

The Build Up Matrix and Endodontic Isolation Maintenance

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Focus on Two Techniques

1. Dycal Isolation

2. Copper Band Matrix Support

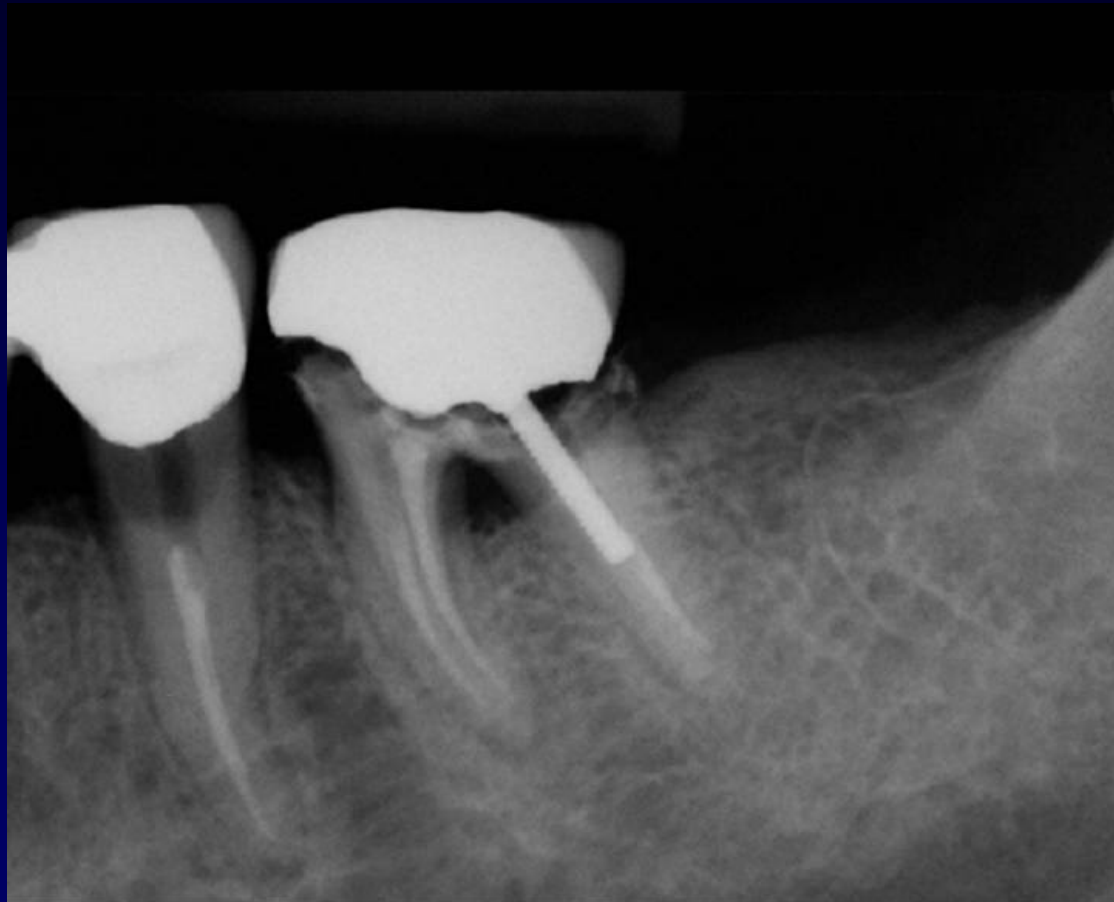
Goals of this Lecture:

1. Learn when to use Dycal
2. Learn when to use a Copper Band.
3. Learn how to apply Dycal
4. Learn how to place a Copper Band

Caries Indicator Dye



Radiograph Assessment



Dycal Isolation

Armamentarium:

1. Dycal



2. Needle Tip Centrix syringe and tip



3. Mixing pad and spatula

Dycal Technique

- Stuff Dycal into the needle tip cap, place plunger, load into the syringe
- Squirt around the clamp to seal gaps and leaks

