

# ***Ivotion™ Denture System***

*Truly efficient. Truly digital.*

## **Digital Dentures Clinical instructions for use**



# ***Ivotion™ Denture System***

*Truly efficient. Truly digital.*

## ***1. Clinical workflows***

- a. Wax rim bite*
- b. Denture impressions & bite*
- c. Immediate dentures*
- d. Direct to try-in*

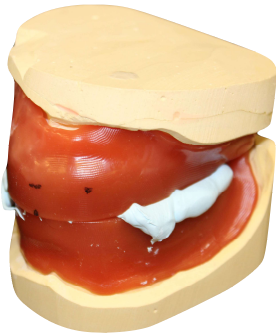
## ***2. Prescription***

- a. Tooth selection*
- b. Manufacturing processes*
- c. Communication tools (optional)*

## ***3. Clinical try-in***

# Clinical workflows

*Traditional  
wax rim bite*



*Impressions &  
bite in dentures*



*Immediate  
dentures*



*Direct to try-in*



- The first three workflows require virtually no changes in clinical materials or technique and will only be briefly outlined along with a suggested evaluation form.
- The “*Direct to try-in workflow*” since it does introduce several new concepts will be described in more detail.
- Please note that the try-in appointment information is common to all workflows (except immediate dentures) and will be addressed separately.

# Clinical workflows

**Traditional  
wax rim bite**



**Impressions &  
bite in dentures**



**Immediate  
dentures**



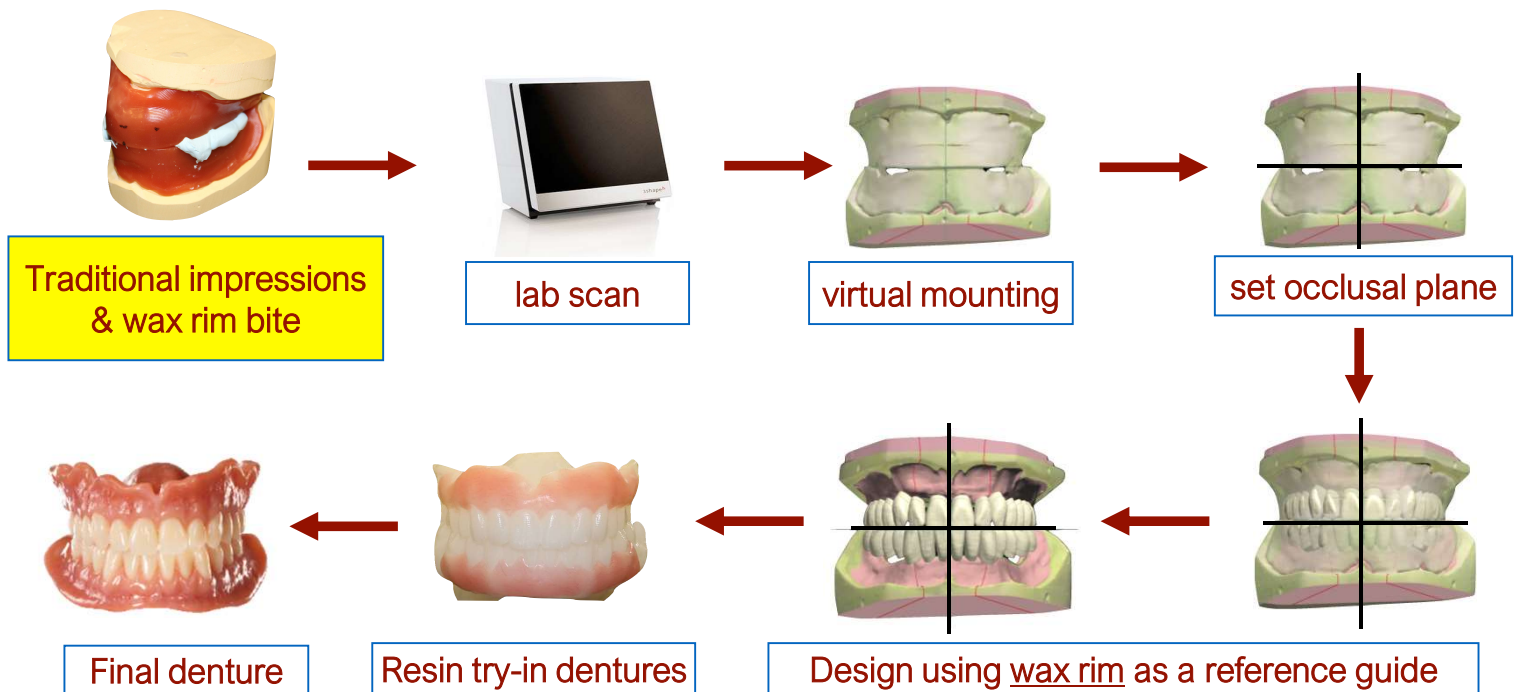
**Direct to try-in**



All procedures up to the wax rim bite registration are completed using the traditional materials and techniques familiar to the clinician.



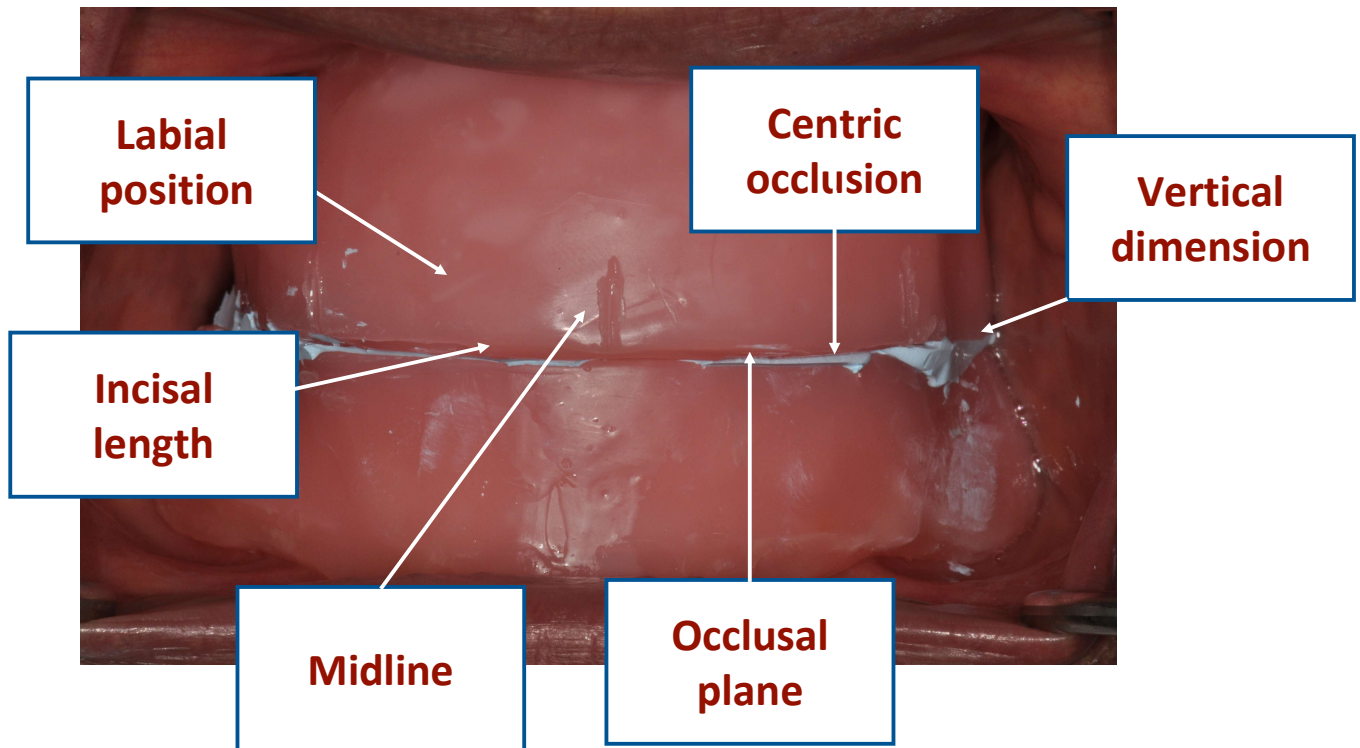
# ***“Wax rim bite” workflow***



- To convert to the digital design process the **“wax rim bite”** is scanned along with individual scans for the “mandibular and maxillary casts”.
- The wax rim bite will serve as a reference matrix to help guide the positioning of the “set-up template” which is positioned by using information provided by the wax rims. Therefore, it is important to adjust the wax rims as accurately as possible.
- The teeth can virtually be repositioned individually or segmentally as desired, however as mentioned the wax rim matrix can be “ghosted in” at any time to function as a frame of reference.
- The process of designing the denture is the same for “resin try-in dentures” and “final dentures”. The only difference is the choice of materials depending on the desired outcome.

# ***“Wax rim bite” workflow***

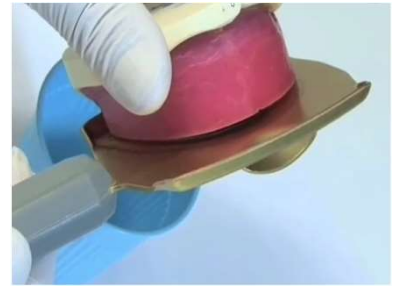
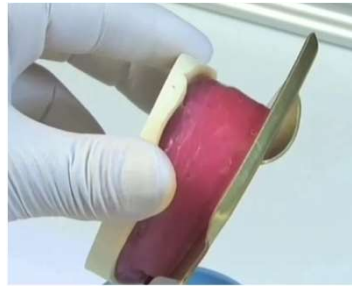
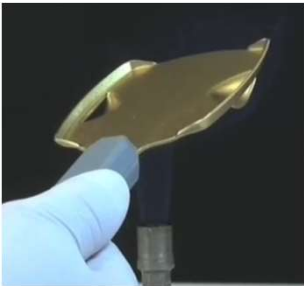
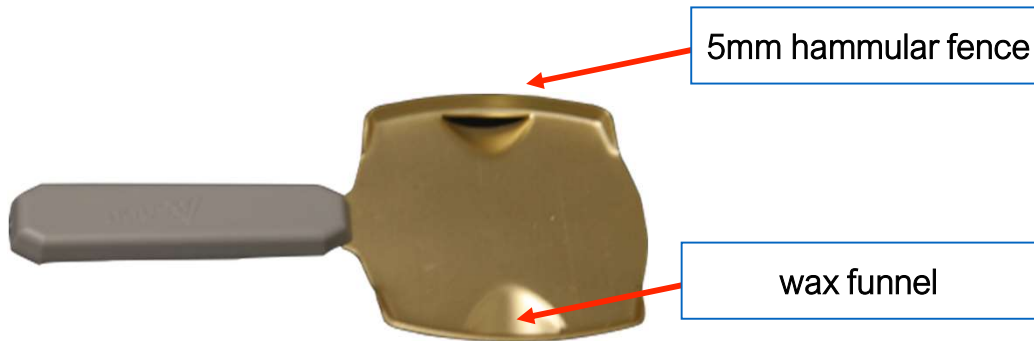
## ***Wax rim prescription***



- The intent of the conventional **“wax rim bite”** is to serve as a vehicle to record patient data and provide the technician a guide for setting teeth. It will also serve the same purpose for the digital technician when designing the placement of teeth digitally. Therefore, the clinician should carefully form the wax rims to communicate midline, incisal lengths and occlusal plane.
- The Centric Occlusal (CO) record and the Vertical Dimension of Occlusion (VDO) will respectfully determine the virtual mounting.

# *Tips*

## *Rim Former*

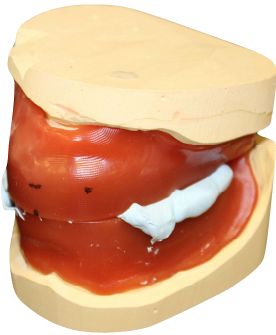


## *Biteplane*



# Clinical workflows

*Traditional  
wax rim bite*



*Impressions &  
bite in dentures*



*Immediate  
dentures*

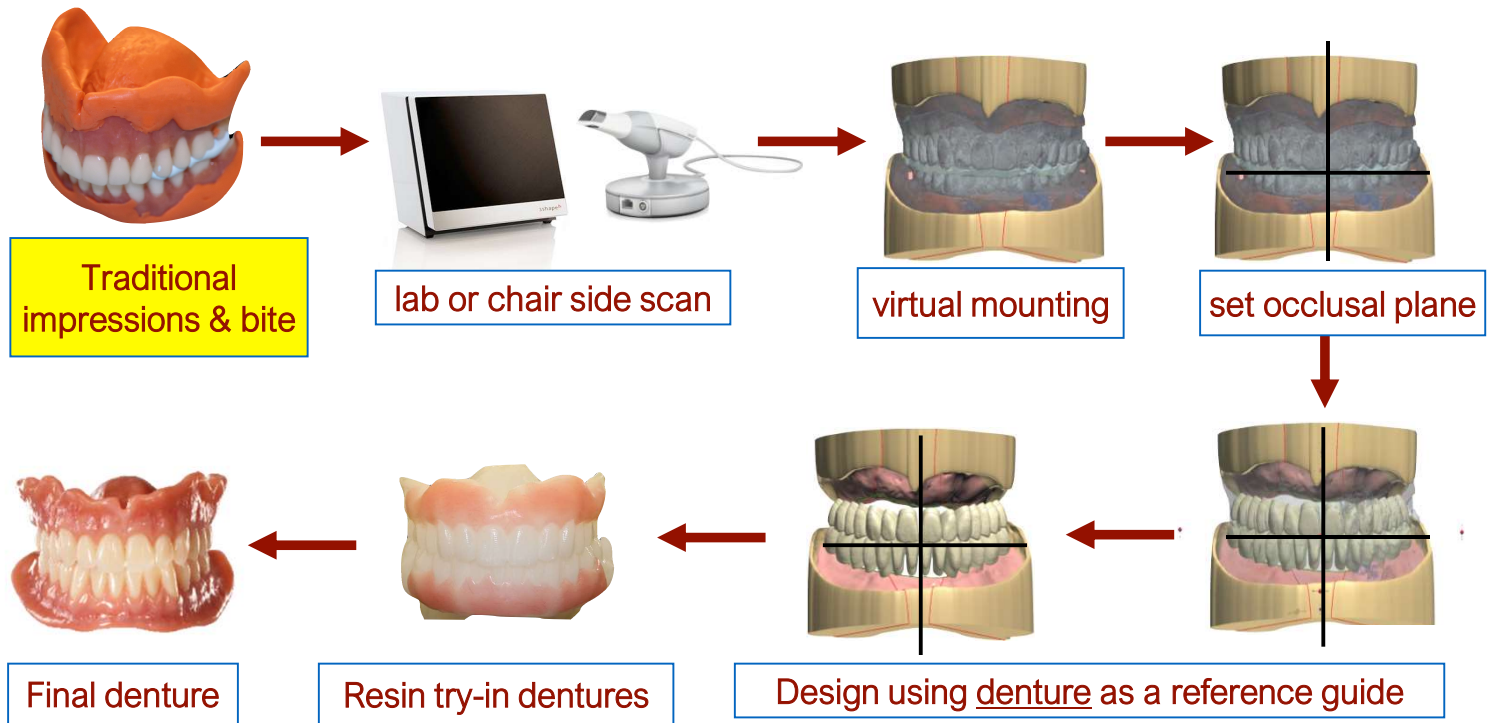


*Direct to try-in*



Impressions in patient's dentures or duplicate dentures are completed using the traditional materials and techniques familiar to the clinician.

