



# Implant Bar Overdenture

Utilizing Locator® Attachments

2



## First Appointment

– Preliminary Impressions

- Utilizing a stock tray, take a preliminary impression, including the palate and vestibules (Fig. 1). This impression should be made at the implant level, as it will be used to fabricate an implant verification jig and a custom tray for an open-tray impression technique.
- Take an impression of the opposing dentition as well as the denture to be replaced.
- Send in the impressions with your lab Rx. If abutments are going to be utilized due to the implant angle or thickness of the soft tissue, an abutment level impression should be taken. In order to determine the appropriate abutment(s), a diagnostic set-up may be required.

## Second Appointment

– Jaw Relation Records and Shade Selection

- To ensure a passive fit of your custom-milled bar, it is vital to obtain an accurate final impression. You will receive a bite block.

### Jaw Relation Records

- Remove the healing abutments. Seat the bite block on the implants and tighten the cylinder screws (Fig. 2).
- With the patient sitting up**, use conventional denture technique to achieve accurate jaw relation records.
  - a. For maxillary cases, shape the rim for lip contour – place a small amount of vaseline on the labial aspect of the wax rim and confirm.
  - b. With the patient facing toward you, mark the midline, high lip line and corners of the mouth in the wax rim. Move the central incisors as necessary.
  - c. Determine centric relation and vertical dimension of occlusion (record passively) (VDO).

*Note: The patient's existing denture should be evaluated and can be utilized as a benchmark in determining the new VDO. Please see wax rim checklist enclosed with case.*

    - i. Place a dot with an indelible marker on the tip of the patient's nose and chin.
    - ii. Have the patient lick their lips, swallow, then relax their jaw. Measure the distance between the two dots. Repeat this procedure 3-4 times until you obtain a consistent vertical dimension of rest measurement (VDR).
    - iii. Have the patient bite together gently. The measurement should be approximately 3 mm less than the vertical measurement at rest. Adjust the rims, if necessary so they meet evenly.
    - iv. There should be a 2-4 mm speaking space between the rims when the patient pronounces "s" sounds (e.g., Mississippi, sixty, sixty-one, etc.). The incisal edges of the maxillary central incisors should lightly touch the lower lip during "f" sounds (e.g., forty, forty-one, etc.).
  - d. Once the VDO and a verifiable, repeatable CR are established, inject bite registration material onto the top of the wax rim and into the notches on the bite block. Use an excess amount on the anterior labial area. Have the patient bite together gently, but completely.



Fig. 1 Preliminary impression

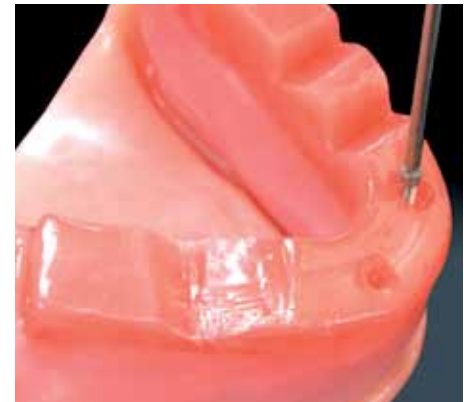


Fig. 2 Screw-retained bite block



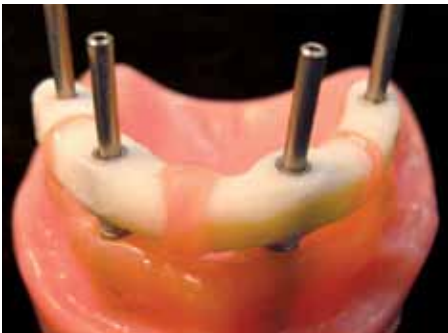
Fig. 3 Use bite registration material once the jaw relations are determined



**Fig. 4** Trial set-up



**Fig. 5 & 6** Luting sections of the implant verification jig



**Fig. 7** Reseat IVJ on implants and verify fit of the custom tray



**Fig. 8** Inject impression material under IVJ

e. Optional - Use a cotton swab stick embedded in the excess labial registration material, parallel to the pupils, to represent the horizontal plane (*Fig. 3*).