Ideal Dycal Case

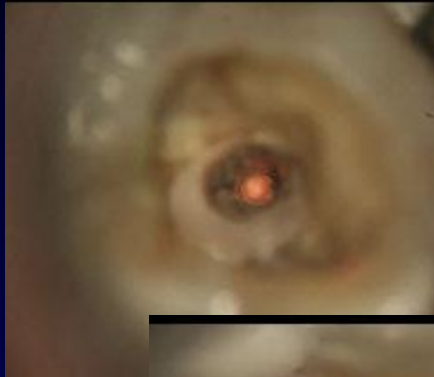
- Supportive walls on all sides



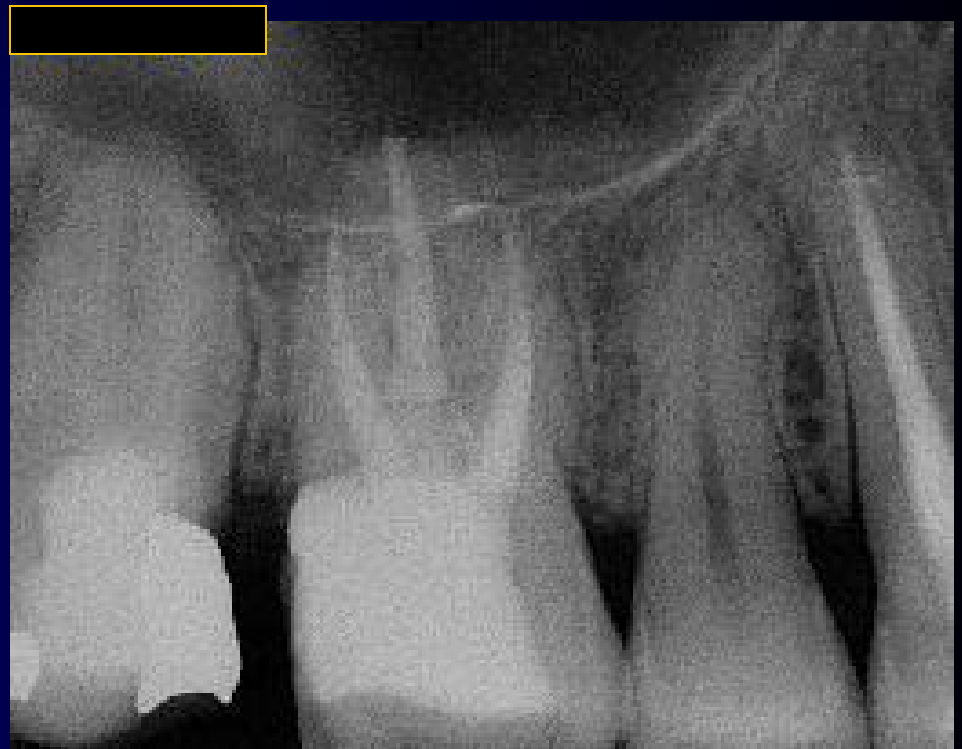
Isolation Maintained through C & S



Isolation Maintained through Pack



Isolation Maintained and Matrix Created for a Composite Build-up



Case Pearl of Wisdom

- Maintain enamel walls if possible throughout endo treatment
- Place the Dycal Barrier then remove unsupported enamel.

