### open.michigan

Unless otherwise noted, the content of this course material is licensed under a Creative Commons Attribution 3.0 License.

Copyright 2008, Jeffrey Shotwell



The following information is intended to inform and educate and is not a tool for self-diagnosis or a replacement for medical evaluation, advice, diagnosis or treatment by a healthcare professional. You should speak to your physician or make an appointment to be seen if you have questions or concerns about this information or your medical condition. You assume all responsibility for use and potential liability associated with any use of the material.

Material contains copyrighted content, used in accordance with U.S. law. Copyright holders of content included in this material should contact open.michigan@umich.edu with any questions, corrections, or clarifications regarding the use of content. The Regents of the University of Michigan do not license the use of third party content posted to this site unless such a license is specifically granted in connection with particular content objects. Users of content are responsible for their compliance with applicable law.



### Disclaimer:

Mentions of specific products in these slides represent the opinion of the speaker only and do not represent endorsement by the University of Michigan.

# COURSE # 718 ADVANCED TOPICS IN REMOVABLE PROSTHODONTICS

### Immediate Insertion Removable Appliances:

| Immediate 1 | Insertion | Complete Denture | 05130 / 05140   |  |
|-------------|-----------|------------------|-----------------|--|
|             |           |                  | 00100 / 001 / 0 |  |

Immediate Insertion Provisional

Complete Denture (Stayplate) 05810 / 05811

Immediate Insertion Provisional

Partial Denture 05820 / 05821

# Why do an immediate insertion complete denture or an immediate insertion removable partial denture -----

- \* Remaining teeth hopeless?
- \* Patient does not want to go without teeth due to social reasons?
- \* Degree of function expected especially with a lower immediate placement complete denture?
- \* Need for reline after an initial period of healing nearly always mandatory / when to reline?
- \* Patient without teeth during laboratory phase of reline procedure / impact on patient re: job or socially?



13 patients followed for 21 years after insertion of lower immediate dentures opposing maxillary complete dentures. Note the variability in the loss of vertical height at the mandibular symphysis

#### "Traditional" Definitive Immediate Denture

1) Plan two stage extractions removing posterior teeth first leaving only six anterior teeth 2) Allow 6-9 weeks healing time 3) Preliminary impression 4) Custom tray fabrication (two part tray in upper) Final impression 5) 6) Fabrication of record bases 7) Jaw relationship records and tooth selection 8) Laboratory fabrication of dentures Second stage surgery and delivery of dentures 9) 10) Post insertion adjustments Reline denture after 6-9 months / Remember, the patient is 11) without their denture during the laboratory phase of the reline. If the patient desires another denture, insurance will not pay 12) for five years

#### Provisional / Temporary - Immediate Denture (Stayplate)

- Plan two stage extractions removing posterior teeth first leaving six to ten anterior teeth depending on the condition of the bicuspid teeth
- 2) Allow 6-9 weeks healing time
- 3) Alginate impression which will serve as the "final impression"
- 4) Fabrication of record bases (if necessary depending on the number and distribution of the remaining teeth)
- 5) Jaw relationship records and tooth selection
- 6) Laboratory fabrication of dentures
- 7) Second stage surgery and delivery of dentures
- 8) Post insertion adjustments
- 9) Make "conventional" denture in 4+ months as necessary insurance will typically pay their portion for the fabrication of the second generation complete denture

### Terminology For "Temporary" Immediate Insertion Appliances

05810 Temp Maxillary Complete Denture = Max Stayplate
05811 Temp Mandibular Complete Denture = Mand Stayplate
05820 Temp Maxillary Partial Denture = Maxillary Flipper
05821 Temp Mandibular Partial Denture = Mandibular Flipper
The preferred term is "Provisional" in place of
Temporary.

The use of the terms stayplate and flipper are "slang terms" for these appliances.

When filling out insurance forms the appropriate language is Provisional or Temporary with Provisional being preferred.

## Additional Reasons To Consider An Immediate Placement Removable Appliance

They allow healing of extraction sites prior to "definitive treatment".

They give the patient an esthetic replacement immediately.

They allow a preview of the proposed definitive treatment for both the dentist and patient. Many times with the fabrication of an immediate placement appliance the patient has issues with the esthetics as there is no try in appointment with this type of appliance.

Why might we recommend removing a patient's remaining teeth and providing a denture service?

