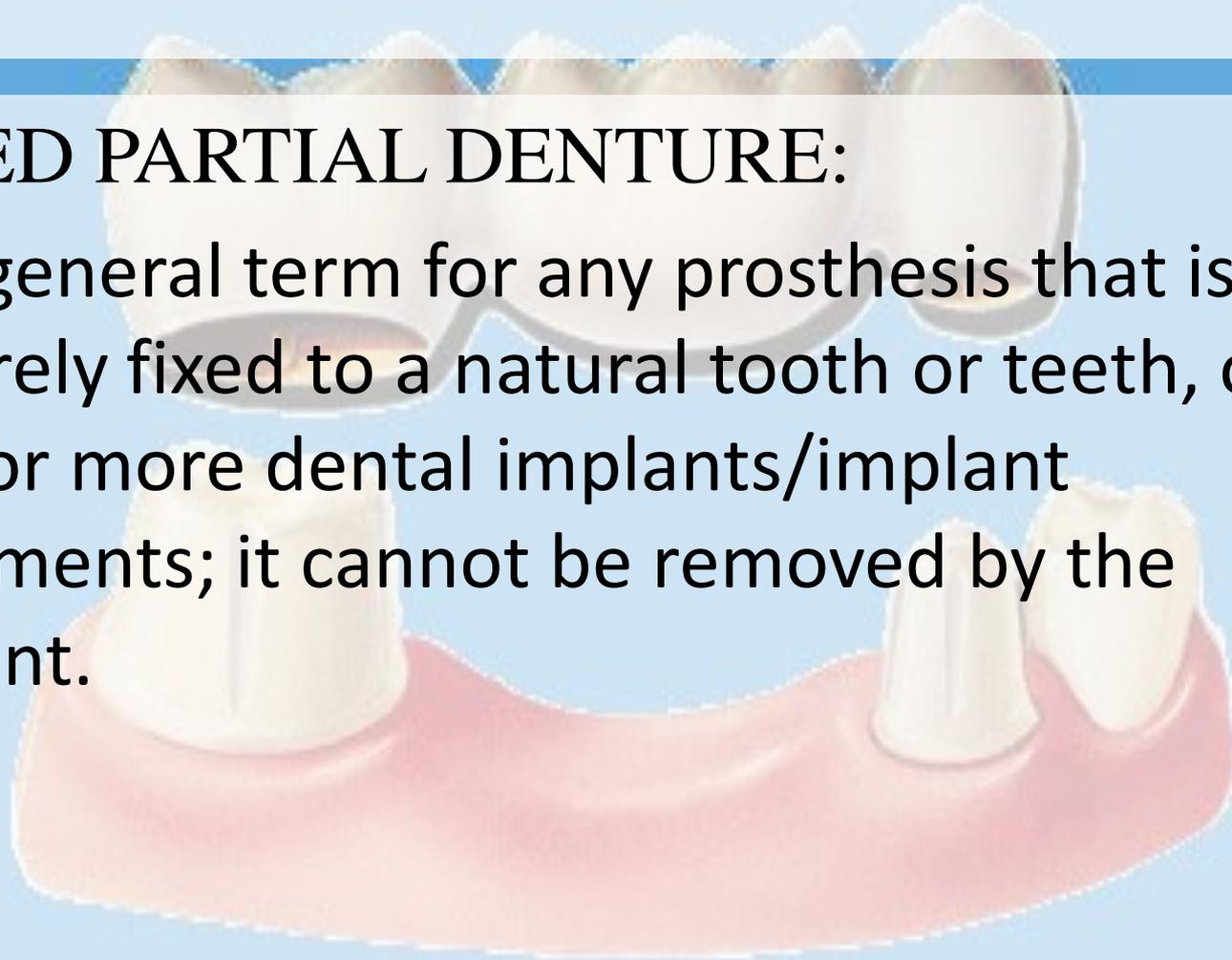


INTRODUCTION TO FPD

- **FIXED PARTIAL DENTURE:**

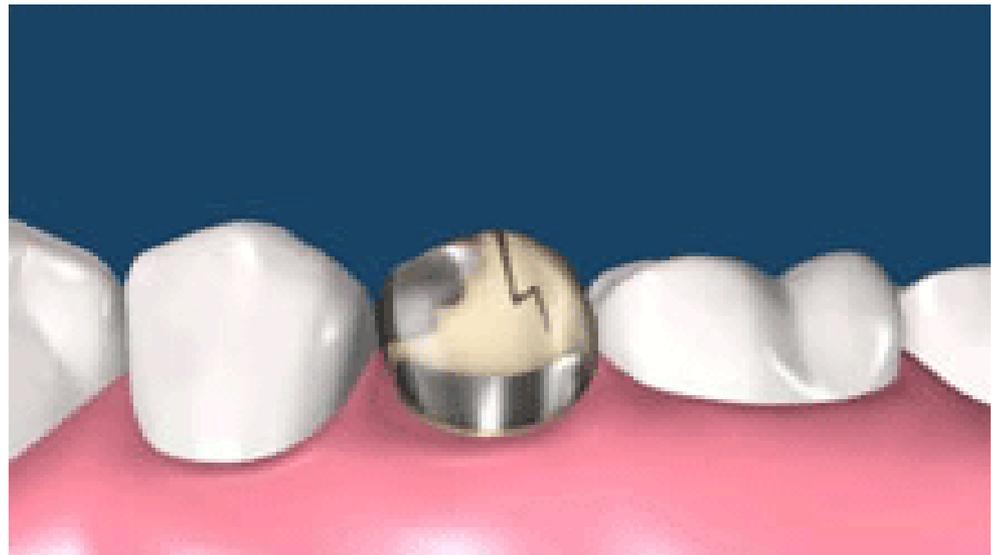
The general term for any prosthesis that is securely fixed to a natural tooth or teeth, or to one or more dental implants/implant abutments; it cannot be removed by the patient.



COMPONENTS OF FPD:

- **Crown:**

an artificial replacement that restores missing tooth structure by surrounding part or all of the remaining structure with a material such as cast metal alloy, metal-ceramics, ceramics, resin, or a combination of materials



- **Onlay:**

a partial-coverage restoration that restores one or more cusps and its adjoining occlusal surfaces or the entire occlusal surface and is retained by mechanical or ac

