

AN OVERVIEW OF FLEXIBLE REMOVABLE PARTIAL DENTURES

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I. Advantages

- Better esthetics
- Minimal tooth modification needed
- Clinically unbreakable
- Less expensive than cast metal RPD
- Biocompatible- no metal or monomer
- Thinner and lighter weight

2. Disadvantages

- Difficult to adjust and polish
- Can't be repaired or relined in office
- Debonding of teeth
- Nylon based flexibles absorb H₂O- staining and odors develop long term
- Distal extensions flex under load

3. Indications

- High esthetic demands
- Allergies to metal or resin
- Unsatisfactory experience with metal RPD
- Limited financial ability
- Medically compromised patient
- Patient with preexisting fixed restorations

4. Contraindications

- Minimal vertical clearance-need 4-5 mm clearance for retention of teeth
- Deep overbites (4 mm or more vertical overlap) where anterior teeth can be dislodged during excursive movements
- Poor soft tissue support- knife-edged ridges, severe atrophy, large mandibular tori
- Distal extensions
- Immediate applications
- Bruxers, TMJ patients

5. Polyamide thermoplastic polymers

- All are nylon-based
- Greater water absorption
- Can lead to greater staining/odors over time
- Examples:

Valplast® (Valplast International) Corp.

Sunflex® (Sun Dental Labs)

Flexstar (Nobilium®)

tcs® (TCS, Inc.)

6. Polyolefin thermoplastic polymers

- Not nylon
- Near zero water absorption- decreased stains and odor
- Easier to adjust and polish
- Example: Duraflex™ (The Myerson Co. Limited)

7. Hybrid RPD

- Combines metal framework with flexible denture base
- Prevents distal extension flex
- Maintenance of vertical dimension
- Esthetic anterior clasps

8. Adjusting

- Several methods in literature
- One way is as follows:
 - a. Green stone or carbide cutter for initial reduction
 - b. Bard-Parker blade to remove flash
 - c. Brown silicone polishing point
 - d. Green silicone polishing point
- Key is to adjust at low rpm's (15,000- 25,000 rpm's) to prevent melting of material

9. Polishing

- Course pumice- high speed light touch
- Brown Tripoli- high speed, light touch
- White high shine- slow speed, heavy touch

10. Repairs

- Pick up RPD in mouth with alginate impression
- Pour immediately
- Do not separate RPD from stone model
- Send to lab with opposing cast and bite registration

11. Rebase

- Closed-mouth PVS impression on tissue side
- Alginate impression to pick up RPD in mouth
- Pour immediately
- Do not separate RPD from stone model
- Send to lab