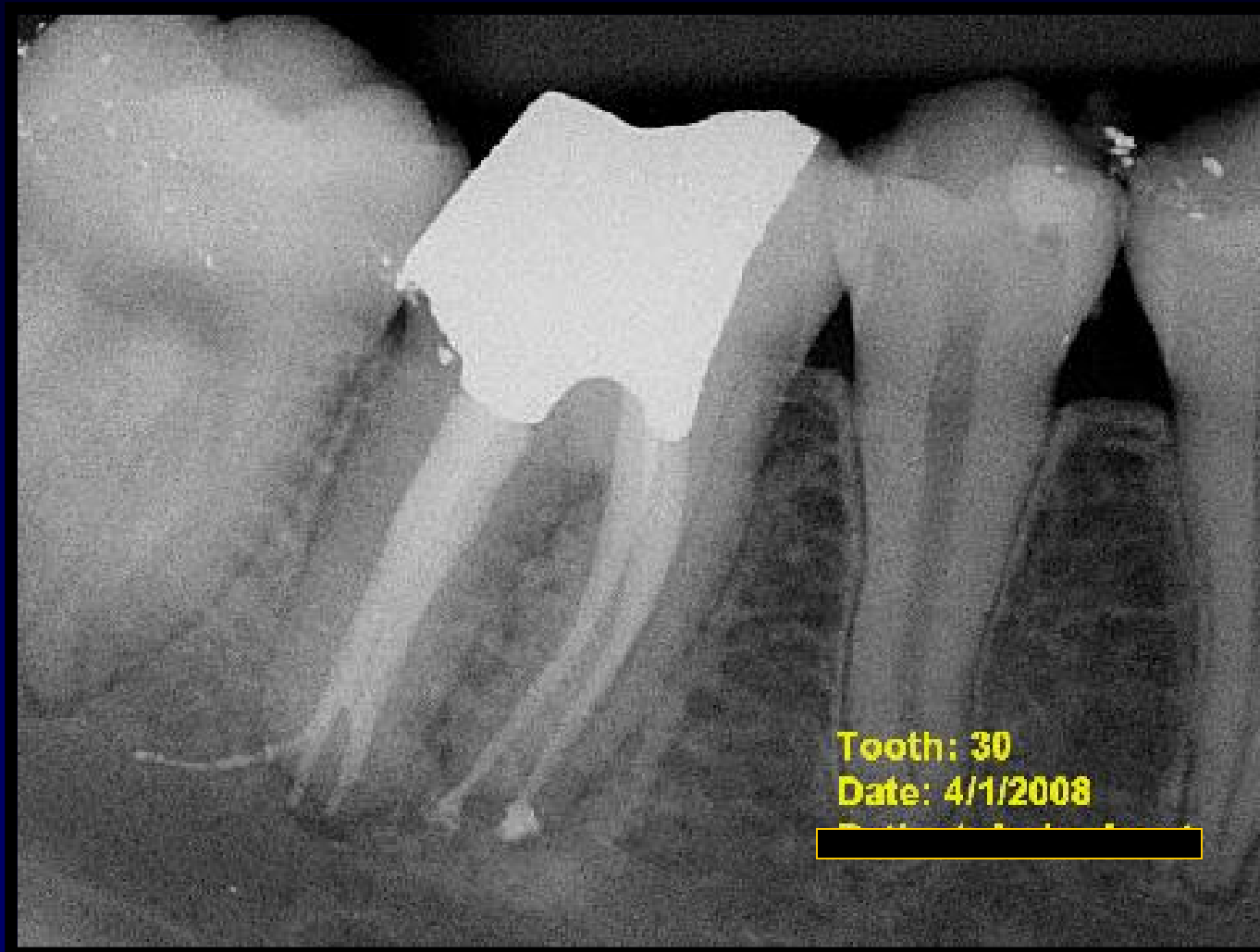
Less Ideal Dycal Matrix Case



Dycal Squirt + Matrix Band and Wedge



Bonded Amalgam



When to use Dycal?

- To plug simple gaps in the dam.
- To form a matrix, with or without a band and wedges when no extensive condensation force is required (composite)

