WITHIN YOUR TRAINING, EXPERIENCE AND COMFORT ZONE!

CASE 1

- ▶ 53 yr old woman
- ▶ Pain in #1







CASE 2

- ▶ 16 yo female
- ▶ Routine exam
- ▶ Impacted 3rd molars
- ▶ Scheduled with "specialist" in office





PRIMUM NON NOCERE

“FIRST DO NO HARM”



PRINCIPLES OF SURGERY

PRACTICAL ORAL SURGERY FOR THE GENERAL DENTIST

SURGICAL HANDPIECE

- ▶ Allow sectioning of tooth and removal of bone
- ▶ Does not allow air to vent into the surgical field
- ▶ Subcutaneous emphysema

SUBCUTANEOUS AIR EMPHYSEMA

- ▶ Can occur immediately or delayed
- ▶ Endodontic treatment, periodontal osseous surgery, surgical extraction - air under pressure (handpiece/ air-water syringe)
- ▶ Due to air forced in to subcutaneous tissues
- ▶ Delayed can be confused with angioedema, allergic reaction, hematoma, infection
- ▶ Swelling can be minimal or extensive
- ▶ Described as "rice krispies" or "pop rocks" crepittance
- ▶ Radiographs show air in tissues

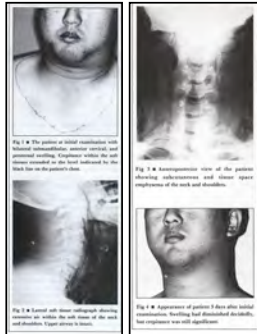


SUBCUTANEOUS EMPHYSEMA

Cervicofacial subcutaneous air emphysema after dental extraction

Lee H. Poulos, DMD
Poulos H. Lee, DMD

Subcutaneous air emphysema (SAE) is a rare complication of dental extraction. It is characterized by the presence of air in the soft tissue spaces of the neck and face. The condition is usually self-limiting and resolves within 48 to 72 hours. However, it can be a life-threatening condition if it is not recognized and treated promptly. The most common cause of SAE is dental extraction, but it can also occur after endodontic treatment, periodontal surgery, and surgical procedures. The pathogenesis of SAE is not fully understood, but it is thought to be caused by air being forced into the soft tissue spaces during the procedure. The air can then spread through the tissue planes, causing swelling and crepitation. The condition is usually diagnosed clinically, but radiographs can be helpful in confirming the diagnosis. Treatment is usually conservative and involves observation and reassurance. In severe cases, surgical decompression may be necessary. The prognosis is generally good, and most patients recover completely within a few days.



SUBCUTANEOUS AIR EMPHYSEMA

- ▶ Management
 - Reassurance
 - Moist heat
 - Antibiotics
 - Observation
 - Rarely
 - Hospital admission/ airway management
- ▶ Should resolve in days to weeks



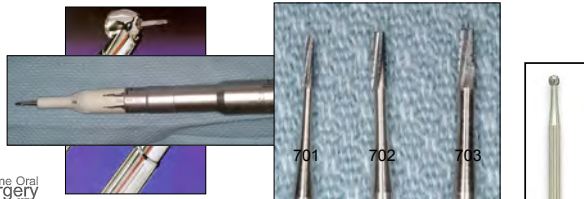
SUBCUTANEOUS AIR EMPHYSEMA

- ▶ Most importantly-
 - Prevention
 - Surgical handpieces for surgical procedures
 - Avoid high pressure air in inflamed tissues



SURGICAL HANDPIECES

- ANGLED VS. STRAIGHT
- BURS- FISSURE VS. ROUND



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surgery

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ANGLED SURGICAL HANDPIECE

- SABRA OMS 45 / IMPACT-AIR 45
- 45 degree head
- Air exhausted to rear
- 400-500K RPM
- Fiberoptics
- \$700



Online Oral
surgery

JDR

STRAIGHT SURGICAL HANDPIECE

- AIR/ N2 DRIVEN, REAR EXHAUST
- ELECTRIC
- 100K RPM
- HIGH TORQUE
- \$5000



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surgery

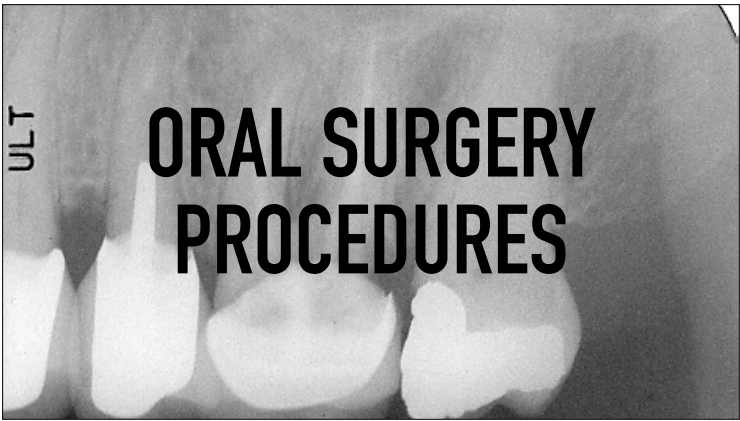
JDR

OTHER HANDPIECE OPTIONS



surgery


JDR




PRACTICAL ORAL SURGERY FOR THE GENERAL DENTIST

EXODONTIA SURGICAL SETUP

- ▶ Local anesthetic
- ▶ Retractor(s)
- ▶ Mouth prop
- ▶ Scalpel
- ▶ Periosteal elevator
- ▶ Tooth elevator(s)
- ▶ Universal forceps
- ▶ Curette
- ▶ Hemostat(s)
- ▶ Suction tip(s)
- ▶ Needle holder/ suture
- ▶ Scissors
- ▶ Gauze



Online Oral surgery 

ISOLITE




Online Oral surgery 

PRACTICAL ORAL SURGERY FOR THE GENERAL DENTIST

SURGICAL EXTRACTIONS

- ▶ Flap design
- ▶ Handpiece
- ▶ Root sectioning
- ▶ Root retrieval
- ▶ Suturing the site

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SURGICAL FLAPS

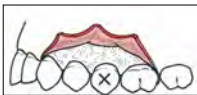
- ▶ Purpose of flap is to gain access to surgical site, to obtain adequate visualization of field and avoid trauma to soft tissues.
- ▶ Avoid doing surgery "blindly"

SURGICAL FLAP DESIGN

- ▶ Have a low threshold to lay a flap
- ▶ Should be based on anatomy, blood supply
- ▶ Base broader than apex

SURGICAL FLAP DESIGN

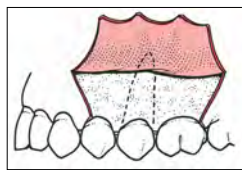
• Size of flap depends on purpose



• Releasing incision



FLAP SHOULD BE BROADER AT BASE



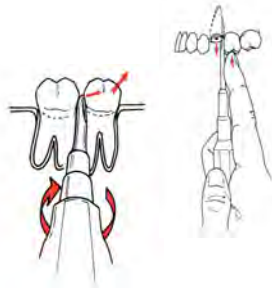
EXTRACTION INSTRUMENTS

- ▶ Elevators
- ▶ Periostomes/ Proximators/ X-Tool
- ▶ Forceps
- ▶ Handy-Dandy instruments

ELEVATORS

►Used to

- Luxate teeth
 - Try to luxate against bone
 - Avoid excessive pressure on adjacent crowns
- Elevate roots



ELEVATORS

•USED TO

- Luxate Teeth
- Elevate Roots

•MY FAVORITE: 46R

- Beveled Tip
- Serrated Edge



ELEVATORS

•SCOOP (#49)

- Upper 3rds
- Separate tuberosity from distal of tooth

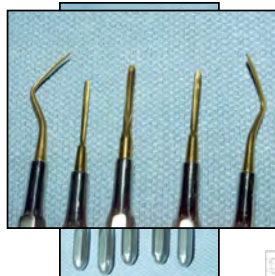


PERIOTOMES

►Very thin elevators used to sever the PDL attachment of the tooth.

