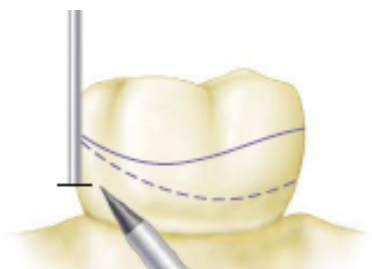
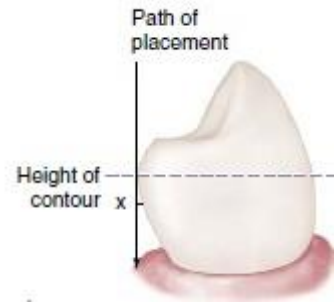


### Definitions and Introduction

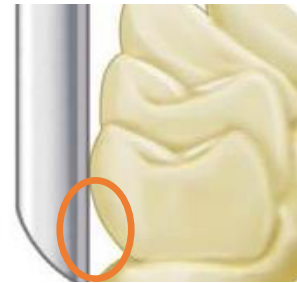
- **Prosthetic:** it's the art and science of applying artificial replacement for missing parts of human body.
- **Prosthesis:** it is an artificial replacement of an absent part of human body.
- **Prosthodontics:** It is a branch of dentistry involves with the restoration and maintenance of oral, functional, comfort, appearance and health of the patient by restoration of teeth and/ or maxillofacial tissues with an artificial substitute.
- **Restoration:** it's a broad term applied to any material or prosthesis that restores or replace lost teeth.
- **Denture:** it is an artificial substitute for missing teeth, oral and dental structures, dentures can be classified broadly into partial (fixed or removable) or complete dentures or implant retained dentures.
- **Denture supporting structure (denture foundation area):** the oral anatomy (residual ridge and teeth) that support the denture.
- **Residual ridge:** it is that remaining part of alveolar ridge after extraction of teeth.
- **Abutment:** tooth or a portion of a tooth or a portion of an implant that serves to support and/or retain the prosthesis.
- **Dental cast surveyor:** it's a paralleling instrument used in the construction of R.P.D. to locate and determine the contour and relative positions of abutments and associated structures.
- **Height of contour:** a line encircles the tooth designating its greatest circumference at a selected position determined by dental cast surveyor (solid line).



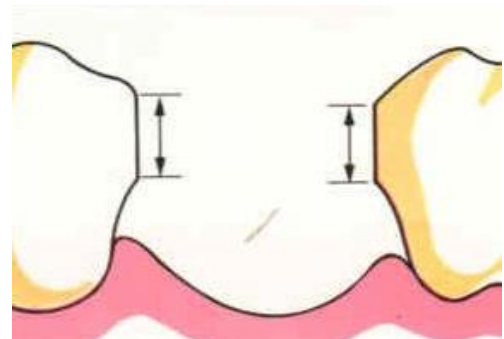
- **Angle of gingival convergence:** is that angle located apical to the height of contour on the abutment tooth; it can be identified by viewing the angle formed by the tooth surface gingival to the survey line as it contacts the height of contour (x mark)



- **Undercuts:** the portion of the surface of an object that is beyond (gingival) the height of contour in relationship to the path of placement to create areas that provide mechanical retention for materials.



- **Guiding planes:** vertical parallel surfaces of abutment teeth oriented so as to contribute to the direction of the path of placement and withdrawal of the (R.P.D.). Preferably, these surfaces are made parallel with the long axes of the abutment teeth.



- **Path of insertion (placement):** is the path followed by the denture from its first contact with the tooth until it is fully seated. This path coincides with the path of withdrawal of the denture. Single path of insertion is found when sufficient guiding surfaces are contacted by the denture, while multiple paths of insertion seen when the guide surfaces are not utilized.



- **Saddle:** that part of a denture which rests on as well as covers the edentulous areas and carries the artificial teeth.