Copper Band Matrix Technique

Used for more severely broken down crowns and when heavy condensation force is required (amalgam)



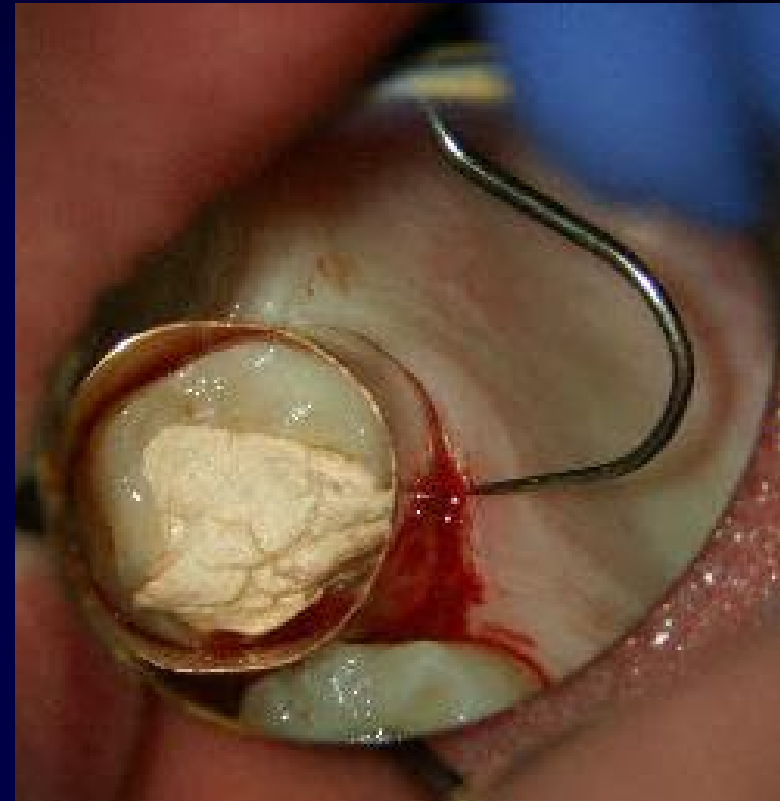
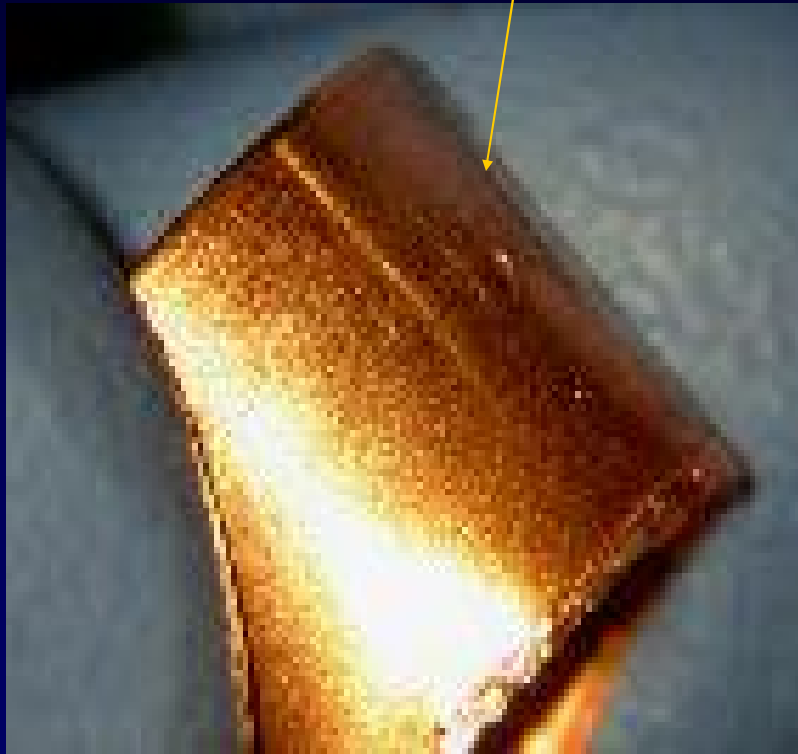
Materials

