

Overdenture Treatment Options

Restoring Edentulous Jaws
Using One and Two-Piece Implants

**Two-Piece ReActive™ Tri-Lobe Implants
with Multi-Unit Abutments**



One-Piece ScrewIndirect™ Implants

www.implantdirect.com

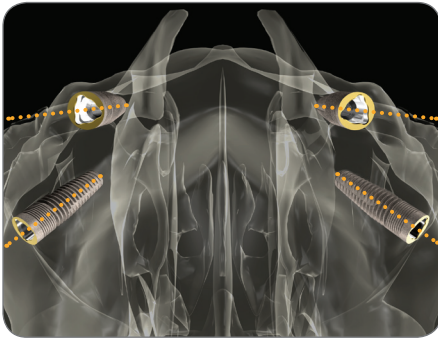
Innovation.

Quality.

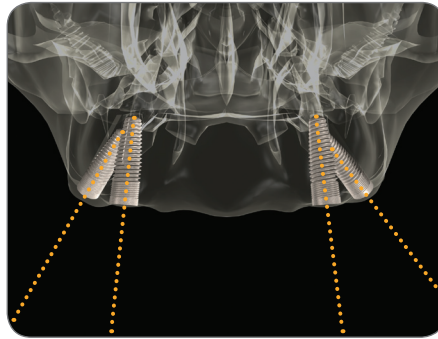
Service.

Value.

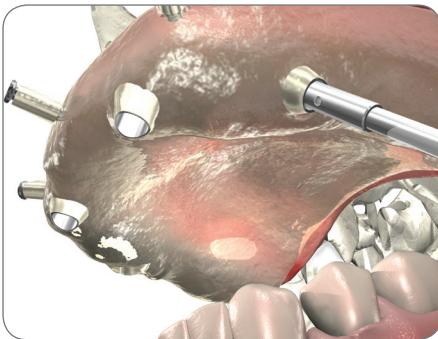
Angled Screw-Receiving Abutment Technique



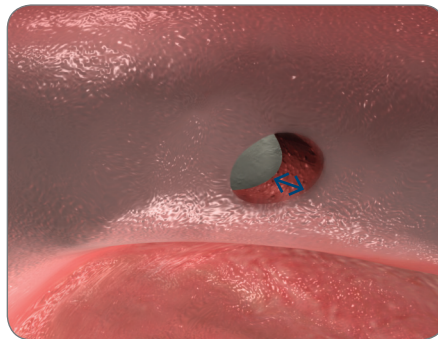
1. Make an evaluation of implant placement prior to design of surgical template. The posterior implants are planned to be placed off axis corresponding to angle of abutments to be used (15° or 30°). **Note:** When making accommodation for the angulation, the implant is in a 3 dimensional spatial position and relates directly to the position of the final abutment placement.



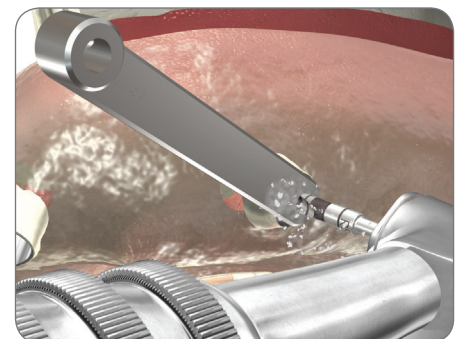
2. Fabricate a surgical template from patient's duplicate denture, CT software, or combination. Holes in the template are used as a guide for drills when preparing the osteotomies.



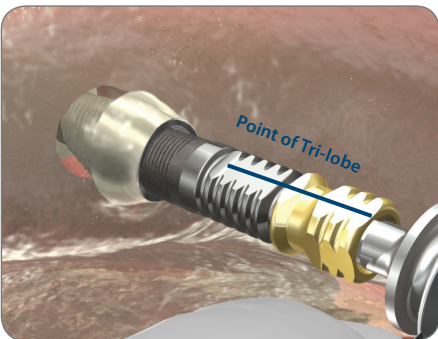
3. Place the surgical template onto tissues of the fully edentulous arch, fix in position. Use tissue punch to remove soft tissue in area of proposed implant placement.



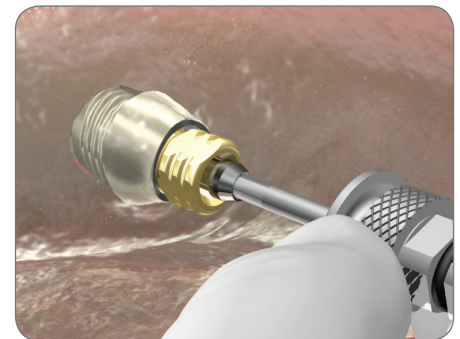
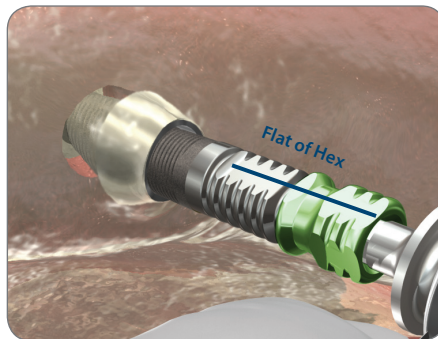
4. Remove template. Retrieve soft tissue plugs from proposed drill site. Probing of soft tissue height will assist in correct vertical placement of implant and abutment selection.



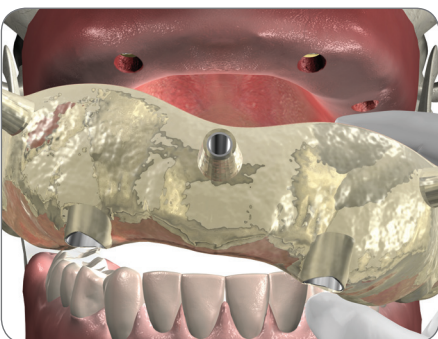
5. Insert template and drill osteotomies following sequence for implants to be placed. Make accommodations in drill length for thickness of template.



