

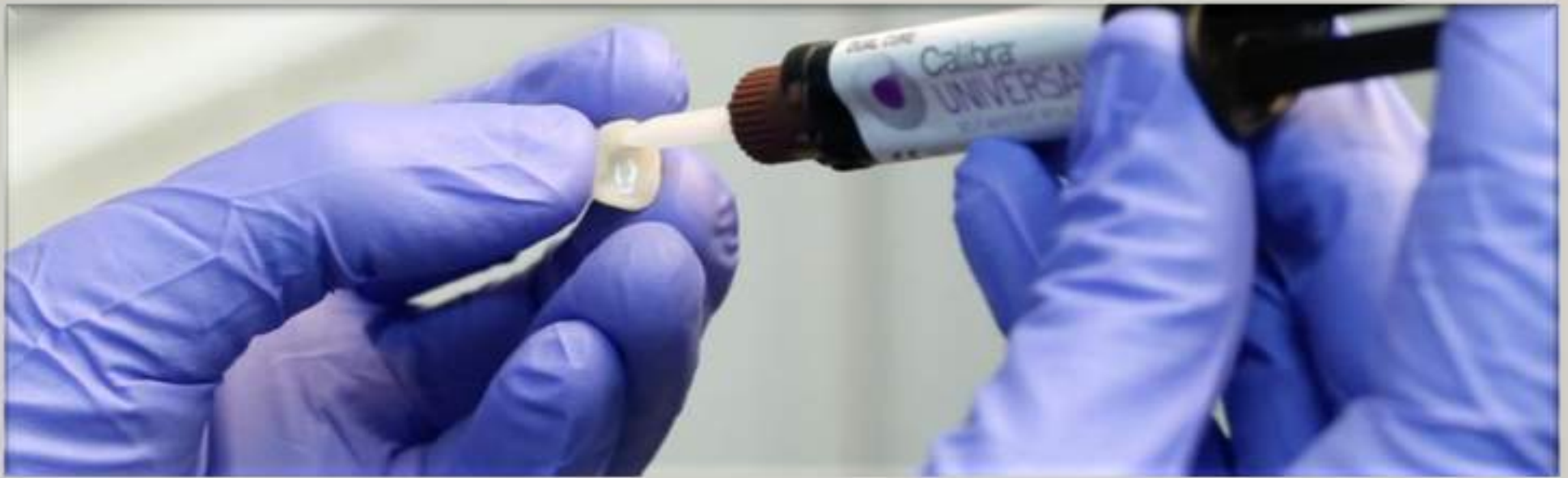
Sri Aurobindo College of Dentistry

Indore, Madhya Pradesh
INDIA



MODULE PLAN

- TOPIC :FIXED PARTIAL DENTURE
- SUBJECT: PROSTHODONTICS
- TARGET GROUP: UNDERGRADUATE DENTISTRY
- MODE: POWERPOINT – WEBINAR
- PLATFORM: INSTITUTIONAL LMS
- PRESENTER:DR.ANUP VYAS



