

Prosthetic IVa.

Fixed dentures

Fixed dentures

- Restore the form (and function)
- Cemented on (in the) prepared teeth
- Can not be removed

Bridges

- Abutments (crowns on abutment teeth)
- Pontic

Various size:

3 members bridges, 4 members bridges, 5 members... etc

The member: abutment or pontic.

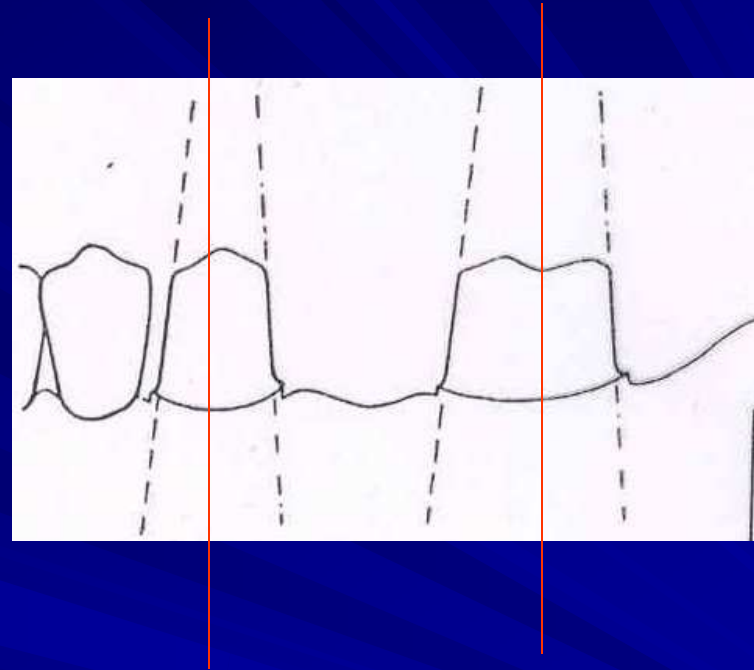
Bridges

■ Abutments are

Full metal crown

Facet crown

Metalceramic crown



The axis must be parallel

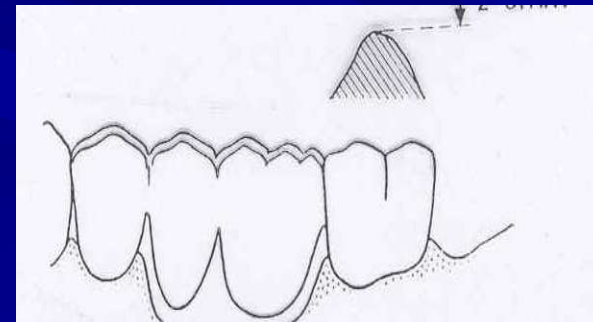
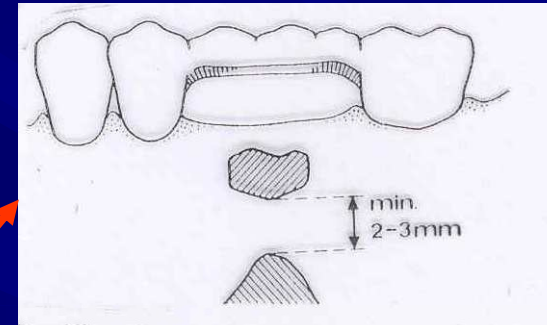
Bridges

