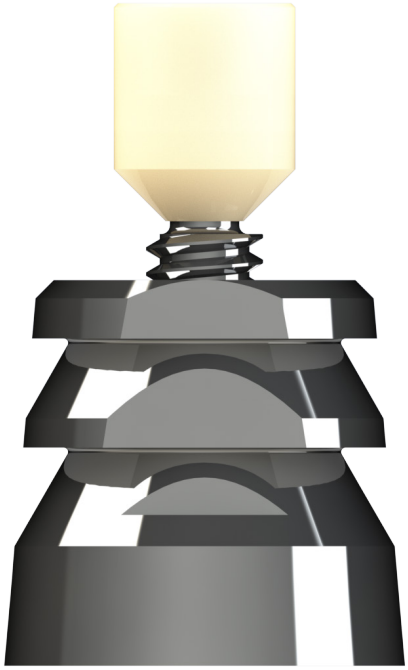
SMART
DENTURE CONVERSIONS
from
SmartOnX



SMART DENTURE CONVERSIONS TECHNIQUE MANUAL

Powered by our patented Separable Fastener technology.

A MESSAGE FROM DR. KOFFORD

CO-INVENTOR OF SMART DENTURE CONVERSIONS

CONGRATULATIONS! You have just discovered the easiest way to convert a removable appliance into a high-quality implant prosthesis. As soon as I developed this system I was forever changed, and I couldn't go back to the way things were! I hope that you are as affected by this product and system as I have been. My practice of full arch implant prosthetics has been significantly improved by use of this system. I have learned a few tricks and tips along the process of developing this system that I'd love to share. This booklet is a brief summary of the tips I've learned along the way. If you have any clinical questions about how to use this product, please feel free to reach out at Contact@SmartOnX.com. Once again, congratulations on finding and adopting a smarter way to convert removable into fixed prosthetics.

Sincerely,

Brandon Kofford

DMD, MS, FACP

SMART DENTURE CONVERSIONS TRAINING VIDEOS

Watch as Dr. Kofford walks through the same steps outlined in this Technique Manual.

Visit SmartOnX.com/SDC-Training-Videos or scan the QR code to the right to view the videos on your phone.

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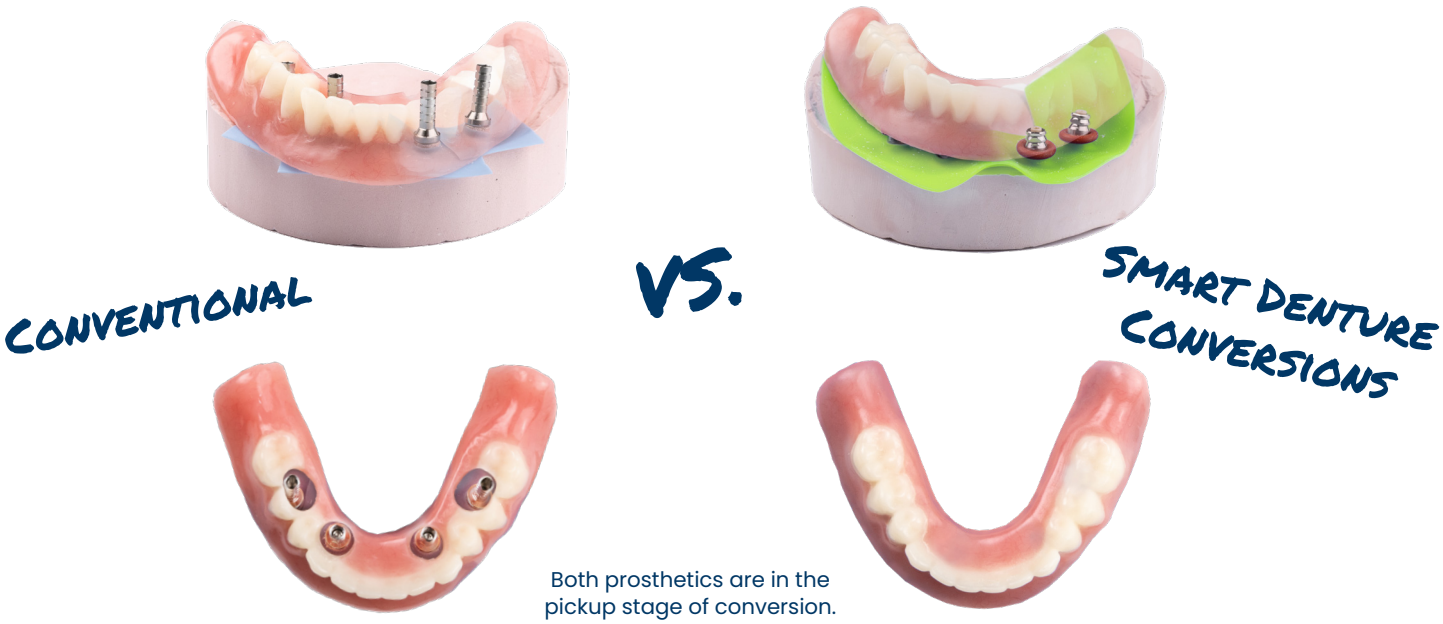
OVERVIEW

Why weaken your provisional with oversized holes?

Conventional conversions require large holes in the prosthesis so Temporary Cylinders can pass through. These holes can compromise strength, esthetics, and passivity.

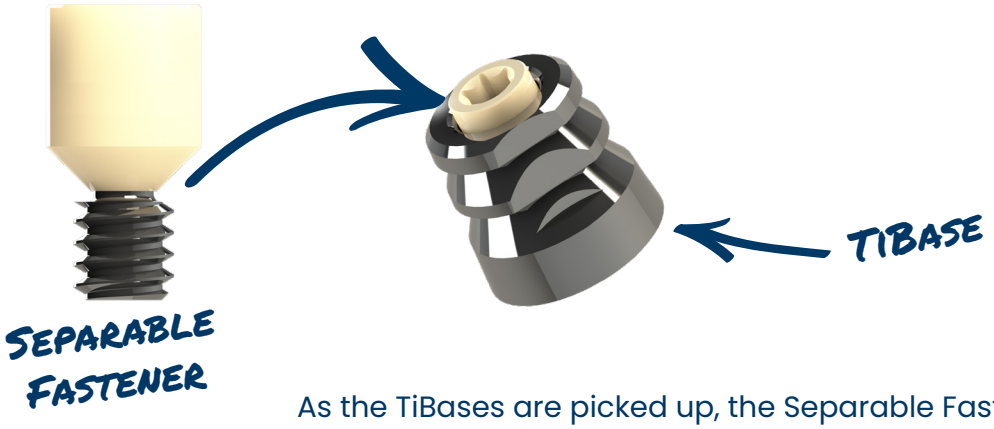


Both prosthetics are in the pickup stage of conversion.

Smart Denture Conversions takes a smarter approach. Using our patented **Separable Fastener** technology, it allows you to pick up a TiBase inside the prosthesis—allowing for a closed tray pickup. The result is smaller holes, stronger provisionals, and a cleaner, more efficient conversion.