FIXED PARTIAL DENTURE

Dr. Anup Vyas

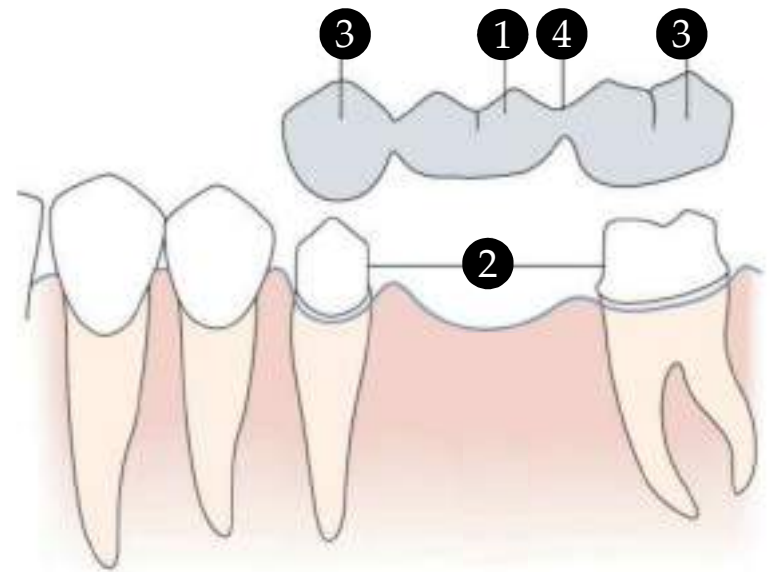
DEFINITION

The branch of prosthodontics concerned with the replacement and/or restoration of teeth by artificial substitutes that are not readily removed from the mouth

-GPT 9

PARTS OF FPD

1. The artificial replacement tooth is A **pontic**.
2. The supporting teeth are termed as **abutments**
3. The restorations that are cemented onto the abutments and retain the FPD in place are called **retainers**
4. The retainers are joined to the pontic by **connectors**



INDICATIONS

- The fixed partial denture prosthesis is indicated in general **when one or two adjacent teeth are missing.**
- The **abutment teeth and its supportive tissue namely the periodontium should be healthy.**
- It is commonly indicated for the following situation



INDICATIONS

1. In short edentulous spaces.
2. Abutment teeth and supporting tissues are healthy.
3. To harmonize dental occlusion in temporomandibular joint disorders.
4. To stabilize and splint the dentition after advanced periodontal therapy.

INDICATIONS

5. When the patient desires a fixed prosthesis.
6. The patient has the skills and motivation to maintain good oral and prosthetic hygiene.
7. When removable prosthesis is not indicated as in mentally and physically challenged patients.

CONTRAINDICATIONS

Fixed partial dentures are generally avoided in the following situations:

1. Edentulous space **with no distal abutment.**
2. **Long edentulous spaces.**
3. **Bilateral edentulous** spaces with more than two teeth missing on either side require cross arch stabilization.
4. Presence of **periodontally weakened abutments.**

CONTRAINDICATIONS

5. Teeth with **very short clinical crown** like congenitally malformed teeth.
6. Severe loss of tissue in the edentulous ridge because of surgery or trauma.
7. The patient has **poor oral hygiene**.
8. Very young patients with **wide pulp chambers**.
9. Very **old patients**, because of brittle teeth.
10. Medically compromised patients.

ADVANTAGE

The advantages over the removable dentures are the following:

1. Aesthetics.
2. Patient feels more secure than with RPD.
3. Capable of directing forces along the axis of the tooth.
4. Superior strength.
5. Provide proper occlusal function.

ADVANTAGE

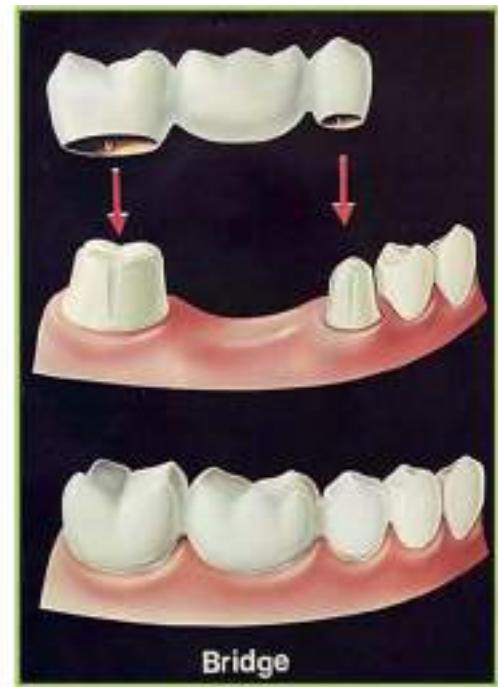
6. Maintain arch integrity/tooth position.
7. Maintain occlusal relationships.
8. Protect and preserve the remaining structures.

DISADVANTAGE

1. Involves irreversible preparation of abutment teeth.
2. Abutments susceptible to recurrent decay.
3. Preparation may injure pulp and periodontium.
4. Cost for remake if it needs to be replaced.
5. Creation of diastema difficult.