►Atraumatic extractions in the "Esthetic Zone"

►Minimal flap



PERIOTOMES

- INSTRUMENT BLADE IS PLACED PARALLEL TO ROOT
- ADVANCED DOWN PDL SPACE
- EXPAND THE SOCKET
- MAY TAKE TIME



LUXATORS

X-TOOL



EXTRACTION FORCEPS

- UNIVERSAL FORCEPS (62, 151) WORKS 90% OF THE TIME
- GRASP THE TOOTH AS FAR APICALLY ON THE ROOT AS POSSIBLE
- Rotate
- Luxate
- Figure-8



PRACTICAL ORAL SURGERY FOR THE GENERAL DENTIST

FORCEPS EXTRACTION

TOOTH

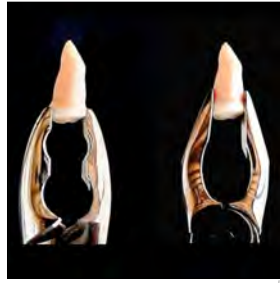
- ▶ Max. Anterior
- ▶ Max. Premolar
- ▶ Max. Molar
- ▶ Mand. Incisor
- ▶ Mand. Canine/PM
- ▶ Mand Molar

LUXATION MOVEMENT

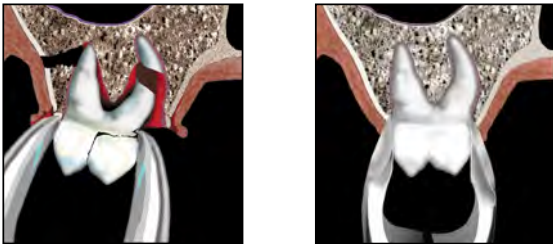
- ➡ B-L, Rotation
- ➡ B-L
- ➡ B
- ➡ B-L
- ➡ B-L, Rotation
- ➡ B-L

APICAL RETENTION FORCEPS

- ▶ Thin beaks
- ▶ Tapered profile
- ▶ Allow instrument to pass deeper onto root surface



APICAL RETENTION FORCEPS



TRAUMATIC TOOTH EXTRACTION



LOWER MOLAR FORCEPS - 222





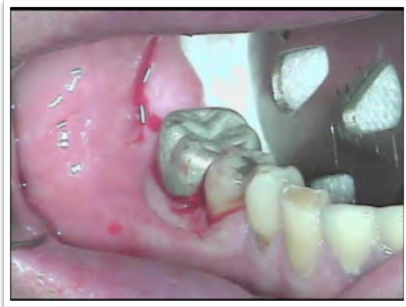
COWHORN FORCEPS - 23



COWHORN FORCEPS



COWHORN FORCEPS





TOOTH GRABBER



WATCH CAREFULLY

TAKE MENTAL NOTES

OnlineOralSurgery.com

The Site on the Internet for Dentists to Improve Their Confidence and Competence in Office Oral Surgery



WHAT DID YOU NOTICE?

- Two maxillary wisdom teeth removed
- Surgical time (Injection —> done) - 3:25
- Actual surgical time - 2:30
- Not talking during entire procedure
- My eyes rarely left the surgical site



MY STAFF KNOWS EXACTLY WHAT I WANT

- Scalpel
- Periosteal Elevator
- (Handpiece)
- Elevator (46R)
- Forceps
- Curette

BONY IMPACTION

- Scalpel
- Periosteal elevator
- Surgical handpiece
- Elevator
- Forceps/ hemostat
- Curette
- Bone file
- Suture

HOW DO THEY DO THAT?

- STAFF IS WELL-TRAINED
- WE DO THINGS THE SAME WAY... EVERY TIME

ASSISTANT

as·sis·tant noun \-tənt\

: a person who helps someone; especially
: a person whose job is to help another
person to do work

Consistency is the Key to Efficiency

BENEFITS OF SHORTER SURGICAL TIME

- Less surgical trauma
- Less post-op pain, swelling
- Increased productivity vs. increased free time

TOOTH EXTRACTION CATEGORIES

- ~~• NON-SURGICAL~~
- SURGICAL
- IMPACTIONS

SURGICAL EXTRACTIONS

- SINGLE-ROOTED TEETH
- 2-ROOTED TEETH
- 3-ROOTED TEETH

• IF THE TOOTH DOES NOT MOVE WITH AN ELEVATOR AND FORCEPS, GET OUT THE HANDPIECE!

SINGLE-ROOTED TEETH

MAXILLARY/ MANDIBULAR ANTERIORS

- Atraumatic extraction desirable
- Want to minimize flap reflection and bone removal
- X-Tools are ideally suited for this task



ATRAUMATIC FLAPLESS EXTRACTION



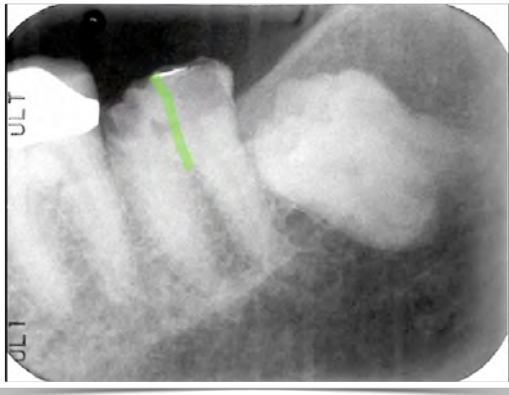
USE OF X-TOOL



ROOT RETRIEVAL - MOLARS

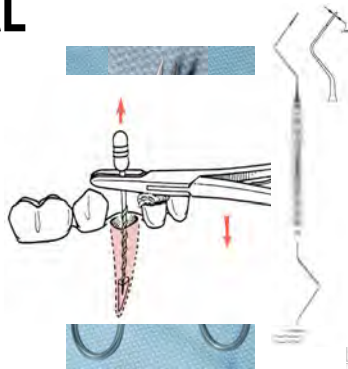
- CRYER / EAST-WEST
- COGSWELL B





ROOT RETRIEVAL

- ROOT TIP ELEVATORS
 - Trough with 701
- ROOT TIP FORCEPS
 - Steiglitz
- A NEAT TRICK





SUTURE

- SIZE
 - 3-0: basic
 - 4-0: finer
- TYPE
 - Silk
 - Gut
 - PLAIN
 - CHROMIC
 - Vicryl (PGA)



SUTURING

- TO REAPPROXIMATE SURGICAL FLAPS
- TO HOLD PACKING IN PLACE
- A SUTURE ALONE DOES NOT HOLD THE BLOOD CLOT IN PLACE.