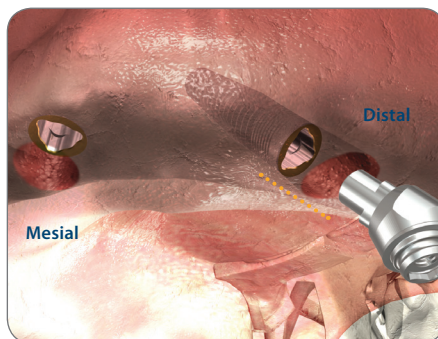
6. Carry implant to site using delivery method of choice. **Note:** Use implants with fixture mounts or delivery tools that are similar in diameter to access surgical template holes. Implant is placed through guide sleeve into implant osteotomy. Longitudinal flat on fixture mount indicates point of tri-lobe or flat of hex.



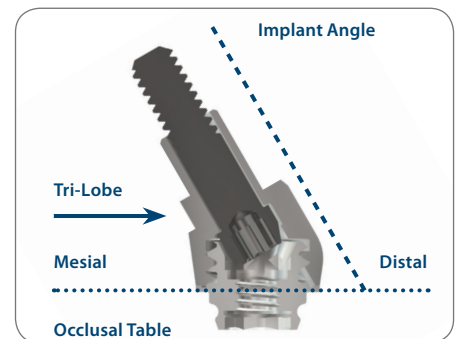
7. Insert corresponding removal tool into implant fixation screw, rotate counter-clockwise to loosen screw. Remove screw and retrieve fixture mount from implant.



8. Remove stabilization pins or anchors. Remove surgical template



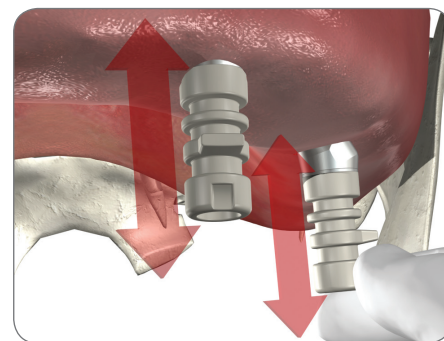
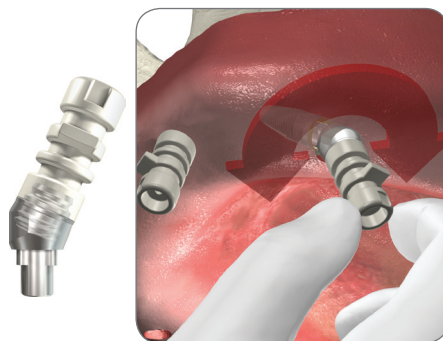
9. Review rotational position of implant's tri-lobe relative to angulation of implant. The point of one tri-lobe needs to be 180° opposite to angulation of implant. Abutment is comprised of abutment base, abutment screw and abutment top.



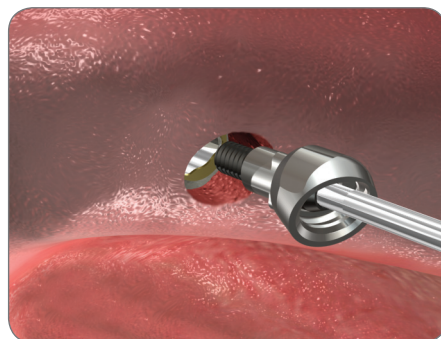
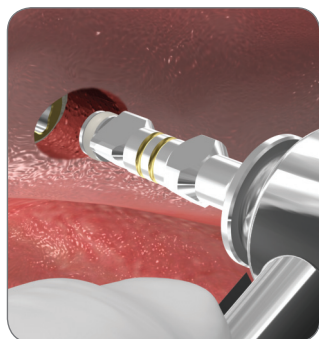
Angled Screw-Receiving Abutment Technique



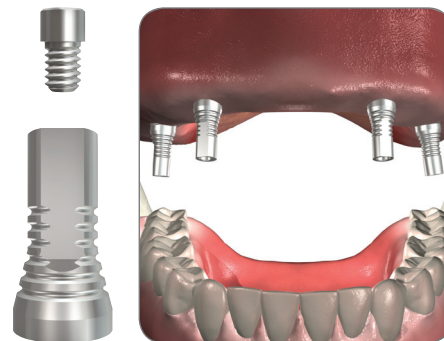
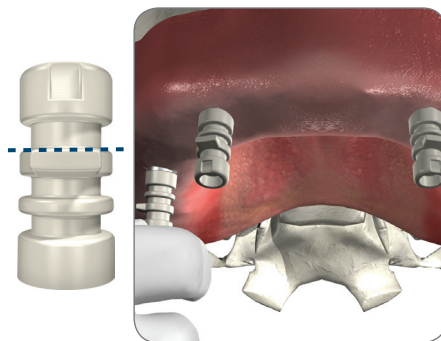
Angled Screw-Receiving Abutment Packaging



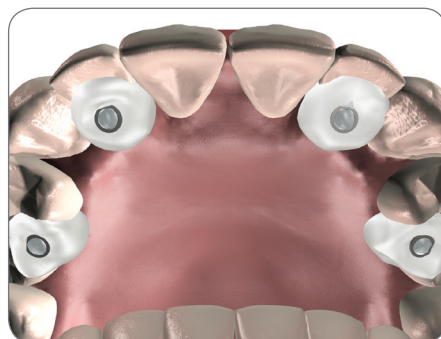
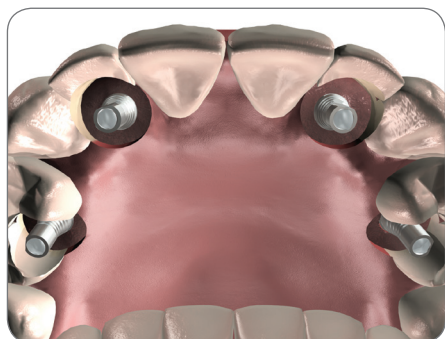
10. Attach screw-receiving abutments to non-inclined implants. Snap white carrier transfer to abutments. Assemble white carrier transfer, abutment base and abutment top of angled screw-receiving abutment. Insert into angled implants to aid/confirm the 3D spatial orientation of implant connection. *Note: These implants are often distally as well as facially inclined.*



11. If rotation of implant tri-lobe is required, use RePlant Tri-Lobe Tool [RTT series] with ratchet to rotate implant clockwise into correct position. For Legacy implants, use 2.5mmD Hex Tool [HT2.5].
12. Use 1.25mmD Hex Tool (or Uni-Grip™ Driver if placing a tri-lobe abutment) to carry base and screw to implant. Rotate base so that abutment engages the implant. Rotate tool to tighten screw into position clamping base and implant together. Use a calibrated torque wrench to tighten abutment screw to 30 Ncm.

