

Introduction to Dentistry

Prosthodontics & Dental Implant

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Objectives

At the end of this lecture, the students will be able to:

1. Recognize the history of prosthetics
2. Identify the definition of prosthodontics
3. Recognize the concept of dental implant
4. Define the branches of prosthodontics
5. List the objectives of prosthodontics

Agenda

01

History of
artificial teeth

02

Definitions

03

Causes of teeth
loss

04

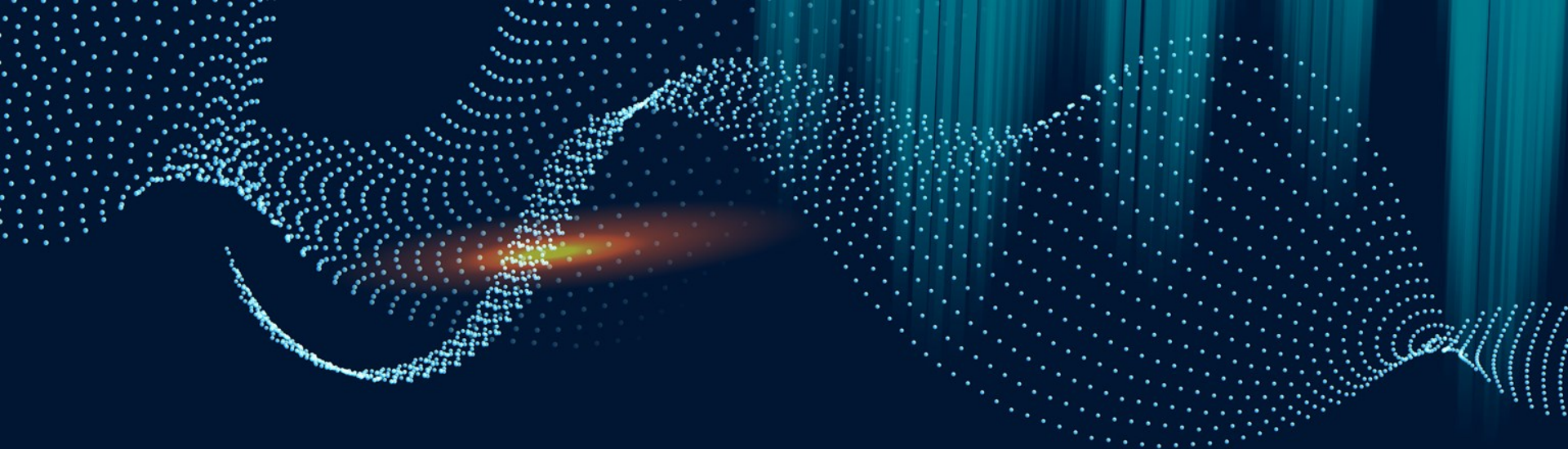
Consequences
of teeth loss

05

Branches of
prosthodontics

06

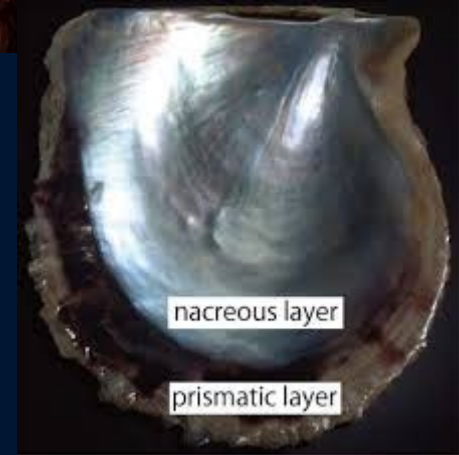
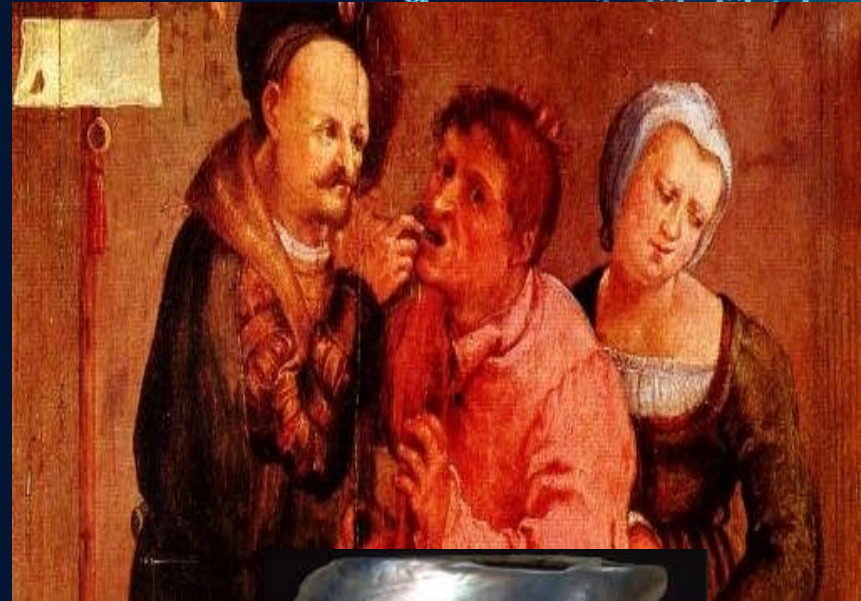
Treatment
goals of
prosthodontics



