

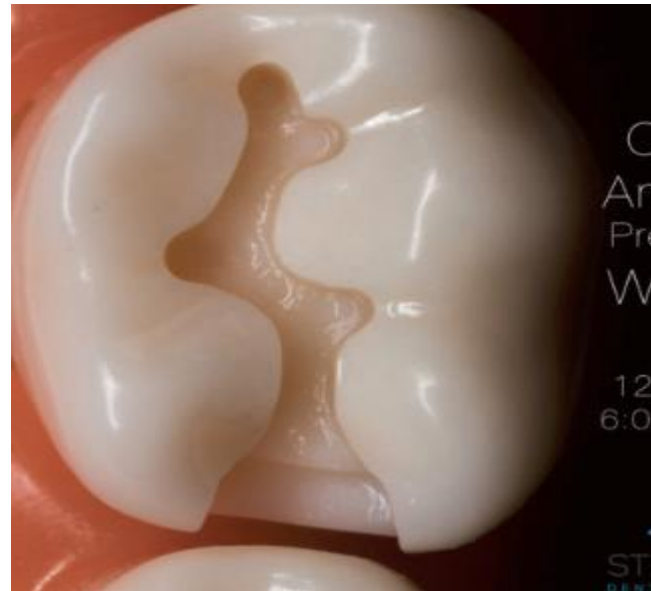
# CL II Amalgam restoration

Preparation involving the proximal surfaces of posterior teeth are termed cl II ▶  
involving:

Two surface cavity for posterior teeth ▶

Three surface cavity ▶

Three surface cavity or more.... ▶



# Step one :outline form and initial depth

- Width of the facio-lingual walls of the cavity  $\frac{1}{4}$  inter cuspal distance ▶
- Preserving marginal ridge strength (2mm thickness ) ▶
- Depth of the preparation into dentin should be 1.5 -2 mm . ▶

# Step 2: resistance form

Shape of cavity that prevent fracture of remaining tooth structure and restoration this included : ▶

Factor prevent fracture of the tooth ▶

1-width not exceed  $\frac{1}{4}$  inter cuspal distance ▶

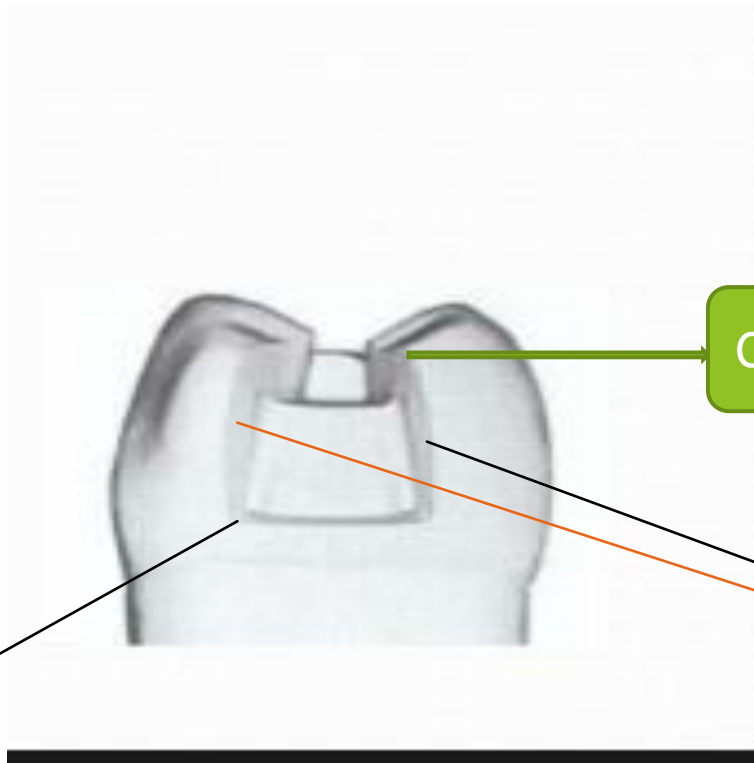
2-removal unsupported enamel by making the margin (90-110) ▶

3-smooth pulpal floor and gingival seat to prevent stress concentration area. ▶

4-mesial and distal walls should be parallel and slightly diverge occlusally to be with in enamel rod direction and prevent unsupported enamel. ▶

5-all internal line angel should be round to prevent stress area. ▶

6-rounded gingival cavo-surface line angle. ▶



Cavo-surface line angle 90-110

Facio-lingual walls converge occlusally

Rounded internal line angle

# Step 3 :retention form

Shape of cavity that permits the restoration to resist displacement through the tipping or lifting force. ▶

