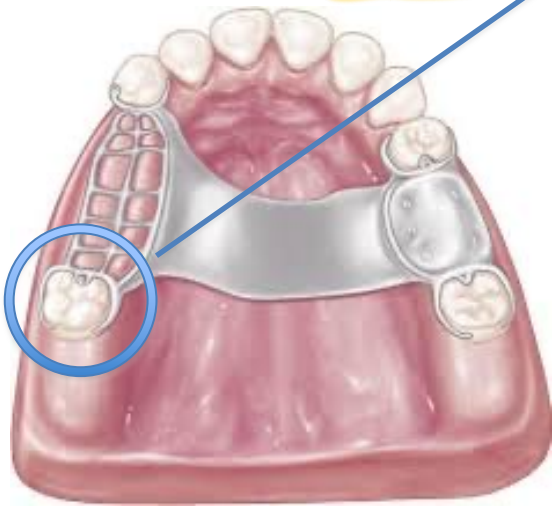
Prosthodontics

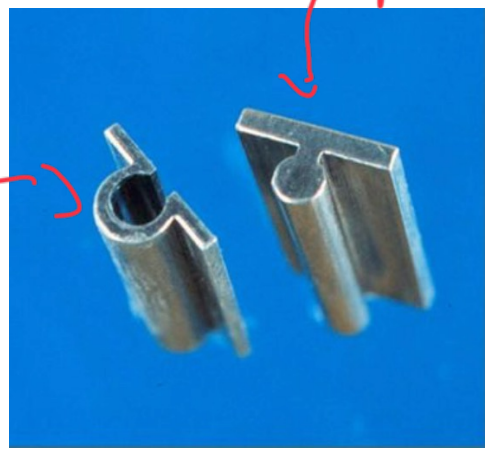
Direct Retainer (Clasp Assembly)

1. Rest= **support**
2. Minor connector= **stability**
3. Clasp arms
   - Retentive clasp arm= **retention**
   - Reciprocal clasp arm= **stability**



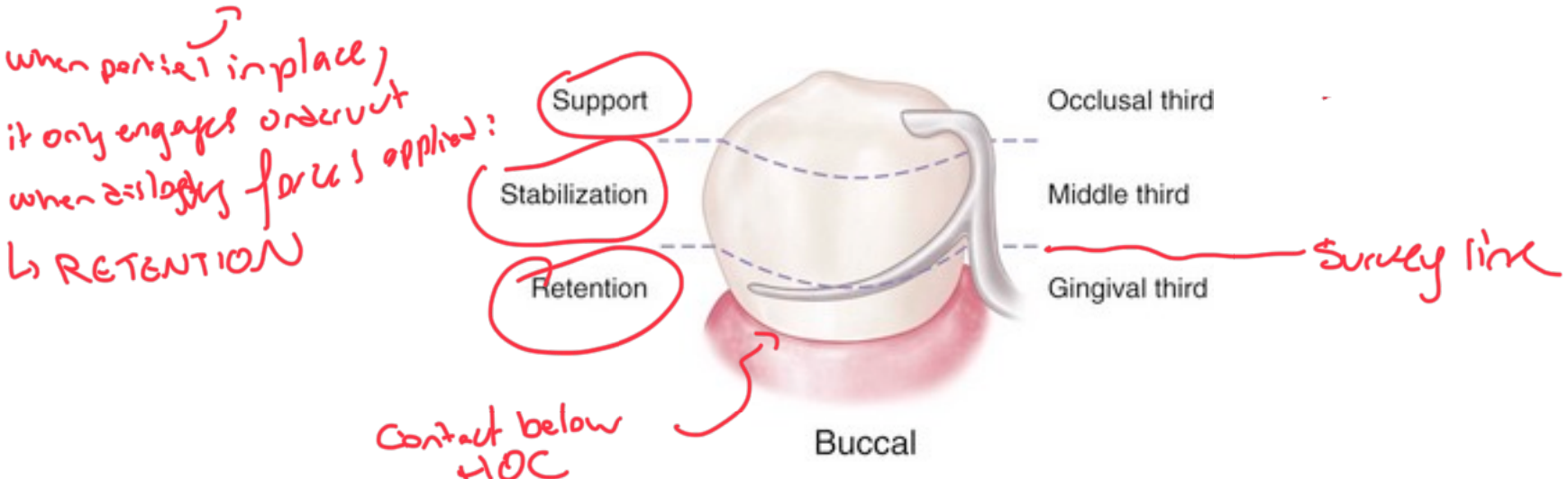
Direct Retainer (Clasp Assembly)