01 | History of artificial teeth

History of artificial teeth

- Replacements of lost teeth have been produced for thousands of years
- 1st dentures were 700 BC from ivory & bone silver, gold, mother of pearl
- In 1774, dentures made from porcelain

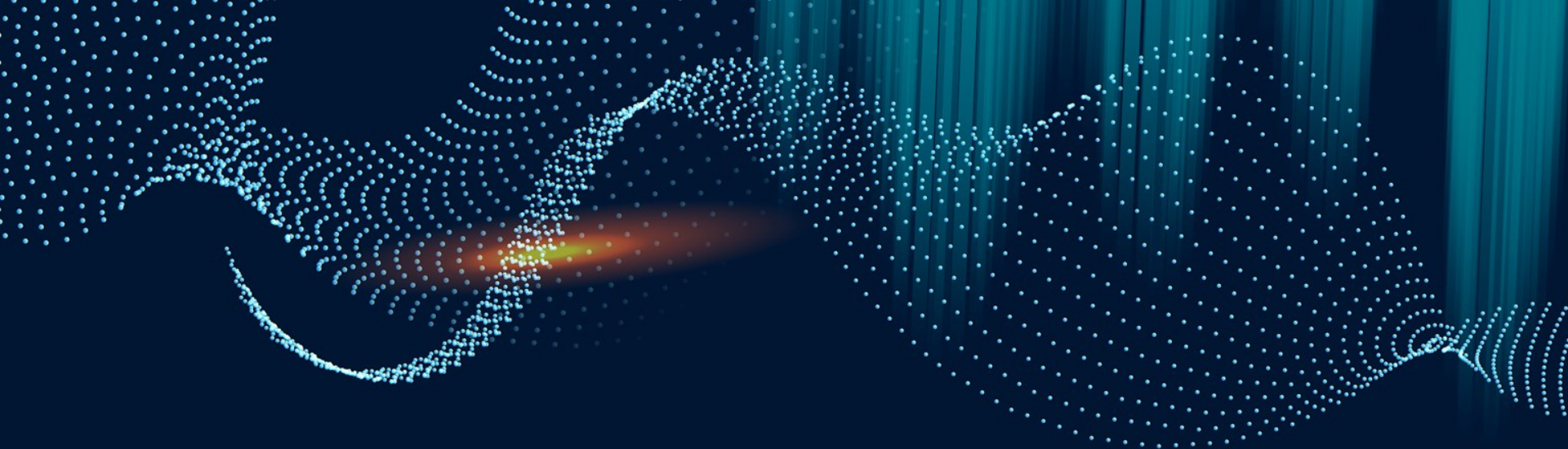


History of artificial teeth

- The real breakthrough came when vulcanized rubber was discovered
- The discovery of acrylic resin is the next major revolution in prosthodontics



Solid Acrylic Resin



02 | Definitions

Dentulous

An individual who has his/her natural teeth present.