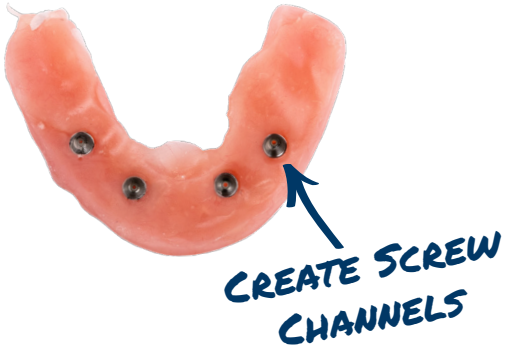
How it Works

The Separable Fastener is loaded into a TiBase, with the PEEK Cap extending through the top. Together, the Separable Fastener and TiBase are placed onto the multi-unit abutment and picked up into the prosthesis as one unit.



As the TiBases are picked up, the Separable Fastener does exactly what its name suggests—it separates. The PEEK Cap and TiBase are captured inside the prosthesis, while the Threaded Post stays behind in the multi-unit abutment.

With the TiBases picked up, the embedded TiBases now serve as precise guides for creating your screw channels. Simply follow the path of the TiBases to drill clean, accurate access holes—right where you need them.

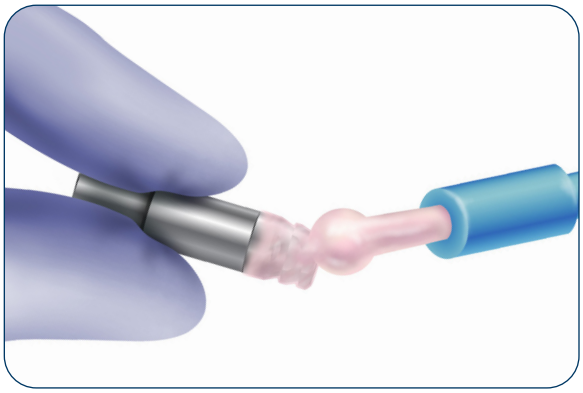


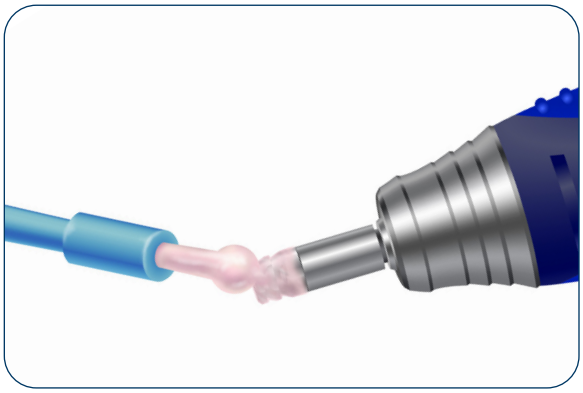
Contour and polish the denture as needed to ensure a comfortable fit, then place it back into the patient's mouth. That's it—conversion complete.

SMART DENTURE CONVERSIONS
WORK SMARTER.

Better for the Patient,
More Predictable for the Practice.

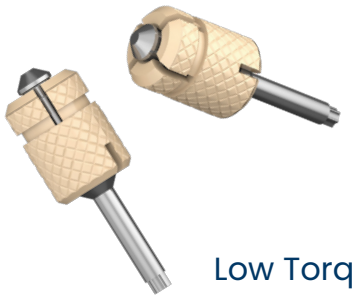
(A) PRE-COAT TIBASES AND SEPARABLE FASTENERS





1 Use the Low Torque Driver to attach a TiBase to the Coating Mandrel with a Separable Fastener. Rotate the Coating Mandrel to apply a thin layer of acrylic to the TiBase, ensuring the Separable Fastener head is covered to lock the two components together.

Tip: The coating mandrel can be placed in a handpiece on the lowest setting to help create an even layer for precoating.



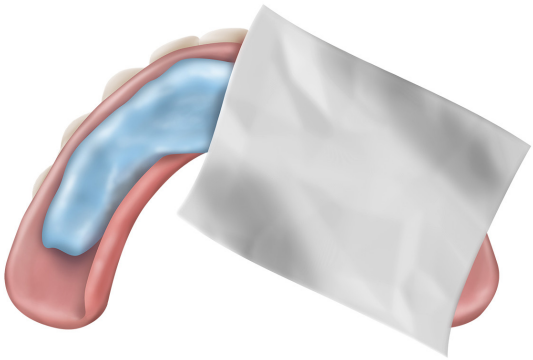
Low Torque Driver

Don't want to pre-coat?
Check out our **Pre-Coated TiBases.**

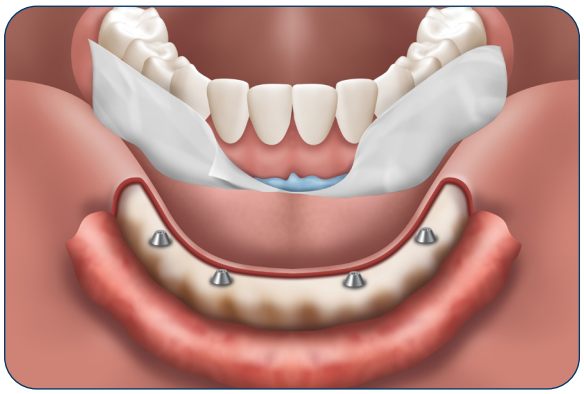
SmartOnX.com/PreCoated

(B) IDENTIFY THE LOCATION OF THE MULTI-UNIT ABUTMENTS

1 Inject fast set bite registration material into conversion denture intaglio and cover bite registration with two pieces of 2" PTFE Tape (Teflon tape).



2 Seat the denture with bite registration and PTFE tape in the patient's mouth and manipulate the patient into proper maxilo-mandibular occlusion.



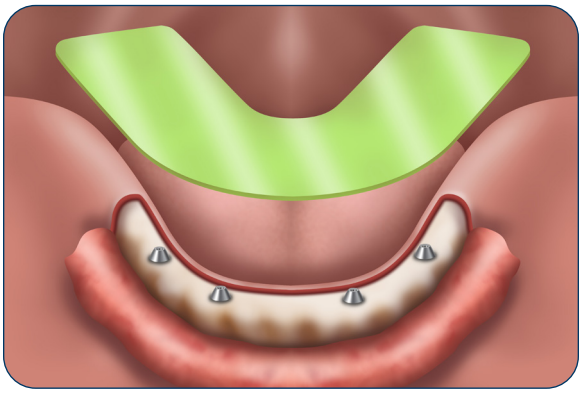
3 Remove the denture from the patient's mouth with the PTFE tape in place. The location of the multi-unit abutments will be imprinted in the PTFE tape/bite registration.

Tip: The PTFE tape allows the denture to be removed from the mouth before the bite registration sets up completely.

