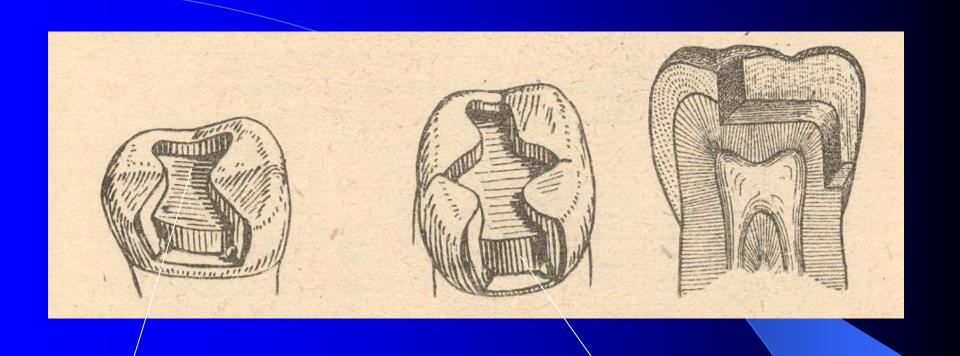
#### Class II. - modifications

Compound cavity

Slot

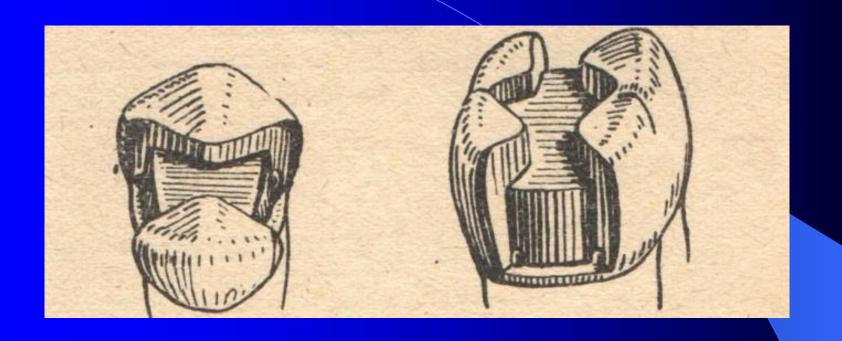
Large restoration with cusps replacement