■ Pontic

Full metal

Facet

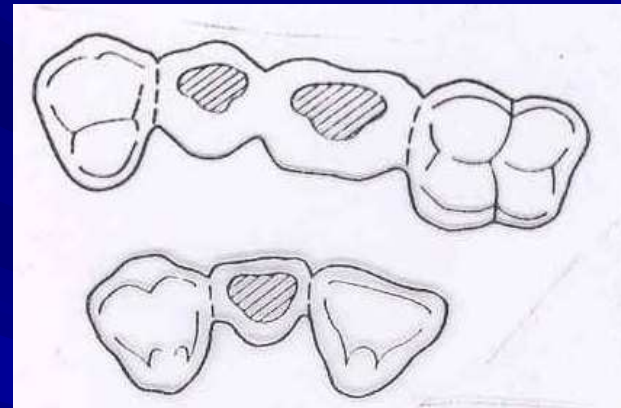
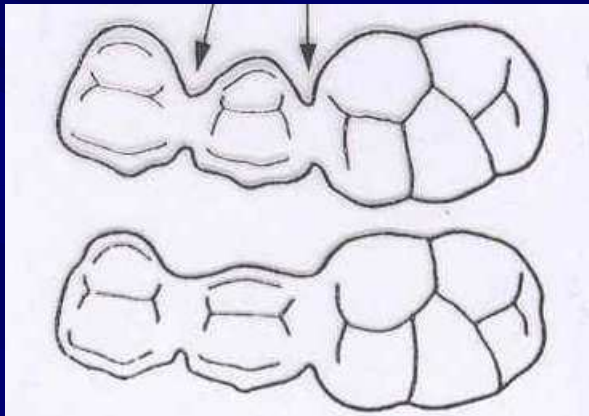
Metalceramic

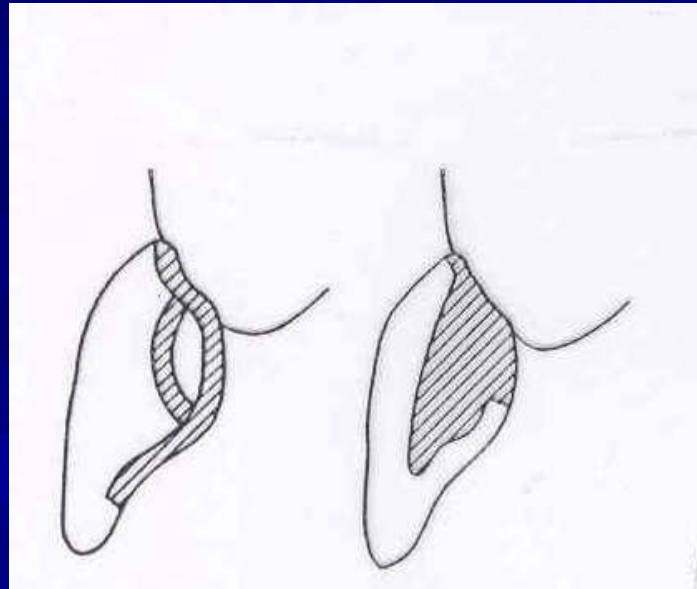
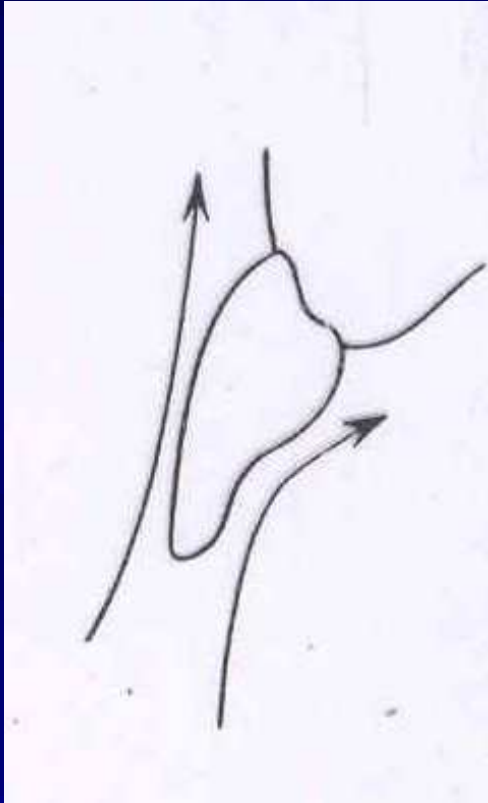


Self cleaning bridge (sanitary bridge)

Contact pontic

Reduction - the area that is in contact with gingiva $\frac{1}{3}$ of the occlusal size.
Occlusal reduction depends on number of members
from 10 – 30% reduction.





Preparation

- Preparation grooves
- Occlusal reduction
- Vestibular reduction
- Oral reduction
- Proximal reduction
- Finishing and polishing

Preparation

- The long axis of each abutment tooth must be parallel.

If not the cementation would not be possible.