ac

Inlays

Onlays

Crowns

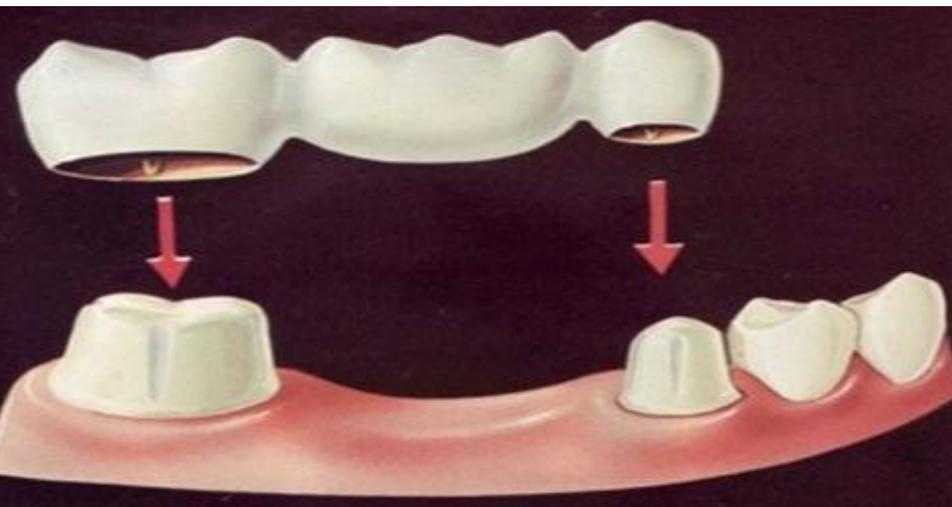


- **Veneer:**

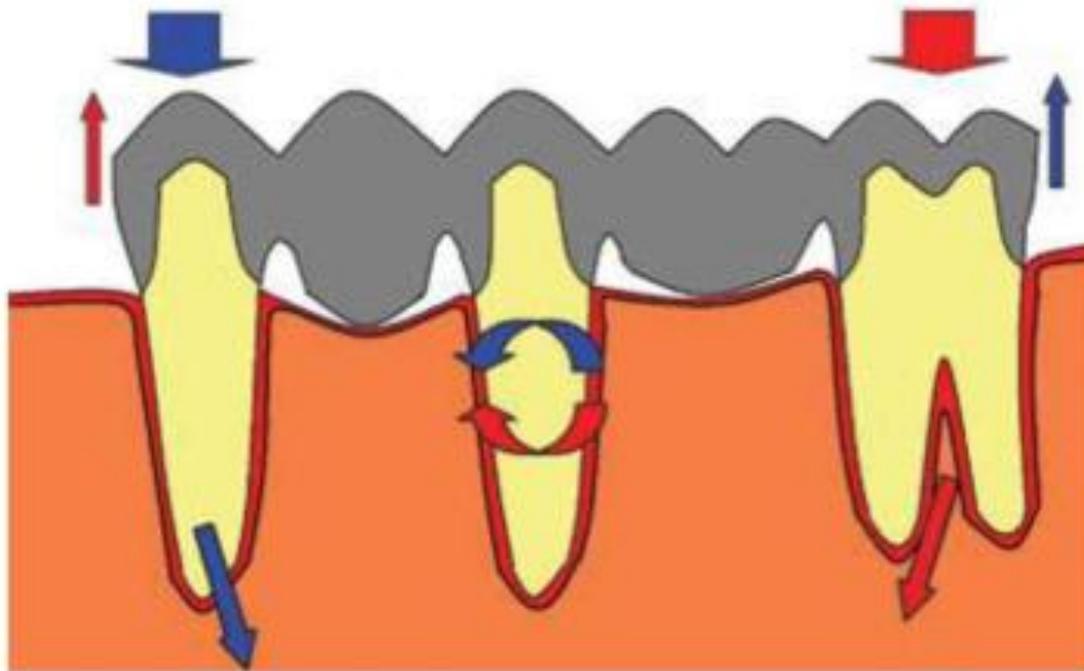
1. a thin sheet of material usually used as a finish;
2. a protective or ornamental facing;
3. a superficial or attractive display in multiple layers, frequently termed a laminate veneer



- **Abutment:** a tooth, a portion of a tooth, or that portion of a dental implant that serves to support and/or retain a prosthesis
- **Retainer:** the part of a fixed partial denture or fixed complete denture that unites the abutment(s) to the remainder of the restoration
- **Pontic:** an artificial tooth on a fixed partial denture that replaces a missing natural tooth, restores its function, and usually restores the space previously occupied by the clinical crown
- **Connector:** the portion of a fixed partial denture that unites the retainer(s) and pontic(s)



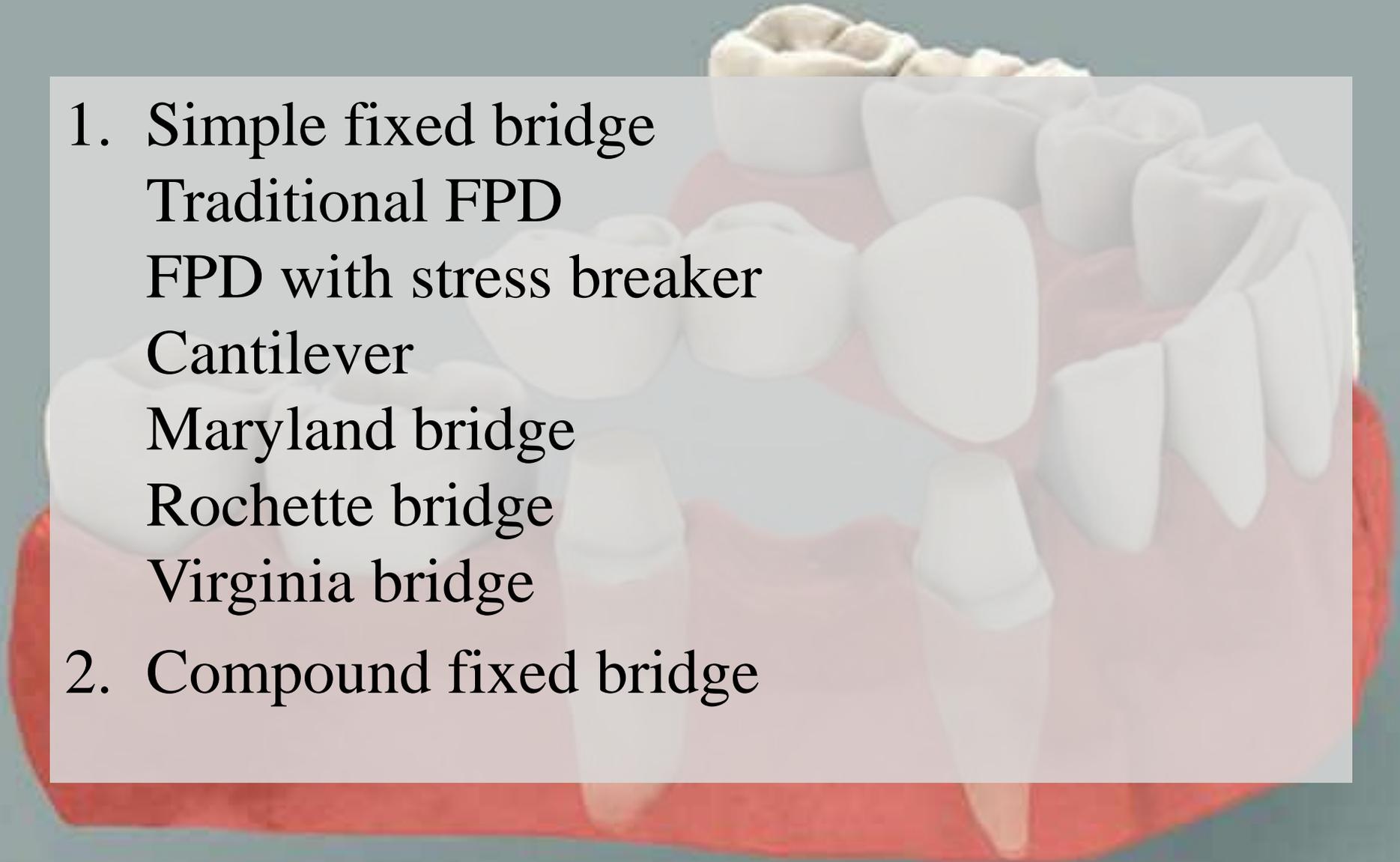
- Pier Abutment: a natural tooth or implant abutment that is located between terminal abutments that serve to support a fixed or removable dental prosthesis



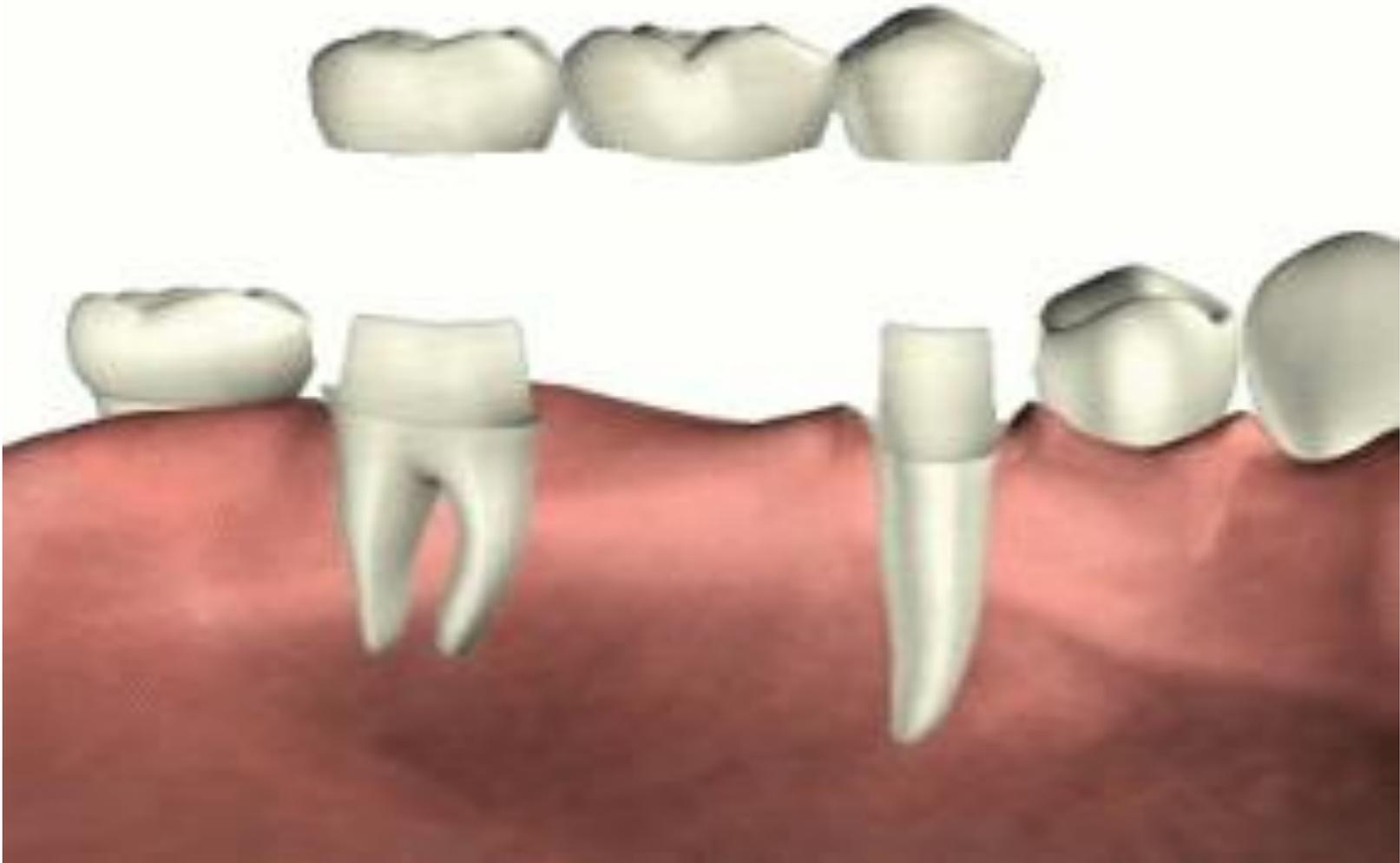
Pier abutment acting as fulcrum (blue represents anterior loading, and red represents posterior loading situations).

