

# **Restorative dentistry III.**

## **Class V. making fillings**

# Class V.

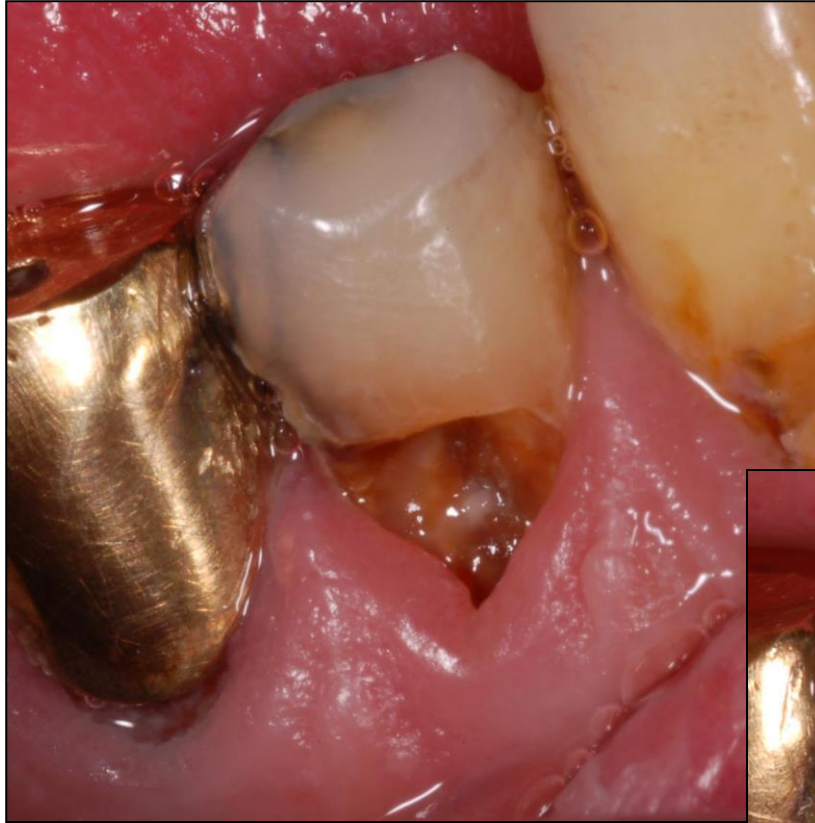
- Cervical defects
  - Dental caries
  - Non carious lesions (erosion, abrasion, V shaped defects)

# 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)
- Glassionomer: caries defects, esp deeper, situated out of enamel, higher caries risk, middleterm 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.

