

# **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

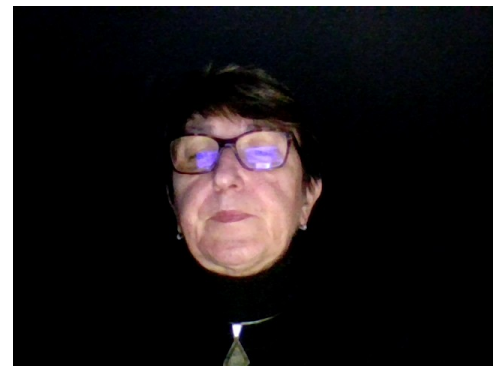
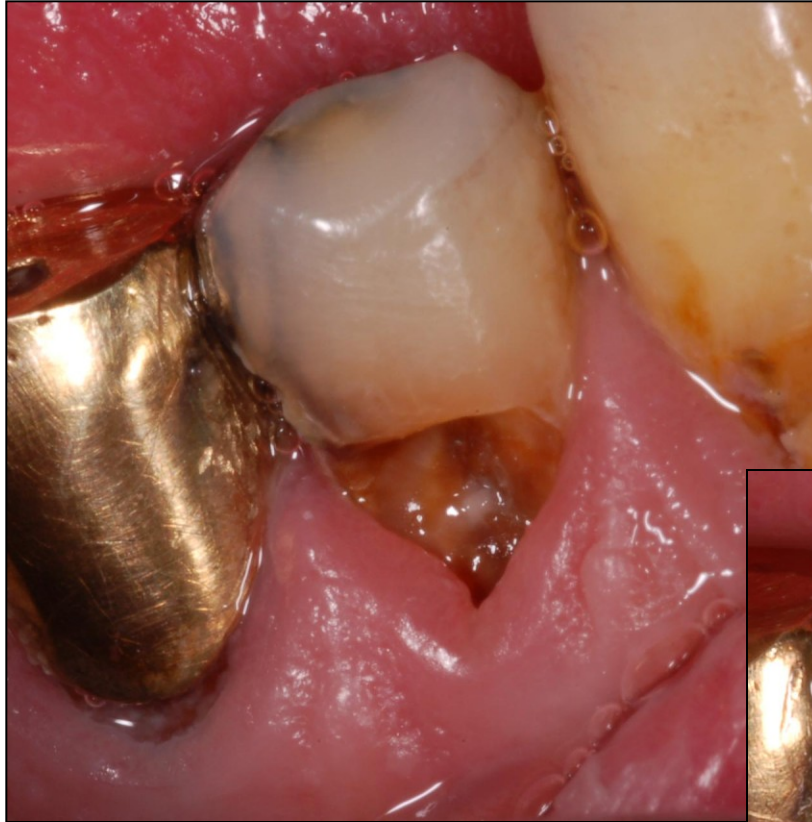
- Caries
- Erosion
- Abrasion
- V shaped defects











# Choice of material

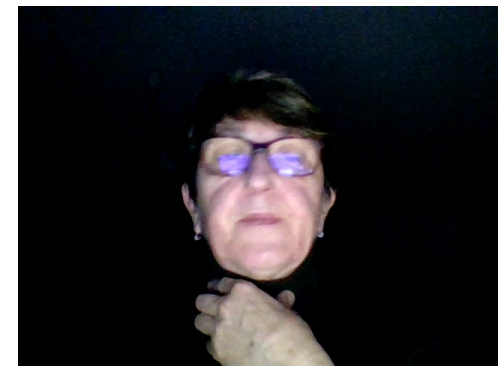
- Amalgam (posterior area)
- Composite (mainly in anterior teeth where the defect is situated in enamel)
- Glass ionomer: caries defects, esp deeper, situated out of enamel  
higher caries risk, middle term temporary.