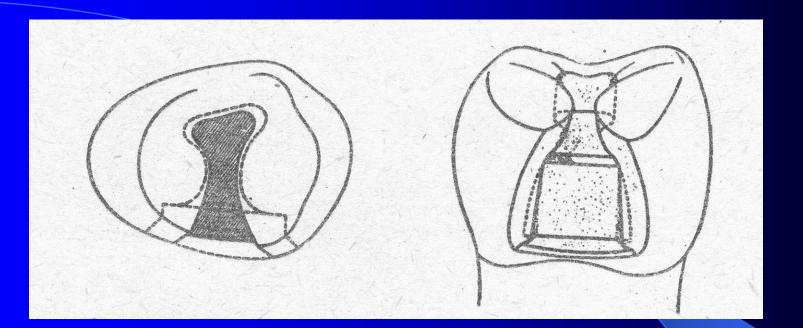
Kavita okluzální

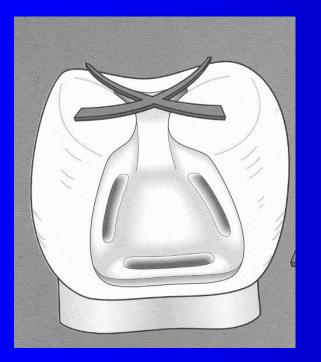
Kavita aproxim<mark>ální</mark>

MO, OD



#### MOD





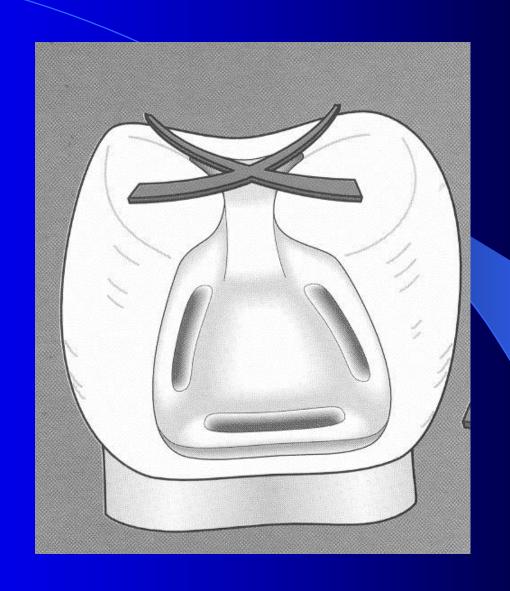
Grooves in proximal box

A groove in gingival wall

Divergency of axial wall to the gingiva

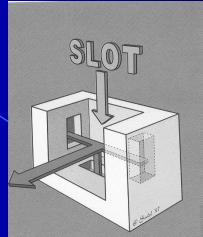


Autoretention



#### Slot preparation

- Small slot
- Limited on proximal ridge
- No large cavity on occlusal surface
- Grooves
- Divergency of proximal walls to the gingiva







#### Slot for amalgam

- Access to the caries lesion
- go through the enamel wall
- breaking out of the proximal enamellamella
- excavation of carious dentin

### Slot

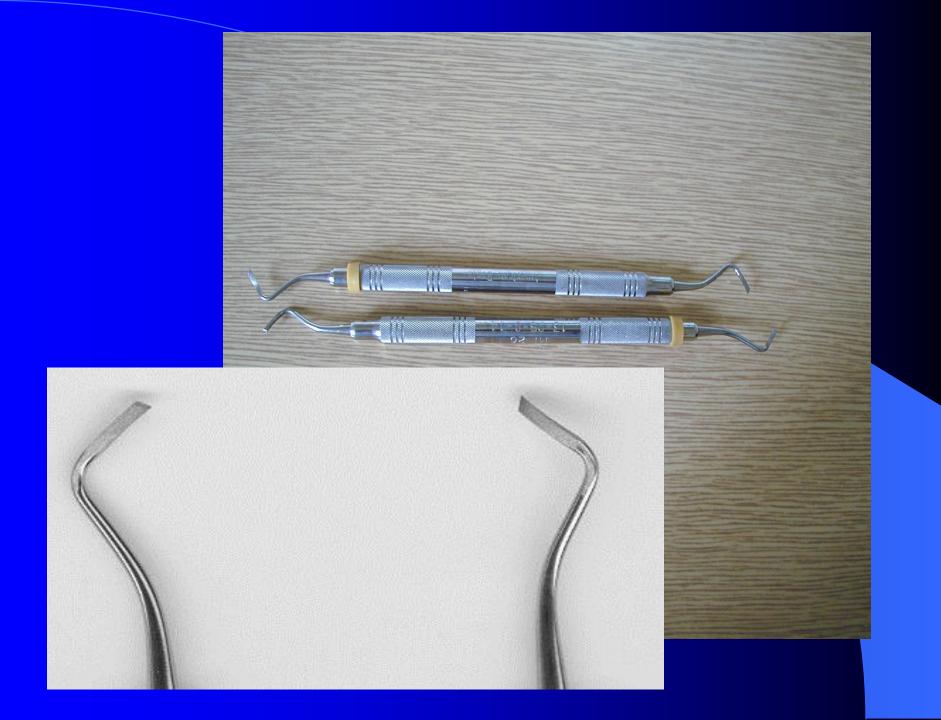
Autoretention

Rule of the gingival wall

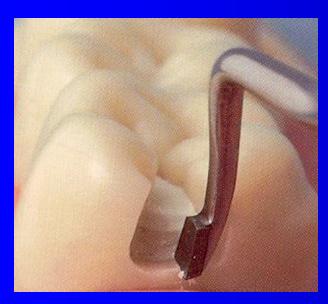
#### Slot

Rule of the gingival wall

90% angle towards the pulpal wall outer line beveled if in enamel horizontal groove







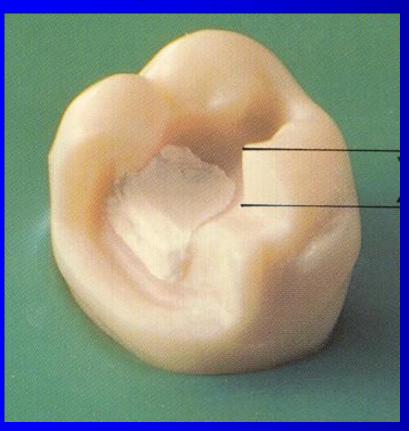


#### Slot preparation

 Indication: Small cavities, good level of oral hygiene.