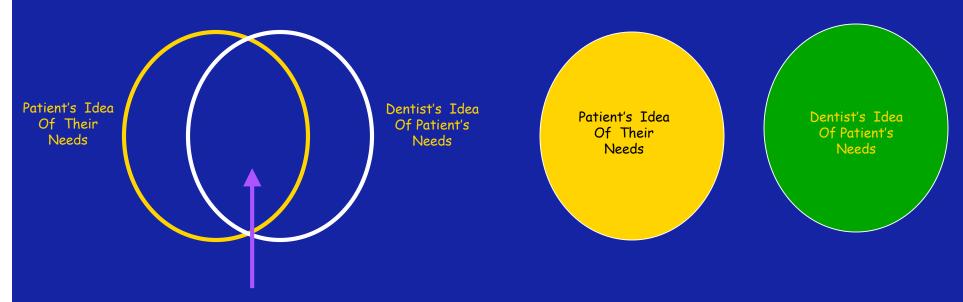
Economics

Condition of remaining teeth

Number and distribution of remaining teeth

"Patient factors"

Treatment driven by insurance coverage



Area Of Agreement Between The Patient And The Treating Dentist Regarding The Needs Of The Patient

### Are We Really On The "Same Page"?

### As an example: Patient Mr. Smith presents for treatment



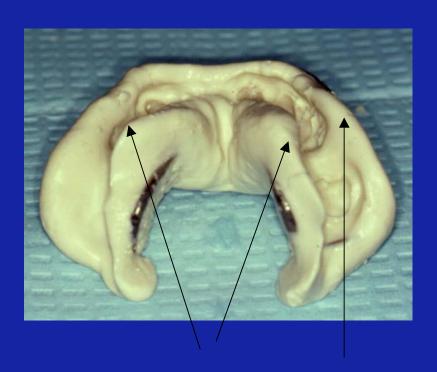
"Hi Doc, I'm here because several of my teeth really hurt and I have a bad taste in my mouth. I don't have any insurance, and money is really tight right now, but I'm getting married pretty soon. My fiancee told me I had to get my teeth fixed before the wedding. Don't take this the wrong way, but I really hate dentists, I guess that's how I got this way." What is your main question????



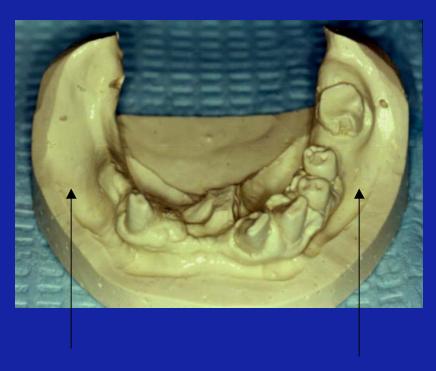
Good impression of vestibular areas

Peripheral "Roll" on Cast as a result of capturing the area well with the impression

First Step: Get a good alginate impression and cast

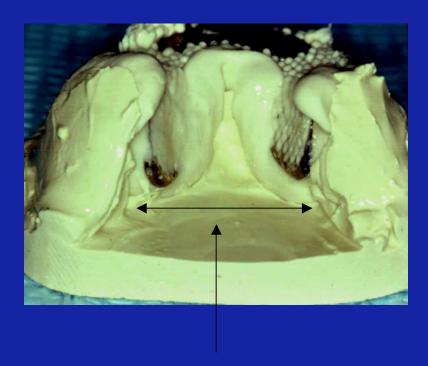


Impression Capturing Peripheral "Rolls" and Lateral Throat Form

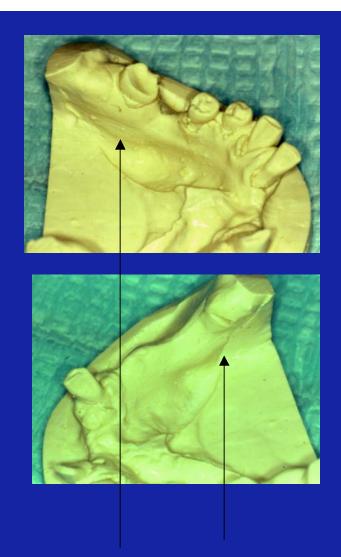


Resulting Cast Showing Vestibular Area

The Lower Alginate Impression & Resulting Cast

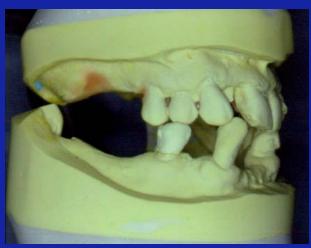


It is critical to keep the tongue space clear when pouring up the model



Lateral throat form recorded in cast and tongue space cleared to expose available anatomy