TYPES OF FPD

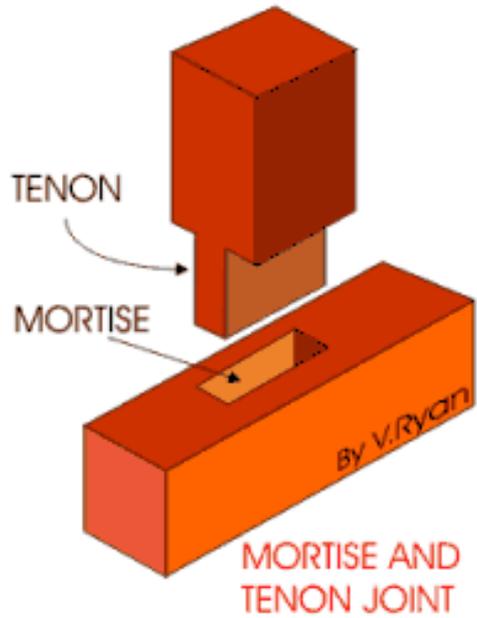
1. Simple fixed bridge
 - Traditional FPD
 - FPD with stress breaker
 - Cantilever
 - Maryland bridge
 - Rochette bridge
 - Virginia bridge
2. Compound fixed bridge



Traditional FPD



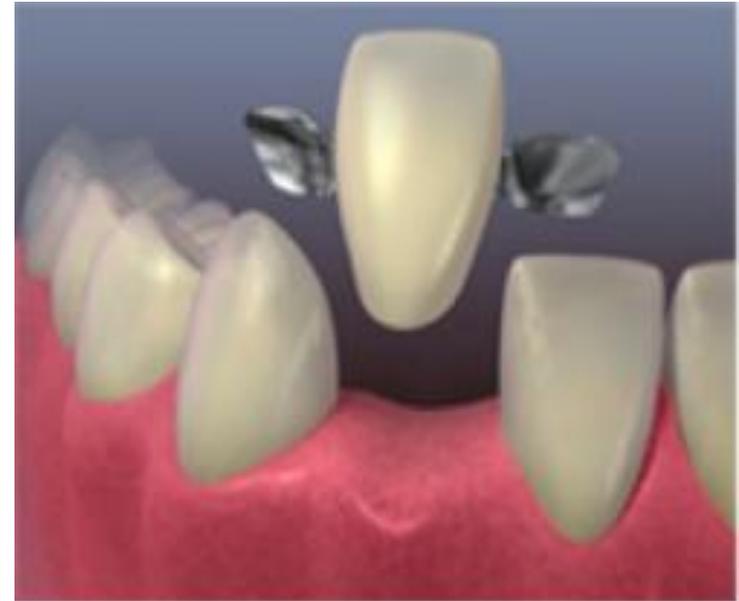
FPD with stress breaker



Cantilever bridge



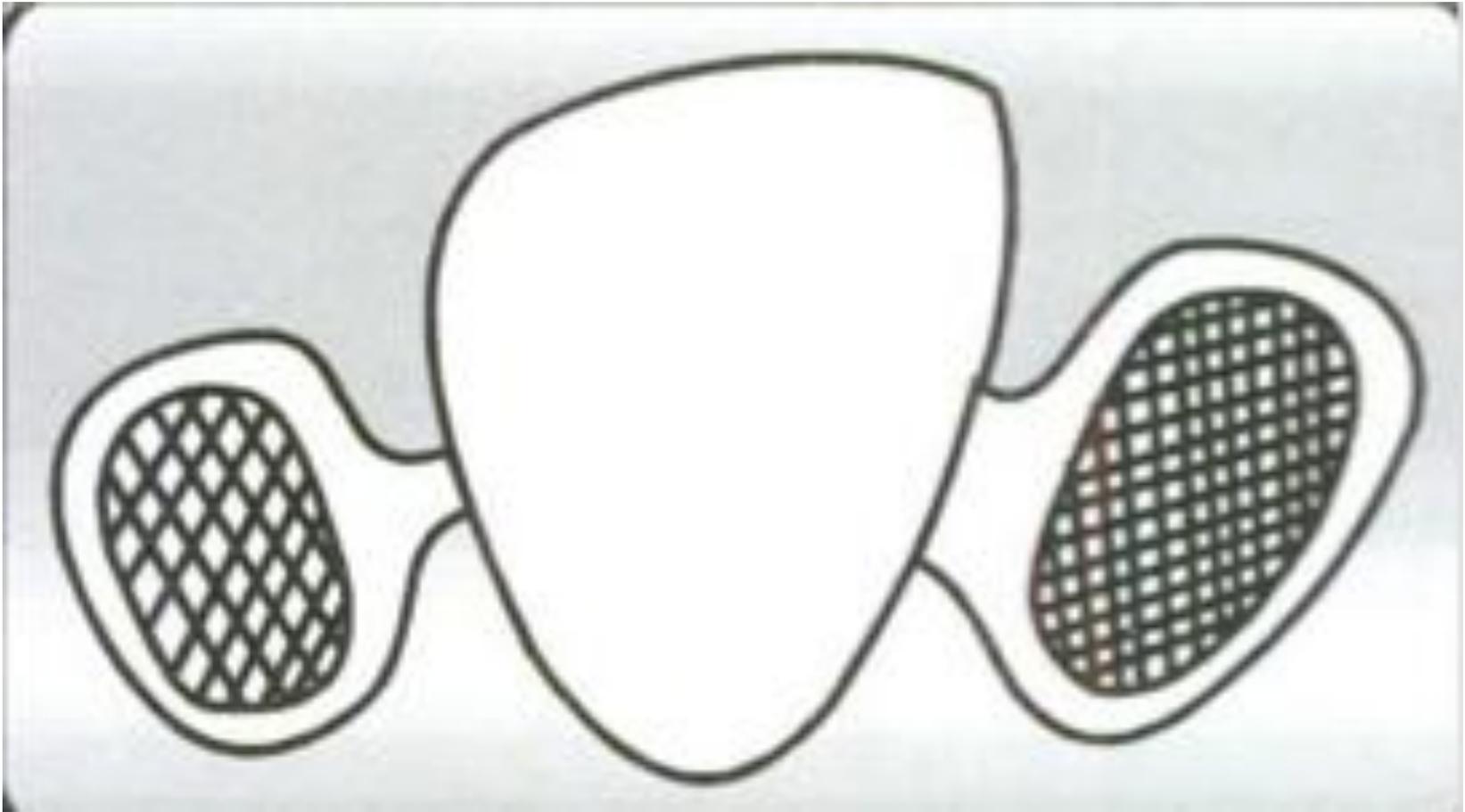