- Remove the bite blocks.
- Reseat and tighten the healing abutments.

### Shade Selection

- Select denture tooth shade and mould. The study model of the patient's existing denture can be used as a reference regarding the size and shape of the new teeth.

*Note: We will match to VITA/Candulor Premium denture teeth unless otherwise directed. Indicate the selection on the lab Rx.*

- Return the case to Glidewell enclosing all components, models.

## Third Appointment

### – Trial Set-Up Try-in

*You will receive from Glidewell Laboratories a trial denture with temporary cylinders.*

- Remove healing abutments.
- Seat the trial denture set-up (denture base with teeth in wax). Tighten the temporary cylinder screw(s).
- Evaluate VDO, CR, occlusion, esthetics/shade, tooth arrangement, occlusion and phonetics including “f” and “s” sounds as well as the midline (*Fig. 4*). Change the set-up if necessary or note the requested changes on the lab Rx. If CR is incorrect, a new bite registration should be taken.
- Please take photos per denture set-up checklist enclosed with case.
- Remove the trial set-up and replace the healing abutments.
- Return the case to Glidewell.

## Fourth Appointment

### Verification Jig

- Seat each section of the jig onto the appropriate implant and tighten the guide pin.
  - a. The sections should not be in contact. If necessary, remove one section, minimally trim it with a disc and reseat it. Each section should have a gap about the thickness of a business card. Final check of the gap should be done with floss.
- Lute the sections together with a suitable material (e.g., Triad® DuaLine®- DENTSPLY; Zapit®- Dental Ventures of America or ADDS-IT- American Diversified Dental Systems) (*Fig. 5 and 6*).
  - a. Allow the material to flow through, and completely around, the gaps.
  - b. Ensure the material is completely cured.
- Loosen and remove all guide pins. Remove the jig as one unit for visible inspection.
- Very important** – Replace the cured jig back onto the implants. Tighten a single guide pin into one of the distal cylinders. No lifting of the jig should occur. Check for a passive fit by visually inspecting completely around each cylinder for complete seating. Repeat this process for each implant.
  - a. If any section has a cylinder-implant interface that is subgingival, a periapical radiograph must be taken to verify complete seating.
  - b. If any cylinder is not completely seated, the jig must be sectioned in that area, reluted and rechecked until a passive fit is obtained.

### Final Impression

- Seat the verification jig on the implants and tighten all the guide pins (*Fig. 7*).
- Check the custom impression tray for fit. (No contact with the jig or cylinders.)
- Using medium body material, take the final impression with an open-tray technique.

- a. Inject impression material under and around the jig to capture the ridge and all anatomical landmarks as for a full denture including full vestibular extensions and the complete palate (Fig. 8).
- b. Seat the filled impression tray, ensuring the heads of the guide pins are exposed through the tray (Fig. 9).
- c. Once the material has set, remove guide pins and carefully pull the impression

*Note: The verification jig is picked up in the impression. Inspect the impression for the required detail and no voids (Fig. 10).*



**Fig. 9** Seat tray



**Fig. 10** Once set, loosen guide pins and pull impression

## ■ Fifth Appointment

### – Implant Bar Try-in

*You will receive from Glidewell Laboratories a milled bar on the model with a trial denture incorporating Locator® caps.*

- Remove the healing abutments.
- Seat and evaluate the fit of bar.
  - a. Tighten one screw and verify a passive fit on all implants (no lifting of the bar).
- Repeat this procedure for each implant. Once a passive fit is verified, tighten the remainder of the screws (Fig. 11).
- Seat the trial denture onto the bar.
- Evaluate VDO, CR, occlusion, esthetics/shade, tooth arrangement, phonetics and midline.
- Remove the trial denture and bar.
- Replace the healing abutments.
- Return the case including the model with the bar and trial denture to the lab for processing.



