

# **Restorative dentistry III.** **4 th lecture**

**Class V. making fillings**



# Class V.

- Cervical defects
  - Dental caries
  - Non carious lesions (erosion, abrasion, V shaped defects)



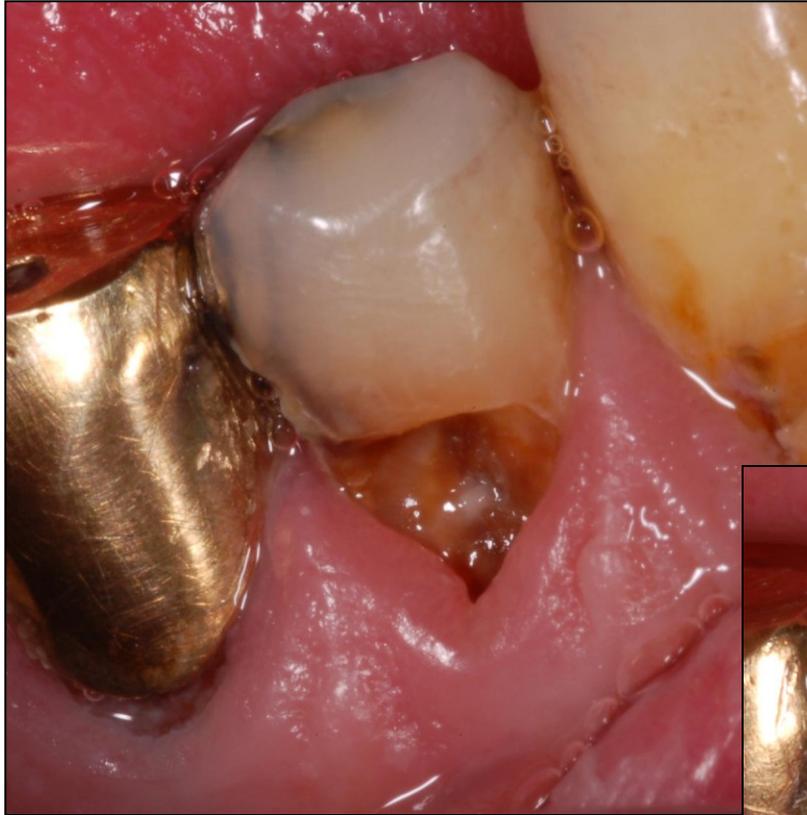
# Types of defects

- Caries
- Erosion
- Abrasion
- V shaped defects









# Choice of material

- Amalgam (posterior area)
- Composite (mainly in anterior teeth where the defect is situated in enamel)
- Glass ionomer: caries defects, esp deeper, situated out of enamel  
higher caries risk, middle term temporary.



# V.Class Amalgam

- Posterior area



# Access

- Removal of the undermined enamel
  - Burs or diamonds (pear), tapered fissure bur
- Separation of the gingiva– temporary filling guttapercha, fermit, clip, zinkoxidsulfate cement, cavit, provimat).
- Ablation of ingrown gingiva – surgical (scalpel, laser, high frequency current)



# Cavosurface margins

Gingival: axial depth of 0,5 mm inside the DEJ.