Maryland Bridge



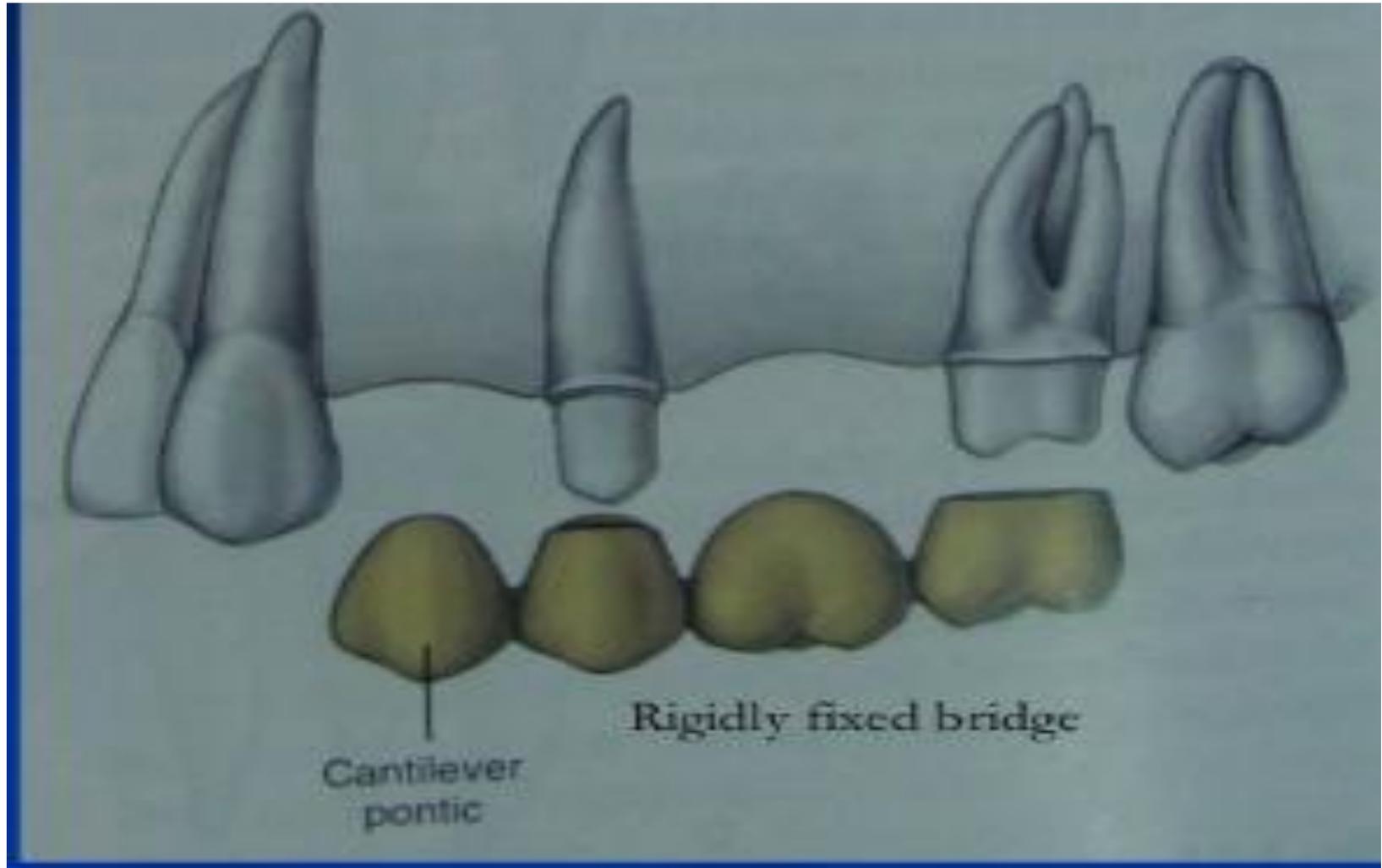
Rochette bridge



Virginia bridge



Compound PFD



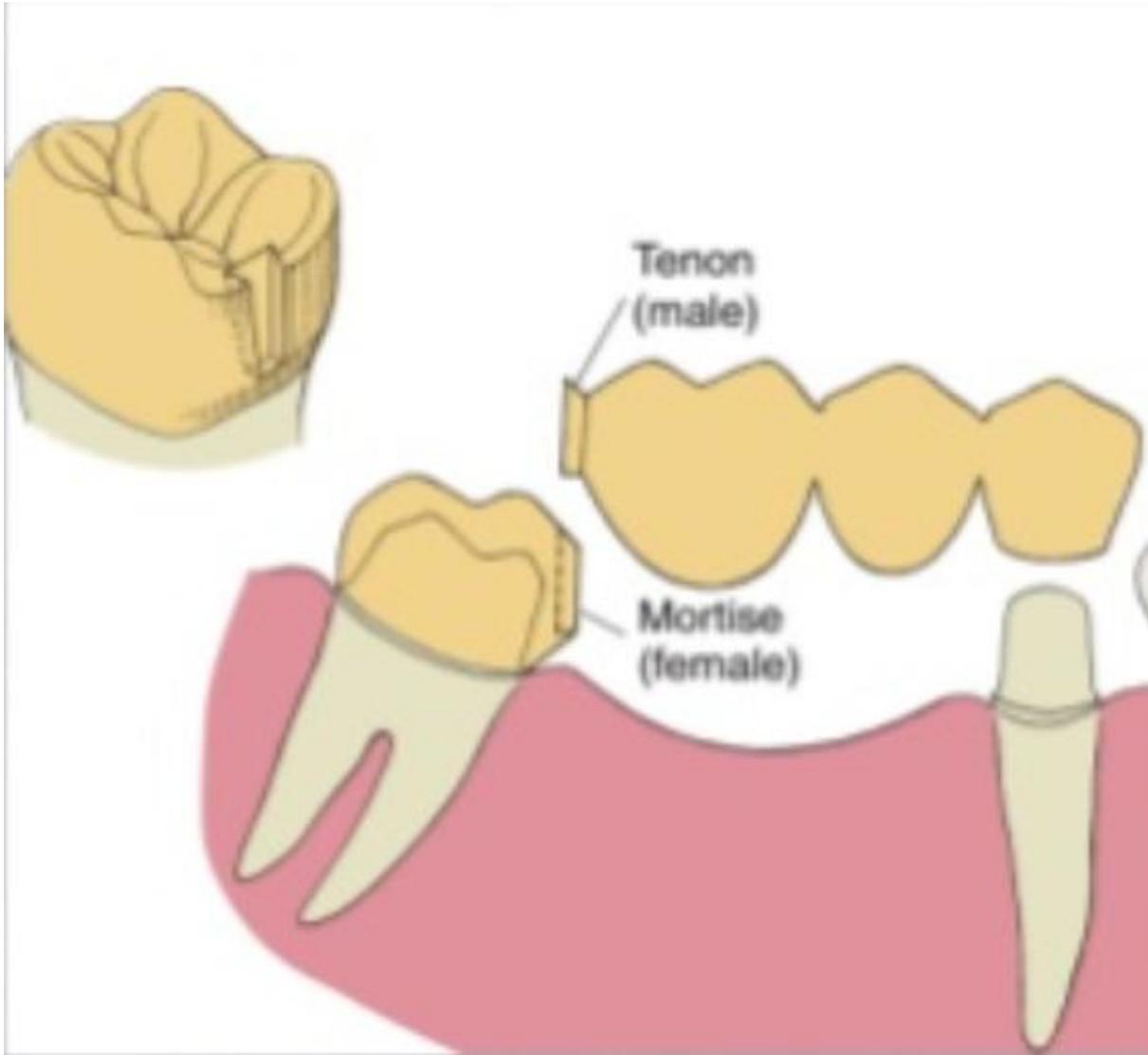
CONNECTOR DESIGNS

- Rigid connectors
 - Cast connector
 - Soldered connector
 - Loop connector
- Non rigid connector
 - Tenon-Mortise connector
 - Split pontic connector
 - Crosspin and wing connector

