



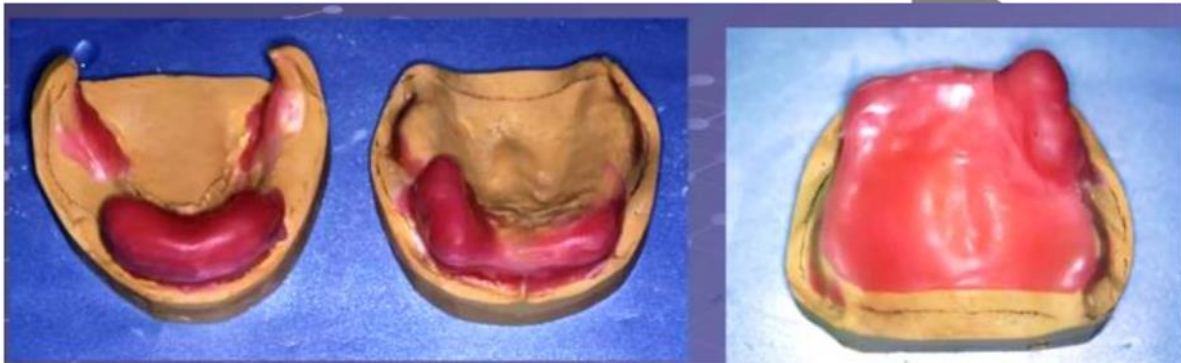
Partial Denture

**Special tray, occlusal rim ,Articulating and
Mounting procedure**

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Lecture 4

Special tray (custom tray):-It is an impression tray made on diagnostic cast and is designed to make a more accurate and detailed impression .It is fabricated for a specific impression procedure for the patient and is discarded after use.



Requirement of special tray.

1. The custom tray should be 2 to 3 mm. thick with a stepped handle in the anterior region of the tray to facilitate removal from the mouth.
2. It is the supplied supported and control to the impression material (rigid).
3. The buccal and labial flanges of the custom tray have been adjusted and the posterior palatal border is checked. the tray contains both hamular notches. Extend approximately 2 mm. posterior to the vibrating line.

Advantage of special tray:--

1. It is more accurately in record details and obtain impression.
2. Working with special tray is easier and quicker than modifying stock tray.
3. More comfortable and less bulky than stock tray

Material used for construction of special tray:-

1. Cold cure acrylic resin.

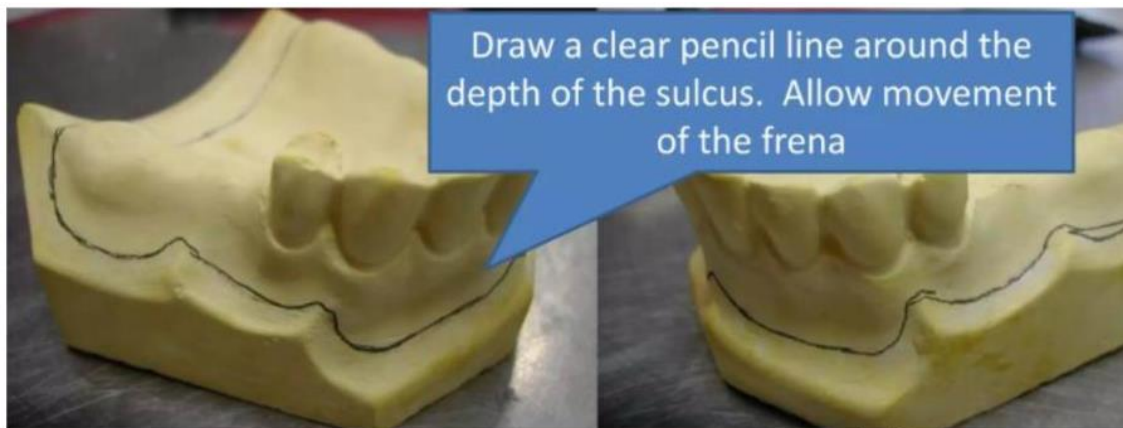


2. Visible light cured acrylic resin (VLC)



Fabrication of Custom Tray (special tray)

1. Draw a clear pencil line around the depth of the sulcus. Allow movement of the frena.



2. 1st layer of baseplate wax over teeth, then 2nd layer of baseplate wax over teeth & edentulous areas

3. make sure eliminate the undercuts area.



