

Immature Teeth – New techniques for greater success

A reliable pulp diagnosis for immature teeth is difficult and the stakes for pulp preservation are high. What should you do if an immature tooth has deep caries that threatens the pulp? Long-term success with traditional endodontic treatment has its challenges as the roots are short with thin walls and the lack of an apical constriction makes a reliable apical seal nigh impossible. Extraction is not ideal and implants for those less than 20 years old is not recommended.

The goal is to preserve the health of the apical tissue to promote further root development, avoiding either endodontic treatment all together or at least until after significant maturation has occurred.

- Pulp Exposure, Aysmptomatic: Caries present, pulp is vital
- With round carbide burs and copious irrigation, remove caries and only the pulp directly associated with it
 - Lightly irrigate site for 10-15 minutes with NaOCl, refresh every 3-4 minutes; this will help control bleeding and promote healing
 - Aspirate gently and only from the side so as not to cause damage or further haemorrhage
 - Once the haeme is controlled, clean site with cotton pellets (moist with NaOCl)
 - Cover site with 0.5 – 1.0mm of MTA
 - Seal site with provisional filling (i.e. IRM or GI)
 - Place permanent restoration in 1 to 10 days
 - 93%+ success at 24 months, some success with symptomatic pulps as well

- Pulp Exposure, Symptomatic: Caries present, pulp is vital
- Removal of entire chamber of pulp has greater success than traditional Cvek technique of removing 1-2mm of pulp apical to exposure
 - Same irrigation and restoration procedures as above, 95% success at 20 months

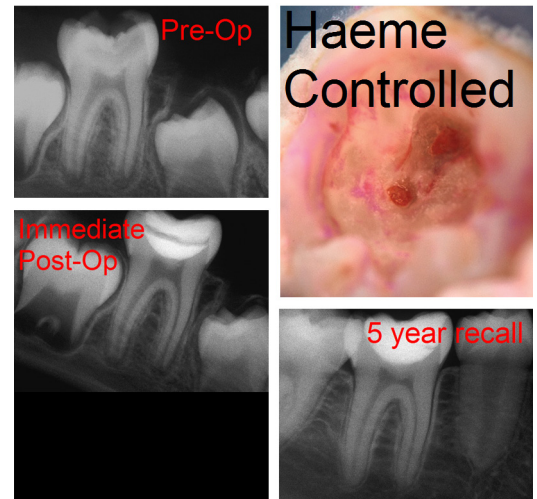
Monitor these teeth for at least 2 to 4 years with annual PA's and pulp testing (results may not be reliable). Only perform RCT if symptoms arise or evidence of pathology is present. Possible complications include: calcific obliteration, internal resorption, and pulp necrosis.

The four pictures above are of a MTA pulp capping of #46 on a 9 year-old. Deep caries and immature apices are present and there were two small pulp exposures after excavation. The steps above were followed and success was achieved (i.e. continued root development and pulp responded normally to pulp tests 5 years later). Please contact our office if you have further questions about endodontics and how we can help you help your patients keep their pulps and teeth healthy. Nitrous oxide sedation is available for children and adults; for parents we offer a high rate of success for developing teeth to become mature –no guarantees about the children though.

Regards,



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Certified Specialist in Endodontics



This June I am riding with the team Better Outcomes to raise money for oral cancer research. *Please consider helping me raise more money and thank you to all of those that have already donated.*

Visit our website to make a donation.
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