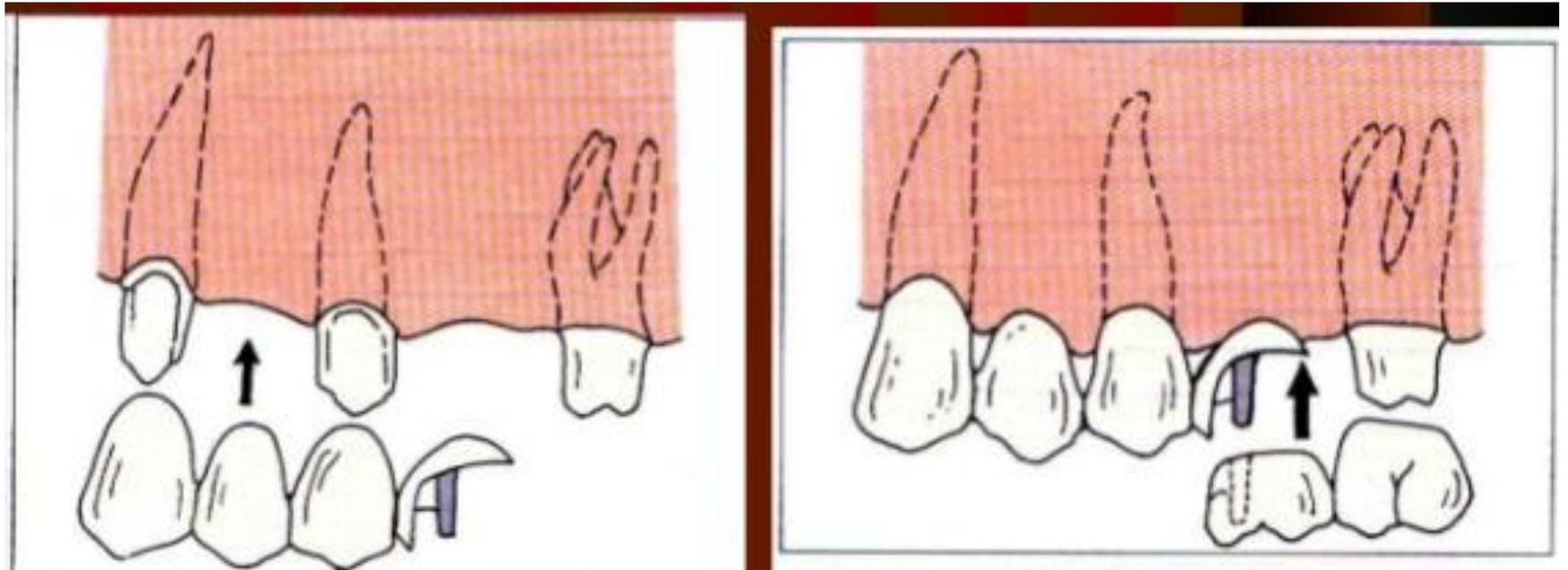
Loop Connector



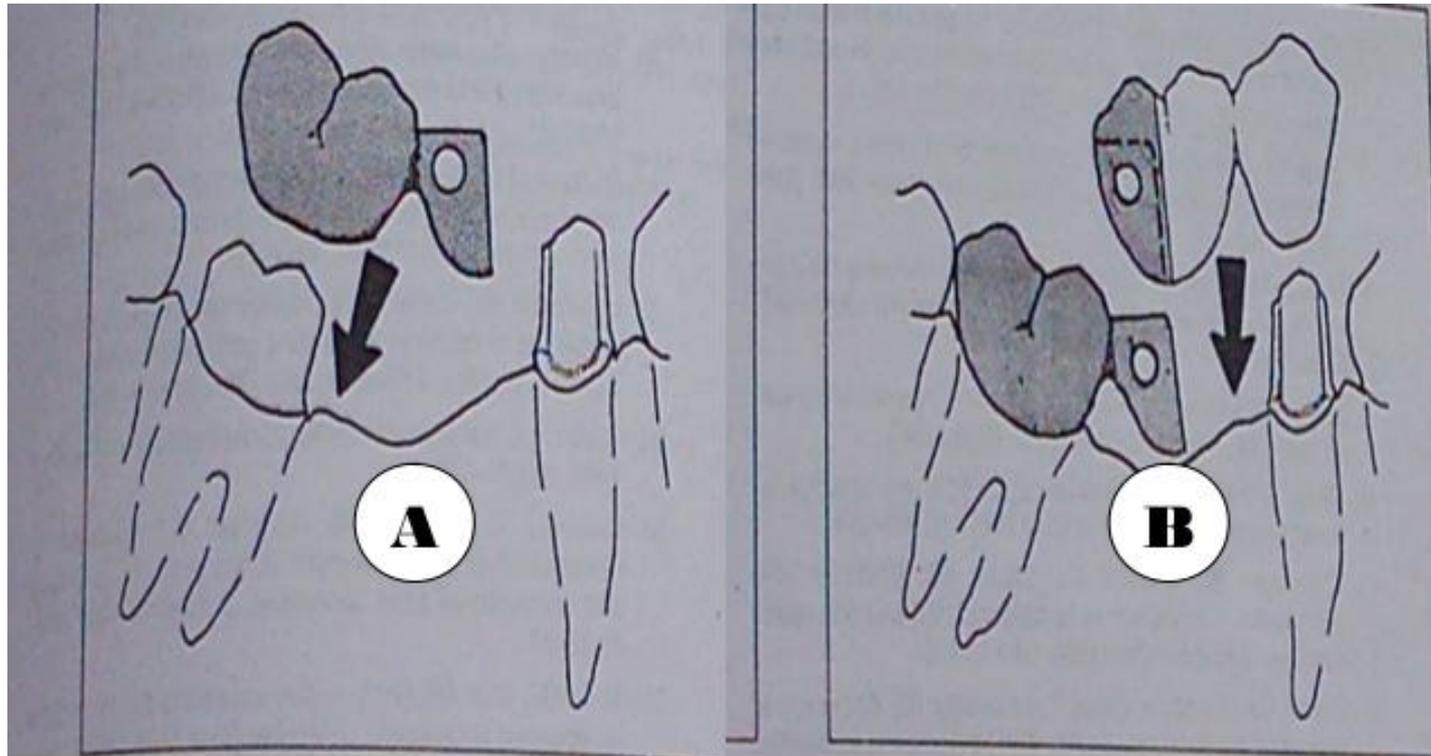
Tenon Mortise connector



Split pontic connector



Crosspin and wing connector

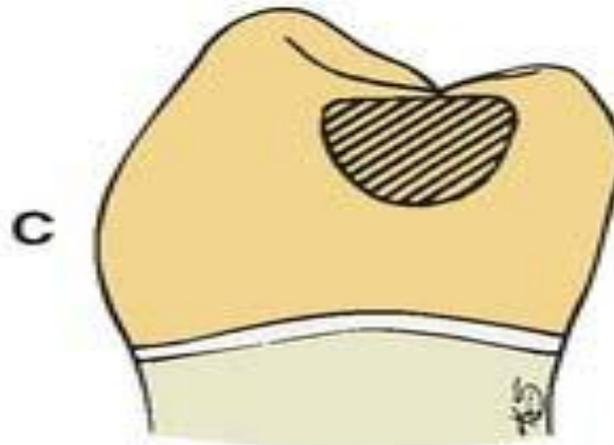
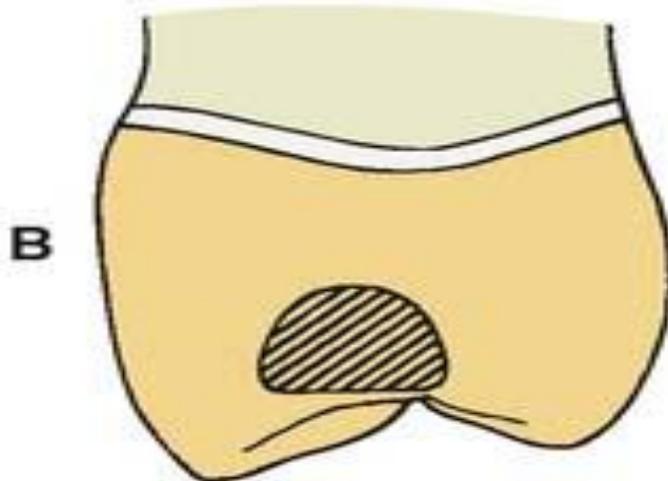


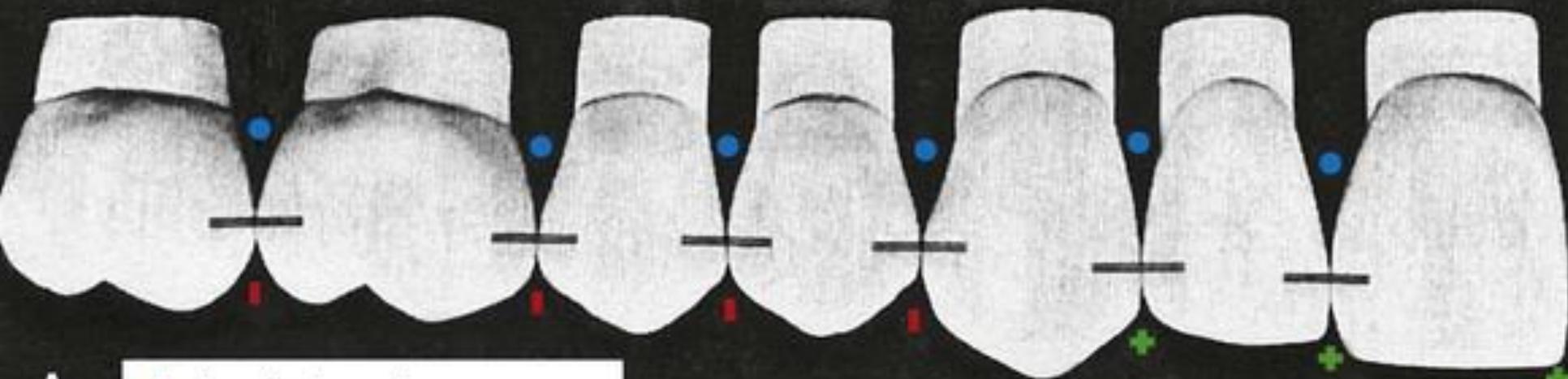
•**A-**The distal retainer and wing are cemented first