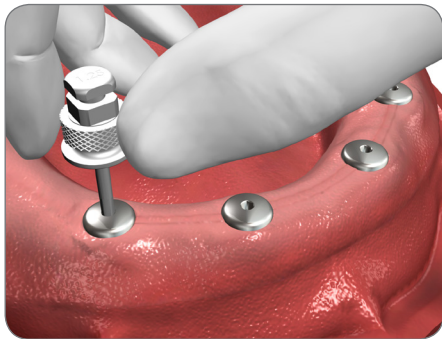


13. Deliver abutment top to abutment base, and then rotate with a 2.5mmD Hex Tool or drill. Use a calibrated torque wrench to tighten abutment top to 30 Ncm.
14. Attach included white carrier transfers to abutments, then make an abutment level impression. The transfers can be sectioned above tag in areas of limited vertical height.
15. Attach Titanium Temporary Copings [1000-69] to abutments with fixation screw [1000-05], then retrofit to patient's denture to create provisional prosthesis.

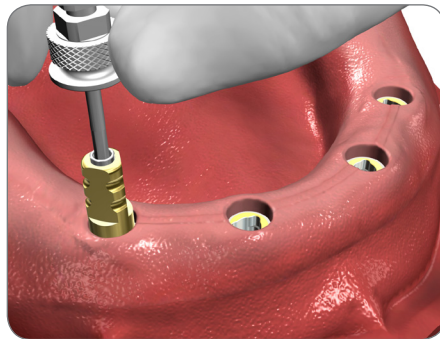


16. Seat denture over titanium copings to confirm passive placement. Check occlusion with opposing arch. Trim copings as needed. Occlude screw access hole with cotton pellet.
17. Use autopolymerizing acrylic or similar light cure material to attach prosthesis to Titanium Temporary Copings. Allow to set prior to removal from mouth.
18. Trim the screw-retained prosthesis to allow access for patient cleaning. Attach prosthesis to implants and tighten in place. Occlude screw access holes.

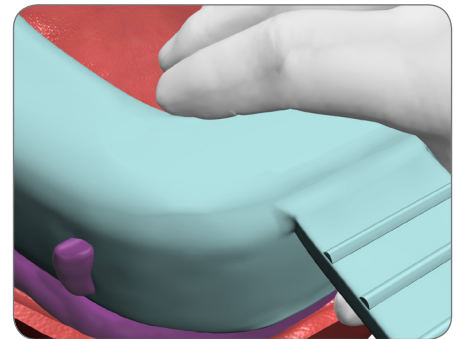
Plastic Non-Engaging Castable Abutment Technique



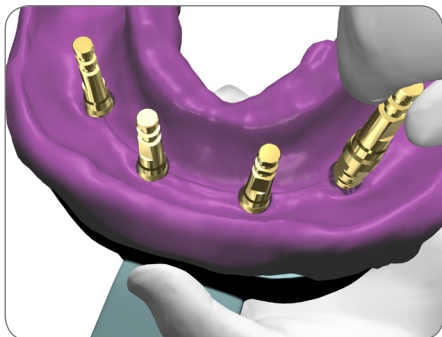
1. Unthread the healing collars from the implant using 1.25mmD Hex Tool



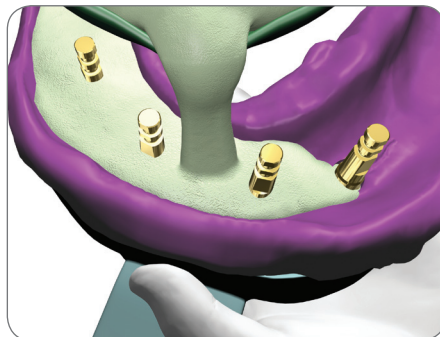
2. Attach platform specific implant level transfers to implants. Insert corresponding fixation screw through transfer body, thread into implant using 1.25mmD Hex Tool.



3. Occlude transfers' screw access channels with material of choice. Use an elastomeric impression material and make a full-arch impression.



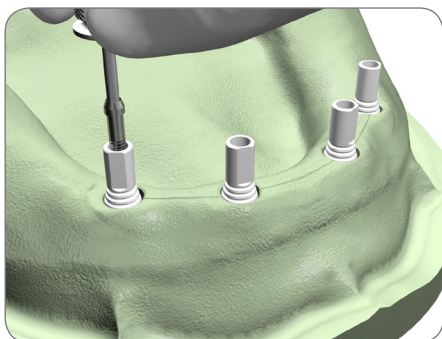
4. Attach transfer to corresponding implant analog then insert assembly into recess within impression. A double-click will confirm correct vertical positioning. Assembly procedures change based on either open-tray or closed-tray technique.



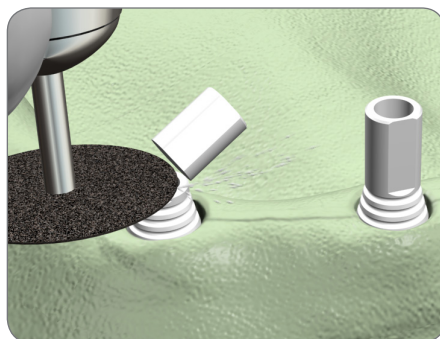
5. Pour impression in die stone, allow to set prior to removal of impression from cast. Follow standard procedures for denture tooth try-in to confirm final tooth position prior to fabrication of bar framework.



