Preclinical dentistry II. 2

Class II. second part

Class II. – modifications for amalgam

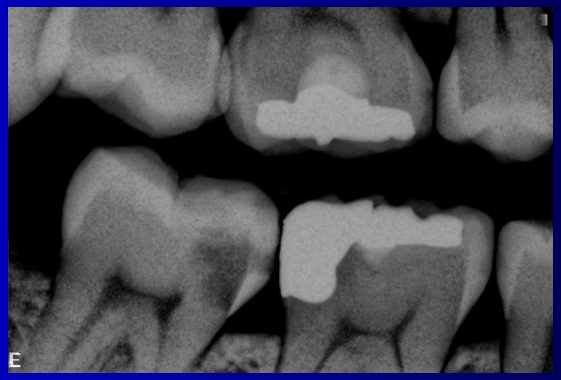
- Conventional preparation
- Slot
- Large cavities – replacement of the cusp (cusps), combination with the cavity on vestibular/oral surface

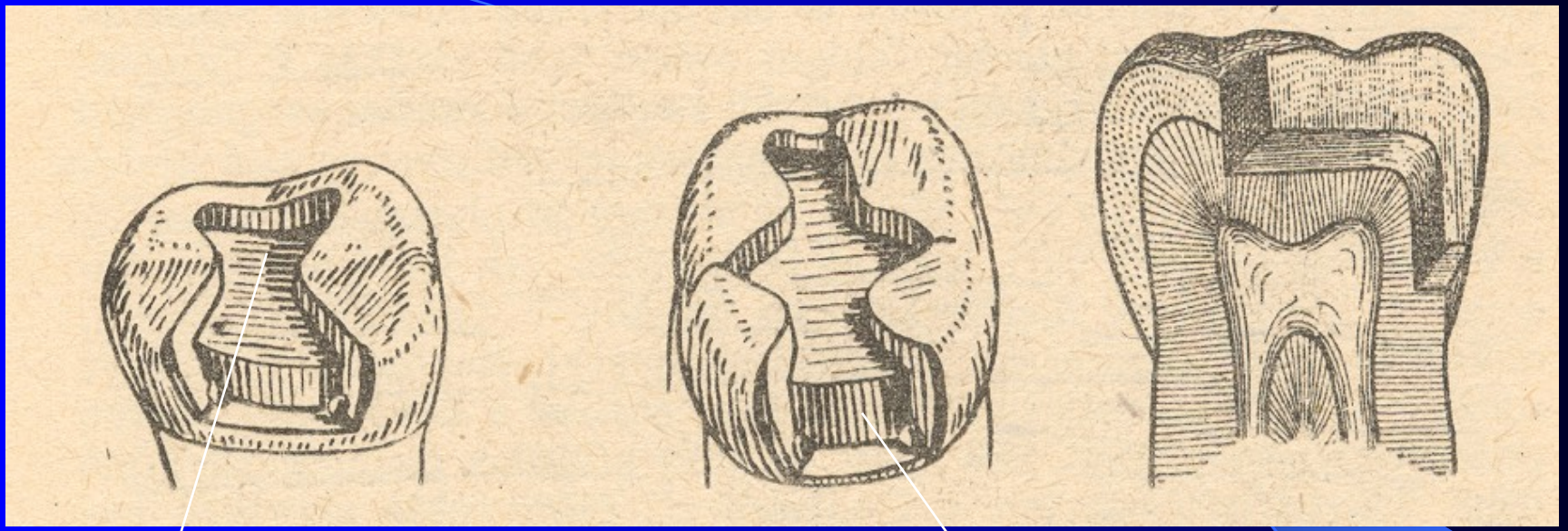
Class II.

Origin:

Proximal surface below the contact point

Propagation of dental caries from the occlusal surface

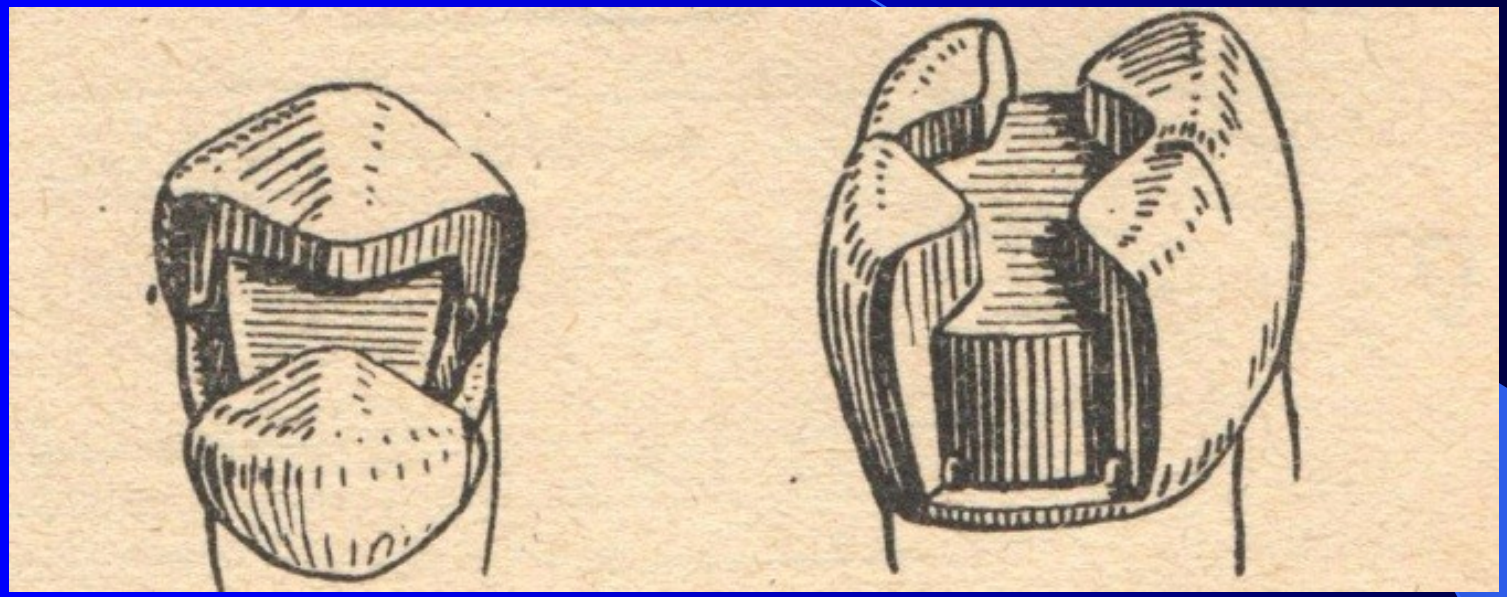




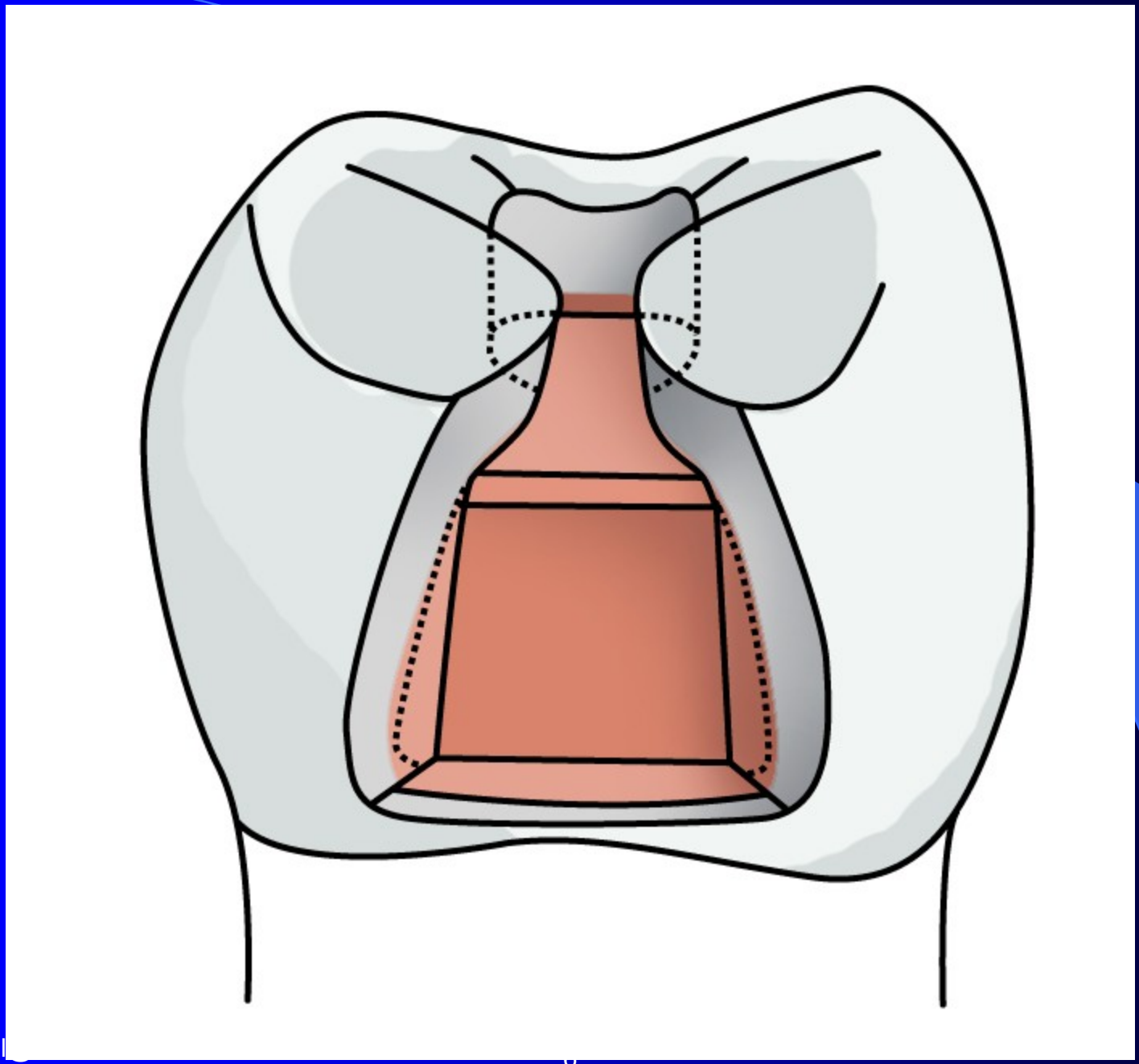
Occlusal cavity

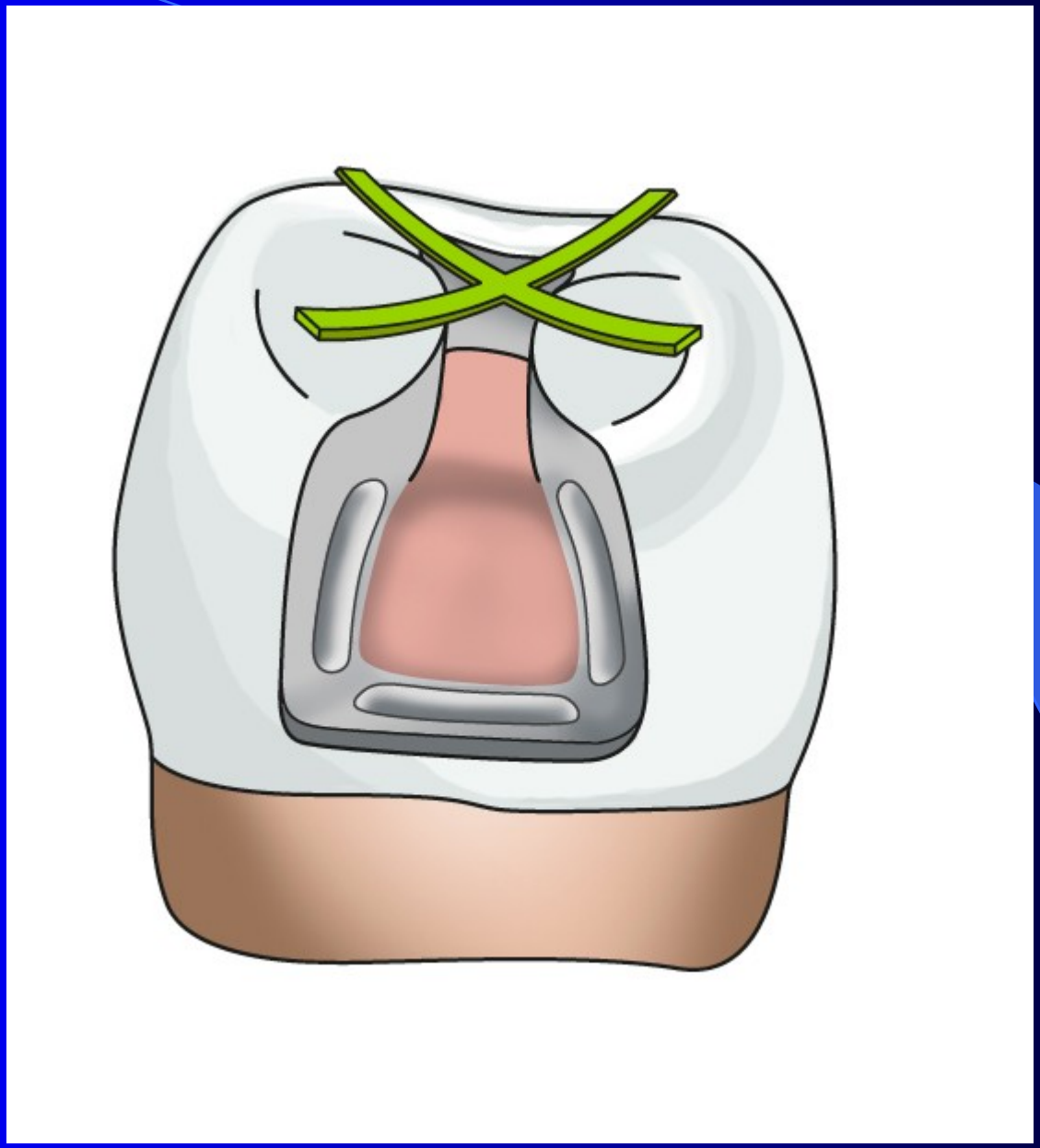
Proximal cavity

MO or OD cavity



MOD





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Slot preparation

Slot is a cavity that is open
on occlusal surface.
It is limited on the proximal ridge

Slot for amalgam

- Access to the caries lesion
  - through the enamel wall
  - breaking out of the enamel lamella
  - excavation of carious dentin

Pre op

Access to the cavity

Slot for amalgam

Autoretention

- Grooves
- Divergency towards gingiva
- Convergency and divergency of axial walls in horizontal plane(towards proximal space)