 Contraindication: Large cavities, high risk of new caries lesions, bad level of oral hygiene.

# Large preparation with replacement of cusps

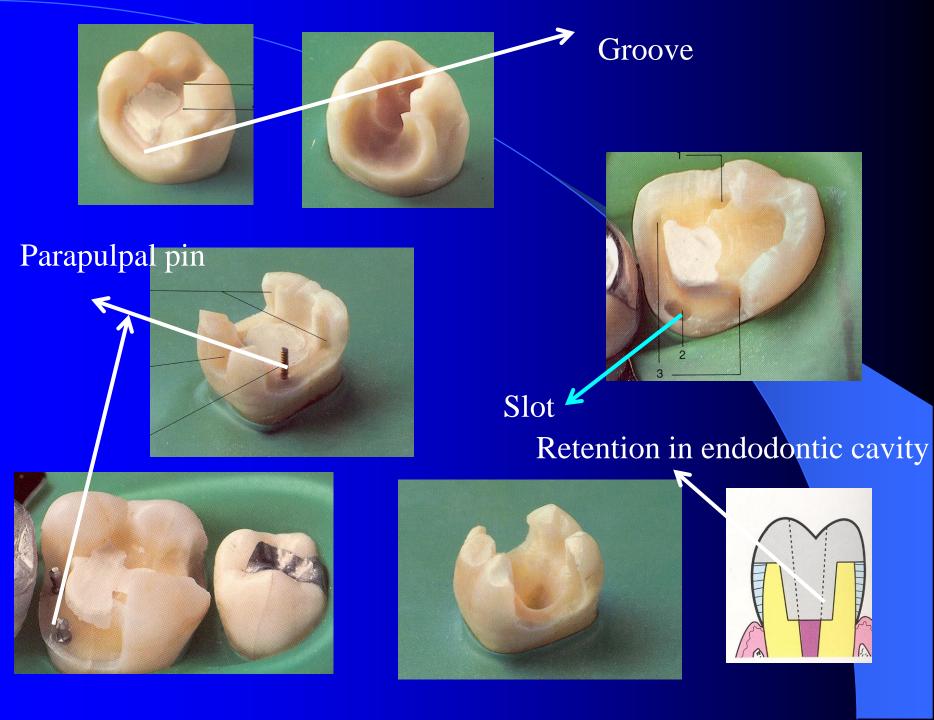


Thickness of amalgam on the cusp is 3 – 4 mm

Grooves

Pins

Slots



# Large amalgam restoration - overlays





# Composite materials and class II.

 Indication: Aesthetic reasons, small to moderate cavities, good level of oral hygiene, isolation of operating field.

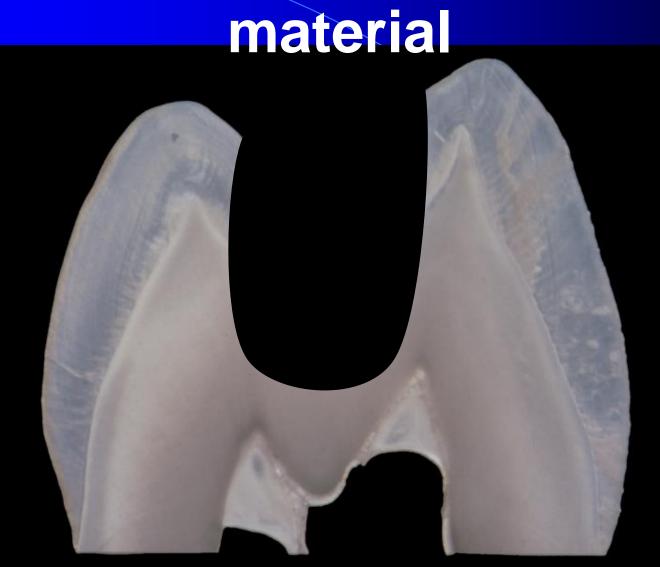
Contraindication:

Large cavities, bad level of oral hygiene, poor isolation of operating field.