# V.Class Amalgam

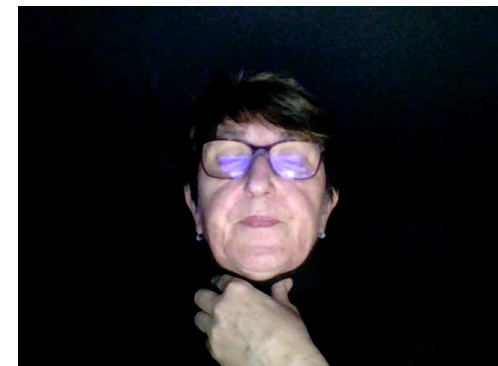
- Posterior area





# 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.

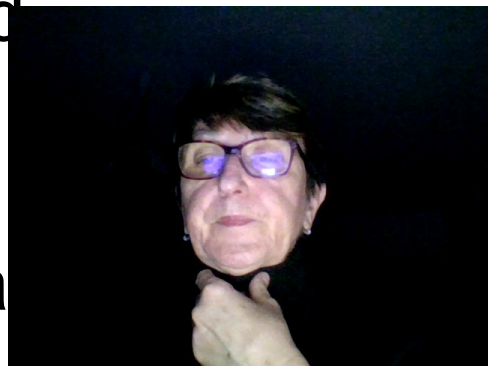
Extention of the preparation incisally,

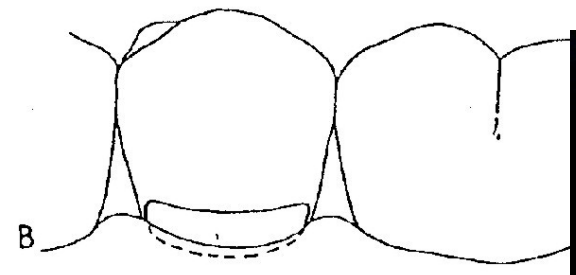
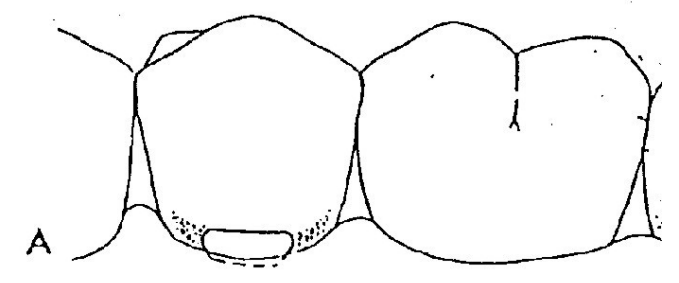
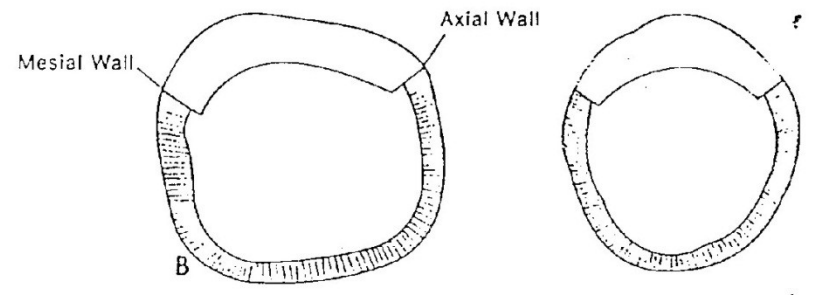
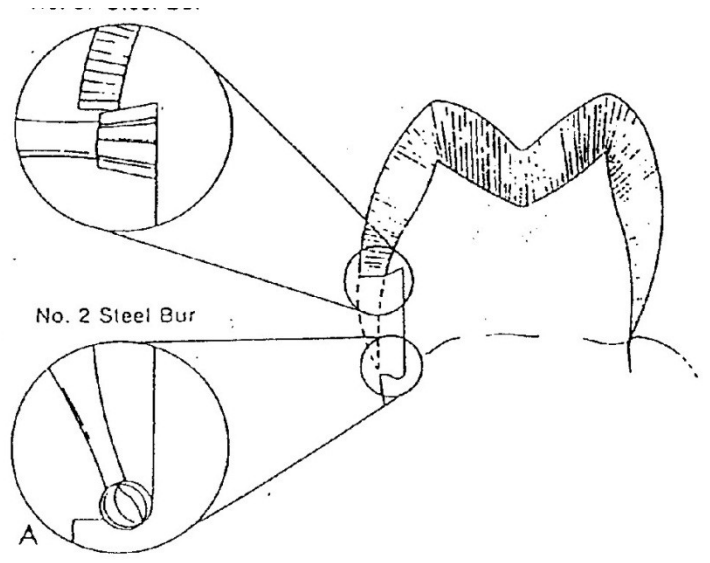
Gingivally: 0,5 mm subgingivally

