

## Materials, Equipment & Procedures for Complete Dentures

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**First Appointment** - Examination, Treatment Planning, Preliminary Impressions, Tissue Conditioning

### Instruments and Materials Check List

Instruments	Materials
a. RPD kit	a. alginate (pre-dispensed into cup)
b. straight handpiece (for adjusting denture, if required)	b. rope wax for posterior border of max. tray
c. acrylic burs	c. gauze (for drying mucosa, denture)
d. stock edentulous impression trays	d. indelible sticks (Dr. Thompson transfer markers)
e. rubber bowl	e. cotton tipped applicators
f. Butane Torch (if trimming soft liner)	f. pressure indicating paste (if required)
g.	g. tissue conditioner if required (Lynal)
h.	h. blade for red-handle knife
i.	i. mixing cup for tissue conditioner

### Clinical Procedures

1. History + clinical examination
2. Treatment plan discussed with cluster supervisor.
2. Patient education, discussion of finances, timing, plan signed.
3. Marking vibrating line with indelible stick (line will transfer to impression). After disinfecting the impression, refresh the line with a new indelible stick.
4. Preliminary impressions - irreversible hydrocolloid
5. Adjust denture with acrylic burs if required for comfort, retention, stability, etc.
6. Tissue conditioner - as indicated.
6. Emphasize the need for leaving out dentures 24 hours (minimum 12 hours) prior to the final impression

### Laboratory Procedures

1. Disinfect impression, refresh vibrating line/posterior palatal seal area
2. Pour & trim casts (double pour acceptable), draw outline for custom tray extension
3. Complete prescription and send to lab to fabricate custom tray(s)

**RPD Kit** includes:

Scissors

Cotton pliers

Dental Mirrors x2

#7 Wax Spatula

Wax Cottrell

Ball burnisher

Red Handled knife handle

Scalpel handle

Alginate Spatula (Plastic Handle)

Plaster Spatula (Metal Handle)

Articulating Paper Forceps

Boley gauge

## Second Appointment - Border Molding & Impressions

### Instruments and Materials Check List

Instruments	Materials
a. RPD kit	a. green stick compound
b. straight handpiece	b. indelible sticks
c. acrylic burs	c. gauze & cotton rolls
d. water bath (135°F)	d. PVS light body impression material
e. butane torch ± Hanau torch	e. PVS adhesive
f. rubber bowl of cold water	f. cotton tip applicators
g.	g. sticky wax (¼ stick)
h.	h. Korreкта wax #4 (small piece)
i.	i. Vaseline
j.	j. blade for red-handle knife
k.	k.

### Clinical Procedures

1. Adjust tray introrally (check frenal & vestibular relief) until it doesn't displace during cheek & lip movements & the periphery is at least 2 mm short of vestibular fold, no discomfort
2. Border mould with green stick compound
3. Trim excess compound and remove relief wax (drill relief holes in upper tray with round bur)
4. Paint tray with adhesive 5 minutes prior to impression
4. Dry mouth with 2 x 2 gauze and lightly Vaseline the skin around the mouth.
5. Make the final impression. Use two mirror technique with operator seated, patient reclined
6. Use sticky wax, then Koreкта wax #4 to repair voids
7. Place, adjust & polish tissue conditioner on the existing denture as indicated.

### Laboratory Procedures

1. Box and pour master casts. Ensure no critical anatomy on impression covered by alginate
2. Trim and notch base of master cast (maintain 3 mm width and 3mm height of land area from vestibular fold)
3. Complete prescription and send to lab to fabricate record bases and occlusal wax rims

### Third Appointment – Jaw Relation Records

#### Instruments and Materials Check List

Instruments	Materials
a. RPD kit	a. bite registration medium (PVS)
b. straight handpiece	b. PVS mixing tips
c. acrylic burs	c. indelible stick
d. bite fork (edentulous)	d. wooden tongue depressor (split for mounting)
e. Fox plane (optional)	e. ½ sheet of baseplate wax
f. butane torch ± Hanau torch	f. sticky wax (¼ stick)
g. facebow	g. Dentsply plastic Autorule
h. articulator	h. shade guide
i.	i. blade for red handle knife
j.	j.

#### Clinical Procedures

1. Check maxillary wax rim intraorally and adjust to proper lip support, 1mm below lip
2. Adjust mandibular wax rim intraorally for proper lip support, level with corners of mouth, occlusal plane intersects record base ½ way up retromolar pad
3. Adjustment of rims to obtain 2-4 mm interocclusal space using Boley Gauge, flat even bilateral contact only between wax rims in centric position
4. Obtain face bow record and [**Lab**] mount notched maxillary cast in laboratory with fast set plaster
5. Record initial centric relation using small amount of pvs bite registration material over entire occlusal table
6. [**Lab**] Mount mandibular cast using sticky wax ± sticks to immobilize
7. Confirm centric relation record with new centric bite registration with centric locks released
8. Make a protrusive record and set condylar guidance on articulator
9. Mark reference lines on wax rims. Ensure proper overbite in anterior region, overjet for entire arch
10. Select teeth using old dentures and measurements as a guide
11. Replace tissue conditioner if indicated
12. Request patient to bring a relative or friend for the next appointment

#### Laboratory Procedures

1. Ensure all mountings and settings are correct, wax rims proper orientation to each other
2. Complete prescription and send to lab for initial tooth setup and return for wax try-in

