



Atraumatic Extractions

Michigan Dental Association Meeting
Lansing Center, Lansing
April 18, 2024 1-3pm



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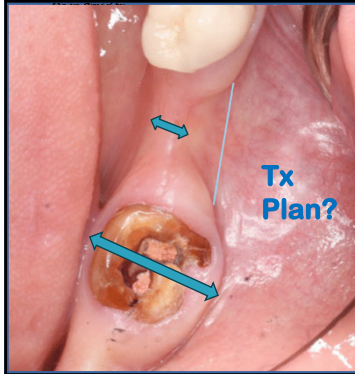


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Summary of Presentation

- Rational for and Overview of Atraumatic Extraction Techniques (AET)
- State of Michigan history-
- Atraumatic Anesthesia Techniques
- Dr./patient interaction-
- Atraumatic Extraction Techniques(AET) and (RSCET) and Instrumentation
- Video-

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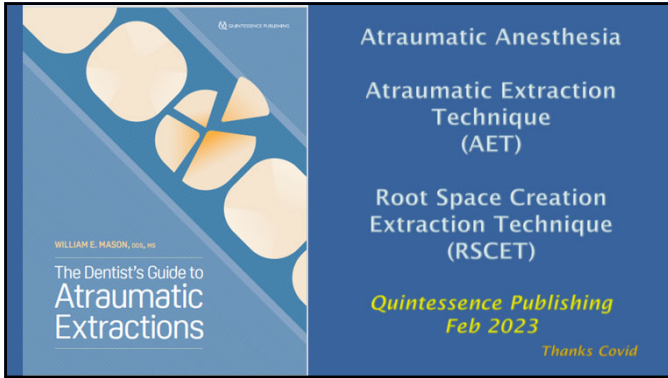
Severe ridge resorption due to traumatic extraction

Negatives:

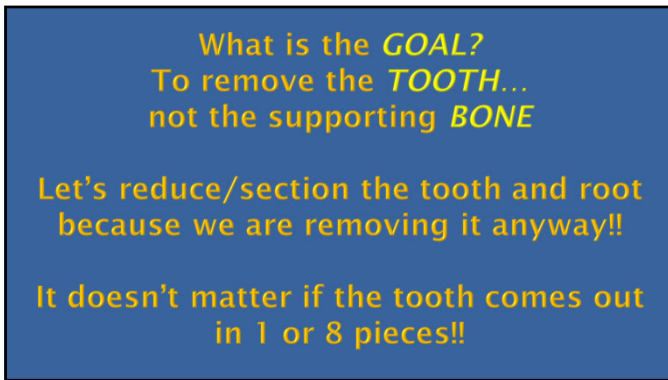
- Inadequate ridge for implant=
=cantilever
- Reduced arch circumference=
=cantilever
- Additional surgery: Sinus lift,
GBR
- Restoration failures
- Food impaction around fixed restorations
- Thicker flanges
- Reduced facial support

Tx Plan?

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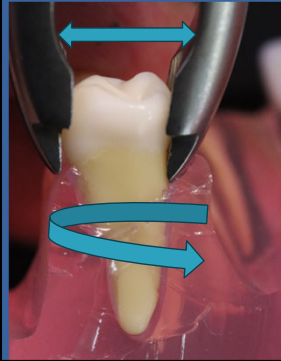
Then...



Why do we pressure/luxate roots in the socket when there is nowhere laterally to go?

Have to have a space for it to move to...!!

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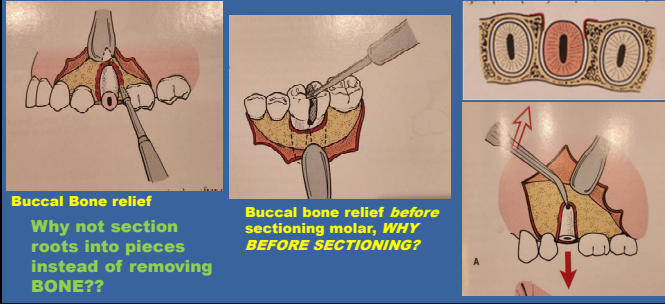


Or use excessive luxation force with forceps?

