Introduction

Prosthetic: the art & science of supplying artificial replacement for missing parts of the human body.

Prosthodontics (**prosthetic dentistry**): is the dental specialty pertaining to the diagnosis, treatment planning, rehabilitation & maintenance of the oral function, comfort, appearance & health of patients with clinical conditions associated with missing or deficient teeth &/or maxillofacial tissues using biocompatible substitutes.

Prosthesis: an artificial replacement of an absent part of the human body or a therapeutic device to improve or alter function.

Dentulous: a condition in which natural teeth are present in the mouth.

Edentulous: without teeth, lacking of teeth.



Dental prosthesis: an artificial replacement of one or more teeth (up to the entire dentition in either arch) & associated dental / alveolar structures. Can be divided into:

- **a- Fixed dental prosthesis:** any dental prosthesis that is luted, screwed, or mechanically attached or otherwise securely retained to the natural teeth, tooth roots &/ or dental implant abutments that furnish the primary support for the dental prosthesis. This may include replacement of one to sixteen teeth in each dental arch.
- **b- Removable dental prosthesis:** any dental prosthesis that replaces some or all teeth in a partially dentate arch (partial removable dental prosthesis) or dentate arch (complete removable dental prosthesis). It can be removed from the mouth & replaced at will. divided into:
- **Removable partial denture prosthesis:** any prosthesis that replaces some teeth in a partially dentate arch. It can be removed from the mouth & replaced at will. Also called partial removable dental prosthesis.
- ii- Complete denture: a removable dental prosthesis that replaces the entire dentition & associated structures of the maxillae or mandible, called a complete removable dental prosthesis.

Objective of complete denture

- 1- To restore function (mastication, speech, preservation of remaining structure).
- 2- Aesthetic.
- 3- 3- Improve psychological state of the patient.

Steps of complete denture construction:

- a. first appointment:
- ☑ Clinical procedure: Primary impression is made with stock tray.
- Laboratory procedure: the impression poured with plaster to produce primary cast on which the special tray is constructed.
 - b. Second appointment:
 - ☑ Clinical appointment: secondary or final impression are made
 - ☑ Laboratory procedure: the final impression are poured then base plate and occlusal rim are constructed.
 - c. Third appointment
 - ☑ Clinical procedure: vertical dimension is determined and centric relation is taken
 - Laboratory procedure: the casts are mounted on articulator and tooth are arranged

- d. Fourth appointments:
 - ☑ Clinical procedure: trial stage) the dentist tries the denture and check for proper placement and arrangement of teeth, appearance and speech
 - ☑ Laboratory procedure: flasking, packing, finishing and polishing
- e. Fifth appointment:

The denture is delivered to the patient; it may require adjustment of the denture

Complete dentures are composed of the following surfaces:

- **1-basal or impression surface:** the part of a denture that rests on the foundation tissue the oral structures available to support a denture &to which teeth are attached.
- **2-denture occlusal surface:** teeth surface
- **3-polished surface:** the portion of the surface of a denture that extends in an occlusal direction from the border of the denture & includes the palatal surface. It is the part of the denture base that is usually polished, & it includes the buccal & lingual surfaces of the teeth.
- **4-denture border:** the margin of the denture base at the junction of the polished surface & the impression surface.
- **5-denture flange:** the part of the denture base that extends from the cervical ends of the teeth to the denture border.