PRE-IMPLANT SITE PREPARATION

- RIDGE PRESERVATION
- SINUS LIFT
 - Direct (open)
 - Indirect ("bump")
- BONE AUGMENTATION

RIDGE PRESERVATION GRAFTING

- Optimizes the amount of bone present at extraction site
- Reduces early (1st 6 months) ridge resorption by about 75%
- After extraction socket is debrided and irrigated, graft material is packed into socket
- Barrier membrane is placed over graft
- Sutured in place



- **MAJOR CHANGES TO EXTRACTION SITE OCCUR IN FIRST 12 MONTHS AFTER EXTRACTION.**
- **2/3 OF THE RESORPTION OCCURS WITHIN THE FEW MONTHS**

▶ Schropp L et al. Bone healing and soft tissue contour changes following single-tooth extraction: a clinical and radiographic 12-month prospective study. Int J Periodontics Restorative Dent 23(4); 313-23, 2003



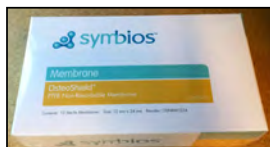
RIDGE PRESERVATION GRAFTING

- ▶ Review of all English language dental literature
- ▶ 3954 titles / 238 abstracts → 104 full text article analysis
- ▶ 6 months after extraction
 - 3.79mm (29-63%) horizontal
 - 1.24mm (B)/ 0.84mm (L) vertical avg. bone loss (11-22%)



MY RIDGE PRESERVATION TECHNIQUE

- ❖ mineralized corticocancellous granules
- ❖ PTFE membrane
- ❖ Cytoplast suture
 - ▶ Rule of Thumb: 0.5 cc per root*



CORTICOCANCELLOUS GRANULES

- ▶ A combination of cortical human bone (80%) and cancellous human bone (20%)
- ▶ Large particle range
 - Mineralized: 1.0 mm - 2.0 mm
 - Demineralized: 0.5 mm - 3.0 mm
- ▶ Integrates in approximately 4-5 months
- ▶ 3-year shelf life



XENOGRAFT GRANULES

- ▶ Indications
 - Ridge augmentation around implants
 - When patient refuses allograft
- ▶ Advantages
 - Ridge augmentation maintained longer than other bone grafts
- ▶ Disadvantages
 - Slow resorption through osteoclastic activity
- ▶ Limitations
 - May take >24 months to resorb
 - Particles adjacent to soft tissue become encapsulated
- ▶ Technique
 - Hydrate with sterile saline
 - Used alone or mixed with autogenous bone (1:1)



PTFE MEMBRANES

NON-RESORBABLE

- ▶ Proprietary 100% polytetrafluoroethylene sheet
- ▶ Biologically inert and tissue compatible
- ▶ Mesh appearance is "dimples", not holes - makes membrane virtually impervious to bacterial and soft tissue penetration (smooth side is placed on bone)
- ▶ 4-year shelf life

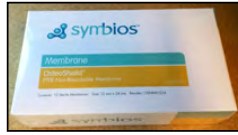


PTFE MEMBRANES NON-RESORBABLE

Indications for use:

- Socket grafting
- When primary closure after grafting cannot be achieved
- Large bony defects
- Temporary implantable material for space-making barrier in periodontal defects

PTFE MEMBRANE NON-RESORBABLE



RIDGE PRESERVATION TECHNIQUE



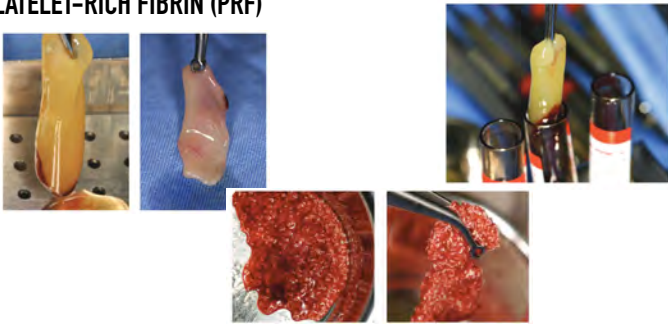
RIDGE PRESERVATION

- ▶88 y.o. female
- ▶HTN, hypothyroid
- ▶Synthroid, Losartan (Cozaar)
- ▶NKDA
- ▶Lost crown, saw endo --> not restorable





PLATELET-RICH FIBRIN (PRF)



THIRD MOLARS

- LOTS OF CONTROVERSY
- PATIENT HEALTH ISSUES VS. \$\$\$
- MANY DIFFERENT VIEWPOINTS
- PERIODONTAL ISSUES
- IMPROVEMENT IN TECHNIQUES

“ANY THIRD MOLAR THAT HAS NOT/WILL NOT COME INTO COMPLETE, FUNCTIONAL OCCLUSION, AND CAN NOT BE EASILY MAINTAINED BY THE PATIENT, SHOULD BE REMOVED.”

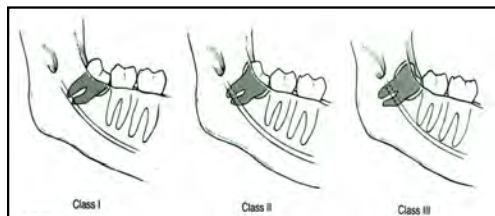
- Best time: roots 50%-75% developed
- Earlier is better than later - “It’s downhill after 25”
- > 35 years old, the benefits must outweigh the risks

WISDOM TEETH



THIRD MOLARS

•CLASSIFICATION- GREGORY AND PELL

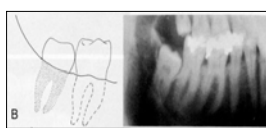


CLASSIFICATION- BY POSITION

Mesioangular



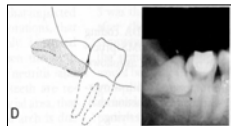
Vertical



Distoangular



Horizontal



CLASSIFICATION- PROCEDURE CODE

- ▶ **Surgical** - fully erupted, *may* need flap elevation, bone removal and/or sectioning
- ▶ **Soft Tissue Impaction** - covered only by gingiva, *will* need flap elevation, *may* need bone removal and/or sectioning
- ▶ **Partial Bony Impaction** - bone covering crown up to 50% (radiographically), *will* need flap elevation, *will* require bone removal and/or sectioning
- ▶ **Full Bony Impaction** - bone covering crown greater than 50% (radiographically), *will* need flap elevation, *will* require bone removal and/or sectioning

RADIOGRAPHS- 3RD MOLARS

- Should show present clinical condition
- Must show roots completely
- Must show relationship of roots to sinus (upper)
- Must show relationship of roots to IAN
- Panoramic- ideal

CONE BEAM CT IMAGING



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Online Oral surgery







RISKS OF THIRD MOLAR REMOVAL

•THE USUAL

- Bleeding
- Swelling
- Pain
- Infection
- Dry socket
- Delayed healing

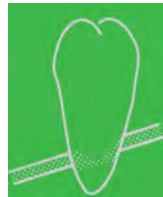
•Nerve Injury-
“numbness”

- Mandible Fracture
- Oral-Antral Fistula

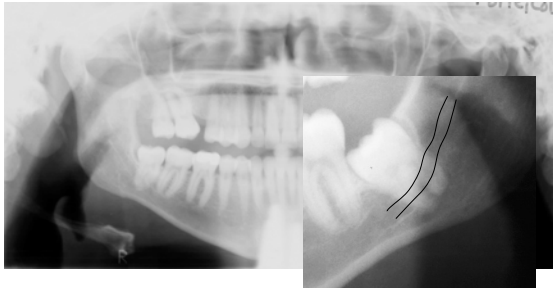
MANDIBULAR NERVE

•2D RADIOGRAPHIC RELATIONSHIP OF MANDIBULAR CANAL TO TOOTH ROOTS

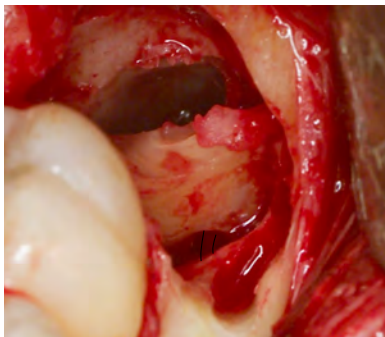
- Risk of paresthesia/ nerve injury
 - SUPERIMPOSITION (NO CONTACT)
 - GROOVING OF ROOT BY IAN
 - PERFORATION OF ROOT BY IAN