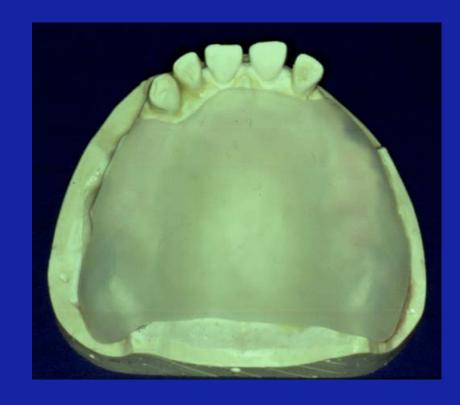


Fabrication of a stayplate requires good casts which represent necessary anatomy including vestibular depth, tuberosities, and retromolar pads. Casts must be mounted on an articulator in an orientation that represents the position of the anatomic structures in the patient's mouth.



Leaving first or second bicuspid teeth may provide a reference for occlusal vertical dimension.





Depending on the # of opposing "occluding units" it may be necessary to fabricate a record base on the master cast to secure jaw relationship records. Remember, this is only necessary if there are insufficient opposing teeth to allow the registration of a jaw to jaw relationship in the patient's mouth











The record base is then used in conjunction with a bite registration material to obtain a jaw relationship record from the patient. In this case the material is Aluwax, but your instructor may prefer another material. The bite recording medium should be a "dead soft" material which offers the little to no resistance when the patient closes the lower jaw into the material.

# Tooth Selection For The Immediate Placement Stayplate / We Use The "Classic" Shade Guide Located In Your Cubicle

Mold Guide For Stayplates And Provisional Removable Partial Dentures (Flippers) Mold Guide For Definitive Complete Dentures And Definitive Removable Partial Dentures RPD's The mold designation is listed on the left side of the pictures of the teeth. The teeth are shown actual size and may be compared directly with teeth on your casts.

Below the mold designation is the lower mold that will articulate with the maxillary tooth selected. Dimensions of the maxillary anterior teeth. From left to right:

Width of Central Incisors in mm

Length of Central Incisors in mm

Width of the six anterior teeth first on the curve and then on the flat in mm

Once the anterior mold is selected, you can go to the chart in the booklet and select the posterior teeth for the patient.

The left side of the chart lists the various molds of the maxillary anterior teeth.

Moving to the right from any anterior mold, indicates the appropriate posterior mold to use for a given anterior mold.

Remember that we use 10 degree or Functional teeth for the maxillary posterior. F30 to F33

We use 0 degree teeth in the lower arch.
29M to 33M

#### Shade Selection For The Provisional Complete Denture or Provisional Removable Partial Denture

Use the Portrait Shade Guide / We Use The "Classic" Teeth From Dentsply Corporation And They Are Available In The Same Shades As The Portrait Teeth



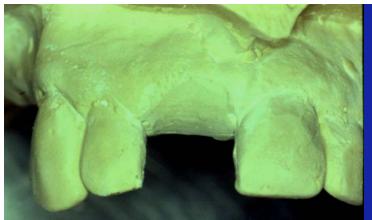




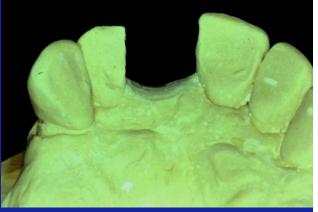


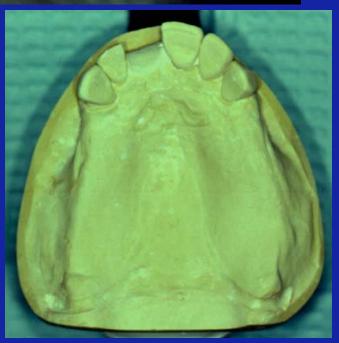


For this patient, the teeth are missing on one side and the replacement teeth are set on the cast in the same place the natural teeth would have been. The images here show the orientation of the teeth from several points of view.