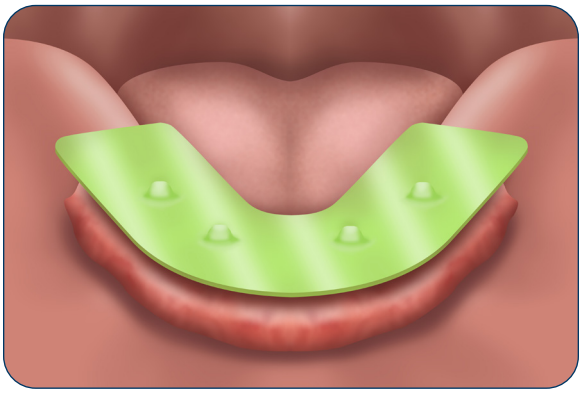
Don't have a "conversion denture?"
Want an arch ready as soon as you are?
Check out **Rapid Arches.**

SmartOnX.com/RapidArches

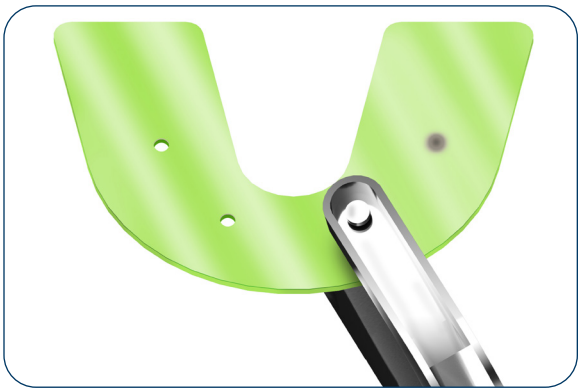
(C) MARK THE POSITIONS OF EACH MULTI-UNIT ABUTMENT



1 Align and center a green Silicone Dam over MUAs with the vinyl backing touching MUAs.



2 Press dam onto each MUA, beginning with the anterior, working posteriorly until all MUAs have left an indentation on the plastic backing side of the dam.



3 With a hole punch, perforate the Silicone Dam at each location marked from the MUA locations.

4 Separate the two layers and dispose of the dam backing.

Note: To separate easily, stretch the silicone and vinyl along the back edge of the dam; when released, the vinyl will ripple, making it easy to remove by hand.

YOUR DAM SOLUTION AWAITS

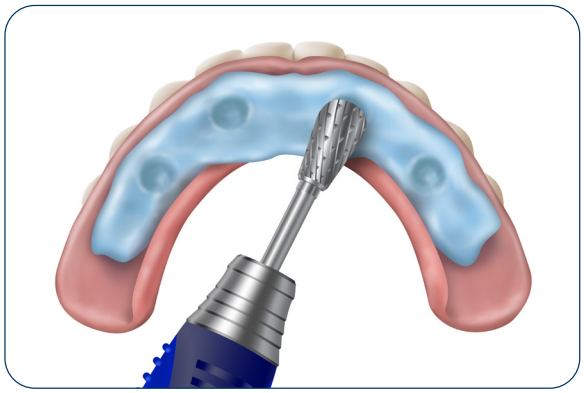
SmartOnX.com/Dams

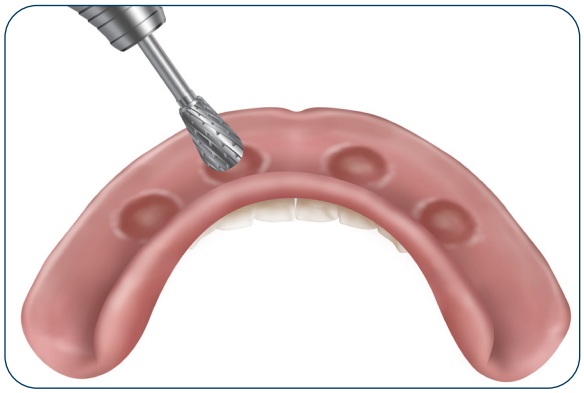
(D) CREATE WELLS IN THE DENTURE FOR EACH MULTI-UNIT ABUTMENT

1 Once bite registration sets, remove PTFE tape and use a Toothing Cutting acrylic bur to create 5.5mm deep wells in the bite registration and underlying denture base at the MUA imprint locations. Remove all remaining bite registration from denture.

Note: We recommend the Smart Denture Conversions' Toothing Cutter for this step.

SmartOnX.com/SDCTools

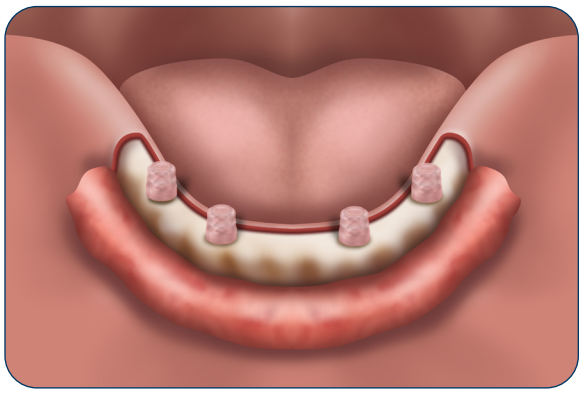




(E) PLACE PRECOATED TIBASES AND/OR SEPARABLE FASTENERS

1 Screw pre-coated TiBases/Separable Fasteners onto MUAs using fingers until seated flush. Be sure not to overtighten, as this can cause the Separable Fastener to separate.

Note: If the TiBase comes loose, the Separable Fastener has come apart. To correct this, slightly unscrew the Threaded Post using a Cementation Aid or Retrieval Tool. Press the pre-coated TiBase with embedded PEEK Cap back onto the post. To fully seat it, alternate pressing down and unscrewing a half-turn until it no longer moves, then retighten by hand.



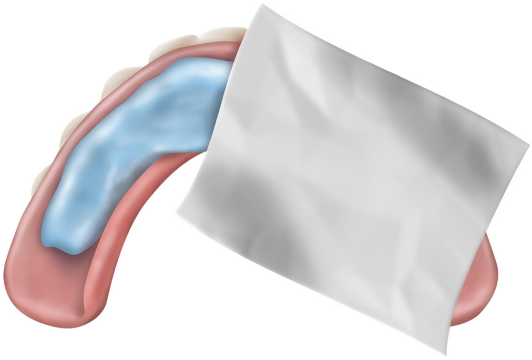
WATCH + FOLLOW ALONG!

SmartOnX.com/SDCTrainingVideos

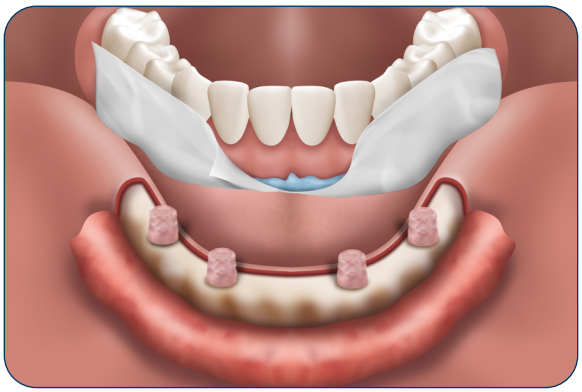
Cementation Aid

Retrieval Tool

(F) VERIFY PASSIVITY

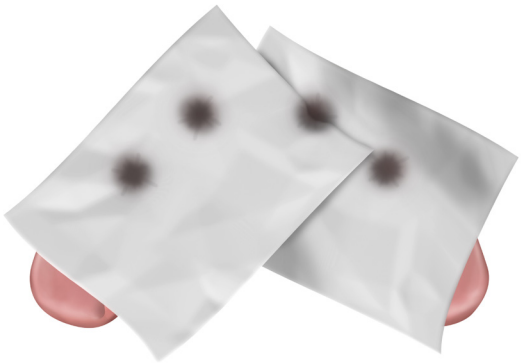


1 To verify passivity with TiBases in place, inject fast set bite registration material into conversion denture intaglio and cover with two pieces of PTFE tape.