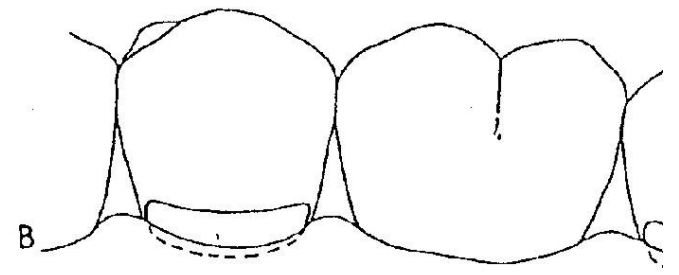
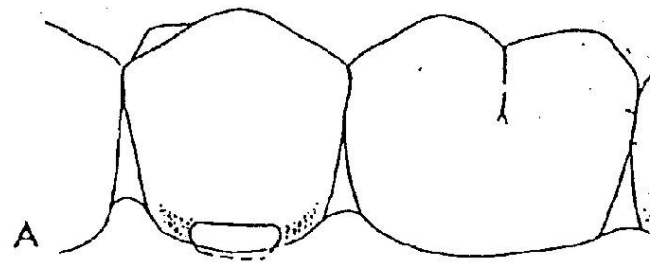
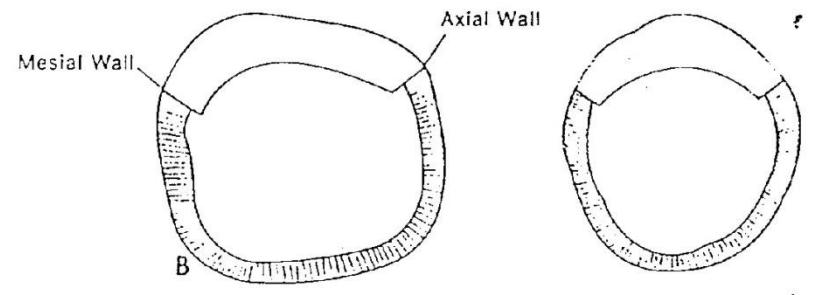
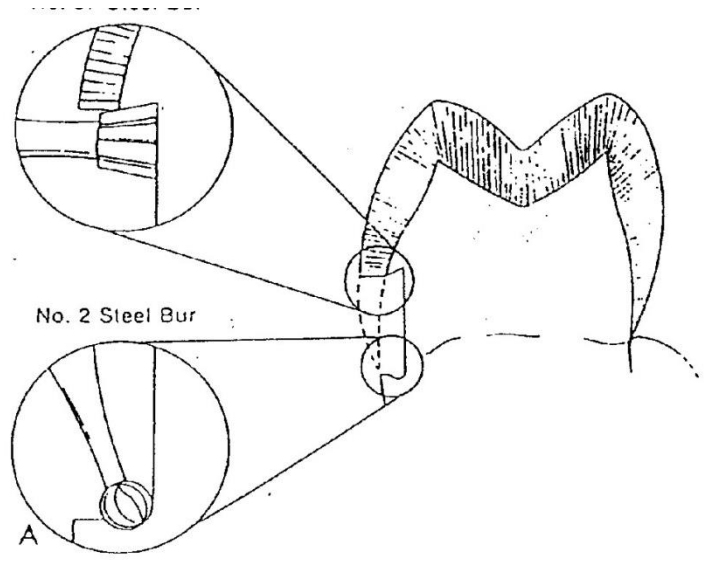
Extention of the preparation incisally,

Gingivally: 0,5 mm subgingivally

mesially and distally: to axial walls

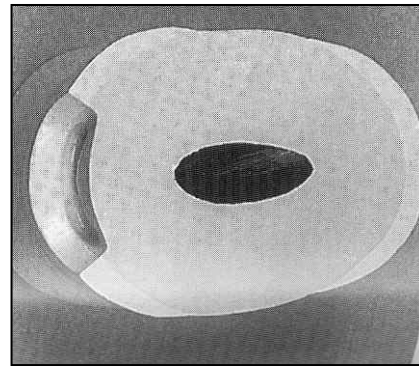
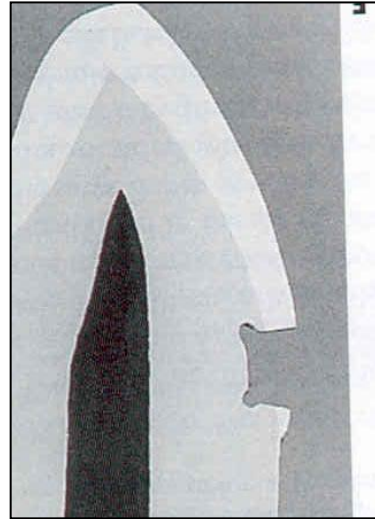
Or: untill the cavosurface margins are positioned in