To provide retention the cavity have the following : ▶

Facial and lingual walls should be parallel to each other or converge occlusally. ▶

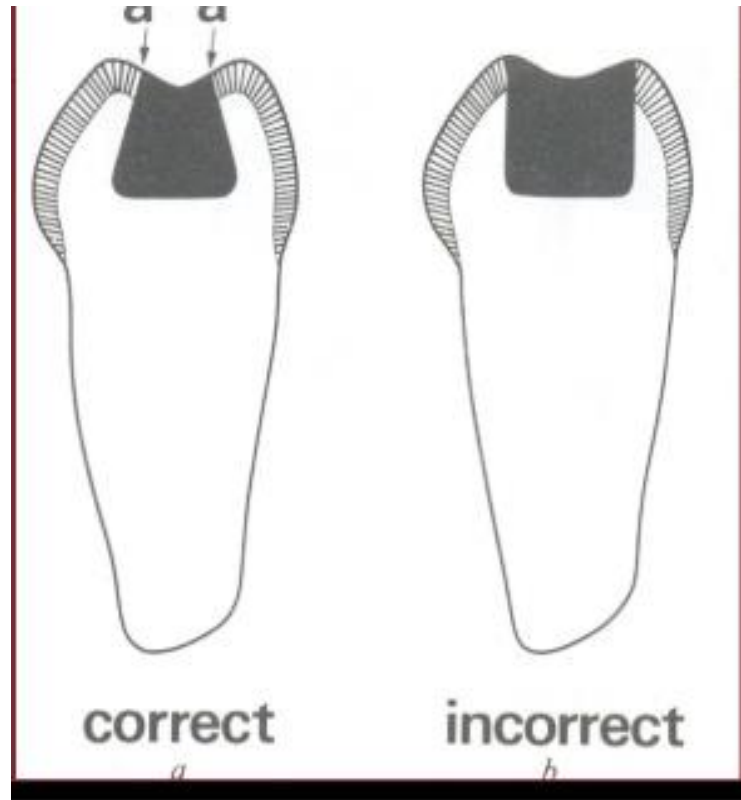
Flat pulpal floor and gingival seat ▶

Dove-tail preparation to increase retention ▶

Width of the cavity ▶

Occlusal convergence of the box ▶

Retentive grooves in the axio-facial and axio-lingual line angle. ▶



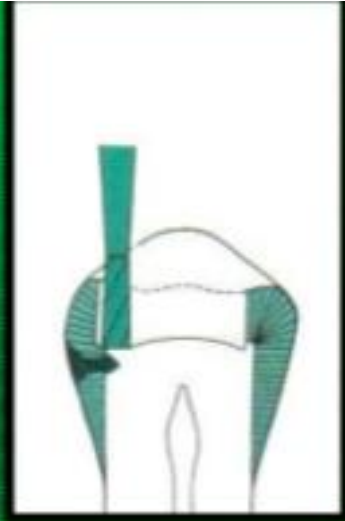
# Proximal outline form (proximal box)

Include all caries existing restorative material ►

Removal unsupported enamel ►

Establish not more than 0.5 mm clearance with the adjacent proximal surface ►

The initial procedure in preparing the outline form of the proximal box is the isolation of the proximal enamel by the proximal **ditch cut** this is very important procedure in conservative tooth preparation . ►