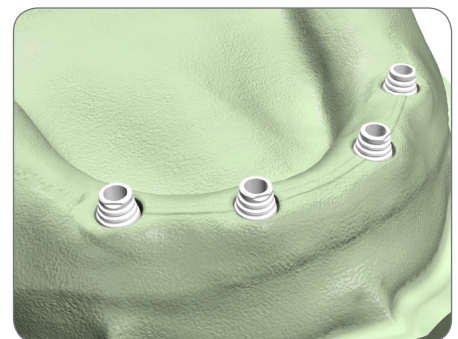
6. Select the Plastic or Gold/Plastic Castable Abutment matching the implant prosthetic platform. Abutments are supplied with corresponding fixation screws.



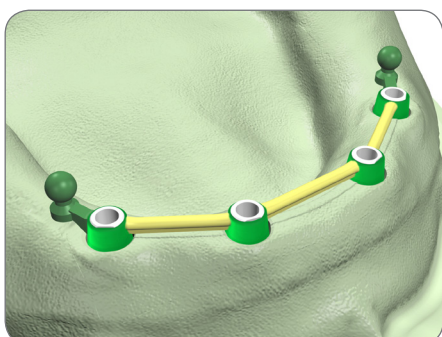
7. Insert fixation screw through castable abutment, thread into implant analog using 1.25mmD Hex Tool. Finger-tighten **ONLY**, to prevent compression of screw seat (*plastic only*).



8. Section the chimney portion of plastic abutment to provide vertical clearance for prosthesis and opposing dentition. **DO NOT** section below score line.



9. Use matrix of final tooth position to check for vertical clearance and confirm framework position and design.



10. Use a combination of preformed burnout patterns, wax and burnout resin to fabricate the framework pattern. Sprue and invest framework, do not use a debubbler when investing.

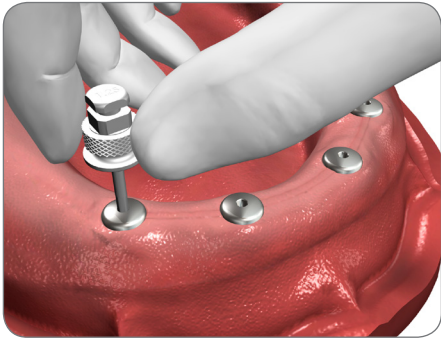


11. Divest the casting using glass bead. Protect the implant interface of framework to ensure an accurate fit. Confirm a passive fit on the working cast. Send to clinician for try-in.

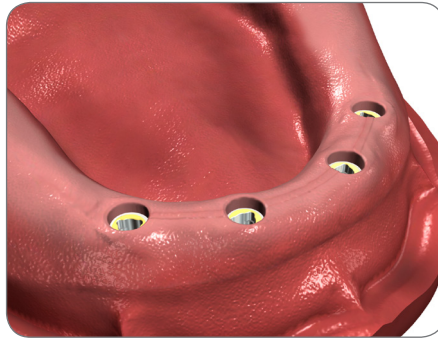


12. Seat the framework on implants and thread fixation screw through the most distal component. Inspect and confirm passive fit. Return the framework to laboratory.

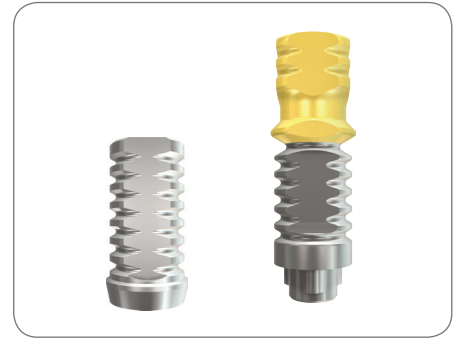
Titanium Non-Engaging Temporary Abutment Technique



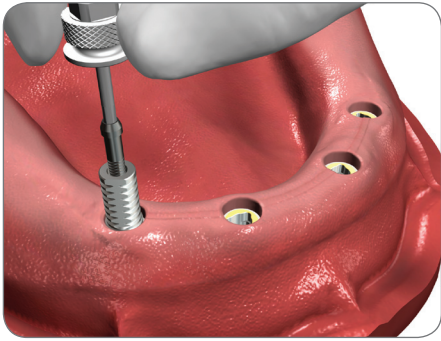
1. Unthread the healing collars from the implant using 1.25mmD Hex Tool.



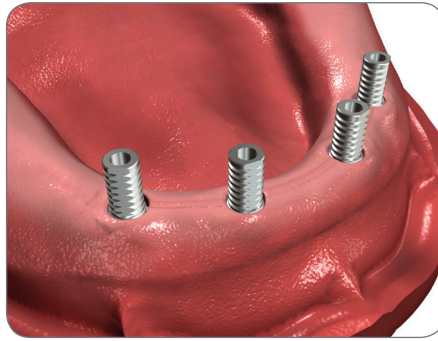
2. The top of the implants are exposed.



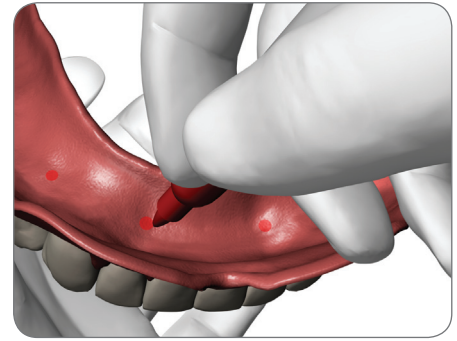
3. Select the Titanium Temporary Abutment matching the implant prosthetic platform. Option: Use the prepared implant fixture mount as a temporary abutment.