sound dental structure. (small cavities, good oral



# Retention

- Box 0,75 – 1,25 mm deep, undercuts,



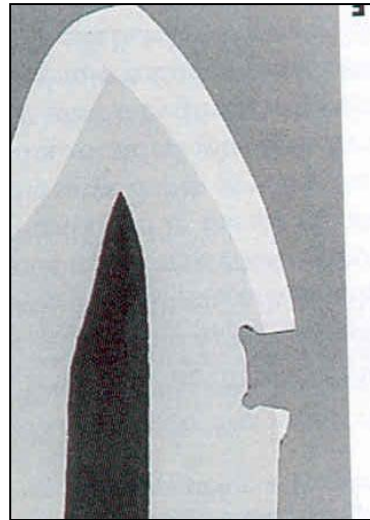
# Depth

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

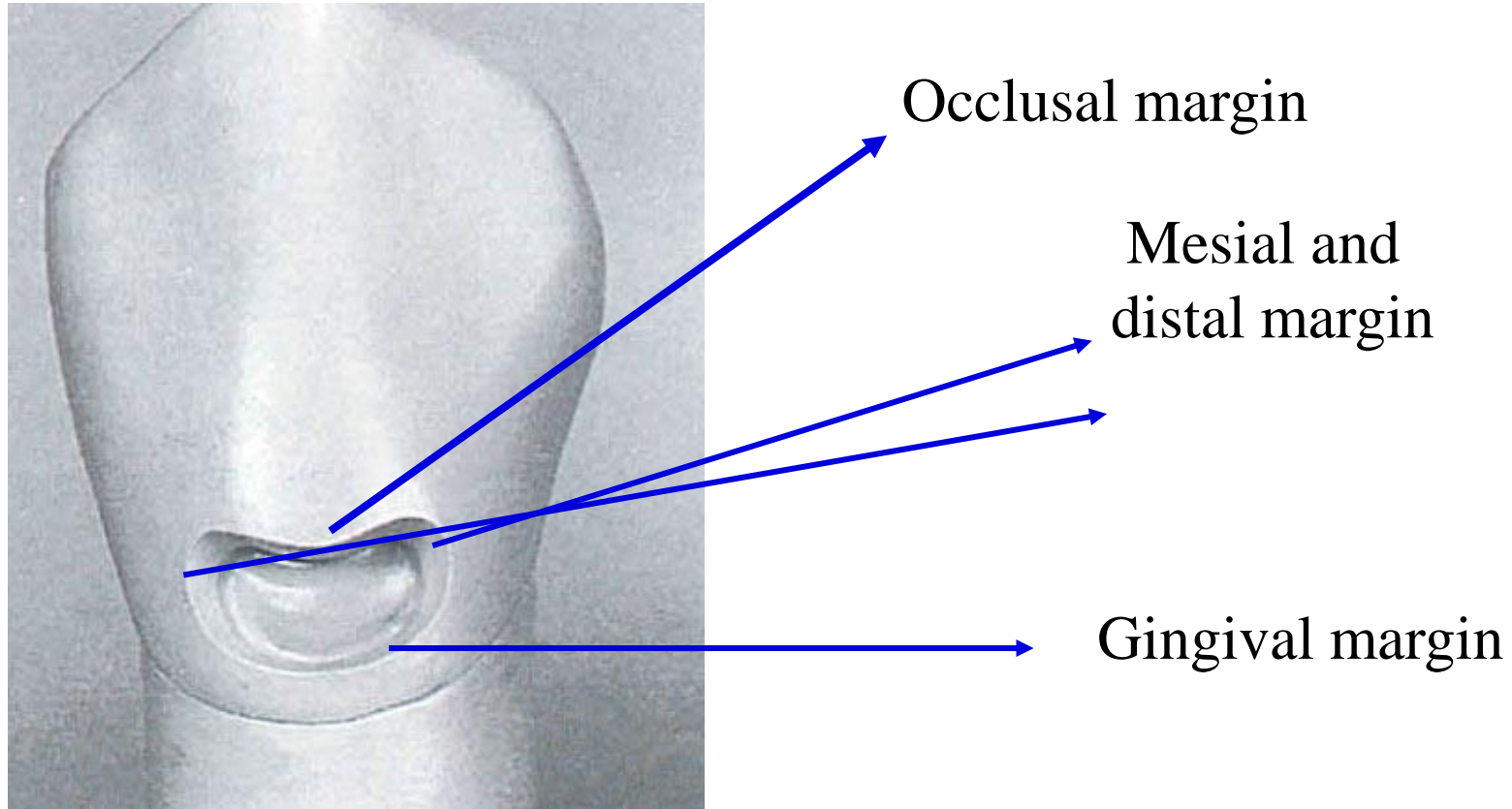
Total depth: 1 – 1.25 mm. If on root surface -0,75 mm