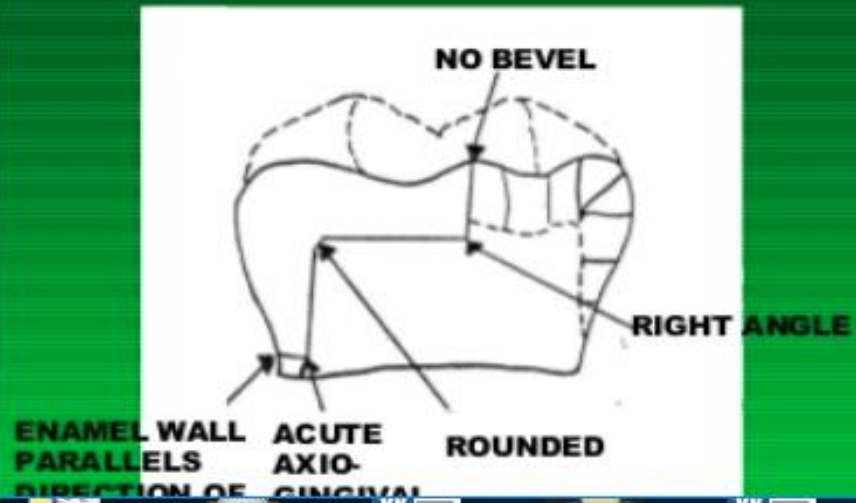
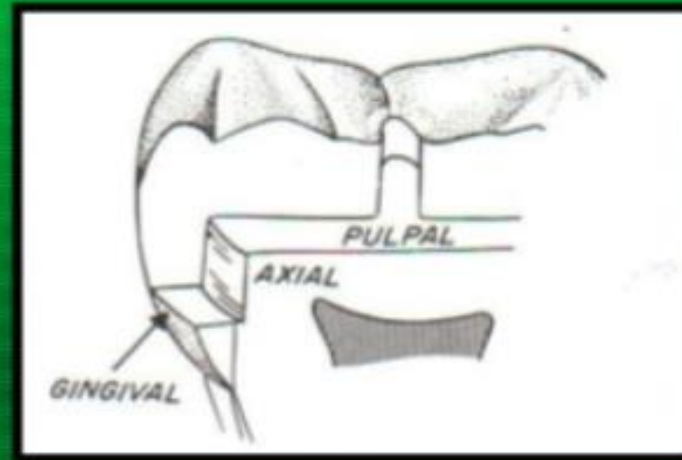
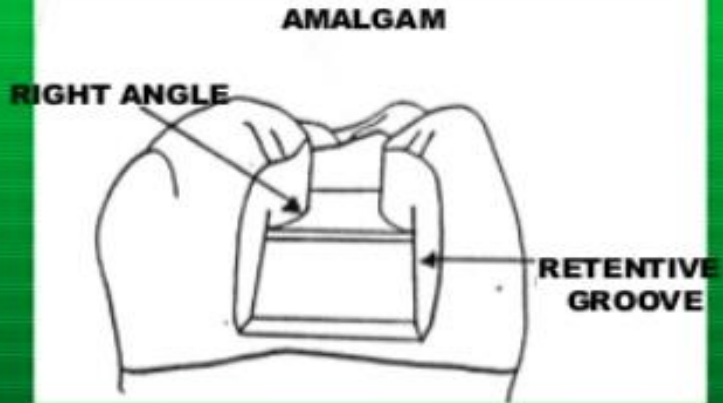
**MAKE A DITCH, VERY CLOSE TO CONTACT, ENTERING HALF OF THE 245 BUR (245 BUR IS 3 MM LONG). THE REQUIRED DEPTH OF PULPAL FLOOR IS BETWEEN 1.5 TO 2 MM. THE BUR MUST NOT STOP ROTATING WHILE CUTTING IN THE CAVITY.**