### Preparation for amalgam

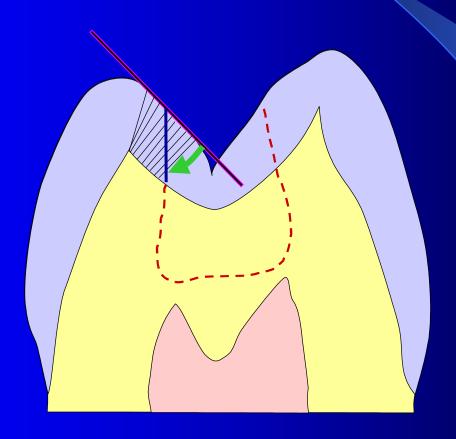


# Preparation for composite material



#### Preparation for adhesive fillings

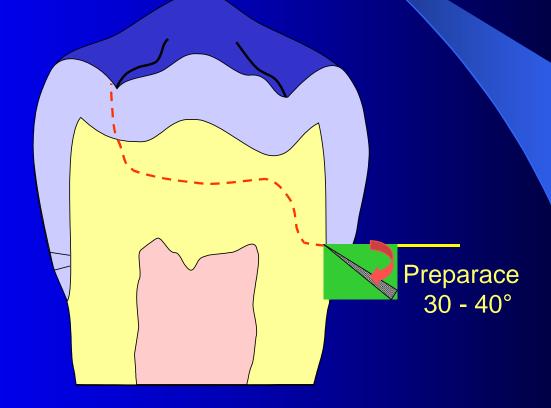
We do not bevel the cavosurface margin in occlusal cavity



#### Gingival wall

The cavosurface margin is beveled if situated in enamel The cavosurface margin is not beveled if situated out of

