

Complete Denture Delivery

Dec, 16, 2015

Armamentarium

Patient file.
 Articulator.
 Pressure indicating paste.
 Denture bowl, mouthwash, bib and chain.
 Hand mirror.
 Completed dentures and study casts.
 Straight handpiece and burs.
 Occlusal indicator wax and articulating paper.
 Mouth mirror.

Before placing dentures in the patients mouth, the dentures should be inspected to be sure that there are no imperfections.

Tissue surface

Polished surface

Flanges

Ideally the patient should be instructed to keep any previous dentures out of the mouth for 12 to 24 hours immediately before the insertion appointment.

This is essential if the new dentures are to be seated on the healthy and undistorted tissues.

If the tissues are being distorted by old dentures, the new dentures will not seat perfectly, even if they fit perfectly.

Improper seating of the dentures at this time can cause the appearance of errors in occlusion or fit that would not exist if the tissues were undistorted.

Pressure indicator paste should be used for every new denture, and any necessary adjustments should be made before proceeding with the occlusal adjustment.

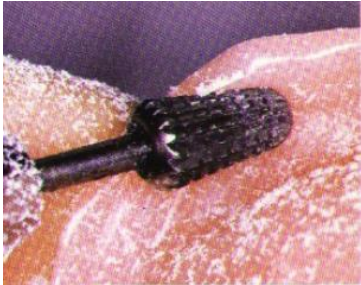


It is especially helpful when bilateral undercuts on the residual ridge interfere with the initial placement of dentures or when pressure spots were present on the final impression.

The paste is brushed on the tissue surface of the denture base in a thin layer so the brush marks are visible and run in the same direction.



The denture is carefully placed in the mouth and pressure is applied by the dentist on the teeth to reveal any pressure spots in the denture base that would displace soft tissue.





It is essential to put PIP in incremental layers on denture borders

Why?

- Support.

Denture bearing tissues should resist movement of denture tissue-works upon application of finger pressure on the occlusal surface at the premolar-molar region.

- Stability.

Denture should be relatively immobile upon application of alternate finger pressure on the premolar-molar region.

Stability will be adversely affected if level of lower occ. Plane is higher than the dorsum of the tongue.

- Stability.

Lower denture should not extend to the ascending ramus otherwise occlusal pressure will dislodge it forwards.

- Retention.

Denture should resist movement away from the tissues when a force is applied in that direction.

Retruded tongue position affects retention of the lower denture. Exercises are prescribed to train the tongue to a more anterior position.

- Retention.

Application of an anterior pressure onto incisal edges of anterior teeth will test posterior seal (post dam in the upper jaw and at retromolar pads in the lower). While application of a posterior force on the same regions will test peripheral seal labially and lingually.

- Retention.

Post dam should be examined in cases of reduced retention of upper denture
Post dam absence, under extension or overextension (in the tissues) would compromise retention.

Retention.

If retention was not good enough the fitting surface should be wet with water and left in the patient's mouth for some time for the denture bearing areas to adapt more to the denture.

- Aesthetics

Midline (upper, lower dentures and the face)

Orientation of occlusal plane and parallelism with interpupillary line.

Relations of occlusal plane might change if parts of the flask did not meet properly after packing of acrylic resin during processing.

- Phonetics

Encroachments and violation of free way space might affect pronunciation of s sound.

- Occlusal relation

Occlusal relations might change from the time of try in due to polymerization contraction and shrinkage of the acrylic resin.

Laboratory remount often eliminates the problem.

Occlusal errors might still be present if mistakes in bite registration went undiscovered during the try in stage.

To observe an error, the dentist should guide the mandible into centric relation (CR), while supporting the lower denture intra-orally. The patient is instructed to close until the first "feather touch" is felt on the posterior teeth. At the first contact, the patient is instructed to open and repeat this closure, stopping the instant tooth contact is felt; then the patient is instructed to "close tight". This procedure will reveal errors in CR by the touch and the slide of teeth on each other.