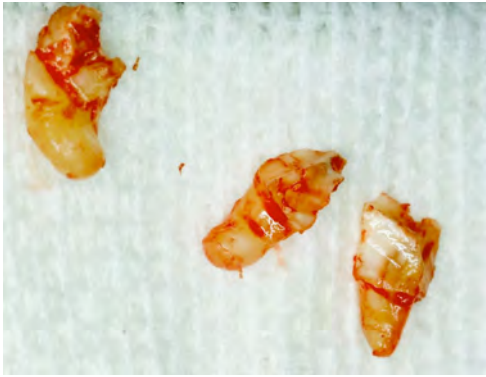
MANDIBULAR NERVE



MANDIBULAR NERVE

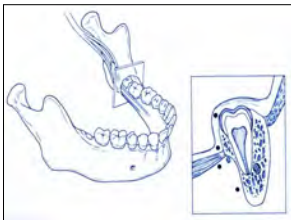






LINGUAL NERVE

- VERY VARIABLE LOCATION
- MAY BE ABOVE OR BELOW THE MYLOHYOID MUSCLE
- AVOID LINGUAL RETRACTION AND INSTRUMENTATION



MANDIBLE FRACTURE

- ▶ Most frequent when:
 - Patient is a male, > 35 years old
 - Deep impaction
 - Infection present before surgery
 - Impaired healing potential
- ▶ Usually occurs 1-3 weeks *after* surgery
- ▶ Refer immediately
- ▶ Treatment: Closed vs. Open Reduction

MANDIBLE FRACTURE

HEALTHY 36 Y.O. WOMAN

#17 EXTRACTED BY DDS – DIFFICULT

DEVELOPED INCREASING PAIN AND SWELLING OF LEFT MANDIBLE STARTING 1 WEEK AFTER PROCEDURE

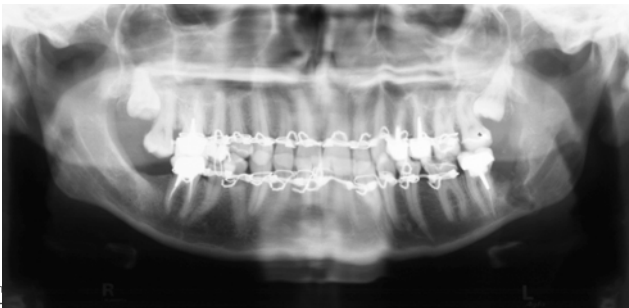
SAW LOCAL GP



MANDIBLE FRACTURE



TREATMENT



POST-TREATMENT (7 WEEKS)

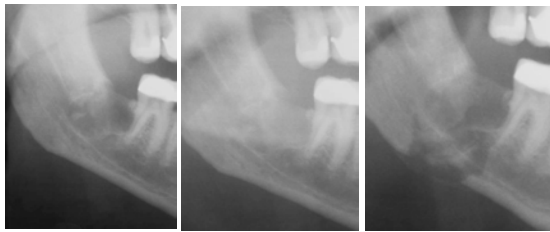


43 YEAR OLD MALE

- ▶ Tooth painful, infected
- ▶ Non-Insulin Dependent Diabetes
- ▶ WPW Syndrome -postablation



POST-OP



1 week postop

2 weeks postop

6 weeks postop



SINUS

- SINUSITIS
- Amoxicillin
- Decongestant
- ORAL-ANALGESIC
- Will probably be needed
- If not closed

SOUTHERN CALIFORNIA CENTER FOR ORAL AND FACIAL SURGERY
JULIE B. BROWN, D.M.D., M.D., FRCR
818-996-1200

MAXILLARY SINUS INSTRUCTIONS

You are given this information sheet because your surgery today involved entry into the sinus under your cheekbone. This was done to either:

- The roots of your upper back teeth extended into the sinus, and a temporary communication from the sinus into the mouth was created following the extraction in this region, or
- The surgical procedure performed today involved treating a problem within your sinus(es).

When you eat or drink following surgery near the sinus, liquid may pass into the sinus and may be discharged from the nose. This discharge may appear bloody. Do not become alarmed, this is normal. TO SPEED HEALING AND PREVENT COMPLICATIONS, FOLLOW THE INSTRUCTIONS LISTED BELOW:

1. Do not create suction by smoking, sucking on straws, etc.
2. Try to suppress sneezing. To prevent pressure buildup if sneezing occurs, keep the mouth open.
3. Do not forcefully blow your nose to "clear" the sinus or nasal passages.
4. Return for suture removal and post-operative appointments as advised by the doctor.
5. You should purchase and use the following medications:
 - MUCADONE 30 mg tablets. Take 2 tablets every 6 hours for _____ days.
 - AFREN or NEO-SYNEPHRINE nasal spray. Use as per package instructions for no more than three (3) days.
 - Antibiotics: _____ Take as directed on prescription.
6. Take all above and prescribed medications as directed.

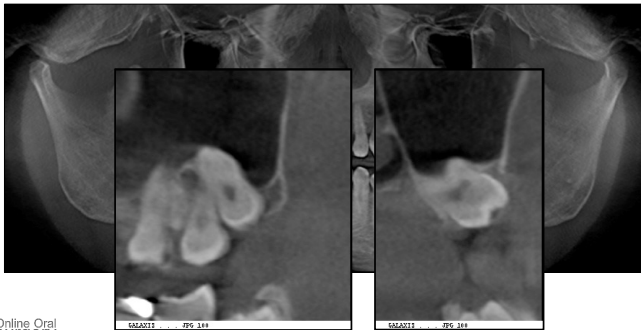
If finally, if you are concerned or do not understand the instructions, do not hesitate to call the office at any time.

ORAL-ANTRAL COMMUNICATION

- ▶ Most common with maxillary first molars.
- ▶ Best treatment is avoidance.
- ▶ Be careful of divergent roots- section.

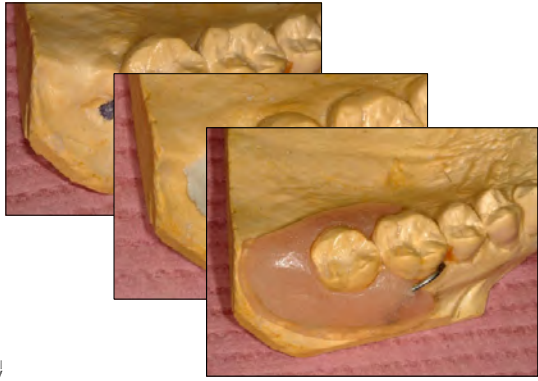
ORAL-ANTRAL COMMUNICATION

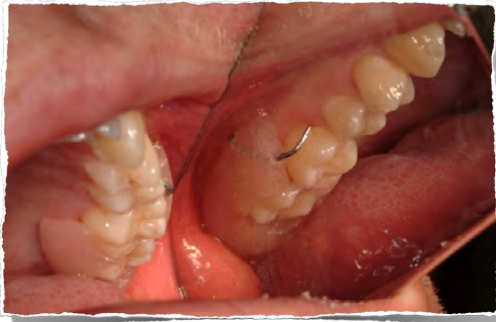
- ▶ If small:
 - Careful curettage
 - Gelfoam/ CollaPlug
 - Bone graft??
 - "Sinus Instructions"
 - Will probably close by itself
 - If not closed by 2 weeks → Refer



4 WEEKS POST-OP







SPEAKING OF UPPER 3RDS...





