STAINLESS STEEL CROWNS

SHAN LAL, DDS
Director, Pre-clinical Programs
Pediatric Dentistry

Indications for use of SSC
- Restoration of primary and young permanent teeth with multiple carious surfaces.
- Class 2 lesions where the caries extend beyond the anatomic line angles.
- Restoration of primary teeth after pulpotomy or pulpectomy procedures.
- Hypoplastic teeth.
- Hereditary anomalies (D.I., A.I.)
- Pts. with special needs.
- As an abutment for space maintainers or prosthetic appliances.

Steps of preparation and placement of SSC
- Evaluate pre-operative occlusion
- Administer appropriate local anesthesia*
- Place rubber dam (clamp adjacent tooth)
- Removal of caries (if present)
- Crown preparation
- Selection and trial placement of SSC
- Contour and crimp (if necessary)
- Evaluate post-operative occlusion
- Cementation

Crown preparation
- Occlusal reduction
- Inter-proximal
- Buccal and Lingual (limited to occl 1/3)

Occlusal reduction
- 169L tapered fissure bur
- Place depth cuts and uniformly reduce occlusal surface by 1-1.5mm.
Occlusal Reduction

Proximal Reduction
- 169L tapered fissure or thin tapered diamond bur.
- Break proximal contacts at appropriate depth in single sweeping motion.
- Vertical proximal walls with slight convergence in an occlusal direction.
- Feather-edge finish line.
- Common error - ledge formation.

Proximal Reduction

SSC - Crown Preparation

Buccal and Lingual Reduction
- 169L or diamond bur
- Limited to occlusal 1/3 as a 45° bevel.
- Round off all line angles.
- Occasionally, an exaggerated mesio-buccal or cervical bulge may warrant more buccal and lingual reduction.

Crown selection and Try-in
- SELECT smallest crown that restores pre-existing proximal contacts.
- Occlusal dimensions of SSC should be same as pre-op. tooth.
- Most commonly used molar SSC is size 4.
- PLACE or seat crown from lingual to buccal.
- Push crown over the buccal bulge for a snap fit.
- Check margins for close cervical adaptation extending 1mm subgingivally.
- ‘Blanching effect’
- Remove dam and check occlusion.
Crimping and contouring

- Crimping and contouring involves bending the gingival 1/3 of the crown’s margins inward to establish a tight marginal fit and adaptation.
- Pliers - #114, 417
- ION crowns require least adjustments.

Crown cementation

- Rinse and dry crown
- Prepare glass ionomer cement and fill crown to 2/3 with all inner surfaces covered.
- Seat crown completely
- Remove excess cement from margins
- Rinse and floss interproximal areas
- Check occlusion

Cementation

- Remove excess cement.

SSC - primary molar