Slot for amalgam

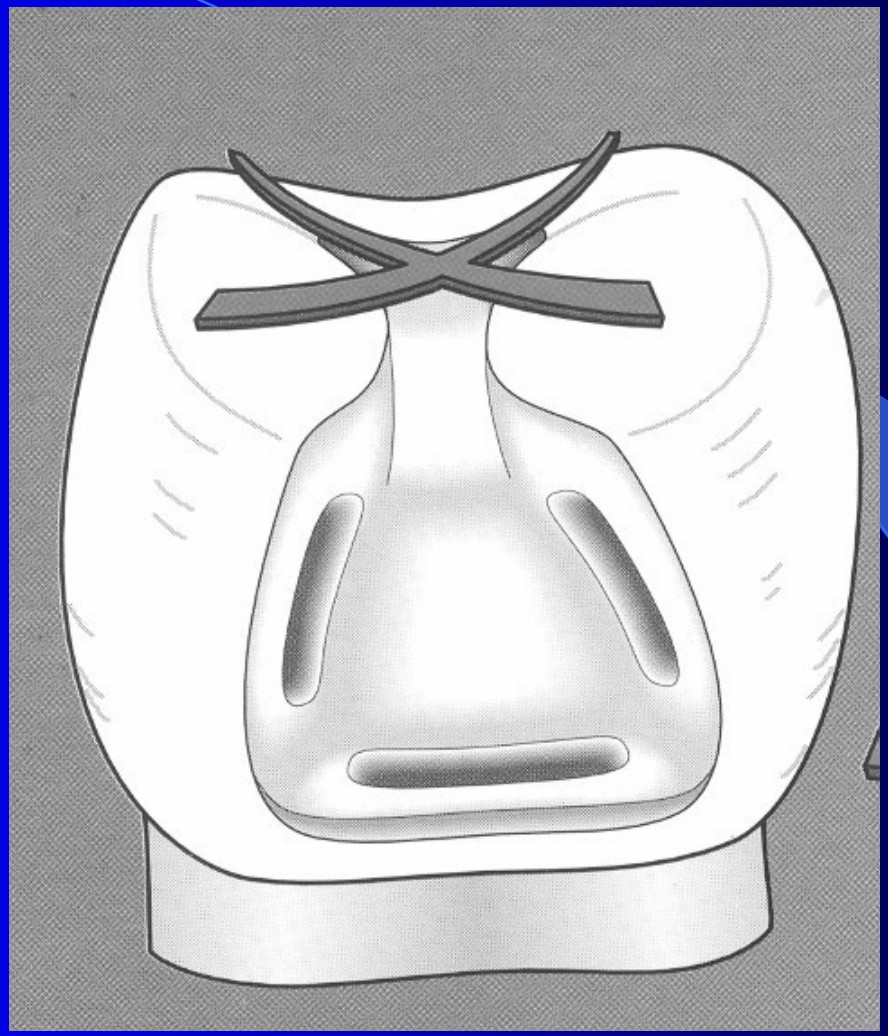
- Rule of the gingival wall

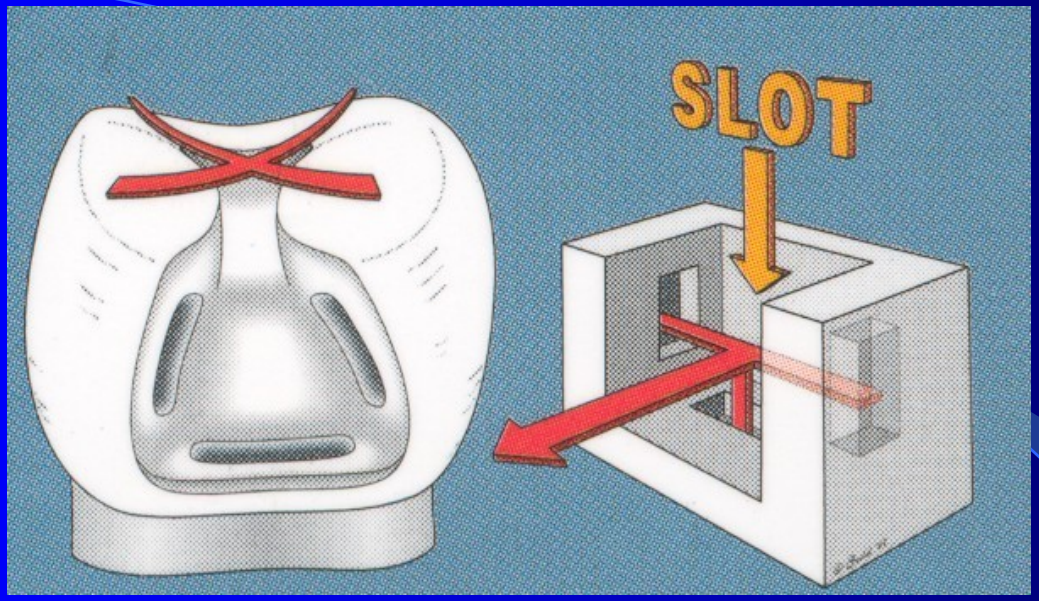
-1 mm wide

-90% angle towards the pulpal wall

-outer line beveled if in enamel

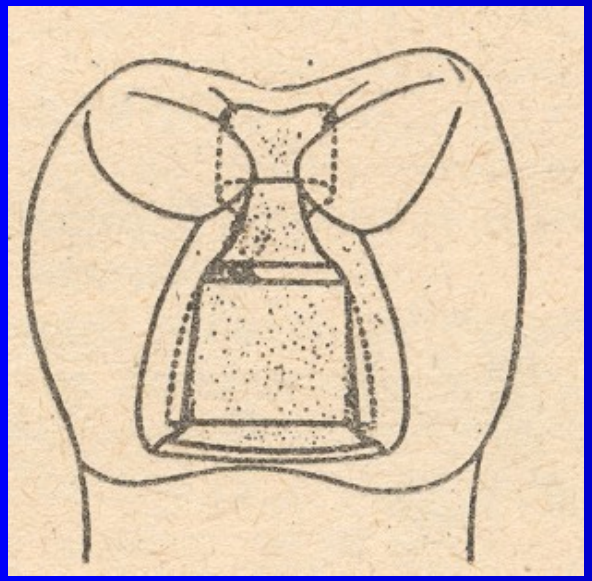
-horizontal groove

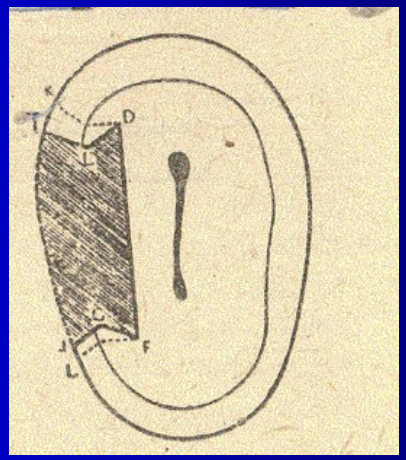




Sedelmayer

Sedelmayer J. Amalgám – zapomenuté řemeslo. Brno, 2000.





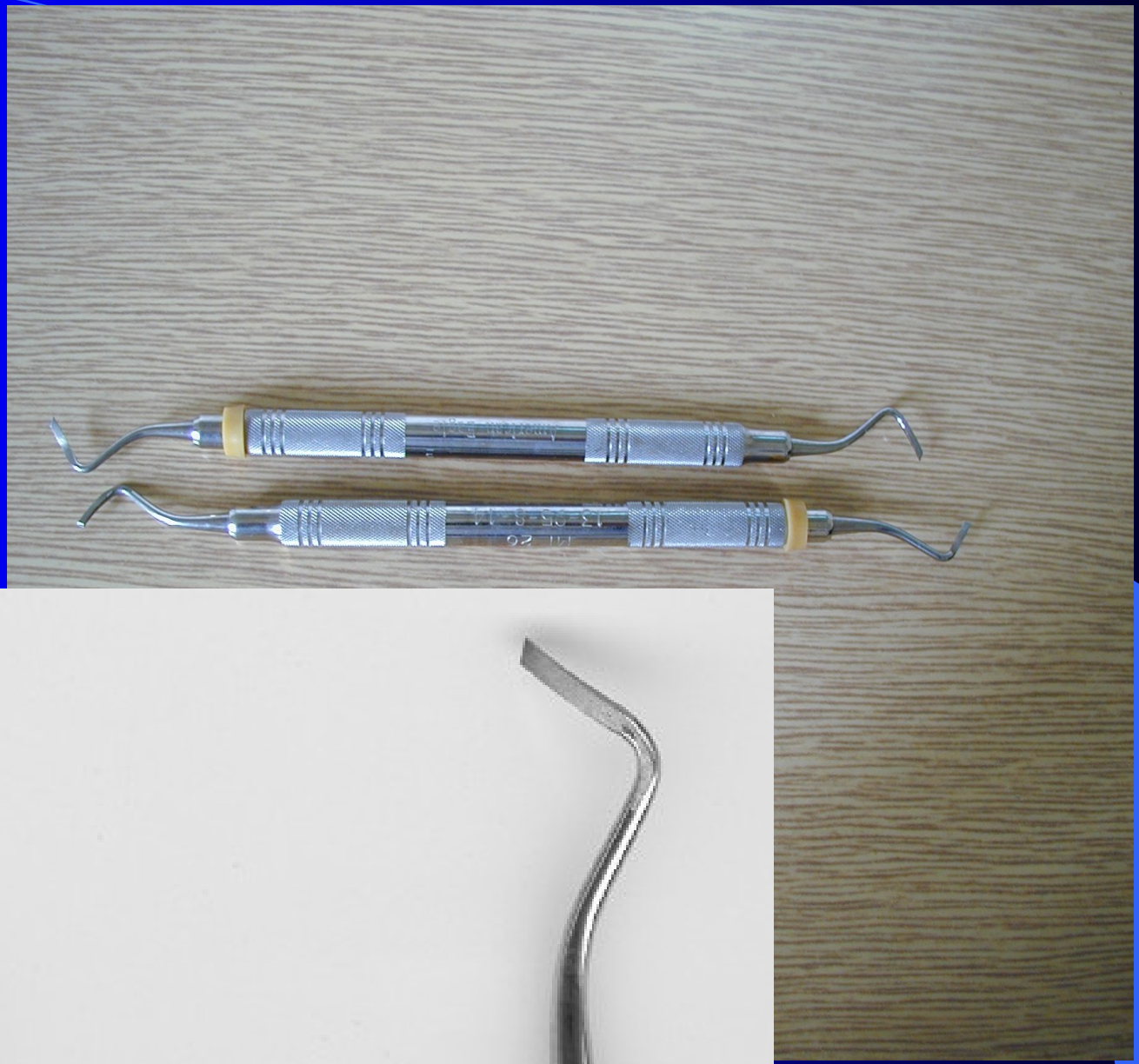
Bažant V.

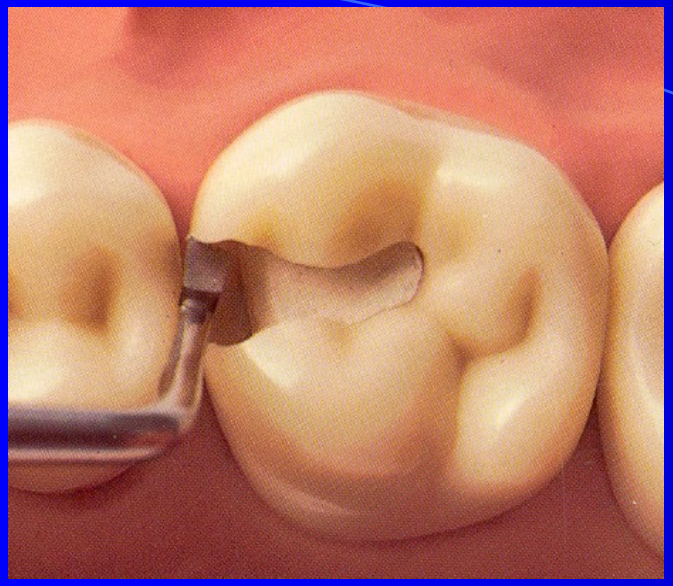
Konservační zubní lékařství, SPN Praha, 196?