- Dead Soft Copper Bands (available in any major supply catalogue)
- C & B scissors
- Dycal/Centrix Syringe (as mentioned before)

Choose a band that is slightly larger than the cervical circumference of the tooth



Adjusting the Band Height



Adjusting the Band Height



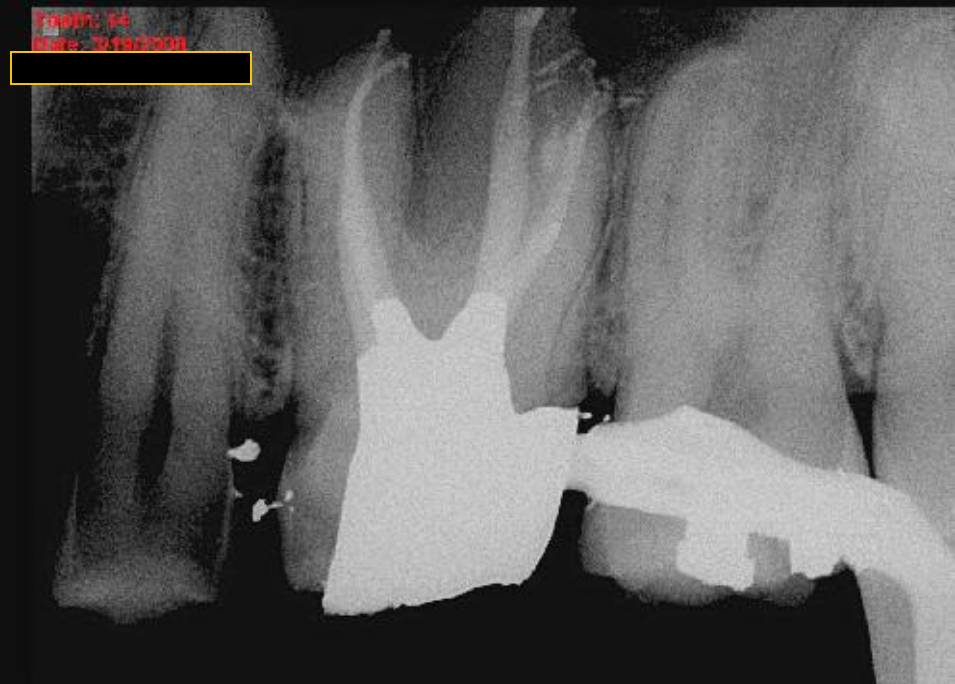