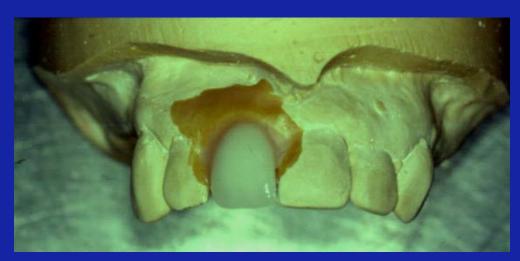






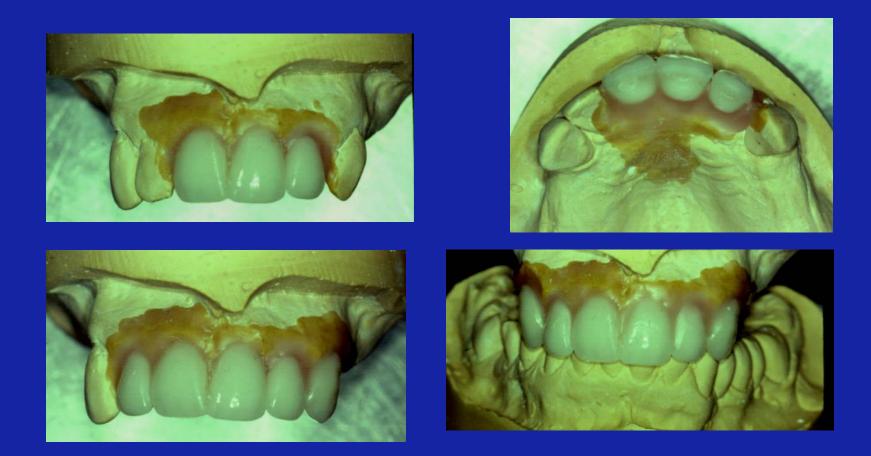


For this patient an anterior plaster tooth has been cut off to make space for the denture tooth in the same space maintaining a consistent orientation for the denture tooth. The recontouring of the cast has been minimal.



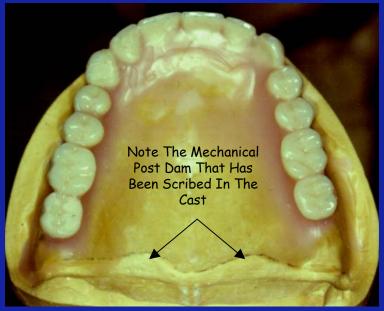


The replacement denture tooth is waxed in the space created by removal of the plaster tooth on the master cast. The adjacent teeth are used as guides for the orientation of the replacement tooth as seen in these images.



The remaining anterior teeth are set in the same manner as the first tooth shown. The plaster teeth are cut off the cast one at a time and the denture teeth are set in the same location.





The posterior teeth are then set on the cast as shown above. Remember that for an immediate insertion appliance, no try-in will be done, so no baseplate is necessary once the jaw relationship records have been taken and the casts mounted on an articulator.





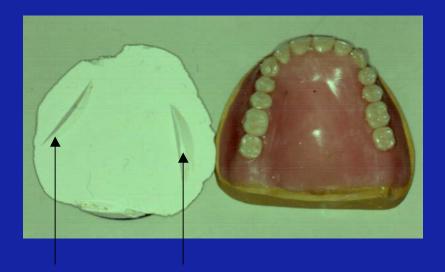




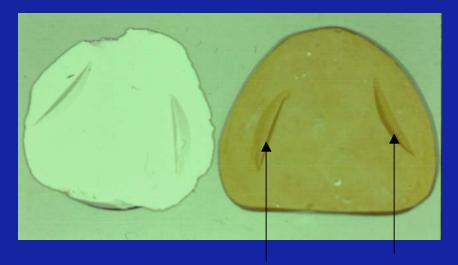
The denture is now waxed to contour for processing in acrylic by the laboratory. The cast will now be removed from the mounting plaster for processing in acrylic.







"Positive" registration on mounting plaster from keying grooves on cast.



"Keying Grooves" for orientation of cast on mounting plaster.





Once the denture has been completed, the patient will present to Oral Surgery for extraction of the remaining teeth and the inertion of the immediate appliance.

These are two patients that have been treatment planned for maxillary immediate insertion temporary complete dentures.





After the teeth have been extracted, this is the appearance of the maxillary arch ready to receive the immediate denture.



At the 24 hour recall, you may see "pressure spots" such as this. The denture must be relieved internally in the areas causing the irritation or ulceration of the tissues.



An example of a patient who is in for the 24 hour recall after placement of an immediate insertion temporary denture.

The post insertion appointment is made much easier if proper attention to detail has been followed during the planning and construction phase of treatment. The picture of the previous patient is a result of good planning and attention to detail at all phases of the construction of the upper immediate insertion denture.