- Extracoronal retainer
  - More common, conventional “clasp” design
  - Clasps should encircle a tooth at least 180˚
- Intracoronal retainer
  - A precision attachment with key and keyway pattern
  - More esthetic because no clasps



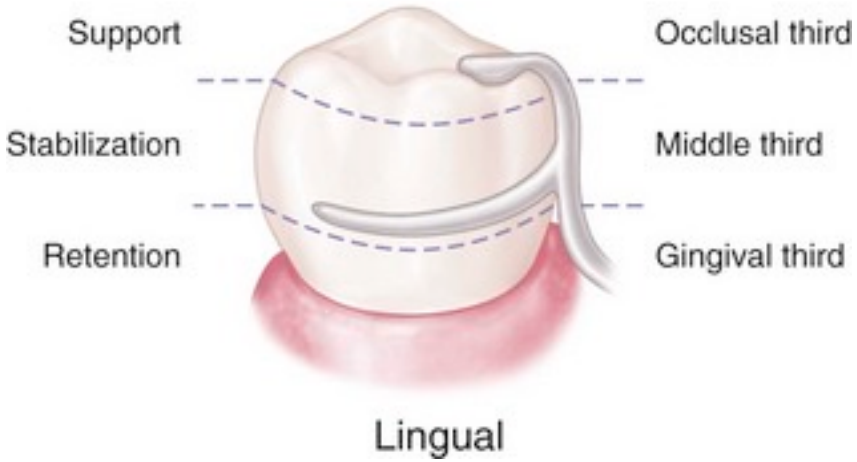
Retentive Clasp

- Originates from minor connector and rest
- Contacts tooth below height of contour/survey line
  - Shoulder and middle should be above HOC, only the tip should be under HOC
  - Tip is designed to engage in undercut and resist dislodging forces—only active when dislodging forces are applied to them, otherwise seat passively



Reciprocal Clasp (Stabilizing Clasp)

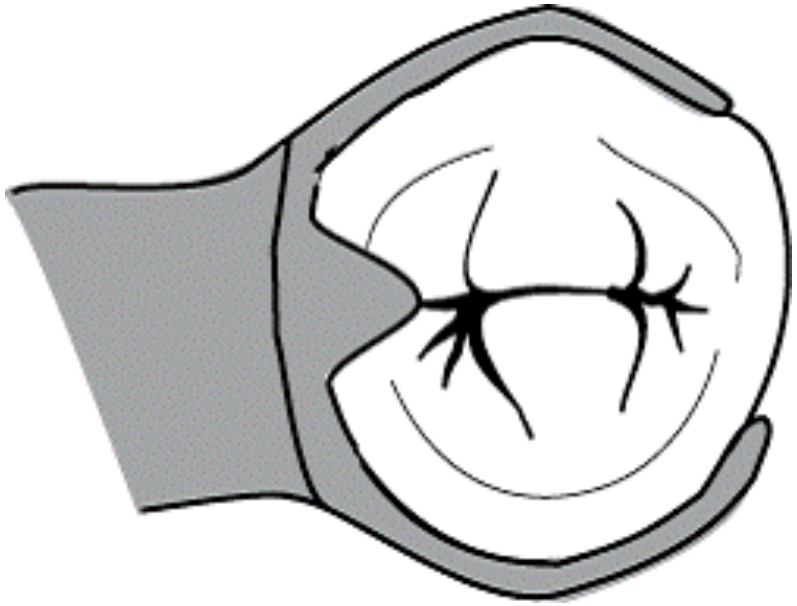
- Originates from minor connector and rest
- Contacts tooth above HOC/survey line
- Braces abutment tooth so it is not torqued by retentive clasp



