# 213 RDS

# Class II Amalgam Restorations
# Finishing and Polishing of Amalgam

Dr. Noura Shono

# Outline

- Condensation of the amalgam restoration
- Carving of amalgam and carving instruments
- Finishing & polishing of amalgam

# Condensation of the Amalgam Restoration

- Principle objectives during amalgam insertion:
  - Condensation to adapt the amalgam to the preparation walls and matrix and to produce a restoration free of voids.
  - Having as low as possible mercury content in the restoration to improve strength and decrease corrosion

# Condensation of the Amalgam Restoration

- Armamentarium:
  1. Condensing instruments
     - Large round condenser
     - Small round condenser
  2. Amalgam carrier
  3. Amalgam well or dappen dish
  4. Squeeze cloth

# Condensation of the Amalgam Restoration

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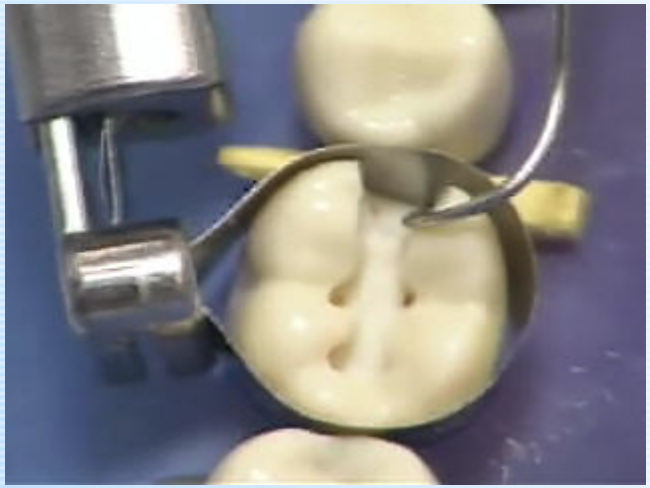
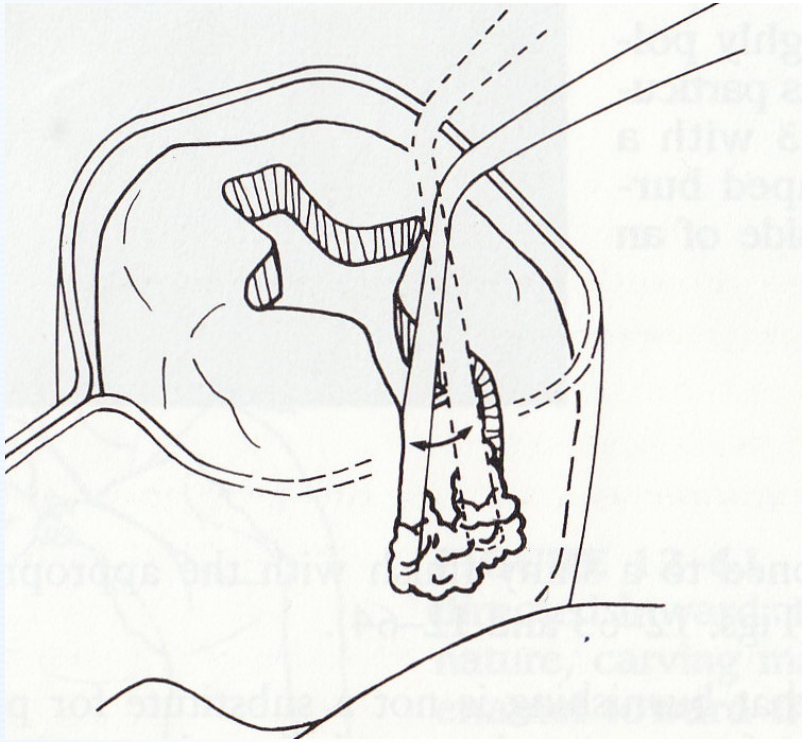


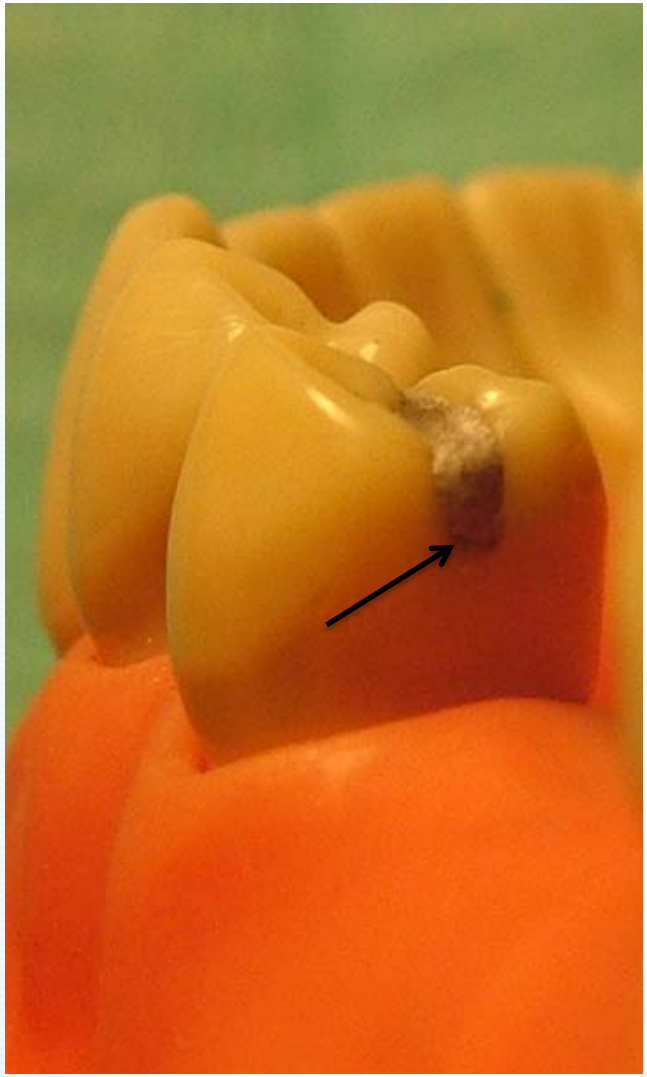
# Condensation of the Amalgam Restoration

