CEMENT RETAINED RESTORATION

TRAINING MANUAL

02

Superior Implant Technology

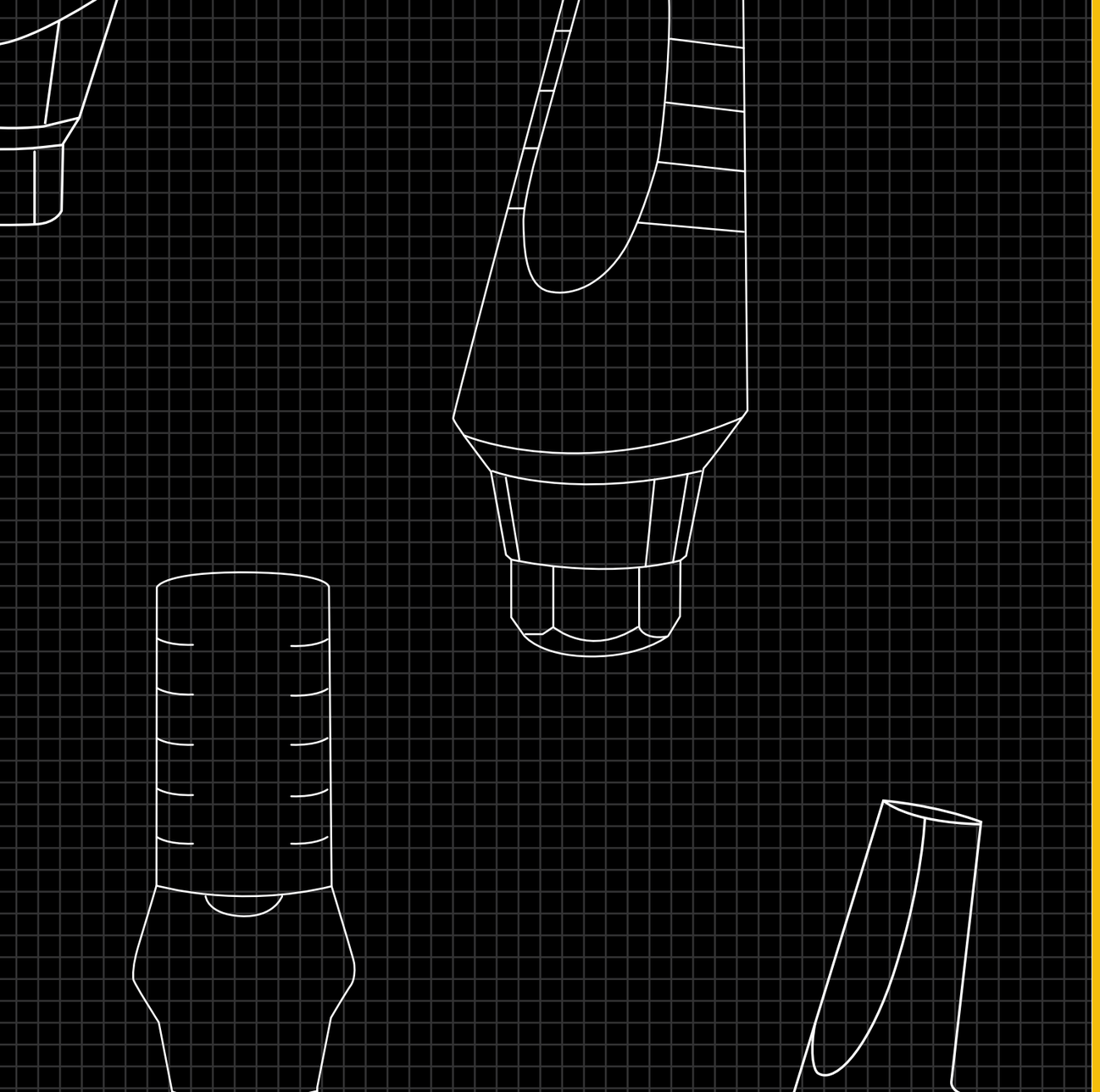
AB DENTAL

AB Dental is proud to present this cemented restorations internal hex implant reconstruction procedure.