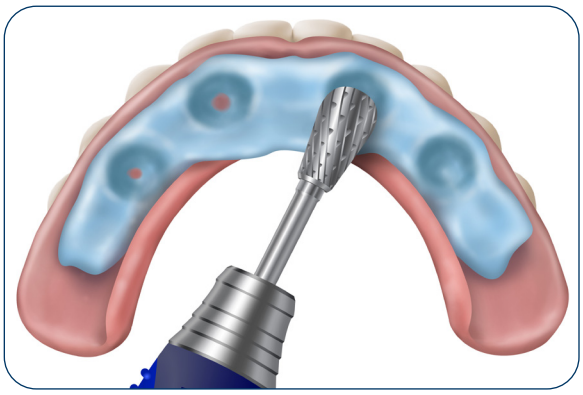


2 Seat conversion denture with bite registration and PTFE tape in patient's mouth and manipulate patient into proper maxillo-mandibular position.

Note: There is no need to wait for the bite registration to set, thanks to the PTFE tape.



3 Locations of the pre-coated TiBases will be imprinted in PTFE tape/bite registration.



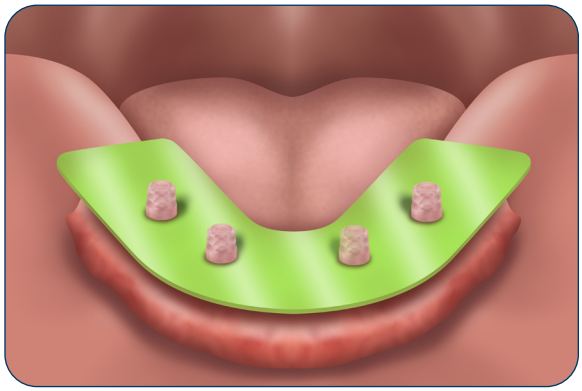
4 If the denture is seated passively, the denture base should not be visible through the bite registration. Any visible areas indicate insufficient depth and should be adjusted accordingly.

Note: This section should be repeated until the denture sits passively.

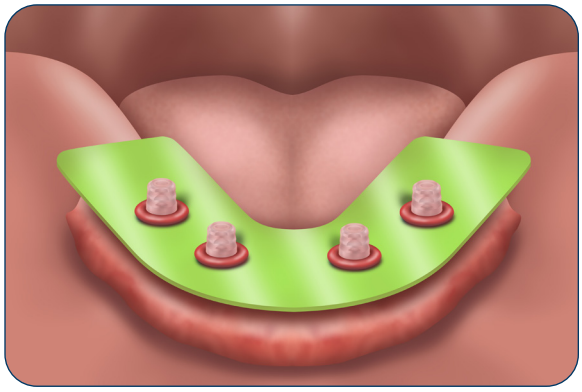
Recommended Tool: Toothing Cutter

(G) PREPARE FOR THE SMART DENTURE CONVERSION PICK-UP

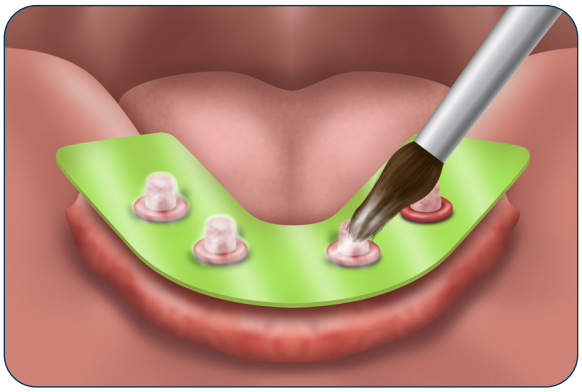
1 Seat green Silicone Dam with custom perforations over TiBases to block out MUAs and surgical site.



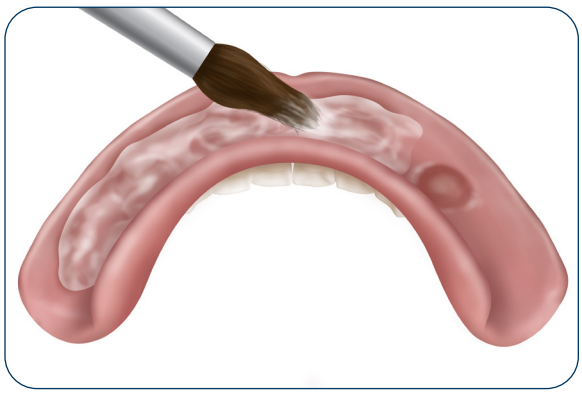
2 Place Dam Retaining Rings onto pre-coated TiBases to secure Silicone Dam to desired height on TiBase/MUA interface.



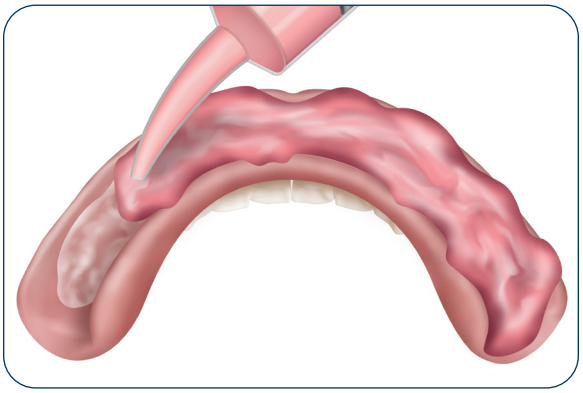
3 Prime pre-coated surfaces of TiBases by painting with liquid monomer.



4 Prime the denture intaglio by painting with liquid monomer.

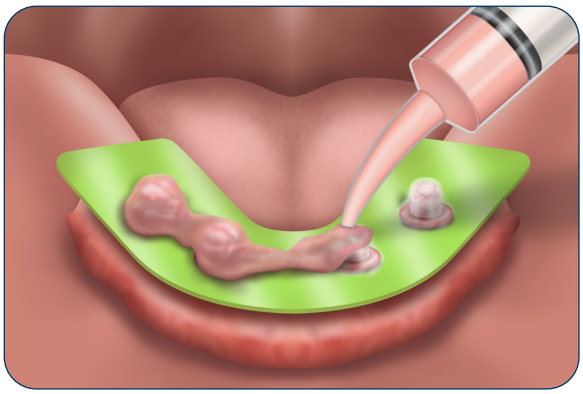


(G) PREPARE FOR THE SMART DENTURE CONVERSION PICK-UP (CONTINUED)



5 Mix acrylic to manufaturer's specifications and draw into a syringe while still slightly runny. Fill the intaglio surface of the denture with the pickup acrylic when it reaches the desired viscocity.

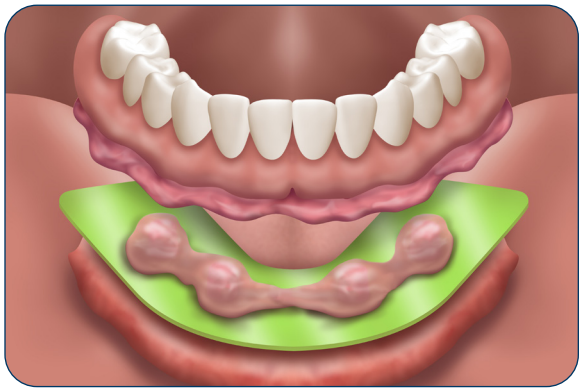
Note: Cut the tip of the syringe to create a 3 mm diameter opening, allowing the acrylic to be drawn in and dispensed more easily.