# Resistance

No occlusal forces



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



# Filling

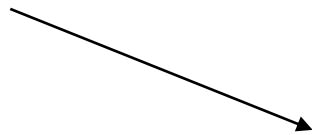
Base – pulpal wall

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



# Class V. composit

- Aesthetic area
- Margin in enamel



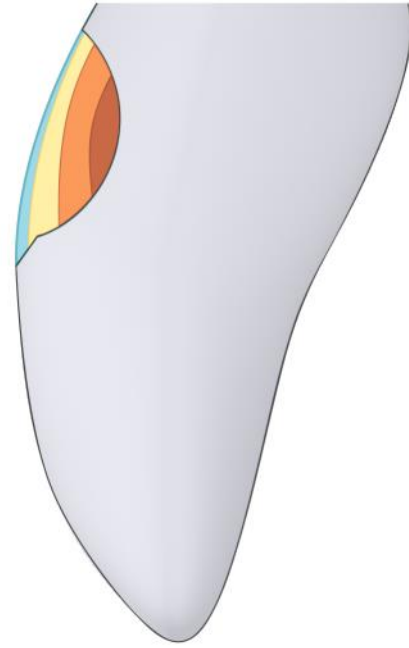
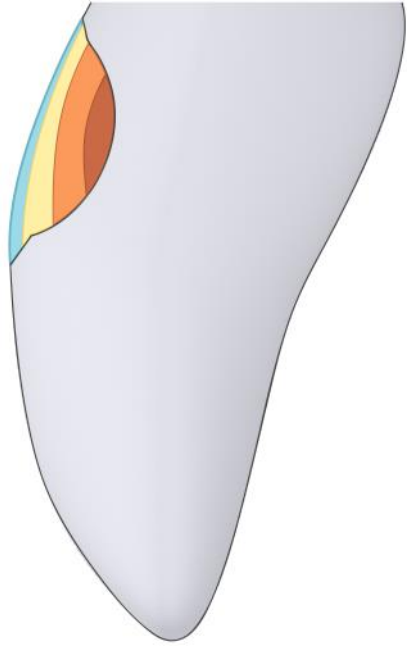
# Preparation for composite, making filling