RISKS OF NOT REMOVING 3RDS

- ▶ Pericoronitis
- ▶ Severe infection
- ▶ Damage to bone and/or adjacent teeth
- ▶ Cysts/ Tumors
- ▶ Jaw fracture
- ▶ It may need to be removed later

PERICORONITIS



PERICORONITIS

- ▶ Infection is in the soft tissue, not the tooth (usually)
- ▶ Treat soft tissue infection *before* taking out tooth
 - Warm saline rinses
 - Irrigation under flap
 - Antibiotics

...OR WORSE!



AMELOBLASTOMA



MANDIBLE FRACTURE

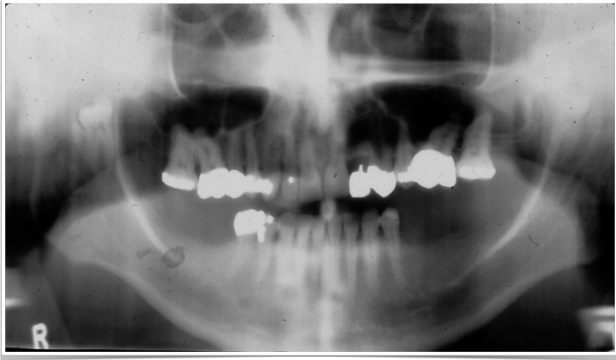


It may need to be removed later!



IT MAY NEED TO BE REMOVED LATER!

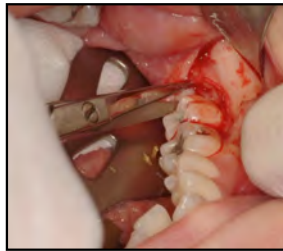




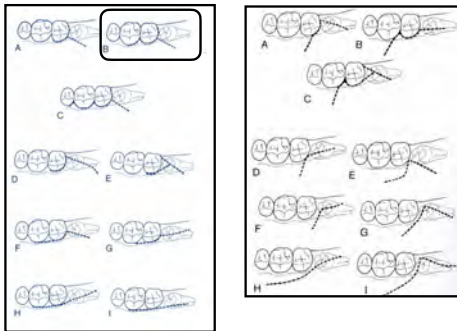
PRACTICAL ORAL SURGERY FOR THE GENERAL DENTIST

THIRD MOLAR IMPACTIONS

- Visualize procedure from start to finish
- Have instruments available
- Adequate flap to visualize target and minimize soft tissue trauma



LOWER 3RD MOLAR INCISIONS



LOWER 3RD MOLAR INCISIONS



BONY EXPOSURE

- ▶ Sweep away bone
- ▶ The tooth crown is harder than bone
- ▶ Light pressure
- ▶ Let the bur "drive" itself
- ▶ Fully expose furcation to facilitate sectioning



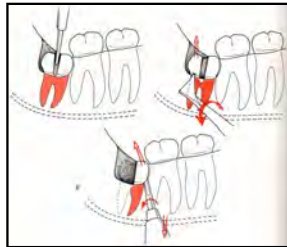
THIRD MOLAR EXTRACTIONS

- VERTICAL IMPACTIONS
 - Expose crown
 - Try elevating



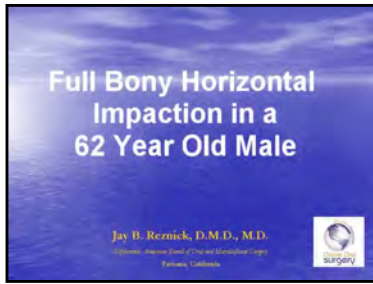
THIRD MOLAR EXTRACTIONS

- ▶ Vertical impactions
 - Expose crown
 - Try elevating
 - Bisect crown
 - ▶ Distal half
 - ▶ Mesial half
 - Deliver



AMELIA

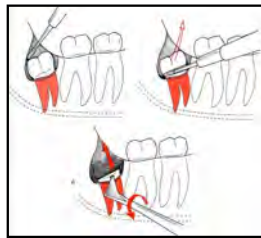
- HEALTHY 26 YEAR OLD WOMAN
- TENDER #17 AREA
- NO MEDICAL ISSUES OR PRIOR SURGERY



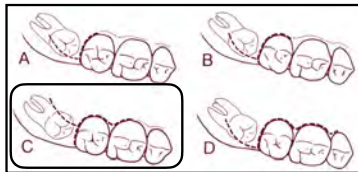
THIRD MOLAR EXTRACTIONS

•DISTOANGULAR IMPACTIONS

- Most difficult impaction
- Section/ remove crown
- Deliver roots
 - CRANE PICK
 - CRYER
- Pray a little



UPPER 3RD MOLAR INCISIONS



UPPER THIRD MOLAR



TYPICAL CASE: 4- 3RD MOLARS

- ▶ Peridex BID, starting 2 days before surgery
- ▶ Ibuprofen 400mg (APAP 1000mg)
- ▶ No routine antibiotics
- ▶ General Anesthesia



PRE-OP PATIENT INSTRUCTIONS

SOUTHERN CALIFORNIA CENTRE FOR ORAL AND FACIAL SURGERY
JAY B. REZNICK, D.M.D., M.D., INC.
858-996-1200

Your appointment for _____ is scheduled on _____ at _____ o'clock, in our _____ office.

This time is reserved specifically for you. Please try to arrive about 15 minutes prior to your scheduled appointment. If you are late, we may need to reschedule your surgery so that our other patients can be treated at their scheduled times.

PRE-OPERATIVE INSTRUCTIONS FOR PATIENTS HAVING INTRAVENOUS SEDATION OR GENERAL ANESTHESIA FOR SURGERY


- Do not eat or drink liquids (including water) for at least eight (8) hours prior to your appointment. *Patients who take daily medication (such as blood pressure, heart, or diabetes medicine, or antibiotics) should take their medication as scheduled with a minimal amount of water unless told otherwise by the surgeon or their medical doctor.
- Please bring the name and dosage of any medicine you are currently taking.
- Have a responsible person accompany you to drive you home. Minors must be accompanied by a parent. We cannot allow patients to leave the office by taxi or other transportation without an escort.
- Do not drink any alcoholic beverages for 24 hours before your surgery.
- Please discontinue the use of tobacco for as long as possible prior to your appointment. Smoking may delay healing, will create increased discomfort following surgery and increase the risk of infection.
- Wear short-sleeved, comfortable clothing. Please remove any nail or hand rings, studs, or other facial jewelry before your appointment. (Dirt-dangling earrings are acceptable.) Please leave your jewelry and valuables at home or with your escort.
- Contact lenses, nail polish, false eyelashes, scented lotions, perfumes, and make-up should not be worn to your appointment.
- It is a good idea to have two ice compresses made for when you arrive home.
- You should have soft, bland food ready at home for the first day.
- Someone should be available to be with you for 12 to 24 hours after you arrive home.
- If there is any change in your health in the few days before surgery, such as fever, chest cold, flu or persistent cough, please notify this office immediately.
- If you have insurance, please bring forms with you.

The estimated fee for surgery is _____
Due to Surgery's _____
We must have a signed financial agreement and assignment of benefits prior to surgery.

