

Rules of Thumb for Removable Cast Frame Designs

Distal Abutments: Distal abutments adjacent to distal extension edentulous area require a more flexible clasp (wrought wire or infra-bulge), if the retention is mesial.

Distal abutments adjacent to a distal extension edentulous area may have a cast Circumferential clasp if retention is distal and the clasp originates from mesial.

Rests: Every tooth adjacent to an edentulous area must have a rest or if an anterior tooth, it must have at least a lingual apron.

- The rest on a tooth next to edentulous area ideally should be adjacent to the edentulous area. (i.e. a DO rest if edentulous space is distal but may be mesial if other conditions prevail.) (ex: occlusal interference opposite or directly opposing a distal rest from opposing arch).
- Avoid cutting a rest seat on an existing crown. Try to use its opposite side. (From mes to dist). An abutment with a clasp must have a rest, but a tooth may have a rest without a clasp.

Clasps: Clasp assembly must engage at least 180 degrees of the tooth. Clasp on a canine distal abutment next to a distal extension area must have its terminal end engage the abutment mesial to the midline of the tooth.

Lingual or Buccal Retention: A lingual retentive clasp is as retentive as a buccal retentive clasp.

- All lingual retention on one side of the arch with all buccal retention on the other side will be self displacing and WILL NOT WORK.
- A combination of buccal and lingual retention on one side WILL WORK, if the other side is all buccal or all lingual.

Major Connectors: Try to avoid maxillary horseshoe design because of its flexibility.

- In making a new RPD for a patient who wore one for a long time, use same design unless contraindicated by change in dentition due to additional tooth loss
- Mandibular bilateral distal extension RPD with only 6 anteriors should have a continuous lingual apron (plate) or lingual bar with a continuous lingual clasp (Kennedy bar).

Tori Guidelines:

- Maxillary – if tooth supported, Torus can be covered over by a full or partial metal palate. In event of maxillary distal extension avoid torus with major connector. Use Ant-Post palatal bar or horseshoe.
- Mandibular – Usually no need for torus removal. Distal extension use lingual apron (plate) major connector. Do not extend apically past maximum lingual contour of torus. Observe survey line on torus. Instruct lab to create double relief over tori.

RPD Repairs: Do not use patients only, ill-fitting RPD for modification as interim. If it goes wrong, the dentist may owe the patient a new one. Better to make a new low-cost acrylic resin interim, the anterior portion of which rests on some portion of the lingual surface of the anteriors.

Guide Plates: Every Space between teeth should have a guide plane (or rest) on either side of it.

Altered Casts: An altered cast procedure should be performed (following a try-in) with all lower cast frames having a unilateral or by-lateral edentulous distal.