Adjusting the Band Height



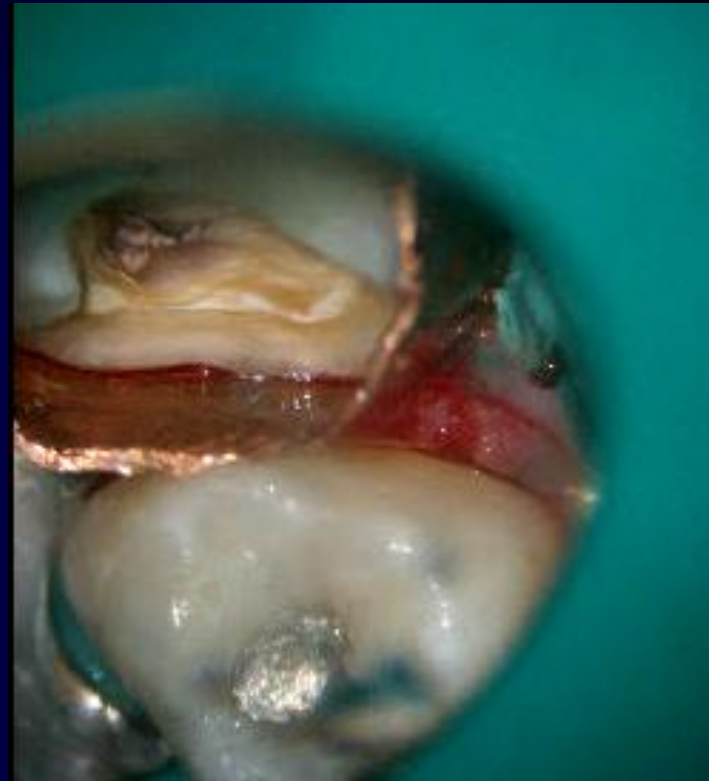
Try In and Adjustment



Place Dam, Endo, and Core



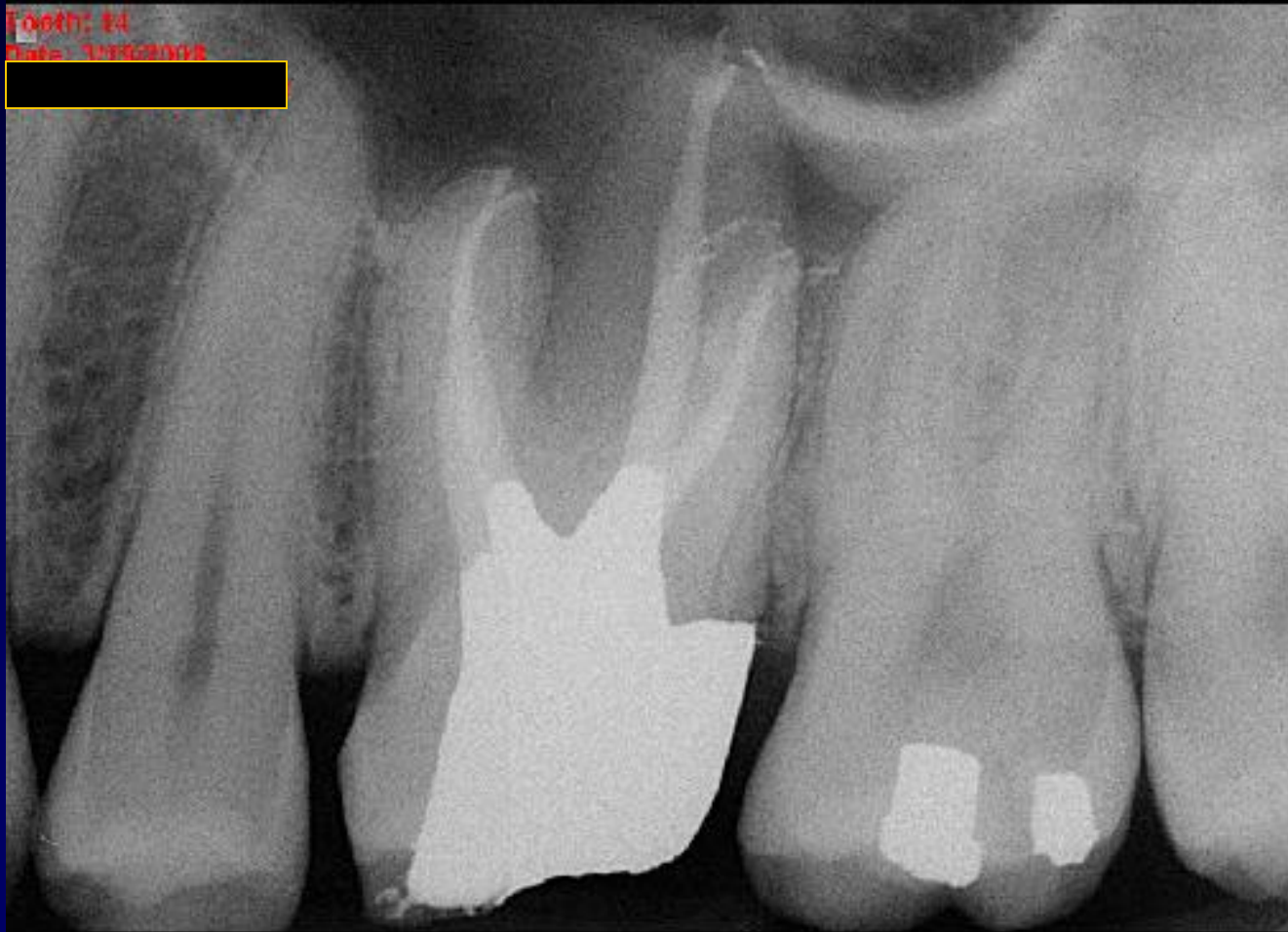
Tweak the dam tight



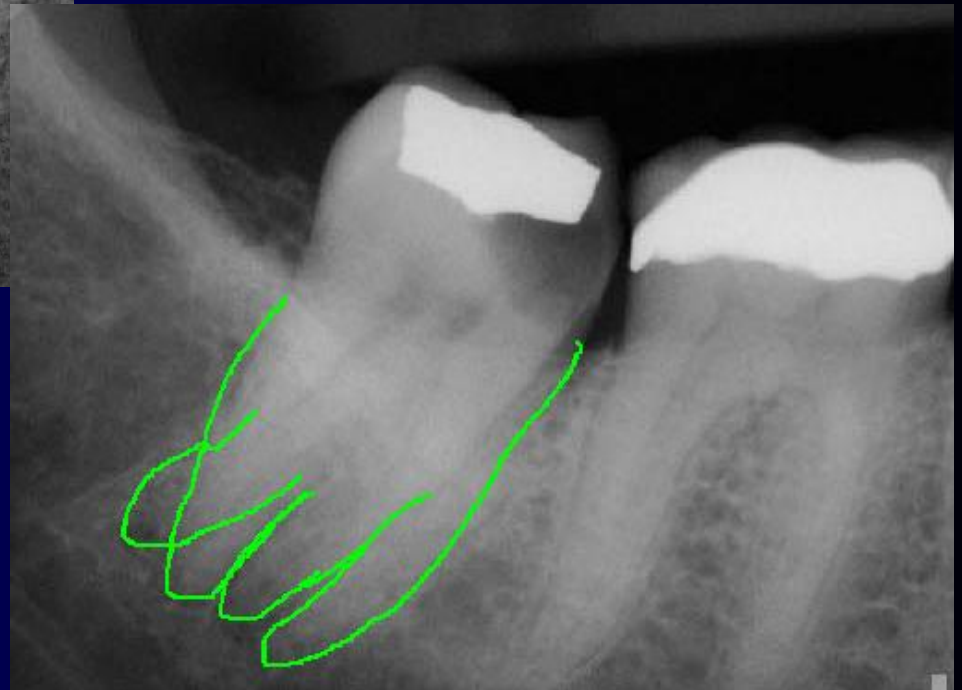
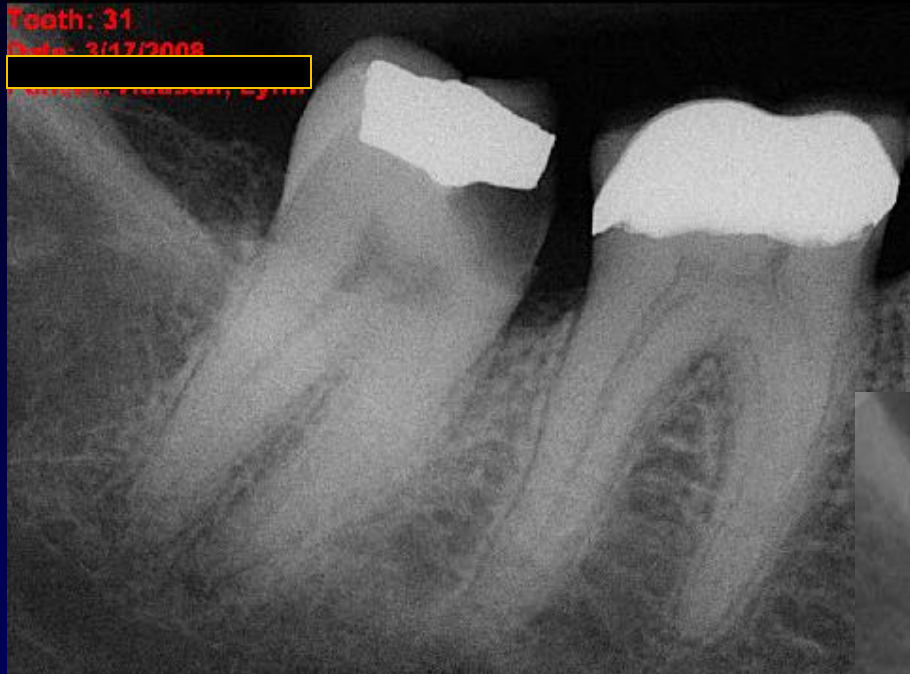
Bond and Pack Amalgam