Damaging the socket wall and ridge and fracturing roots? (roots are not round)

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Bone relief to facilitate extraction from oral surgery textbooks



Buccal Bone relief
Why not section roots into pieces instead of removing BONE??

Buccal bone relief before sectioning molar, WHY BEFORE SECTIONING?

Buccal bone relief

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I asked myself...
 "Why not remove **tooth structure, which will be removed anyway**, to make space to **pressure the remaining root into**"
 Instead of removing bone or expanding the socket which causes trauma and poor healing?

I am extracting a tooth, not bone
Bone is difficult to replace!

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In my opinion, a surgical flap and bone relief (osteotomy) or excessive luxation with forceps is not indicated due to it's negative effect on ridge width, height and postsurgical healing ...(i.e. PAIN)

Flap, osteotomy, luxation and extraction may be faster, but results in more loss of ridge width, height and more postoperative pain.

*Analogy:
Full coverage restorations not needed on all teeth...*

We do not just cut all carious teeth down for a full coverage crown...we do caries removal first, then decide on extent of restoration?

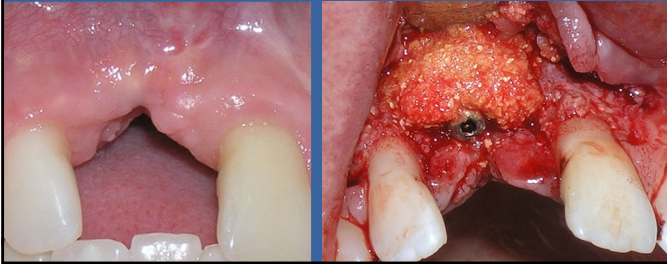
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Consequences of Ridge Resorption

- Inadequate ridge for implants->cantilever
- Reduced arch circumference->cantilever
- Additional surgery: Sinus lift, GBR
- Restoration failures
- Food impaction around fixed restorations
- Thicker flanges
- Reduced facial support

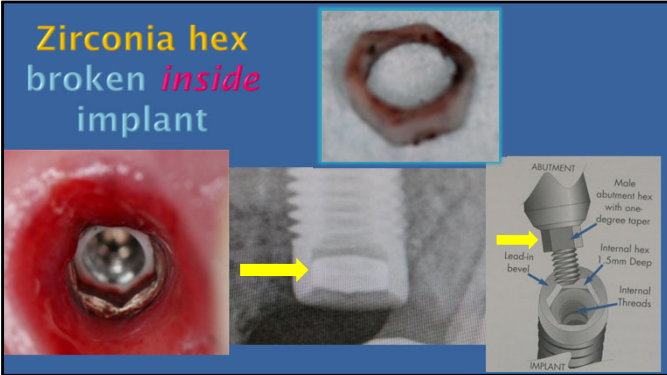
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Required multiple bone graft surgeries with "tenting screws" and soft tissue grafting



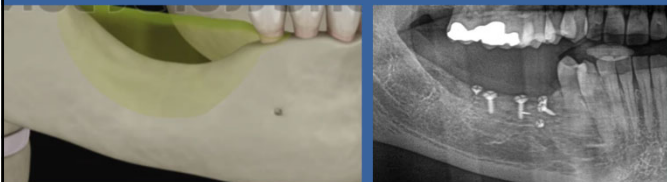
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Zirconia hex broken *inside* implant



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Mand right ridge resorption
Required augmentation with tenting screws



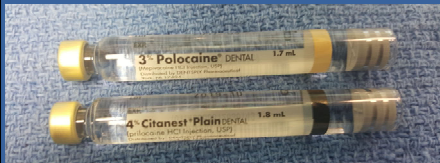
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- Don't tell patients, "this is going to hurt/pinch", It will hurt because you told them it will...
- Use topicals before injections, dry area, apply topical (strong), let work 2-3 mins. Gentle injections with warmed anesthetic, narrow gauge needles. 30 gauge for infiltration, 27 gauge for blocks. Citanest 3% Plain or Polocaine 4% first, then Septocaine. Use Marcaine 10-15 mins later so have anesthesia longer so min pain meds, and end up using less anesthetic volume overall since don't have to keep reinjecting during procedure = less trauma
- Work on painless Palatal injections (PAD: Palatal Anesthesia Device)