Manufacturing procedure 1.st phase in dental office

- Taking impression – elastomers
- Antagonal impression)alginate
- Occlusal impression – bite registration
(intermaxillary relationship)
- Provisional treatment

Manufacturing procedure

1.st phase in dental lab

- Plaster model– the dental arch is made of ultrahard gypsum, the base of a stone.
- The model is divided after application of guide pins
- The antagonal model of stone
- Mounting to the articulator (simulator)

Manufacturing procedure

1.st phase in dental lab

- The wax pattern of the metal framework is manufactured
- Casted (the method of lost wax)
- Adapted on the model

Manufacturing procedure 2.nd phase in dental office

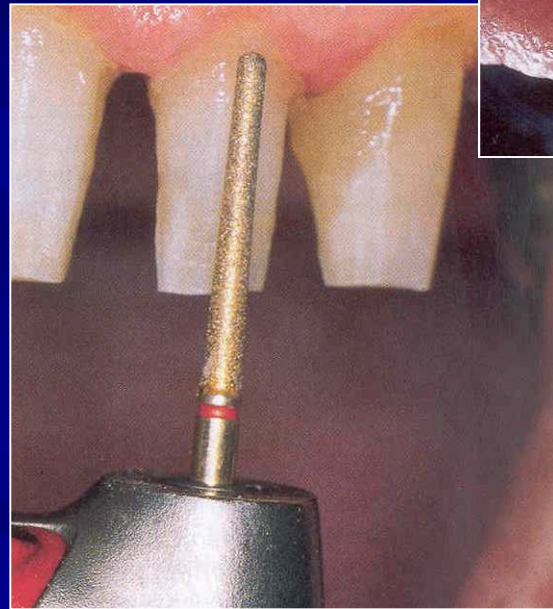
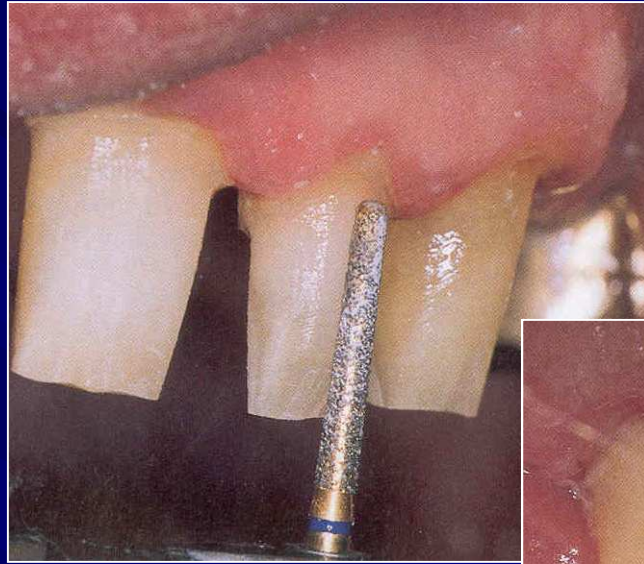
- The framework is tried out
- The colour of veneering material is chosen

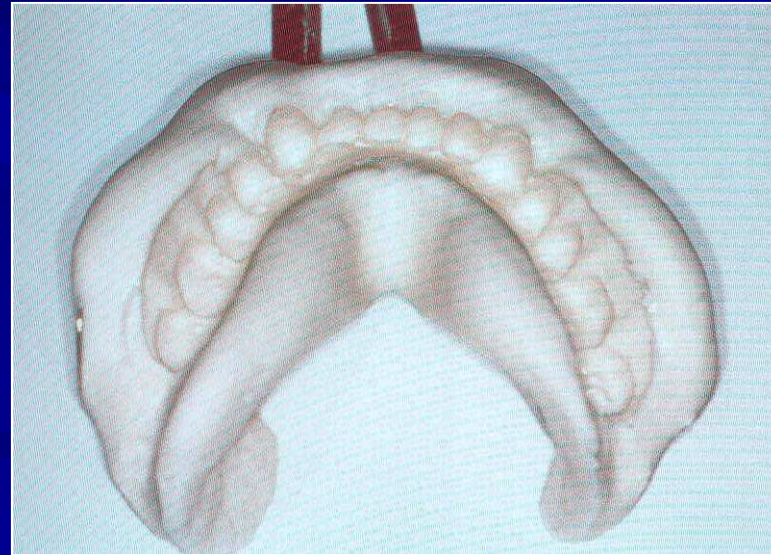
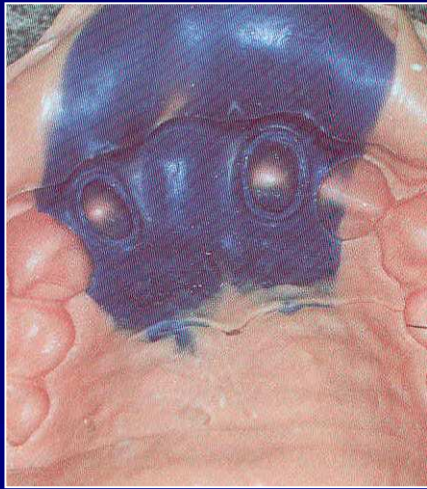
Manufacturing procedure 2.nd phase in dental lab