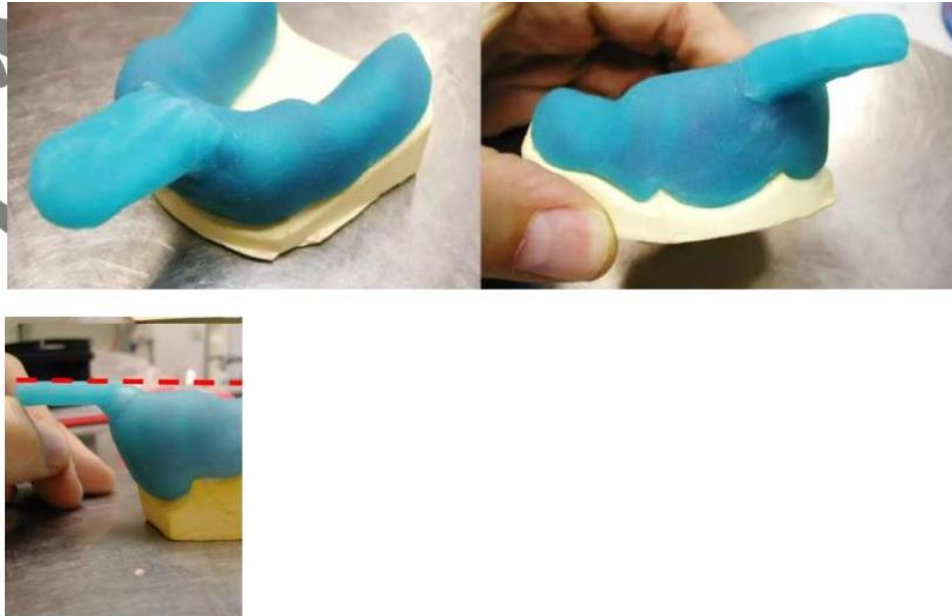
4. The thickness of wax should be the same, do not overheat.

5. Cut occlusal stops into wax to maintain space for impression material

6. occlusal stops = 2x2 mm square expose on the teeth surface, stabilize the tray