# ***“Impressions & bite in dentures” workflow***



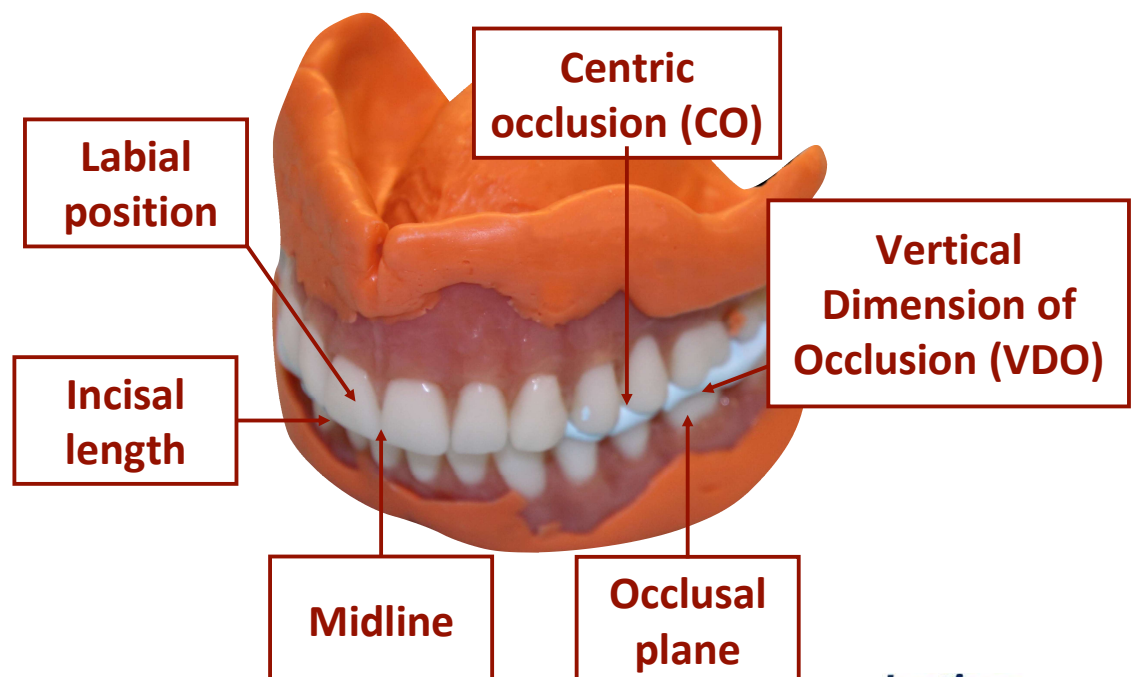
- The ***“Impressions & bite in denture workflow”*** uses the patient’s old dentures (or duplicates) as impressions trays and bite.
- The impressions and bite are scanned using lab scanner or they can be scanned chairside with intra-oral scanner (IOS).
- The dentures act as a reference matrix for setting the occlusal plane template.
- The dentures are “ghosted in” at any time during the design process and act as a reference matrix for designing the new denture. Therefore, a complete evaluation of the patient’s existing dentures prior to scanning is important.
- Depending on the desire of the clinician either a resin try-in denture or final denture can be fabricated.



# “Impressions & bite in dentures” workflow

## Existing denture evaluation

<b>Midline</b>		
<input type="text" value="no change"/>	<input type="text" value="marked on denture"/>	<input type="text" value="refer to comments"/>
<b>Maxillary incisal length</b>		
<input type="text" value="no change"/>	<input type="text" value="increase ____mm"/>	<input type="text" value="decrease ____mm"/>
<b>Mandibular incisal length</b>		
<input type="text" value="no change"/>	<input type="text" value="increase ____mm"/>	<input type="text" value="decrease ____mm"/>
<b>Lip support</b>		
<input type="text" value="no change"/>	<input type="text" value="increase ____mm"/>	<input type="text" value="decrease ____mm"/>
<b>Bipupillary plane</b>		
<input type="text" value="acceptable"/>	<input type="text" value="comments:"/>	
<b>Camper's plane</b>		
<input type="text" value="acceptable"/>	<input type="text" value="comments:"/>	
<b>Bite (CO/VDO)</b>		
<input type="text" value="accept as per record"/>	<input type="text" value="comments:"/>	



# *Tips*

## *Impressions*



Closed mouth  
functional impressions



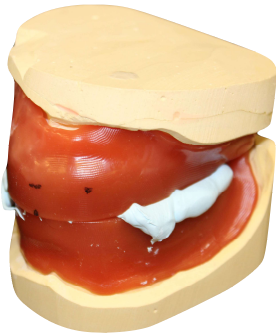
Patient is guided to centric occlusion during each step of the border molding process and the final wash impression in order to maintain an occlusal relationship. This also allows the patient to more physiologically perform border movements.



Add wax to thicken thin areas of the impression borders to facilitate the scanning procedure

# Clinical workflows

*Traditional  
wax rim bite*



*Impressions &  
bite in dentures*



*Immediate  
dentures*



*Direct to try-in*



Pre-extraction impressions for immediate dentures are completed using the traditional materials and techniques familiar to the clinician. The option of intra-oral scanning is also noted in the outline.

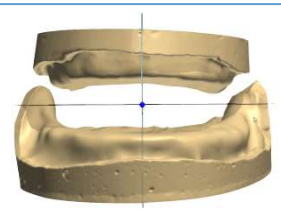
# workflow



## lab scanner



## virtual mounting



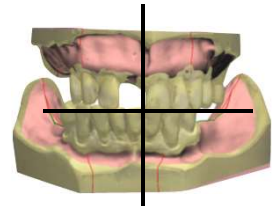
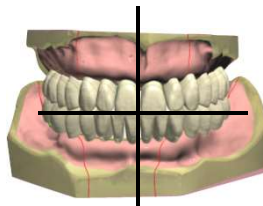
## cast preparation



## Surgical guide



## Final dentures



## Design denture using extracted teeth as a reference matrix

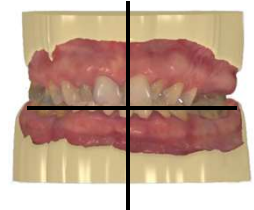
- **Note: The intra oral scanner may be used instead of traditional impressions. Other than the scanning the denture design process is the same.**



## intra oral scanner



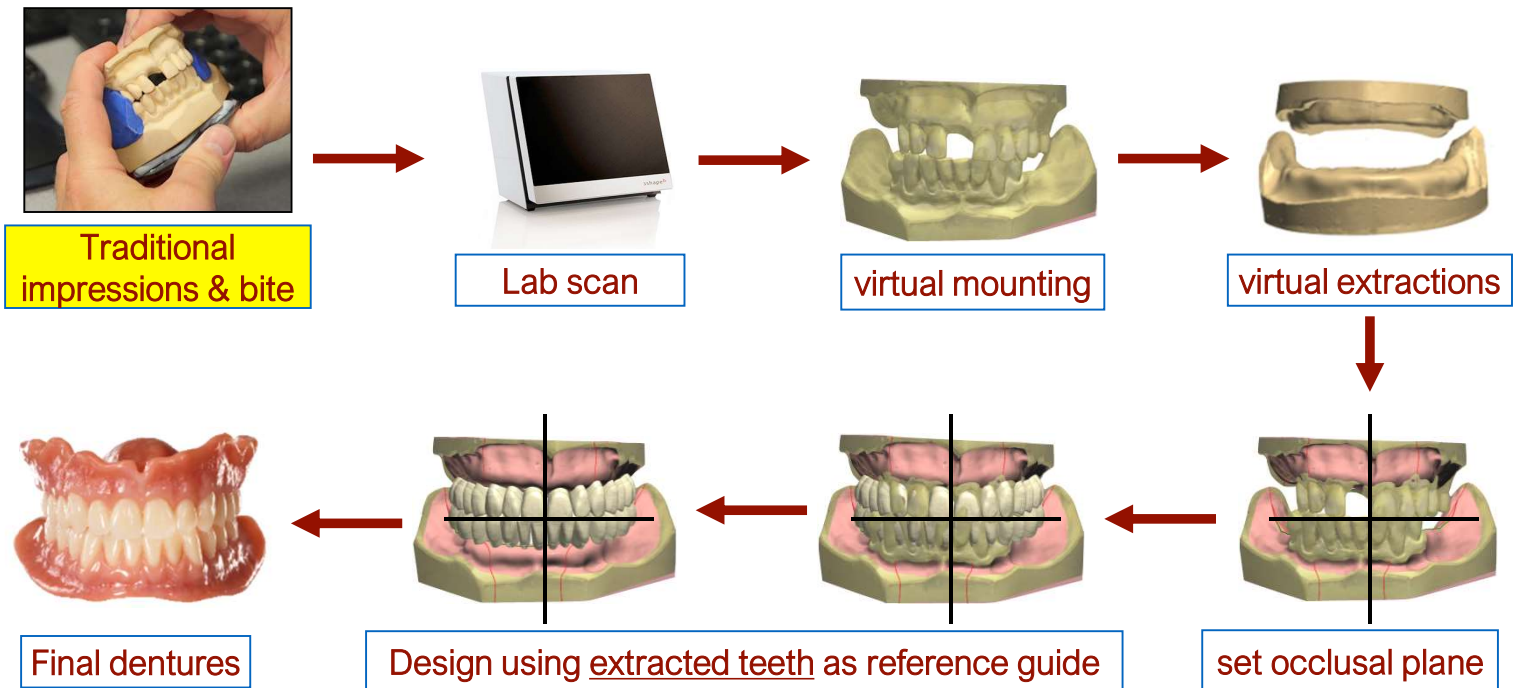
## virtual mounting



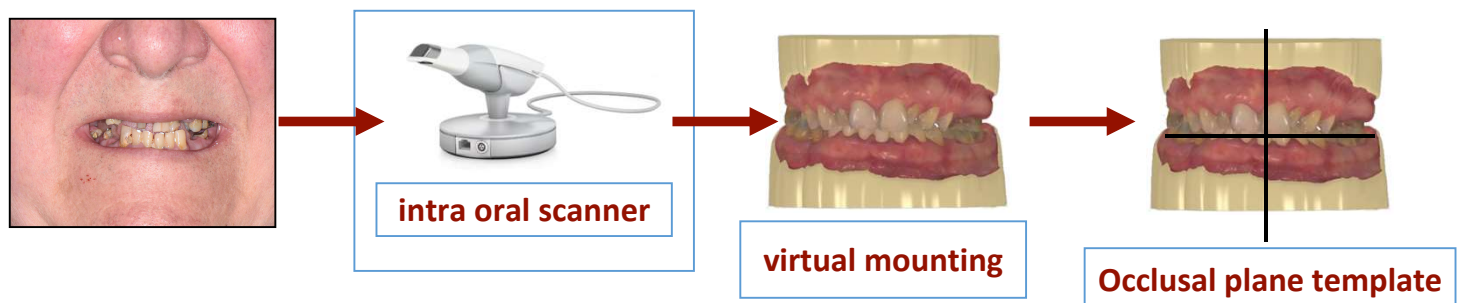
## Occlusal plane template



# “Immediate denture” workflow



- There are many benefits using digital technology for ***immediate dentures***. In particular the extracted teeth scan can be recalled into view & serve as a guide for tooth positioning. Therefore, the new teeth can be positioned similar to the natural teeth positions which significantly aids the patient during this very difficult transition phase from natural teeth to artificial teeth.
  - As mentioned the extracted teeth can be “ghosted in” during the design process to help guide tooth placement based on the pre-extraction evaluation of the extracted teeth. Therefore, it is important to evaluate the teeth prior to extraction.
  - A clear surgical guide with or without teeth can also be provided if desired.
- **Note:** An intra oral scan may be used instead of traditional impressions. The denture design process is the same.





# **“Immediate denture” workflow**

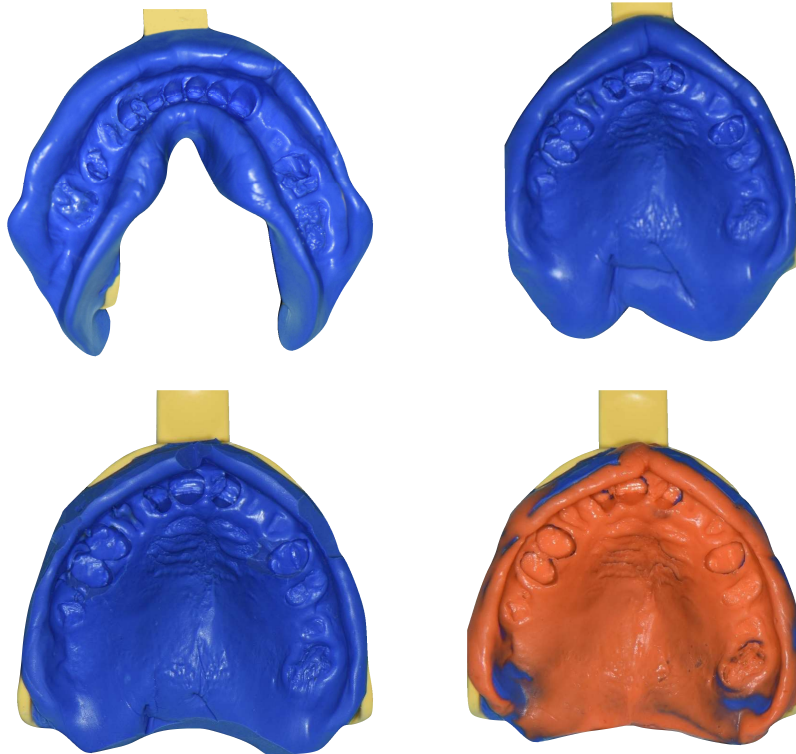
## **Pre-extraction clinical evaluation**

<b>Midline</b>		
<input type="text" value="no change"/>	<input type="text" value="marked on denture"/>	<input type="text" value="refer to comments"/>
<b>Maxillary incisal length</b>		
<input type="text" value="no change"/>	<input type="text" value="increase ____ mm"/>	<input type="text" value="decrease ____ mm"/>
<b>Mandibular incisal length</b>		
<input type="text" value="no change"/>	<input type="text" value="increase ____ mm"/>	<input type="text" value="decrease ____ mm"/>
<b>Lip support</b>		
<input type="text" value="no change"/>	<input type="text" value="increase ____ mm"/>	<input type="text" value="decrease ____ mm"/>
<b>Bipupillary plane</b>		
<input type="text" value="acceptable"/>	<input type="text" value="comments:"/>	
<b>Camper's plane</b>		
<input type="text" value="acceptable"/>	<input type="text" value="comments:"/>	
<b>Bite</b>		
<input type="text" value="acceptable"/>	<input type="text" value="comments:"/>	



# *Tips*

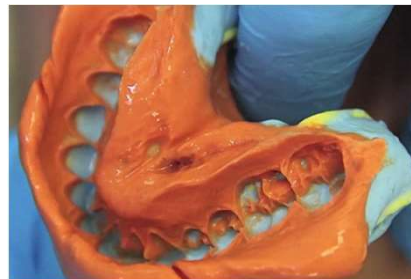
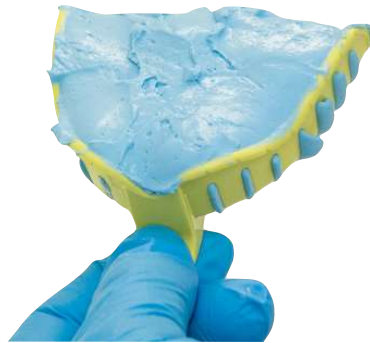
## *Impressions*



Virtual XD Putty impression material can be an excellent material to take an immediate impression due to its extra body which enables it to extend into the vestibular areas. The putty impression can be trimmed and washed with a light body material to increase the accuracy if desired.

# Tips

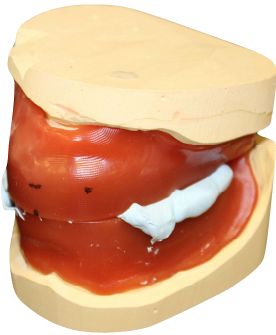
## Impressions



If teeth are severely undercut or loose an alginate material is recommended. The AccuDent XD is an excellent choice since it is provided as a two phase material. The injection (light body) is injected around the teeth and the tray material (heavy body) provides the viscosity necessary to reach and record the vestibular areas.