- Apply amalgam to the gingival floor
- 1st increment is most crucial
- Side to side condensation to fill the corners (bucco-lingual action) with amalgam forced ahead of the condenser
- Increment condensation, against the contact point to gain +ve contact



# Condensation of the Amalgam Restoration

The bucco-gingival and linguo-gingival corners are the most likely sites for careless condensation



# Condensation of the Amalgam Restoration

- Stepping:
  - To eliminate voids
  - Fill the retentive and undercut areas
- Pins:
  - Amalgam should be adapted around and into their serrations

# Condensation of the Amalgam Restoration

- Occlusal portion is filled and excess removed with the condenser
- The form and height of the marginal ridge is established:
  - Using the end of the explorer “Scraper”
- Remove matrix handle
- Unwrap the band
- One end is grasped and slipped out

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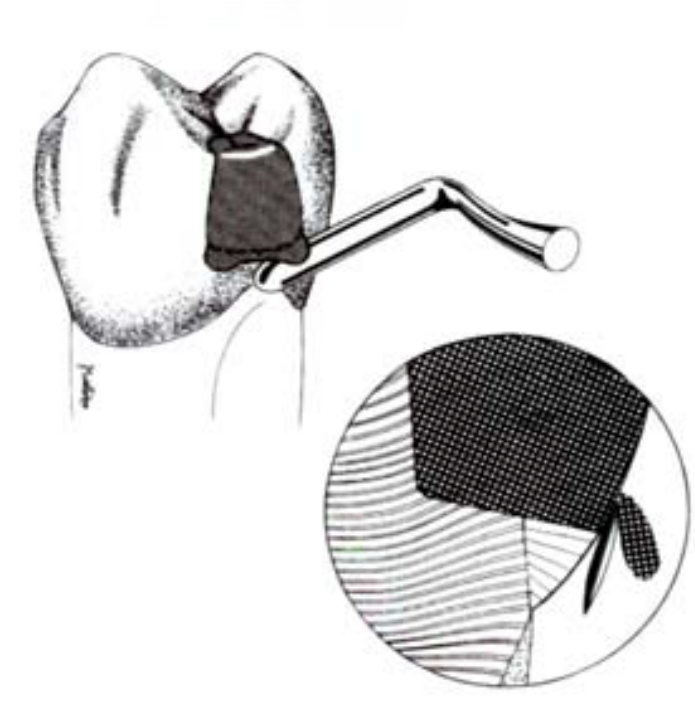
## Carving of Amalgam and Carving Instruments

1. Carving instruments
   - Cleoid-discoid
   - Hollenback carver
   - Inter-proximal carver
2. Burnishers
   - PKT No. 3 blunt wax carver
   - Small ball burnisher
   - Back side of an excavator
   - Beavertail or egg burnisher

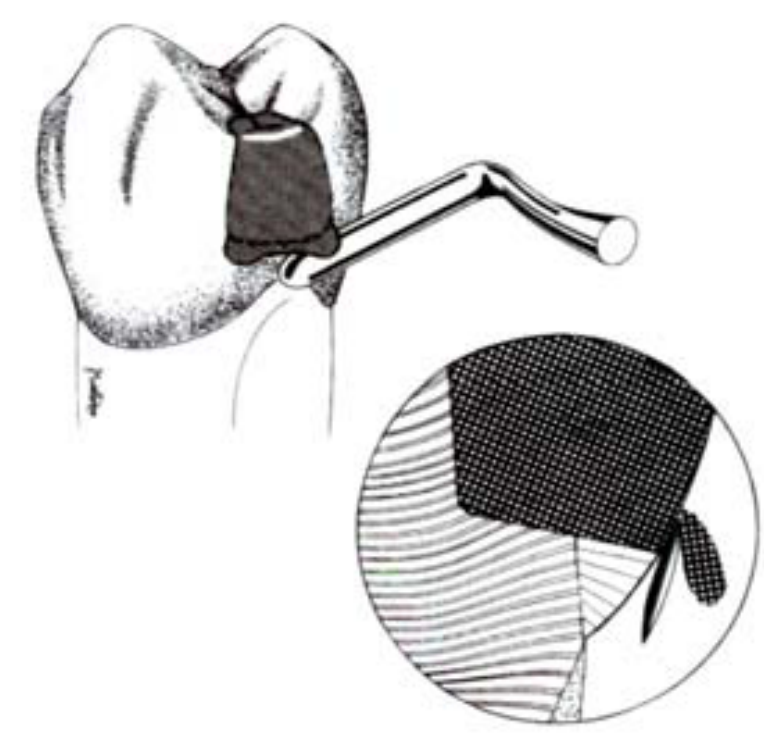
# Carving of Amalgam and Carving Instruments

