A Clinician’s Guide to Restoring Conus

ABSOLUTE DENTAL SERVICES

ATLANTIS™ CONUS PROTOCOL

www.AbsoluteDentalLab.com
Dear Doctor,

Absolute Dental has specialized in fixed restorative restorations with an emphasis on Implant dentistry for almost two decades. With all the advances in restoring the edentulous arch available to us, I believe the Conus system to be one of the most innovative and practical systems on the market.

After restoring multiple cases with the Conus system, I feel confident that our Absolute Conus case flow procedure is the most efficient and accurate way to restore these cases.

My team and I are always available to walk you through these steps and are looking forward to hearing from you!

Conrad J Rensburg

absolutedentallab.com
Conus Implant Supported Hybrid Removable Denture

**WHAT IS THE ATLANTIS™ CONUS CONCEPT?**

Conus is a palate-less removable implant supported denture with the feel and function of a fixed implant retained prosthesis. Conus is a cost effective, friction retained denture, supported by patient-specific abutments.

The system is processed directly into the implant and is available for most major implant systems. A minimum of four implants per arch is needed and the AP spread can be shallow without compromising retention or function, making it an ideal solution for patients with minimal bone.
First Appointment

Once Implants are integrated and ready to restore, a fixture level impression using open tray impression copings are registered. This impression must be taken with PVS material and splinted together using a rigid intraoral material i.e. Triad Dual-Cure, Duralay etc. It is important to take this impression using a custom tray, paying special attention to accurate indexing of the vestibule and palatal areas. Over-filling the impression tray will help with stable engagement of the impression copings. Verify an accurate impression by testing each impression coping for movement by lightly pushing on them using a pointed instrument. Any movement of the impression copings inside the PVS material will warrant a new impression.

Please contact us with any questions regarding this technique.

*Lab process:* Pour a soft-tissue model; fabricate a wax bite rim and model verification jig. This will be returned to the clinician for bite registration and model verification.

Schedule your patient to return after: **5 DAYS IN LAB**
Second Appointment

Register a bite using the same protocols as for traditional removable dentures. Index centric occlusion, mid-line, occlusal plane and labial contour on the bite rim.

Determine a tooth shade and mold approved by the patient.

*Lab process*: Set up teeth in wax and return for traditional tooth try-in.

Schedule your patient to return after: **5 DAYS IN LAB**
Third Appointment

Remove the healing abutments from the implants, exposing the implant platform.

Perform a tooth try-in using the same protocols as for a traditional, removable denture.

If any changes are needed, please return case to the lab for a tooth reset and schedule for another tooth try-in before proceeding to abutment design. Patient satisfaction and approval is crucial at this appointment.

If patient approves tooth set up, return for next step.

**Lab process:** After patient approval of tooth shade, mold and set up, the Conus abutments will be CAD designed inside the buccal-lingual parameters indicated by the denture set-up. After abutment design and milling, a precision custom CoCr sub-structure will be fabricated to support and stabilize the denture over the abutments. The denture teeth will then be transferred back to the CoCr sub-structure for a definitive try-in. The gold SynCone retentive caps will be fixed into the denture try-in for this appointment. Abutments and CoCr open palate denture with teeth set in wax is returned to the clinician for a definitive try-in.

Schedule your patient to return after: **15 DAYS IN LAB**

**REQUIREMENTS**

Patient approval of final set-up; bite, shade and mold. If any changes are required, schedule for another tooth try in. Conus abutments are fabricated within the parameters set by the approved denture. Before continuing with Conus abutment fabrication please make sure the patient signs off on the tooth set up.
Fourth Appointment

Remove the healing abutments from the implants, exposing the implant platform.

Transfer the Conus abutments directly from the model to the mouth using the positioning indicators. A precise transfer of the abutments is crucial in determining the retention of a Conus case.

Unscrew the abutments from model through the positioning indicators and transfer to the mouth without removing the abutments from the positioning indicators. Only remove the positioning indicators after the abutments are torqued in place – if an abutment is out of seating position (by any amount) the case will not fit passively. The gold SynCone caps will be fixed into the denture try in for this appointment.

*Lab process:* Process the approved denture for final delivery. To increase accuracy and predictability of the final case, the Conus SynCone caps will NOT be processed into the final denture. Open areas will be left in the denture to allow chairside pick up of the retention caps in the mouth at final delivery.

Your lab will also fabricate a “high water” sleep denture and Conus removal tool.

Schedule your patient to return after: **5 DAYS IN LAB**

**REQUIREMENTS**

Confirm the following:

- Exact transfer of abutments from model to mouth – verified by positioning jig – if any discrepancy is noticed please call the lab
- Wax tooth set up and bite approved by patient
- Passive seating of denture over Conus abutments
Final Appointment

Remove healing abutments from the mouth and place the processed denture in the mouth without the Conus abutments.

- Verify the bite, vertical position and esthetics.
- Make any adjustments if needed.
- After the above is verified, measure and mark the external vertical chin to nose distance.