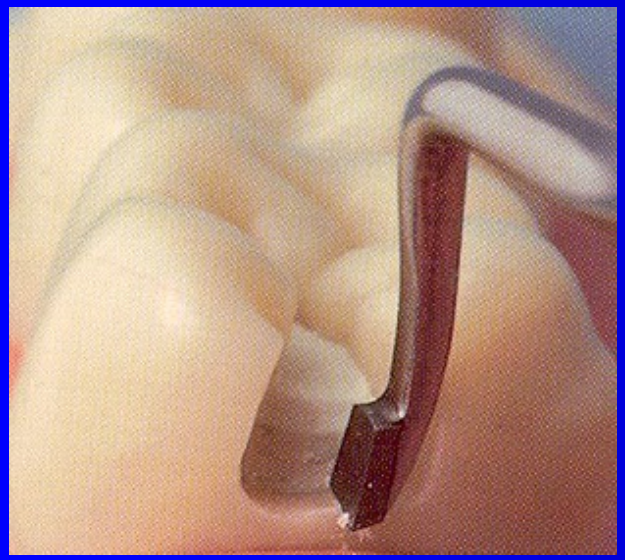
Slot cavity

- Limited on proximal ridge
- Axial walls are divergent towards gingiva
- The proximal box has a typical picture of fish tail
- There are grooves:

- One horizontal in gingival wall
- Two vertical in axial walls

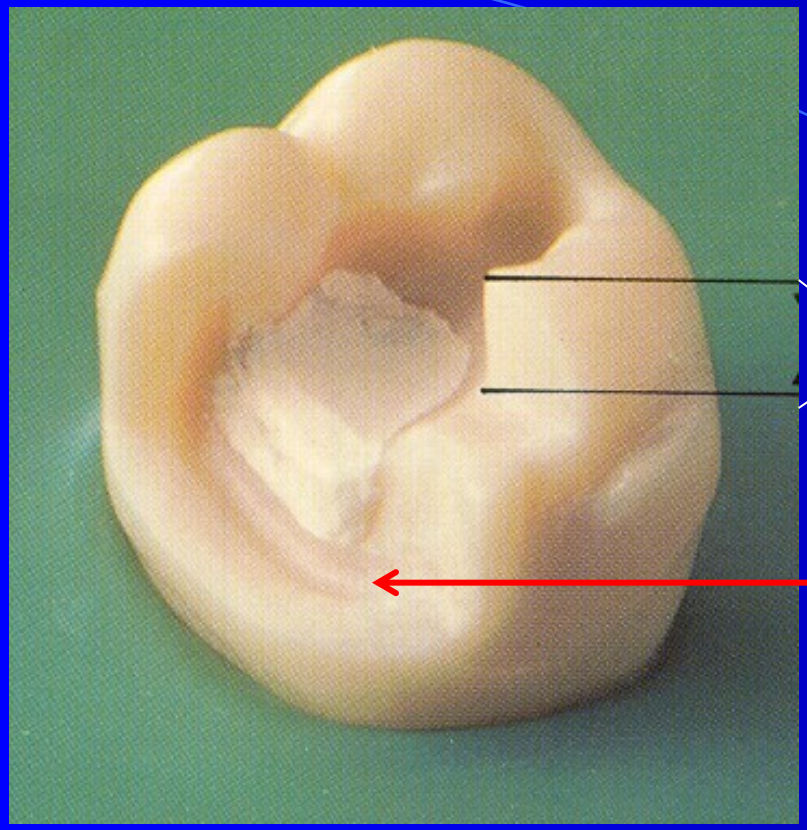






Large defects

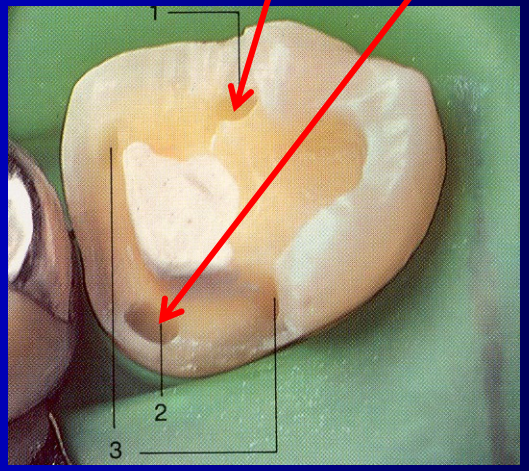
- In vital teeth if the cusp has been undermined due to dental caries
- Large defects in non vital teeth – amalgam overlays
- Combination with the cavity on vestibular/oral surface

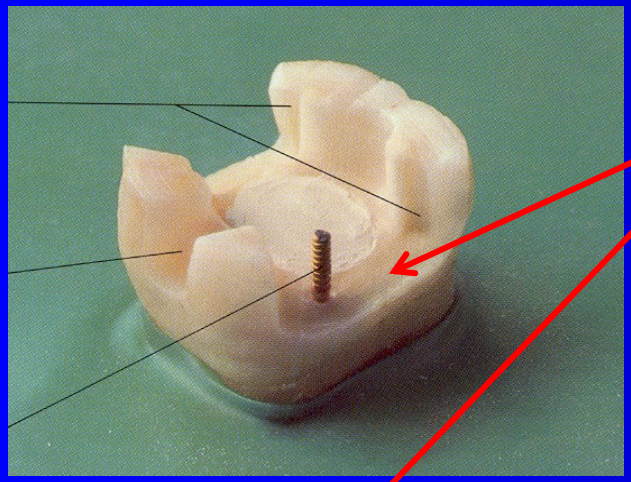


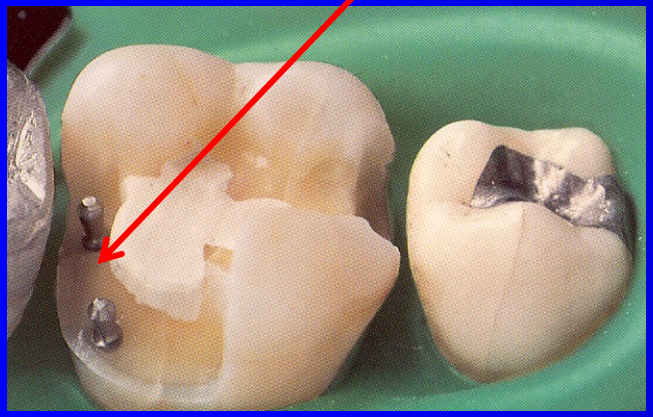
Cusp has been removed

The thickness of the filling
3 – 4 mm (at the cusp)

Retention
Grooves, pins, slots

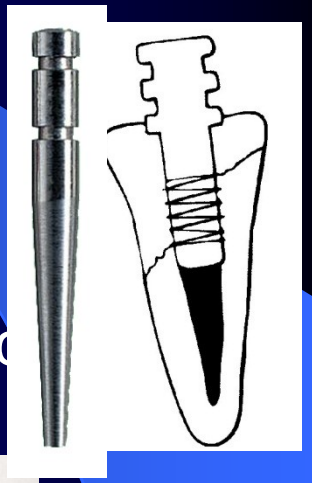




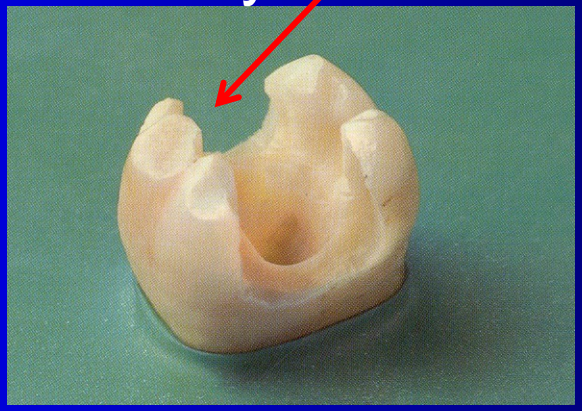


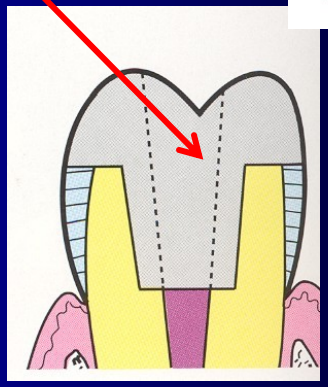
Parapulpal pins

Intrapulpal posts (root canal posts)



Retention in the endodontic cavity

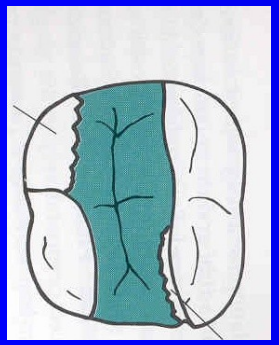


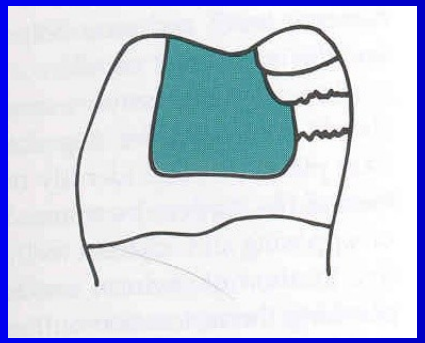


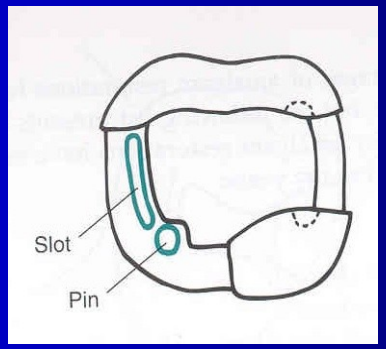
Large amalgam restoration - overlays

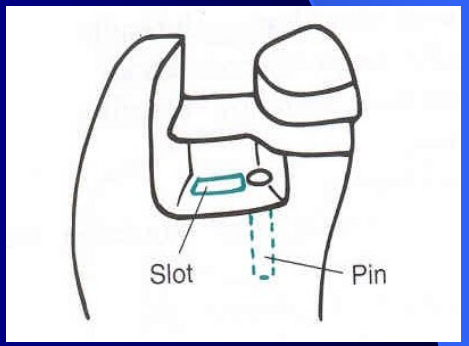
Amalgam

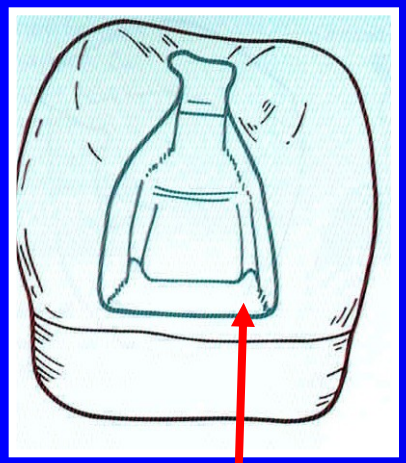
Exact work!