Clasp Designs

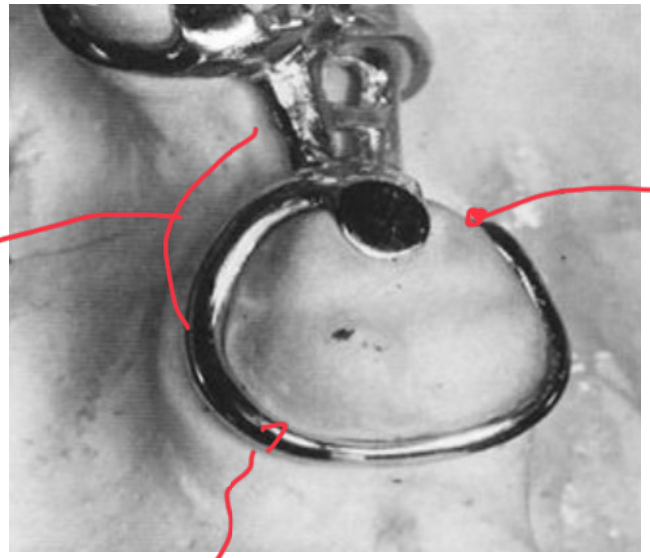
- Suprabulge= originate above survey line
  - Circumferential (Akers)
  - Ring
  - Combination
  - Embrasure
- Infrabulge= originate below survey line
  - I bar
  - T bar
  - Bar type
  - Y type