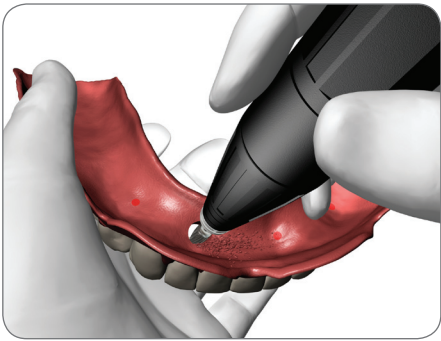
4. Place the fixation screw through the abutment and tighten in place using the appropriate tool, either 1.25mmD or Uni-Grip configuration. Torque value of fixation screw is determined by clinician. Standard torque value for fixation screws is 30 Ncm.



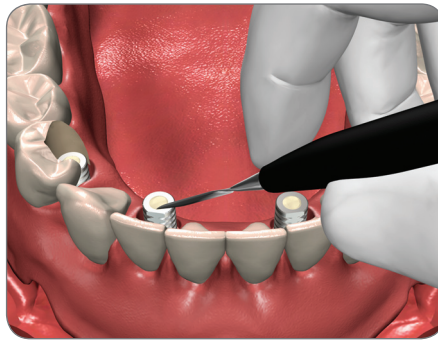
5. Confirm there is less than 40 degrees of relative divergence between abutments to be splinted together.



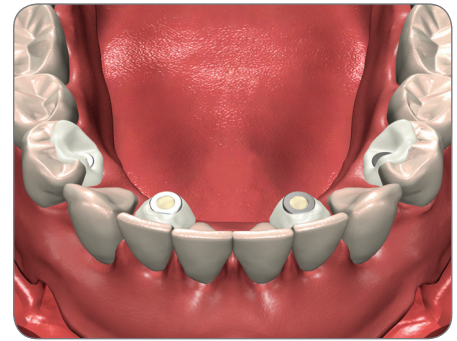
6. Mark position of Titanium Temporary Abutments on under surface of denture with indelible marker.



7. Use acrylic trimmer to drill holes through denture corresponding to marked positions.



8. Seat denture over Titanium Temporary Abutment to confirm passive placement. Check occlusion with opposing arch. Occlude screw access hole with cotton pellet.



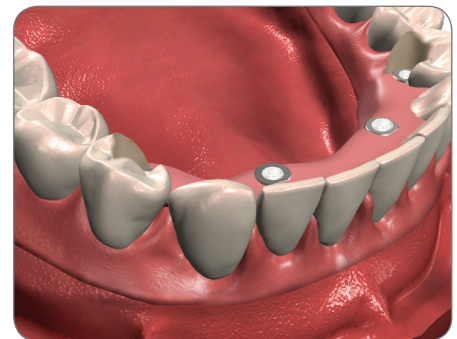
9. Use autopolymerizing acrylic or similar light cure material to attach prosthesis to Titanium Temporary Abutments. Allow to set prior to removal from mouth.



10. Remove prosthesis from the mouth, flip over to expose tissue side. Use additional autopolymerizing resin to fill in any voids around the processed abutments.

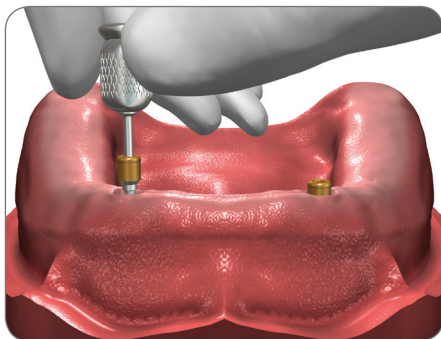


11. Trim the prosthesis to allow access for patient cleaning. The prosthesis is now a fixed restoration, removable by clinician only.

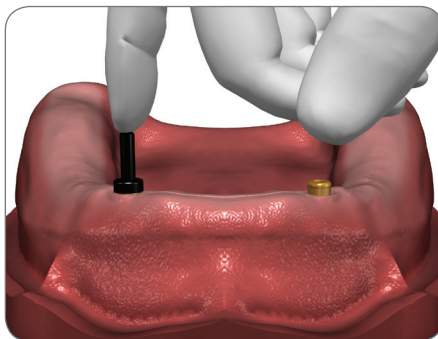


12. Attach prosthesis to implants and tighten in place using the appropriate tooling. Occlude screw access holes with material of choice.

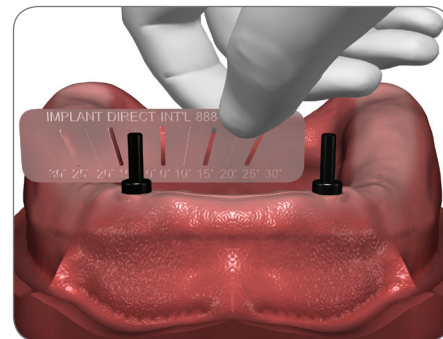
GPS™ Abutment Protocol Technique



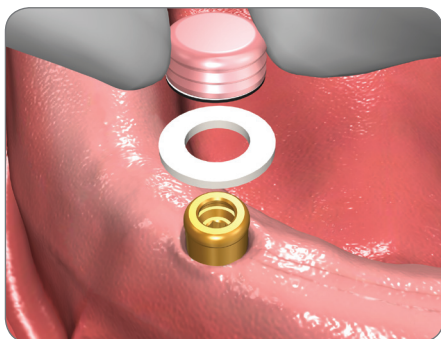
1. Attach the GPS™ abutment with appropriate insertion tool. Tighten to 30Ncm.



2. Place parallel posts onto the top of the abutments.



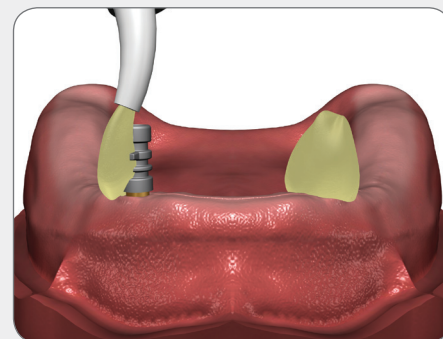
3. Then use an Angle Measurement Guide to determine the relative divergence of the implants.