•**B-** The retainer and pontic is seated last

Design of connectors

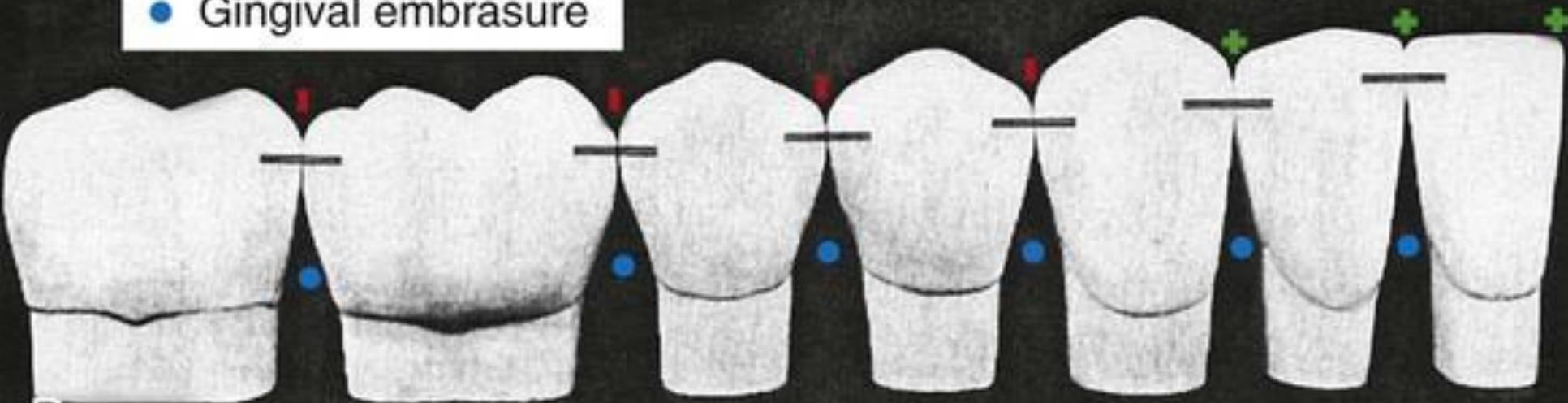
Optimal connectors are easy to clean, strong, and esthetically pleasing.





A

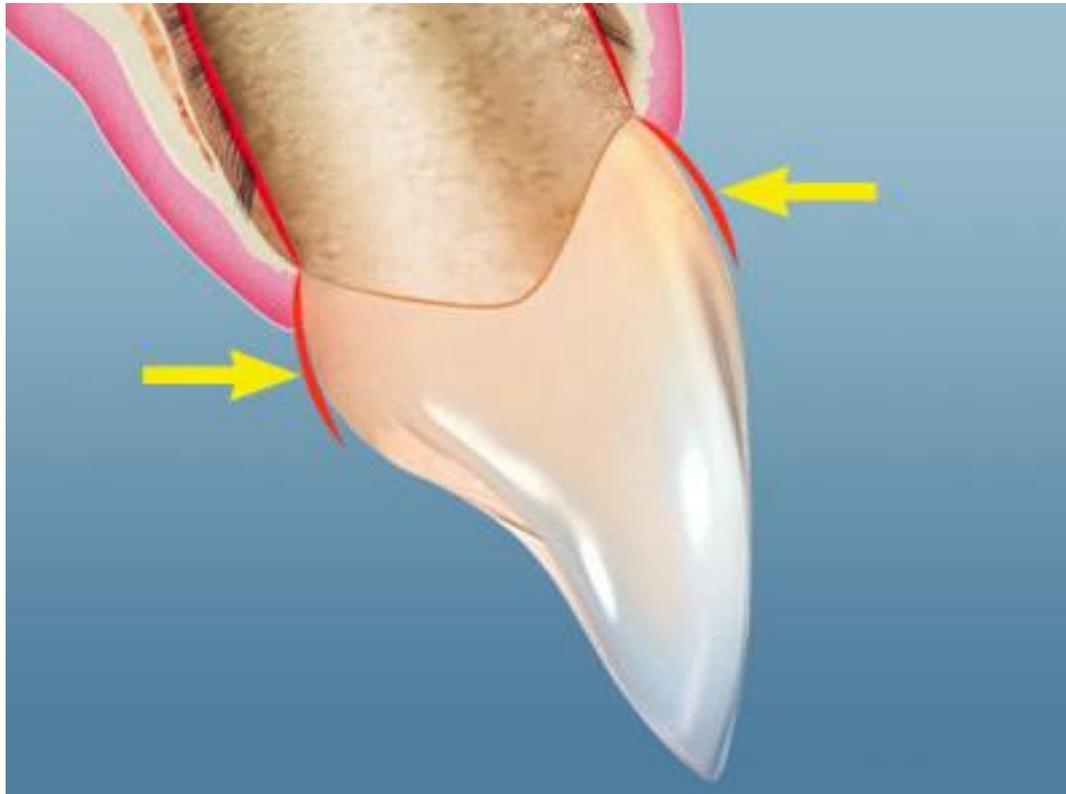
- ✚ Incisal embrasure
- | Occlusal embrasure
- Gingival embrasure



B

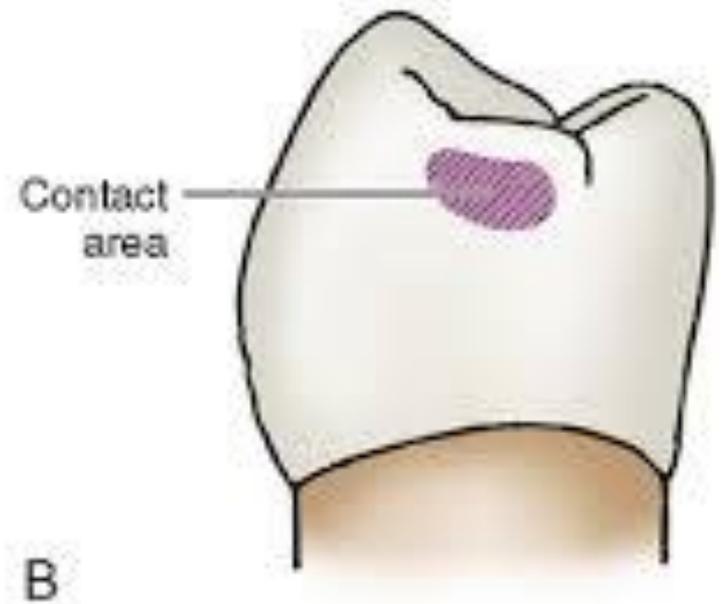
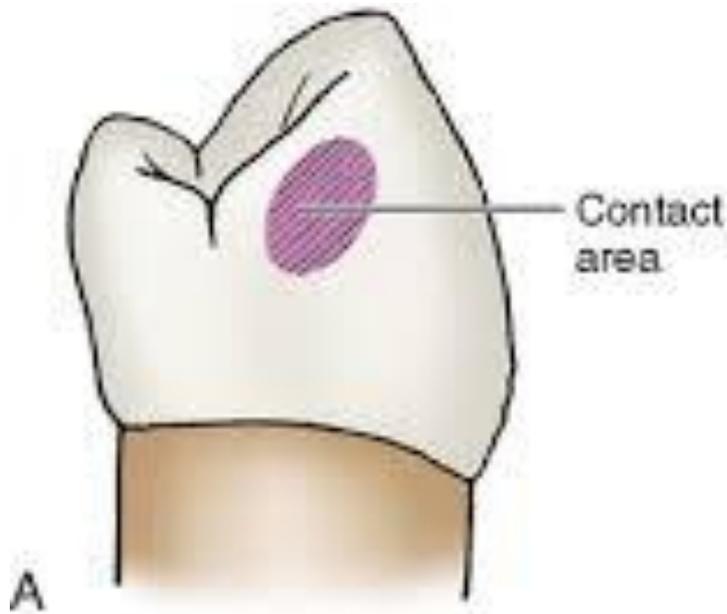
EMERGENCE PROFILE