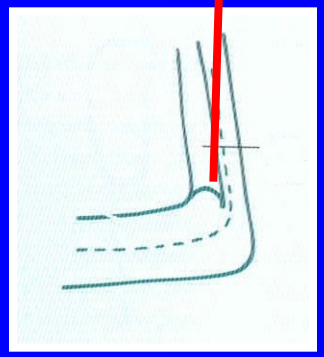


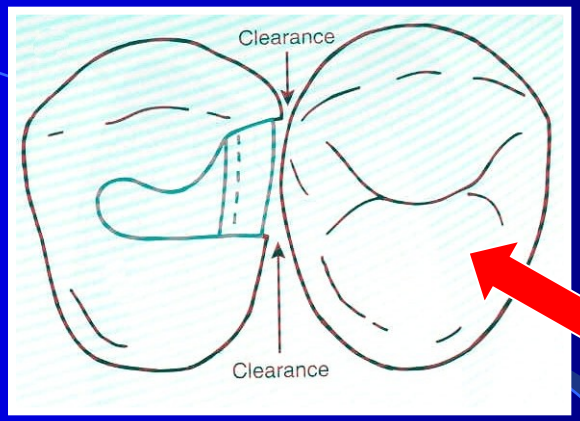


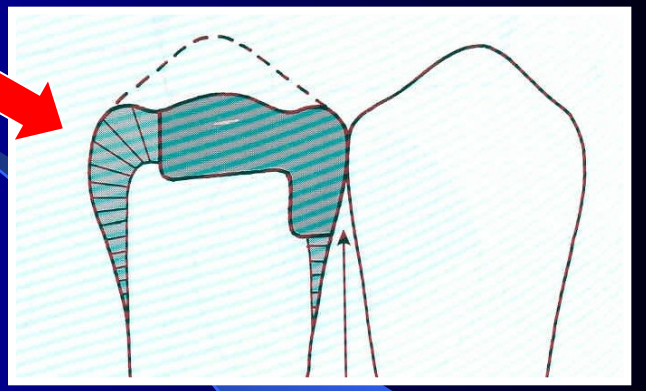


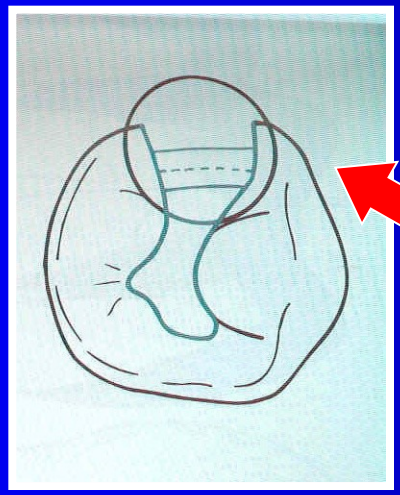


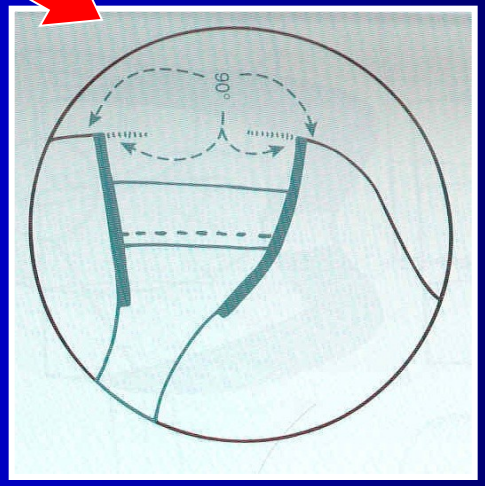




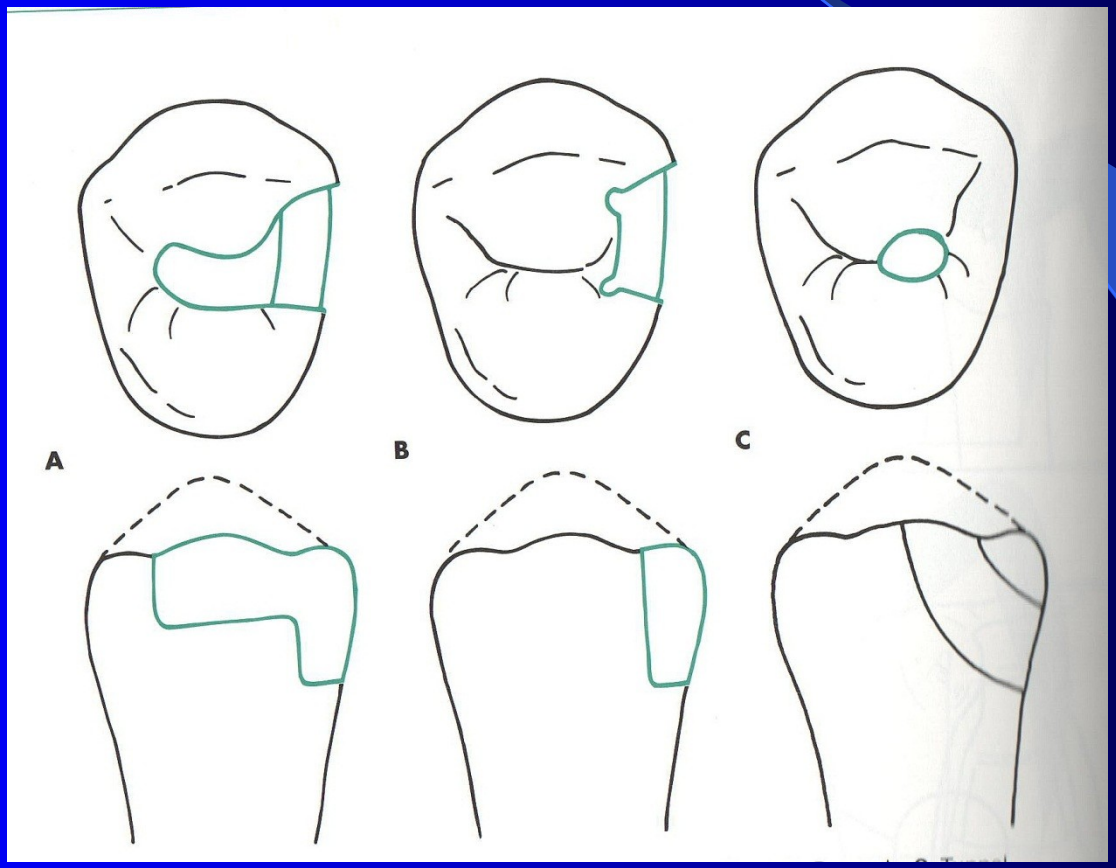

Clearance
Clearance






90°

Basic modifications



Rules for large restorations

- Clear and sharp outlines – cavosurface margin

Thickness of the amalgam (the cusp 3 – 4 mm)

- Autoretention
- Grooves
- Pins, slots
- Parapulpal pins
- Intrapulpal posts – root canal posts