Extention of the preparation incisally,

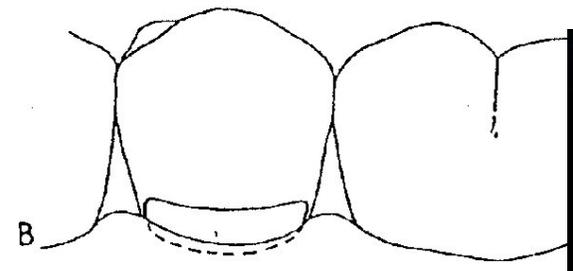
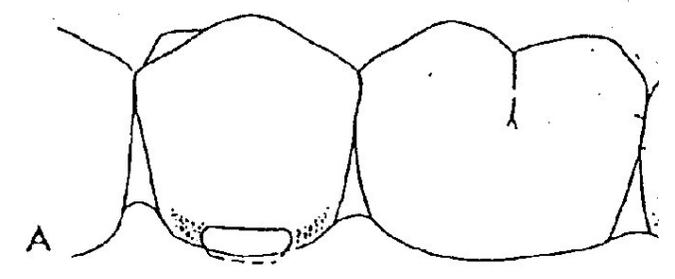
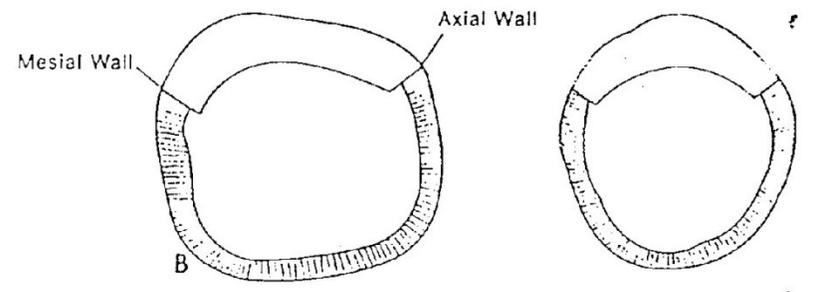
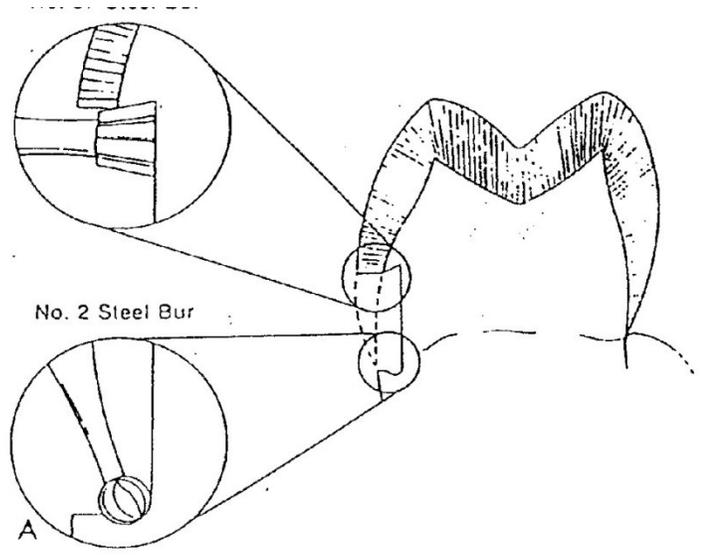
Gingivally: 0,5 mm subgingivally

mesially and distally: to axial walls

Or: untill the cavosurface margins are positioned in

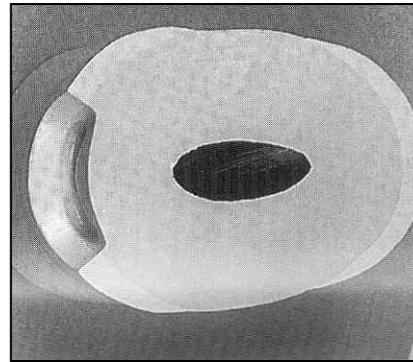
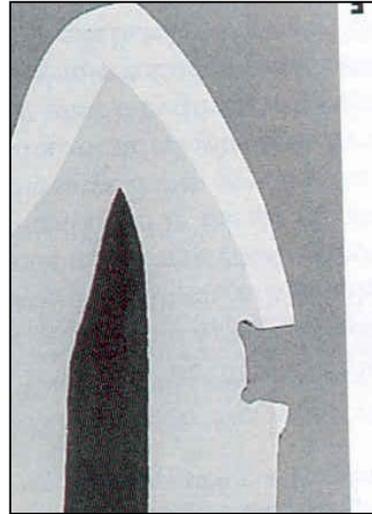
sound dental structure. (small cavities, good ora





