

Dr. Mark Montana, DDS
 Private Practice Tempe, AZ, USA
 Advanced Education of General Dentistry
 Arizona School of Dentistry and Oral Health

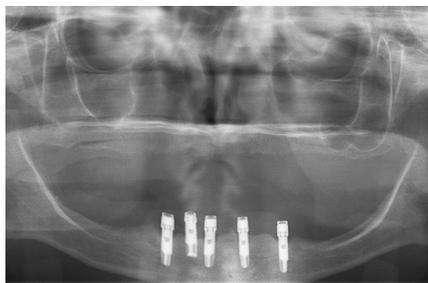


The ATLANTIS™ Conus concept for treatment of the edentulous arch

A 73-year-old woman with an eleven-year history of complete edentulism of the maxilla and mandible, presented with a chief complaint of a non-retentive and unstable lower denture on the five externally-hexed, standard diameter implants (Branemark, Nobel Biocare).

Treatment history had included a complete denture retained by the Locator attachment system (Zest Anchors); which were replaced with Preci-Clix attachments (Ceka Attachments) due to patient dissatisfaction with the lack of stability and function. The lack of demonstrable improvement led to retreatment with new Locator attachments. The patient continued to experience problems with the loose fit of the lower denture.

The patient was then presented with treatment alternatives including ATLANTIS Conus concept, a fixed hybrid prosthesis, and an ATLANTIS ISUS 2in1 Bar overdenture. Based on the patient's desire for a removable solution, the ATLANTIS Conus concept was selected.



1. Pre-treatment radiograph showing five implants clustered in the anterior mandible.



2. Note the wear of the metal abutments due to disengagement of the nylon retention inserts as a result of fulcrum during function.



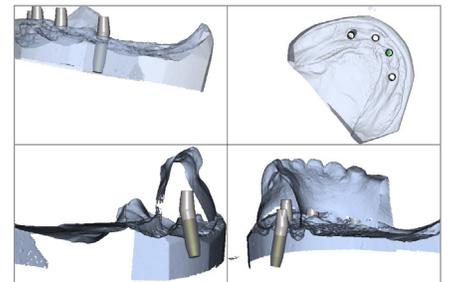
3. Duplication of an acceptable denture serves as a custom tray. Holes of sufficient diameter to accommodate impression copings have been prepared.



4. Open-tray impression copings seated on the dental implants. One implant is selected for disuse and covered with a transmucosal abutment.



5. Completed final impression using the custom tray and light body and medium body PVS, as well as rigid bite registration material around the impression copings to eliminate any movement of the copings.



6. Design images showing the contour and tooth position of the duplicate denture and proposed design of the ATLANTIS Conus Abutments.



7. ATLANTIS Conus Abutments on the working cast.



8. SynCone caps seated on the abutments on the working cast. An impression of this arrangement is made to fabricate a cast metal frame to reinforce the final restoration.



9. Completed laboratory restoration; note the termination the arch at the first molar to avoid excessive cantilever length. The chrome frame is opaqued on the functional side to prevent gray show-through.



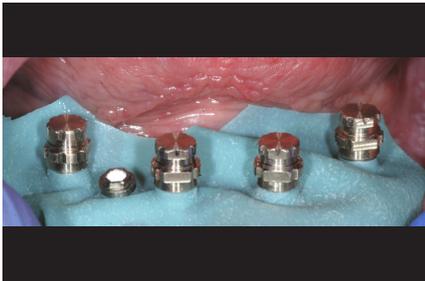
10. Completed laboratory restoration showing the metal frame and recessed area to receive the SynCone caps.



11. ATLANTIS Conus Abutments seated. Note the "margins" of the abutment, and the point where the parallel preparation begins, is supra-gingivally positioned.



12. SynCone caps are fitted to the abutments to verify unobstructed and complete seating.



13. Rubber dam is placed over the abutments to prevent pick-up material from locking into undercut areas below the prepared margin. SynCone caps are seated and ready to be captured into the prosthesis.



14. Completed bridge with SynCone caps processed in position. Because they have been processed intra-orally, there is no error in fit, these caps are extremely retentive allowing only vertical displacement of the prosthesis.



15. Completed restoration. Note the absence of screw access holes for a prosthesis that looks like a denture yet fits like a bridge.



16. ATLANTIS Conus Abutments torqued to specified level, obturated with Teflon tape and composite resin.



17. Laboratory processed, clear duplicate prosthesis with siliconized reline material to improve retention; to be used as a nighttime appliance to protect the tongue from the sharper edges of the abutments.



18. Completed bridge in place showing flange length suitable to prevent food entrapment and support the lip and cheeks. Because the restoration remains removable, these flanges do not prevent excellent home care.

This case report is published as an inspiration for you as a clinician and not necessarily as a recommendation from DENTSPLY Implants.

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