- Use a thin proximal amalgam carver
- Blade is slipped into the proximo-gingival sulcus and excess amalgam is sliced away
- Overhangs are removed
- Establish normal contours of buccal, lingual and gingival embrasures



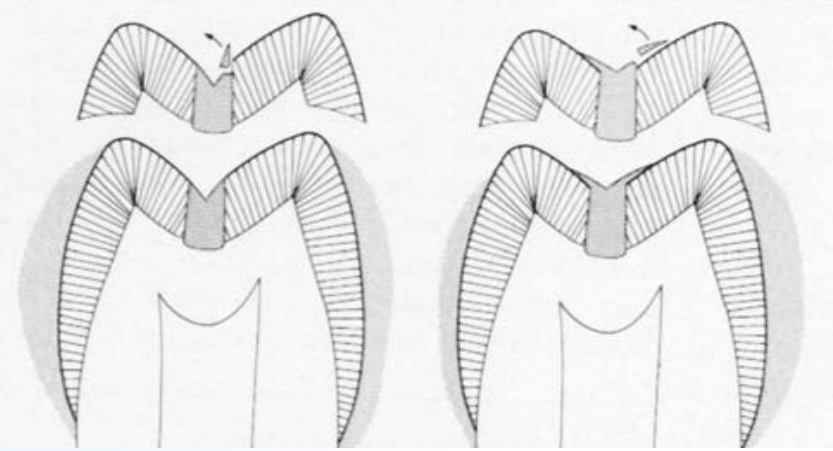
# Carving of Amalgam and Carving Instruments

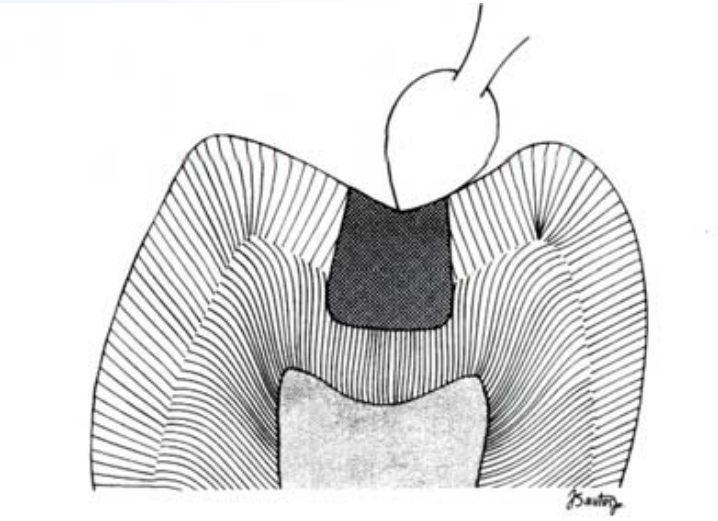
- When carving the margins:
  - The cutting surface should be held perpendicular to the margins
  - Carving motion should be parallel to the margins in a slicing action
  - The blade is thin (0.2 mm ) flexible and sharp



# Carving of Amalgam and Carving Instruments

- The occlusal surface is carved as in class I amalgam restorations
- Scooped out occlusal surface occurs as a result of carving without an enamel guide
- Check occlusion:
  - Carbon paper, articulating paper
  - After rubber dam removal
  - Before occlusal carving, amalgam is softer
  - Occlusion may be checked prior to cavity preparation