# Clinical workflows

*Traditional  
wax rim bite*



*Impressions &  
bite in dentures*



*Immediate  
dentures*



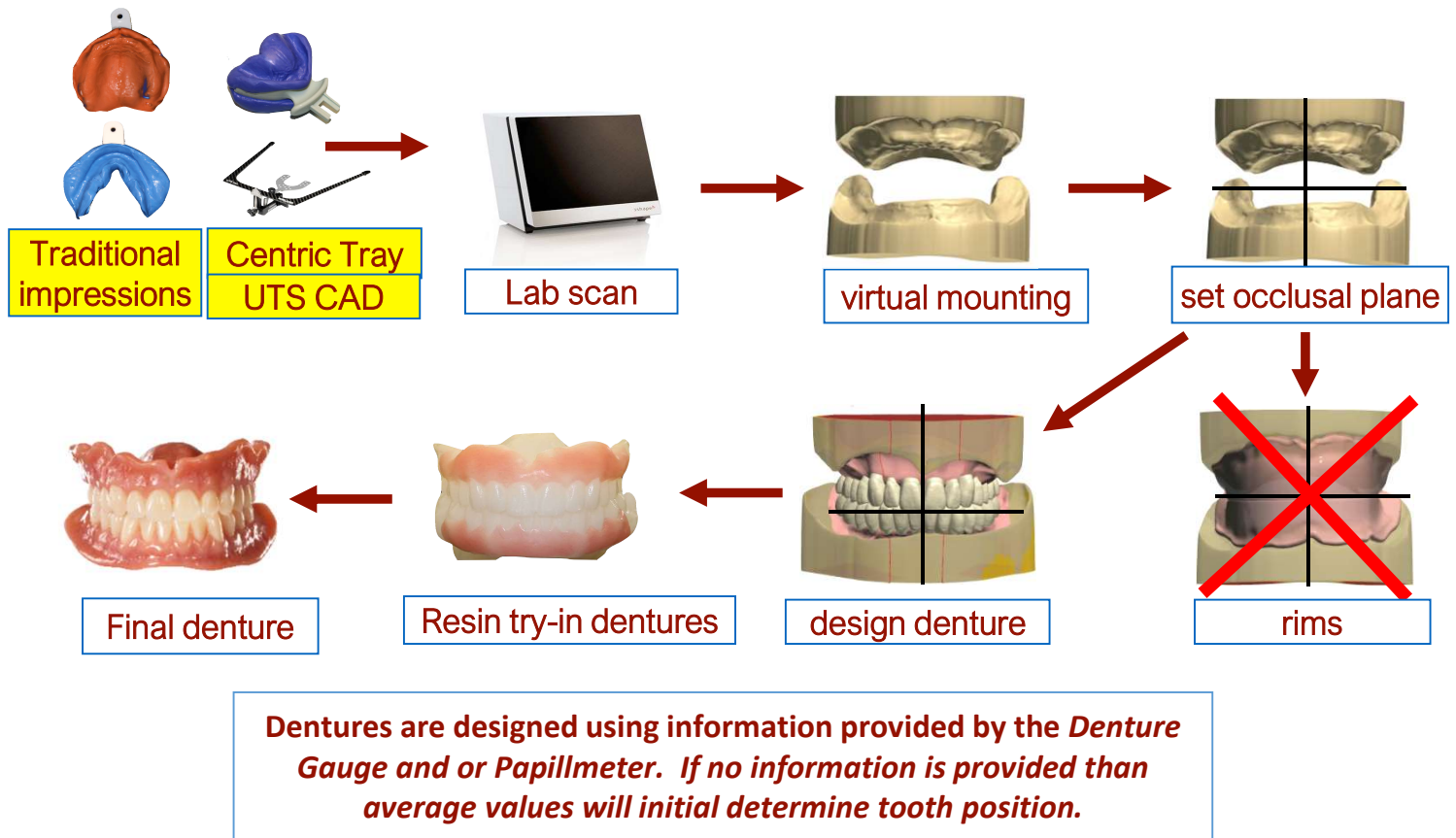
*Direct to try-in*



- Unlike the other workflows describe, the “Direct to try-in workflow” basically starts from “scratch” and does require learning some new technique.
- In addition this workflow is unique from the other three workflows since there is no reference matrix (wax rim, existing denture, extracted teeth) to provide a guide for the placement of teeth for the new denture.
- Also, an inter-ach relationship (bite) must be taken in order to virtually mount the scanned impressions in the design software.
- The Centric Tray and UTS CAD are unique to this workflow and facilitate recording the inter-arch relationship.



# ***“Direct to try-in” workflow***



- The ***Centric Tray*** and ***UTS CAD*** tools are unique to the ***“Direct to try-in workflow”***.
- The Centric Tray record & impressions are scanned and virtually mounted.
- The software will assign an occlusal plane template using the UTS CAD information. This template will act as a guide and reference for setting the new denture teeth.
- Note that the rim stage is eliminated and the output will go directly to fabricating a try-in denture. Thus the name of the workflow ***“Direct to try-in”***.



# Impressions

## Impression options



- There are a multitude of impression materials and technique options to choose from.
- The author has selected the above options for discussion, however, the clinician could certainly use their familiar traditional materials and techniques if desired.
- It should be noted that the alginate option would require the impressions to be either scanned immediately or poured & prepared as casts which could then be scanned.

# Impressions

## AccuDent XD alginate impression system



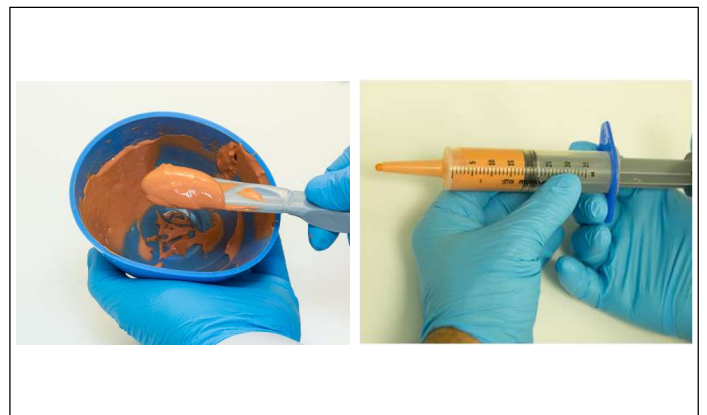
### AccuDent XD

*AccuDent XD is a two phase alginate system consisting of a light body syringe material and a heavy body tray material.*



### Syringe material

*The syringe material is mixed first and loaded into the syringe provided with the kit. It has a 30 second longer working time which compensates for the mixing and loading time.*



### Tray material

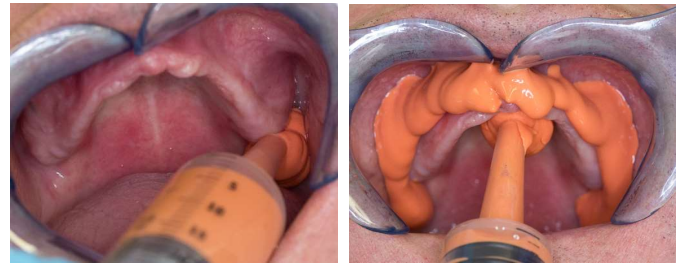
*The Tray material is more viscous. It is suggested that a small amount is first loaded in the tray and pressed to engage the retentive holes in the tray.*



# Impressions

## Syringe material injection

*The syringe material is injected into the vestibule and some into the anterior palate area.*



## Seating tray

*The tray is inserted and seated until the syringe material begins to express over the borders. It is suggested to not overseat the impression.*



## Tray removal

*After the material has set carefully remove the tray by breaking the peripheral seal first and then rotating the tray from the mouth.*



## Completed impressions

*Impressions are inspected for proper extension and accuracy.*



# Impressions

## Virtual XD PVS impression putty material



### Thermoplastic trays

*The Accident XD system has a complete assortment of dentate and edentulous impressions trays. A major feature of the trays is the thermoplastic property which allows the tray to be modified by soaking in hot water.*



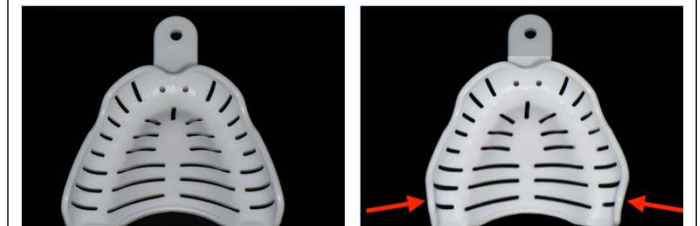
### Thermoplastic trays

*An example of tray modification is shown for the mandibular edentulous tray in the master notch areas.*



### Thermoplastic trays

*An example of tray modification is shown for the maxillary edentulous tray in the retrozygomatic areas.*





# Impressions

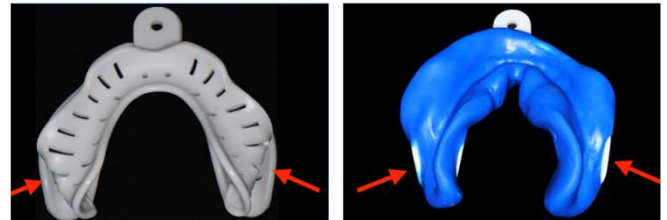
## Virtual XD putty

*Virtual XD impression putty is an excellent material to make preliminary impressions for the edentulous mouth. Its viscosity helps to extend the material into the vestibular borders. Typical two scoops of each material is sufficient for most impressions.*



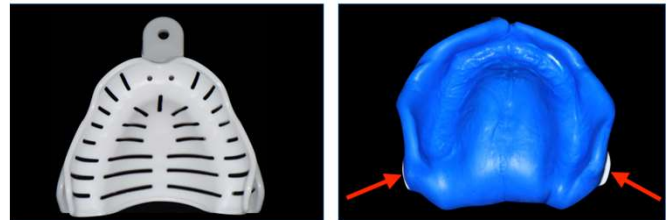
## Virtual XD putty

*This mandibular impression demonstrates the need to modify the mandibular impression tray in the master notch area which was previously mentioned.*



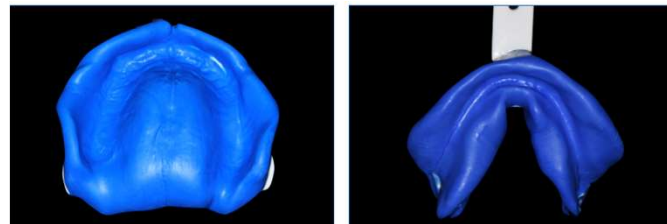
## Virtual XD putty

*This maxillary impression demonstrates the need to modify the impression tray in the retro-zygomatic area as previously mentioned/*



## Virtual XD putty

*Impressions are inspected for peripheral extensions and accuracy.*



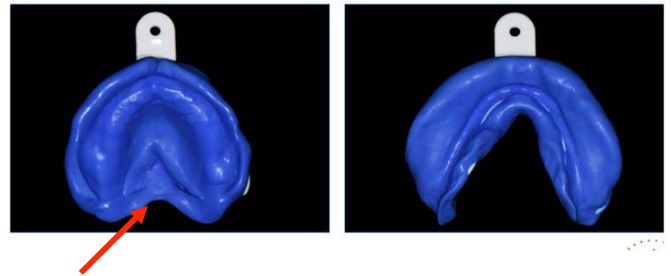


# Impressions

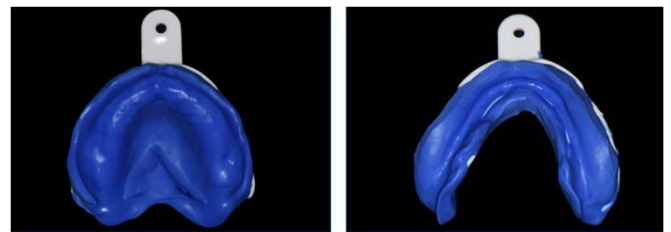
## Virtual XD PVS impression putty + light body wash



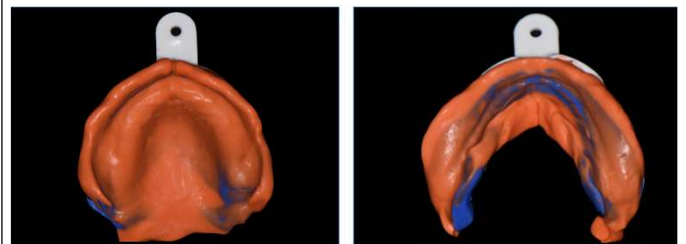
*One of the major advantages of the putty system is that if an area is deficient (as noted for the palatal area) the impression can be corrected with a wash impression without having to remove the material and start over. Also the added tissue detail will provide more accuracy when the impressions are scanned.*



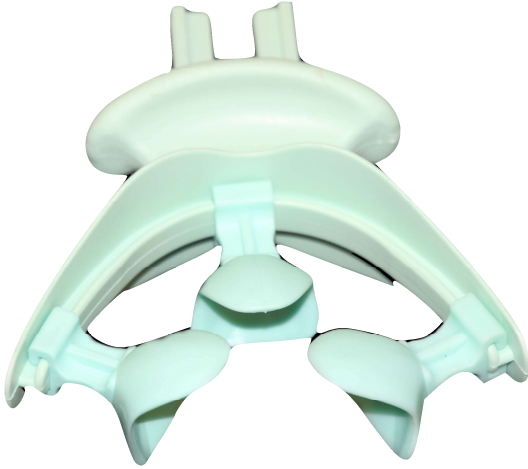
*Excess material and border thicknesses are removed and all frenum attachments are also relieved.*



*The Virtual XD light body material fast set is selected for the wash impression. The impressions are inspected for extension and accuracy.*



# Centric Tray / UTS CAD records



**Centric  
Tray**

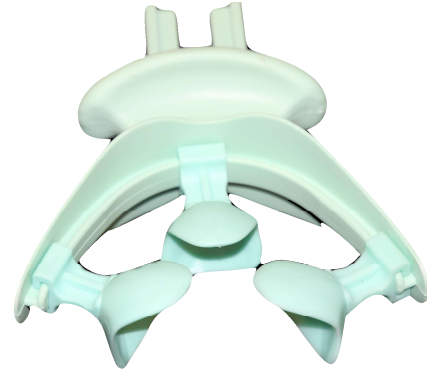


**UTS CAD**

**The Centric Tray and UTS CAD are unique to the “Direct to try-in workflow”.** The purpose of the Centric Tray record is to provide a inter-arch relationship at a select vertical dimension. The purpose of the UTS CAD is to provide facial plane information (Bipupillary & Campers) to the design software that will help select the occlusal plane template.

# Centric Tray / UTS CAD records

## Centric Tray

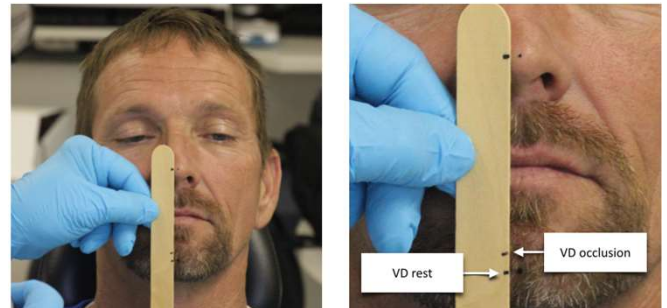


## Virtual XD PVS impression putty material



## Predetermination of VDO

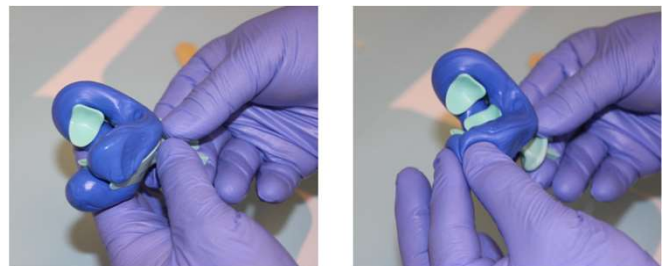
Reference marks placed on nose and chin. Patient is asked to relax to approximate “VD rest” position. A tongue blade is used to mark the reference marks. Another mark is made approximately 4mm closed to identify the VD of occlusion.



## Mix and load Centric Tray

Two scoops of each putty material is sufficient for most patients, however if a patient has severe resorption three scoops may be required.

Thoroughly mix material and evenly load upper and lower chambers of the Centric Tray.



