straumann

PROSTHETICS

synOcta® Meso abutment for cement-retained restorations

Step-by-step instructions

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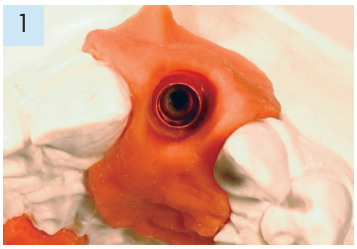
synOcta® Meso abutment for cement-retained restorations

The synOcta® Meso abutments, available for Regular Neck and Wide Neck implants, are designed for cement-retained restorations when the implant shoulder is more than 3.0 mm subgingival.

The synOcta® Meso abutments have a 4.5 mm cuff height, which can be customized in the dental laboratory to provide an optimal emergence profile and ideal cement finish line. The restoration is completed by the laboratory technician in the conventional manner.

1

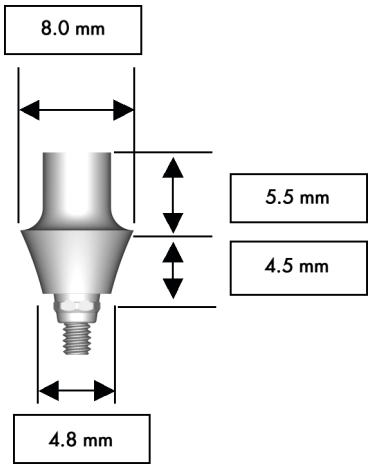


Any case with more than 3.0 mm of soft tissue would be a potential site for use of the synOcta® Meso abutment.

Features and benefits

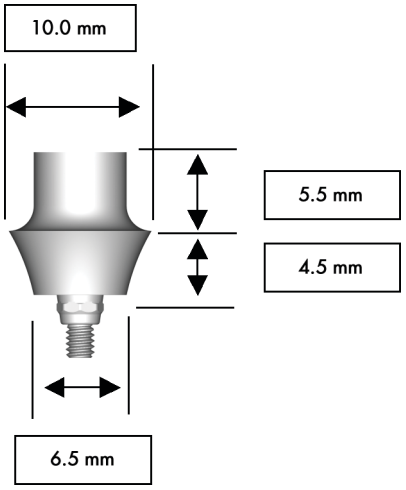
- Raises the cement line when the implant shoulder is more than 3.0 mm subgingival, which simplifies cement removal
- Provides optimal emergence profile and marginal integrity of the final restoration, important for maintaining peri-implant mucosal health
- Allows for a subgingival crown margin for superior esthetics
- Simulates the subgingival contour of a natural tooth
- Corrects angulation situations that cannot be optimally addressed with synOcta® angled abutments
- Facilitates the path of insertion of splinted restorations
- Can be modified in a short period of time

The design of the synOcta® Meso abutment offers the same advantages as the synOcta® prosthetic system: reliability, simplicity, and flexibility.



Art. no. 048.560 - RN synOcta® Meso abutment for cement-retained restorations

Material: titanium



Art. no. 048.561 - WN synOcta® Meso abutment for cement-retained restorations

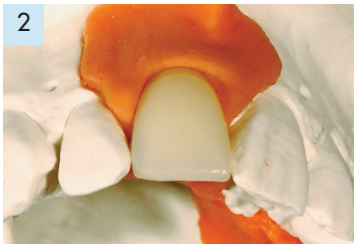
Material: titanium

The dental technician modifies the synOcta® Meso abutment to achieve a suitable crown margin for individual situations. It can also be customized to facilitate the path of insertion on splinted restorations. The raised cement line on the abutment provides controlled access for cement removal, while still allowing a subgingival crown margin for superior esthetics. The final restoration is then processed in the conventional manner. To modify the synOcta® Meso abutment, the technician may use a conventional heatless stone, carbide disc, titanium cutting bur, and silicone based rubber wheel/point.