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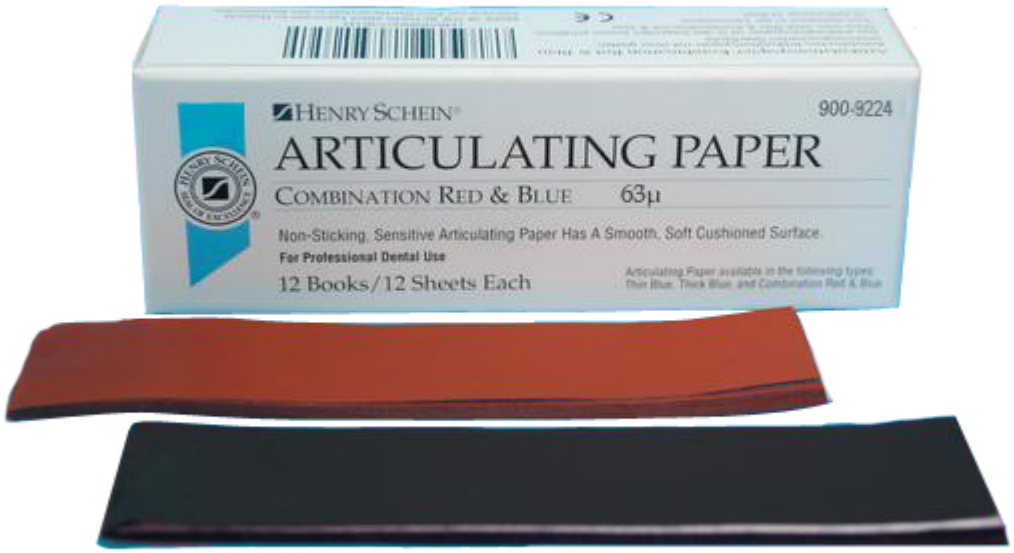

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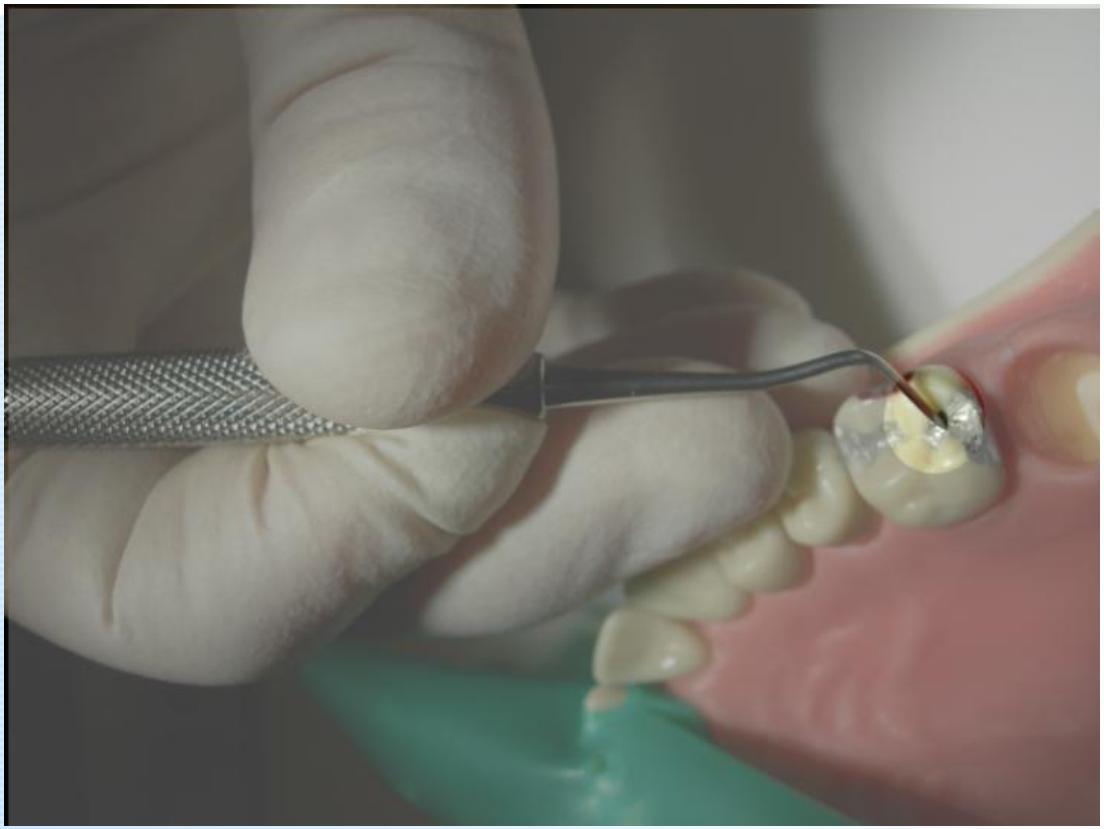


*Using half Hollenback carver to place the central groove*

# Carving of Amalgam and Carving Instruments

*Carving the mesial pit with cleoid – discoid carver*

## Carving of Amalgam and Carving Instruments

- Burnishing is best accomplished after the amalgam has begun to harden
- Convex side of a spoon excavator may be used in proximal area and marginal ridges
- Blunt wax carver is effective in occlusal regions