- **Bounded edentulous area:** edentulous area that bounded and supported by natural teeth at both sides.
- **Free end edentulous area:** edentulous area that bounded and supported by natural teeth at one end.



- **Retention:** is the resistance of a denture movement away from its tissue foundation especially in a vertical direction; or a quality of a denture that holds it to the tissue foundation and/or abutment teeth.
- **Support:** is the resistance to forces directed toward the basal tissue or underlying structures

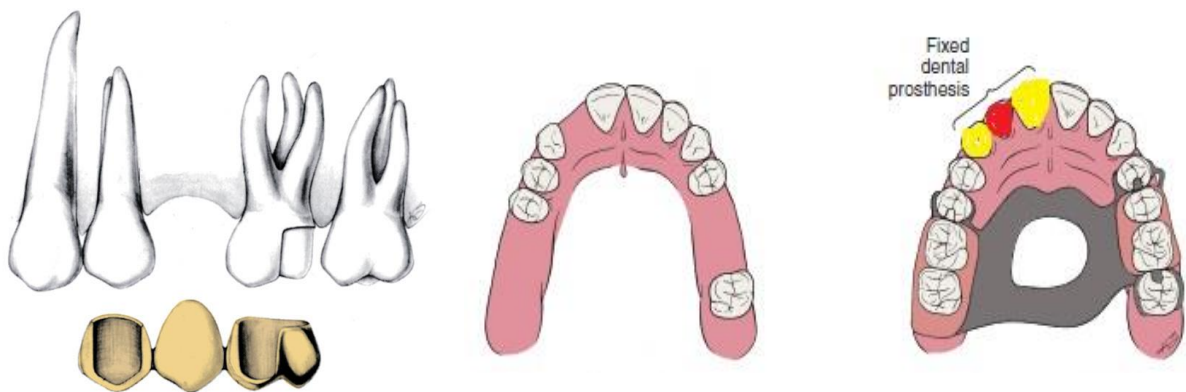
**Partial denture:** is a dental prosthesis that restores one or more but not all of the natural teeth and / or associated parts. Partial dentures are used to:

1. Preserve oral function, and aesthetic.
2. Prevent overeruption of antagonist tooth, and drifting of the adjacent teeth to the edentulous area.

3. Prevent imbalance occlusion.
4. Stimulate the underlying tissue.
5. Restore the psychological status of the patients.
6. Preparation for complete dentures.

Partial dentures are of two types, fixed or removable.

1. **Fixed bridge:** a partial denture that is luted, screwed to natural teeth or tooth roots and/or to an implant that provides the primary support to the prosthesis. It is indicated in:
  - Most unilateral bounded short span cases.
  - **CL IV** kennedy classification with normal bone loss.
  - Modification areas located anteriorly to **CL I, II** kennedy classification to simplify the R.P.D. design.



2. **Removable partial denture: (R.P.D.)** it's a partial denture that can be removed from the mouth and placed at the patients will. R.P.D. is indicated in:
  - Distal extension situations (F.E.E.).
  - Long span tooth born edentulous area.
  - Cases with bone loss (need restoration of soft tissues).
  - Patients with financial limitations.

- Reduced periodontal support (teeth are not sufficiently sound to support fixed bridge).
- Cases when bilateral stabilization or bracing is needed.
- Patient with bad oral hygiene (for ease of plaque removal).
- Patients under 18 years.
- After recent extraction (immediate denture).

### **Problems from the lack of partial denture**

1. Over eruption of opposing teeth.
2. Mesial drift of tooth posterior to the space and distal drift of a tooth anterior to the space.
3. Separation of the contact point.
4. Traumatic gingivitis.
5. Exposed cementum lead to sensitive teeth.
6. Loss of vertical dimension.
7. Excessive abrasion of the remaining teeth.
8. Periodontal disease.
9. Disturbance in T.M.J.
10. Aesthetic and speech problem.