# Centric Tray / UTS CAD records

## **Guide patient to close**

*Once the tray is inserted have the patient relax and chin guide the patient closure.*



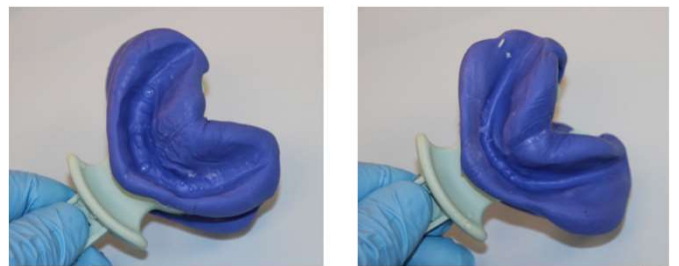
## **Close to previously determined VDO**

*Continue having the patient close until the predetermined VDO is obtained.*



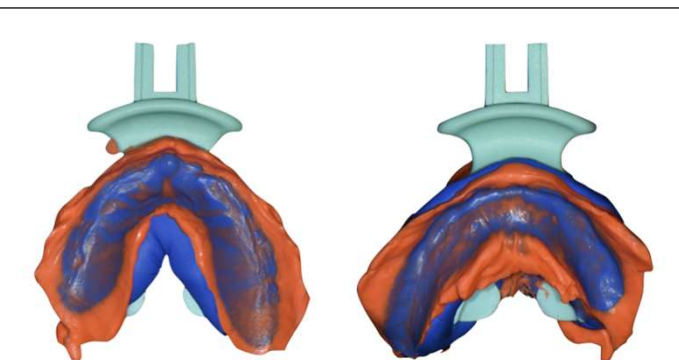
## **Centric Tray record**

*Inspect for adequate extension and accuracy*



## **Light body wash**

*If the record is insufficiently extended or has large voids a light body wash impression can be added. This is particularly useful if the patient has a severely resorbed arch that is left with little anatomical detail to record.*



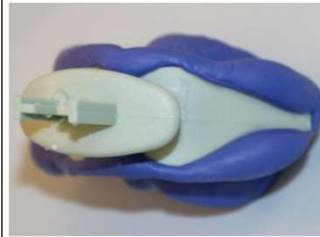
# Centric Tray / UTS CAD records

## UTS CAD values



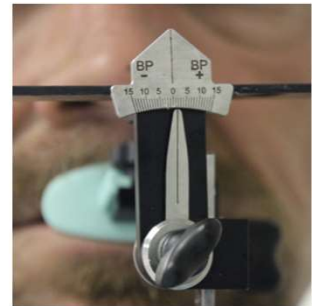
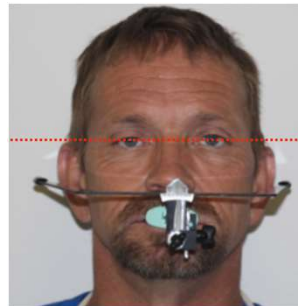
### Centric Tray handle

*The UTS CAD holder accepts the Centric Tray handle. It also accepts the Bitefork which can be utilized for other procedures.*



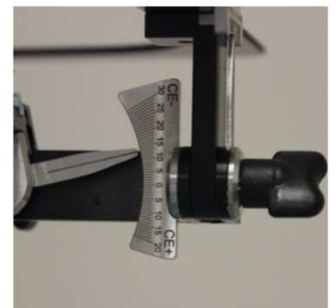
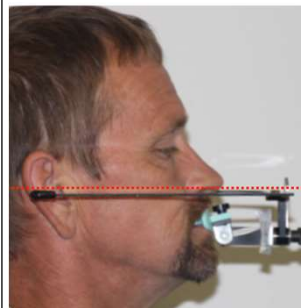
### Bipupillary plane (BP)

*This is very important to accurately assess. The value is recorded as BP.*



### Camper's plane (CE)

*Campers plane is referred to as CE (Campers Even) and not CP because it is a more universal interpretation. This plane is not as critical to record since it will most often be changed due to other factors such as interact distance, retromolar pad anatomy etc. however, it does provide a starting position.*





# ***Ivotion™ Denture System***

*Truly efficient. Truly digital.*

## ***1. Clinical workflows***

- a. Wax rim bite*
- b. Denture impressions & bite*
- c. Immediate dentures*
- d. Direct to try-in*

## ***2. Prescription***

- a. Tooth selection*
- b. Manufacturing processes*
- c. Communication tools (optional)*

## ***3. Clinical try-in***

# Tooth mould selection



## Phonares® II

The ultimate tooth solution

Precision crafted with Nano Hybrid Composite, Phonares II represents the next generation of denture teeth offering a unique blend of unrivaled beauty and unparalleled performance.

LEARN MORE



## BlueLine® DCL

The high performance tooth choice

BlueLine denture teeth easily blend next to natural teeth in partial denture cases, or give the complete denture wearer a beautifully natural and esthetic appearance.

LEARN MORE



## Vivodent® S PE | S DCL

Two tooth lines — One esthetic result

Esthetically and prosthetically optimized, designed to suit the characteristics of each individual tooth. Constructed entirely of the highly cross-linked DCL polymer (Double Cross-linked) material

LEARN MORE

*The above three tooth systems are available for most of the manufacturing options. More detailed information for each mould system is available on the Ivoclar website “Tooth Conversion Landing Page” (<https://campaign.ivoclarvivadent.com/tooth-conversion>)*

## Full arch preset

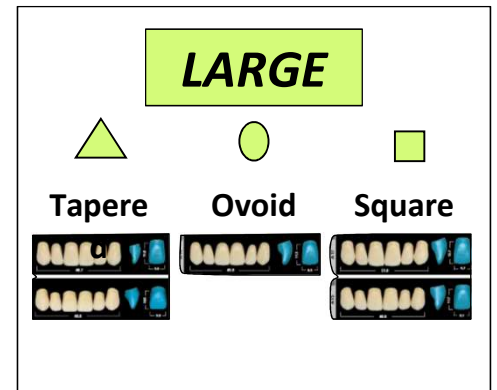
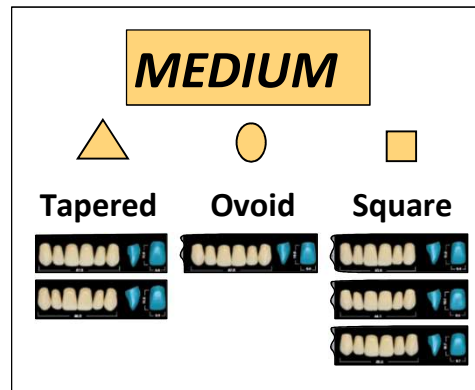
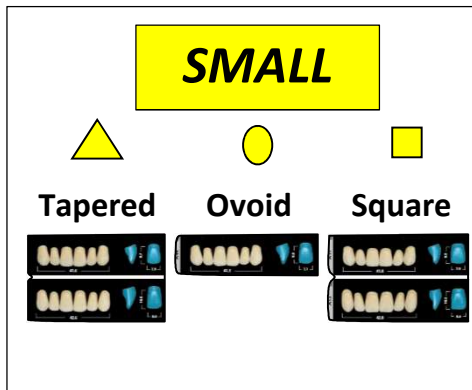


*Most moulds in each mould system are **preset** as a complete coordinated anterior and posterior set-up. The selection of the maxillary tooth mould will automatically select the appropriate mandibular anterior and posterior teeth. The posterior teeth can also be selected as lingualized or semi-anatomic Orthotyp (20 degrees) occlusal schemes.*

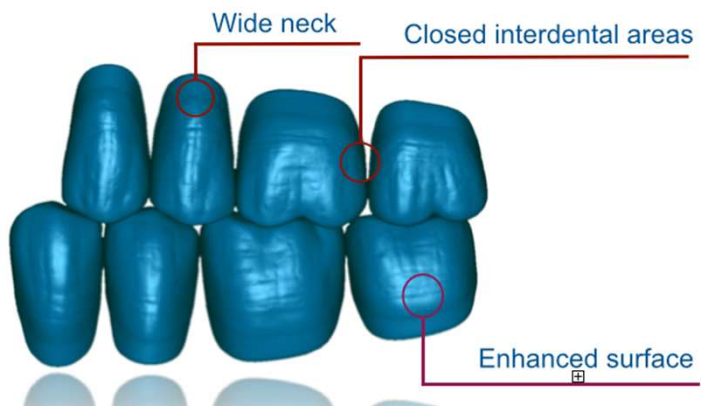
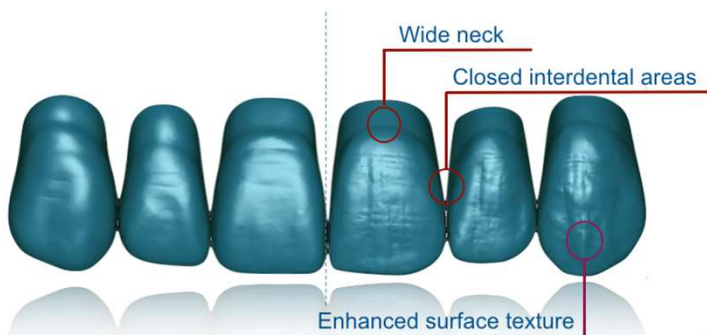


# Tooth mould selection

## SR Vivodent S DCL



The maxillary anterior mould is the focus for tooth selection since the mandibular anterior teeth and posterior teeth are automatically selected to harmonize with the maxillary anterior mould. The Vivadent S DCL is composed of 16 maxillary anterior moulds which are select moulds that have been enhanced cervically to provide an excellent architecture for milled gingiva papillae. They are uniquely organized to size (small, medium, large) and shapes (tapered, ovoid, square) to facilitate tooth selection.



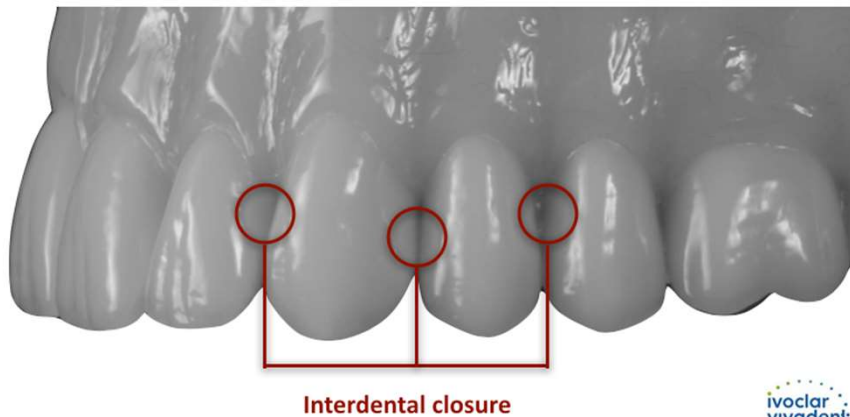


# Tooth mould selection

## Phonares II

	<b>SOFT</b>			<b>BOLD</b>		
	Youthful	Universal	Mature	Youthful	Universal	Mature
<b>SMALL</b>						
<b>MEDIUM</b>						
<b>LARGE</b>						

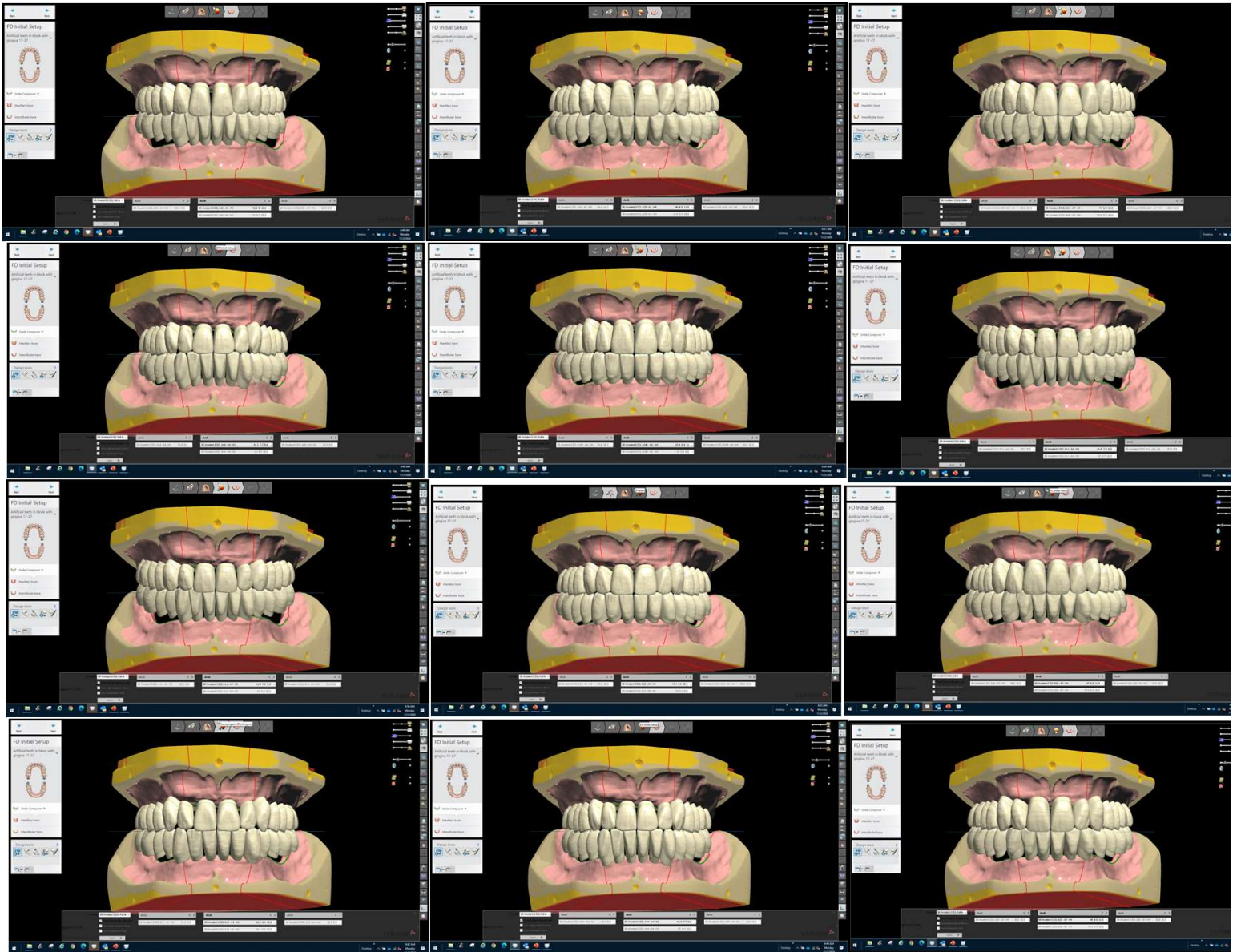
The organization of the Phonares II is also unique and is arranged according to size (small, medium, large), shape (soft,bold) and age (youthful, universal, mature). Similar to the Vivadent S DCL the cervical enhancement provides an excellent milled gingiva architecture.





# Tooth mould selection


Visualizing complete pre-set arches is a completely different experience than viewing teeth on a mounted card. Also having the ability to change moulds with one click gives the opportunity to view many moulds quickly and provides more visual information to help select an appropriate tooth mould. In addition, milled teeth also provides the opportunity to change individual tooth shapes with morphing tools, so the possibilities are endless.



It is suggested that the clinician make themselves familiar with tooth moulds from Vivodent S DCL and Phonares II since they both complement the digital process.



# Manufacturing processes



The image shows three components of the artificial tooth process: a red milled base, a set of artificial teeth labeled 'PHONARES II', and a bonding step where a tooth is attached to a base.

**Milled base**

**Artificial teeth**


**Bonding**

## Materials

- Ivotion base
- ProArt CAD Transfer
- Ivotion bond kit
- Denture teeth

## Artificial tooth process

*Provides a milled base which individual carded denture teeth are bonded to the base. This process as mentioned will allow the use of carded denture teeth.*



The image shows four stages of the oversize process: a partially milled base & teeth, a bonding step, and a final mill.

**Partially milled base & teeth**

**Bonding**

**Final mill**

## Materials

- Ivotion Base
- Ivotion Dent
- Ivotion Dent Multi
- Ivotion Bond kit

## Oversize Process

*The denture base and denture teeth are separately milled but not final milled. This allows the teeth to be bonded to the base and returned to the mill for final milling. The final mill precisely removes excess bonding material and finished the milling process.*



The image shows an Ivotion disc and a finished monolithic denture.