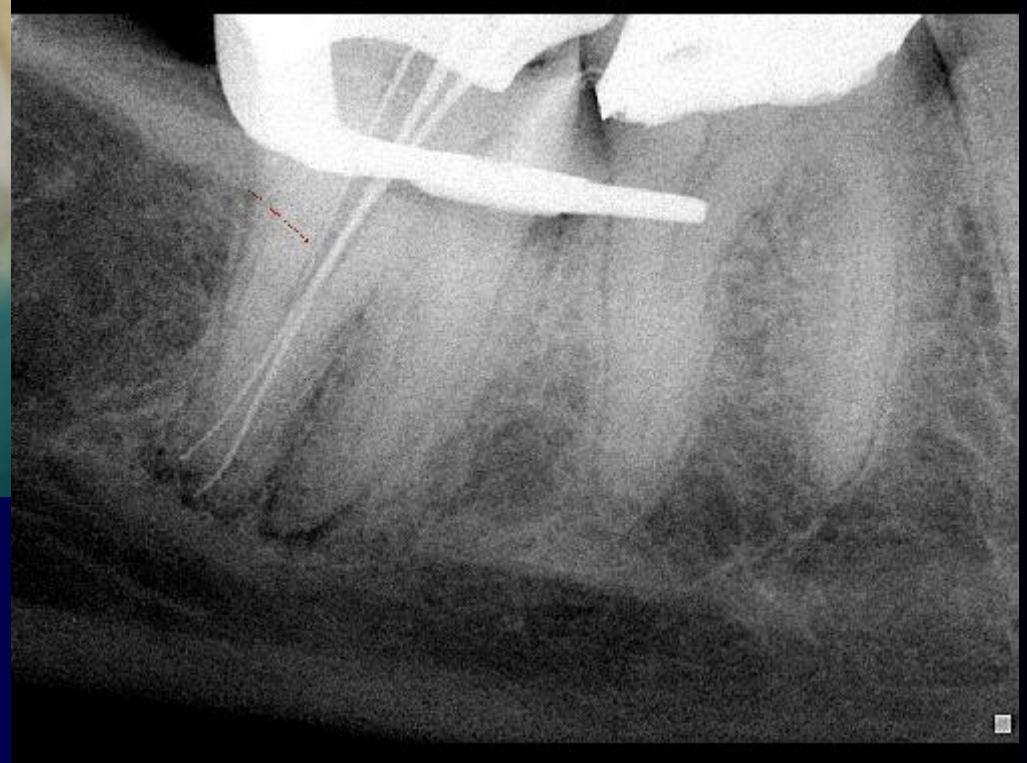
Post Op Radiograph



Dycal then a Copper Band



Dycal then a Copper Band



Once Endo finished:

1. **Replace fresh dam**
2. **Fit Cu Band**
3. **Secure with Dycal**
4. **Place Core**



Complete!