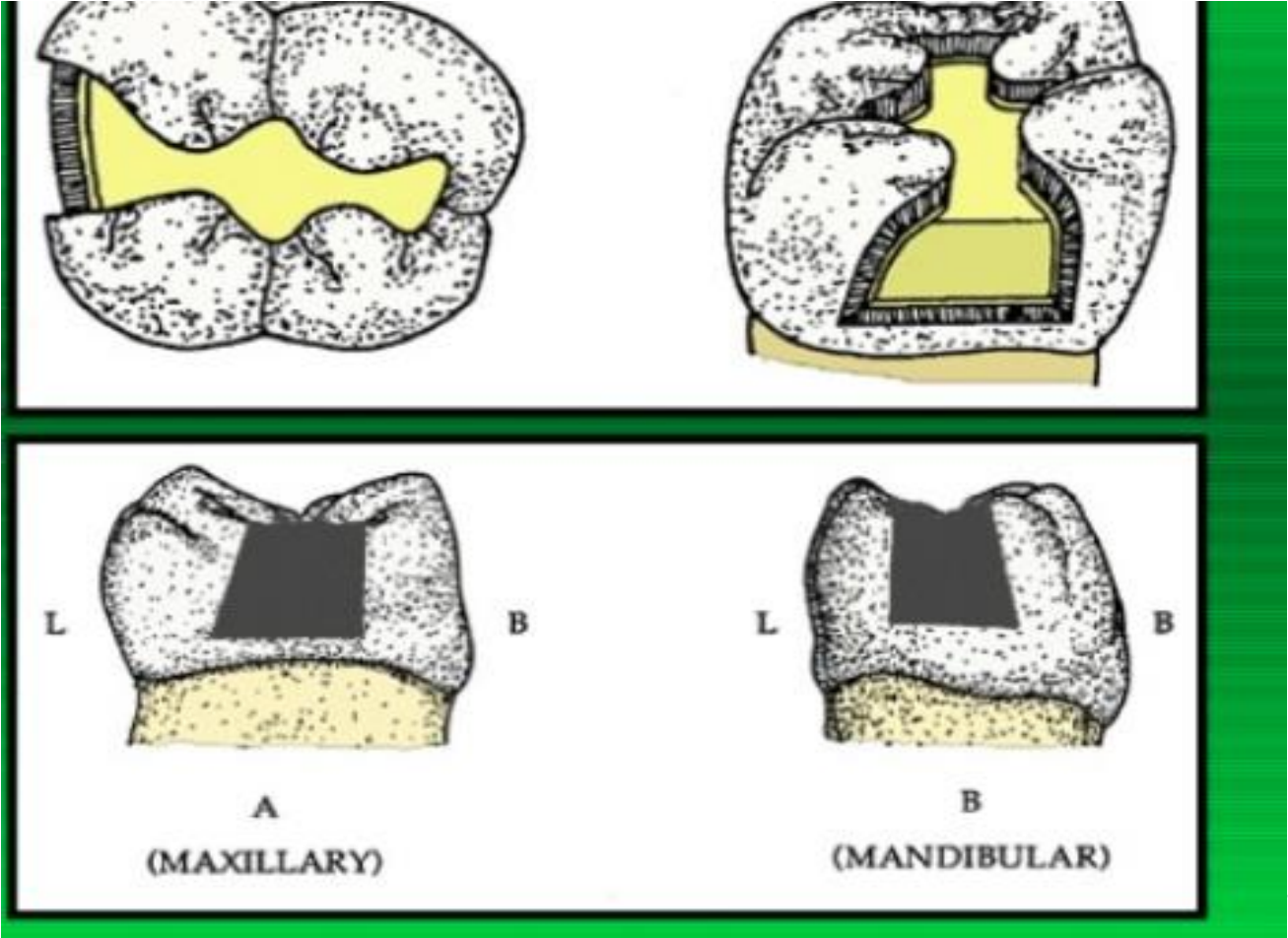
**POSITION THE BUR IN THE PULPAL FLOOR NEXT TO REMAINING MARGINAL RIDGE. MOVE THE END OF THE BUR TO CUT A DITCH GINGIVALLY ALONG THE EXPOSED DENTINOENAMEL JUNCTION. THIS WILL CUT 0.5 MM INTO DENTINE AND 0.2 TO 0.3 MM INTO ENAMEL.**



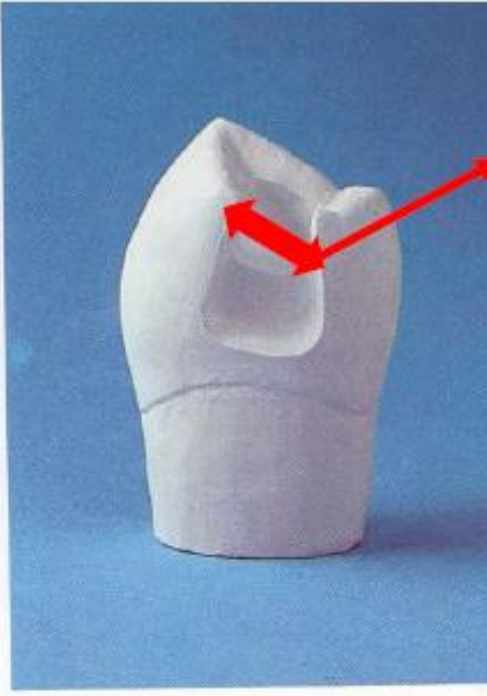
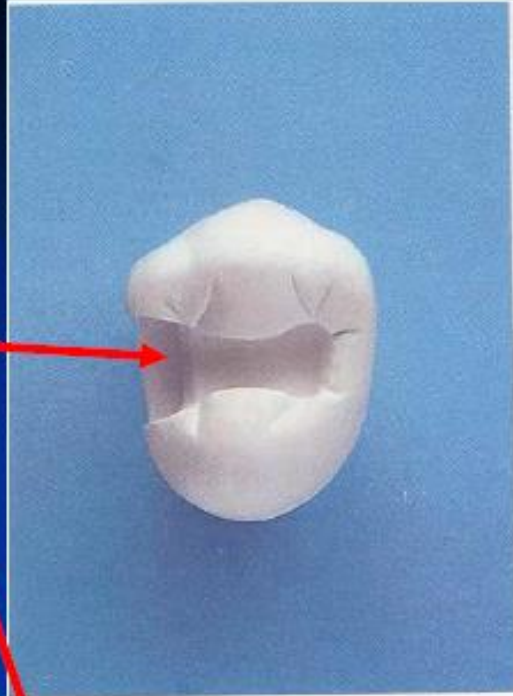
# VARIOUS WALLS CREATED DURING CLASS II PREPARATION