# Retention

- Box 0,75 – 1,25 mm deep, undercuts,



# Depth

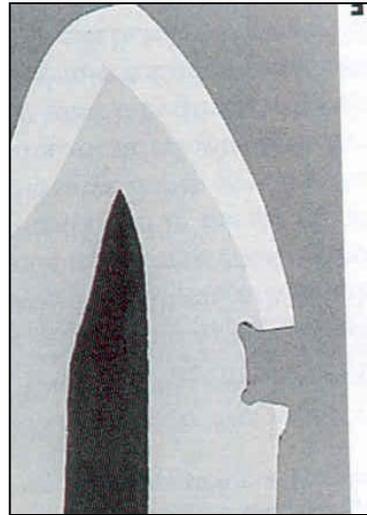
Gingivally: axial depth of 0,5 mm inside the DEJ.

Total depth: 1 – 1.25 mm. If on root surface -0,75 mm

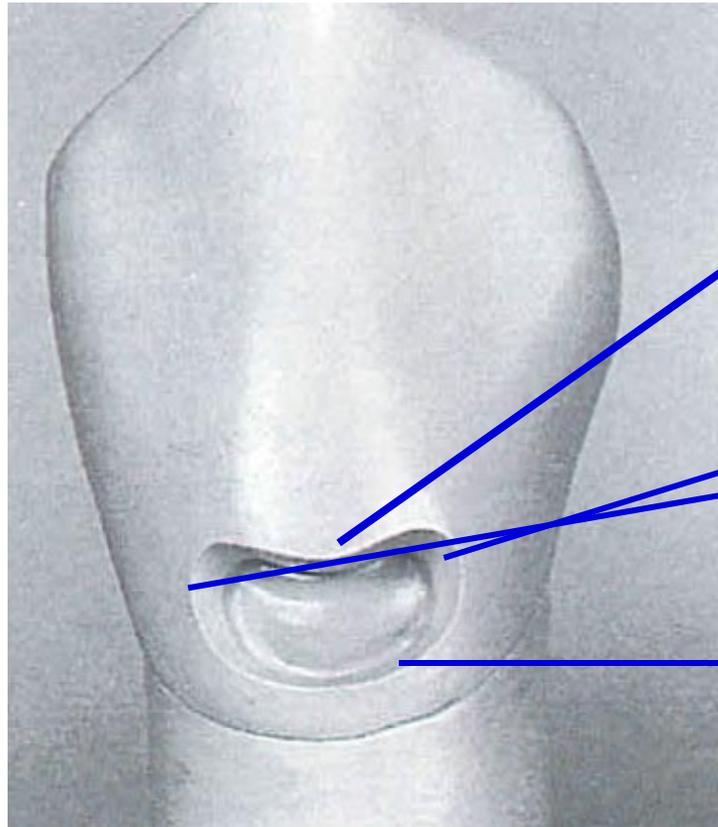


# Resistance

No occlusal forces



The bottom of the cavity follows the convexity of the crown.



Occlusal margin

Mesial and  
distal margin

Gingival margin



# Filling

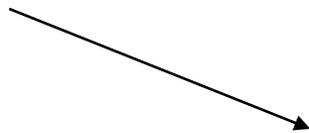
Base – pulpal wall

Amalgam – portion by portion, condensor with straight front,  
burnisher (spatula).