Resistance – acc to general rules

Composites - indication

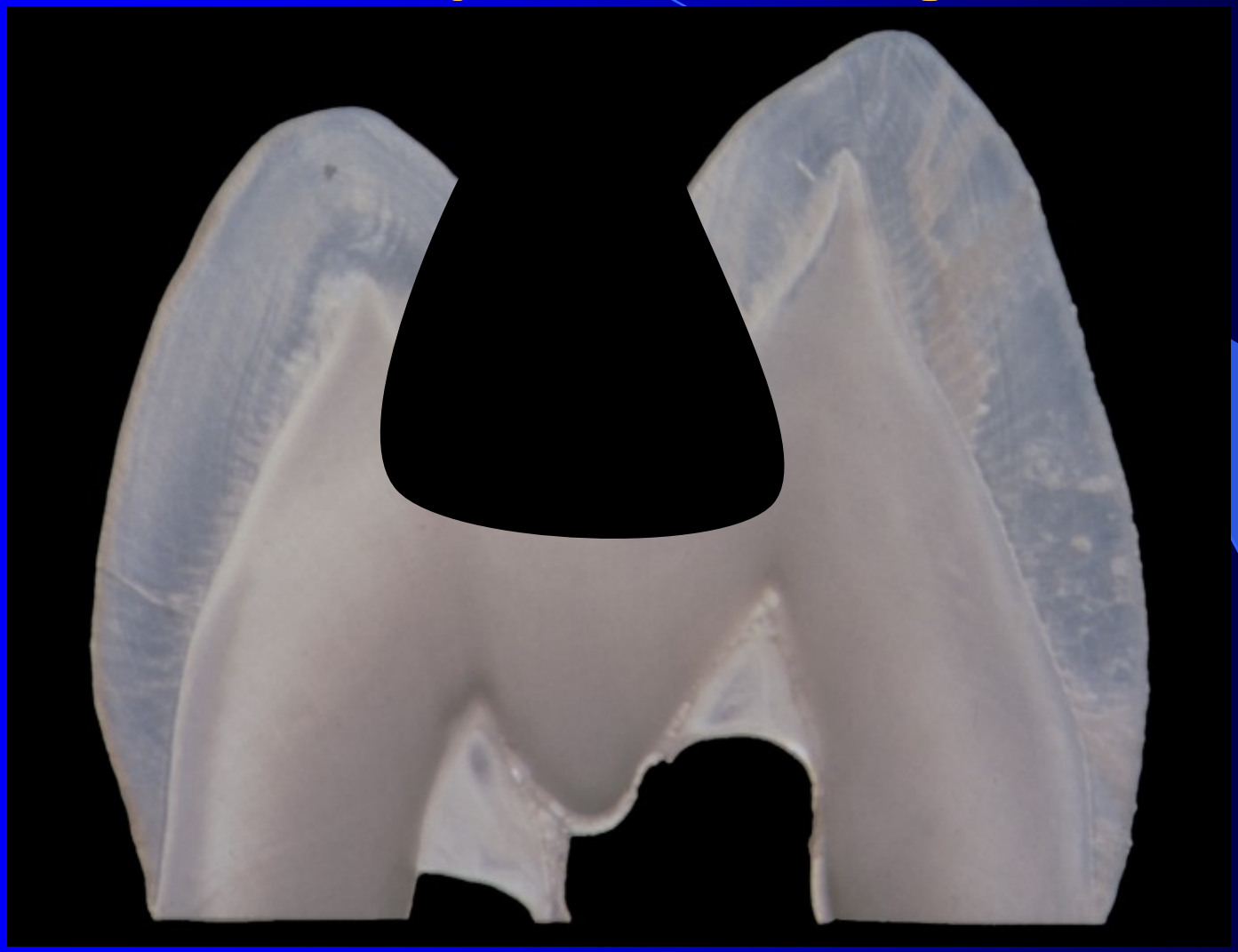
- Small – moderate cavities

- Good level of oral hygiene
- No heavy occlusal stress
- Dry operating field

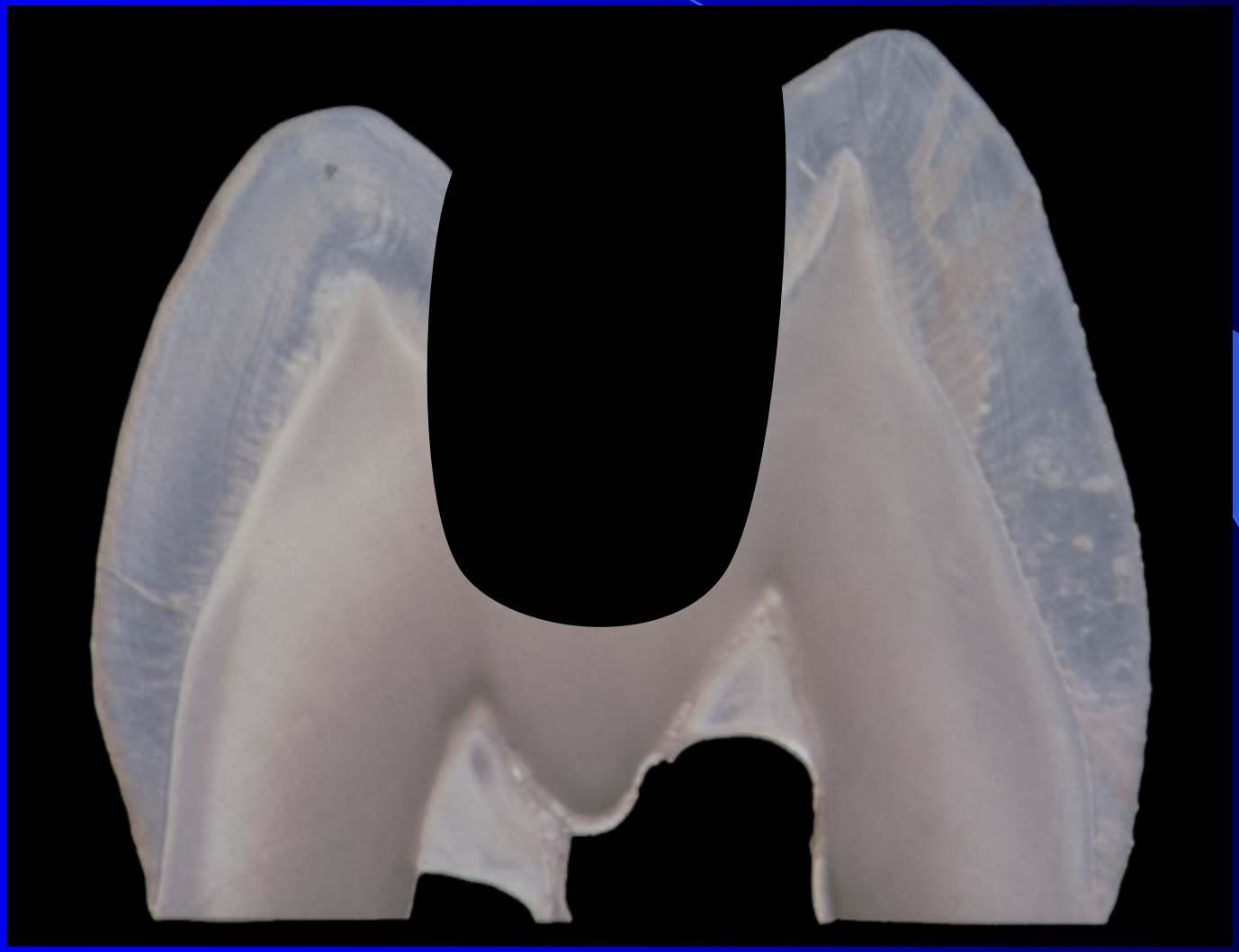
Preparation for adhesive materials – composites

- No extension for prevention (adhesion)
- No grooves
- No undercuts
- Rounded box
- Bevel the axial walls and the outer edge od the gingival wall
- Small isolated cavities are possible