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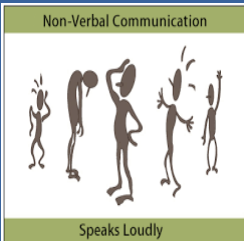
Heated anesthetic without vasoconstrictor first, minimal "burning" pH = 6.0-6.5 ... ~body pH physiologic pH = 7.4
 Anesthetic with vasoconstrictor pH = 4.0 = acidic (2% Lidocaine 1/100,000 epi, Articaine 1/100,000 epi) causes "burning", especially if cold INJECT ... S L O W L Y ...



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Communication: 70% is nonverbal

If verbal does not line up with nonverbal, then people believe nonverbal. If you do not believe injection will be painless, your body language gives it away and vice versa.

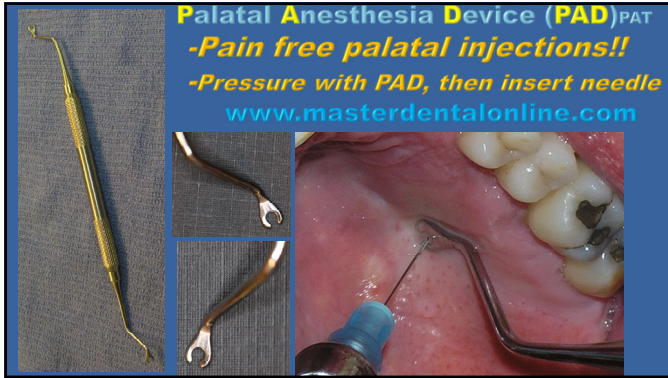


Nonverbal Communication

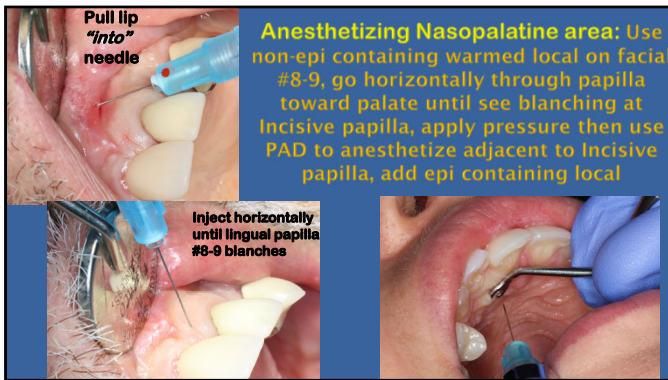


- For communication to be clear, verbal and nonverbal messages must agree.
- If the messages conflict, people believe the NON-verbal message
- Most of all messages are sent Nonverbally!

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It is the combination of many careful and atraumatic steps that result in an atraumatic procedure in the end, hence AET. *Not just one fancy technique or instrument*

- Develop a plan
- Take your time (plan path of removal)
- Slow, gentle anesthesia
- Minimal or no soft tissue reflection
- Divide and conquer (between roots and roots themselves, RSCET)