Circumferential (Akers) Clasp



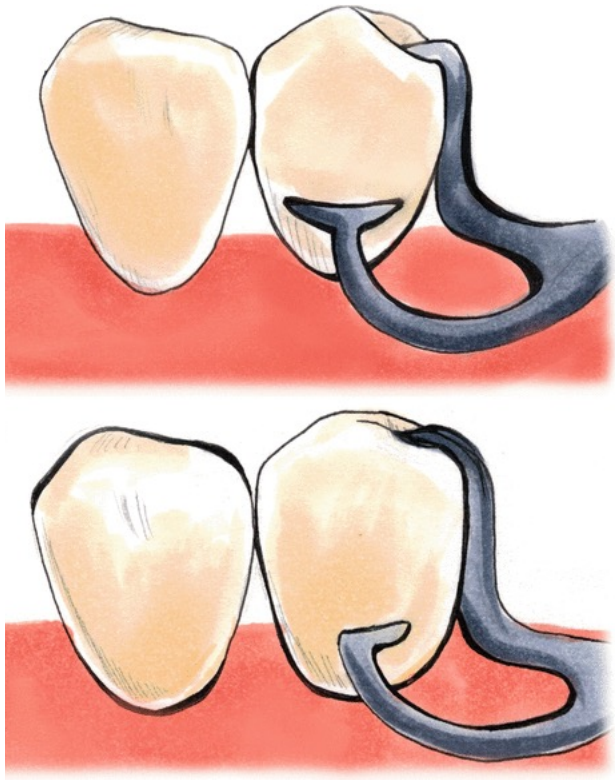
Ring Clasp

- Used when undercut is adjacent to BES

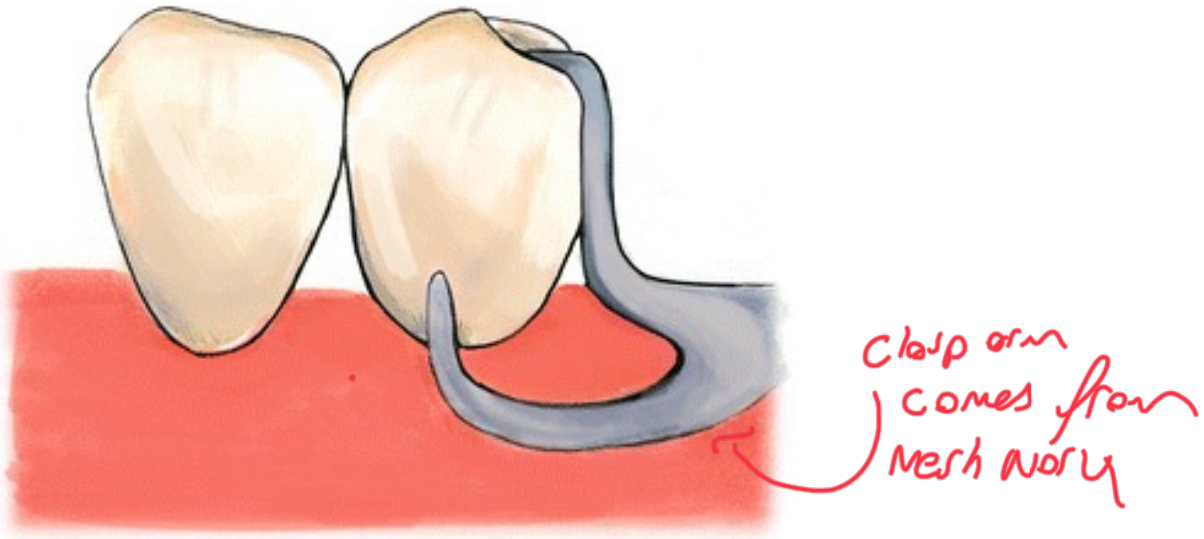


Embrasure Clasp

T-Bar

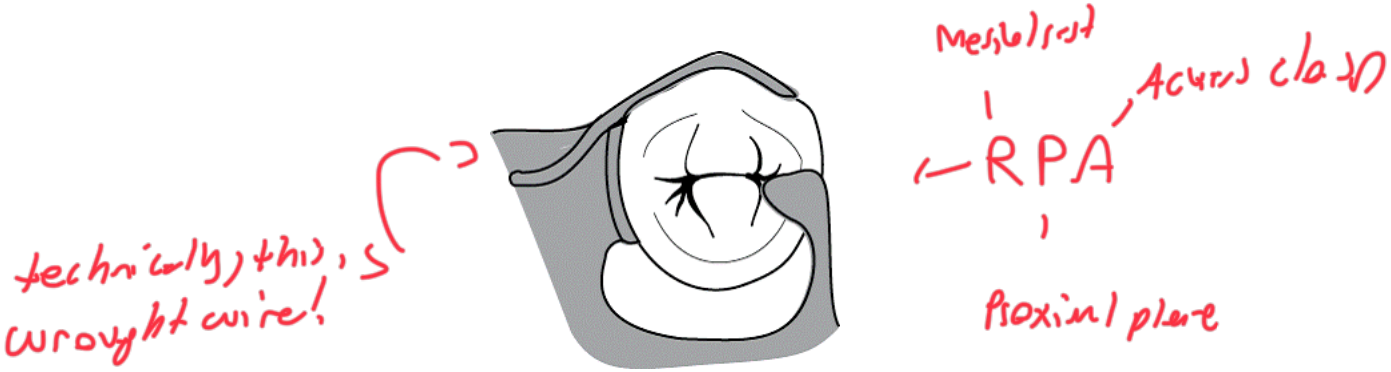


I-Bar



Clasp Assemblies

- RPI= rest, proximal plate, I bar (ideal Class II lever system)
- RPA= rest, proximal plate, Akers clasp
- RPC= rest, proximal plate, circumferential clasp (same as above)



Clasp Selection

- Wrought wire used for periodontally compromised and endo-treated teeth
- BES use **Akers clasps** with rest seats located adjacent to edentulous space
- Distal extension use in order of preference **RPI, RPA, and wrought wire**

Cobalt-Chromium

- 2.3% shrinkage which causes irregularities and porosity
- Cold-working
  - Involves manipulating the metal while at ambient temperature
  - Clasp assembly is cold-worked every time it is seated and dislodged
  - Main reason why clasps break