

Clinical Pedodontics

Cavity Preparation Principles in Primary Teeth

- In general - Primary teeth preparations are smaller, more delicate, and more rounded than their permanent counterparts
- Specifics (Class II preparation)
 - Axial-pulpal line angle should be rounded to reduce the stresses and the buccal and lingual walls should parallel the external crown outline form of the tooth
 - Rounded internal line angles will result in...
 - Less concentration of stresses
 - Reduced restoration fracture
 - Permit more complete condensation of the amalgam

Cavity Preparations (cont.)

- Specifics (Class III preparation)
 - Dovetail placed on lingual or labial of prep will allow for additional retention and necessary access to insert the restorative material
 - Greater strength composite bonding systems can reduce the need for the mechanical retention

Cavity Bases and Liners

- Important Points
 - Purpose of base prior to condensation is to provide thermal insulation for the pulp.
 - Use of calcium hydroxide influences formation of secondary dentin.
 - Initiates local inflammatory response at site of contact between pulp and calcium hydroxide

Stainless Steel Crowns

- MOD preparations are difficult on primary first molars due to small tooth size and loss of tooth structure. SSC's are often indicated instead.
- Indications for use:
 - 1) Extensive carious lesions
 - 2) Hypoplastic Teeth
 - 3) Teeth showing dentinogenesis or amelogenesis imperfecta
 - 4) Restoration after pulpotomy in which there is an increased danger of fracture
 - 5) For crown and loop space maintainer
 - 6) For habit-breaking appliances
 - 7) Restoration of fractured teeth

Indirect Pulp Cap

- Only those teeth with deep caries that are free of symptoms should be selected.
- Procedure should include:
 - Removal of gross caries
 - Allowing some caries to remain, if its removal would result in an exposure
 - Calcium hydroxide or zinc oxide eugenol placed and covered by temporary filling
 - Allow process to arrest and secondary dentin to form for 6-8 weeks
 - After time has elapsed, remove arrested carious dentin, place calcium hydroxide if sound dentin found, and restore conventionally.

Pulpotomy

- Indication – coronal pulp shows evidence of inflammation or degenerative change, but radicular pulp is still healthy.
- Two common techniques:
 - 1) Calcium hydroxide technique – recommended for permanent teeth with incomplete root formation. Coronal pulp is removed and calcium hydroxide is placed. RCT should be completed once root formation has completed
 - 2) Formocresol technique – recommended for primary teeth with carious exposure. Coronal pulp is removed, cotton pellet moistened with formocresol is placed in contact with the pulp stumps and remains for 5 minutes. Zinc oxide eugenol is placed over exposure site and the tooth is restored.

fistulas, PAs in the furcation, and abscess are contraindications to both pulpcaps and pulpotomy

Internal Resorption

- Most frequently seen evidence of abnormal response to pulpotomy.
- A destructive process believed to be caused by osteoclastic activity.
- No reason for occurrence

Alveolar Abscess

- Occasionally develop a few months after pulp therapy has been completed.
- Tooth is asymptomatic.
- Fistulous opening may be present – indicates chronic infection.
- Will appear as radiolucency radiographically.
- Primary teeth with evidence of abscess should be removed.