6 Inject pick-up acrylic over precoated TiBases.

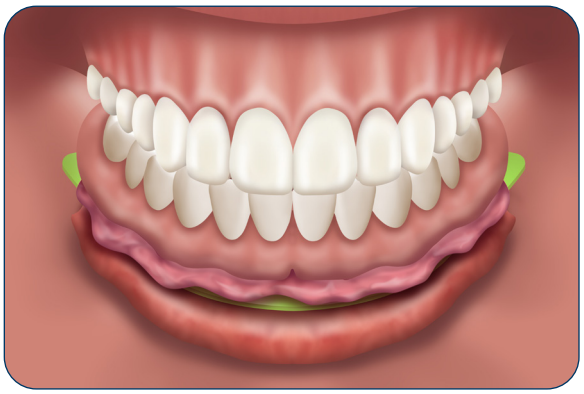
(H) PICK-UP PROTOCOL FOR SMART DENTURE CONVERSIONS

1 Once the denture can be turned upside down without the acrylic dripping out, it is ready to be placed in the patient's mouth.

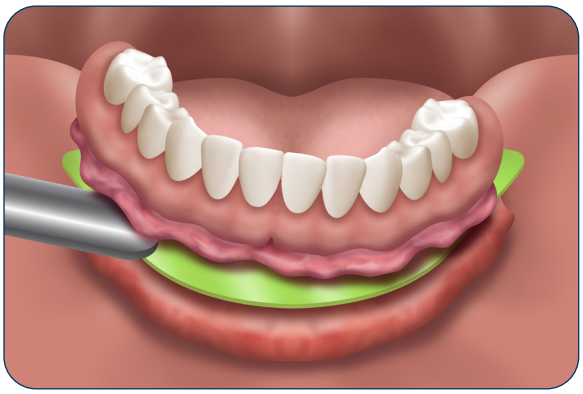


2 Manipulate patient into proper maxillo-mandibular position.

Caution: Due to the exothermic reaction of curing acrylic, it is important to prevent overheating of the tissue by irrigating with a saline solution.

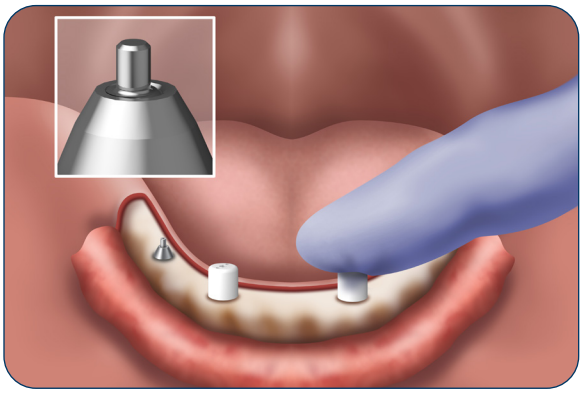


3 Once pick-up acrylic has set, pry denture off of MUAs using the back end of cotton forceps at the distal-most portion of the conversion denture. This will disengage the Separable Fastener head (PEEK Cap) from the threaded portion (Threaded Post). The TiBases are now embedded into the denture with the PEEK Cap while the threaded posts remain in the MUA.

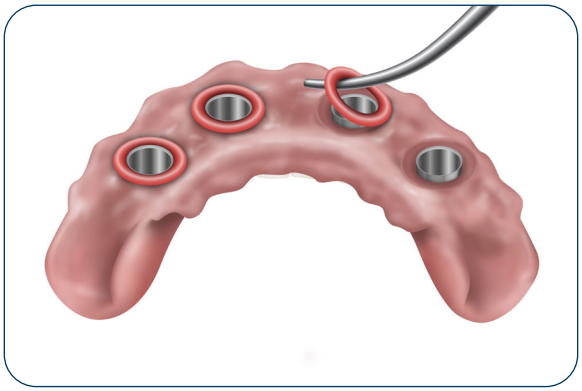


4 Using finger pressure, place the Press-On Caps (POCs) over each MUA until they engage the exposed end of the Threaded Post. Suture loosely around POCs.

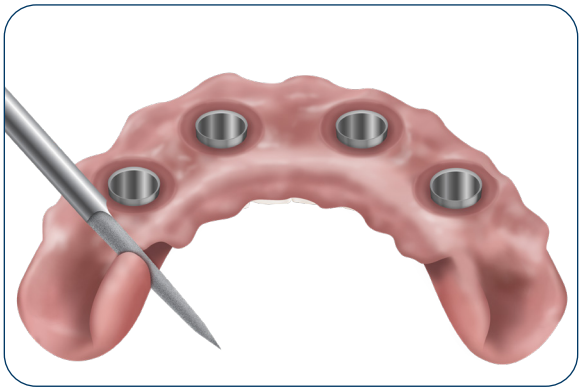
Note: If the POCs will not engage the Threaded Posts, the Threaded Posts have been driven into the MUA too deep. They can be backed out using the Cementation Aid or the Retrieval Tool with a contra angle, until the threads are even with the top of the MUA. Once the Threaded Post is at the proper height, the POCs should engage the post properly.



(I) CONTOURING THE DENTURE

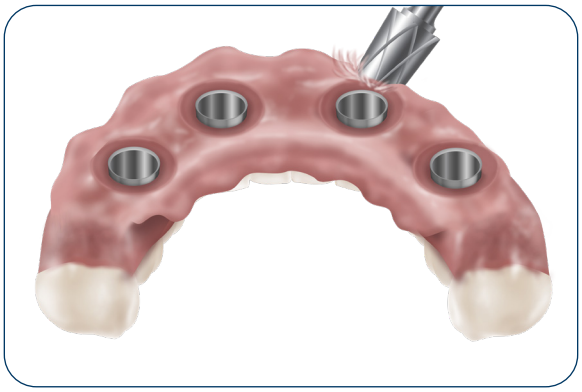


1 Remove the Dam Retaining Rings.



2 Use a Pointed Cutter bur to cut off excessive cantilevers and flanges.

Recommended Tool: Pointed Cutter

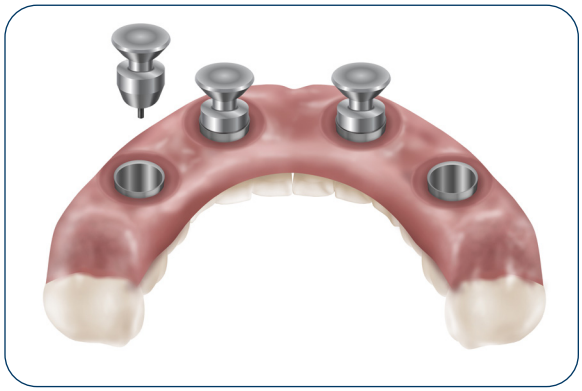


3 Using a mushroom cutter, perform a gross reduction of the excess acrylic.

Recommended Tool: Mushroom Cutter

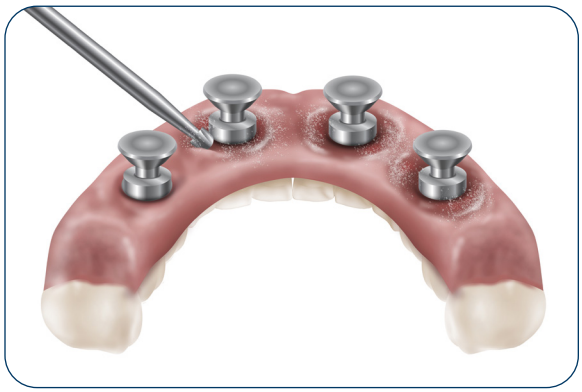
(I) CONTOURING THE DENTURE (CONTINUED)

4 Using finger pressure, press a Protective Plug into each of the TiBases. The tip of the Protective Plugs will press fit into the PEEK Cap that is still embedded in the TiBase. This will help prevent infiltration of acrylic into the TiBase while filling voids.