**Ivotion disc**

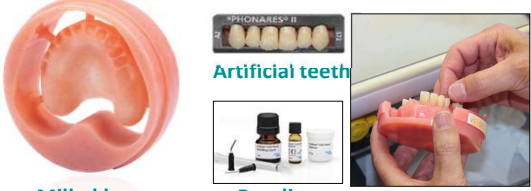
## Materials

- Ivotion disc

## Monolithic Process

*The Ivotion disc contains both the tooth and base in one disc. It uniquely fabricates the denture monolithically without a bonding interface.*

# Manufacturing processes



**Milled base** **Artificial teeth** **Bonding**

## Prescription

Tooth moulds:

Maxillary anterior tooth mould selection \_\_\_\_\_


Tooth shade:  \_\_\_\_\_

Gingival shade:

Occlusion:

## Artificial tooth process

*Provides a milled base which individual carded denture teeth are bonded to the base. This process as mentioned will allow the use of carded denture teeth.*



**Partially milled base & teeth** **Bonding** **Final mill**

## Prescription

Tooth moulds:

Maxillary anterior tooth mould selection \_\_\_\_\_


Tooth shade:

Gingival shade:

Occlusion:

## Oversize Process

*The denture base and denture teeth are separately milled but not final milled. This allows the teeth to be bonded to the base and returned to the mill for final milling. The final mill precisely removes excess bonding material and finished the milling process.*



**Ivotion disc**

## Prescription

Tooth moulds:

Maxillary anterior tooth mould selection \_\_\_\_\_

Tooth shade:

Gingival shade:

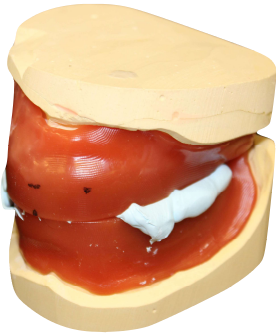
Occlusion:

## Monolithic Process

*The Ivotion disc contains both the tooth and base in one disc. It uniquely fabricates the denture monolithically without a bonding interface.*

# Communication tools

**Traditional  
wax rim bite**



**Impressions &  
bite in dentures**



**Immediate  
dentures**

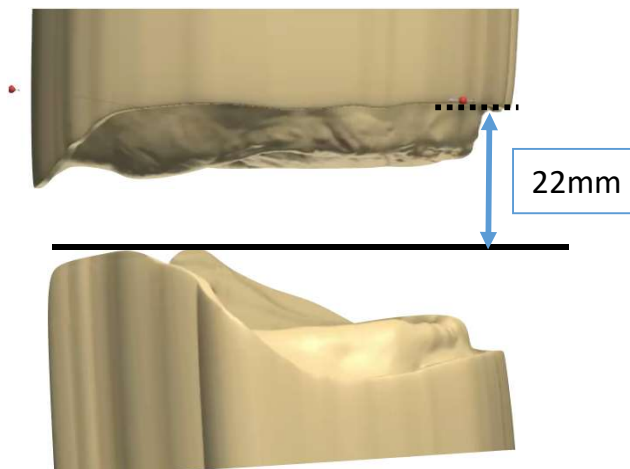


**Direct to try-in**



The first three clinical workflows provide a reference matrix (wax rims, denture, extracted teeth) to help guide the position of the new teeth. They are by far the best means of communication since they provide a tangible reference from which to create the new design. However, when starting from scratch as in the “Direct to try-in workflow” there are no reference matrices. Therefore, the following optional communication tools are suggested since they provide some guidance either based on the patients existing dentures (Denture Gauge) or the patient’s lip length (Papillameter). Without either of these the design technician would only have average values to set the initial set-up template.

**Average value**



# Communication tools

## Denture Gauge



## Papillameter



If the patient presents with dentures it is an excellent opportunity to gather patient data that may help with the new denture design. The **Denture Gauge** is a convenient tool that helps to gather the patient's denture information. If patient does not have dentures the **Papillameter** record is recommended.



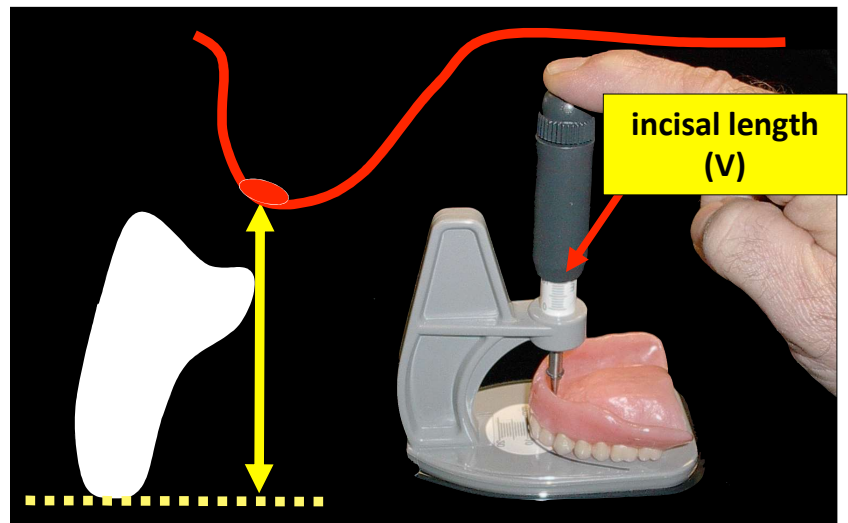
# Communication tools

## Denture Gauge

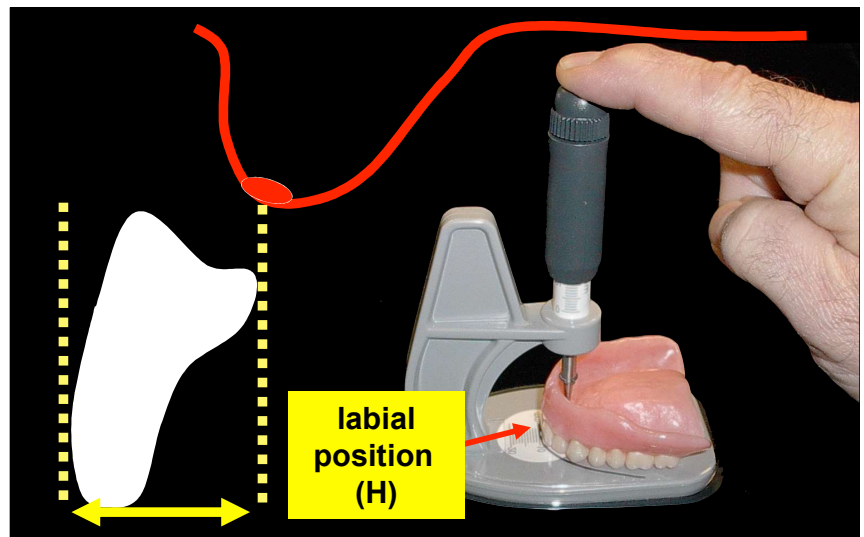
*The Denture Gauge is a simple tool that can provide essential information about the patient's current denture.*



*Depress plunger to engage center of the incisal papilla. The vertical gauge on the handle measures the incisal length in relationship to the center of the incisal papilla (V).*

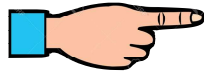


*The gauge on the horizontal platform records the distance from the labial position of the incisors in relationship to the incisal papilla (H).*

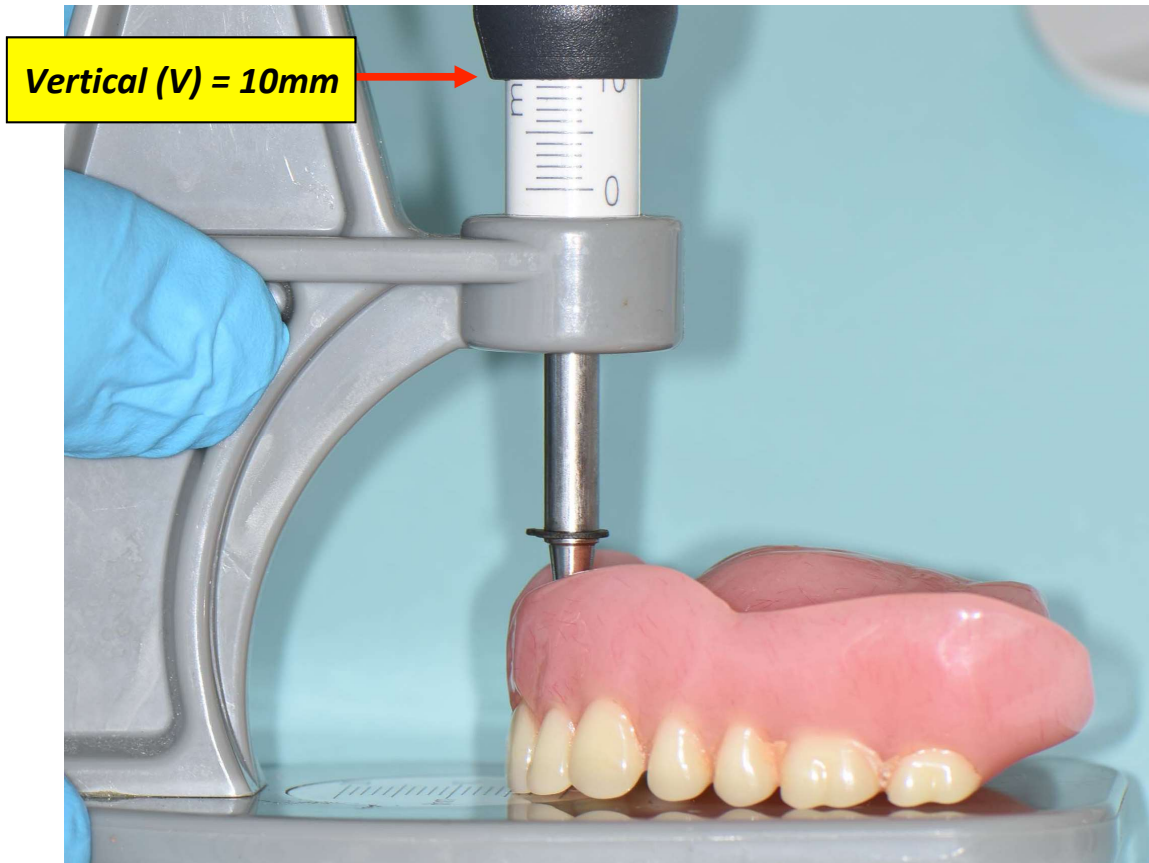


# Communication tools

## Denture Gauge



	<i>Actual</i>	<i>Desired</i>
<i>Maxillary</i>	V <u>10</u>	V ____
<i>Maxillary</i>	H ____	H ____
<i>Mandibular</i>	V ____	V ____



Depress plunger to engage center of incisal papilla and record the **Vertical (V)** measurement.

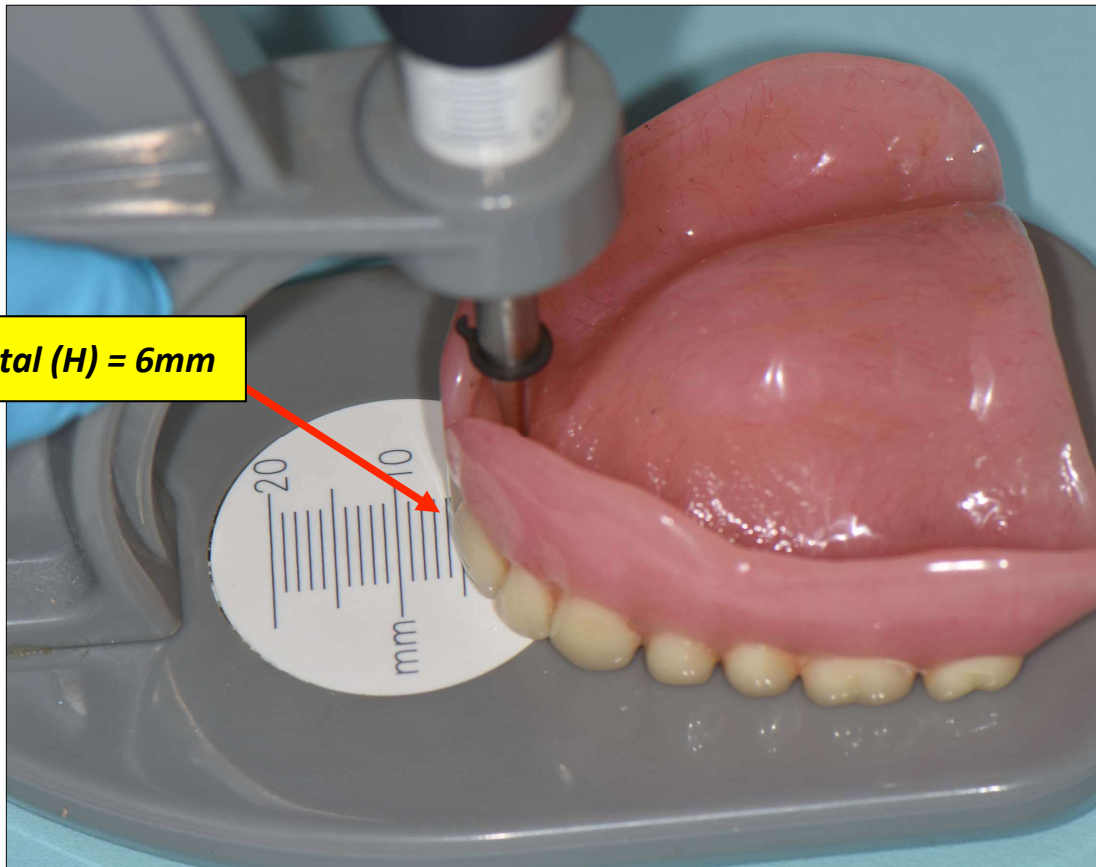
This records the maxillary central incisal length in relationship to the center of the incisal papilla.

# Communication tools

## Denture Gauge



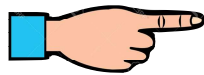
	<i>Actual</i>	<i>Desired</i>
<i>Maxillary</i>	V <u>10</u>	V ____
<i>Maxillary</i>	H <u>6</u>	H ____
<i>Mandibular</i>	V ____	V ____



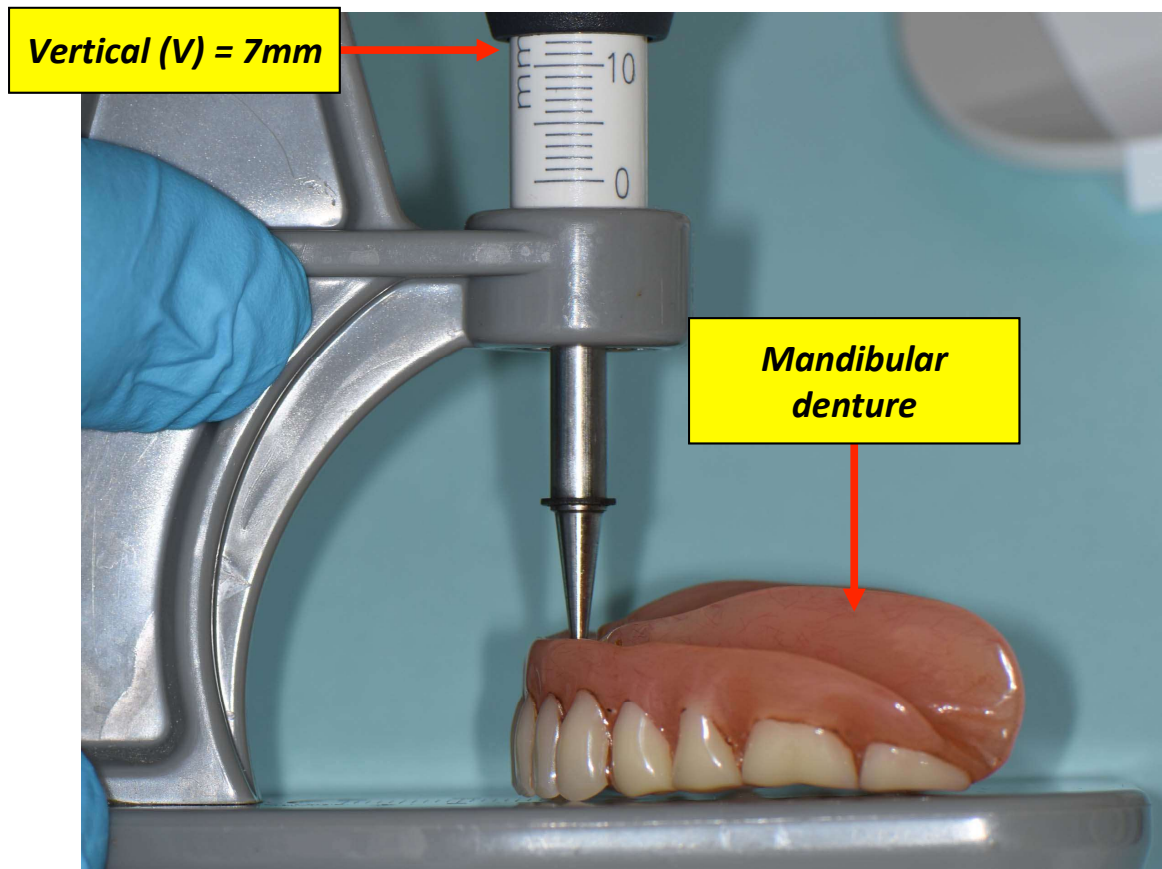
Record the **Horizontal (H)** measurement from the gauge on the base.  
This records the maxillary central incisal labial position in relationship to the center of the incisal papilla.

# Communication tools

## Denture Gauge



	<i>Actual</i>	<i>Desired</i>
<i>Maxillary</i>	V <u>10</u>	V ____
<i>Maxillary</i>	H <u>6</u>	H ____
<i>Mandibular</i>	V <u>7</u>	V ____



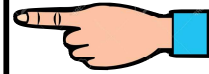
Position the plunger tip to the center of the mandibular ridge crest and record the **Vertical (V)** measurement. This will record the length of the mandibular incisors in relationship to the center of the ridge.