Edentulous

The individual who has lost his/her natural teeth
May be partial or complete



Prosthetics

Replacements for missing parts of the human body



Prosthodontics

Branch of dentistry pertaining to the restoration and maintenance of oral function, comfort, appearance, and health of the patient



Prosthesis

An artificial replacement of absent part of human body





03 | **Causes of teeth
loss**

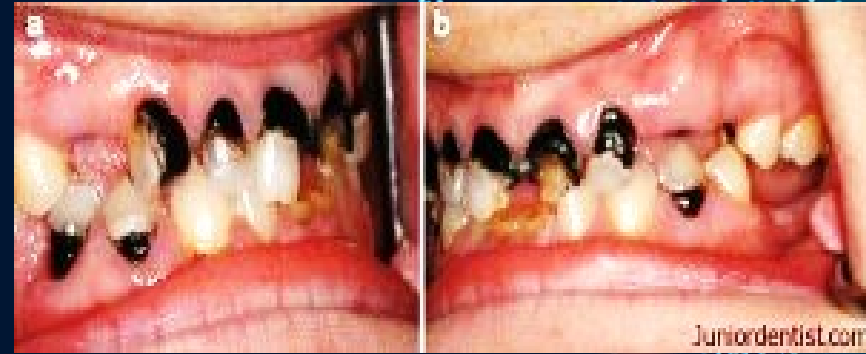
Causes of teeth loss

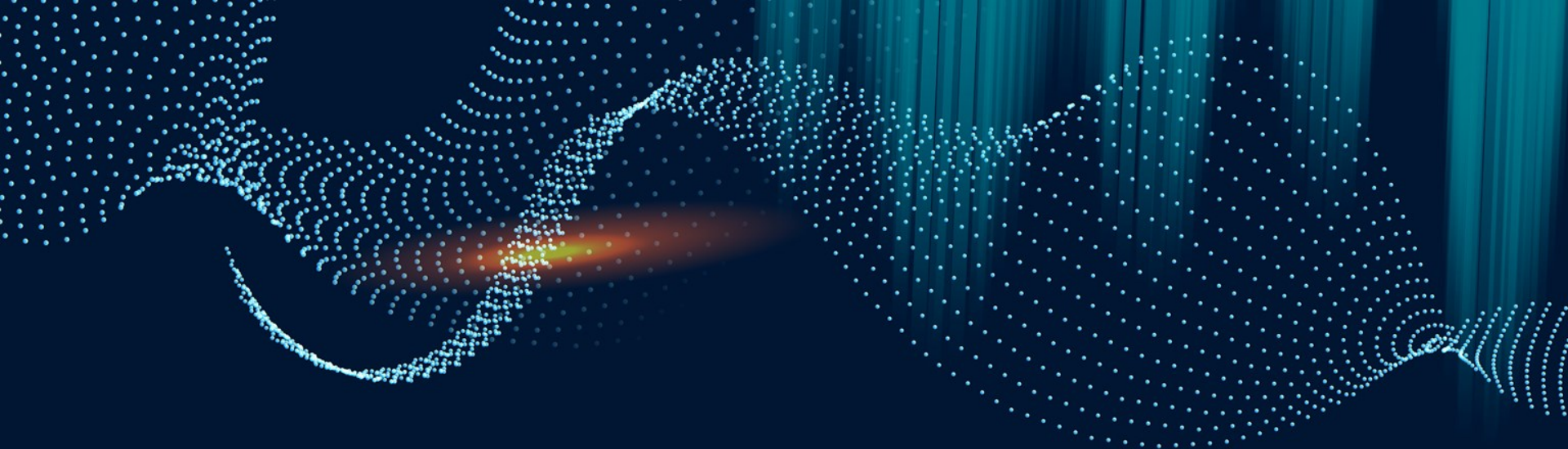
- Traumatic injuries
- Caries
- Periodontal diseases
- Cysts, malignancies and tumors



Causes of teeth loss

- Radiation therapy for tumors
- Grossly mal-aligned teeth
- Iatrogenic extraction
- Congenitally missing teeth
- Failure to erupt (impacted teeth)