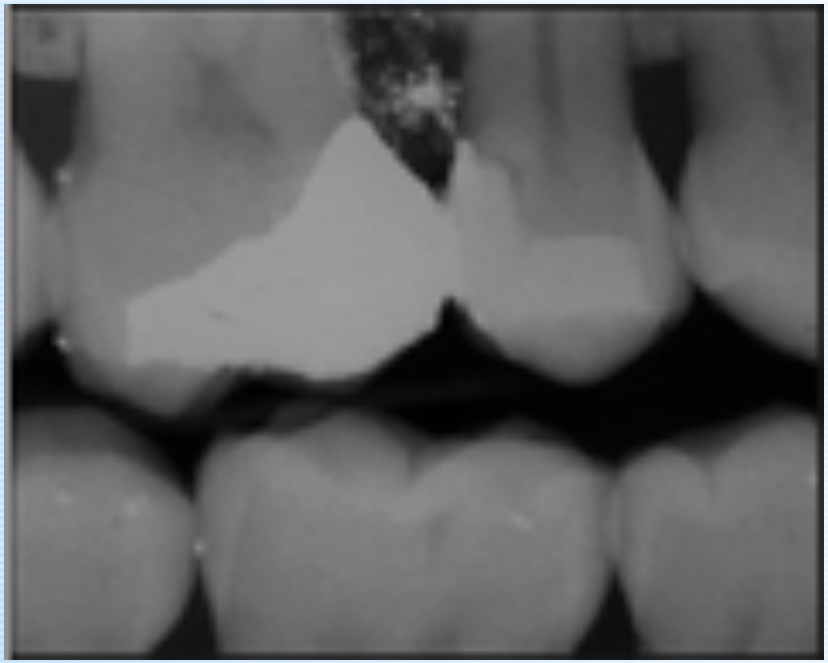
# Carving of Amalgam and Carving Instruments

*Checking the height of the marginal ridge using the probe*

# Carving of Amalgam and Carving Instruments

- Flossing:
  - Verify contact weight similar to that of neighboring teeth
  - To remove any amalgam shavings on the proximal surface
  - Detect overhangs
- Patient is cautioned not to use the new restoration for a few hours (2-3 hrs)

# Carving of Amalgam and Carving Instruments



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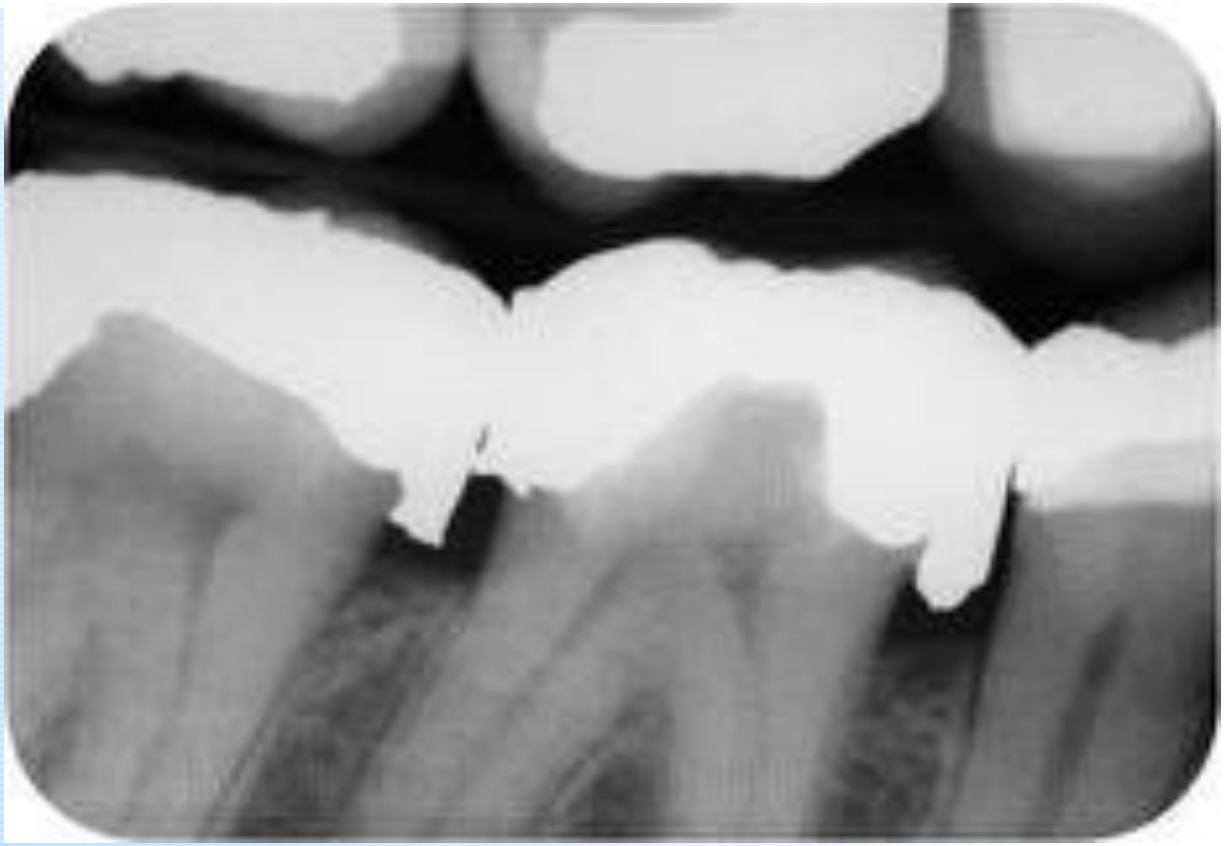

