

DENTURES

VIRGINIA PARTIAL™



Patient with severe periodontal resorption.



Same patient after insertion of Virginia Partial.

Clasp partials require comparatively strong teeth to resist the stresses involved. In cases where the patient has only a few natural teeth remaining, these stresses, in combination with ongoing bone and tissue resorption, can lead to the loss of periodontally weak, isolated, elongated or mobile teeth.

Now, there is a new option in the battle to provide greater patient comfort, esthetics and postpone unnecessary tooth loss: the VIRGINIA PARTIAL.

An Innovative Concept in Partial Design

Featuring a unique combination of a hard acrylic base fused with a soft retainer made of elastic material, this tissue-borne appliance provides a dramatic increase in primary retention with minimum possible force on abutment teeth. The hard acrylic base has buccal and lingual flanges holding the appropriate denture teeth. Adjacent to these teeth, a portion of the buccal flange is removed and replaced with a band of soft silicone material. Slightly elongated openings in this elastic retainer strip receive (preferably) at least two successive existing teeth, retaining the partial

by employing natural undercuts in the remaining teeth or in the vestibule.

Gently Restores Function

The band stretches over the facial of the teeth without undue pressure and flexes during mastication. Placement and removal of the appliance is remarkably easy even where the path of insertion would normally be a problem. The elastomeric material readily yields as needed. It still has the proven wear resistance and tensile strength to provide adequate retention even after three years of daily insertion and removal (evaluation by Clinical Research Associates).

Wide Range of Applications

The Virginia Partial is an ideal substitute for many comparable restorations with clasps or precision attachments. Standard wrought wire appliances can easily be converted. While best used as an interim solution, the Virginia Partial can also be used in a number of other applications with the incorporation of cast clasps and rests. In mandibular cases, the incorporation of a lingual strengthening wire of 4 gauge or

higher will add considerable life to the appliance.

Superior Esthetics

Much less noticeable than anterior metal clasps, the tissue coloured retainer band employed in the Virginia Partial is barely visible at the gingival margin and blends with the acrylic base material. In cases involving severe periodontal resorption, the elastomeric band not only provides proven retention but also restores a beautiful, natural-looking gum line (see photo above). Even with clasps and rests, the appliance offers tremendous improvement in comfort, fit and bite.

Easily Upgradable

The Virginia Partial allows low-cost add-ons, repairs and relines. The loss or extraction of a natural tooth can be quickly remedied by adding a denture tooth in its place.

The Virginia Partial is far more than a temporary. Its unique ability to postpone or eliminate the loss of loose, isolated or periodontally involved teeth makes it a superior alternative to overdentures, cast metal partials and full immediate dentures.

Indications:

- where patient would otherwise suffer tooth loss or even full extraction
- traditional cast partial cases where undercuts in part of the oral anatomy will not allow hard denture base and clasp adaptation
- where several natural teeth worth saving remain but are not strong enough to support cast frameworks
- where the path of insertion is a problem
- in situations where cross arch stabilization would otherwise be difficult or impossible to achieve
- when conventional clasping is not a viable option (i.e. remaining teeth very short with no buccal undercut)
- while it can be prescribed as either an upper or lower partial, works best in mandibular application

Contraindications:

- patients who, through poor oral hygiene, build up plaque at the gingival margins
- cases of severe tooth angulation where insertion is extremely difficult and a lack of proper undercuts lead to food entrapment

Preparation:

1. In some instances, straightening and/or paralleling of remaining teeth may be advisable. Any teeth naturally out of line should be reshaped into improved alignment.
2. Determine whether the appliance should be tissue or tooth borne. The extraction of one or more mobile teeth may make the patient a more viable candidate for a Virginia Partial.
3. In maxillary applications, when the frenal attachment is very close to the cervical of the tooth, a frenectomy may be considered. This eliminates the V-cut

necessary to clear the frenal attachment (greatly weakens the Virginia Partial).

4. Any sharp incisal edges which may come in contact with the elastic retainer band should be rounded off prior to insertion.
5. Where there are large tori on the lingual of the teeth, a cast lingual plate should be prescribed in combination with the soft retainer band on the anterior teeth.
6. Second molars on the upper and lower do not lend themselves to the Virginia Partial due to the short space distal to these teeth plus the short space between the tuberosity and retromolar pad. A wrought wire or Aker's clasp is recommended in this situation.

Checklist for Alginate Impressions:

The following is a general set of steps and tips regarding taking an alginate impression.

1. Select the proper tray. A non-perforated rim-lock tray is recommended with most alginates for impressions of partially edentulous patients.
2. Modify the selected tray by rimming periphery wax or heavy-bodied polyvinyl siloxane impression material around the entire upper and lower trays. Seat trays in the mouth and muscle trim prior to placing impression material.
3. Clean teeth and prepare mouth as necessary. For regular-bodied alginates, it is generally best to have the patient rinse with a mouthwash mixture. This will cut the mucin and lower the surface tension helping to eliminate air bubbles. For heavy-bodied alginates, saliva makes an excellent separating medium.
4. Place gauze in mouth to remove excess saliva, if necessary.

5. Mix preweighed alginate and precisely measured distilled water for 15 seconds if a vacuum mechanical mixer is employed or 60 seconds with hand spatulation (timed with a clock).
6. Dip the tray in water and blow excess water away with air.
7. Load the tray, being careful to force the alginate into the rimlocks.
8. Remove any gauze from mouth.
9. Gently place some alginate on the teeth and in the palate.
10. Seat the tray immediately with a light rocking motion.
11. When the tray is seated, release pressure and hold tray lightly in place to prevent its unseating.
12. Place a small amount of the alginate mix on the bracket table as a test sample.
13. When the test sample has lost its tackiness, set timer for 2 minutes.
14. At the end of the 2 minutes, remove the impression with a firm, quick snap.
15. Inspect the impression carefully for defects as soon as it is removed and before it is washed.
16. All alginate impressions should be poured immediately using vacuum mixed stone and a vibrator.

Chairside Adjustments:

1. If the flexible band is too long, shorten to proper length and smooth using a Molloplast-bur (available from Cerum Dental Supplies Ltd.). These burs have a special cross-cut design perfectly suited for Virginia Partial adjustments.
2. To thin the band, support the tissue side of the partial and gently remove the excess material with a Molloplast-bur.
3. Tissue side adjustments should be made using a large rough diamond bur on a high speed handpiece.

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