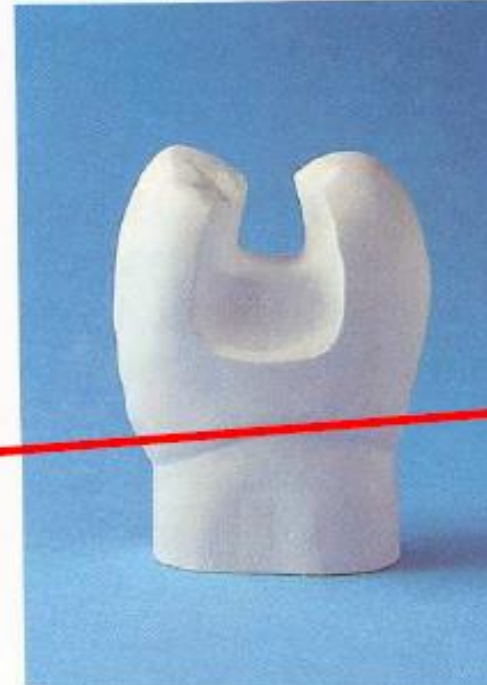
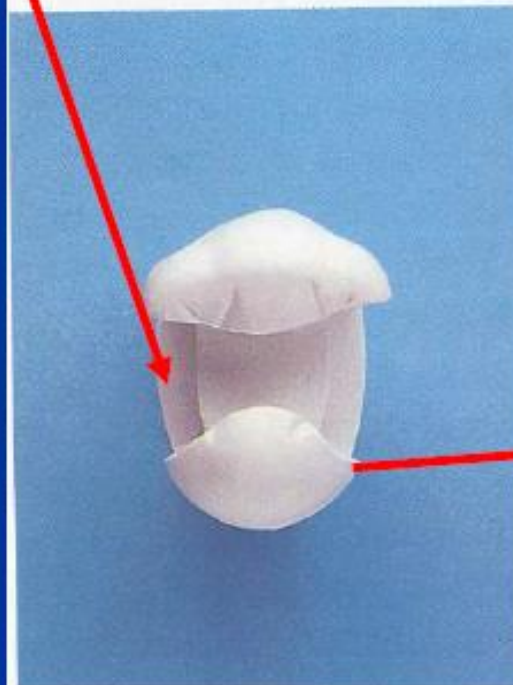
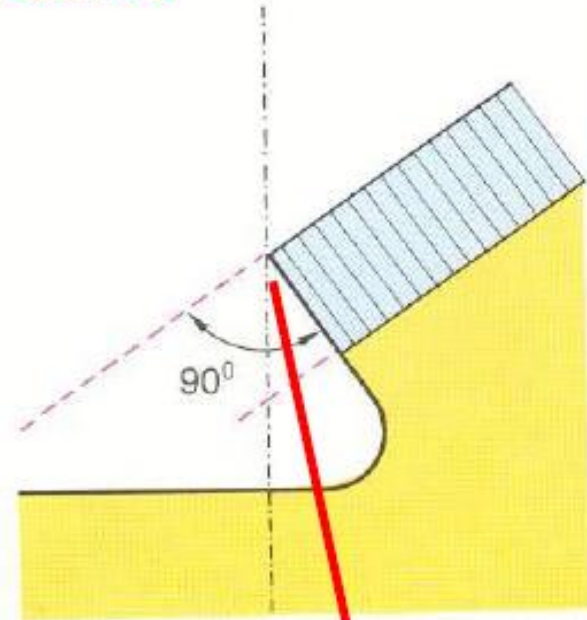
# Ideal CLII outline form