# Outline

- Condensation of the amalgam restoration
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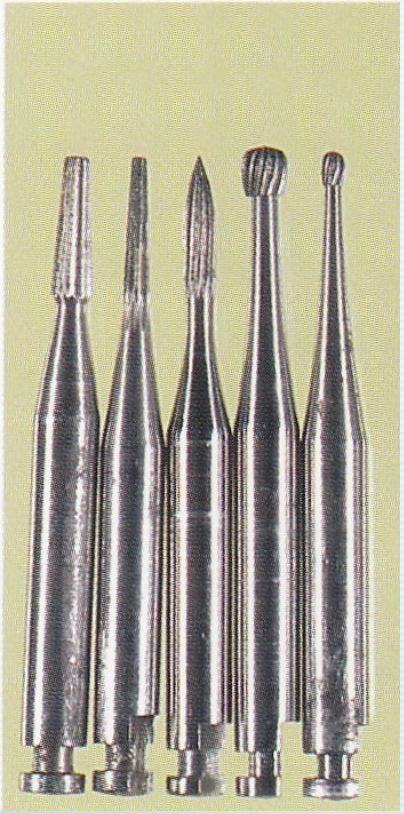
- Finishing & polishing of amalgam

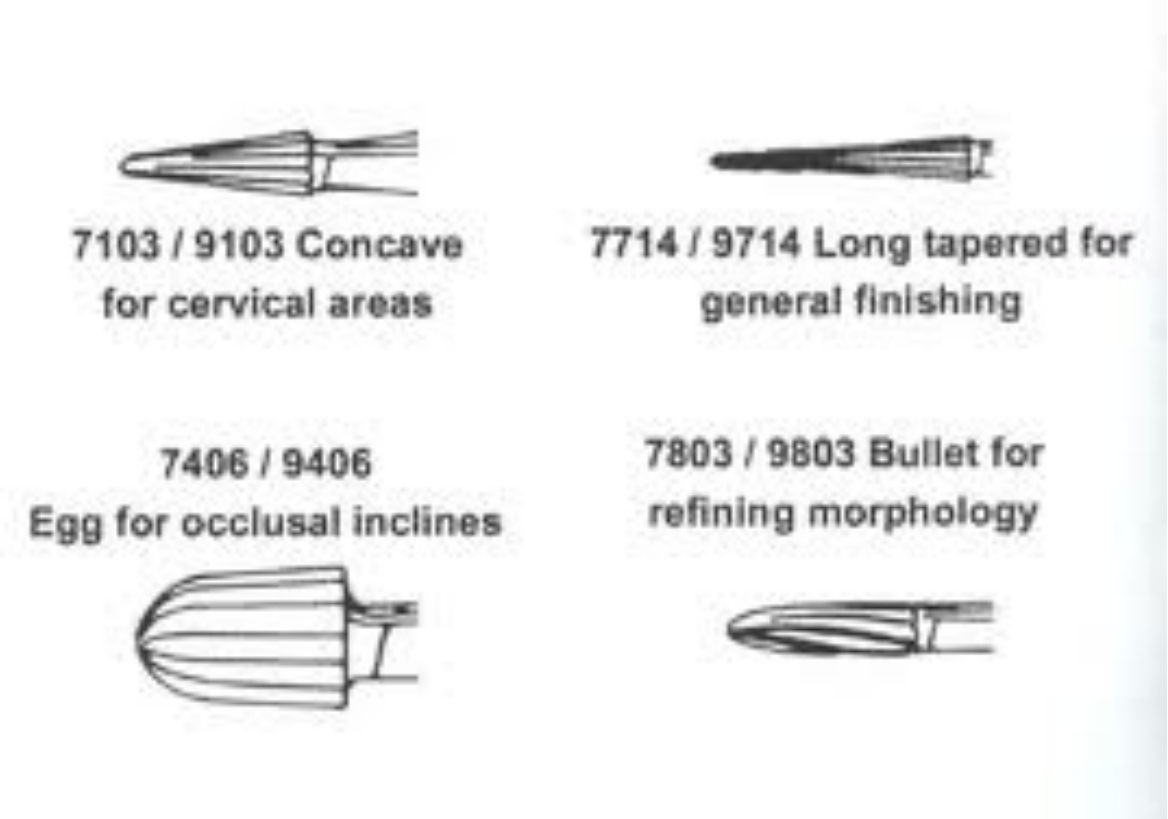
# Finishing and Polishing of Amalgam

- Finishing:
  - To correct marginal discrepancy or improve contour
- Polishing:
  - Eliminates surface scratches and blemishes following carving
- A smooth surface is desirable because it is more compatible with the gingival tissue and less likely to retain plaque
- Imperfections act as centers for corrosion