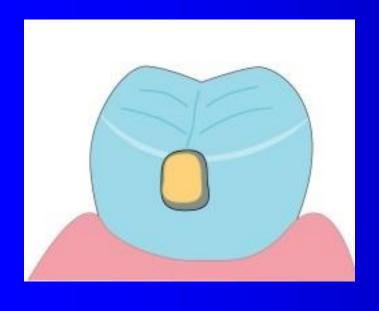
enamel

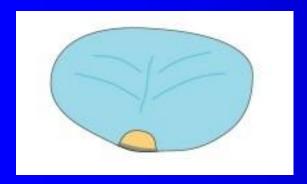


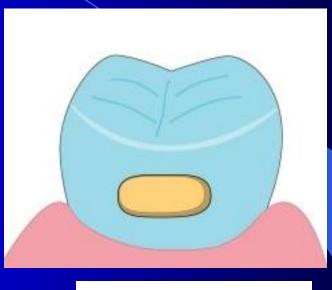


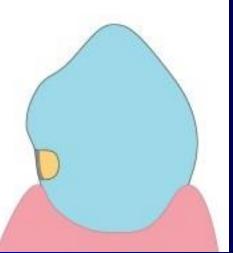


#### **Adhesive slot**









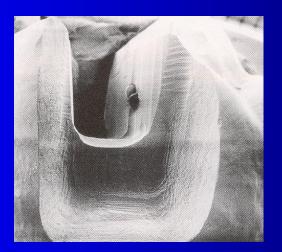
















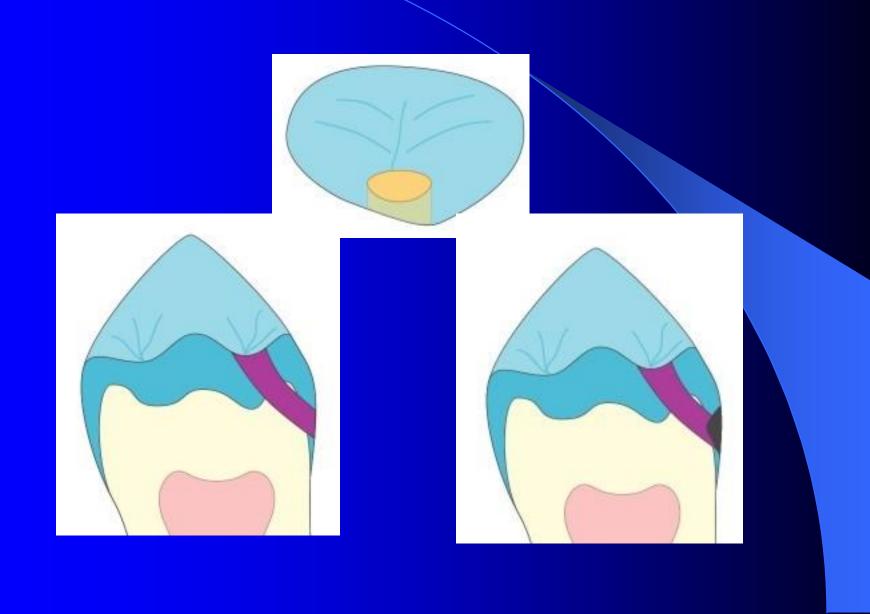








#### Tunnel preparation









#### **Small cavities**

- 1. Magnification
- 2. Small instruments
- 3. Capsulated GIC or composite
- 5. X-ray post op



#### Inlays - class II.

- Rigid fillings made in dental lab
- Luting into prepared cavity using cements.

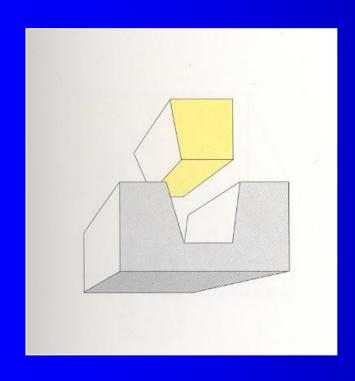
- Material:
- Metal alloy (usu golden)
- Comosite material
- Ceramics

### Inlays - class II.

Indications:

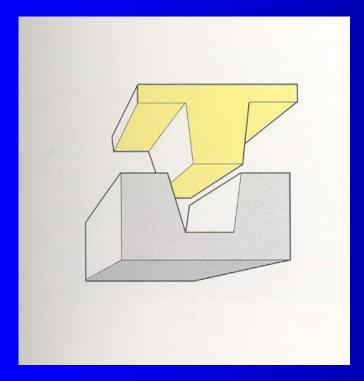
- Large defects
- Low risk of new caries lesions

### Inlay



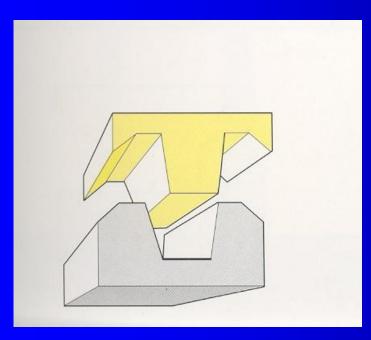


## Onlay





### Overlay

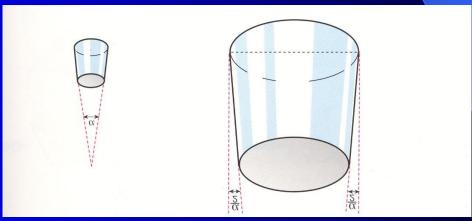




#### Geometry of preparation

- Strict extension for prevention
- No undecuts, no grooves
- The walls are divergent to the occlusal surface !!!

The angle 6 – 15°



#### Preparation

- For inlays made of the metal alloy the cavosurface margin must be beveled.
- The depht of preparation when metal alloy is used must leave the space for inlay1,5 mm
- For inlays made of composite or ceramics the cavosurface margin is not beveled, the thickness of the material must be appr. 3mm.