## Fourth Appointment – Wax Try-in

### Instrument and Materials Check List

Instruments	Materials
a. RPD kit	a. bite registration medium (PVS)
b. straight handpiece	b. PVS mixing tips (small)
c. acrylic burs	c. indelible stick
d. butane torch ± Hanau torch	d. wooden tongue depressor (split for mounting)
e. articulator with waxed dentures	e. ¼ sheet of baseplate wax
f. full face mirror	f. sticky wax (¼ stick)
g.	g. articulating paper
h.	h. gauze

### Clinical Procedures

1. Verify centric relation prior to anything else. New PVS record used with unlocked condylar guides
2. Remount if necessary after making a second new PVS record that demonstrates incorrect mounting
3. Check vertical dimension - external measurements, phonetics, feel for interocclusal distance.
4. Check lip support, esthetics, phonetics
5. Check to ensure posterior centric contacts even, centered over mandibular ridge, even bilaterally, not on inclines or buccal to residual ridge
6. If changes required, discuss with instructor to determine if to be done clinically or to send back to lab
7. Request patient acceptance. If changes required, repeat 'Fourth Appointment' procedures at subsequent appointment prior to acceptance.

### Laboratory Procedures

1. Ensure all mountings and settings are correct
2. Complete prescription and send to lab for processing, finish and polish, fabrication of remount index, remount casts and mounting of the maxillary denture

## Fifth Appointment – Adjustment, Delivery & Care Instructions

### Instruments and Materials Check List

Instruments	Materials
a. RPD kit	a. bite registration medium (PVS)
b. straight handpiece	b. PVS mixing tips (small)
c. acrylic burs	c. articulating paper
d. butane torch ± Hanau torch	d. wooden tongue depressor (split)
e. articulator	e. sticky wax (¼ stick)
f. finished dentures	f. PIP (Pressure Indicating Paste)
g. full face mirror	g. 'Your New Dentures' pamphlet
h.	h. denture toothbrush
i.	i. plastic denture cup
j.	j. gauze
k.	k. cotton rolls
l.	l. cotton tipped applicators (for cleaning paste)

### Clinical Procedures

1. See '8 Step Complete Denture Delivery' next page. Also posted on website in 'Docs' menu
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## 8 Step Complete Denture Delivery

### Step 1 Adjust Denture base with PIP (spray water on tissue and PIP prior to seating)

- until heavy pressure on 1<sup>st</sup> molars causes no pain
- If no pain on heavy pressure, then discomfort while chewing will be probably caused by tilting, twisting from occlusion

### Step 2 Denture peripheries with PIP (one quadrant at a time)

- until border molding doesn't displace denture or show heavy burnthrough

### Step 3 Occlusal Adjustment – remount on articulator (AFTER Denture Base adjusted)

- centric contacts on flat surfaces, middle of occlusal table
- minimize buccal cusp contacts
- should sound like loud knocking when centric contacts are even
- excursive contacts distributed, no bumps, jumps, light anterior contacts

### Step 4 Chewing Test & Rate – until no pain, looseness

- if problem, adjust occlusion until patient rates ~95-100% better
- Locate problem teeth, minimize contacts that are uneven, heavy, buccal to ridge, eliminate centric stops on inclines
- If patient not sure it's better, keep adjusting until ~ 90% better, 'You got it', 'that's much better!'

### Step 5 Check OVD, Esthetics & Phonetics

#### Step 6 Polish

- small areas, use Brasseler polishing points in clinic
- for final polish or extensive areas
  - disinfect, gloves off, take to lab
  - clean pumice with liquid soap (emulsifies) on clean ragwheel,
  - tin oxide on clean ragwheel,
  - discard both ragwheels when complete

### Step 7 Care Instructions verbal and written with pamphlet, toothbrush, denture cup

#### Step 8 Recall/Follow-up

- As soon as possible (within one day suggested)
  - Within 24 hours mandatory for immediate dentures
  - Eliminate problems early – happier, comfortable patients
  - Dal – 6 month recall
  - Practice – yearly recall

## Sixth Appointment – Adjustment appointments

### Instruments and Materials Check List

Instruments	Materials
a. RPD kit	a. PIP (Pressure Indicating Paste)
b. straight handpiece	b. articulating paper
c. acrylic burs	c. gauze
d. butane torch ± Hanau torch	d. cotton rolls
e. articulator	e. bite registration medium (PVS) if remount required
f.	f. PVS mixing tips (small)
g.	g. sticky wax (¼ stick)
h.	h. wooden tongue depressor (split)
i.	

### Clinical Procedures

1. Take careful and detailed history of all problems. List problems, possible causes, means to test & eliminate possible causes (example below) \*
2. For sore spots, press with fingers on first molars to see if elicits discomfort. If so, use PIP to adjust until no pain on pressure.
3. When no pain on pressing, but pain with chew test, remount and adjust to eliminate heavy contacts, contacts on inclines, contacts buccal to ridge. Adjust extraorally on articulator
4. For looseness, check extensions, tissue adaptation, occlusion
5. Assess for esthetic/phonetic/other functional issues
6. Final chew test and rate improvement.

Repeat '**Sixth Appointment**' protocol for additional appointments for adjustments as needed

\*Sample Problem List:

<u>Problems</u>	<u>Possible Causes</u>	<u>Test Hypothesis</u>
1. Sore, feels long maxillary lip, midline	- long flange - frenum needs relief - thick flange - tipping from occlusion	} use PIP } chew test } artic. paper.
2. Pain, lower right side when chewing.	- occlusion - Sharp edge on denture → irritates when chewing.	} chew test, artic. paper remount } PIP