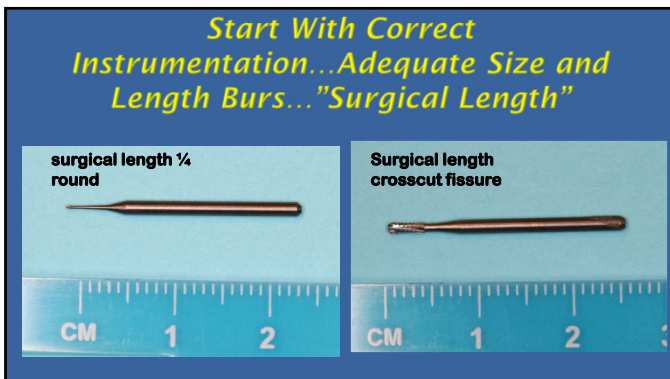
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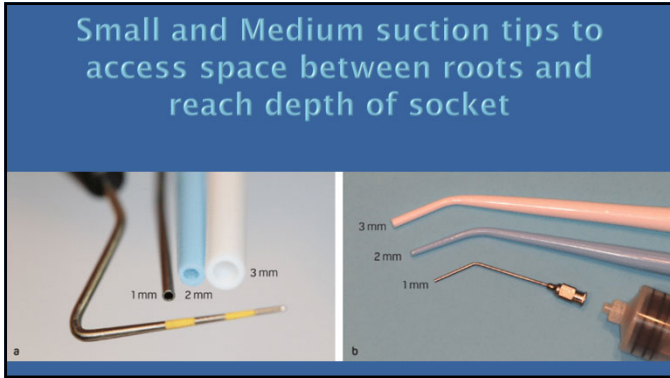
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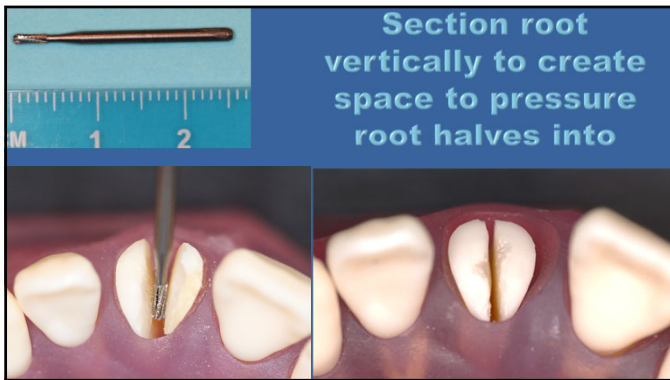
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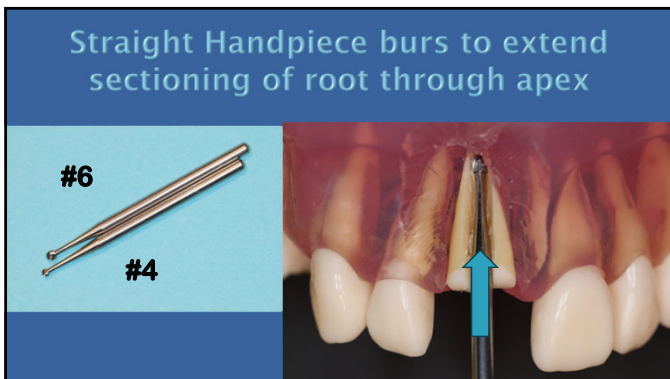
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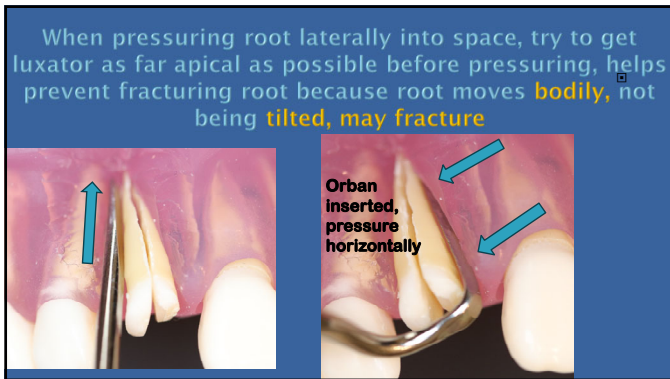
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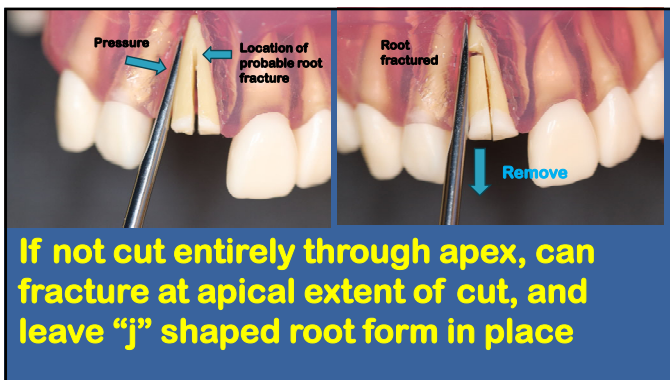
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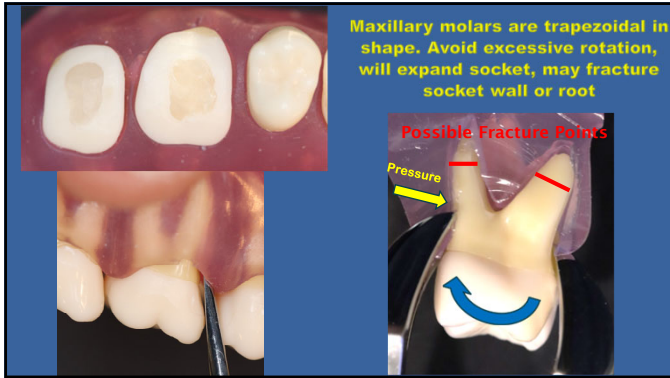