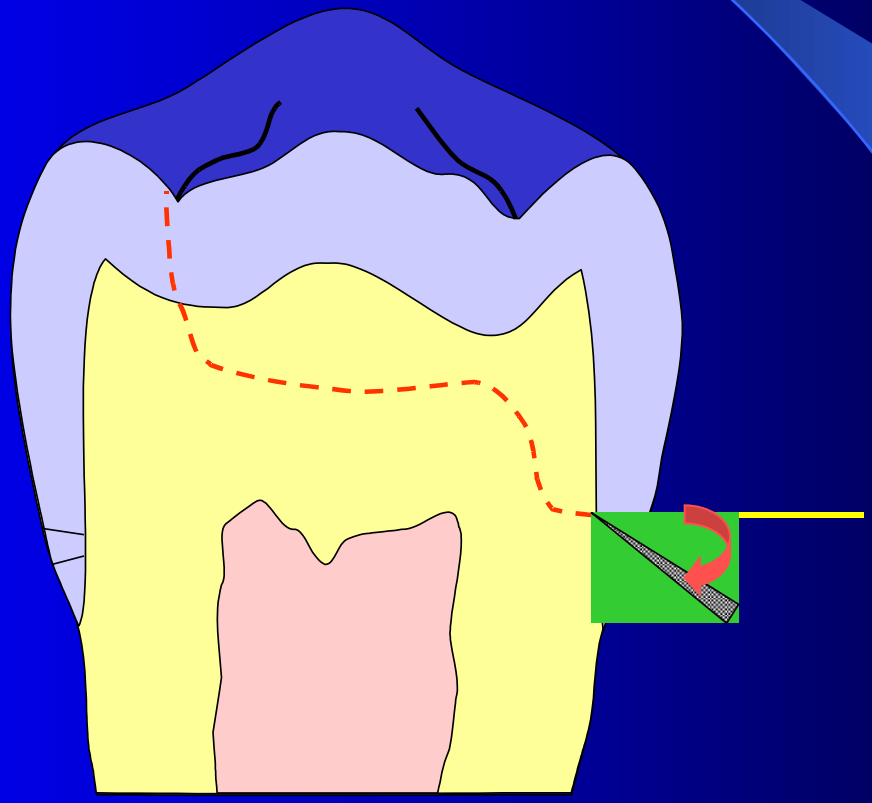
Cavity for amalgam



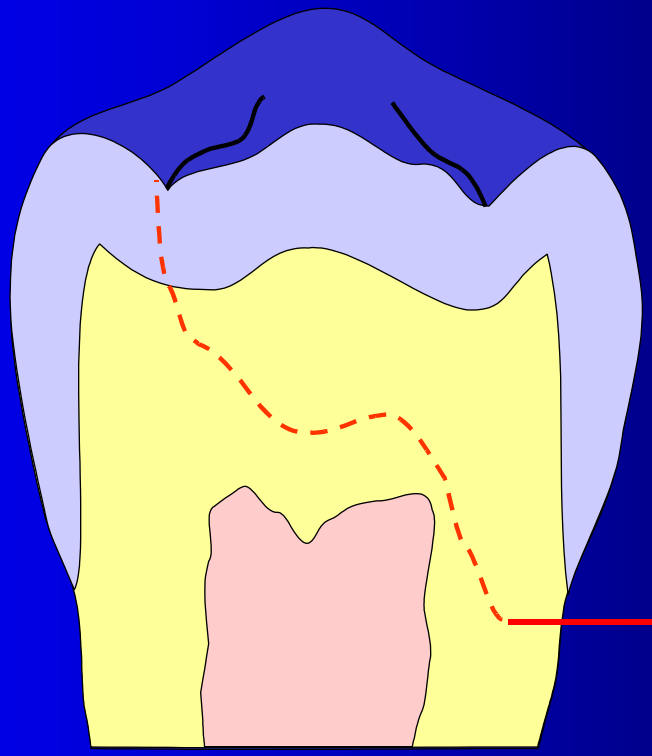
Cavity for composite



Bevel on the gingival wall



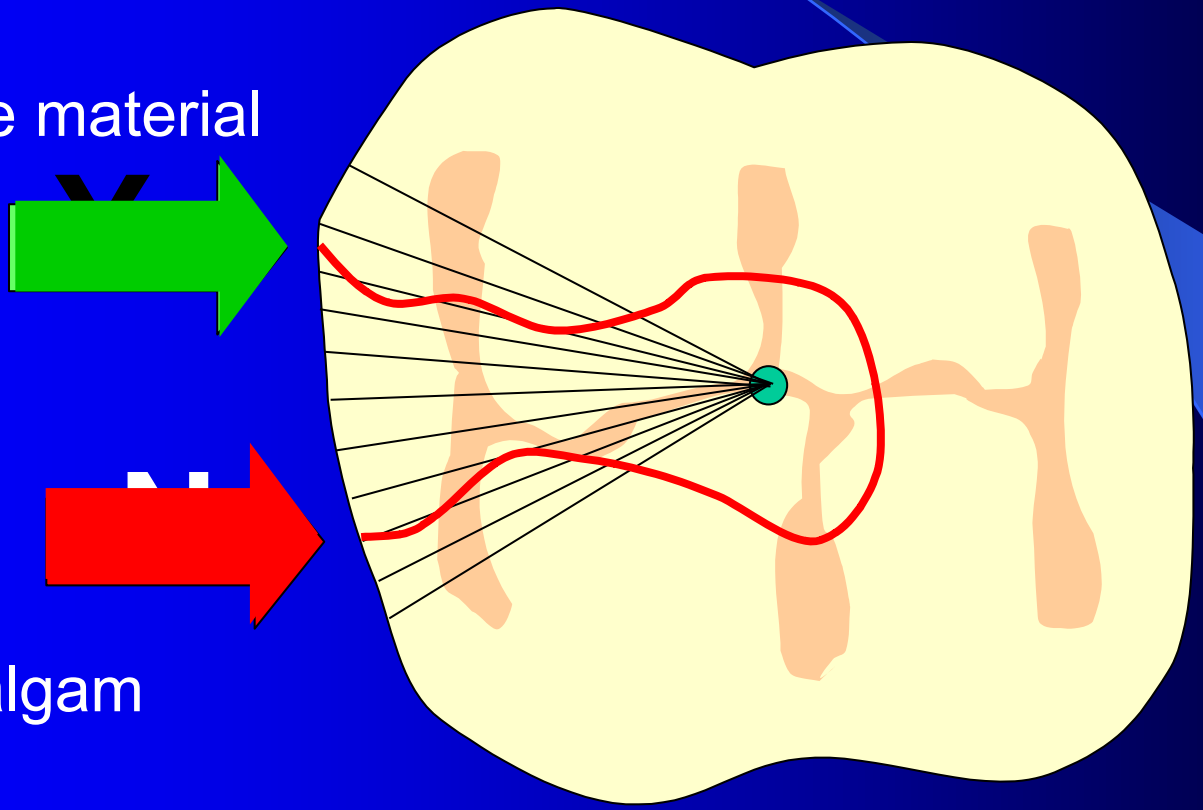
If out of enamel



Preparation
do not bevel!!!

Bevel of enamel on axial walls

Composite material

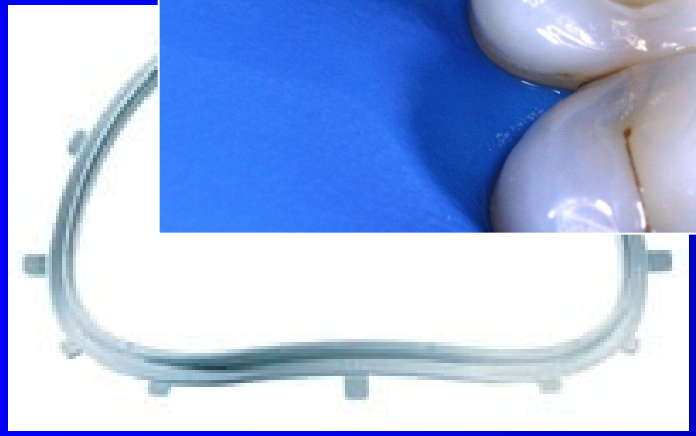


Amalgam

Placement of the material

Correct

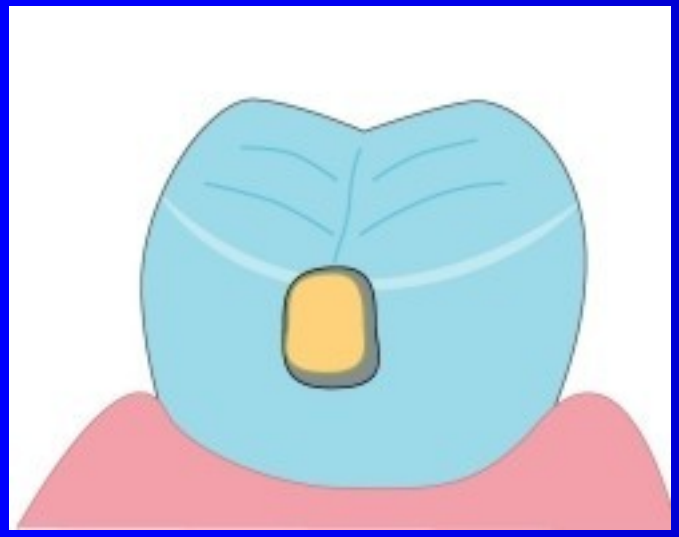

SR2

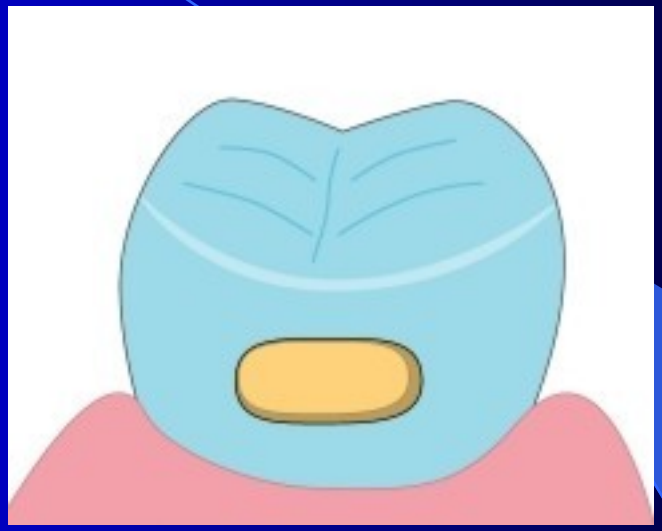


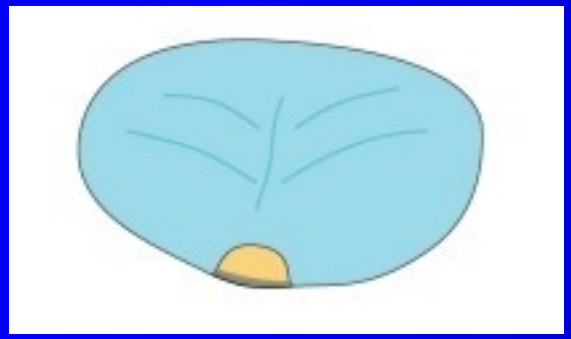
Matrices for composites in class II.

