

**AGD 2016 BOSTON**  
REVOLUTIONARY CHANGES IN DENTISTRY



**Digital Dentures**

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**Conventional Dentures**

- 5 visits
- VD and CR taken on unstable bases
- 50% of cases need a second try in
- Difficult to assess speech with unstable wax try-in
- Acrylic processing errors lead to occlusal discrepancies and fit issues

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**Advantages of Digital Dentures**

- 2 to 3 visits
- Less than 2 hours of chair time
- Occlusion determined by computer is more accurate
- Milled dentures have no polymer shrinkage since they are not processed
- Milled dentures can be made with a thinner palate to be more comfortable

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## Records | Impressions

- Polyvinyl two-step (two-layer) impressions
- Border mold with trays as PVS sets
- Remove the distals of the impressions to eliminate interferences in excursions



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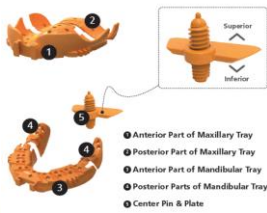
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## Records | VD

- A couple ways determine VD:
  - If no previous denture to benchmark, use lip posture
  - Or, benchmark the previous denture and open VD if necessary
- Record the VD by moving the pin up or down



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## Using the Jaw Gauge for VD



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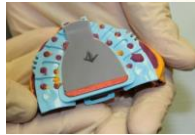
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### Records | CR

- Instruct patient to slide his/her jaw forward and backward
- Optional: From the protruded position instruct the patient to slide jaw out to each side (lateral)
- Place a divot in the tracing plate at the point of the gothic tracing arrow.




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### Records | Bite

- Place the impressions back in the mouth
- Instruct patient to move jaw until the pin rests in the divot
- While stabilizing the lower impression, inject polyvinyl bite material between the upper and lower impressions.




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### Records | Lip Length

- Place the gauge on the Incisal papilla
- Measure the lip length at rest
- Computer algorithms determine where to place the incisal edge of the upper anteriors




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## Appointment 2 | Try-in

- A 3D printed try-in is far more accurate than wax to assess the set up.
- Check midline, occlusion, speech, and comfort
- If there is a fit issue, take a light bodied wash
- Confirm patient acceptance of the esthetics
- Request extra lip support if needed




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## Try-in

- Check the occlusal plane
- Check occlusion with articulating paper and make any adjustments




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## Try-in

- Check speech
- Check esthetics
- Check for possible border overextensions
- Make any changes on the try-in dentures to avoid any adjustments on delivery




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### Appointment 3 | Denture delivery

- The denture should fit exactly the way the corrected try-in fit.
- Check speech, occlusion, etc.
- Instruct patient on home care and follow up



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### Advantages of Milled Dentures vs conventionally processed

- No warpage on curing
- Thinner palate so more comfortable
- Fewer occlusal adjustments due computer designed occlusion
- Best fit of all the computer designed dentures



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### Advantage of digitally designed dentures

- MUCH less chair time
- Better fit
- Fewer try-in resets
- Happier patients
- Happier dentists



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