# Communication tools

## Denture Gauge

	<i>Actual</i>	<i>Desired</i>
<i>Maxillary</i>	V <u>10</u>	V <u>✓</u>
<i>Maxillary</i>	H <u>6</u>	H <u>    </u>
<i>Mandibular</i>	V <u>7</u>	V <u>    </u>

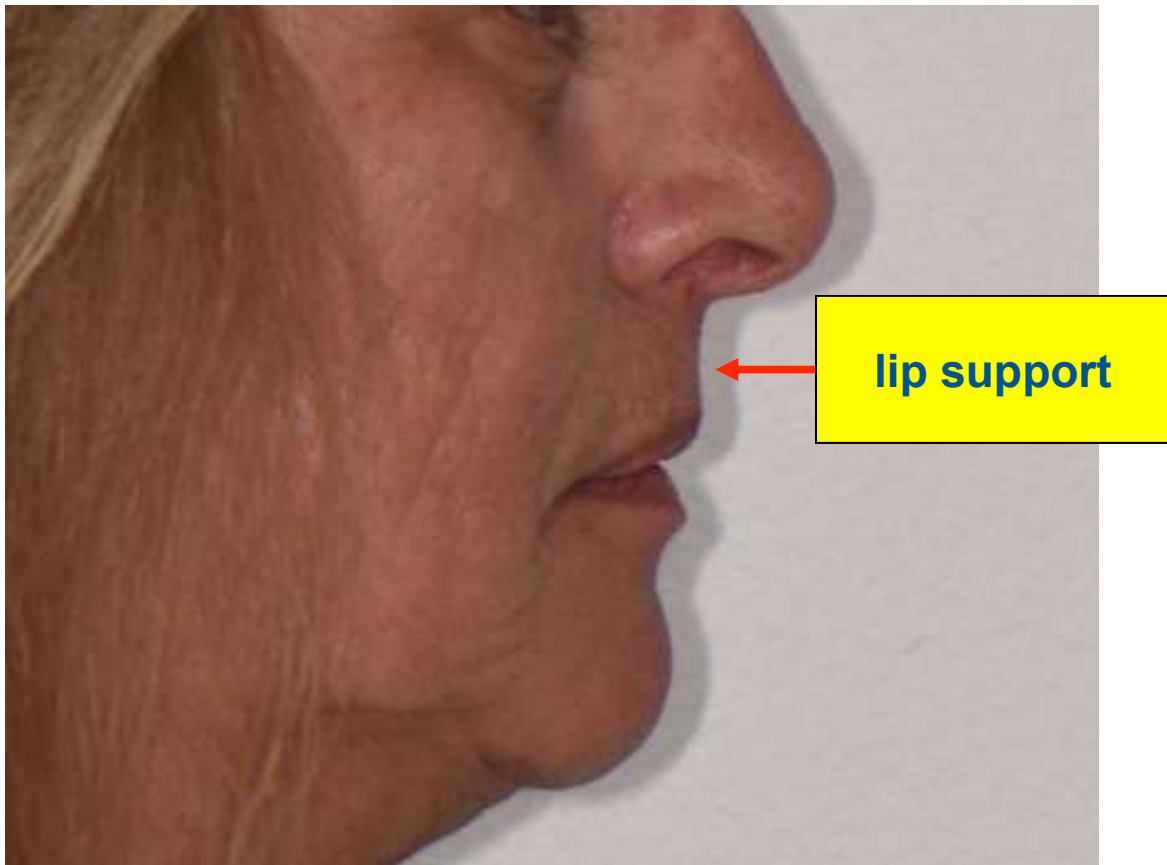
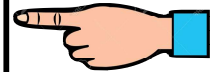


Evaluate **maxillary incisal length** and record whether to keep the same or either increase/decrease length using the Denture Gauge measurements as the reference.  
**NOTE:** This value is referred to as “Teeth visible length” when setting the occlusal plane in the Model analysis design page.

# Communication tools

## Denture Gauge

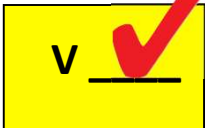
	<i>Actual</i>	<i>Desired</i>
<i>Maxillary</i>	V <u>10</u>	V _____
<i>Maxillary</i>	H <u>6</u>	H <u>✓</u>
<i>Mandibular</i>	V <u>7</u>	V _____

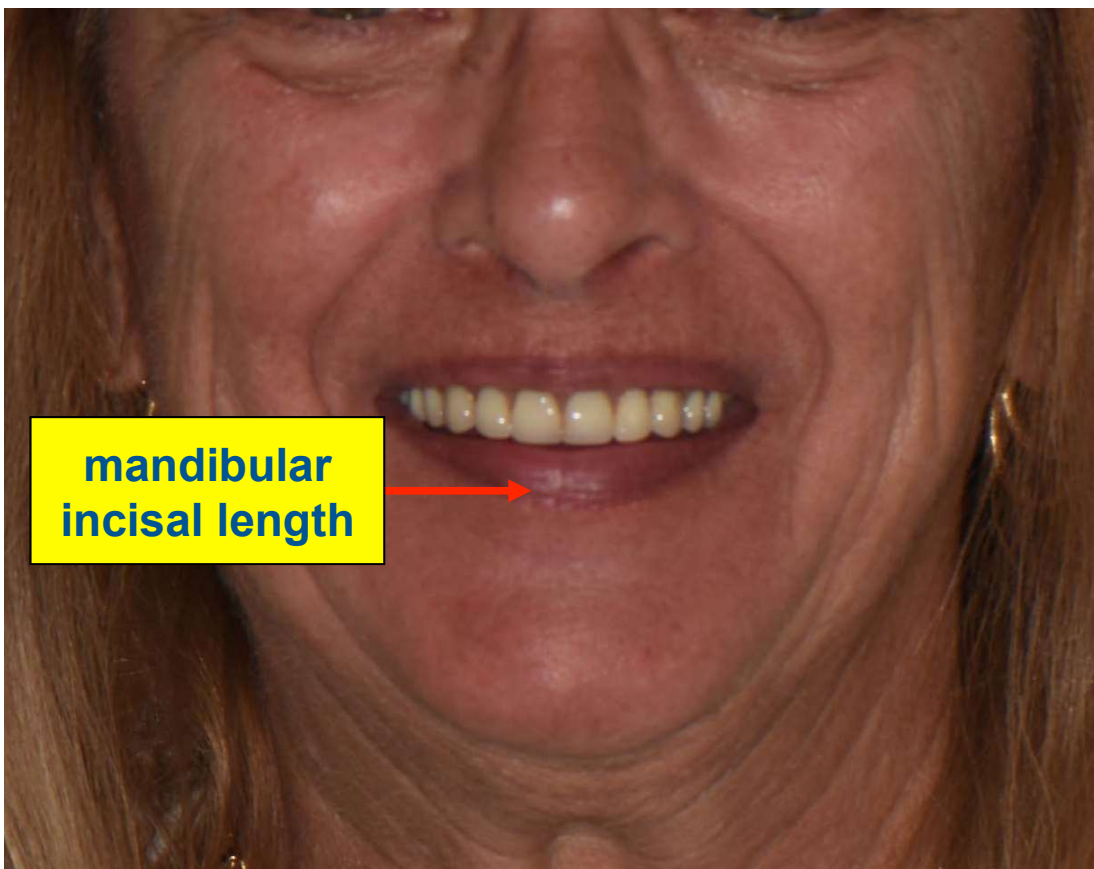
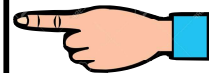


Evaluate **maxillary lip support** and record whether to keep the same or either increase/decrease labial position using the Denture Gauge values as the reference.

# Communication tools

## Denture Gauge

	<i>Actual</i>	<i>Desired</i>
<i>Maxillary</i>	V <u>10</u>	V ____
<i>Maxillary</i>	H <u>6</u>	H ____
<i>Mandibular</i>	V <u>7</u>	V 

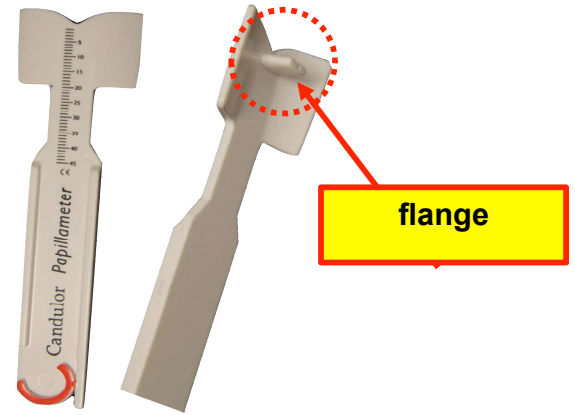


Evaluate **mandibular incisal length** and record whether to keep the same or either increase/decrease length using the Denture Gauge values as the reference.

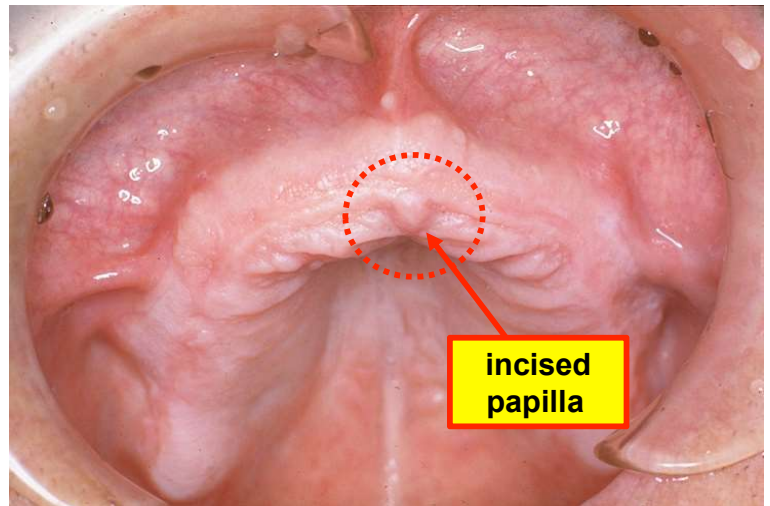
# Communication tools

## Papillameter

*The Papillameter has a measurement scale on the labial surface and flange on the palatal side*



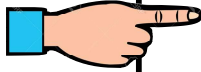
*Gently rest the flange of the Papillameter on the incisal papilla*



*Note: the Papillameter is useful in particular when the patient does not present with existing dentures.*

# Communication tools

## Papillameter



Low lip line 15

High lip line \_\_\_\_\_

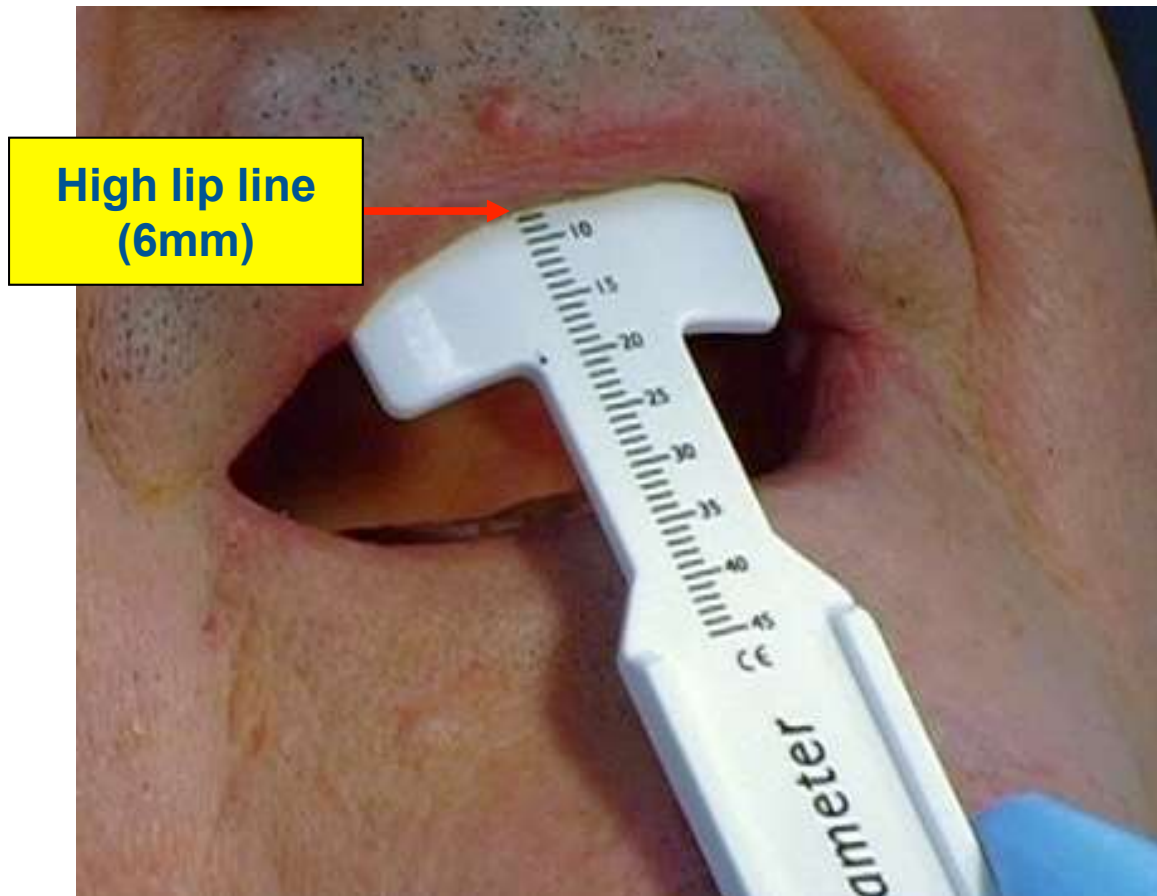
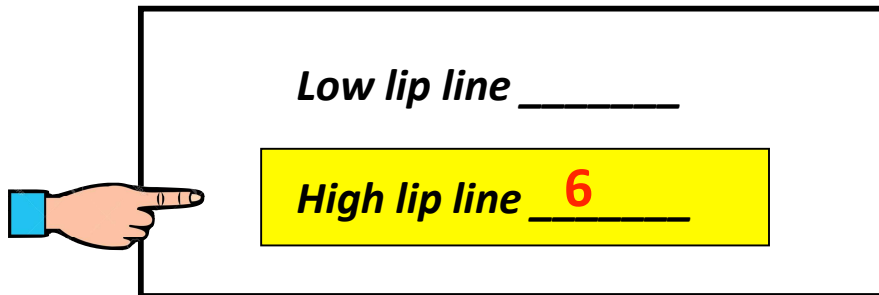


With the patient at rest place the Papillameter on the incisal papilla and record the “low lip line” on the labial scale approximately 2mm below the upper lip.

**NOTE:** This value is referred to as “Teeth visible length” when setting the occlusal plane in the Model analysis design page.



# Communication tools



The “**high lip line**” is measured while the patient is smiling. Central incisor length can be estimated by subtracting the “high lip line value” from the “low lip line value”. i.e the subtracted difference ( $15 - 6 = 9$ ) suggests that the central incisor should be a minimum of 9mm to avoid a gummy smile.