mesially and distally: to axial walls

Or: untill the cavosurface margins are positioned in

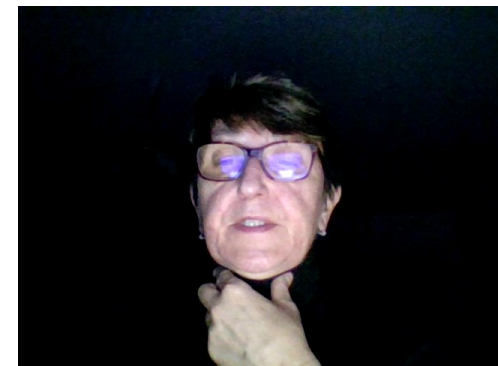
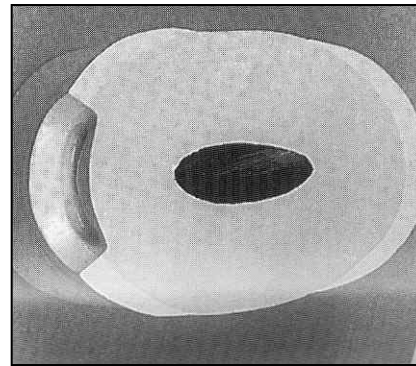
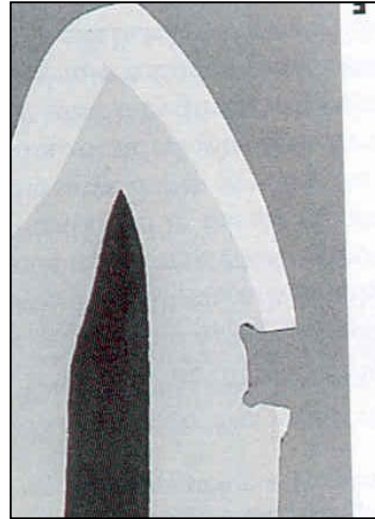
sound dental structure. (small cavities, good ora





# Retention

- Box 0,75 – 1,25 mm deep, undercuts,





# Depth

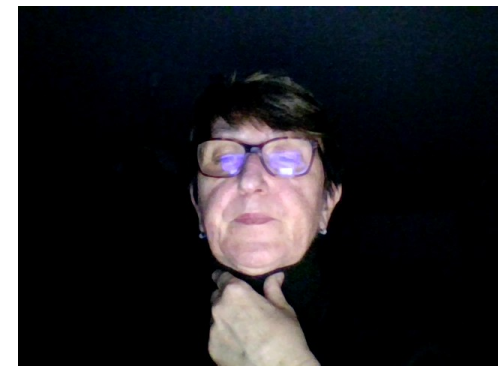
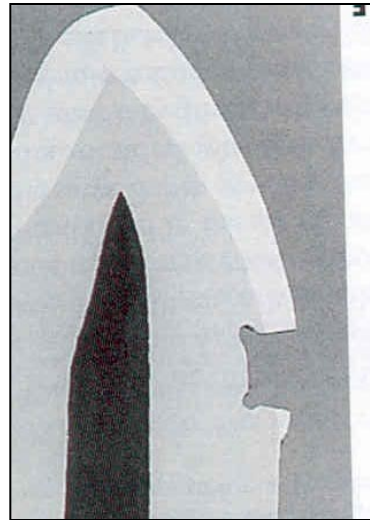
Gingivally: axial depth of 0,5 mm inside the DEJ.