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 glass ionomers

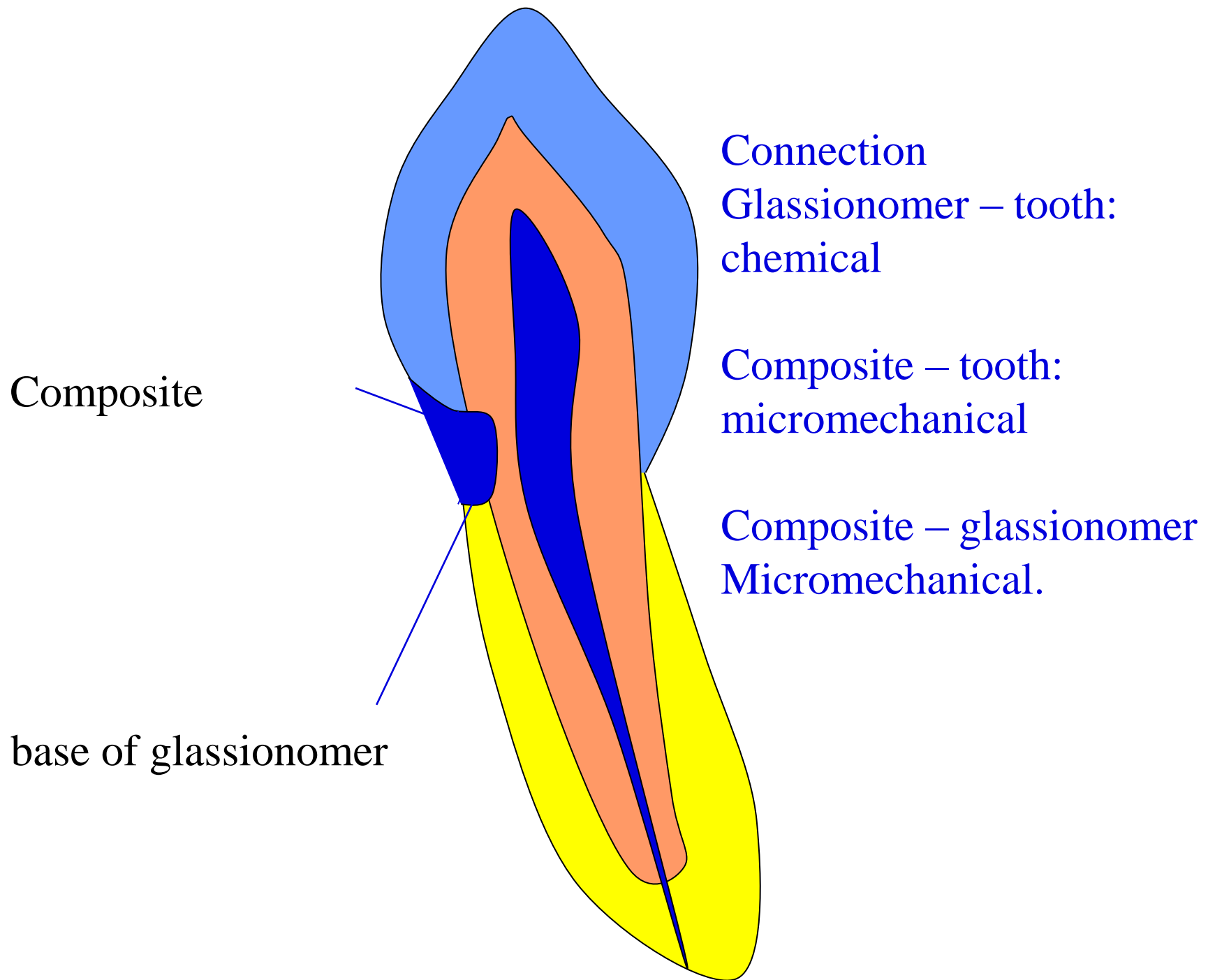
## – Cervical foils



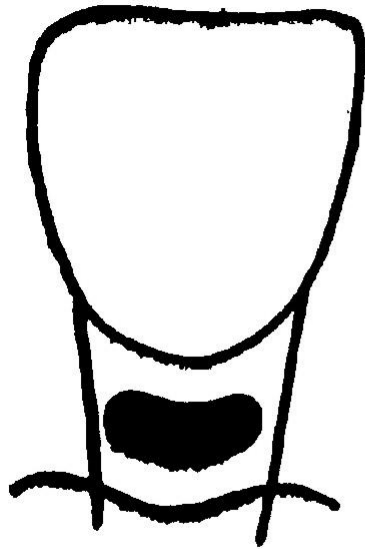
Have adaptable metal cervical matrices have a specially treated aluminium surface and are suitable for all self-curing composites and glass ionomers.

# Combination of materials

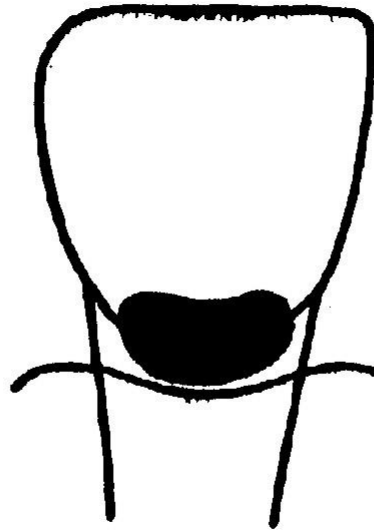
- Glassionomer – replaces lost dentin
- Composite – replaces lost enamel



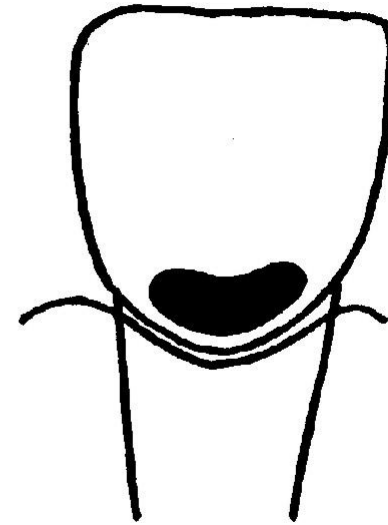
# Choice of materials



Glassionomer



Combination



Composite

Or amalgam in posterior area