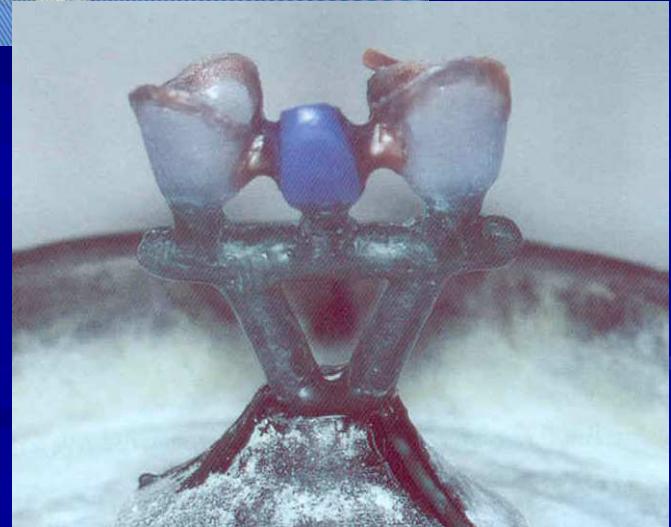
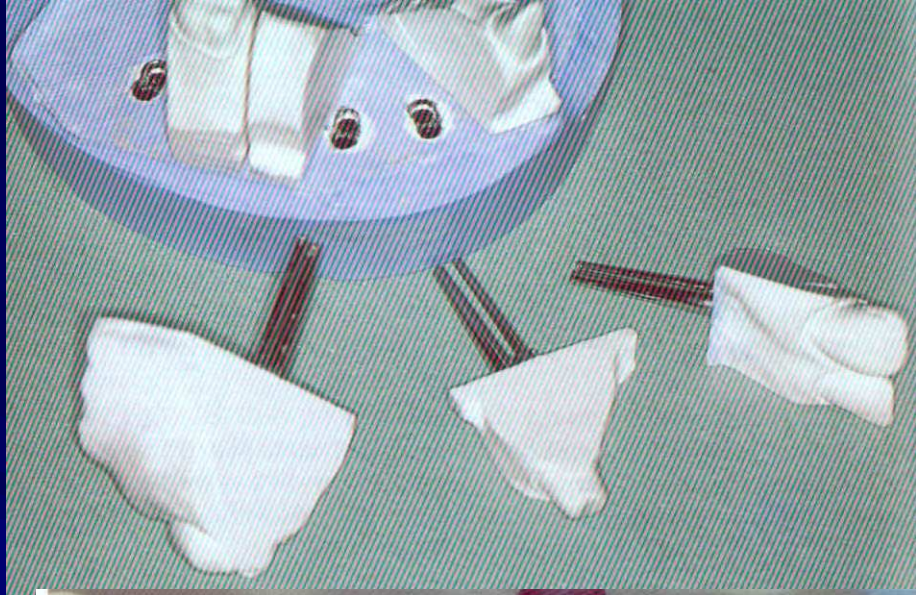
The veneering material is applied on the framework and polymerized or burnt (ceramics).