# Class V. composit

- Aesthetic area
- Margin in enamel



# Preparation for composite, making filling

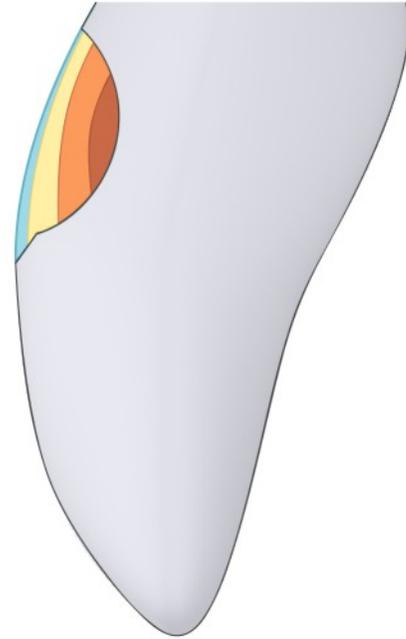
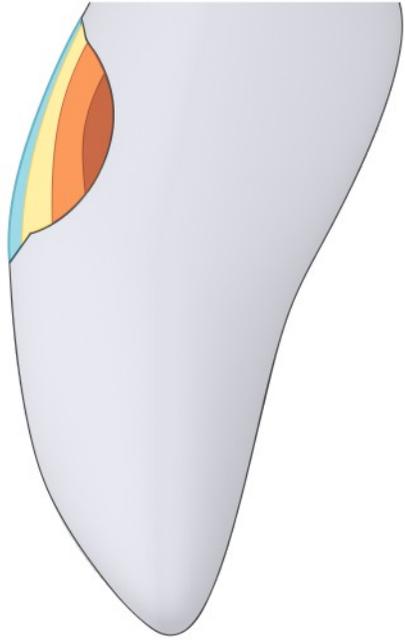
Cavity is limited on caries lesion only

Enamel must be beveled

Etching, priming + bonding

Placement of composite





# Matrices

Transparent cervical matrices

Matrix band acc. to Belvedere







# Class V. glassionomer

- Cavities with margins in cementum
- Or also in enamel or partly in enamel (in patients with worse level of oral hygiene)



# Glassionomer

- Bonds chemically
- Release fluoride ions
- Thermal expansion similar to dentin
- Acceptable aesthetics



# Preparation for glassionomer making filling

- Cavity is limited on carious lesion only
- Margins should be smoothed (no bevel)
- Conditioner (polyacrylic acid) -20 s
- Washing
- Placement of glassionomer (one bulk)
- Matrix (transparent or aluminium cervical matrix)





# Matrices for glassionomers

- Cervical transparent matrices with the holder for lightcuring composites and glassionomers



# Matrices for glassionomers

## □ Cervical foils



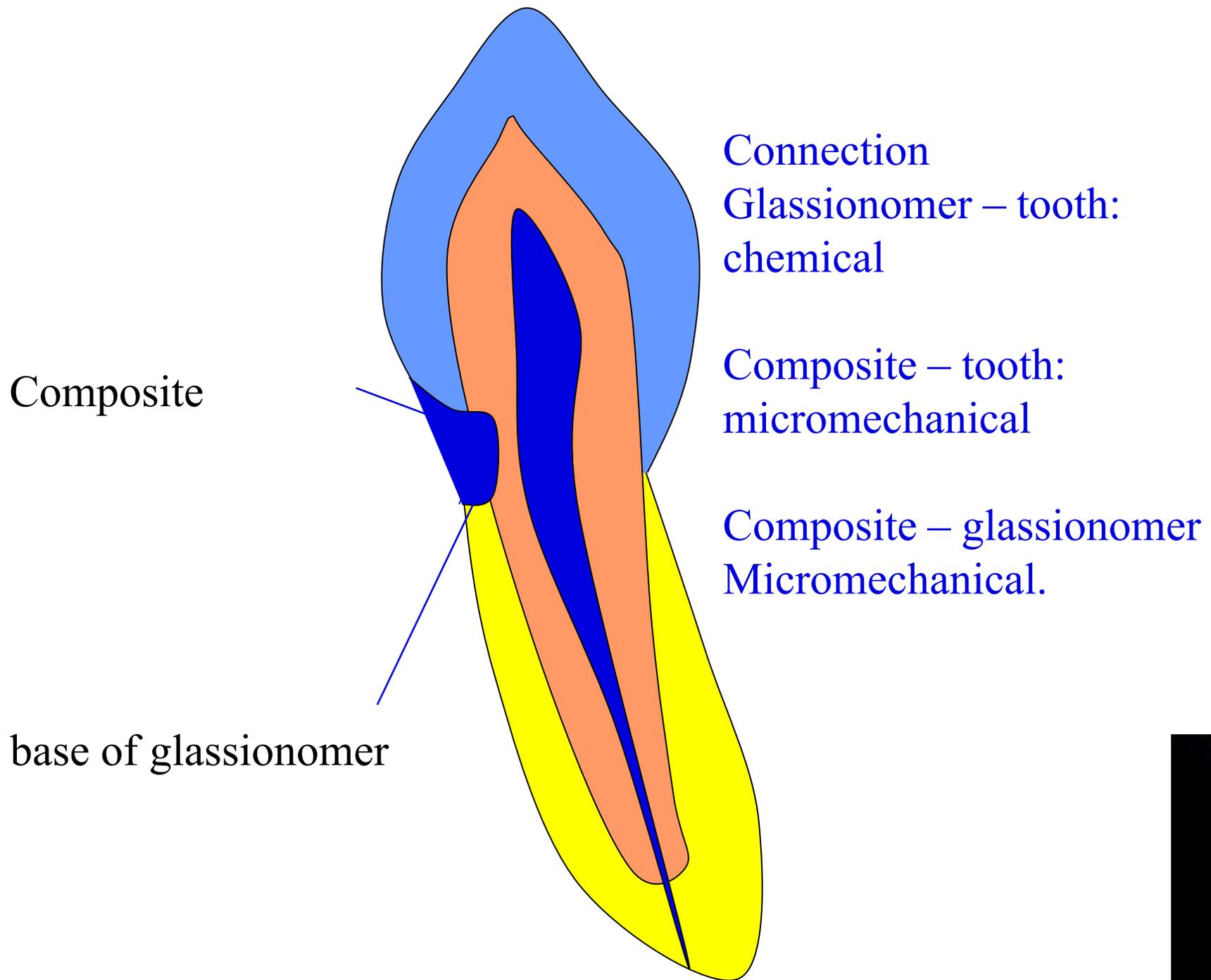
Have adaptable metal cervical matrices have a specially treated aluminium surface and are suitable for all self-curing composites and glass ionomers.