Occlusal errors during the delivery stage of CD's

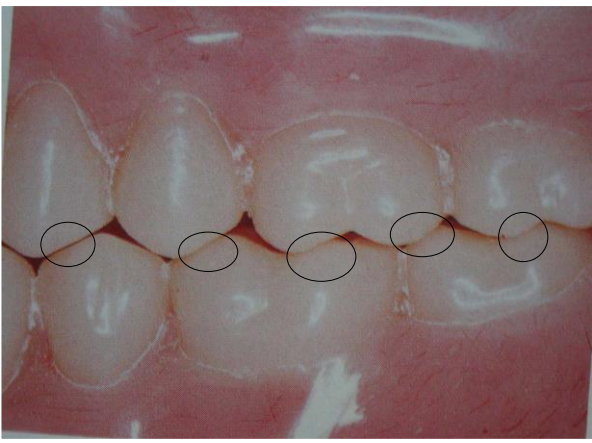
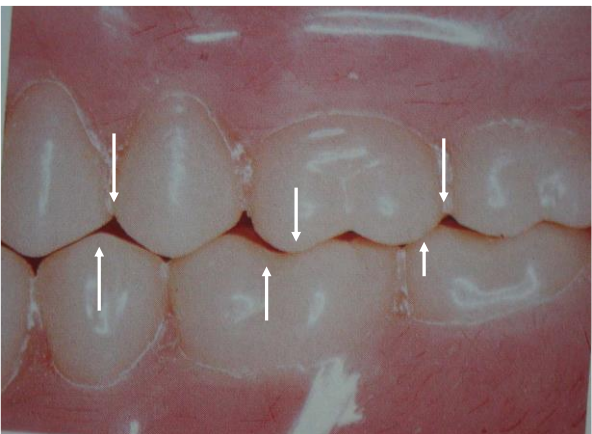
Occlusal error might be:

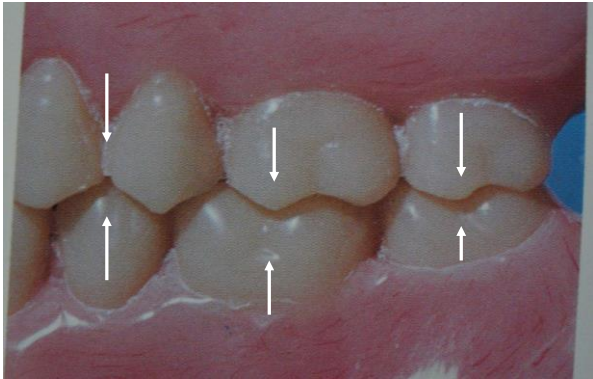
- Small: This can be adjusted with chair side occlusal adjustment.
- Intermediate: This can be adjusted with a clinical remount technique.
- Gross error: this can be dealt with by the removal of acrylic teeth off the lower denture, the build up of an occlusal wax rim and the registration of the CJR again.

- First: Correcting a small error by chair side adjustment.

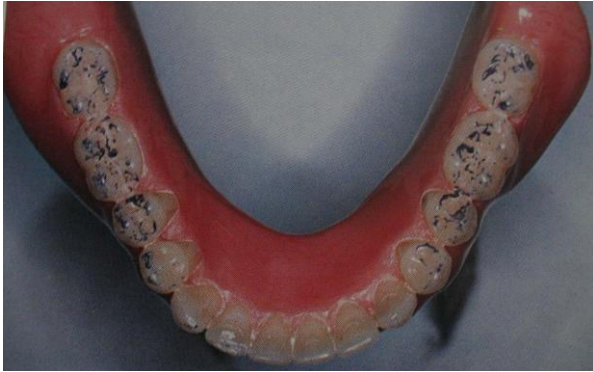


- Let's get a close up of relationship of these artificial teeth





- The static relationship in the intercuspal relationship should then be recorded using thin articulating paper.



Poor incisal contacts upon mandibular protrusion



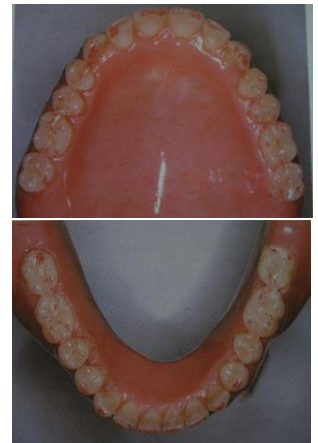
Adjustment procedure:....

- Palatal aspects of upper incisal edges and labial aspects of lower incisal edges.



- Grinding of lower anterior teeth is carried out at an angle.
- It may be necessary to grind cusps of posterior teeth to improve incisal contact.

- Occlusal and incisal contacts following adjustment to provide balanced contacts upon protrusion.



Improved pattern of incisal contact in protrusion



- Second: If we have a moderate occlusal error that became evident at the time of insertion....

Clinical Remount of Processed Dentures

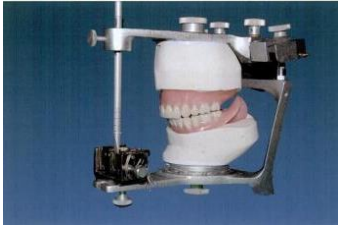
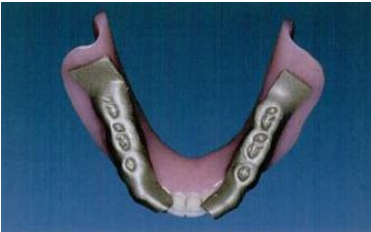
- Remount on an articulator
- Allows extraoral occlusal adjustment
- Eliminates continual removal & replacement of dentures



Clinical Remounts Save Time

- Allows identification of interferences not seen intraorally
 - Reflex avoidance caused by:
 - Pain
 - Instability of the dentures
- Fewer adjustment appointments