For more information on how to fabricate a master cast with the synOcta® prosthetic system, please refer to the brochure "synOcta® Prosthetic System: Instructions for lab technicians" (LIT 109).

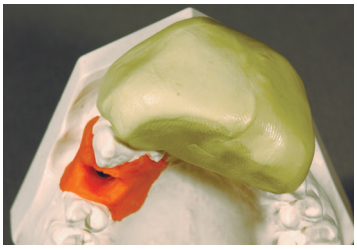
Important:
The abutment may need mesial-distal contouring if there is contact with the stone model. It is important that the abutment is interfaced with the synOcta® analog prior to the gross reduction of the abutment.

2



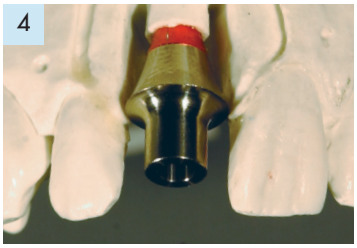
Create a diagnostic wax up or setup.

3



Make a lab putty index that will record the neutral zone of the edentulous space. This will provide a visual guide for the modification of the synOcta® Meso abutment.

4



Remove the tissue from the model, seat the abutment on the master cast, and contour.

Modify the synOcta® Meso abutment in the dental laboratory.

Reduce the synOcta® Meso abutment by using a heatless stone, or carbide disc. Use a titanium cutting bur to finish the reduction and define your marginal areas using a silicone based rubber wheel/point.

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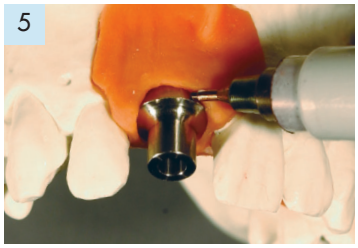
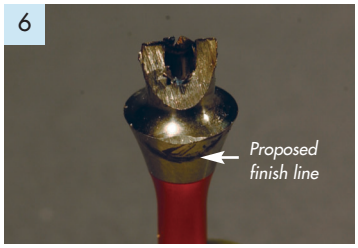


Remove the abutment from the master cast and replace the tissue. Return the abutment to the master cast, and mark the tissue height with a marker.

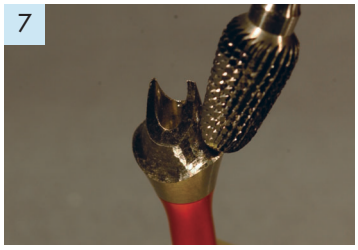
6



Note the proposed extended finish line that the abutment will be reduced to.

Perform the gross reduction with a heatless stone, carbide disc, or titanium cutting bur off the master cast using a synOcta® analog as a holding instrument.

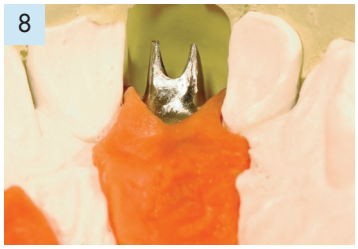
7



Using end cutting titanium carbide, complete the final preparations. Polish the modified abutment using rubber and silicone.

Important:
When modifying the abutment, a maximum of 3.5 mm can be removed from the abutment height above the cuff, leaving a minimum height of 2.0 mm. Further, the cuff of the abutment must maintain a minimum height of 2.0 mm in order to preserve the mechanical strength of the synOcta® Meso abutment.

8



Return the abutment to the master cast, and verify the preparations with the lab index.

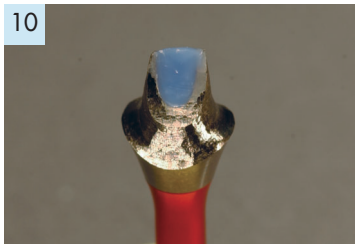
9

This lateral view illustrates that the abutment has been properly modified to allow enough room for the final restoration.