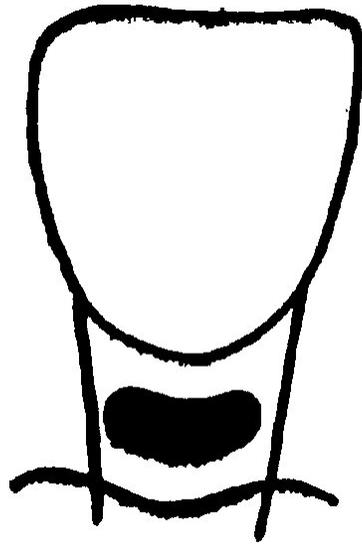
# Combination of materials

- Glassionomer – replaces lost dentin
- Composite – replaces lost enamel

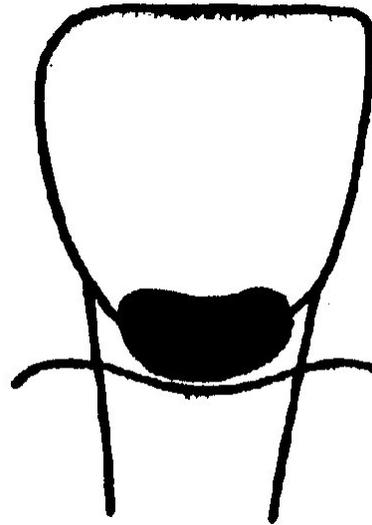




# Choice of materials

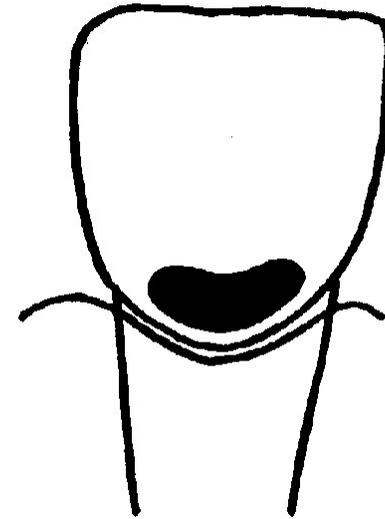


Glassionomer



Combination

Or amalgam in posterior area



Composite