All this rulea are important for resistance

# For inlays the impression must be taken

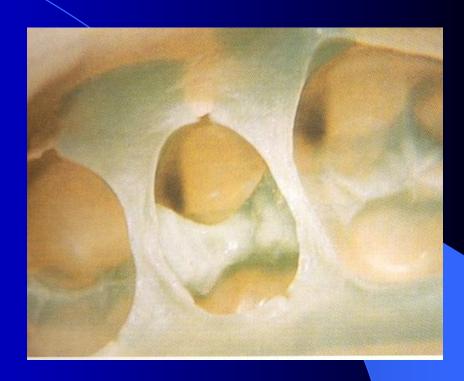
Elastomeric materials

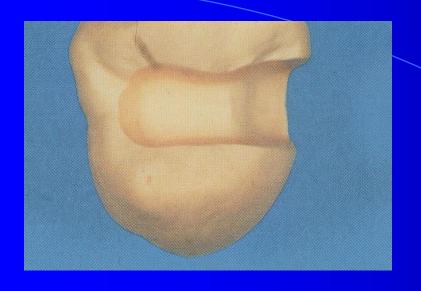
Register of intermaxillary relations

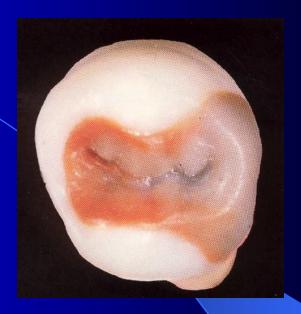
impression of the antagonal dental arch – alginate material.

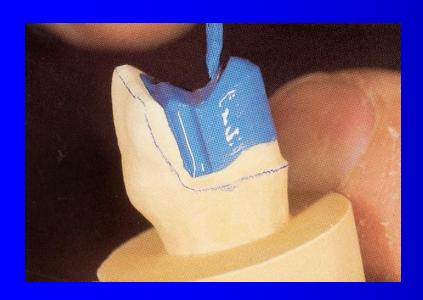








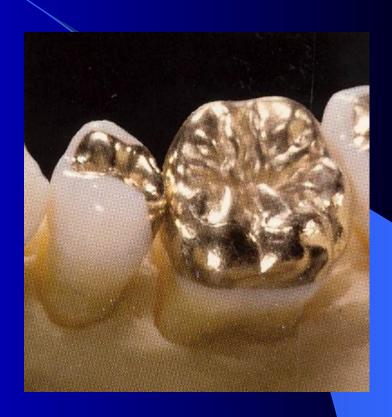




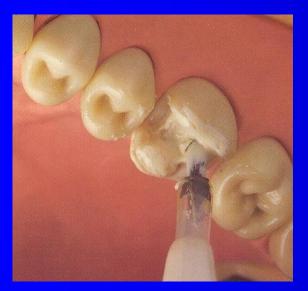








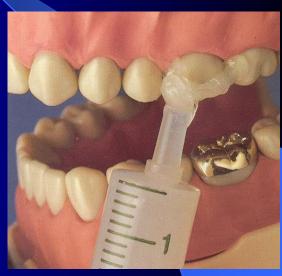
#### Cementation of metal inlays - zinkoxidphosphate cement

