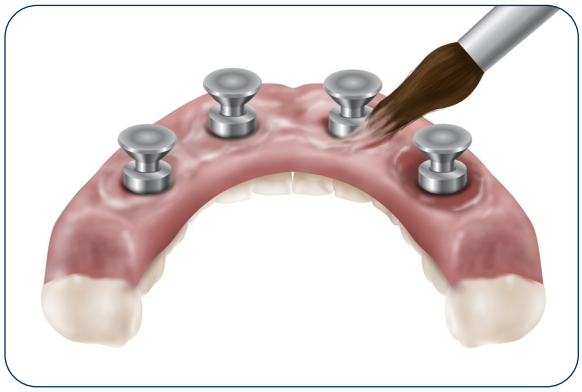
5 Being careful not to damage the TiBases, use a fine tip, round bur to open up any voids around the TiBases.

Recommended Tool: Round Carbide



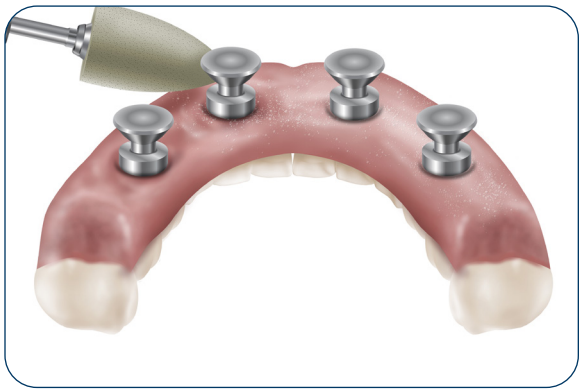
6 Add acrylic to intaglio as needed to fill voids and to idealize contours.

Optional: Place provisional into pressure pot according to acrylic manufacturer's instructions.

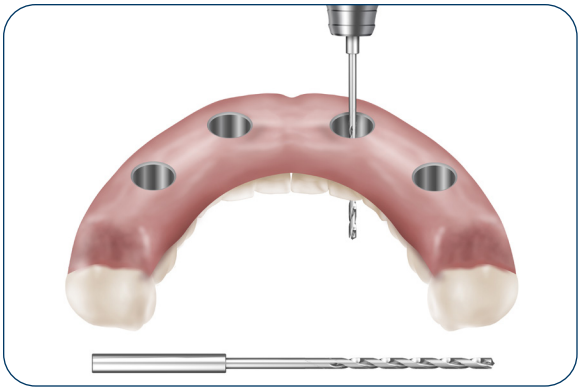


7 With a handpiece, use an acrylic polisher and Robinsons brush to polish surfaces. Then finish the intaglio and cameo surfaces on a laboratory lathe with pumice and high shine.

Recommended Tool: Polishing Mushroom



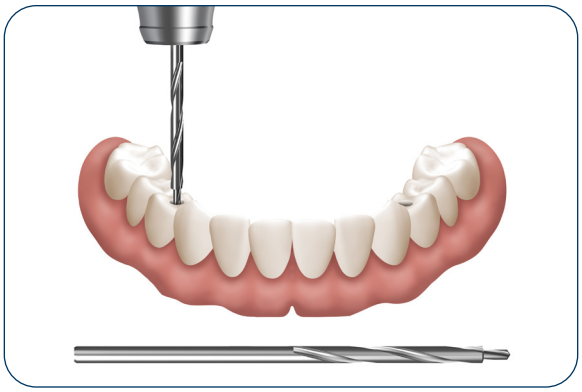
(J) CREATING THE SCREW CHANNELS



1 Insert the Pilot Drill into the handpiece and drill from the intaglio end of the TiBase into the occlusal/cameo surface. Use a pumping action while drilling to help clear acrylic from the bit and prevent overheating.

Caution: Generating excess heat can dislodge the TiBase from the pickup material.

2 The pilot holes indicate trajectory of the screw channels.

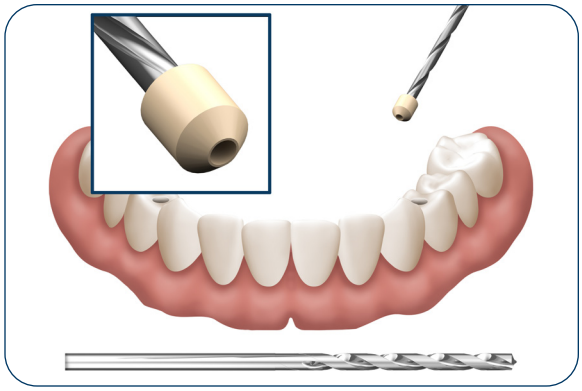


3 From the occlusal/cameo side of the denture, insert the tip of the access drill into the previously created pilot hole. Applying pressure against the bottom of the TiBase, begin drilling, ensuring the tip of the bit follows the pilot hole. Stop drilling once the shoulder of the bit hits the top of the TiBase, which should be just after the tip of the bit extends past the top of the TiBase. With the drill still running, lightly tap the bit several times onto the top of the TiBase, which will ensure all acrylic has been broken free.

Note: To reduce excess heat while drilling, the bit should be withdrawn and acrylic cleared when necessary. Generating Excess heat can dislodge the TiBase form the pickup material.

(J) CREATING THE SCREW CHANNELS (CONTINUED)

4 Using the Pin Vise with the Cleanout Drill installed, insert the bit into the screw channel from the occlusal/cameo surface all the way to the top of the TiBase. Applying counter pressure to the bottom of the TiBase, apply medium pressure to the Pin Vise and rotate the drill bit clockwise several times to clear any remaining acrylic and attempt to rotate the Peek Cap. Withdraw the Cleanout Drill and inspect for the Peek Cap remanent on the tip. If the Peek Cap didn't come out, it can be pushed out by taking the Pilot Drill in your hand and poking through the open end of the TiBase at slight angle to force the Peek Cap up through the screw channel.

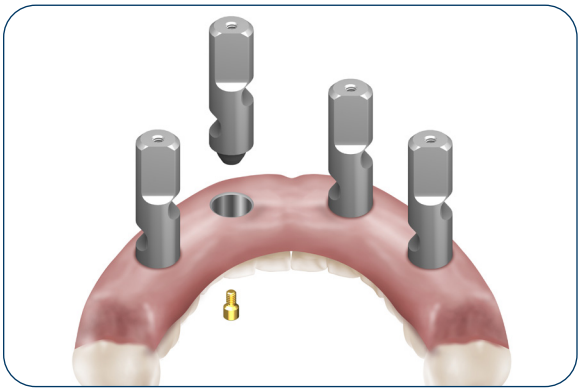


Note: You can check if the Peek cap is removed by placing the cleanout drill into the screw access hole from the occlusal/cameo surface until it bottoms out. Looking from the bottom of the TiBase, the tip of the cleanout drill can be seen right on the screw seat. If it does not appear to be flush on the screw seat, the Peek Cap has not been removed. Repeat steps 3-4.