G. wall

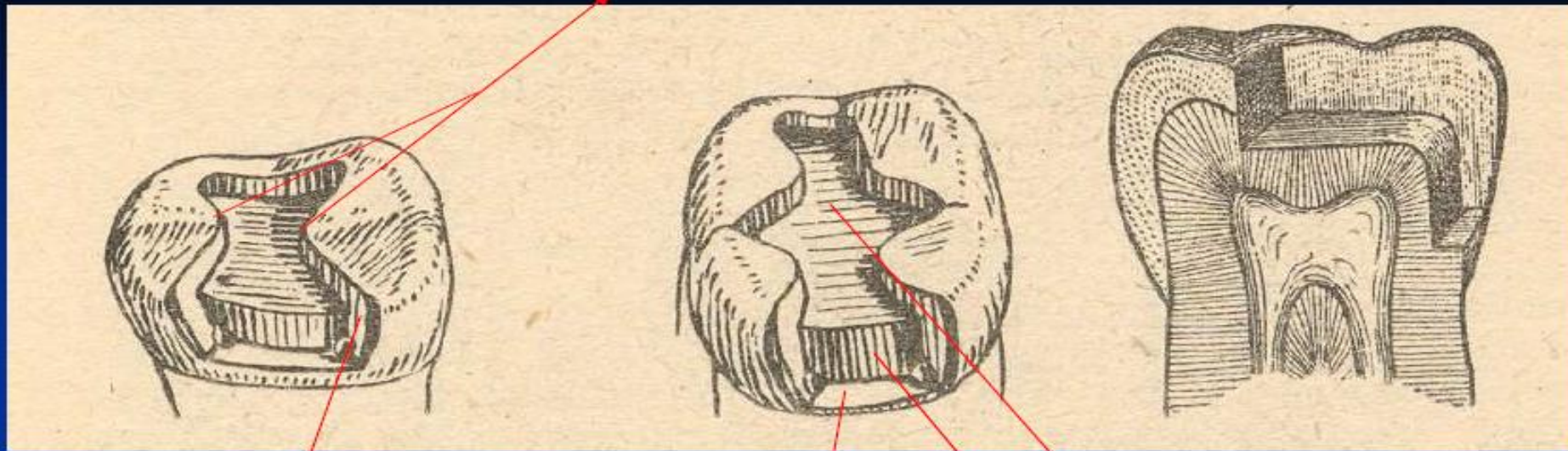


Isthmus



Cavosurface angle

Isthmus



Axial wall

Gingival wall

Pulpal wall

# Matrix placement

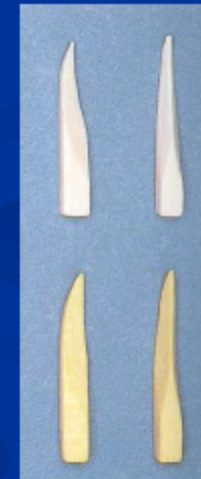
- Matrix primarily is used when a proximal surface is to be restored

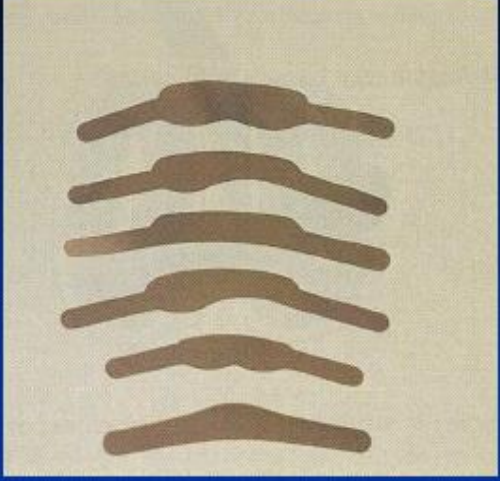
The objectives:

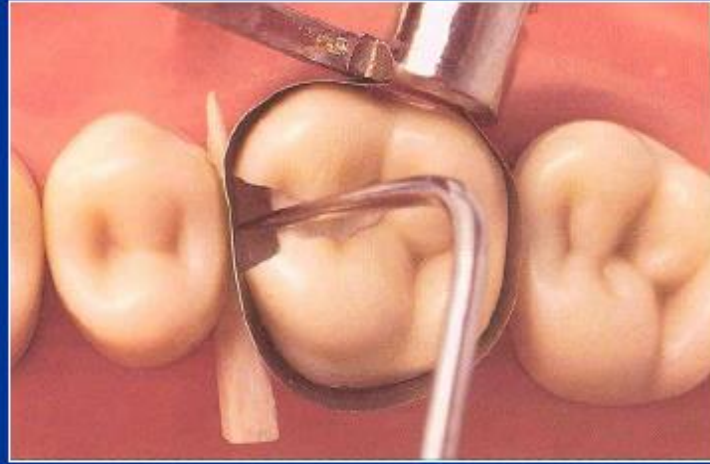
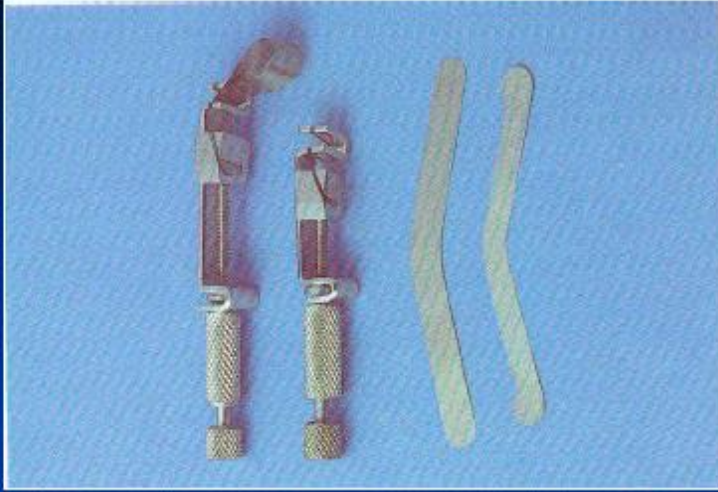
- Provide proper contact
- Provide proper contour
- Confine the restorative material
- Reduce the amount of excess material