4. Place the Block-Out Spacer over the head of the abutment. Attach the metal cap with Black Processing Male.

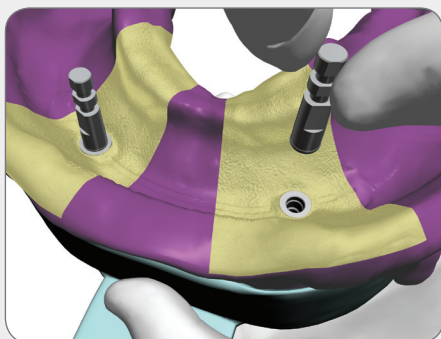


5. Locate the areas of the denture relative to the housings and relieve those areas.

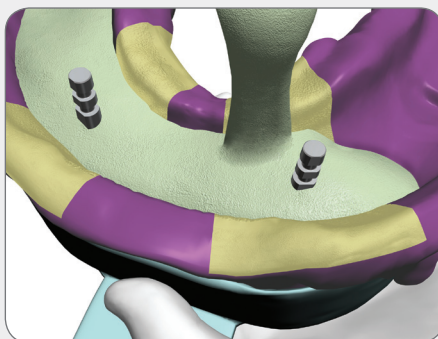


6. Attach the gray transfers for an impression. They can be trimmed if more clearance is needed. After placing the transfers, cover with impression material.

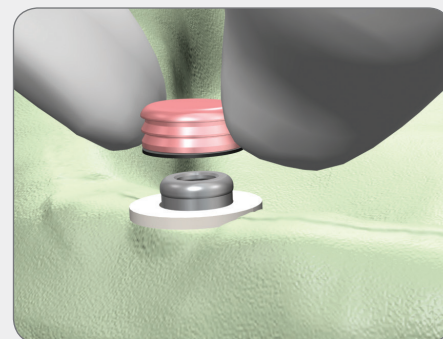
Steps for Laboratory Processed Prosthesis



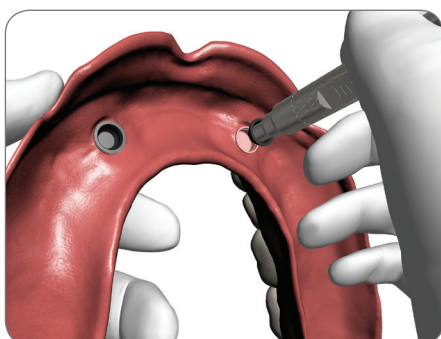
7. Fill tray with impression material and press firmly. Allow to set. Insert the Abutment Analogs into the transfers.



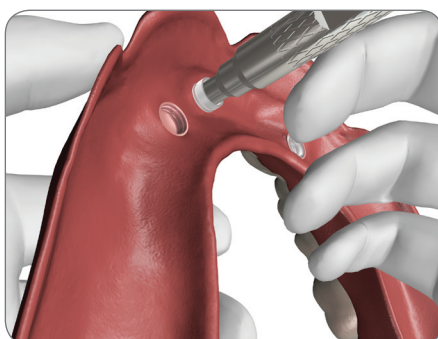
8. Pour die stone and allow to harden.



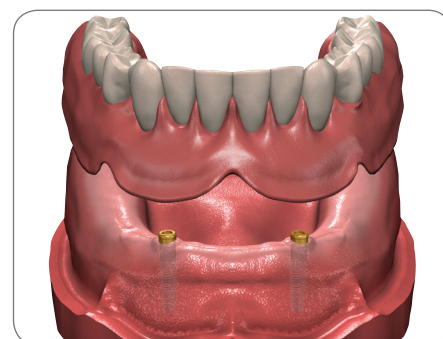
9. Place the White Block-Out Spacer over the analogs and attach the Cap with Black Processing Male.



10. Process denture. Pull on black cap at an angle to remove it. If needed, wedge a tool against the bottom.

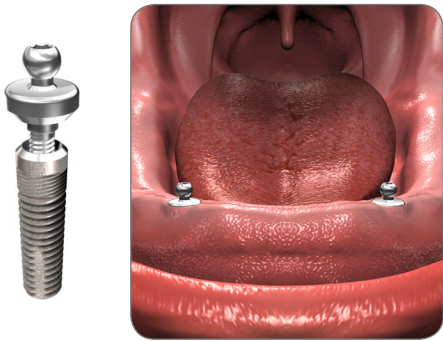


11. Use the Male Seating Tool to push the Replacement Male of choice into the metal cap.

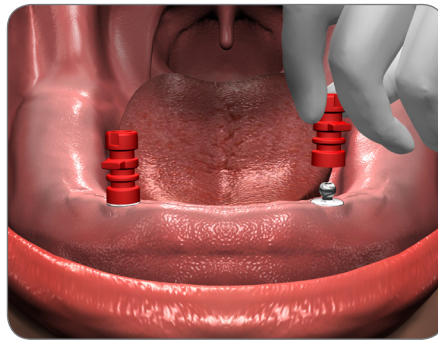


12. Insert the finished prosthesis. Instruct your patient on standard cleaning instructions.

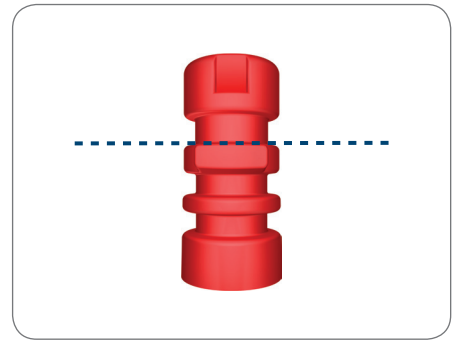
Ball Abutment Technique



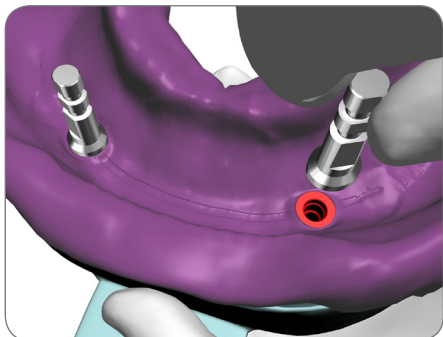
1. Place the Ball Abutments into the implants and tighten to 30 Ncm with a calibrated torque wrench and 1.25mmD Hex Tool.



