

## Pediatric Restorative Dentistry

Class 1 and 2 restorations for primary teeth

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## TYPES OF RESTORATIONS

1. ADHESIVE DENTISTRY:
  - Preventive Resin Restorations (PRR)- defined as a single or multiple, small, discontinuous, carious pits or fissures. May extend into enamel, dentin or DEJ. Excavated and restored with resin. Occlusal surface sealed for prevention.
  - Composite/Resin Restorations - involves the excavation of single, larger carious lesion followed by restoration with a resin based material.
  - Retention and resistance forms of cavity preparation do not apply, therefore more conservative. Tooth isolation is critical.

## TYPES OF RESTORATIONS

- 2. AMALGAM RESTORATIONS:
- Follow G.V. Black's principles of cavity preparation.
- Less conservative.
- More forgiving in terms of moisture control.

## ANATOMIC CONSIDERATIONS OF PRIMARY TEETH

1. Thinner enamel and dentin.
2. Larger and higher pulp horns.
3. Enamel rods in cervical area directed occlusally.
4. Greater cervical constriction.
5. Broad, flat proximal contacts.
6. Narrow occlusal table.

## STEPS IN CLASS 1 AMALGAM RESTORATIONS

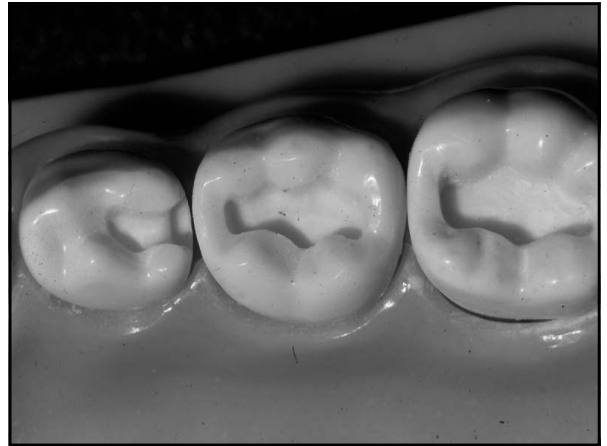
- Appropriate anesthesia
- Rubber dam isolation
- Cavity preparation
- Excavation of remaining caries
- Trituration and placement of amalgam
- Condensation, carving, burnishing
- Check occlusion
- Finishing and polishing

## CAVITY PREPARATION Class 1 Amalgam

- External outline form:
  - Dovetail
  - Inclusion of pits, fissures, grooves, caries
  - Extension of occlusal portion varies depending on primary molar involved
  - Slight occlusal convergence of walls
  - Sharp cavosurface margins
  - Adequate tooth structure at marginal ridges
  - Width of prep 1/3 of occlusal table
  - Rounded line angles

## Class 1 Amalgam

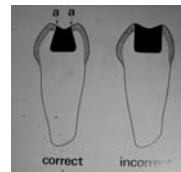
- Internal outline form:
  - Establish depth at 0.5-1mm into dentin using # 330 bur
  - Walls are wider at pulpal floor
  - All internal line angles should be rounded
  - Slightly rounded pulpal floor



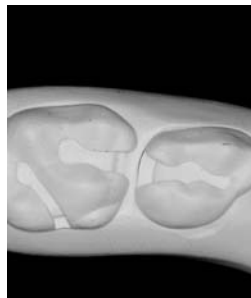
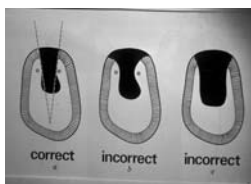
## Class 2 cavity preparation - Primary molars

- Complete class 1 using #330 bur
- Extend occlusal outline to marginal ridge
- Switch to #245 Bur - 3 mm length
- Sweep bur buccolingually in a pendulum motion and in a gingival direction.
- Break contacts and check with explorer
- Axial wall should follow external contour
- Width of isthmus 1/2 of occlusal table
- Proximal box widest at gingival margin
- Rounded axiopulpal line angle
- No bevel at the gingival margins

## Class 2 cavity preparation Primary molars

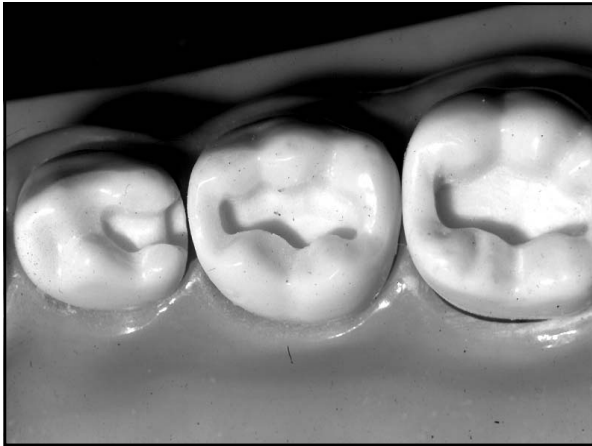


## Class 2 amalgam - primary molar

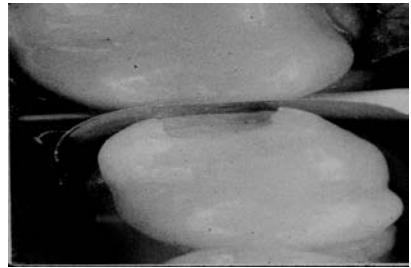


## Class 2 cavity prep Primary molars



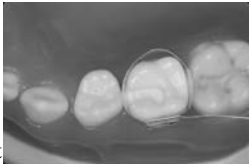


## Class 2 slot preparation



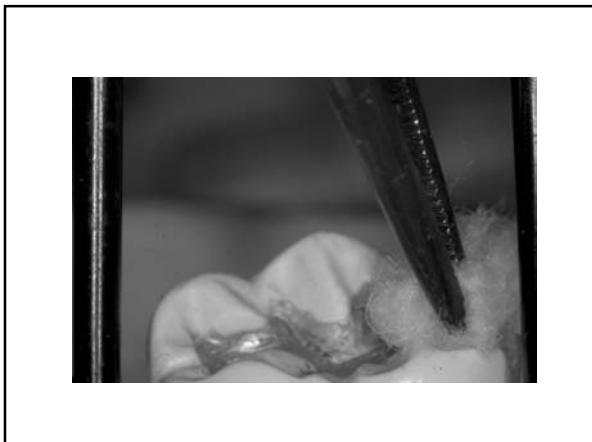
## Matrix bands and retainers

- Contour, insert and place wedge
- Purpose: Restoration of proximal contact
- Types: Tofflemire, T-band, compositight



## Condensing and Carving of Amalgam

- Using an amalgam carrier, add increments and condense using positive finger rest.
- Overfill prep and begin to carve and burnish the occlusal portion with a lateral condensor
- After initial set, create the marginal ridge using an explorer
- Carve restoration and remove excess from margins using a cleoid-discoid or hollenback carver
- Carefully remove band and burnish restoration using a ball burnisher. Apply moist cotton pellet or pumice paste for final smoothening
- Remove rubber dam and check occlusion\*



## Finishing of Amalgam Restorations

### *Objectives:*

- Reduce tarnish and corrosion
- Improve marginal integrity

➤ Note: Polishing should be delayed for 24 hours/subsequent visit

## Amalgam restorations for primary teeth