IF YOU ARE UNABLE TO KEEP YOUR APPOINTMENT PLEASE NOTIFY THE OFFICE AT LEAST 24 HOURS PRIOR TO YOUR SCHEDULED VISIT.

IF YOU HAVE ANY QUESTIONS REGARDING YOUR SURGERY, DO NOT HESITATE TO CALL THE OFFICE.

THANK YOU!
3618 Bonita, Suite 101, San
Diego, California 92108
858-996-1200 / FAX 858-996-1122




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JAY B. REZNICK, D.M.D., M.D., INC.
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THANK YOU!
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Diego, California 92108
858-996-1200 / FAX 858-996-1122




LET'S WALK THROUGH A CASE

Removal of Impacted 3rd Molars

Full Bony Impactions Early Root Development Stage

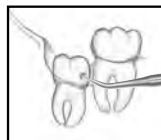
JAY B. REZNICK, D.M.D., M.D.
DIPLOMATE, AMERICAN BOARD OF ORAL
AND MAXILLOFACIAL SURGERY

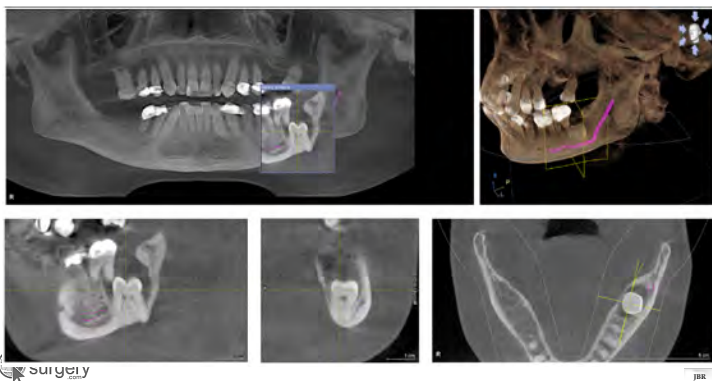


DEEP 3RD MOLAR

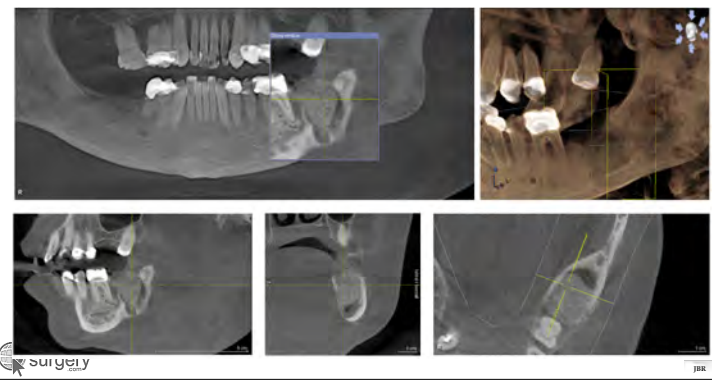
• COGSWELL B ELEVATOR

- Purchase point is drilled into tooth
- Tip placed into dimple









“ROUTINE ANTIBIOTICS”

- ▶ Antibiotics should not be prescribed without a clinical indication.
 - Infection spread to soft tissues at surgery
 - Prolonged procedure, excessive bone removal
 - Adequate blood levels
- ▶ 3 - 4% overall infection rate after third molar extraction.
- ▶ Antibiotics do not significantly reduce the risk of postoperative infection in an otherwise “clean” case.

“ROUTINE ANTIBIOTICS”

- ▶ Antibiotics are over-prescribed for routine oral surgery.
- ▶ Risks of over-use:
 - Allergic reactions
 - Resistance

MANAGEMENT OF BLEEDING

Bleeding from surgical sites can usually be controlled by local measures

LOCAL MEASURES TO CONTROL BLEEDING

- GAUZE PRESSURE
- FIRM
- 10-15 MIN
- REPEAT PRN



LOCAL MEASURES TO CONTROL BLEEDING

- ▶ Gauze pressure
- ▶ Pack site- gelatin sponge (Gelfoam), absorbable oxycellulose (Surgicel)
- ▶ Suturing
- ▶ Topical thrombin
- ▶ Local anesthetic



LOCAL MEASURES TO CONTROL BLEEDING

Rinse with 5% amino-caproic acid (Amicar) or tranexamic acid (Lysteda)

- 10 ml
- Hold in mouth for 2 min, 30 min pre-op, then q2h for 6-10 doses

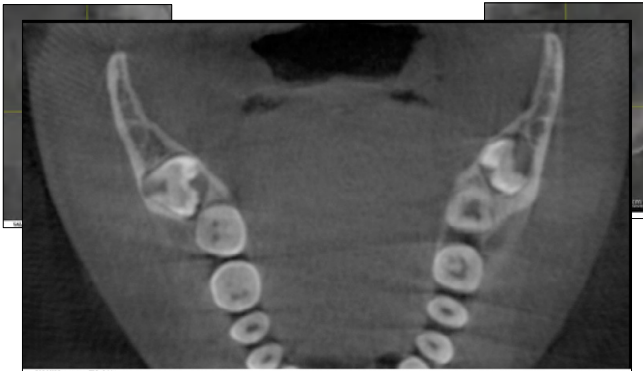




JUST REMEMBER . . .

*ALL BLEEDING
EVENTUALLY STOPS!*

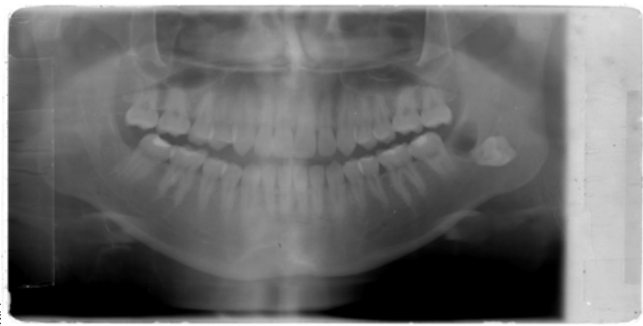


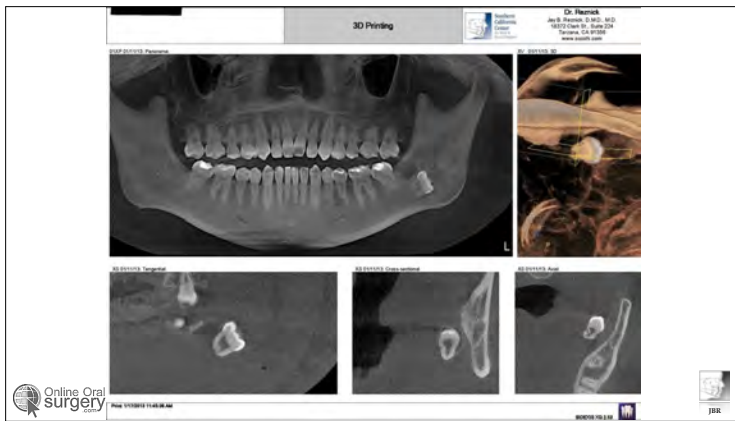


THINK!



WHAT HAPPENED?