CLASSIFICATION

1. Location of abutment
2. Types of connector
3. Classification based on type of materials used
4. Duration of use
5. Span length
6. Classification based on type of retention
7. Type of support



CLASSIFICATION

TYPES OF ABUTMENT

1. Conventional: Abutment is located adjacent to the edentulous space and pontic is supported on both sides. This is the design for majority of fixed partial dentures.
2. Cantilever: Abutment is located adjacent to edentulous space but pontic is supported on one side only.
3. Spring cantilever: Abutment is not located adjacent to edentulous space and pontic receives support from one side only

CLASSIFICATION

TYPES OF CONNECTOR

1. Fixed-fixed:

2. Fixed-movable:

CLASSIFICATION

CLASSIFICATION BASED ON TYPE OF MATERIALS USED

1. All metal:.
2. Metal ceramic
 - (i) Metal with complete ceramic coverage:
 - (ii) Metal with ceramic facing]
3. All ceramic.
4. Metal with resin facings
5. All acrylic, composite and fibre-reinforced composite:

CLASSIFICATION

DURATION OF USE

1. Provisional or temporary FPD
2. Long-term temporary FPDs
3. Definitive FPD:

CLASSIFICATION

SPAN LENGTH

1. **Short span:** When the FPD replaces one/two adjacent teeth and is confined to 3–4 units, it is called short-span FPD.
2. **Long span:** When the FPD replaces more than two adjacent teeth, it is termed as long-span FPD

CLASSIFICATION

BASED ON TYPE OF RETENTION

- 1. Frictional resistance:** All the conventional fixed partial dentures are retained because of the frictional resistance offered by the parallel walls of the prepared tooth and the restoration, assisted by the cement.
- 2. Microretention:** The retention of the resin-bonded, etched cast restorations depend on the bonding ability of the resin

CLASSIFICATION BASED ON TYPE OF SUPPORT

1. **Tooth supported:** Conventional FPDs taking support of natural teeth only
2. **Implant supported:** FPDs using osseointegrated implants as abutments.
3. **Combination:** FPDs taking support of both natural teeth and implants.

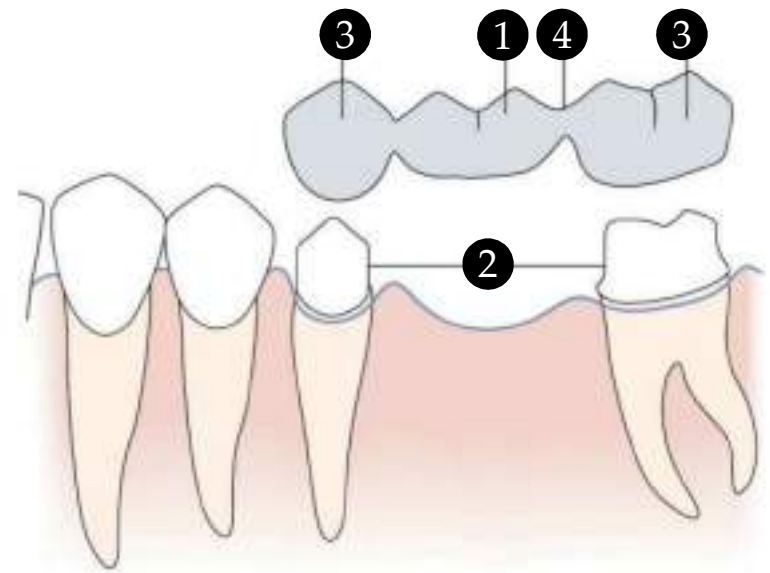


COMPONENTS OF FPD

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Fixed partial denture is made up of three elementary components – retainer, pontic and connector.

- **Retainer:** The part of a fixed dental prosthesis that unites the abutment(s) to the remainder of the restoration (GPT8).
- **Pontic:** An artificial tooth on a fixed dental prosthesis that replaces a missing natural tooth, restores its function, and usually fills the space previously occupied by the clinical crown.
- **Connector:** The portion of a fixed dental prosthesis that unites the retainer(s) and pontic(s).



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