**Fig. 11** Verify fit of the bar

## ■ Sixth Appointment

### – Delivery of Final Prosthesis

*You will receive an overdenture with Locator processing caps and a milled titanium bar with Locator abutments on the master model.*

- Remove healing abutments.
- Seat the bar on the implants (or abutments).
- Hand-tighten the prosthetic screws, alternating from one side to the other.
- Tighten the screws to the appropriate torque. Wait approximately 5 minutes and retorque the screws.
- Seat the denture over the bar (Fig. 12).
  - a. Evaluate the fit, retention and occlusion.
  - b. Make adjustments as necessary.



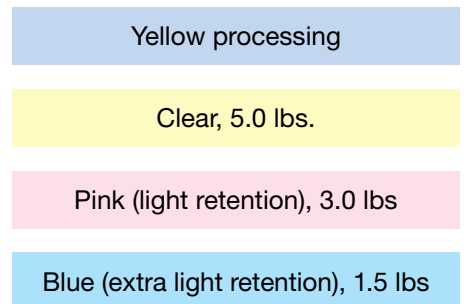
**Fig. 12** Delivery of final prosthesis

## ■ One Week Follow-Up Check

- Check retention, change out the processing caps for appropriate retention caps (Fig. 13). The Locator Coring Tool is required.

*Note: The amount of retention should be based on the number of implants and the strength of the patient. The processing caps are not intended for long-term use. Relieve any sore spots.*

- Re-tighten prosthetic screws to the appropriate torque.
- Check occlusion.
- Review oral hygiene.
- Set recall schedule.



**Fig. 13** Attachment and retention caps included with case



# *Lab Fees*

## **Predictable implant lab fees and no hidden costs**

### Removable and Fixed-Removable

Price includes: CAD/CAM precision-milled titanium bars. Locator attachments from Zest Anchors; Kenson Teeth (Locator Implant Overdenture) or premium denture teeth from VITA (Ti Bar Locator Overdenture); all labor, model and die work; analogs, set-ups, bite blocks, try-ins and verification jigs.

#### **Removable**

- Locator® Implant Overdenture (2 implants per case)
- GL CAD/CAM Ti Bar Locator Overdenture (unlimited implants per case)
- CAD/CAM Ti Bar Locator Overdenture (5 implants per case)

Price includes: CAD/CAM precision-milled titanium bars; premium denture teeth from VITA (Acrylic Hybrid) or individual zirconia crowns and composite gingival architecture (Ceramic Hybrid); all labor, model and die work; analogs, set-ups, bite blocks, try-ins and verification jigs.

#### **Fixed-Removable**

- GL CAD/CAM Ti Bar/Acrylic Hybrid (unlimited implants per case)
- CAD/CAM Ti Bar/Acrylic Hybrid (5 implants per case)
- CAD/CAM Ti Bar/Ceramic Hybrid (8 implants/12 crowns per case)

## Quick Reference

	<b>Doctor</b>	<b>Glidewell</b>
<b>1st Appointment</b>	Take preliminary impressions of edentulous arch and opposing dentition as well as the denture to be replaced.	Pour models; fabricate bite block, implant verification jig and custom tray. 3-5 days
<b>2nd Appointment</b>	Obtain jaw relation records and select denture tooth shade and mould.	Pour master cast, articulate models, set denture teeth in wax. 5 days
<b>3rd Appointment</b>	Trial denture set-up try-in and photos.	Fabricate implant verification jig and custom tray. 2-4 days
<b>4th Appointment</b>	Lute verification jig, and take final impression.	Fabricate titanium framework, reset denture teeth on framework. 4 days-15 days
<b>5th Appointment</b>	Combination framework/set-up try-in.	Process acrylic and denture teeth to the framework. 6 days
<b>6th Appointment</b>	Final prosthetic delivery.	
<b>One Week Post-Delivery Check</b>	Check occlusion.	



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