Achieving balanced occlusion

**Reciprocation** as applied to partial dentures refers to the function of the lingual clasp arm *(which is the reciprocal clasp arm or stabilizing clasp arm)* to **counteract forces** exerted by the buccal clasp arm *(which is the retentive clasp arm)*.

Reciprocation is the means by which one part of the framework **opposes the action** of the retainer in function. Reciprocation may be achieved by opposing flexible retainers with guide planes, minor connectors, rigid clasp arms or plating. If true reciprocation is to occur, the reciprocating element **must be placed opposite** the direct retainer and must contact the abutment as the retentive tip passes over the height of the contour of the tooth.

**Remember:** The current concept of bar clasp design is the R.P.I. system:

- **Mesial rest** - point of rotation which exerts a mesial force on the tooth
- **Proximal plate** - superior edge at bottom of guide plane to disengage during loading. Slightly lingual for reciprocation
- **I Bar** - 2.5 mm from gingival margin, crosses at right angles in a .01" undercut at the greatest M-D prominence to permit it to disengage during function

**Important:** The term **guiding plane** is defined as two or more parallel, vertical surfaces of abutment teeth, so shaped to direct a prosthesis during placement and removal. The functions of guiding plane surfaces are as follows:

- To provide for one path of placement and removal of the denture
- To ensure the intended actions of reciprocal, stabilizing, **and** retentive components
- To eliminate gross food traps between abutment teeth and components of the denture

As a rule, proximal guiding plane surfaces should be about **two thirds as wide** as the distance between the tips of adjacent **buccal and lingual cusps** or about **one third** of the **buccal lingual width** of the tooth and should extend vertically about **two thirds of the length of the enamel crown** portion of the tooth from the marginal ridge cervically. **Note:** Proximal plates are metal plates that contact the proximal surface or guide plane of an abutment tooth.