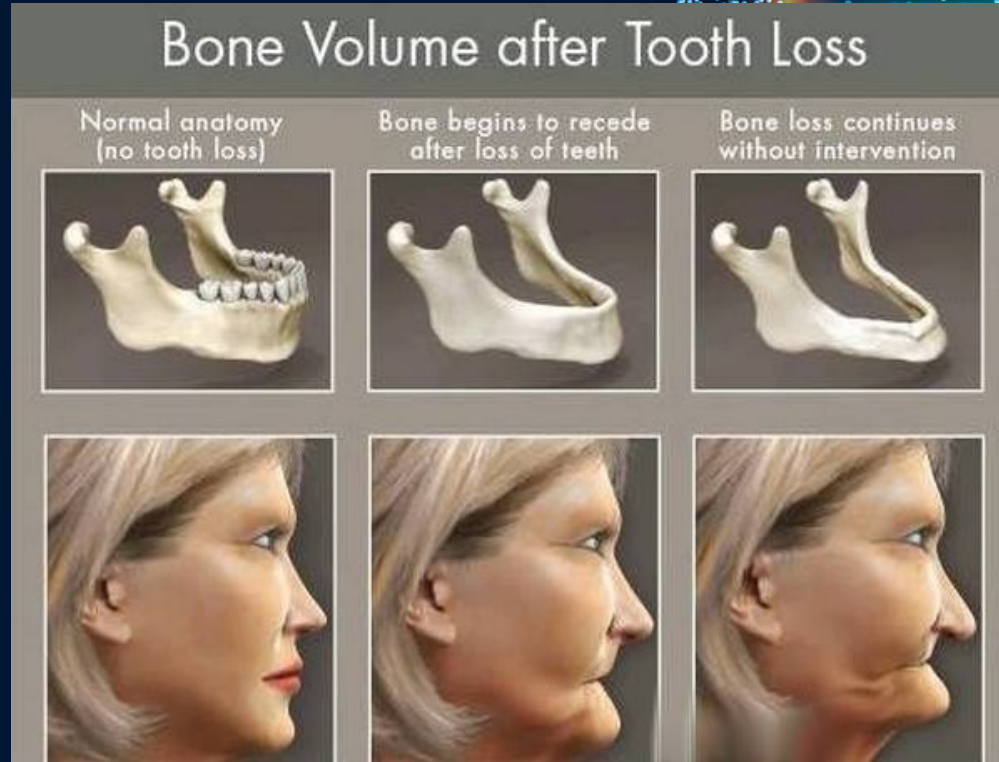




04 | **Consequences of teeth loss**

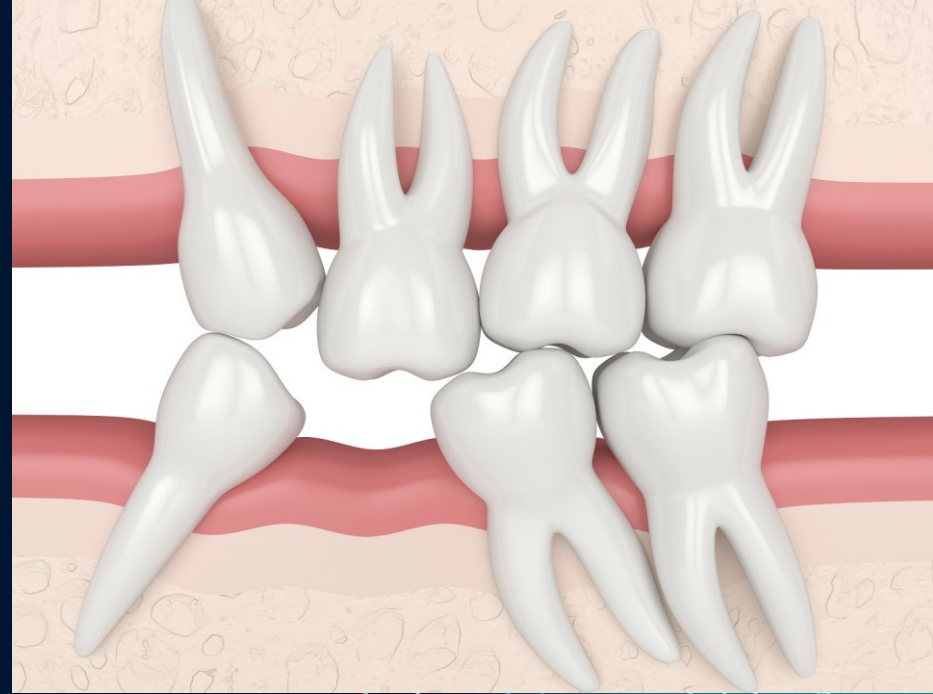
Consequences of teeth loss

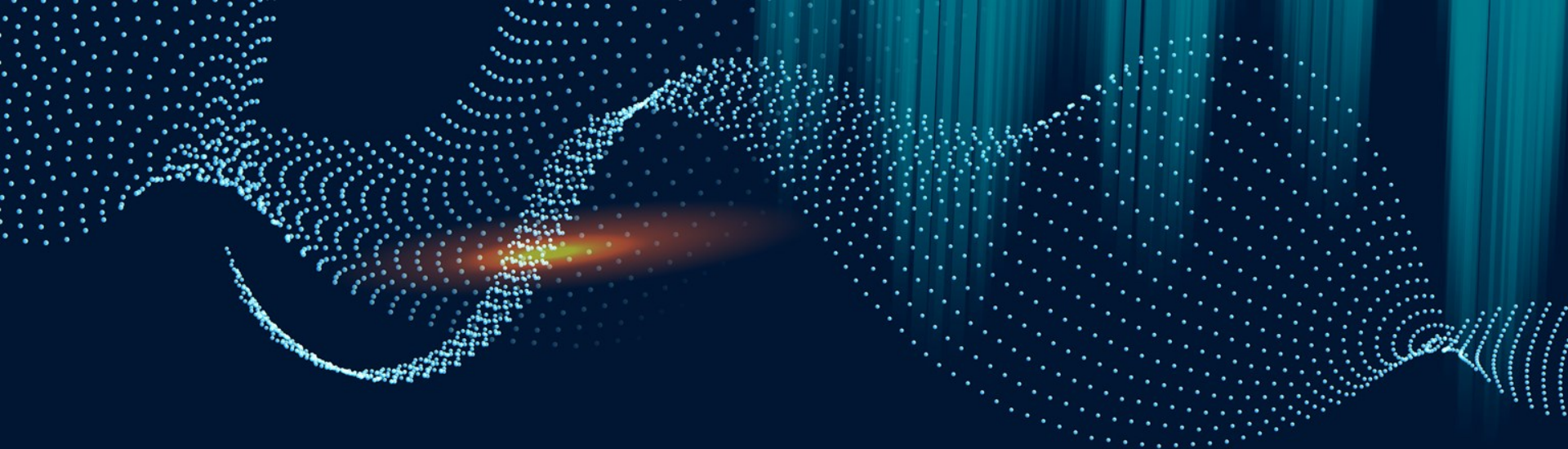
- Loss of function : the patient can't eat
- Loss of normal esthetic