# Ivotion Digital Denture Prescription


**Digital Denture Prescription** Case Number

Dental Professional: \_\_\_\_\_ License # \_\_\_\_\_  
 Patient Name: \_\_\_\_\_

☐ Male ☐ Female Age \_\_\_\_\_ Comments:


**ORDER**  
☐ Try-In Denture ☐ Final Denture

**Artificial Tooth Process**



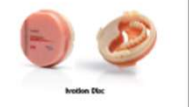
tooth moulds: (Phonax B) (Blackline) (Vivadent S DQ)  
 Maxillary anterior to oth mould selection: \_\_\_\_\_  
 Tooth shade: (A1 A2 A3 A3.5 B1 B2 B3 C2 D2)  
 Gingival shade: (Pink) (Pink V) (Reference) (34V)  
 Occlusion: (Semi-anatomic) (Lingualized)

**Oversize Process**




tooth moulds: (Phonax B) (Blackline) (Vivadent S DQ)  
 Maxillary anterior to oth mould selection: \_\_\_\_\_  
 Tooth shade: (A1 A2 A3 A3.5 B1 B2 B3 C2 D2)  
 Gingival shade: (Pink) (Pink V) (Reference) (34V)  
 Occlusion: (Semi-anatomic) (Lingualized)

**Monolithic Process**




tooth moulds: (Phonax B)  
 Maxillary anterior to oth mould selection: \_\_\_\_\_  
 Tooth shade: (A1 A2 A3 A3.5 B1 B2 B3 C2 D2)  
 Gingival shade: (Pink V) (Reference)  
 Occlusion: (Semi-anatomic) (Lingualized)

**Denture Gauge**




Actual Desired  
 Maxillary V \_\_\_\_\_ V \_\_\_\_\_  
 Maxillary H \_\_\_\_\_ H \_\_\_\_\_  
 Mandibular V \_\_\_\_\_ V \_\_\_\_\_

**Papillameter**



Low Lip Line \_\_\_\_\_ mm  
 (Up Closure Line)  
 High Lip Line \_\_\_\_\_ mm

**UTS CAD**



(BP) Bipupillary line \_\_\_\_\_ + or -  
 (CD) Camper's plane \_\_\_\_\_ + or -

Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

704712 Rev. 2 12/2020 \*Consult your lab regarding available moulds in digital tooth library

**ivoclar vivadent!**  
 passion vision innovation

**Digital Denture Prescription** Case Number \_\_\_\_\_

**Try-In evaluation form**

Fit: ☐ acceptable ☐ new impressions

Midline: ☐ no change ☐ marked on denture refer to comments

Maxillary incisal length: ☐ no change ☐ increase \_\_\_\_\_ mm ☐ decrease \_\_\_\_\_ mm

Mandibular incisal length: ☐ no change ☐ increase \_\_\_\_\_ mm ☐ decrease \_\_\_\_\_ mm

Lip support: ☐ no change ☐ increase \_\_\_\_\_ mm ☐ decrease \_\_\_\_\_ mm

Bipupillary plane: ☐ acceptable ☐ comments: \_\_\_\_\_

Camper's plane: ☐ acceptable ☐ comments: \_\_\_\_\_

Bite (COVD): ☐ acceptable ☐ comments: \_\_\_\_\_

Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

704712 Rev. 2 12/2020 \*Consult your lab regarding available moulds in digital tooth library

**ivoclar vivadent!**  
 passion vision innovation

# ***Ivotion™ Denture System***

*Truly efficient. Truly digital.*

## ***1. Clinical workflows***

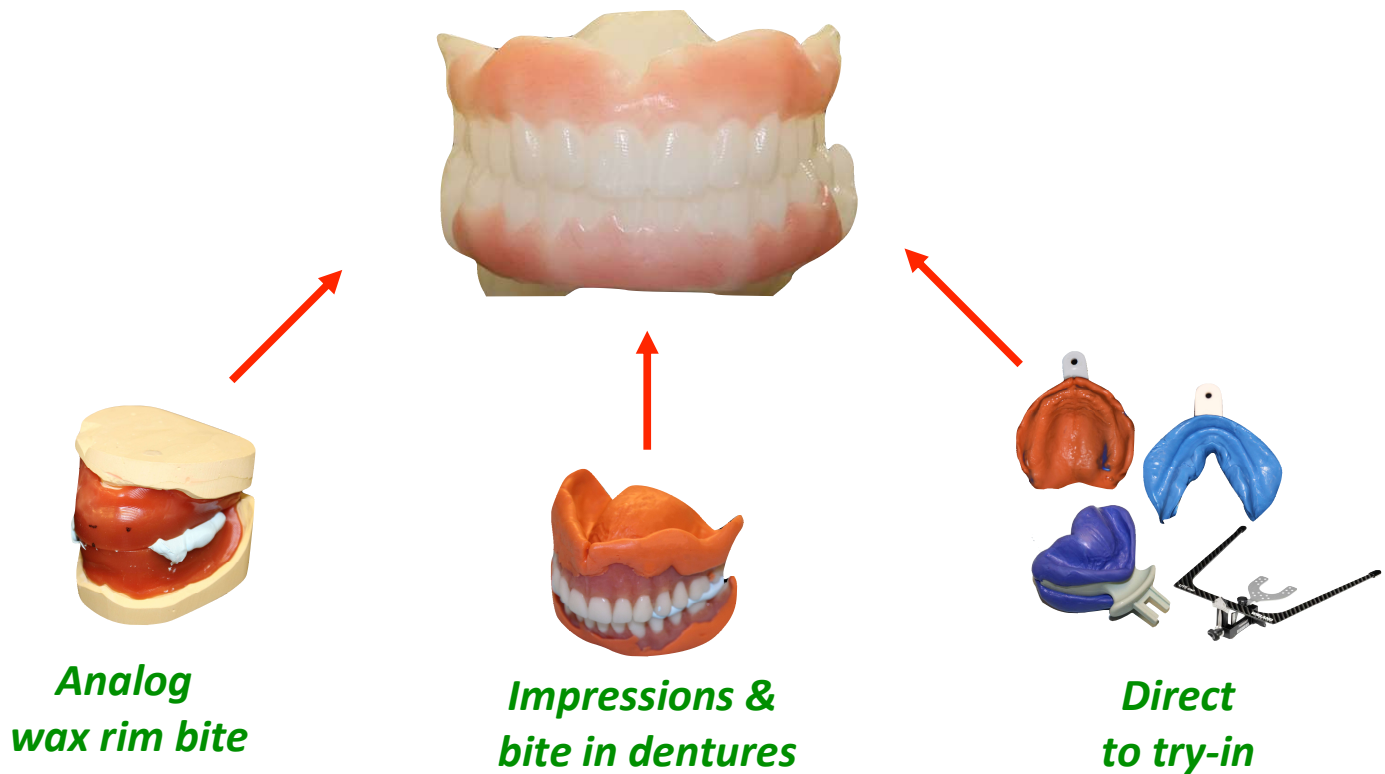
- a. Wax rim bite*
- b. Denture impressions & bite*
- c. Immediate dentures*
- d. Direct to try-in*

## ***2. Prescription***

- a. Tooth selection*
- b. Manufacturing processes*
- c. Communication tools (optional)*

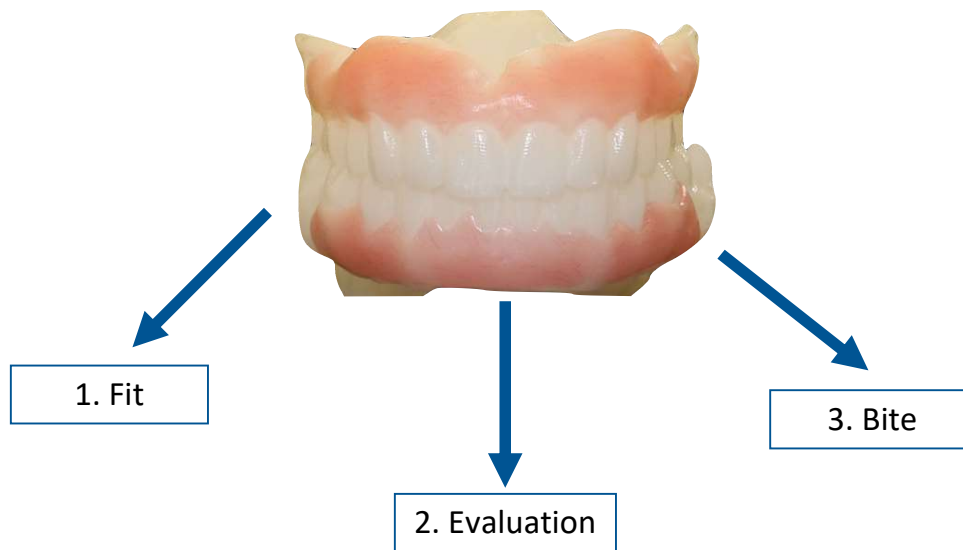
## ***3. Clinical try-in***

# Resin try-in appointment



The “**clinical resin try-in**” is an option for all three workflows described. Clinical evaluation of the resin try-in dentures is similar to the traditional wax try-in evaluation, except of course the teeth are fixed & they do not represent the shade of the actual denture teeth. However, as shown later resin try-in dentures can be marked, ground, etc. to facilitates the ability to communicate the desired changes. The resin try-in dentures can be milled or printed.

# Resin try-in appointment



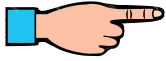
Suggest the following sequence for the clinical try-in evaluation:

- 1. Fit:** Since the accuracy of the try-in dentures are extremely accurate it is possible to make an evaluation of fit with confidence. If not acceptable, new impressions must be taken using the trial dentures as impression trays. Note: if one arch is impressioned it is advised that both are be impressioned since the dentures will have to be rescanned and redesigned to a new order form.
- 2. Evaluation:** The evaluation form serves to remind the clinician of necessary observations and documentations. Note: If impressions must be made it is suggested that the evaluation be completed after impressions are made since the impression material may slightly alter the dentures.
- 3. Bite:** If a new bite registration is necessary, take it after the dentures are evaluated. Note if a new bite is taken without impressions than the original design and order form can still function. As mentioned, if new impressions are made than a new bite is mandatory and the case must be rescanned and redesigned using a new order form.

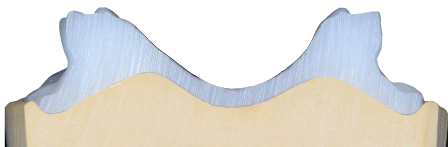


# Resin try-in appointment

## Try-in evaluation form



Fit		
<input type="button" value="acceptable"/>	<input type="button" value="new impressions"/>	
<b>Midline</b>		
<input type="button" value="no change"/>	<input type="button" value="marked on denture"/>	<input type="button" value="refer to comments"/>
<b>Maxillary incisal length</b>		
<input type="button" value="no change"/>	<input type="button" value="increase ____ mm"/>	<input type="button" value="decrease ____ mm"/>
<b>Mandibular incisal length</b>		
<input type="button" value="no change"/>	<input type="button" value="increase ____ mm"/>	<input type="button" value="decrease ____ mm"/>
<b>Lip support</b>		
<input type="button" value="no change"/>	<input type="button" value="increase ____ mm"/>	<input type="button" value="decrease ____ mm"/>
<b>Bipupillary plane</b>		
<input type="button" value="acceptable"/>	<input type="text" value="comments:"/>	
<b>Camper's plane</b>		
<input type="button" value="acceptable"/>	<input type="text" value="comments:"/>	
<b>Bite (CO/VDO)</b>		
<input type="button" value="acceptable"/>	<input type="text" value="comments:"/>	

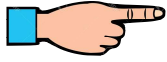


**Fit:** Since the dimensions of the digital try-in dentures are extremely accurate it is possible to make an evaluation of fit with confidence. If fit is not acceptable, new impressions must be taken using the trial dentures as impression trays. Note; patient should be in occlusion when applying impression materials.

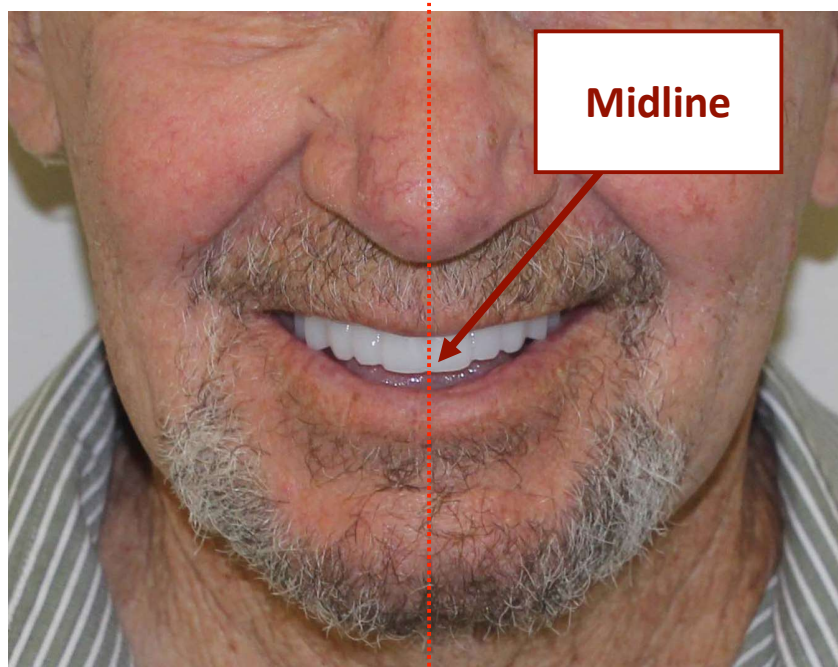


# Resin try-in appointment

## Try-in evaluation form



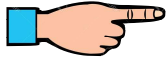
<b>Fit</b> <input type="text" value="acceptable"/> <input type="text" value="new impressions"/>		
<b>Midline</b> <input type="text" value="no change"/> <input type="text" value="marked on denture"/> <input type="text" value="refer to comments"/>		
<b>Maxillary incisal length</b> <input type="text" value="no change"/> <input type="text" value="increase ____ mm"/> <input type="text" value="decrease ____ mm"/>		
<b>Mandibular incisal length</b> <input type="text" value="no change"/> <input type="text" value="increase ____ mm"/> <input type="text" value="decrease ____ mm"/>		
<b>Lip support</b> <input type="text" value="no change"/> <input type="text" value="increase ____ mm"/> <input type="text" value="decrease ____ mm"/>		
<b>Bipupillary plane</b> <input type="text" value="acceptable"/> <input type="text" value="comments:"/>		
<b>Camper's plane</b> <input type="text" value="acceptable"/> <input type="text" value="comments:"/>		
<b>Bite (CO/VDO)</b> <input type="text" value="acceptable"/> <input type="text" value="comments:"/>		



*If the midline requires correction it can be marked on the resin try-in denture, which will be picked up in the scan. Or it can be prescribed in the comments; i.e. move midline 2mm to patient's left.*

# Resin try-in appointment

## Try-in evaluation form



<b>Fit</b> <input type="text" value="acceptable"/> <input type="text" value="new impressions"/>		
<b>Midline</b> <input type="text" value="no change"/> <input type="text" value="marked on denture"/> <input type="text" value="refer to comments"/>		
<b>Maxillary incisal length</b> <input type="text" value="no change"/> <input type="text" value="increase ____ mm"/> <input type="text" value="decrease ____ mm"/>		
<b>Mandibular incisal length</b> <input type="text" value="no change"/> <input type="text" value="increase ____ mm"/> <input type="text" value="decrease ____ mm"/>		
<b>Lip support</b> <input type="text" value="no change"/> <input type="text" value="increase ____ mm"/> <input type="text" value="decrease ____ mm"/>		
<b>Bipupillary plane</b> <input type="text" value="acceptable"/> <input type="text" value="comments:"/>		
<b>Camper's plane</b> <input type="text" value="acceptable"/> <input type="text" value="comments:"/>		
<b>Bite (CO/VDO)</b> <input type="text" value="acceptable"/> <input type="text" value="comments:"/>		



**Maxillary  
incisal length**

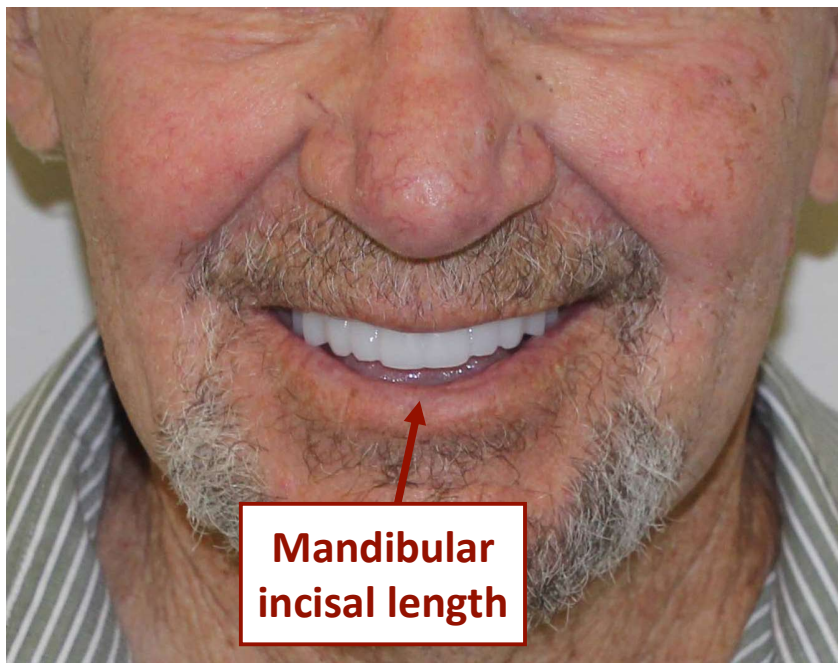
Changes can be either be documented in the evaluation form or changes can be marked or ground (shown later) or material added to communicate the desired length.