Management of Surgical Complications



Removal of a Lingually-Displaced Mandibular Third Molar

JAY B. REZNICK, D.M.D., M.D.
DIPLOMATE, AMERICAN BOARD OF ORAL AND MAXILLOFACIAL SURGERY



FACTORS AFFECTING POSTOP RECOVERY



<ul style="list-style-type: none"> • AMOUNT OF FLAP REFLECTION • SURGICAL TIME • INSTRUMENTATION • IRRIGATION • CORTICOSTEROIDS • PRE-OPERATIVE SYMPTOMS 	<ul style="list-style-type: none"> • Surgeon experience • Patient age • Bone density • Root development • Tooth position • Individual variation
--	---

PRACTICAL ORAL SURGERY FOR THE GENERAL DENTIST

POST-OP INSTRUCTIONS

- ▶ Ice
- ▶ Soft Diet
- ▶ Rest
- ▶ Analgesia
 - 1000mg APAP + 400 mg Ibuprofen
 - Tramadol 50 mg

POST-OPERATIVE INSTRUCTIONS

SOUTHERN CALIFORNIA CENTER FOR ORAL AND FACIAL SURGERY
JAY R. ROYCE, D.M.D., M.D., FRCR
813-960-1200

POST-OPERATIVE INSTRUCTIONS AND INFORMATION FOR PATIENTS

Major oral and maxillofacial surgery is a complex procedure. Careful attention to the post-operative instructions is essential for a successful outcome. The following instructions are provided to assist you in the recovery process. Please read these instructions carefully and follow them exactly as directed. If you have any questions, please call our office at 813-960-1200.

- Bleeding**

It is normal to expect some bleeding after surgery. To help control bleeding, bite on the gauze pad for 30-45 minutes. If bleeding continues, replace the gauze pad with a new one. Do not use aspirin or other blood thinners. If you are on any blood thinners, please inform your surgeon. If you experience heavy bleeding, please call our office immediately.
- Swelling**

Swelling is a normal part of the healing process. To reduce swelling, apply ice packs to the surgical site for the first 24-48 hours. Use ice packs for 15-20 minutes at a time, several times a day. After 48 hours, you can switch to warm compresses. Avoid hot liquids and foods for the first 24-48 hours. Do not drink alcohol for at least 72 hours. Do not smoke for at least 2 weeks. Smoking can significantly delay healing and increase the risk of complications.
- Pain**

Pain is a normal part of the healing process. Your surgeon will prescribe pain medication. Take the medication as directed. Do not take more than the prescribed amount. Do not drink alcohol while taking pain medication. If you experience severe pain, please call our office.
- Wound Care**

Keep the surgical site clean and dry. Do not touch the wound. Do not use hydrogen peroxide or alcohol on the wound. Do not use ointments or creams on the wound. If you notice any drainage or odor, please call our office.
- Activity**

Avoid strenuous activity for at least 2-3 weeks. Avoid heavy lifting for at least 4-6 weeks. Avoid driving for at least 24-48 hours. Avoid alcohol for at least 72 hours. Do not smoke for at least 2 weeks.
- Follow-up**

Return to our office for a post-operative check-up. If you experience any complications, please call our office immediately.

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- Follow-up**

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SOUTHERN CALIFORNIA CENTER FOR ORAL AND FACIAL SURGERY
JAY R. ROYCE, D.M.D., M.D., FRCR
813-960-1200

ADDITIONAL POST-OPERATIVE INSTRUCTIONS FOLLOWING THE REMOVAL OF IMPACTED WISDOM TEETH

- Following the removal of wisdom teeth, your usual oral hygiene routine may be resumed. However, the areas immediately adjacent to the surgical sites should be brushed carefully. Gentle brushing will not injure the healing tissues.
- Special care must be given to the healing areas of the lower impacted wisdom teeth. The use of a plastic syringe, as demonstrated by the nurse, is suggested as an aid to keeping this area clean. A Water Pick, with minimal pressure, may be used in place of the syringe. A diluted solution of any popular brand mouthwash may be used in warm salt water (1 teaspoon salt to 8 ounces glass of warm water) may be used as a substitute. This routine, in conjunction with regular brushing of the teeth, should be performed each time immediately after food consumption.
- The use of the syringe for the lower sockets must be maintained for at least 2 weeks. Improper oral hygiene in this area may result in complications and a post-operative infection, which can occur many weeks following the initial surgical procedure.
- In the event of any complication, especially pain or swelling, or if there is any question regarding your postoperative progress, please telephone this office immediately.



PRACTICAL ORAL SURGERY FOR THE GENERAL DENTIST

MAKE SURE PATIENTS UNDERSTAND YOUR INSTRUCTIONS!

Online Oral surgery logo

MANAGEMENT OF COMMON POSTOPERATIVE COMPLICATIONS

- BLEEDING
- INFECTION
- SINUSITIS
- "DRY SOCKET"
- SEQUESTRATION
- LINGUAL MANDIBULAR SEQUESTRATION
- FRACTURE
- NUMBNESS

Online Oral surgery logo

LIVER CLOT

- It represents incomplete fibrin clotting and manifests as a slowly developing, red-brown clot.
- May occur days after extraction
- It is usually due to venous hemorrhage.
- The patient may have difficulty controlling the bleeding with pressure alone

LIVER CLOT

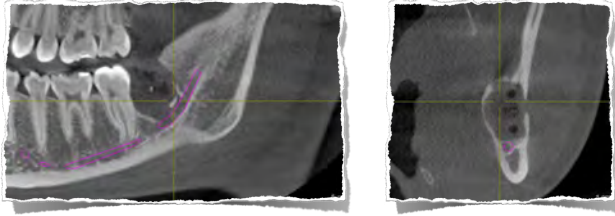


POSTOP INFECTION

- OCCURS AFTER 3RD POSTOP DAY
- INCREASED SWELLING, PAIN
- SKIN ERYTHEMA
- FOUL OR SOUR TASTE
- FEVER

POSTOP INFECTION

- ▶ Treat initially with "standard" antibiotics
- ▶ May require debridement of extraction socket
- ▶ Place drain if involves soft tissues





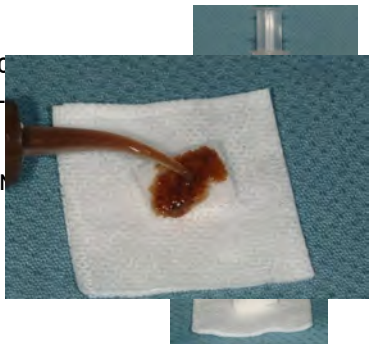
DRY SOCKET

- LOCALIZED ALVEOLAR OSTEITIS
- LOSS OF THE BLOOD CLOT
- ETIOLOGY??
- "SCHMOOTZY" SOCKET
- "REZNICK'S SIGN" (CHANDELIER SIGN)
- TREATMENT



DRY SOCKET

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DRY SOCKET

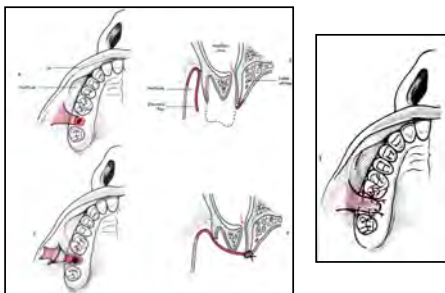
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- "SCHMOOTZY" SOCKET
- "REZNICK'S SIGN" (CHANDELIER SIGN)
- TREATMENT
- PREVENTION

