GUIDELINES AND RATIONALE OF ABUTMENT SELECTION AND DESIGNING IN IMPLANT PROSTHODONTICS
An abutment is a component that is intermediate between the implant and the restoration and is retained to the implant by a screw or locking taper.
BICON’S 1.5° LOCKING TAPER
- Time-tested stable connection
- Proven bacterial seal

BICON’S SLOPING SHOULDER
- Space for bone over the implant
- Distributes occlusal stresses
- Preserves crestal bone

BICON’S PLATEAU DESIGN
- 30% more surface area
- No splinting necessary
- Callus bone formation
- Cortical-like Haversian bone between the fins

LOCKING TAPER
Implant Tier System

Three-Tier System

Two-Tier System
Temporary abutments are usually produced in a stock prefabricated fashion, to be used as it is or customise them as to establish tooth and gingival contours needed.
A) Depending upon retention
   - Abutment for screw retention
   - Abutment for cement retention
   - Abutment for Attachment

B) Depending upon angulation
   - Straight abutment
   - Angled abutment
c) Depending upon design

d) Depending upon manufacturing
- Stock
- Customised (CAD-CAM, CASTED)
ABUTMENTS FOR CEMENT RETENTION

a) Better passivity
b) Easier to obtain esthetics
c) Fewer porcelain fractures due to occlusal surface integrity
d) Less fatigue to the screw.
e) Manipulation in posterior region easier with cement
f) Loosen less often as compared to that of screws
- Difficult to retrieve unless soft cements are used.
- Gingival retraction may be needed.
- When permanent cements are used evaluation and maintenance may sometimes be difficult.
TYPES OF ABUTMENT FOR CEMENT RETENTION

1. Single unit or one piece abutment
   - does not engage antirotational hex but fits flush with the implant platform.

2. Two piece abutment
   - Has one component to engage antirotational hex of implant body and the other component to fixate the abutment and implant body together.

3. Multi unit abutment
   - Multi unit abutments are intended to be connectors between the dental implants and multiple implant screw-retained restorations. There are usually 3-4 angle correction options to choose from, ranging from straight - 0° to 45°.
ONE PIECE ABUTMENT
Multi unit abutments
ADVANTAGES
- Low profile of retention
- Less momentum of force
- No risk of cement in the sulcus
- Easily retrievable.

DISADVANTAGES
- Loosening of the screws
- Difficulty to obtain passivity
- Difficult to obtain esthetics
- Greater chances of porcelain fracture
- Access to posterior regions difficult -risk of aspiration.
ABUTMENT FOR ATTACHMENT

1. Used as an attachment device to retain a removable prosthesis. Includes ball abutments, mesostructure bars-continuous and non continuous Superstructure attachments - magnets, clips, hader clips, dolder clips, ceKA attachments, ERA attachments, Locators (Zest Anchors).