- The contour of a tooth or restoration, such as the crown on a natural tooth, dental implant, or dental implant abutment, as it relates to the emergence from circumscribed soft tissues



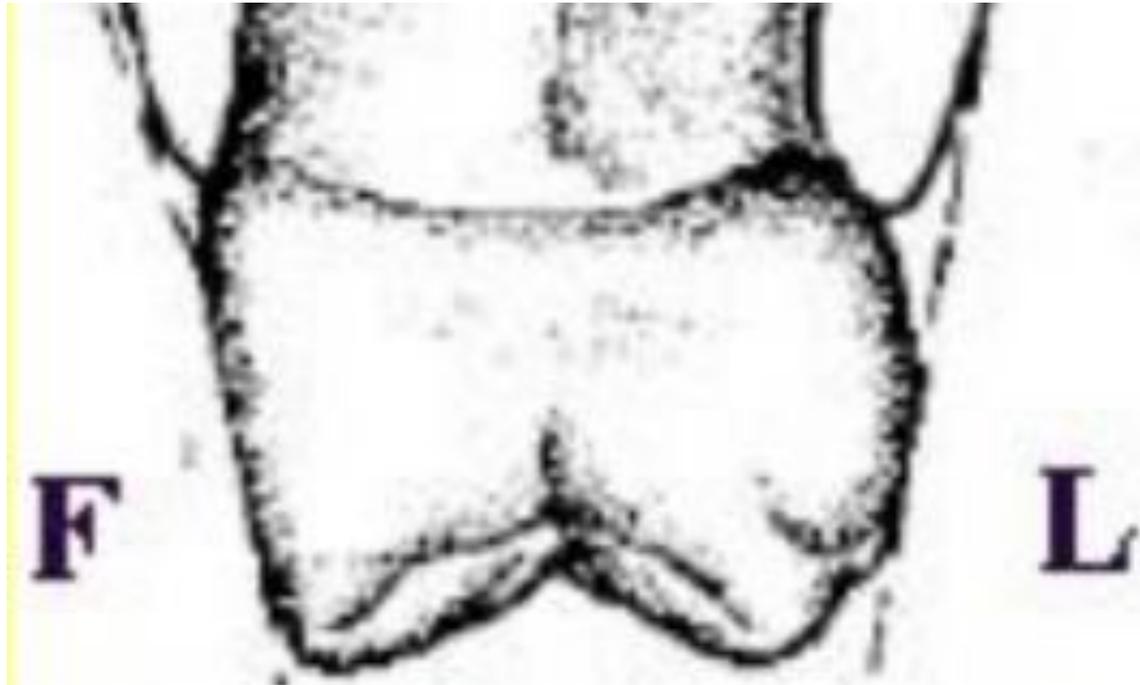
- The term “emergence profile” was first used in 1977 by Stein and Kuwata to describe tooth and crown contours as they traversed soft tissue and rose toward the contact area interproximally and height of contour facially and lingually.
- A proper emergence profile will help avoid swelling and inflammation of soft tissue and conversely will prevent the unsightly dark spaces in the area near the gums and between the teeth.

1)Faciolingual crown dimensions-
no more than 1mm larger than the faciolingual width at the CEJ. Possible exception: mandibular molars and second premolars

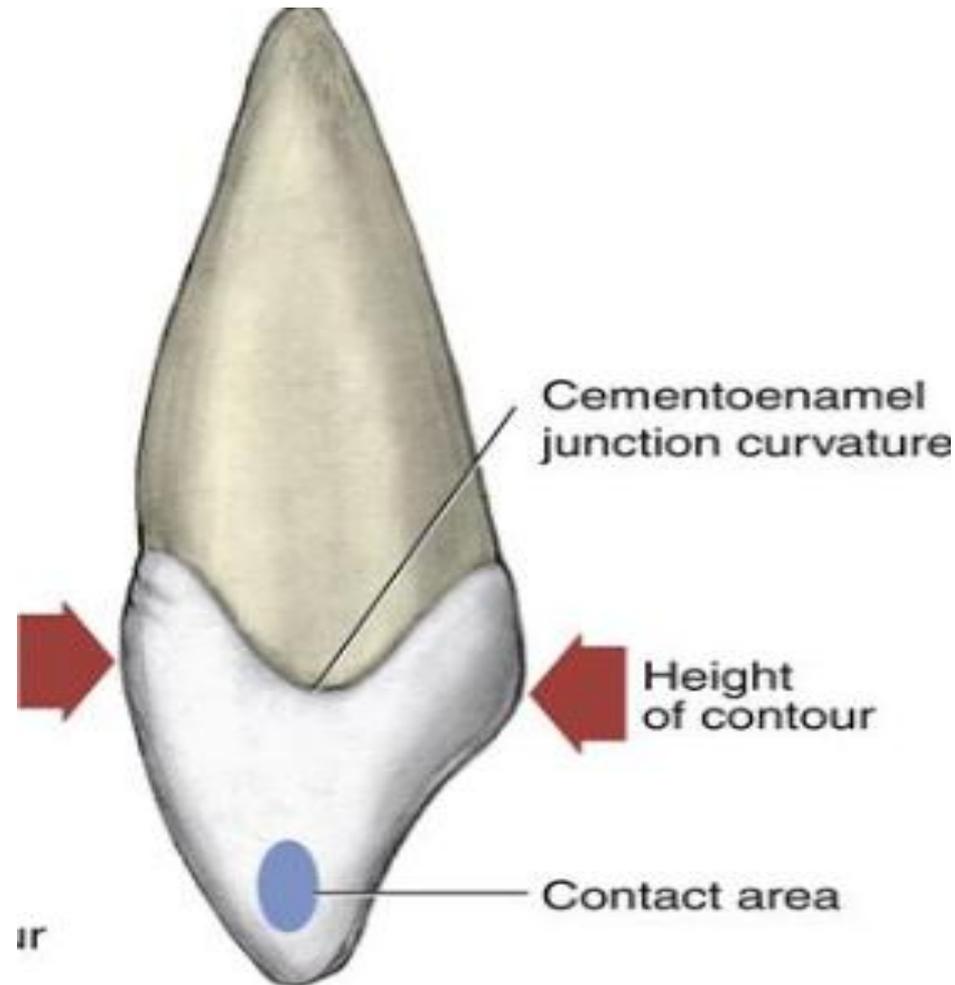


2) Facial contours-

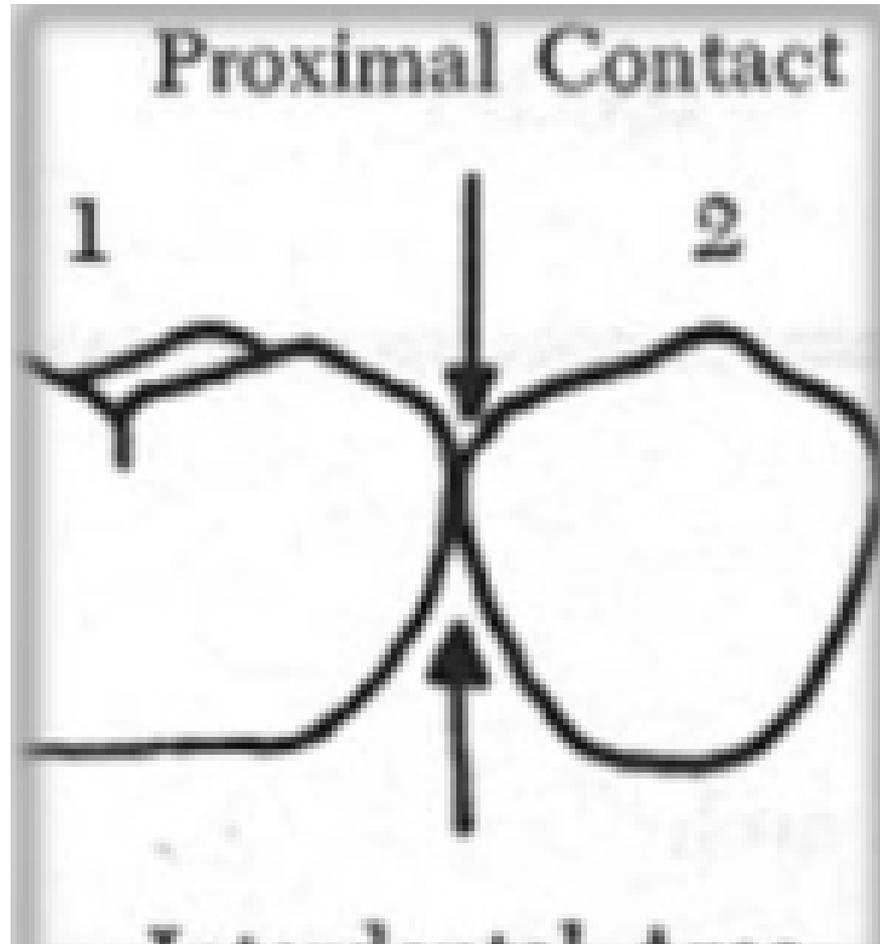
all facial contour crests are in the gingival third, and should not bulge more than one-half mm beyond CEJ.