Go through all the steps with Dr. Kofford, co-inventor of Smart Denture Conversions.

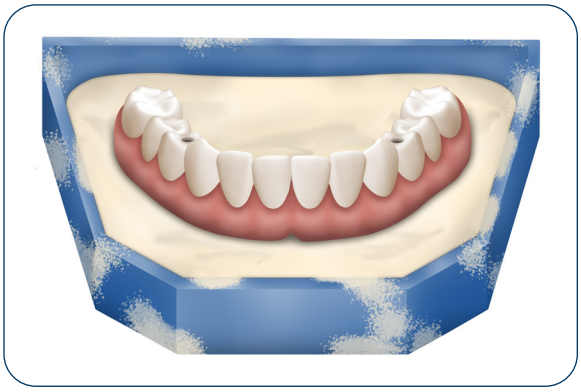
SmartOnX.com/SDCTrainingVideos

(K) OPTIONAL: CREATING A MODEL

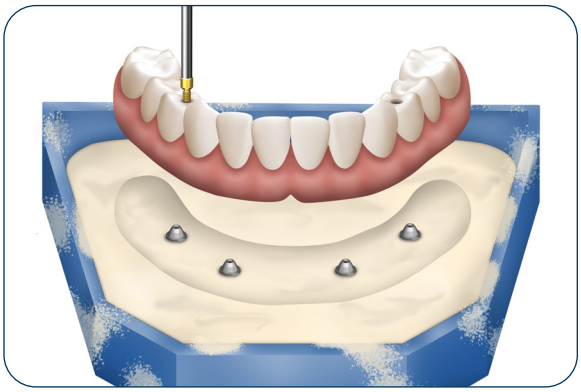


1 Secure Lab Analogs to TiBases in provisional prosthesis with lab Prosthetic Screws.

Note: If Prosthetic Screw doesn't fully seat in the TiBase or does not engage the Lab Analog, return to section K, step 4 and ensure the PEEK Cap has been fully removed.



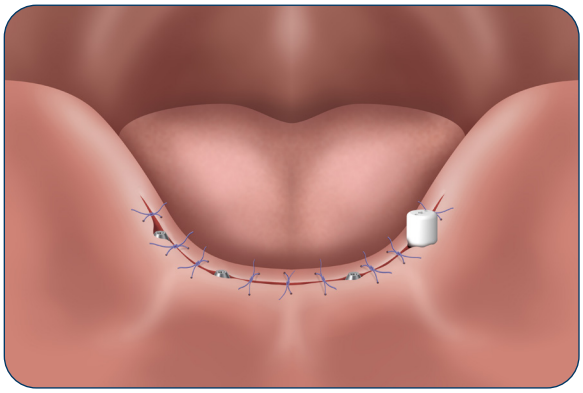
2 Place prosthesis with attached Lab Analogs into quick set stone to produce a jig/repair model.



3 Unscrew prosthesis from analogs after stone has set completely.

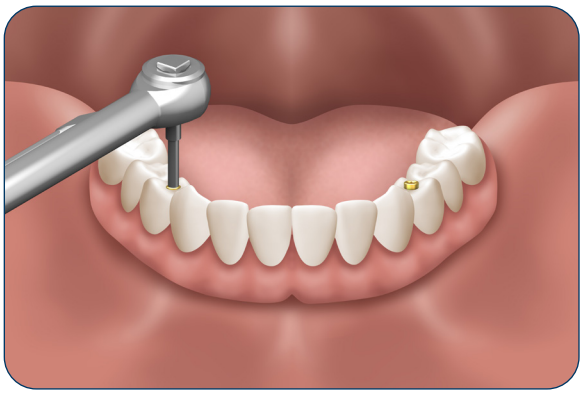
(L) DELIVER THE PROSTHESIS

1 When the prothesis is ready for delivery, unscrew the Press-On Caps, which will have the Threaded Posts lodged into them. Ensure all Threaded Posts are removed from the MUA before moving onto the next step. If the Threaded Post doesn't come out, the Press-On Cap can be pressed onto the post again and unscrewed. If you are still unable to remove the Threaded Post, the Cementation Aid or Retrieval Tool can be used in a contra angle drill.

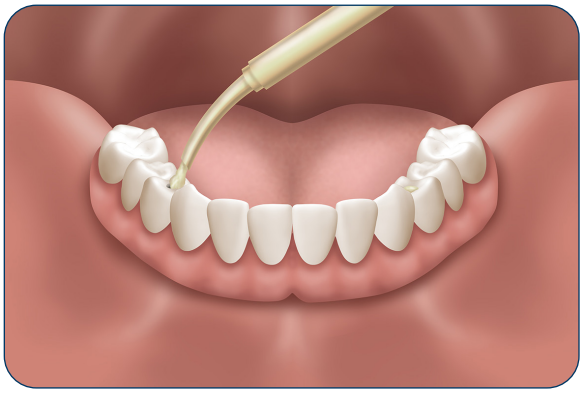


2 Deliver prosthesis by tightening the prosthetic screws with implant driver, following the implant manufacturer's torque specifications.

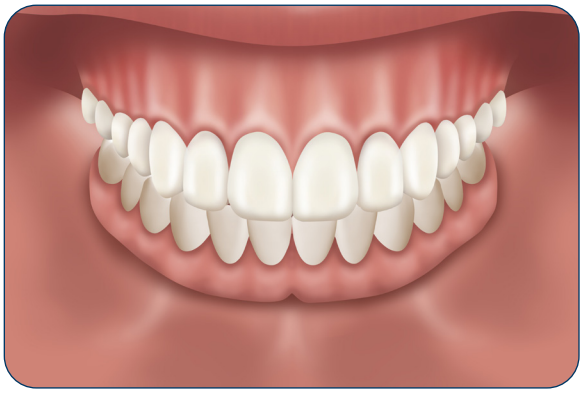
Note: If Prosthetic Screw doesn't fully seat in the TiBase/s or does not engage the MUA, return to section J, step 4 and ensure the PEEK Cap has been fully removed.



3 Add filling material of choice to cover prosthetic screw access holes.



4 Verify occlusion of finished conversion prosthesis.



Congratulations,
you have successfully completed
a Smart Denture Conversion!

ORDERING INFORMATION
SDC 2.0

PRE-COATING? DONE.
HANDLING? DREAMY.
PEEK CAP? GONE.
CLEANOUT? EASY.

PRE-COATED TIBASES

SMARTER DENTURE CONVERSIONS
WORK SMARTER.

SDC 2.0

SmartOnX.com/SDC2.0

Pre-Coated TiBases

The backbone of SDC 2.0, our Pre-Coated TiBases incorporate the Separable Fastener directly into the TiBase and are encased in a polycarbonate shell—eliminating the need for pre-coating. With the Fastener built in, we've also removed the PEEK cap, making cleanout easier than ever.

Available in four configurations: standard with a threaded post, extended thread for added versatility, integrated thread with no post, and an Omnibut-compatible option.