This manual explains, step by step, the procedure while using AB Dental components.

AB Dental scientists and R&D department are committed to the continued innovative approach in both products and advanced technologies.

Our commitment extends beyond providing safe and high precision dental products & services to passing on procedural information through training and instruction.



CEMENT RETAINED RESTORATION

Cementation of an implant-retained restoration is a multi-step process.
The restoration is cemented to the abutment using temporary or permanent dental cement.
The cemented restoration method has advantages and disadvantages:

ADVANTAGES:

- A prefabricated abutment (straight or angled) or individualized CAD/CAM abutment can be used.
- A perfect esthetic occlusal surface by eliminating the access hole for the abutment screw.
- The laboratory process is simplified and costs reduced.
- A passive fit between the bridge and the abutments is more easily achieved.

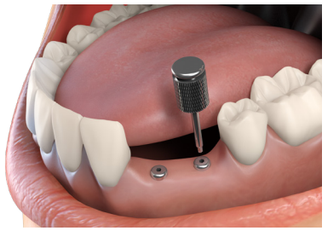
DISADVANTAGES:

- Excess cement must be totally removed subgingivally.
- Retrievability of the cemented restoration is difficult in some cases.
- The use of pre-fabricated abutments is not suitable for all clinical cases. Some cases require custom-made abutments for added retention and resistance, or for aesthetic reasons.

STEP 01

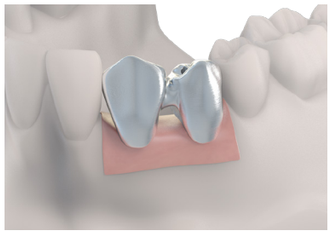
IMPRESSION TAKING

A.



Remove healing cap from the implant(s) and by using a probe measure the gingival height surrounding every implant. Choose the proper abutment gingival height according to these measures.

B.



In the laboratory the dental technician pours the impression and creates a stone model. Next, the proper prefabricated abutments will be chosen according to the specified gingival height of every implant.

The fabrication of the restoration over the abutments is carried out according to standard laboratory techniques.

OPTIONAL ABUTMENTS

P3S-PEEK
Temporary anatomic anti-rotation abutment

P4S-PEEK
Temporary anatomic angular abutment

P3
Anti-rotation abutment

P3S
Anatomic anti-rotation abutment

P4
Angular abutment

P4S
Anatomic angular abutment

P4L
Long angular abutment

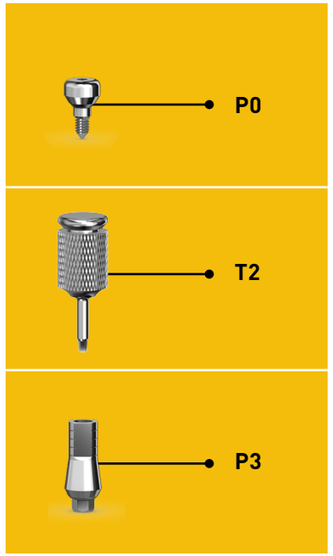
USEFUL TIP:

For best compatibility of the abutment to the surrounding tissue and the prosthetis in the patient mouth, it is recommended to use an individual abutment (specifically made for the case). This individual abutment allows the best fit to the surrounding tissue as well as achieving the optimal emergence profile, retention and stability for the restoration. If, however, a prefabricated abutment is used, attention must be paid to the location of the finish line of the abutment and the restoration. In order to allow proper removal of access cement, the finish line should be located 0.5mm to 1mm subgingival in the esthetic zone and at the level of the gingiva in non-esthetic areas.

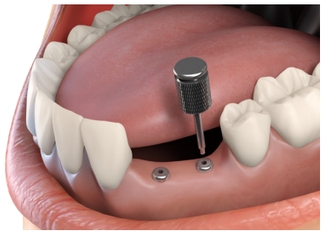
STEP 02

EXPOSE & TEMPORARY RESTORATION

COMPONENTS:



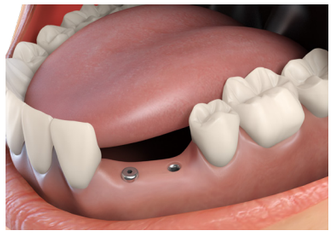
A.