# Wedges

- Wooden wedges
  - tighten the matrix band
  - compress the gingiva
  - separate the teeth







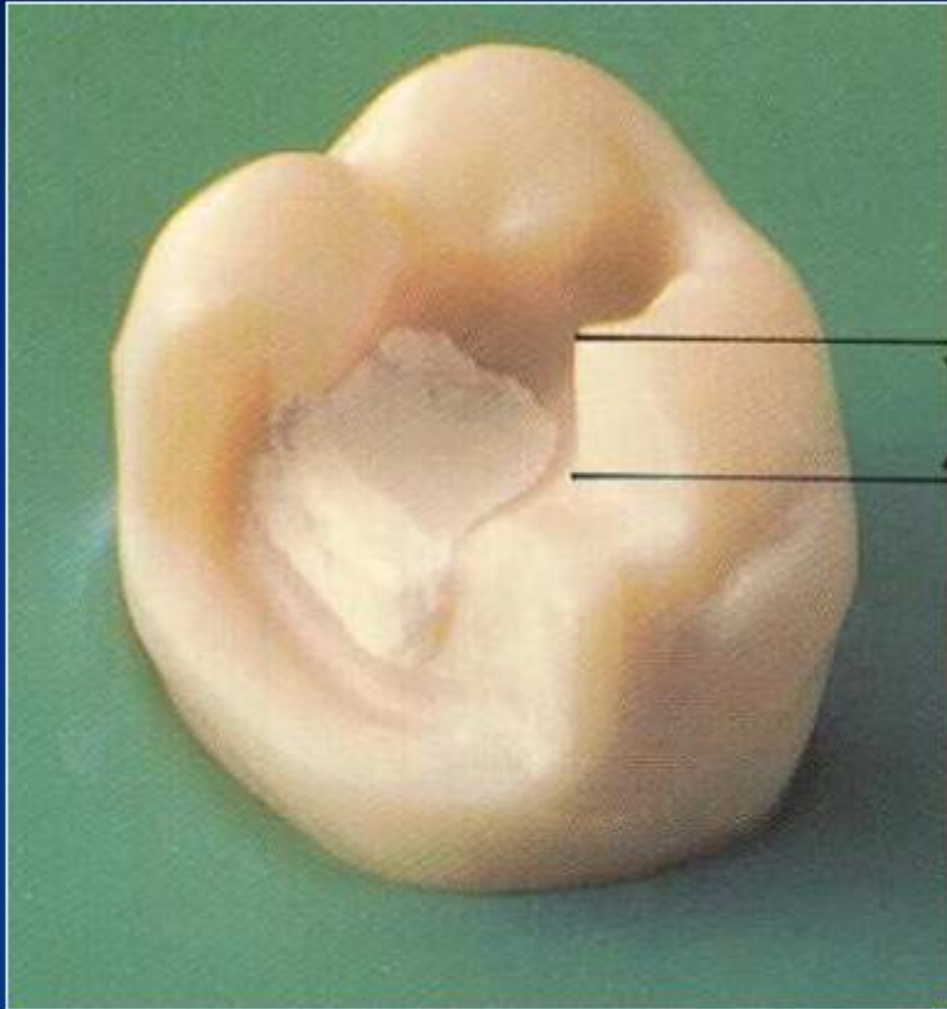


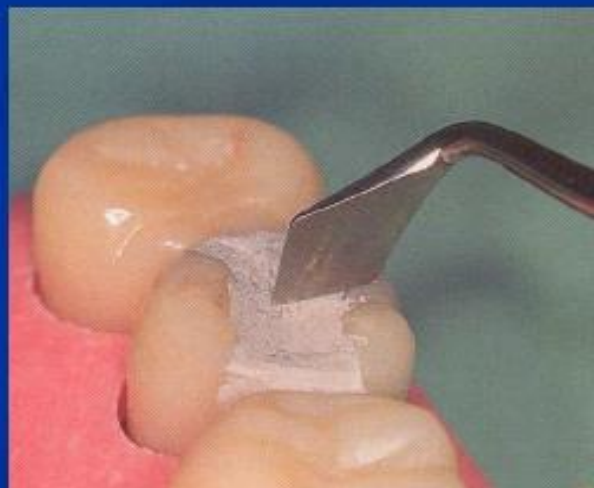


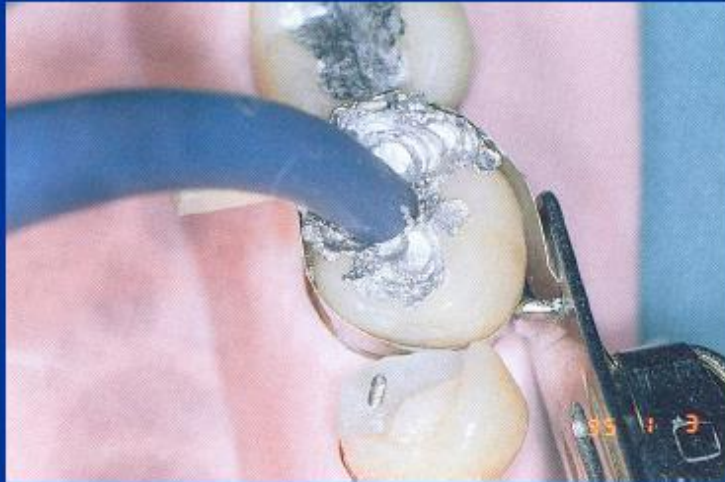