Abutments will be returned inside the positioning indicators on the model – it is imperative that these be transferred to the mouth using the indicators in exactly the same rotation as shown on the model – the success of a Conus case depends on the transfer being absolutely accurate.

- Place a small rubber-dam around each abutment to block out any potential undercut.
- Place the SynCone retentive copings over the abutments pushing it securely into place with finger pressure.
- Position all SynCone copings at once. To guarantee a successful case with passive and retentive fit it is vital to pick up all copings at the same time. Sequential pick up will not allow for an accurate enough pick up for the Conus denture system.
- Fit the denture over the abutments and test the bite for accuracy. Verify adequate space was left around the SynCone caps to allow the denture an absolutely passive fit. If any SynCone cap is interfering, adjust the inside of the denture to allow a free-floating fit around the caps.
- Verify the bite and vertical position using the original chin to nose measurement.
Fill the fitting areas with a self or dual-cure type acrylic. Call the lab if material recommendation is required. Position the denture in the mouth. Have the patient bite down and verify accurate bite. Measure the vertical position using the chin to nose measurement before the acrylic sets up. Clean up around the processed caps and final deliver.

Fit sleep denture, balance occlusal and flatten any cuspid rise if noticed. Advise patient not to eat with sleep denture - this denture is a non-functional device.

Instruct patient on the use of the removal tool.

Conrad J. Rensburg

*ND & NHD in Tech.*

Conrad J. Rensburg graduated under full scholarship from Pretoria Tech in 1992, with a four-year Baccalaureate Degree in Technology. Since that time, he has specialized in fixed prosthetics with a heavy emphasis on dental implant restorations.

While employed by ADW Dental as Senior Ceramist, Mr. Rensburg received managerial certification from the SADTC in 1995. After, he owned and operated RensTech Fixed Prosthetics in Pretoria, South Africa. In 1999 he relocated to the U.S. and was hired as the General Manager of Absolute Dental Services. During that time, he created the nationally renowned Absolute Implant Department.

Mr. Rensburg and his business partner, Drew Van Aarde, purchased Absolute Dental in 2004. With Drew as Senior Ceramist and Conrad as head of Absolute Dental Implant and Pre-Ceramics sections, they created a world class dental lab in the Triangle area of North Carolina.

Mr. Rensburg is a board-certified technician in good standing with the SADTC and NCDLA. He has been a CE accredited speaker for several dental implant manufacturers since 2002, and has been the keynote speaker at special events across the U.S. His seminars are focused on educating restorative dentists on the latest techniques and materials, as well as keeping them up-to-date with the ever-evolving dental implant market.
Absolute Conus Case Study

Case study courtesy of Dr. Aaron Wilharm with the Absolute Implant Department

**FIRST APPOINTMENT**
- Open tray impression copings in place.
- Please radiographically verify seating of all impression copings before proceeding to next step.
- Splinting of impression copings.
- Open tray impression copings in place with tray window cut out.
- Custom tray for open tray impression coping pick up.

**SECOND APPOINTMENT**
- Traditional bite registration.
- Determine shade and mold.
- Verify model accuracy using the lab fabricated model verification jig.

**IMPORTANT:** Do not proceed to next step until patient approval on set up, shade and mold is achieved.

**THIRD APPOINTMENT**
- Traditional wax tooth try in.

**Possible second tooth try in appointment if necessary.**
FOURTH APPOINTMENT

Abutments returned on the model inside positioning indicators — markings and numbering on abutments to help with precise placement.

Abutments transferred to mouth using positioning indicators. Visual verification of precise transfer by lining up external markings. If transfer is not exact, call lab immediately — do not proceed to next step.

Torque abutments using positioning jigs to stabilize and position. Visually verify accurate abutment transfer before removing verification jigs.

Position CoCr open palate denture with teeth set in wax over abutments — test for passive fit. If not completely passive call lab before proceeding to next step. If passive seating is verified, evaluate final esthetics, bite, arch plane and tooth position — this will be copied exactly in final prosthesis.

FINAL APPOINTMENT

Denture will be returned in acrylic with open areas to accept SynCone caps. Chairside pick up required to secure caps in place.

Remove healing abutments. Seat denture, adjust bite and check occlusion — register comfortable vertical position with chin to nose stick.

Conus abutments will be delivered on the working model with positioning indicators and rotational marks. Ready for direct transfer to the mouth.

Transfer the abutments to the mouth using the positioning indicators. Verify a precise transfer — do not continue to next step if a precise transfer is not achieved.

Torque abutments to recommended torque settings after accurate Conus transfer is verified.

Place a rubber dam over the abutments to block out any potential undercuts. Place SynCone caps over the Conus abutments pressing them down firmly with finger pressure.

Using Triad Dual Cure or similar material do a chairside pick up of all the SynCone copings at the same time. Sequencing this process does not always provide an accurate enough pick up.

Check bite and verify vertical height with nose chin measurement before acrylic cures.

Clean up around SynCone caps and deliver the test for stable fit and accuracy of bite.

Case is ready for final delivery.