3) Lingual contours-
greatest convexity at gingival 1/3 except mandibular molars and sometimes mandibular second premolar, where greatest convexity is found in the middle 1/3 of crown

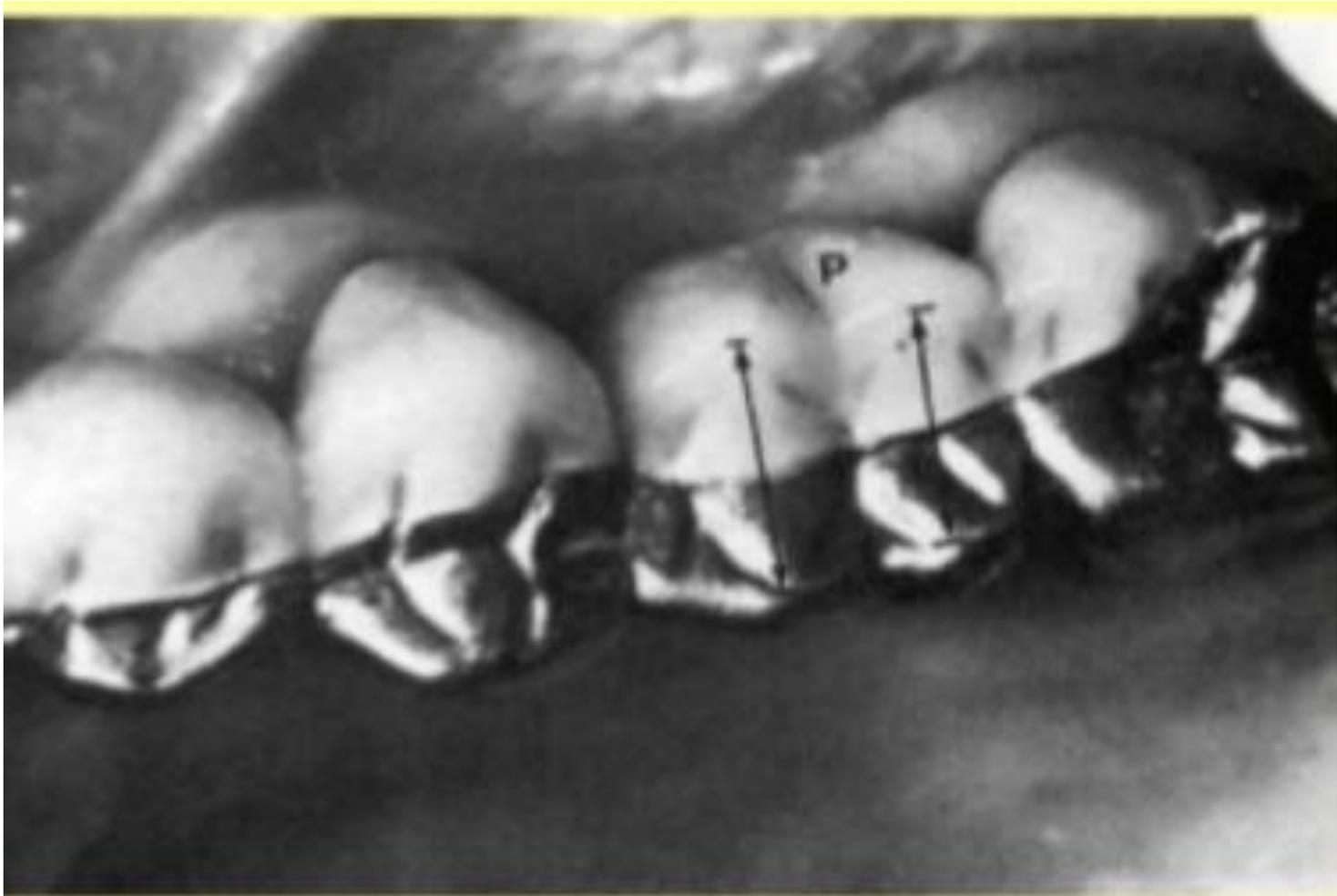


4) Proximal contact points-
in the occlusal 1/3 of crown.



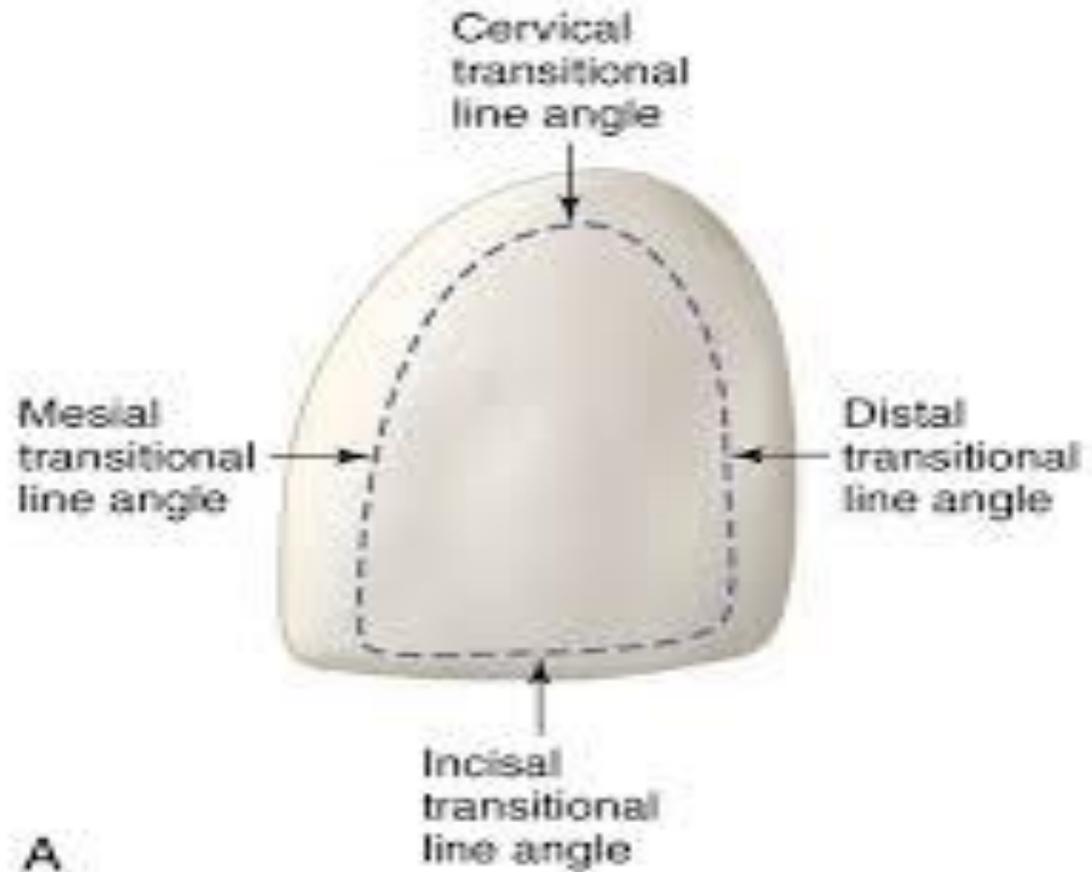
5) Proximal surfaces

Proximal surface is flat or slightly concave buccolingually as well as occlusocervically in the cervical third



6) Axial transitional line angles-

straight between the proximal contact point and the CEJ, with the exception of the lingual line angles of maxillary molars, where there may be a slight convexity.



7) Marginal ridges-

should be the same height for adjacent teeth. The facial $\frac{1}{2}$ of any tooth is wider than the lingual.

Lingual embrasures are always larger than buccal embrasures



8) Crown margin-

should be supragingivally except due to esthetics, crown length to gain adequate retention, root caries, root sensitivity, existing restorations.



9) Thickness of restoration:

- The subgingival contour has considerable effect upon the free marginal gingiva and the gingival crevice.
- subgingivally- inadequate contour may not provide for adequate support for the gingival unit.
- Subgingival contour should support the gingiva, so that the free marginal gingiva does not tend to form a roll around the tooth.

10) Crown margin/Bone • relationship-
do not encroach on the biologic width.