For your convenience, Brasseler's carbide cutters, heatless stones, and silicone polishers are available with Straumann to simplify the modification of the synOcta® Meso abutment.

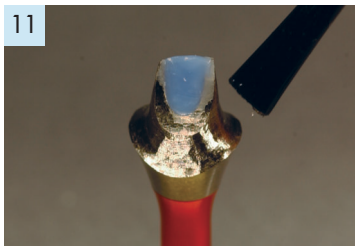
The subsequent procedure is identical to the procedure for conventional crown and bridge work. The modified synOcta® Meso abutment is now ready to wax-up. Transfer the abutment to a spare synOcta® analog, block out the coronal opening with wax, and lubricate the abutment. Then wax up in the conventional manner.

10



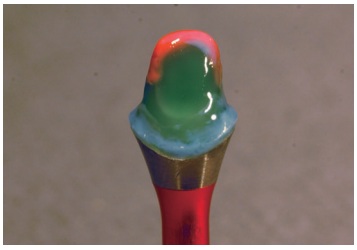
When satisfied with the preparation, return the abutment to the spare synOcta® analog and block out with wax.

11



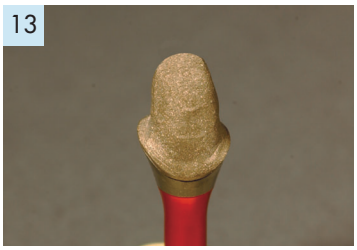
Apply die lube to the abutment.

12



Dip the abutment in dipping wax and wax up in a conventional manner.

13



Sprue and cast the wax up in a conventional manner and fit with the aid of a stereo microscope.

Invest the wax-up of the synOcta® Meso abutment for the porcelain-fused-to-metal restoration and sprue using a conventional technique.

14

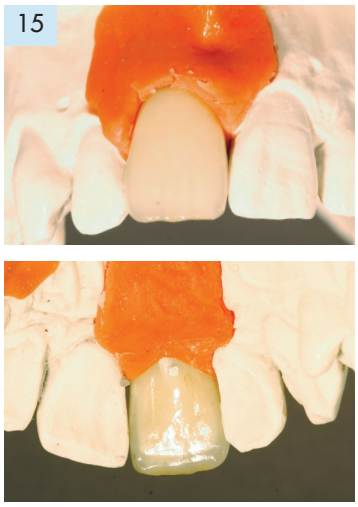
Complete final finishing on the master cast.

Seat and properly align the synOcta® Meso abutment with the internal octagon of the implant before tightening it into place. Use an SCS screwdriver together with the ratchet and torque control device to torque the abutment to 35 Ncm. To ensure that cement does not enter the screw access hole, place a small piece of cotton in it, and fill the remainder of the hole with a temporary material.

Finally, secure the final prosthesis in place with permanent cement. Take care to ensure that all excess cement is removed.

Important:
Do not cement the abutment into the implant.

15



Apply porcelain in a conventional manner.

Laboratory procedures courtesy of:
Terry Charters, CDT

synOcta® Meso abutment supported crown

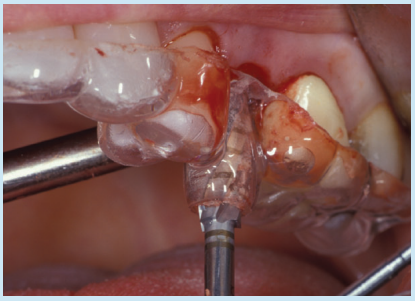
Case presentation courtesy of:

Dean Morton, BDS, MS, FACP
University of Florida,
Center for Implant Dentistry

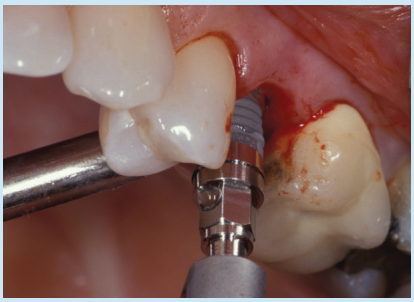
Todd Fridrich, CDT
University of Iowa

The patient presented with a palatal cusp fracture on tooth #13.