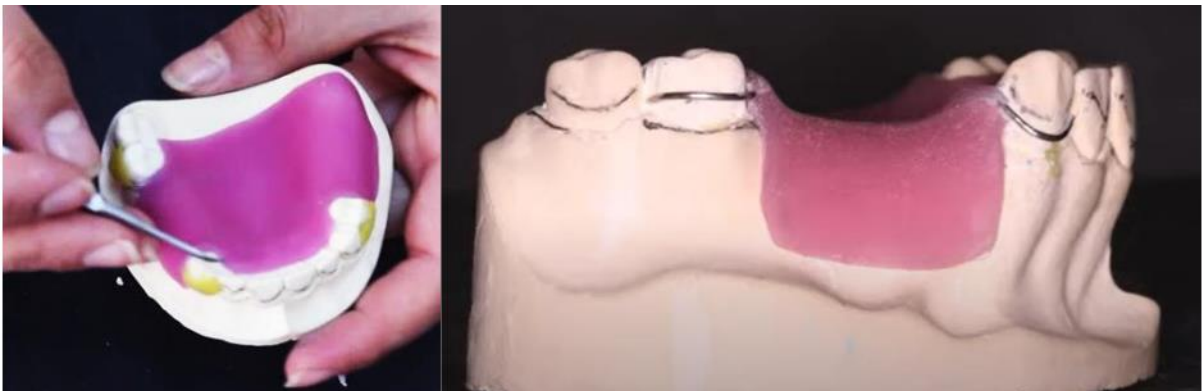


7. Adapt VLC material to cover wax.
8. Do not overly thin the VLC material over the teeth or the posterior border area.
9. Attach a handle by molding excess VLC material into the desired shape
10. Cure in VLC machine
11. While if use cold cure resin, The powder and liquid should be mixed in a mixing jar.
12. In the dough stage the material is kneaded in the hand, to achieve a homogenous mix. Then the material shaped into a 2 mm thick sheet either by plastic roll or by pressing the material between two glass slabs the two techniques need a separating medium.
13. After that the sheet of acrylic is adapted over the cast from the center to the periphery to prevent the formation of wrinkles. Then cut the excess material with blade before setting the material. Then the material should be held in position until complete polymerization. After that the excess dough material is used to handle fabrication.
14. Finishing procedure to create smooth borders and flanges of custom tray by acrylic and stone bur, then opening the labial, buccal and lingual freanum by fissure bur



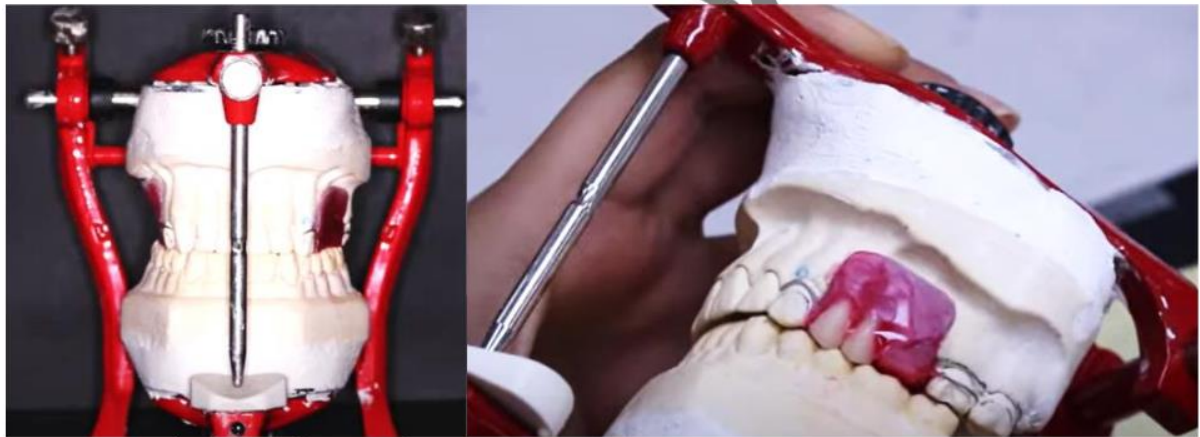
Base plate (record base, temporary base):-

A temporary form representing the base of a denture. Used for maxilla-mandibular (jaw) relation records, arranging artificial teeth or trial placement in the mouth.



Purposes of base plates are:-

1. To act as carriers for occlusal rim on which jaw relations are recorded.
2. It hold the teeth in the wax set-up for the try in stage.
3. Check the accuracy of previously recorded records.



Material used for making record base:-

1-cold cure acrylic resin (self-curing resin):-

The materials used most frequently for base plates.

2-shellac base plates:-

The principal advantage is the minimal amount of time required to adapt and make them. The disadvantage is the chance of losing their initial adaptation because of distortion during application.

3-wax base plate:-

Sheet of wax used for arranging teeth, waxing up, taking bit and quadrant checks. Medium soft is the most popular. It is easily softened and cooled, resulting in minimal shrinkage during set-up but their disadvantages not maintain their shape and easily distortion.



Occlusal rim (record rim, bite rim):-

An occluding surface built on temporary or permanent denture bases for the purpose of making maxilla-mandibular records and arranging teeth.