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

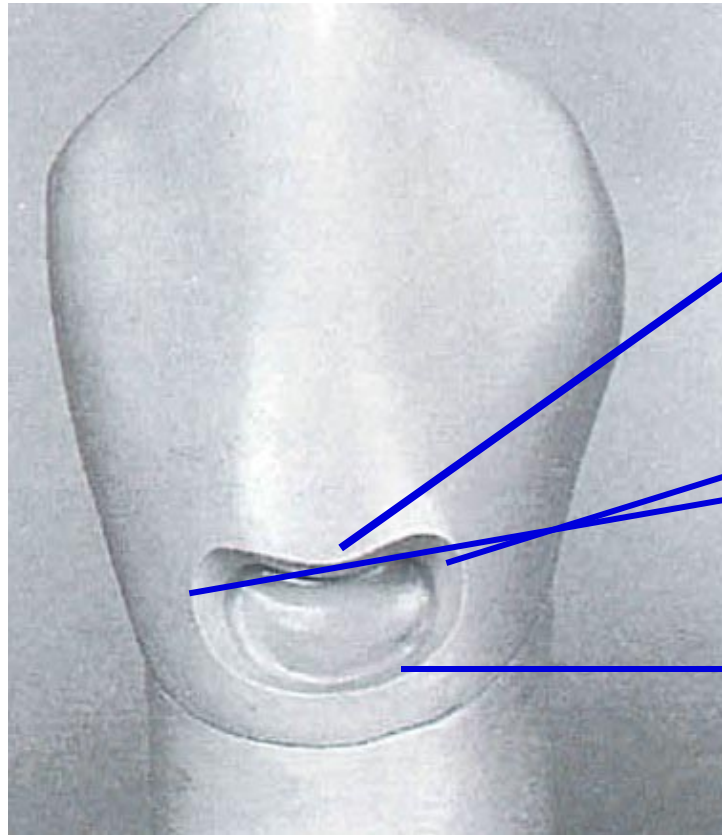


# Resistance

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

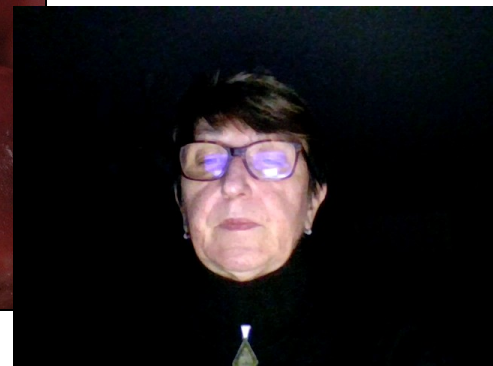
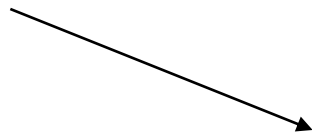
Amalgam – portion by portion, condensor with straight front,  
burnisher (spatula).





# Class V. composit

- Aesthetic area
- Margin in enamel



# Preparation for composite, making filling

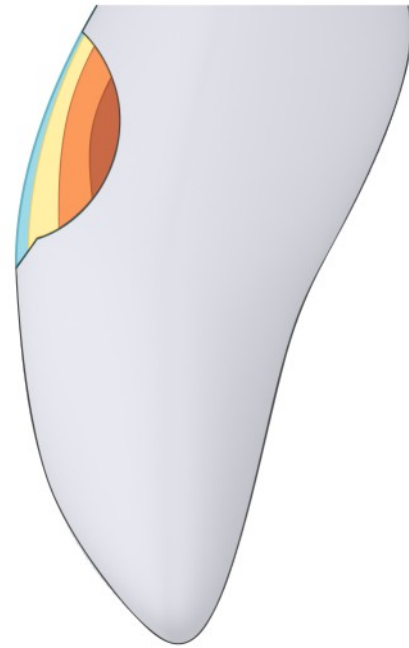
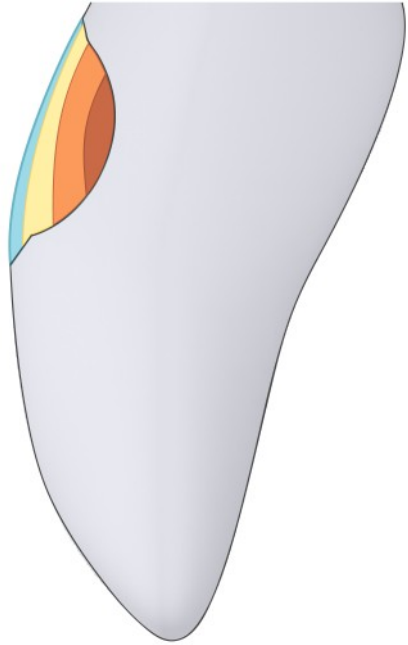
Cavity is limited on caries lesion only

