

Characteristics and Location Palatal plate major connector

1. Anatomic replica form for full palatal metal casting supported anteriorly by positive rest seats.
2. Palatal linguo-plate supported anteriorly and designed for the attachment of acrylic resin extension posteriorly.
3. Contacts all of the teeth remaining in the arch.
4. Palatal major connector covering two thirds of the palate. The anterior border follows valleys between rugae
5. The posterior border is located at the junction of the hard and soft palates but does not extend onto the soft palate.

Indications

- In Class II arch with large posterior modification space and some missing anterior teeth.
- When relining is anticipated or cost is a factor.
- When the last remaining abutment tooth on either side of a Class I arch is the canine or first premolar tooth, especially when the residual ridges have undergone excessive vertical resorption.
- In the absence of torus.
- In most situations in which only some or all anterior teeth remain.



Fig.5



The palatal plate may be used in any one of three ways.

It may be used as a plate of varying width that covers the area between two or more edentulous areas, as a complete or partial cast plate that extends posterior to the junction of the hard and soft palates (Figures 6), or in the form of an anterior palatal connector with a provision for extending an acrylic resin denture base in a posterior direction (fig. 5).



fig.6

U-shaped Palatal Connector

From both the patient's standpoint and a mechanical standpoint, the U-shaped palatal connector is the least desirable of maxillary major connectors.

indication

1. When a large inoperable palatal torus exists.
2. Occasionally when several anterior teeth are to be replaced, the U-shaped palatal connector may have to be used (Figure 7). In most instances, however, other designs will serve more effectively.



Fig. 7 u shape palatal connector

The following are the principal to use objections of the

U-shaped connector:

1. Its lack of rigidity (compared with other designs) can allow lateral flexure under occlusal forces, which may induce torque or direct lateral force to abutment teeth.
2. The design fails to provide good support characteristics and may permit impingement of underlying tissue when subjected to occlusal loading.
3. Bulk to enhance rigidity results in increased thickness which is objectionable to the tongue.

Single Palatal Bar

To differentiate between a palatal bar and a palatal strap,

A palatal connector component less than 8 mm in width is referred to as a bar

- ❖ For a single palatal bar to have the necessary rigidity for cross-arch distribution of stress, it must have concentrated bulk.
- ❖ For a single palatal bar to be effective, it must be rigid enough to provide support and cross-arch stabilization
- ❖ And must be centrally located between the halves of the denture.

A partial denture made with a single palatal bar is often too thin and flexible or too bulky and objectionable to the patient's tongue.

The decision to use a single palatal bar instead of a strap should be based *on the size of the denture-bearing areas* that are connected and on whether a *single connector located between them would be rigid without objectionable bulk.*



. Anterior-posterior palatal bars



Beading of the Maxillary Cast

Beading is a term used to denote the scribing of a shallow groove on the maxillary master cast outlining the palatal major connector exclusive of rugae areas.

The purposes of beading are as follows:

1. To transfer the major connector design to the investment Cast
2. To provide a visible finishing line for the casting (fig. 8).
3. To ensure intimate tissue contact of the major connector with selected palatal tissue.

Beading is readily accomplished by using an appropriate instrument, such as a cleoid carver. Care must be exercised to create a groove not in excess of 0.5 mm in width or depth.



(Fig. 8) beaded maxillary cast