- Resorption: The socket gradually remodels until it assumes the shape of the rounded edentulous ridge.



Consequences of teeth loss

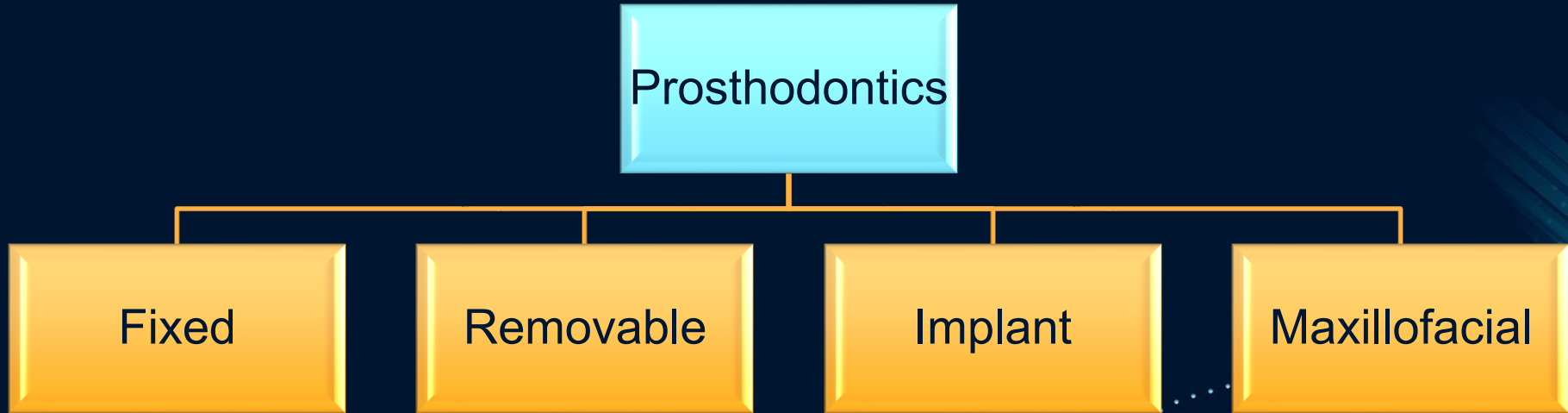
- Tilting
- Drifting
- Occlusal disharmony leads to discomfort, pain, or damage to temporomandibular joints.