Simplify Abutment Impressions with Silicone Dams

Engineered specifically for Smart Denture Conversions, our single-use Smart Silicone Dams streamline the impression process with a built-in peel-away layer—eliminating the need for templates. Just take your impressions, punch your holes, and peel away the backing. No layering. No hassle.

Available in a convenient 10-Pack or as part of our Single Arch Dam Conversion Kit, which includes everything needed for a single-arch Smart Denture Conversion, pre-packed and ready to go:

- 1 Silicone Dam
- 6 Dam Retaining Rings
- 6-inch piece of PTFE tape

ORDERING INFORMATION
SDC 1.0

Premium Starter Kit (PSK)

The Premium Starter Kit provides everything necessary for a Smart Denture Conversion, enabling immediate-load provisional fabrication for up to six multi-unit abutments in a full-arch fixed case.

Kit Contents:

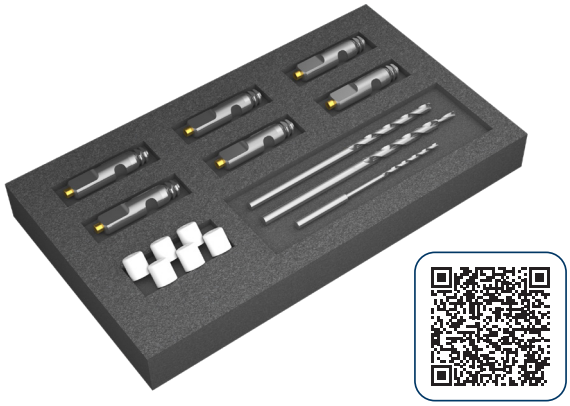
- 6 Separable Fastener Assemblies, each containing:
  - Separable Fasteners
  - TiBases
  - Lab Analogs
  - Prosthetic Screws
- Press-on Caps
- Retrieval Tool
- Drill Kit
- Additional Accessories

Available in: SDC Default, Straumann, & Omnibut.

Prosthetic Screw Driver Compatibility

System	Thread Size	Driver Type
SDC Default	M1.4 x 0.3	Unigrip (Nobel)
Straumann	M1.4 x 0.3	SCS (Straumann)
Omnibut	M1.6 x 0.2	T6 (Omnibut)

SmartOnX.com/SmartDentureConversions



Recharge Kit with Press-On Caps

Recharge Kit with Tall Spare Parts

Recharge Kits are designed for clinicians who already own a Premium Starter Kit but need additional components—whether for a dual-arch conversion or to prepare for the next case.

Kit Contents:

- 6 Separable Fastener Assemblies, each containing:
  - Separable Fasteners
  - TiBases
  - Lab Analogs
  - Prosthetic Screws
- Drill Kit

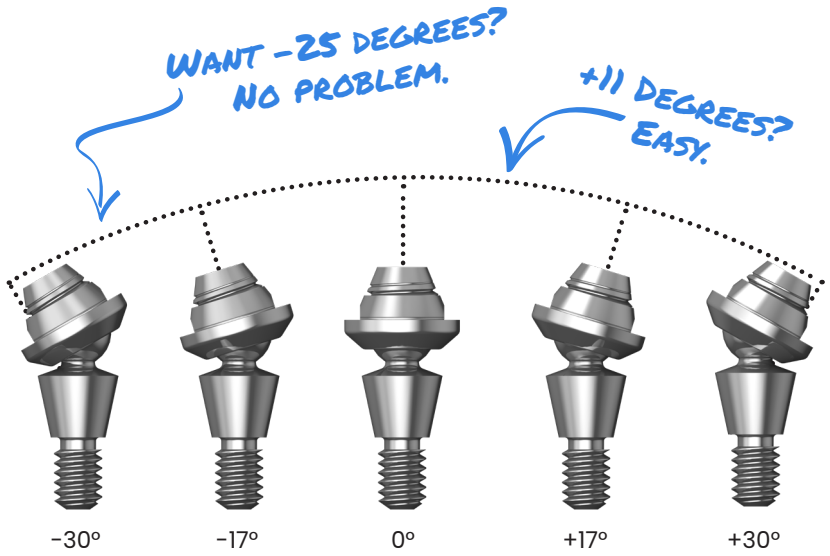
Choose from 2 Options:

- Press-On Caps
- Tall Spare Parts

Available in: SDC Default, Straumann, & Omnibut.

MORE FROM SMART ON X

OMNIBUT



FROM -30° TO +30°, AND ANYWHERE IN BETWEEN

The Omnibut (Omni-Directional Multi-Unit Abutment) is, in essence, a straight abutment with a ball-and-socket joint that allows up to 30 degrees of movement in any direction. It combines flexibility, precision, and ease of use for all-on-x procedures into one compact solution.

ULTIMATE FLEXIBILITY, UNCOMPROMISED RESULTS

OMNIBUT: THE MULTI-UNIT ABUTMENT, REDEFINED

Simplify your workflow, enhance patient outcomes, and eliminate unnecessary costs—all with the Omnibut.

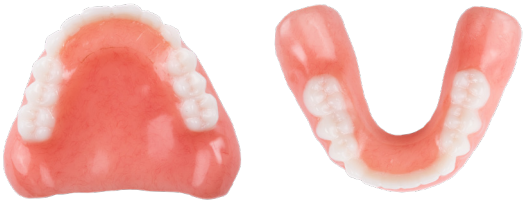
SMARTONX.COM/OMNIBUT

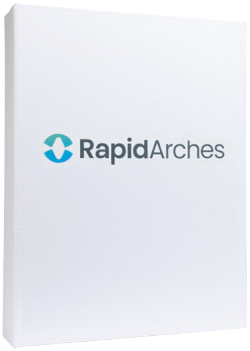
RapidArches

Arches Ready When You Are

Get an ideal occlusion without the hassle of creating fully customized arches.

Rapid Arches offers 9 different arches designed to fit the majority of edentulous patients. Available in three sizes (small, medium, large) and three shapes (tapered, round, square). Rapid Arches makes finding the ideal smile as easy as matching the right arch to the patient.

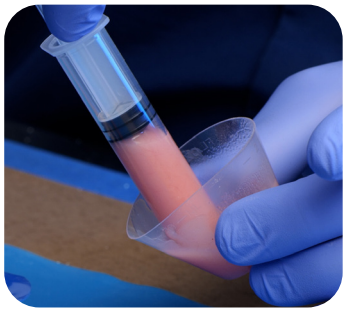


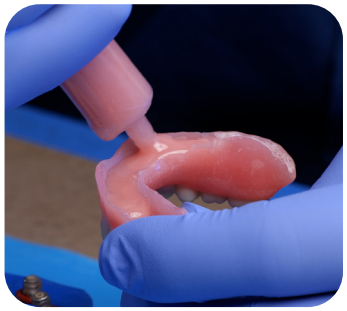


Deliver Arches to Patients Faster

SmartOnX.com/RapidArches

RAPID SET PICKUP ACRYLIC





Hand-mixes in seconds. Ready to use in under 3 minutes.

PMMA acrylic that can be hand-mixed in seconds, is ready to use in less than 3 minutes, perfectly matches the natural pink of gums, and can be pulled directly into a syringe. Available in pre-dosed vials and refill bottles.

Get the acrylic that makes your life easier.

SmartOnX.com/RapidSetAcrylic

SMART
DENTURE CONVERSIONS
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SmartOnX

LBL-008-REV A, Revised 08/22/25