# Finishing and Polishing of Amalgam

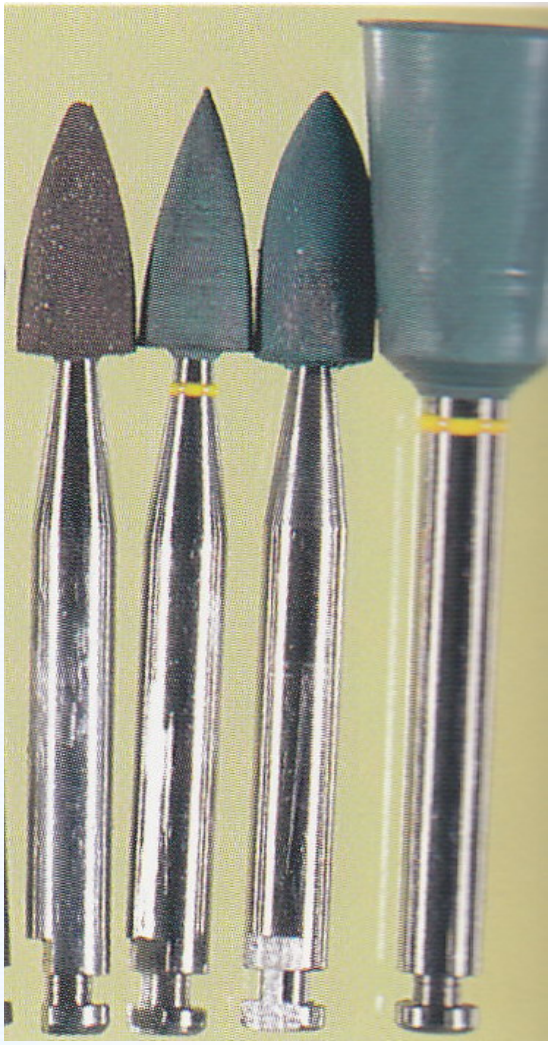
- Amalgam Finishing burs





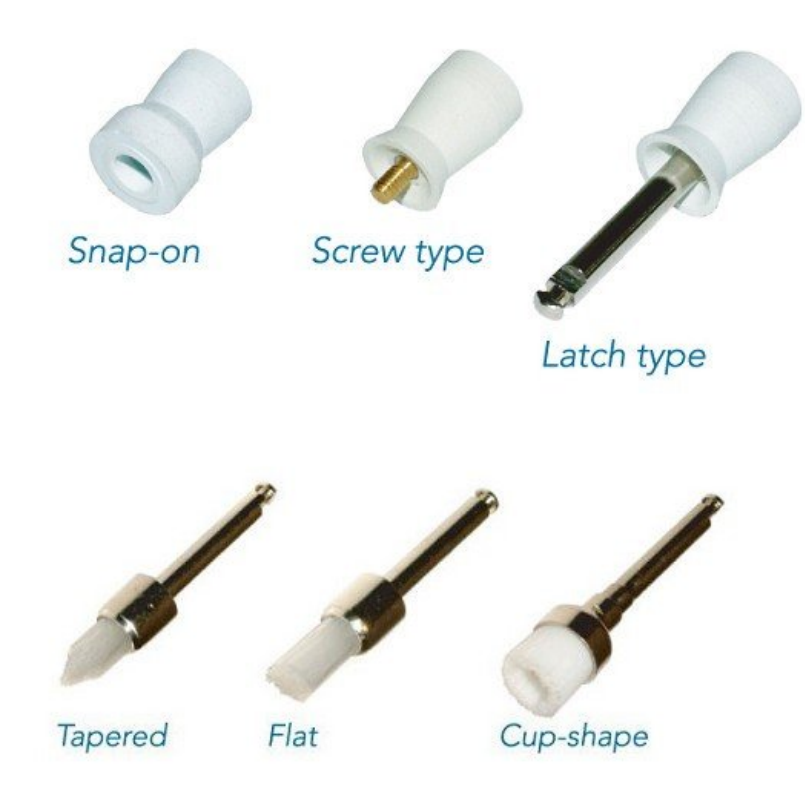
# Finishing and Polishing of Amalgam

- Amalgam polishing system
  - SHOFU rubber polishing system
  - Brownies, coarse
  - Greenies, fine
  - Supper Greenies, extra fine



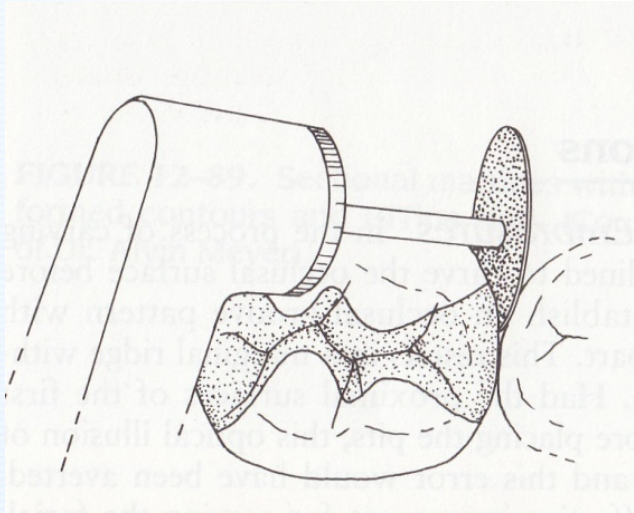
# Finishing and Polishing of Amalgam

- Pumice slurry:
  - Coarse grit denture pumice followed by fine flower of pumice
  - Applied with tufted bristle brush or rubber cup
- Final shine:
  - Tin oxide
  - Powdered chalk
  - Amalgam gloss
  - All three are applied as dry powder