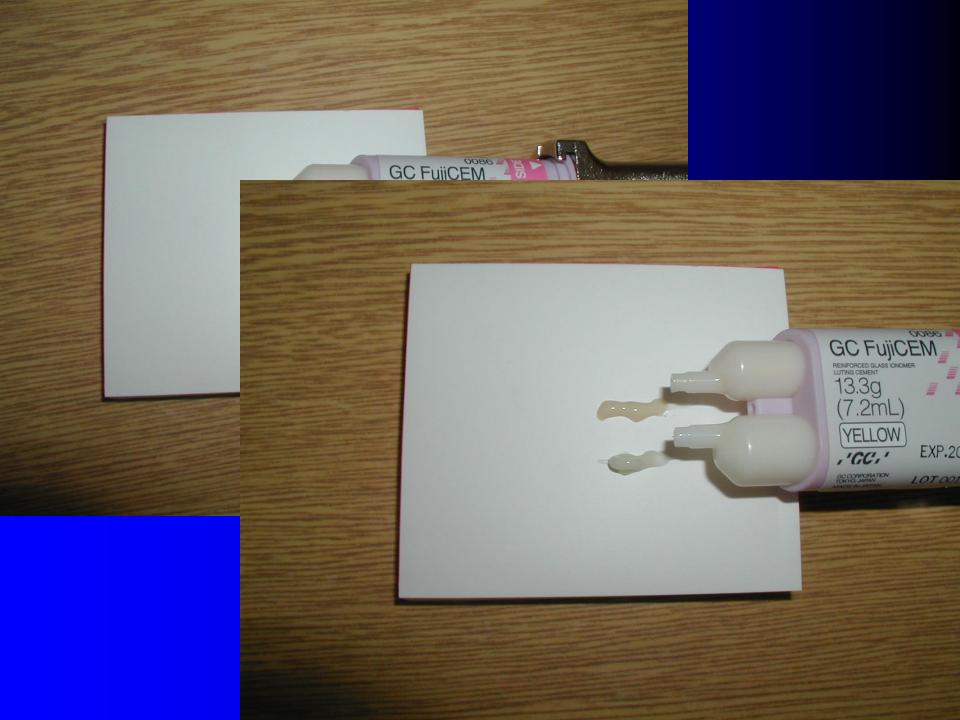




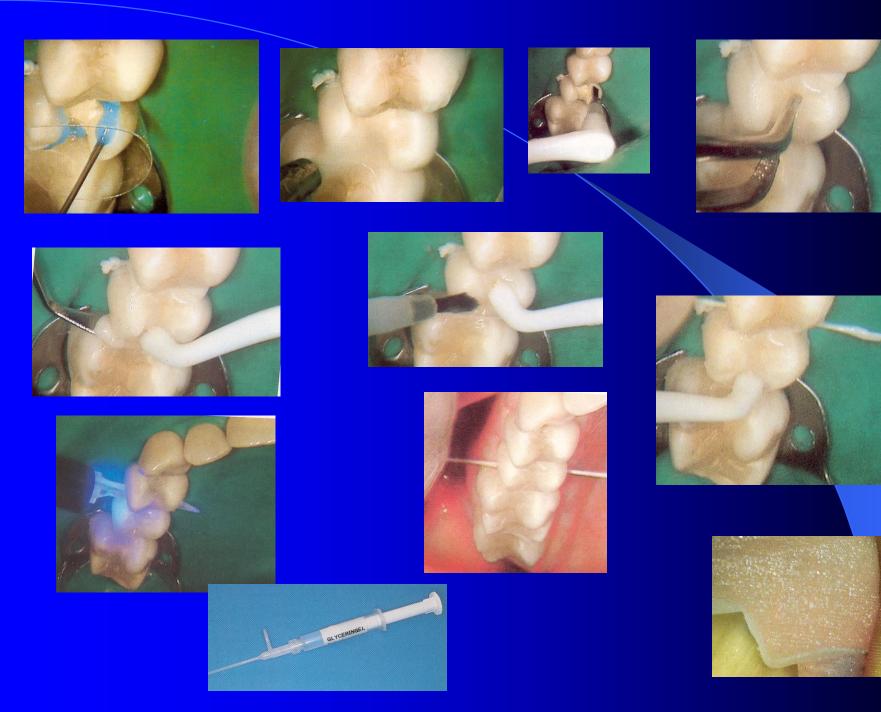
# Cementation of composite or ceramic inlays – adhesive cements

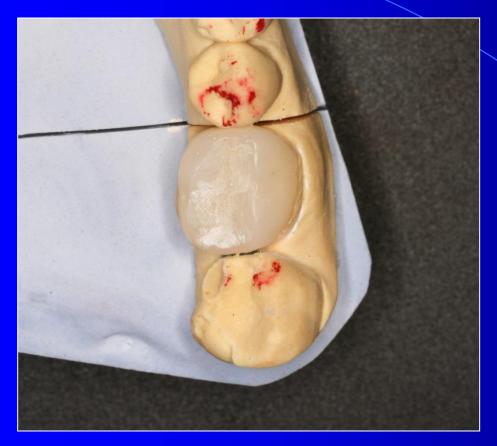
 These cements are based on composite material.















lenka.roubalikova@tisc ali.cz