Clinical Remount

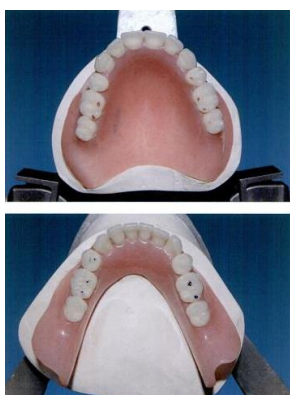


Occlusal adjustment: (Selective grinding)

The sequence of steps should be as follows:

1. Refine centric occlusion.
2. Perfect working and balancing occlusion.
3. Correct protrusive occlusion.

Adjust the occlusion on the articulator, using articulating film of separate colour for centric and **excursive** contacts



*Selective grinding is carried out using articulating paper to mark the area of premature contacts.

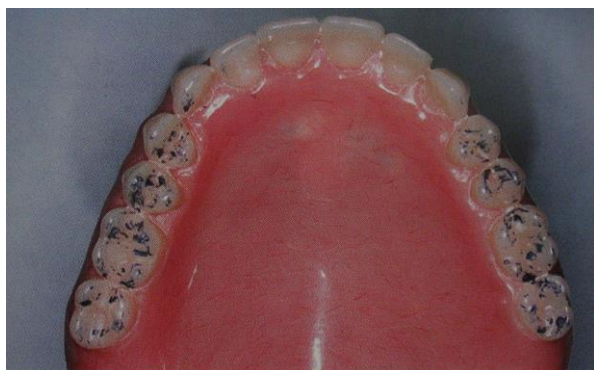
Procedure:

1. Adjust the articulator to the proper setting.
Use red articulating paper for marking centric occlusion and blue articulating paper for the eccentric movements.
2. Grind the teeth with small green or diamond stones.

→

4. Obtain even contact in centric occlusion:

- Lock the upper arm of the articulator in centric relation. Check the occlusion by opening and closing the articulator, and lightly tapping the teeth together on red articulating paper.
- Loosen the locks on the condylar elements and move the denture in eccentric movements. Using blue articulating paper between the teeth.
 - If the cusp is high in centric occlusion only → deepen the fossa.
 - If the cusp is high in both centric and eccentric position → reduce the cusp.



5. Adjust the working relation:

Loosen the centric locks and use blue articulating paper.

As a rule in selective grinding the centric holding cusps are not ground. These are: the **maxillary lingual** cusps and the **mandibular buccal** cusps.

These cusps are essential to maintain the recorded vertical dimension.

If interferences exist in the **working side** reduce either the **upper buccal** cusps or the **lower lingual** cusps.

This is called B.U.L.L. Rule

In the bull rule reduce the lingual inclines of the upper buccal cusp and the buccal inclines of the lower lingual cusps.

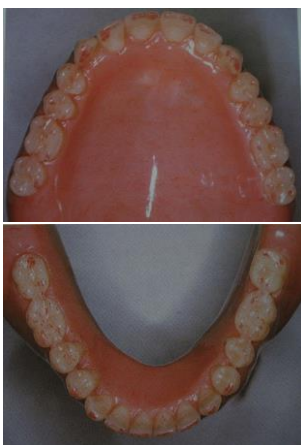
6. Adjust the balancing relation:

Rule: If interference exists on the balancing side reduce the lingual slope of the lower buccal cusp. The lower buccal cusp is a centric holding cusp so grind carefully and do not reduce the cusp tip.

7. Adjust protrusive relation:

- a. If the anterior teeth have heavy contact with no contact on the posterior teeth → grind the labial surface of the lower anterior and the palatal surface of the upper anteriors.
- b. If heavy posterior contact exists with no anterior contact reduce the distal inclines of the maxillary cusps and the mesial inclines of the mandibular cusps.

- Occlusal and incisal contacts following adjustment to provide balanced contacts upon protrusion.



Ensure:

- No anterior contacts in CO
- Uniform simultaneous, bilateral centric contacts
- Smooth excursive movements

Balanced Occlusion

Ensure:

- Balancing contacts are present
- Balancing contacts not heavier than working contacts
- Light grazing contacts of the anterior teeth in excursions

Intraorally verify that contacts are similar and the occlusion feels comfortable to the patient

Occlusal Analysis

- Place patient in centric relation
- Visually check the occlusion
- Stabilize mandibular denture
- Check with articulating paper



The ground surfaces of the teeth must be polished when grinding has been completed.

Polish Adjusted Areas

- Pumice on a wet ragwheel
- Tin oxide on a dry ragwheel
- Use sterile ragwheels
- New pumice for each patient
- Wet the pumice with disinfectant such as chlorhexidine .

Patient instructions

When all adjustments have been completed the patient should be advised on:

- the proper care and use of new dentures
- Individuality of the patient
- Appearance of new dentures
- Mastication with new dentures
- Speaking with new dentures
- Oral hygiene and denture cleansers