05 | **Branches of Prosthodontics**

Branches of Prosthodontics



Prosthodontics

Fixed

Removable

Implant

Maxillofacial

The prosthesis will be fixed to the natural tooth (Crown) or teeth (Bridge)



Prosthodontics

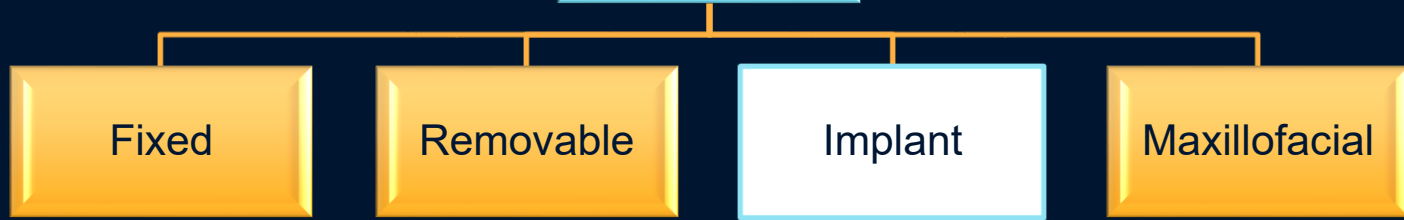


The prosthesis (Denture) can be removed and mounted from the mouth by the patient.

If all teeth are missing it is called (Complete denture).
If some teeth are missing it is called (Complete denture)

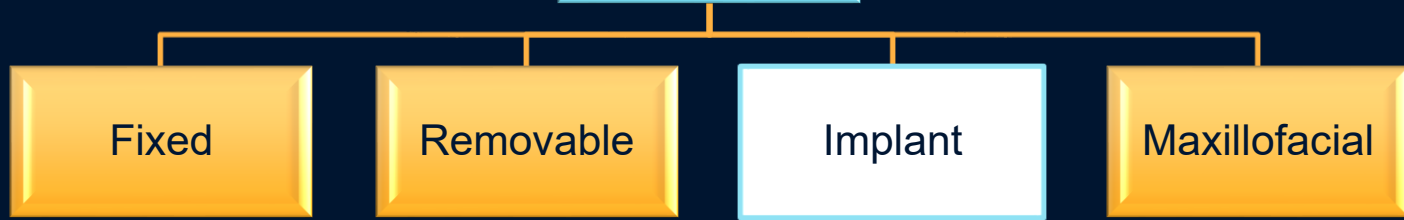


Prosthodontics



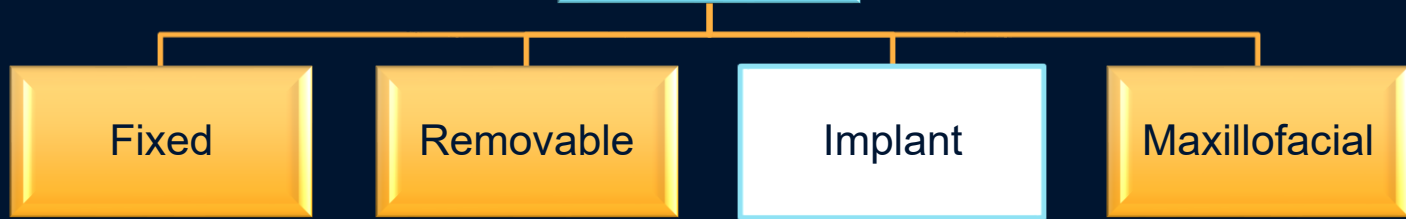
Screw shaped pin is inserted in jawbone (like the tooth root), then a fixed prosthesis is fabricated.