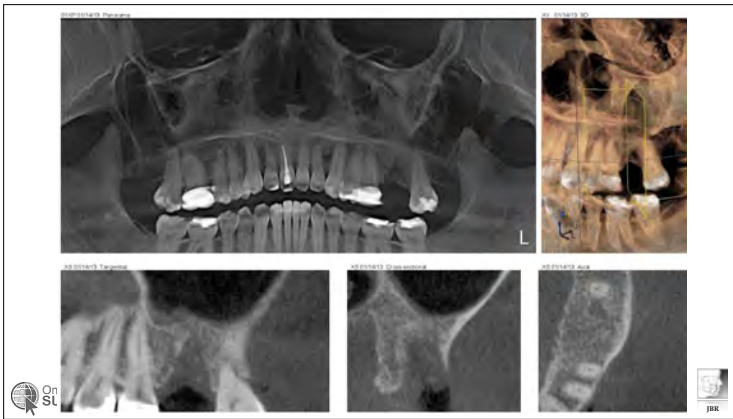


DRY SOCKET

A TRUE DRY SOCKET SHOULD NOT LAST MORE THAN A FEW DAYS. IF IT DOES, LOOK FOR ANOTHER CAUSE OF THE PATIENT'S SYMPTOMS.
"WHEN THINGS DON'T SEEM RIGHT, THERE'S A GOOD CHANCE THAT SOMETHING'S WRONG"

Oral-Antral Fistula Closure









BONY SEQUESTRATION

- SMALL PIECES OF BONE MAY BECOME OBVIOUS AT THE EXTRACTION AREA UP TO MANY MONTHS AFTER SURGERY
- MOST WILL SLOUGH WITHOUT TREATMENT
- CAN BE REMOVED WITH A HEMOSTAT OR SMALL RONGEUR

POST-SURGICAL COMPLICATIONS

▶Lingual bony spicule

- Can develop anytime after surgery for mandibular 3rd molars, even years later.
- Painful, radiates to ear, throat, headache
- Can occur spontaneously.
- Bony spicule is visible along mylohyoid ridge, penetrating lingual mucosa.

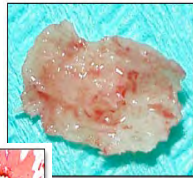
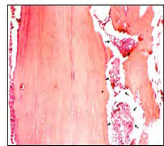


LINGUAL BONY SPICULE

- MAY BE SELF-LIMITED
 - Exposed bone becomes necrotic
 - May slough, leaving a smooth surface underneath
 - Mucosa will heal spontaneously
- MAY NEED INTERVENTION



LINGUAL BONY SPICULE



LINGUAL BONY SPICULE

- ▶ Make sulcular incision above spicule
- ▶ Elevate flap with curved Molt currette
- ▶ Smooth/ remove spicule with angled bone file



DENTAL INFECTIONS

- A TOOTH SHOULD NOT BE REMOVED IN THE FACE OF ACTIVE INFECTION.
- YOU MUST PUT THE PATIENT ON ANTIBIOTICS FIRST, THEN TAKE OUT THE TOOTH WHEN THE INFECTION IS BETTER.

No!
No!
No!

ODONTOGENIC INFECTIONS

- PERIO/ENDO INFECTIONS
 - Remove the source of the infection
 - I & D
 - Antibiotics
- PERICORONITIS
 - Usually cellulitis
 - Begin treatment for soft tissue infection before removing tooth



ANTIBIOTIC USE

- | | |
|---|---|
| <ul style="list-style-type: none">• INDICATED FOR:<ul style="list-style-type: none">- Acute onset infection- Diffuse swelling- Compromised host defenses- Involvement of fascial spaces- Severe pericoronitis- Osteomyelitis | <ul style="list-style-type: none">• NOT INDICATED FOR:<ul style="list-style-type: none">- Chronic well-localized abscess- Minor vestibular abscess- Dry socket- Mild pericoronitis |
|---|---|

ANTIBIOTIC USE

MOST ODONTOGENIC INFECTIONS RESPOND READILY TO THE "STANDARD" ANTIBIOTICS

- | | |
|---|--|
| <ul style="list-style-type: none">• Penicillin• Amoxicillin• Erythromycin• Clindamycin | <ul style="list-style-type: none">• Cephalexin• Ceclor• Metronidazole• Tetracycline |
|---|--|

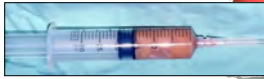
INDICATIONS FOR C & S:

- Rapidly spreading infection
- Postoperative infection
- Nonresponsive infection
- Recurrent infection
- Compromised host defenses
- Osteomyelitis
- Suspected actinomycosis



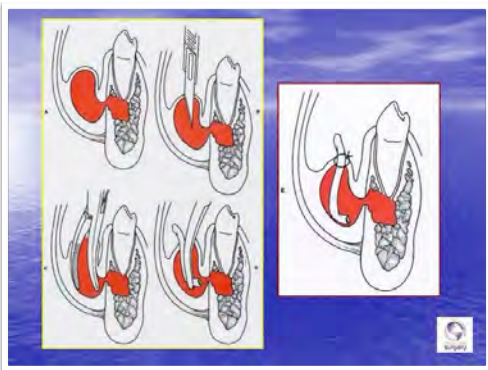
INCISION & DRAINAGE (I&D)

- FLUCTUANT VS. INDURATED
 - Pus
 - Cellulitis
- LETTING OUT THE PUS
 - Incision and Drainage



INCISION & DRAINAGE (I&D)

- FLUCTUANT VS. INDURATED
 - Pus
 - Cellulitis
- LETTING OUT THE PUS
 - Incision and Drainage
- DRAINING CELLULITIS



I & D

- ANTIBIOTICS
- WARM SALINE RINSES
- MOIST HEAT
- DEFINITIVE TREATMENT
- FOLLOW-UP: 1 – 2 DAYS

PRACTICAL ORAL SURGERY FOR THE GENERAL DENTIST

REASONS FOR TREATMENT FAILURE

- Inadequate surgery
- Depressed host defenses
- Foreign body
- Antibiotic problems
 - ▶ Patient noncompliance
 - ▶ Drug not reaching site
 - ▶ Drug dosage too low
 - ▶ Wrong bacterial diagnosis
 - ▶ Wrong antibiotic

CRITERIA FOR REFERRAL TO A SPECIALIST

- RAPIDLY PROGRESSING INFECTION
- DIFFICULTY IN BREATHING
- DIFFICULTY IN SWALLOWING
- FASCIAL SPACE INVOLVEMENT



CRITERIA FOR REFERRAL TO A SPECIALIST



- Elevated temperature (> 101.5° F)
- Severe jaw trismus (< 20 mm)
- Toxic appearance
- Compromised host defenses

PITFALLS- PROCEDURAL

- ▶ "I've got time on my schedule"
- ▶ "It looks easy"
- ▶ Not having the correct instruments
- ▶ Not laying a flap/ big enough flap
- ▶ Not planning/ being prepared
- ▶ Not referring the patient to the OS to begin with!
 - Offer patient options: GP or OS



HELP!

- DEVELOP A WORKING RELATIONSHIP WITH A LOCAL ORAL AND MAXILLOFACIAL SURGEON
- YOU NEED HIM/HER
- HE/SHE NEEDS YOU!

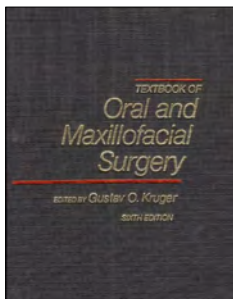


PITFALLS- MEDICOLEGAL

- ▶ Inadequate informed consent
- ▶ Inadequate radiographs
- ▶ Poor records
- ▶ Failure to call for help/ refer to specialist
- ▶ Failure to inform patient of complication
- ▶ Ignoring a patient's complaint of a complication
- ▶ Failure to give patient option of seeing a specialist



REFERENCES- BASIC



Mosby



REFERENCES



W B Saunders



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