Enamel must be beveled

Etching, priming + bonding

Placement of composite

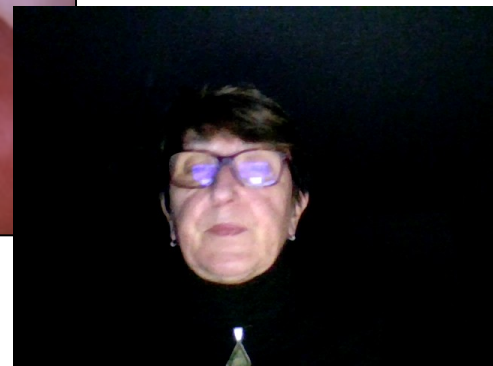




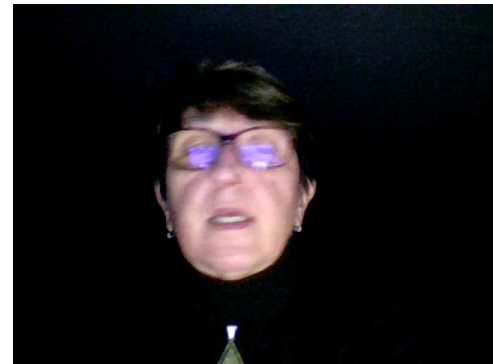
# Matrices

Transparent cervical matrices

Matrix band acc. to Belvedere



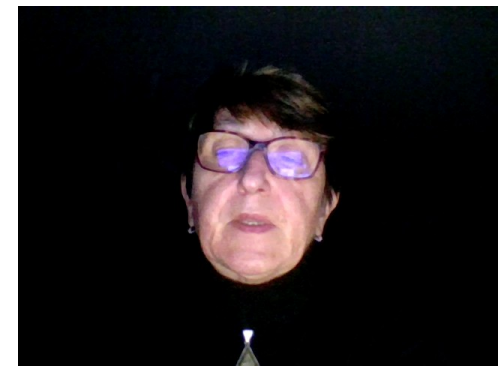






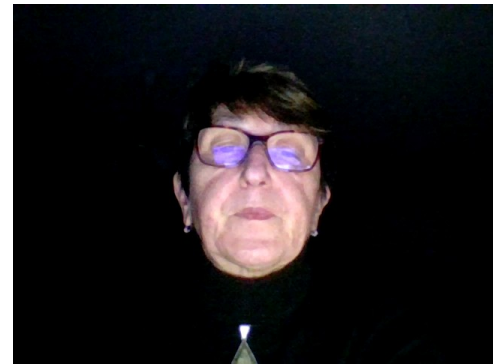
# Class V. glassionomer

- 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)