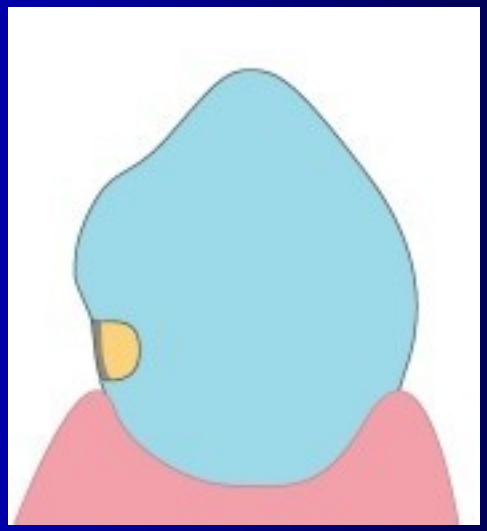
- Matrix band + matrix retainer
- Segmental matrix + separator

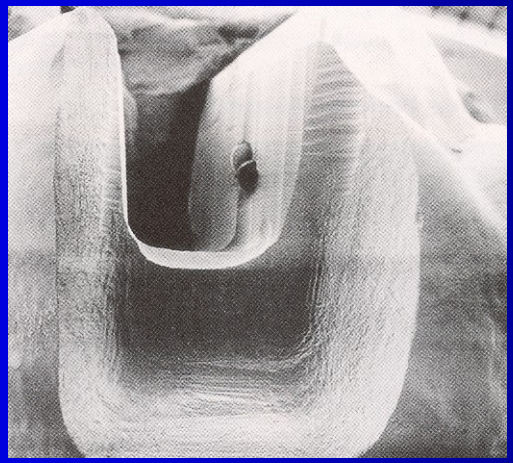
Alternative preparation – adhesive slot



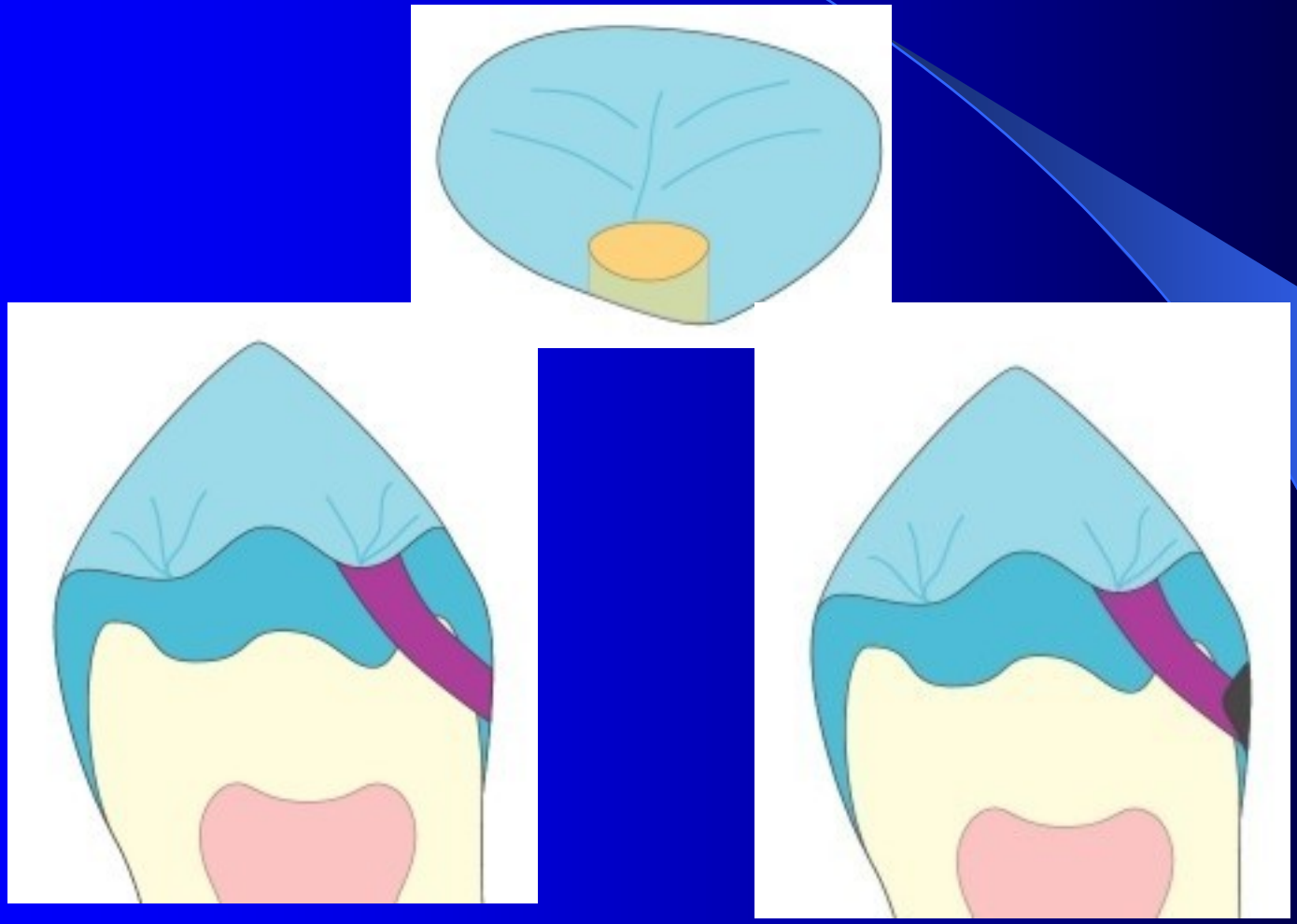


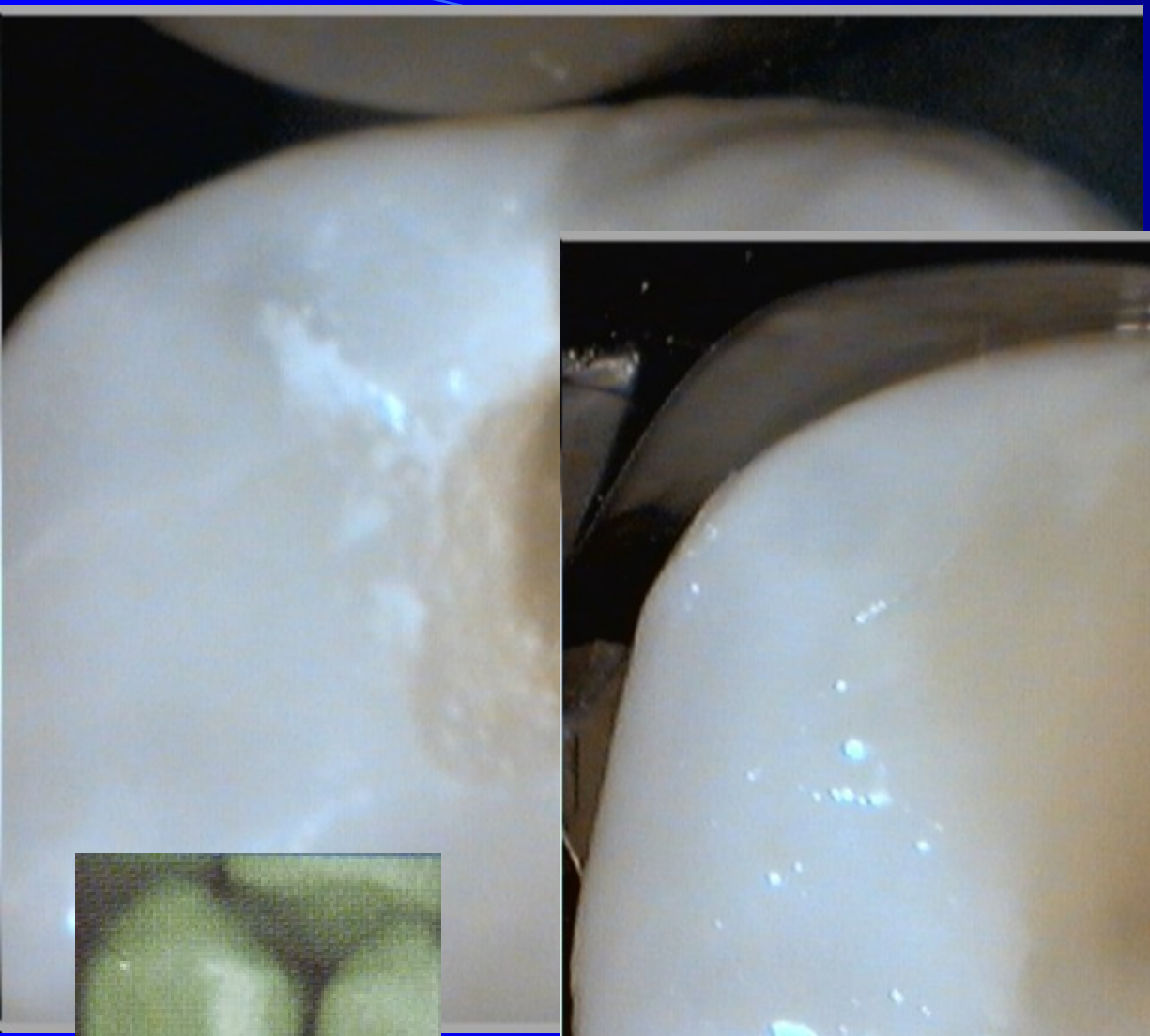






Tunnel preparation





1. Low caries risk
2. Proximal ridge without infra
3. Good cooperation
4. Small caries lesion

1. Magnification(Loups or microscope)
2. Miniinstruments
4. GIC in capsules or composite
5. BW post op

Glassionomer and class II.

- Temporary filling – first phase for the sandwich technique
- Tunnel filling (preparation)