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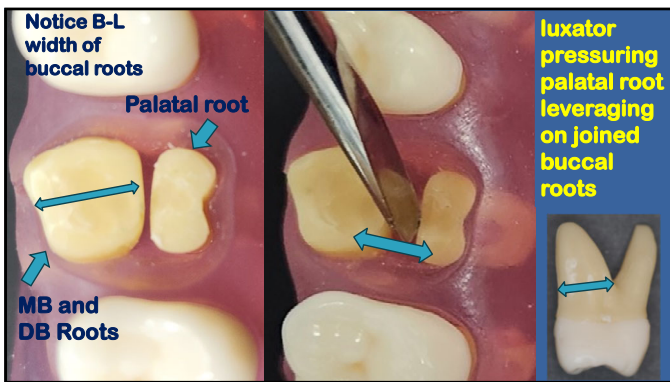
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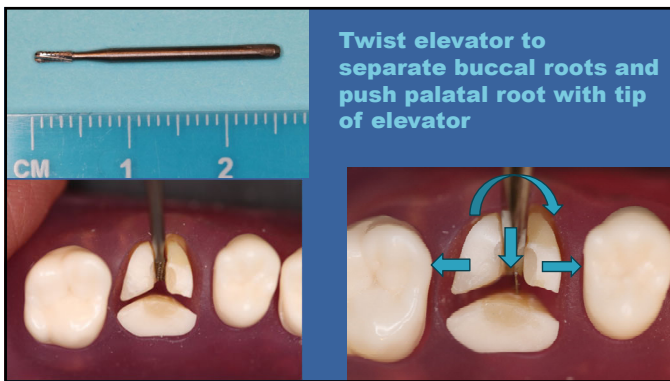
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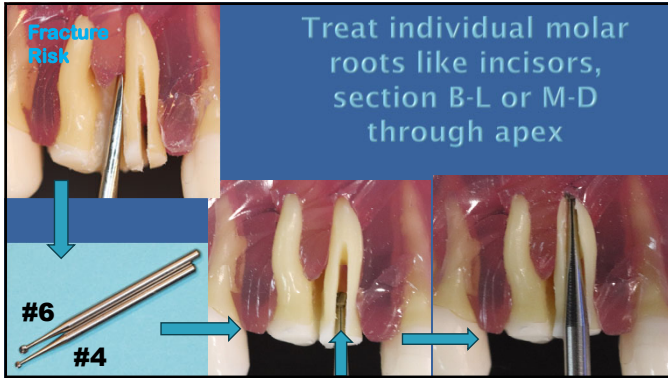
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Summary

- ▣ **Atraumatic Anesthesia**
- ▣ **Atraumatic Extraction: Evaluate and plan, gentle luxation, release PDL, remove crown, section multirooted teeth, section individual roots, pressure sectioned root pieces into space created, section again if necessary, debride socket.**

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