# Resin try-in appointment

## Try-in evaluation form



<b>Fit</b> <input type="text" value="acceptable"/> <input type="text" value="new impressions"/>		
<b>Midline</b> <input type="text" value="no change"/> <input type="text" value="marked on denture"/> <input type="text" value="refer to comments"/>		
<b>Maxillary incisal length</b> <input type="text" value="no change"/> <input type="text" value="increase ____ mm"/> <input type="text" value="decrease ____ mm"/>		
<b>Mandibular incisal length</b> <input type="text" value="no change"/> <input type="text" value="increase ____ mm"/> <input type="text" value="decrease ____ mm"/>		
<b>Lip support</b> <input type="text" value="no change"/> <input type="text" value="increase ____ mm"/> <input type="text" value="decrease ____ mm"/>		
<b>Bipupillary plane</b> <input type="text" value="acceptable"/> <input type="text" value="comments:"/>		
<b>Camper's plane</b> <input type="text" value="acceptable"/> <input type="text" value="comments:"/>		
<b>Bite (CO/VDO)</b> <input type="text" value="acceptable"/> <input type="text" value="comments:"/>		



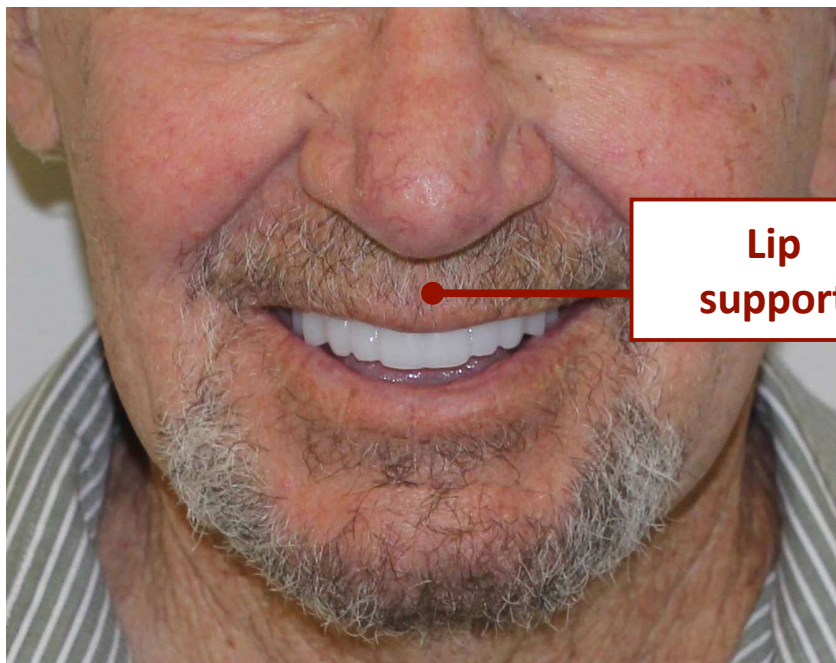
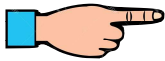
*The mandibular length can be challenging to communicate because it is interrelated to VDO. In other words if the maxillary length was ok but the mandibular length was suggested to be 3mm higher than the way to achieve that would be to increase the VDO until the lower teeth were able to be lengthened 3mm.*



# Resin try-in appointment

## Try-in evaluation form

<b>Fit</b>
<input type="text" value="acceptable"/> <input type="text" value="new impressions"/>
<b>Midline</b>
<input type="text" value="no change"/> <input type="text" value="marked on denture"/> <input type="text" value="refer to comments"/>
<b>Maxillary incisal length</b>
<input type="text" value="no change"/> <input type="text" value="increase ____ mm"/> <input type="text" value="decrease ____ mm"/>
<b>Mandibular incisal length</b>
<input type="text" value="no change"/> <input type="text" value="increase ____ mm"/> <input type="text" value="decrease ____ mm"/>
<b>Lip support</b>
<input type="text" value="no change"/> <input type="text" value="increase ____ mm"/> <input type="text" value="decrease ____ mm"/>
<b>Bipupillary plane</b>
<input type="text" value="acceptable"/> <input type="text" value="comments:"/>
<b>Camper's plane</b>
<input type="text" value="acceptable"/> <input type="text" value="comments:"/>
<b>Bite (CO/VDO)</b>
<input type="text" value="acceptable"/> <input type="text" value="comments:"/>




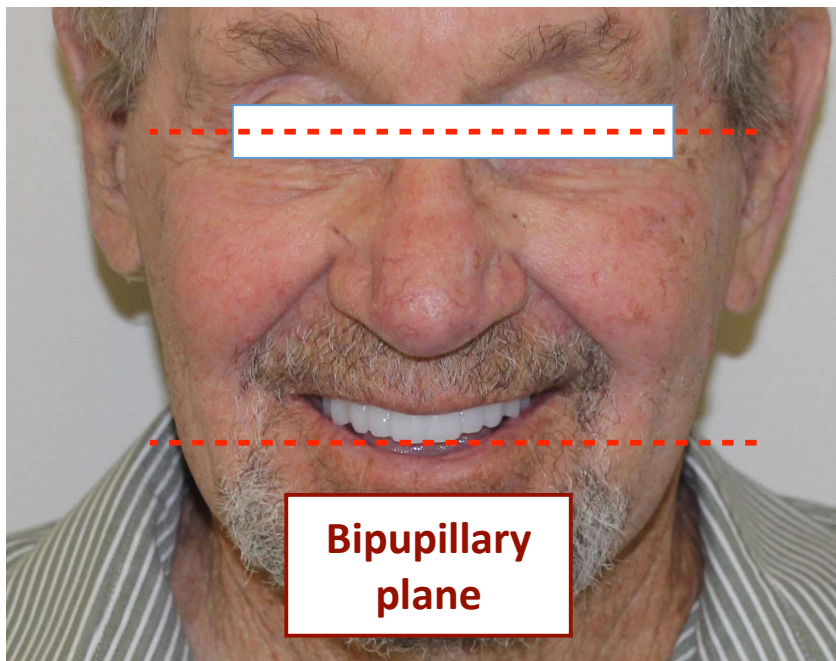
Since the resin try-in dentures are contoured exactly like the final denture it is possible to accurately assess the patient's lip fullness (labial position of maxillary incisors).



# Resin try-in appointment

## Try-in evaluation form

<b>Fit</b> <input type="button" value="acceptable"/> <input type="button" value="new impressions"/>		
<b>Midline</b> <input type="button" value="no change"/> <input type="button" value="marked on denture"/> <input type="button" value="refer to comments"/>		
<b>Maxillary incisal length</b> <input type="button" value="no change"/> <input type="button" value="increase ____ mm"/> <input type="button" value="decrease ____ mm"/>		
<b>Mandibular incisal length</b> <input type="button" value="no change"/> <input type="button" value="increase ____ mm"/> <input type="button" value="decrease ____ mm"/>		
<b>Lip support</b> <input type="button" value="no change"/> <input type="button" value="increase ____ mm"/> <input type="button" value="decrease ____ mm"/>		
	<b>Bipupillary plane</b>	
	<input type="button" value="acceptable"/>	<input type="text" value="comments:"/>
<b>Camper's plane</b> <input type="button" value="acceptable"/> <input type="text" value="comments:"/>		
<b>Bite (CO/VDO)</b> <input type="button" value="acceptable"/> <input type="text" value="comments:"/>		

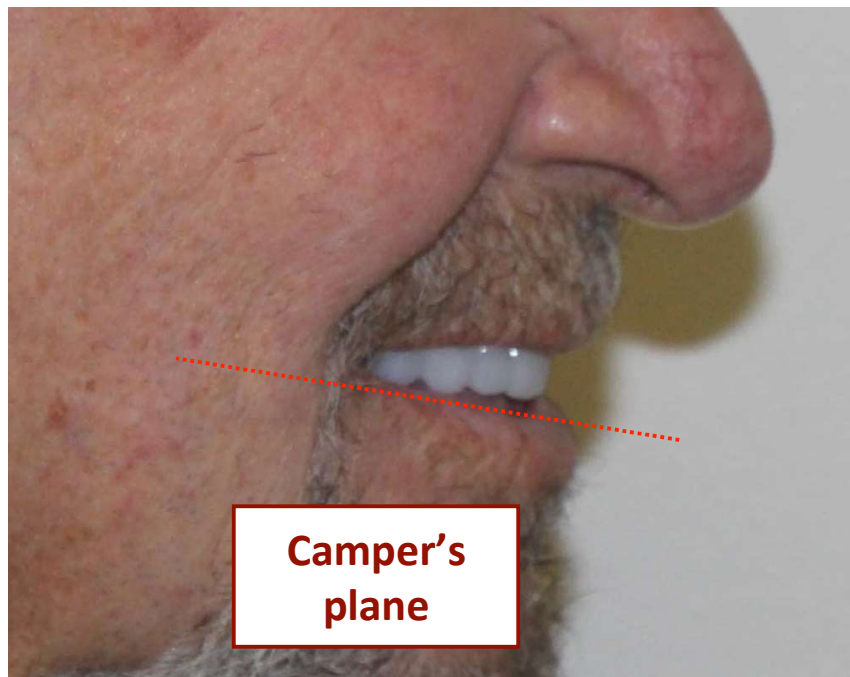


*If not acceptable explain in the comments. Note; if possible evaluate with a Biteplane (Fox plane)*

# Resin try-in appointment

## Try-in evaluation form

<b>Fit</b>		
<input type="text" value="acceptable"/>	<input type="text" value="new impressions"/>	
<b>Midline</b>		
<input type="text" value="no change"/>	<input type="text" value="marked on denture"/>	<input type="text" value="refer to comments"/>
<b>Maxillary incisal length</b>		
<input type="text" value="no change"/>	<input type="text" value="increase ____ mm"/>	<input type="text" value="decrease ____ mm"/>
<b>Mandibular incisal length</b>		
<input type="text" value="no change"/>	<input type="text" value="increase ____ mm"/>	<input type="text" value="decrease ____ mm"/>
<b>Lip support</b>		
<input type="text" value="no change"/>	<input type="text" value="increase ____ mm"/>	<input type="text" value="decrease ____ mm"/>
<b>Bipupillary plane</b>		
<input type="text" value="acceptable"/>	<input type="text" value="comments:"/>	
<b>Camper's plane</b>		
<input type="text" value="acceptable"/>	<input type="text" value="comments:"/>	
<b>Bite (CO/VDO)</b>		
<input type="text" value="acceptable"/>	<input type="text" value="comments:"/>	

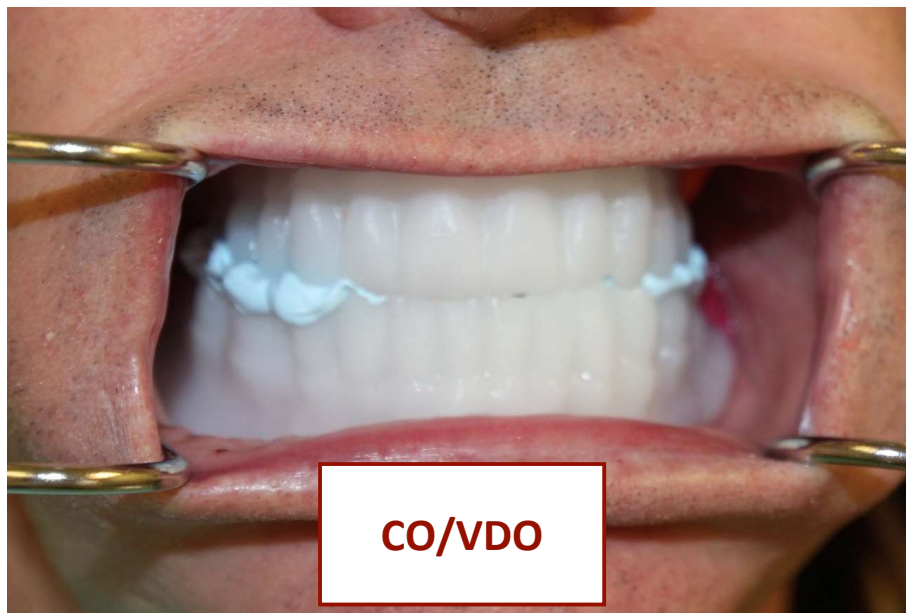


*In the profile view determine if the maxillary posterior teeth appear acceptable or if they appear too low or too high.*

# Resin try-in appointment

## Try-in evaluation form

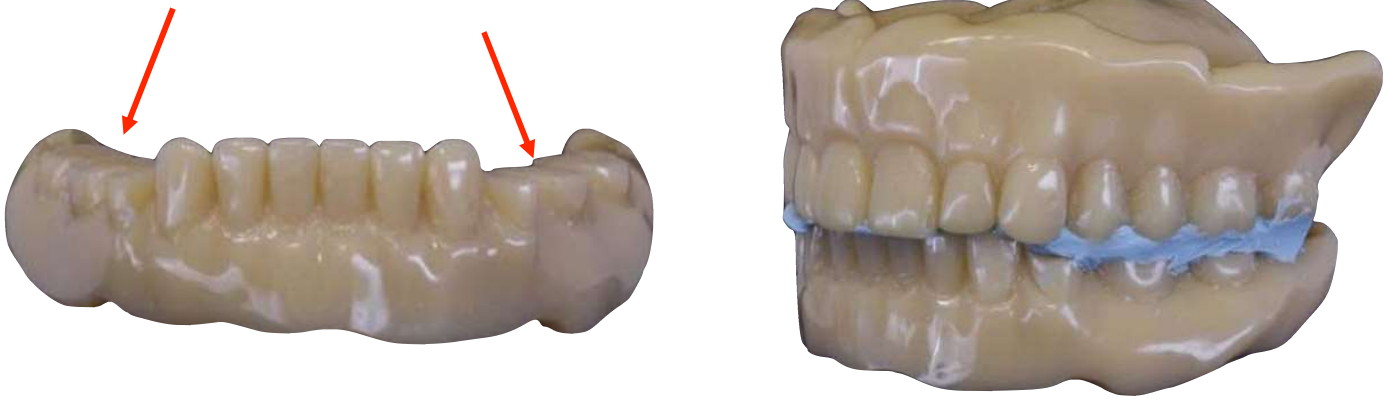
<b>Fit</b>		
<input type="text" value="acceptable"/>	<input type="text" value="new impressions"/>	
<b>Midline</b>		
<input type="text" value="no change"/>	<input type="text" value="marked on denture"/>	<input type="text" value="refer to comments"/>
<b>Maxillary incisal length</b>		
<input type="text" value="no change"/>	<input type="text" value="increase ____ mm"/>	<input type="text" value="decrease ____ mm"/>
<b>Mandibular incisal length</b>		
<input type="text" value="no change"/>	<input type="text" value="increase ____ mm"/>	<input type="text" value="decrease ____ mm"/>
<b>Lip support</b>		
<input type="text" value="no change"/>	<input type="text" value="increase ____ mm"/>	<input type="text" value="decrease ____ mm"/>
<b>Bipupillary plane</b>		
<input type="text" value="acceptable"/>	<input type="text" value="comments:"/>	
<b>Camper's plane</b>		
<input type="text" value="acceptable"/>	<input type="text" value="comments:"/>	
<b>Bite (CO/VDO)</b>		
<input type="text" value="acceptable"/>	<input type="text" value="comments:"/>	



If a new bite registration is necessary, it is suggested that the lower posterior teeth be ground to make room for the bite registration materials.  
Note; if possible always try to record the Centric Occlusion (CO) at the desired vertical dimension (VDO).

# *Tips*

## *New bite registration*



*Reducing the mandibular posterior teeth prior to taking the new jaw record will allow the VDO to be reduced if desired. It will also prevent occlusal contact interferences which may shift the jaw position.*

*NOTE: the final record should be at the desired VDO.*



*If an increase of VDO is desired it is suggested that the bite registration material capture this desired relationship.*

*NOTE: the final record should be at the desired VDO.*



# *Tips*

## *New impressions*



*During the procedure of taking new impressions have patient close into occlusion each time border impression material or wash impression material is added. This will keep the occlusal relationship and also allow the patient to physiologically border mould. This technique is referred to as the “Closed mouth functional impression technique”.*



*The choice of materials and technique for impression making is determined by the clinician*



# *Tips*

## ***Esthetic corrections***

**Mark  
dentures**



**Adjust  
dentures**



*The resin try-in dentures can be marked or ground to help communicate the desired changes*

## ***Take home try-in***



*One of the many advantages of the resin try-in is that the patient can safely take the try-in dentures home and have the opportunity to view in their familiar surroundings. The feedback can be dramatically more informative than simply asking a patient to make decisions using a hand mirror.*

# *Insertion / post-insertion appointments*



## *Insertion*

The accuracy of design (CAD) and manufacturing (CAM) provided by digital technology are appreciated at the insertion appointment. The time of adjustment of the denture bases and occlusion are typically significantly minimized and patient satisfaction is maximized.

## *Post-insertion*

In addition, the number and intensity of post-insertion appointments are significantly reduced.