The tooth is removed with minimal trauma to the bone and surrounding soft tissues.

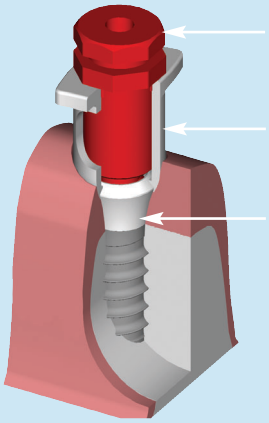


Templates are used to ensure that implant site preparation is consistent with the planned restoration.



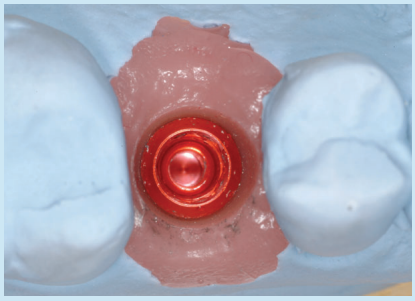
A Tapered Effect implant is selected because of its SLA® surface and semi-tapered design with self-tapping screw threads, which are ideal for immediate placement. The implant's transmucosal collar height (1.8 mm) is consistent with biologic compatibility and soft tissue esthetics.

An SCS healing cap is placed.



The restorative platform of the Tapered Effect Ø 4.1 mm Regular Neck implant allows an implant level impression to be made with the RN impression cap and RN synOcta® positioning cylinder.

The cast is poured in Type IV dental stone. Where desired, a soft tissue analog can be fabricated as part of the cast.



The use of a solid cast helps establish ideal contact points between the restoration and adjacent teeth. This improves the efficiency of the delivery appointment

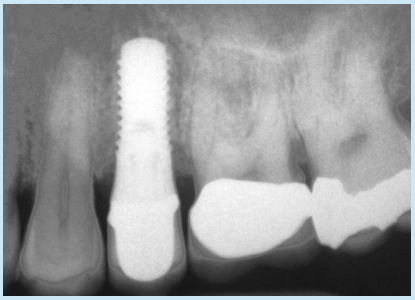
The synOcta® Meso abutment is checked to isolate areas requiring modification. The abutment is first modified to establish a path of placement. The final cement line for the crown is customized according to the gingival contours while maintaining a minimum cuff height of 2.0 mm. The facial and interproximal cement margins are placed 1.0 - 2.0 mm subgingival, while the palatal aspect can be supragingival.

Subsequent to the finishing of the abutment, the coping for the metal-ceramic crown is waxed to form. This is performed directly on the customized synOcta® Meso abutment, which can be positioned on an implant analog or directly on the master cast.


The definitive metal-ceramic restoration is characterized by a subgingival margin on the facial and interproximal aspects, which is readily accessible for cement removal and is esthetically pleasing.




The synOcta® Meso abutment clearly maintains the subgingival margin on the facial aspect while raising the cement line on the proximal and palatal aspects. The synOcta® Meso abutment and crown are positioned while contacts, occlusion and esthetics are verified. The synOcta® Meso abutment is then torqued to 35 Ncm, the access hole is sealed and the crown is luted with permanent cement.



A radiograph confirms that all components adapt accurately and confirms the biologic nature of the implant supported restoration.

Final restoration.

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National Distributor

The Straumann Company
Reservoir Place
1601 Trapelo Road
Waltham, MA 02451
Phone 800/448 8168
781/890 0001
Fax 781/890 6464
www.straumannusa.com

International Headquarters

Institut Straumann AG
CH-4437 Waldenburg
Switzerland
Phone 011 41 61 965 11 11
Fax 011 41 61 965 11 01
www.straumann.com

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