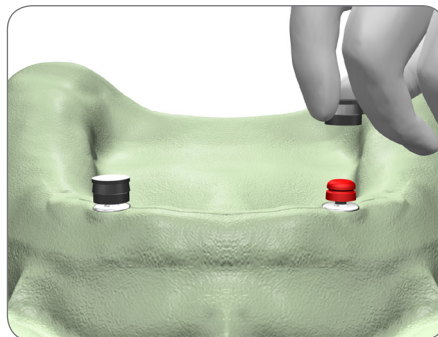
2. Press the Ball Abutment Transfers onto the Ball Abutments. The transfer will engage the ball and outer portion of the abutment beneath the ball for maximum stabilization.



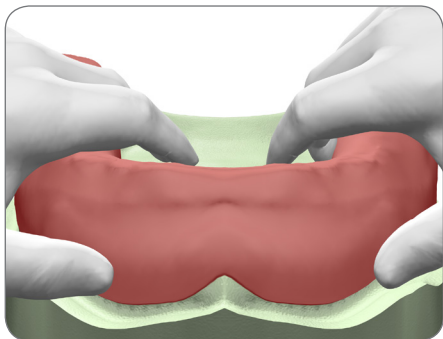
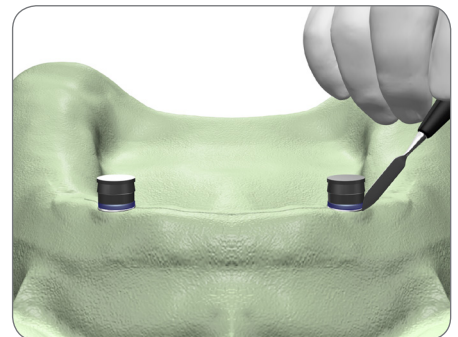
3. The Ball Abutment Transfers [1000-84] can be sectioned as indicated in areas of reduced vertical clearance. Vertical retention within impression will be maintained.



4. Press-fit Ball Abutment Analogs [1000-85] into Ball Abutment Transfers fixed within the impression. A click indicates that the analogs are fully seated. Send all the materials to the laboratory for fabrication of a stabilized baseplate with occlusal registration rim.



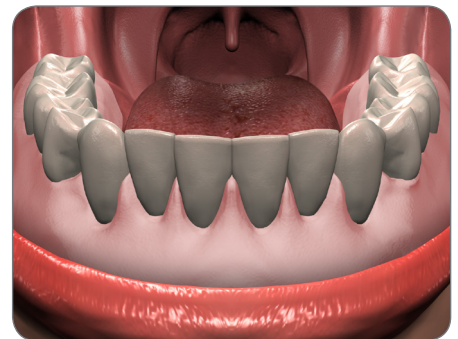
5. Pour the impression in die stone. Remove the impression tray from the cast, Ball Abutment Analogs are now incorporated within the working cast. Press-fit the red Nylon Liner Transfers [1000-83] onto the Ball Abutment Analogs in the working cast. Place the Ball Abutment Housings [1000-81] onto the Nylon Liner Transfers. Rotate the assembled housings and transfers up to 28° to create relative parallelism for a common path of insertion/draw. Block out the undercuts beneath the housing assemblies with an appropriate silicone or wax material.



6. Incorporate the housings into a stabilized baseplate made from baseplate resin. Create a wax occlusion registration rim on the baseplate.



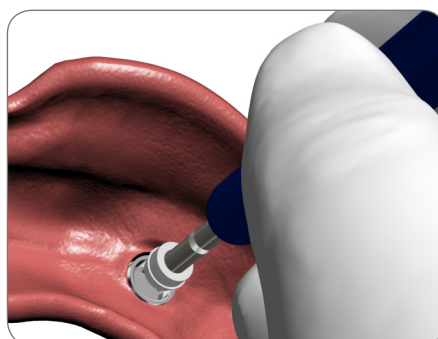
7. Snap the red Nylon Liner Transfers onto the Ball Abutments. Place the stabilized occlusal rim into the patient's mouth and make a bite registration.



8. Fabricate a denture wax-up, recall the patient for try-in. Insert the wax try-in into the patient's mouth allowing the red transfers to insert into the metal housings in the baseplate.



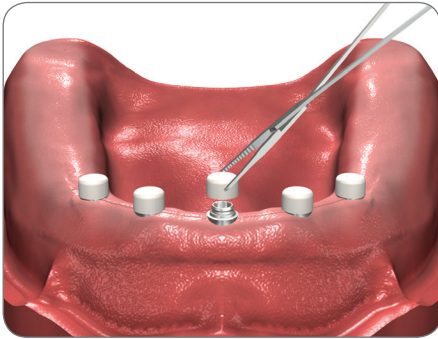
9. Use Insertion Tool to carry and assist in the insertion of the Nylon Liner into the metal housing. Reaming Tool is used to adjust retention level of Nylon Liner.



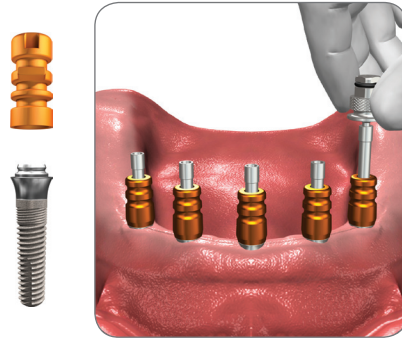
10. Process the denture incorporating metal housings in position. Place one Nylon Liner [1000-82] onto the end of the insertion tool and press into one of the metal housings in the denture base. Check the retention and if necessary use the reaming tool to decrease the retention of the Nylon Liner. When adequate retention has been achieved, process the second Nylon Liner.