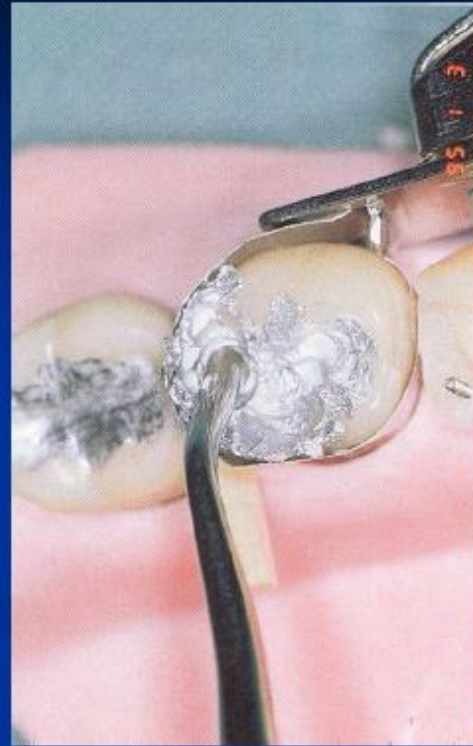
# Base

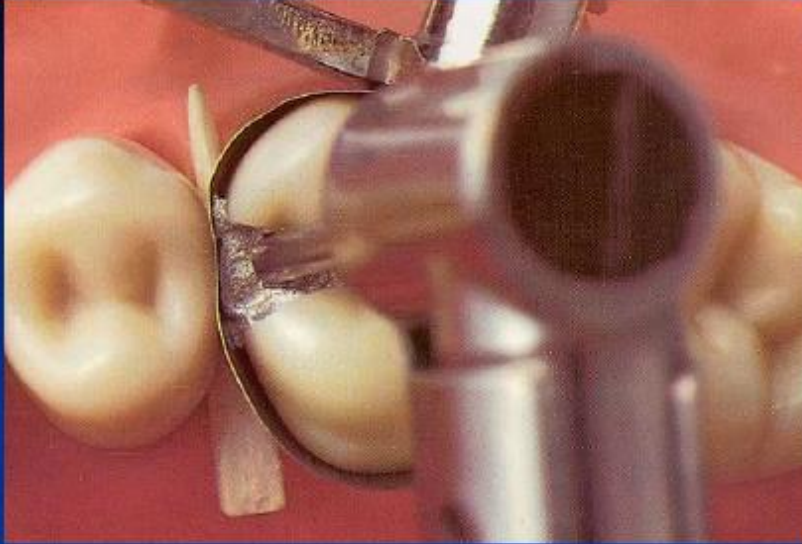
- Zinkoxidphosphate cement
- Zinkoxidkarboxylate cement
- Glass ionomer cement
- Zinkoxideugenol

On pulpal walls only!















**Thank you** ▶