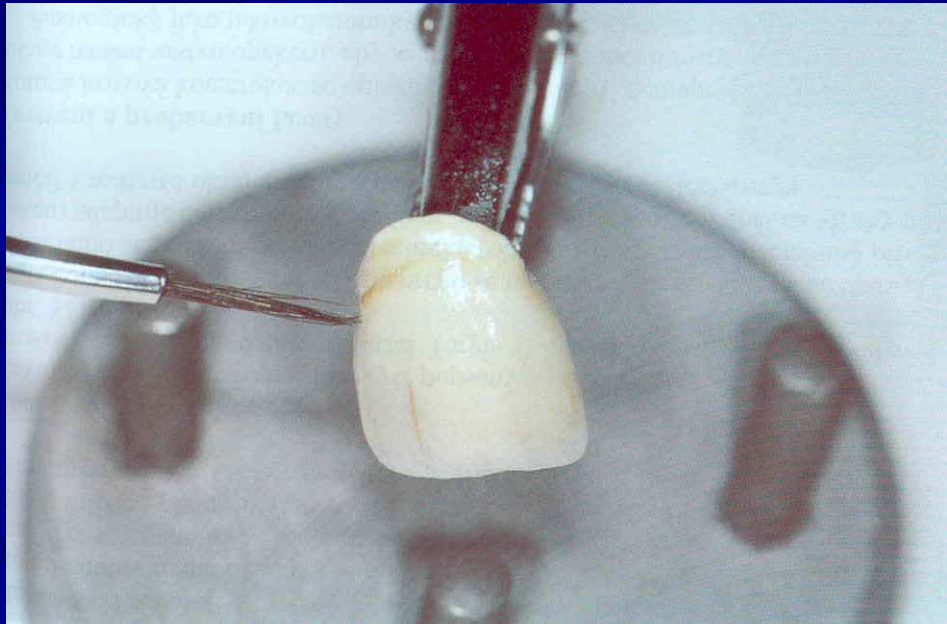
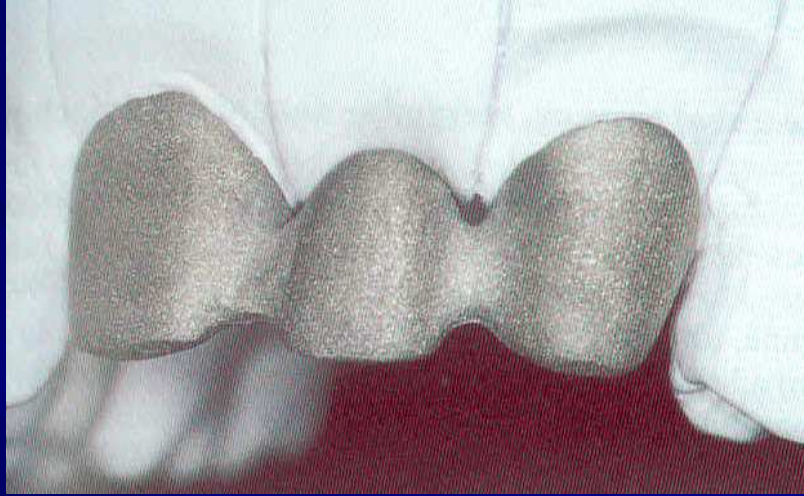
Manufacturing procedure 3.rd phase in dental office

- The denture is tried out
- Cemented
- (zinkoxidphosphate cement, glasionomer or composite)









Temporary prosthetic treatment

- Protection of prepared teeth – dentin wound
- Keeps the abutment teeth in their position
- Other reasons
 - Correction of the intermaxillary relations
 - Aesthetics
 - Disorders of TMJ

Material

- Acrylic resin – dental lab
- Special resins for direct fabrication in oral cavity

Sequence of operations

I.st phase in dental office

- Taking the impression using the alginate impression material (both dental arches)
- Intermaxillary relations - wax

1st phase in dental lab

- Pouring the impressions
- Plaster /mix of plaster and stone
- Modelling of the temporary of the wax (pink modelling wax)
- Putting of the wax pattern into the flask
- Replacement the wax with resin dough
- Polymerization

II.nd phase in dental office

- Cementation using the temporary cement

Direct fabrication of the temporary crown or bridge

- Impression before the preparation
- Preparation
- Mixing of the special resin
- Filling of the impression
- Application on prepared teeth – the temporary is being formed
- Finishing and polishing
- Cementation using the temporary cement