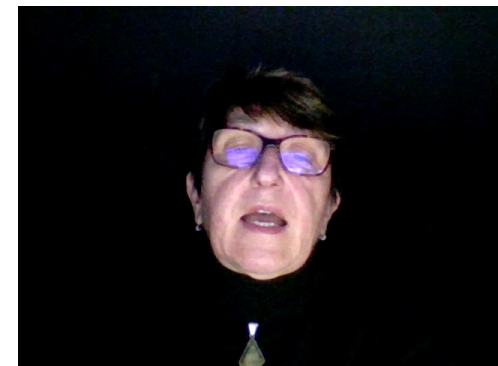






# Matrices for glassionomers

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

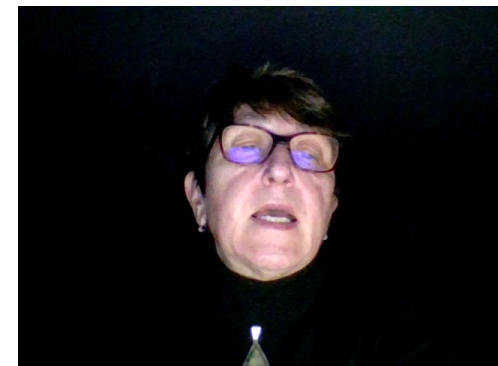


# Matrices for glassionomers

## □ Cervical foils

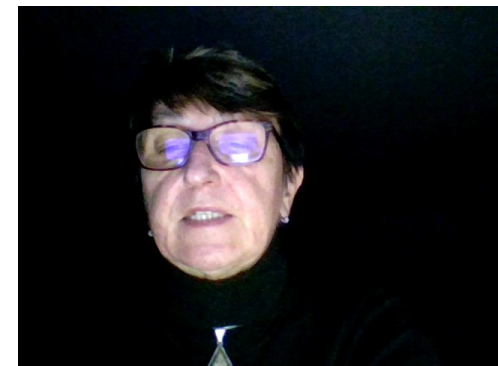


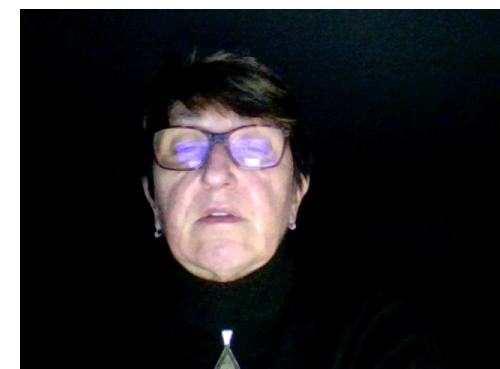
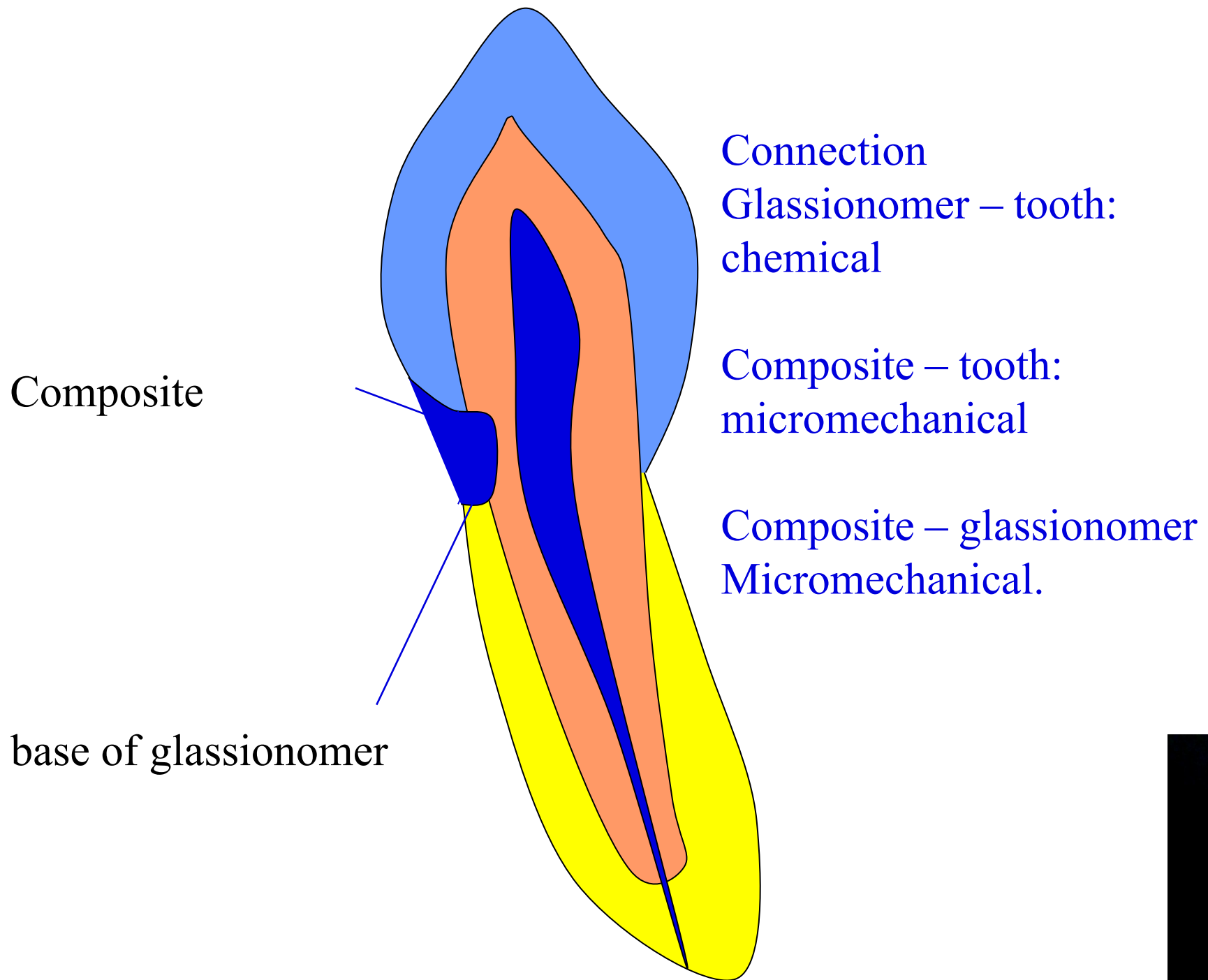
Have adaptable metal cervical matrices have a specially treated aluminium surface and are suitable for all self-curing composites and glass ionomers.