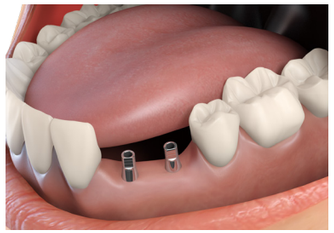
Remove the metallic framework and abutment from the lab's model.

Before trying it in the patient's mouth, pay attention to the orientation marks made by the lab on the model and on the abutment. Remove healing cap or temporary restoration from the patient mouth. Make sure the abutment and margins are free of all temporary cement.

B.



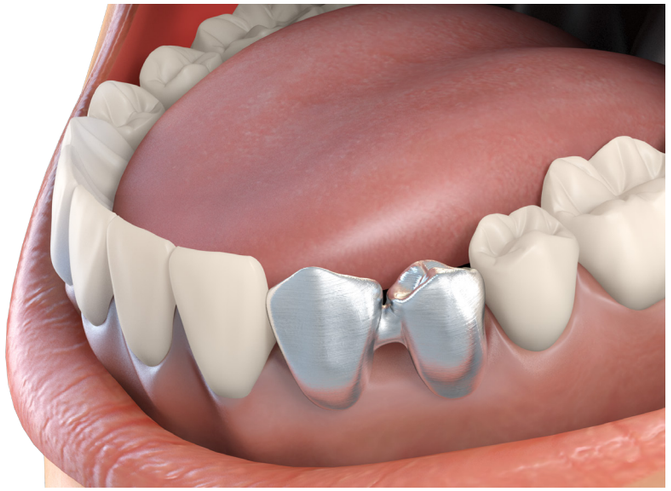
C.



Place abutment over the implant and tighten the screw.

STEP 03

METAL-COPING FRAMEWORK



SEND TO THE LAB:

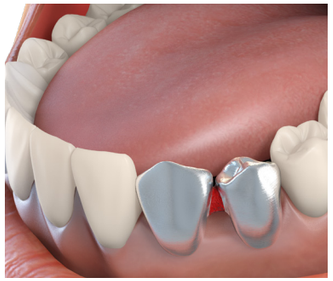
- framework
- Correct Shade for porcelain
- Working model
- Bite registration over metal coping

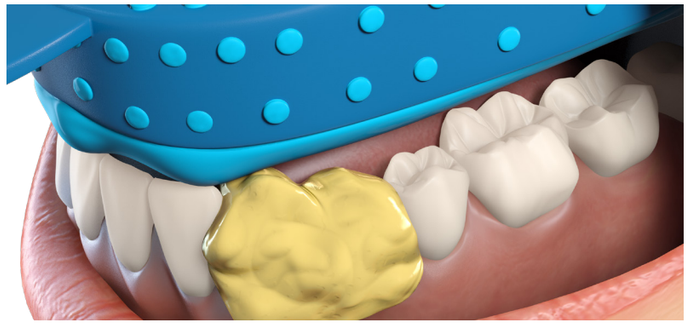
Try in the metal-coping framework. Verify fit, margins compatibility and intra-occlusal space.

Adjust as necessary. Take an X-Ray to verify that abutment and metal coping are seated and fit.

USEFUL TIP:

If a multiple unit framework does not fit perfectly to all the supporting abutments, the dentist will have to section the framework and try each part individually in the patient's mouth.
The parts are then cold-soldered intraorally by the dentist's procedure of choice (using pattern resin, composite or plaster of paris). After the framework has been re-soldered in the laboratory it will be checked again in the patient's mouth for an accurate fit.
After achieving a precise fit, a pick-up impression of the metal framework can be taken.

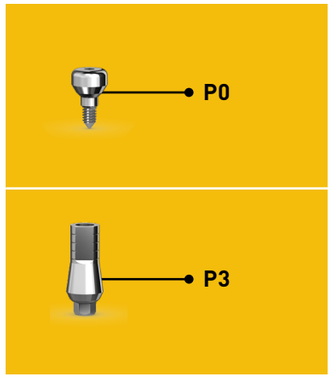


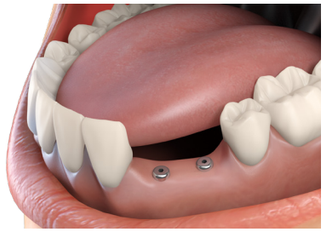


STEP 04

VENEERED RESTORATION

COMPONENTS:





A.