Prosthodontics



Dental implants are based on osseointegration concept which refer to direct connection between bone and artificial body (implant)

Prosthodontics



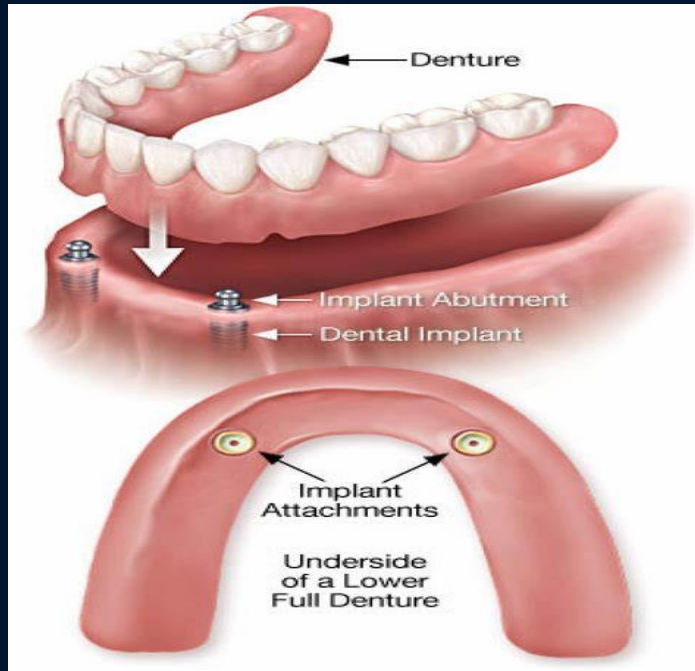
Prosthodontics

Fixed

Removable

Implant

Maxillofacial



Sometimes implants are used to help in denture stability (Overdenture)

Prosthodontics

Fixed

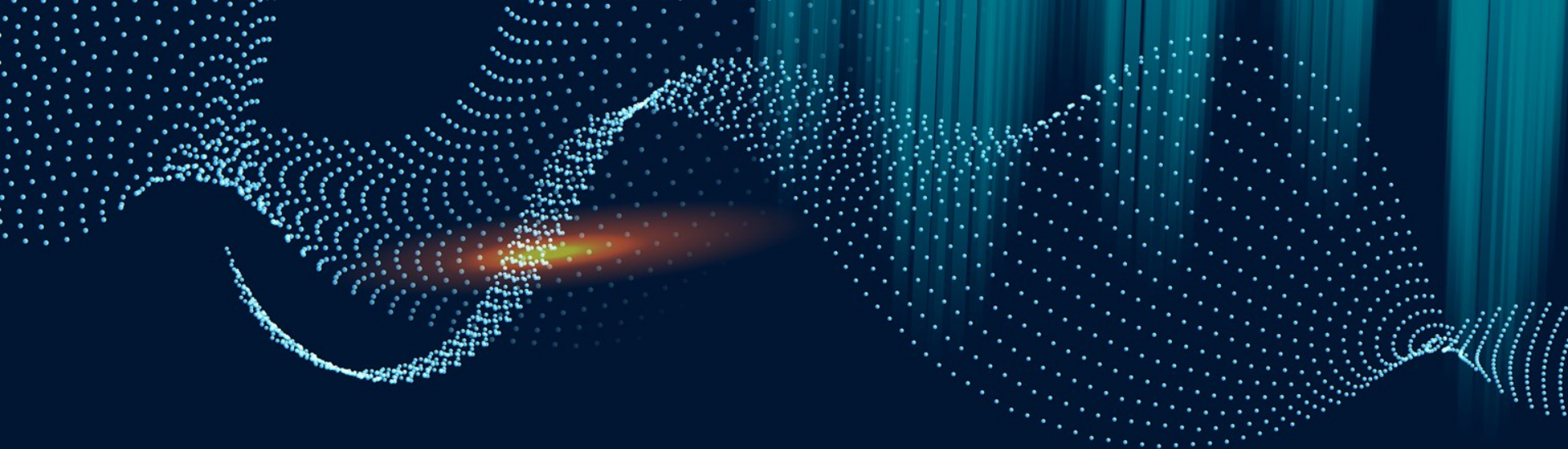
Removable

Implant

Maxillofacial



Make prosthetic replacements of other areas of the mouth and face lost by disease and trauma



06 | **Treatment goals of Prosthodontics**

Treatment goals of Prosthodontics

- Patient education
- Restoration of esthetics
- Improvement of mastication
- Improvement of speech
- Preservation of remaining oral structures



Treatment goals of Prosthodontics

- Maintenance of the health and comfort of the mouth
- Maintenance of the health of the TMJ
- General physical and psychological well being of the patient.





Thank you