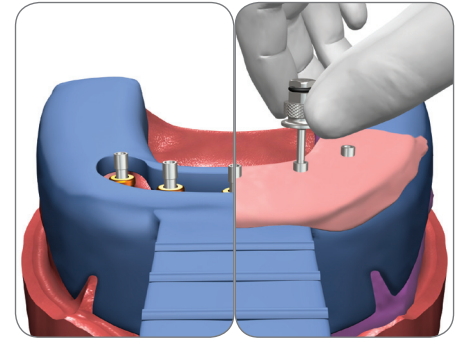
Screw-Retained / Fixed Detachable Denture Technique



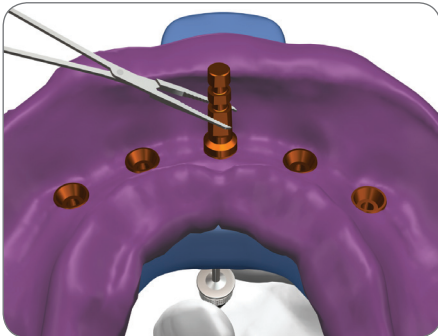
1. Use forceps to remove Comfort Caps [4000-13] from restorative platform. **Caution:** Implant or Extender/Abutment use different restorative components.



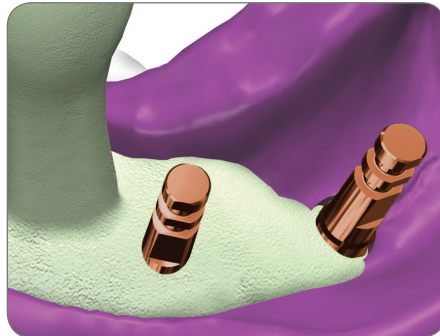
2. Press-fit closed-tray plastic transfer supplied with implant, or insert fixation screw of optional metal transfers through transfer body. Finger tighten screw in place using 1.25mmD Hex Tool.



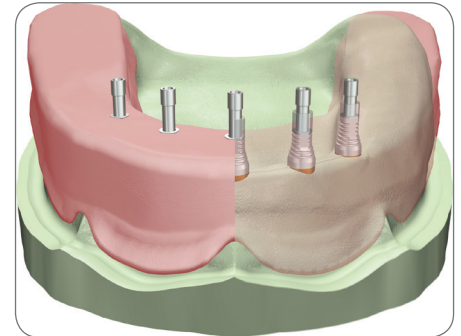
3. Occlude top of fixation screw. Cover excess opening in custom tray with baseplate wax. Use an elastomeric impression material and make an open-tray transfer impression.



4. Use forceps to firmly hold corresponding analog to transfer body. Attach transfer screw to hex tool and insert through hole on the occlusal side of tray. Pass screw through transfer body and thread into analog. Assembly procedures change based on either open-tray or closed-tray technique.



5. Pour impression in die stone, allow to set prior to removal of impression from cast.



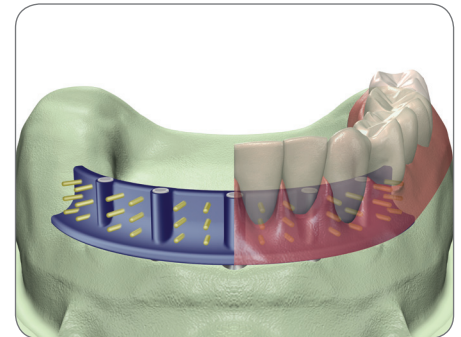
6. Incorporate Titanium Temporary Copings in acrylic base. Fabricate a stabilized baseplate with included wax occlusal rim. Maintain a screw access channel through wax with the aid of open-tray transfer screw.



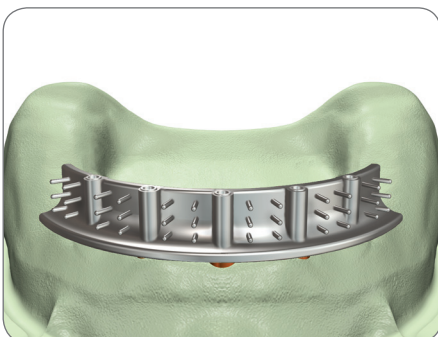
7. Attach occlusal rim to prosthetic platform in patient's mouth. Insert screw through access hole. Use hex tool to finger-tighten fixation screws. Make a stabilized bite registration.



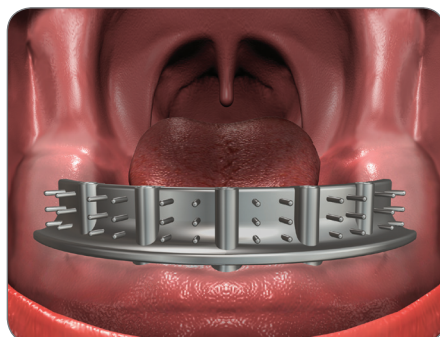
8. Place the denture tooth try-in into the mouth. Thread two anterior fixation screws through baseplate to stabilize try-in, then confirm esthetics, phonetics and function.



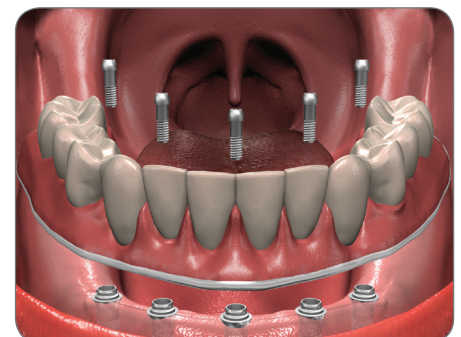
9. Use matrix of final tooth position to check for clearance and confirm framework position and design. Sprue and invest framework; do not use a debubbler when investing.



10. Divest the casting using glass bead. Protect the implant interface of framework to ensure an accurate fit. Confirm a passive fit on the working cast.



11. Seat the framework on prosthetic platform and thread fixation screw through the distal component. Inspect and confirm passive fit. Return the framework for processing of teeth.



12. Finalize tooth position and process teeth to metal frame. Tighten fixation screws using a 1.25mmD Hex Tool and calibrated torque wrench. Occlude screw access holes.