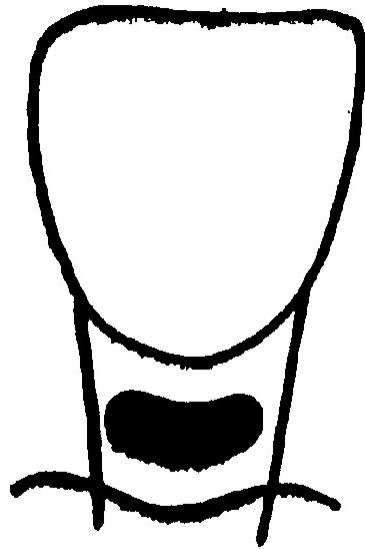
# Combination of materials

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

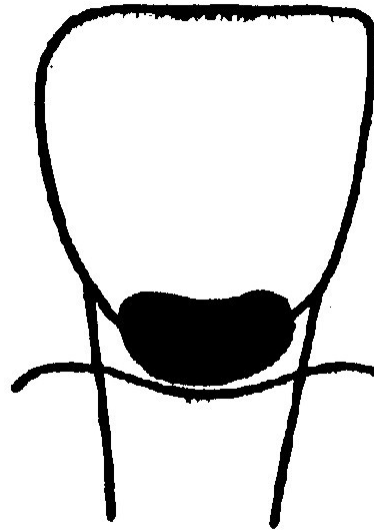




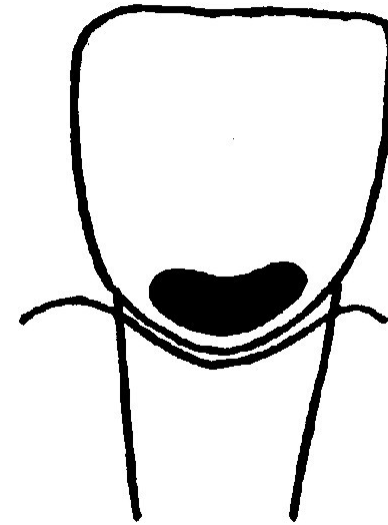
# Choice of materials



Glassionomer



Combination



Composite

Or amalgam in posterior area