# Finishing and Polishing of Amalgam

- Proximal surfaces are finished using:
  - Finishing strips
  - Abrasive discs



# Class II Amalgam Preparation & Restoration

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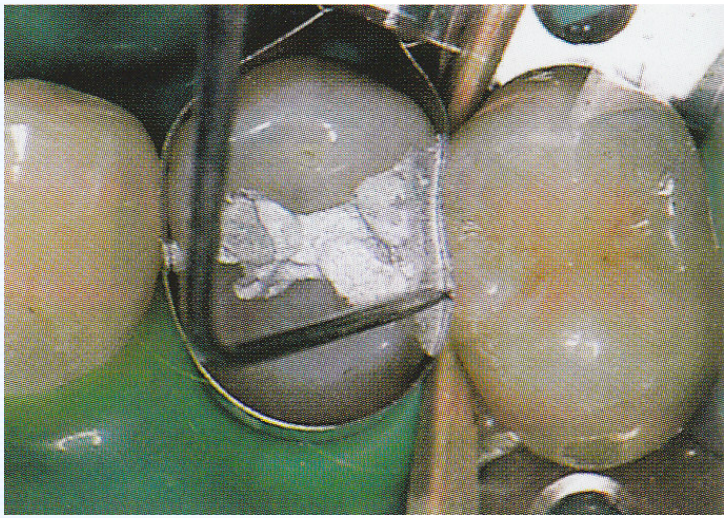

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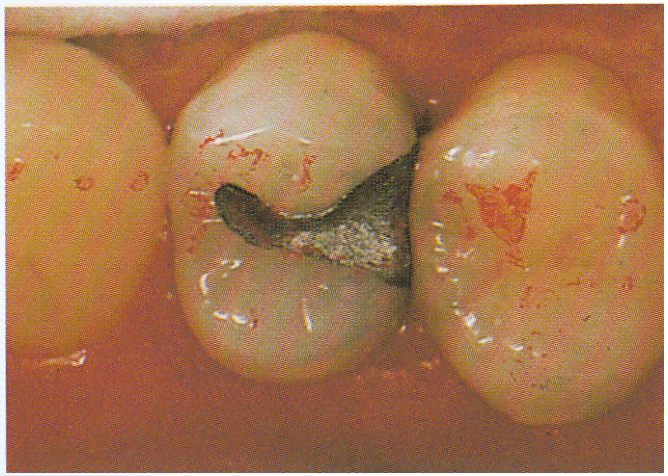

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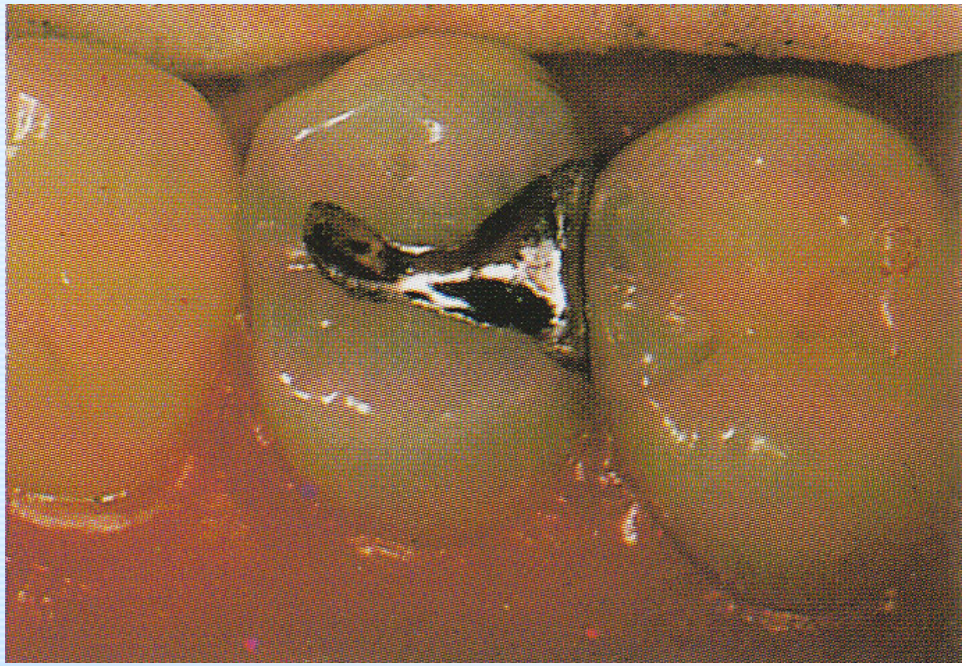

# References


- Textbook of Operative Dentistry, 3rd edition Baum, Phillips and Lund.
  Pages:
  380-384
  386-392
  397-398
- Sturdevant's Art and Science of Operative Dentistry, 5th edition 2006.
  Pages:
  773-777

# Thank You!

Any Questions?