Post Op Radiographs

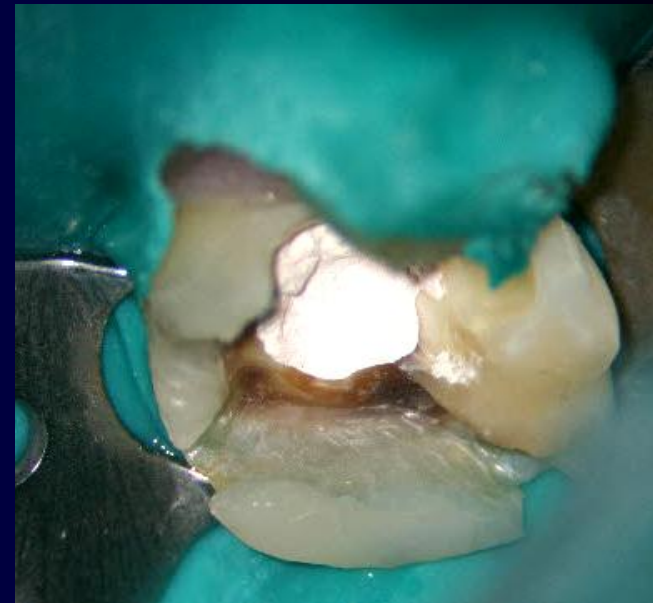
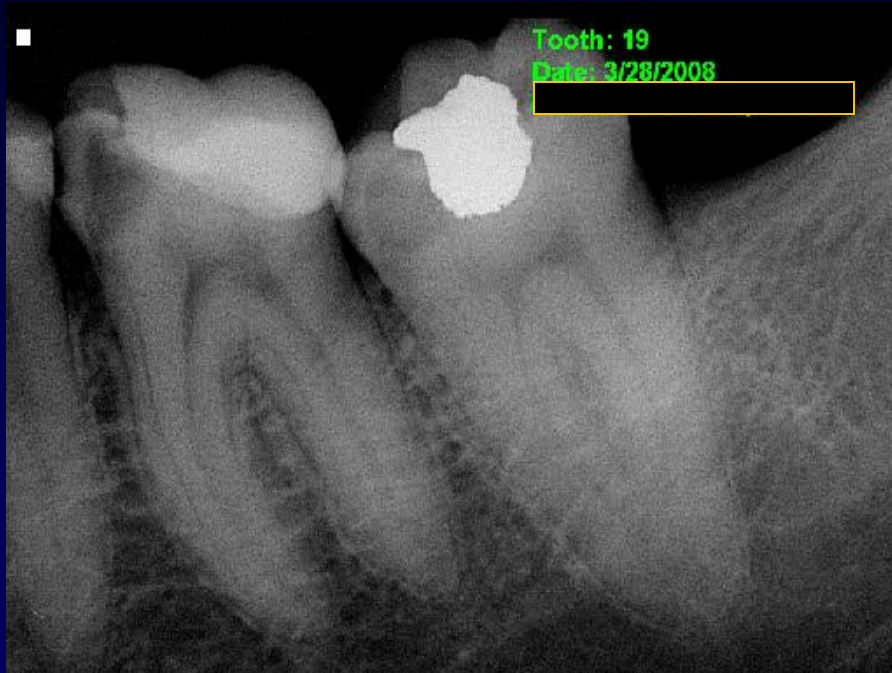
Tooth: 31
Date: 3/28/2008



Tooth: 31
Date: 3/28/2008



Copper Band used for Isolation



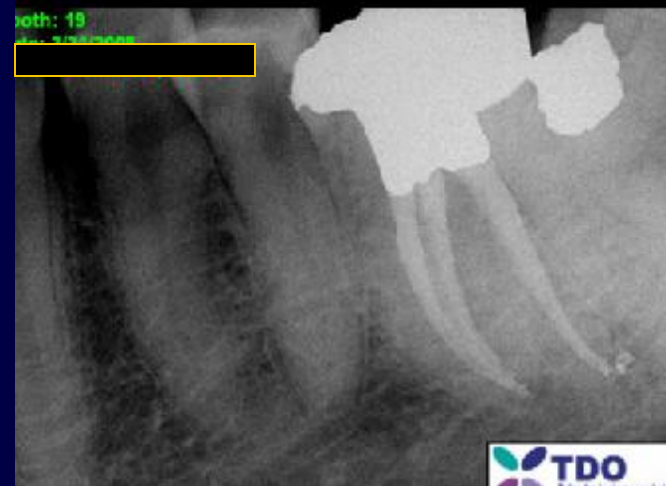
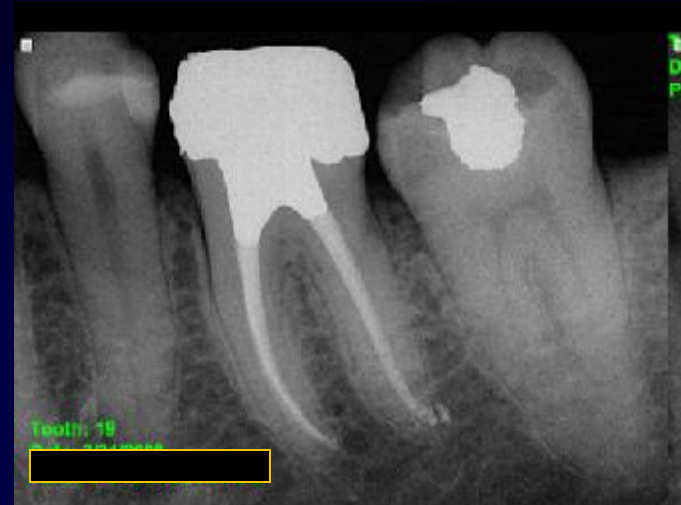
Copper Band used for Isolation



Cu Band Placed Over Dam Throughout Endo Treatment



Next Level Would be Titanium



Conclusion:

1. Dycal can be used to quickly seal a dam.
2. Dycal can be used as a matrix for simple cores (primarily composite)
3. Cu Bands provide rigidity and maintain contours during compaction of Ag.

Conclusions

4. Cu Bands can be used to enhance the isolation of coronally compromised teeth during endo Tx.
5. A combination of Dycal , Cu Bands, Matrix Bands and Wedges can be used to build up and isolate virtually any tooth that is restorable.

Questions?