Class II. – modifications for amalgam

Conventional preparation

Slot

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



Occlusal cavity

Proximal cavity



MOD





Cavosurface angle

Slight reveres curve

Clearence of the proximal surface







Retention – grooves in the proximal cavity

Divergency of axial walls towards gingiva and Convergency - divergency towards proximal space.



Autoretention



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









Access to the cavity

lroubal@med.muni.cz

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 J. Amalgám – zapomenuté řemeslo. Brno, 2000.





Bažant V. Konservační zubní lékařství, SPN Praha, 1962.

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!



Iroubal@med.muni.cz











Iroubal@med.muni.cz

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

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



Ohlazení zevní hrany gingiválního schůdku mimo sklovinu



Preparation do not bevel!!!

Bevel of enamel on axial walls

Composite material

Amalgam




























Alternative preparation – adhesive slot































Glassionomer and class II.

 Temporary filling – first phase for the sandwich technique

Tunnelová filling (preparation)





Tunnel preparation













Loups or microscope
Miniinstruments
Dezinffection
GIC in capsules
BW post op

Low caries risk
Proximal ridge without infraction
Good cooperation
Small caries lesion