Replace the healing cap or temporary restoration in the patient mouth.

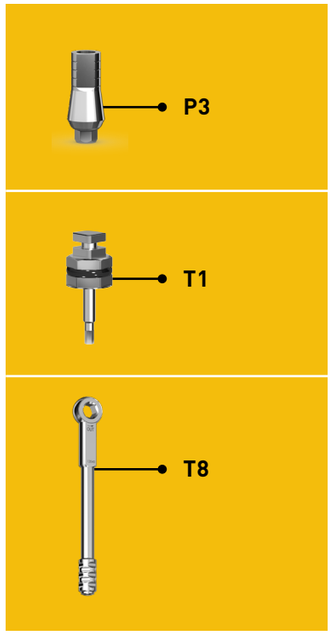
B.

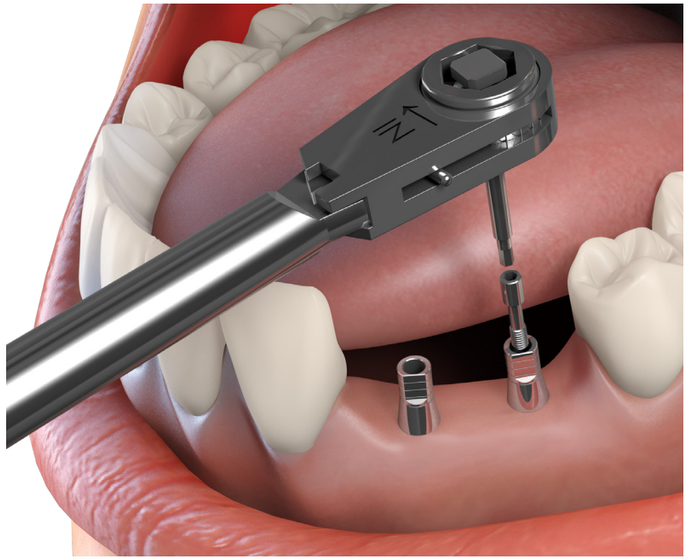
After receiving the veneered restoration back from the lab: Remove the temporary restoration or the healing cap from the implant. Try the finished restoration in the patient's mouth.

STEP 05

TIGHTENING THE ABUTMENT

COMPONENTS:





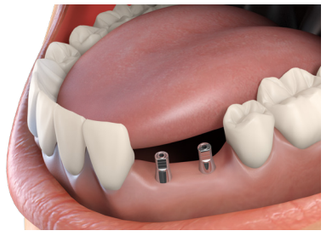
Take an x-ray to verify that the abutment fits completely over the implant. Use the torque wrench, applying a force of 30Ncm to finish tightening the abutment screw.

Check the proximal contacts, margin integrity and occlusion.

STEP 06

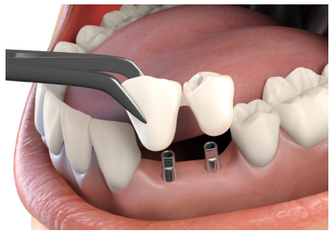
CEMENTATION

A.



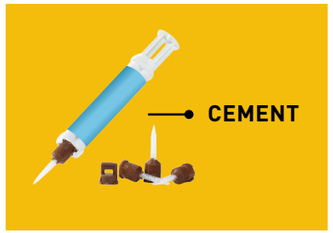
Fill out the access hole in the top of the abutment, using Teflon, Composite, etc. to avoid cement fromflowing into it.

B.



Cement the restoration to the abutment

COMPONENTS:



C.

It is recommended to temporarily cement the restoration for a short period of time in order to be able to retrieve it easily if needed.

USEFUL TIP:

Avoid modifying the abutment at this stage. Any modifications could result in a poor fit between the restoration and the abutment.

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