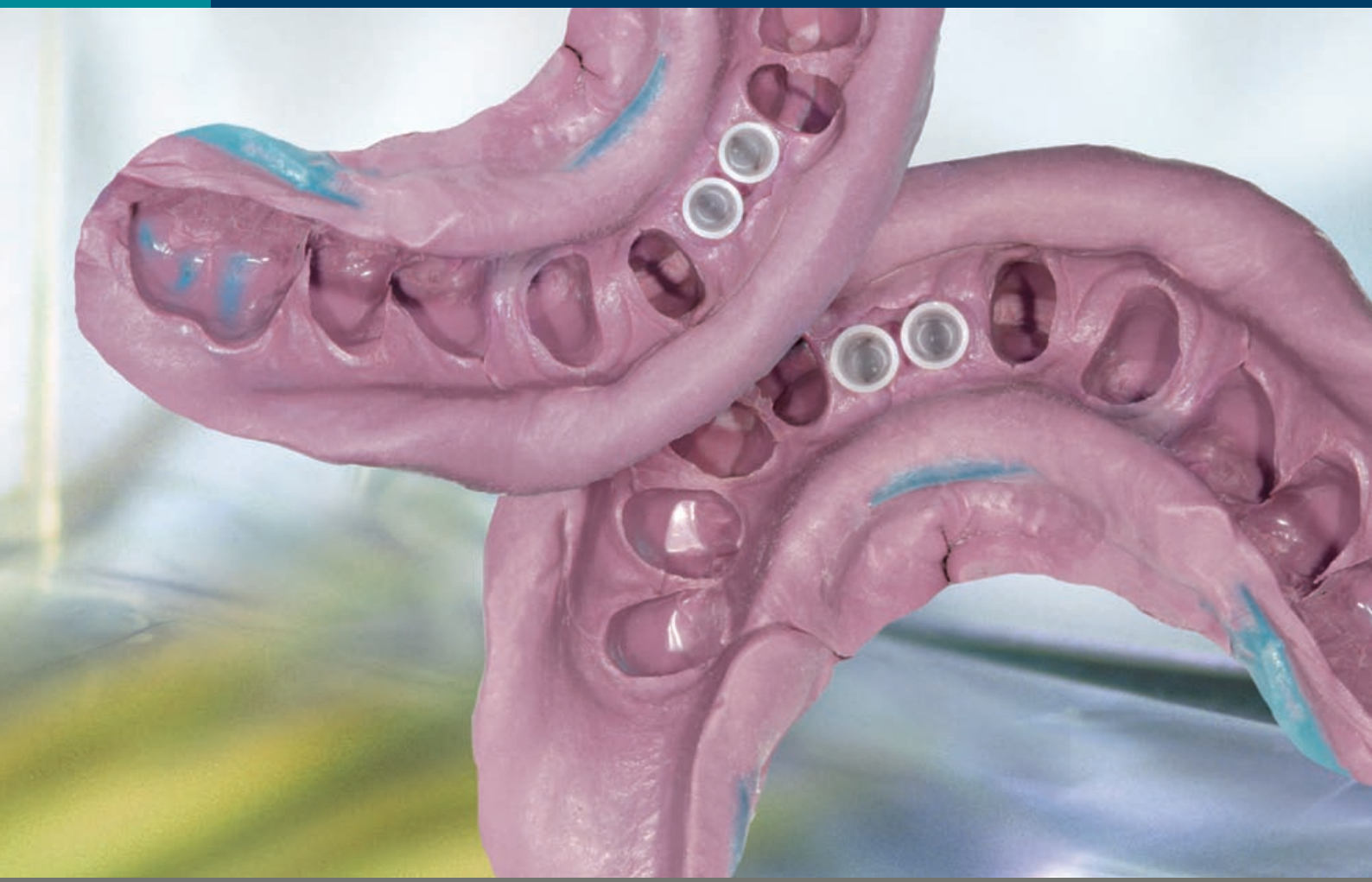
Innova-Oraltronics
SYBRON DENTAL SPECIALTIES

BICORTICAL®
Prosthetics



Basic Information

Indication

The one-phase selftapping Bicortical Implant is indicated for multiple applications:

Single crowns
Bridges
Bar constructions
Full dentures

Three different post variations for easy and perfect application:

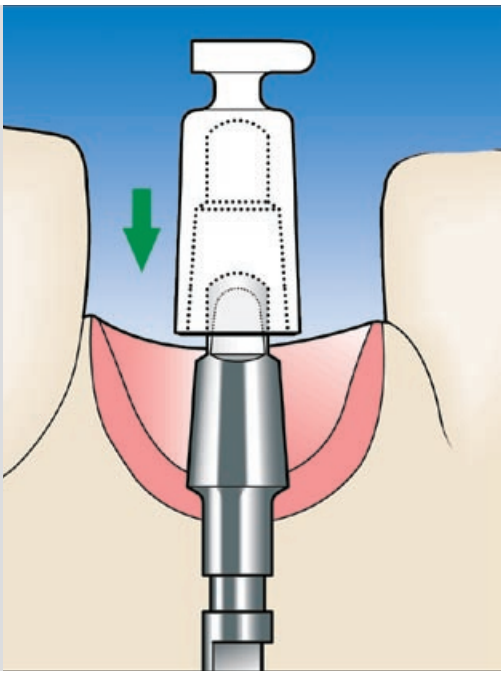
- Bicortical Implant with adjustable **square post** for narrow interdental spaces
- Bicortical Implant with **round post**: the conical shape enables an easy insertion of long-span bridges. Also simple bar constructions can be easily cemented
- Bicortical Implant with **ball post** for anchorage of longspan bridges

Clinical Advice

If an adjustment after insertion of the Bicortical Implant with square post (the ball and round posts are non-adjustable) is indicated, use the post bending pliers and the post bending stabilizer and adjust the round shaft just below the transgingival area. Be careful to prevent damage to the square post, as an impression with the impression/ modelling cap and a transfer to the master model would not be precise.

Modification of the implant post

In case during the preparation of the final prosthetic construction it becomes obvious that the model analog and also the corresponding original implant post after insertion have to be adjusted due to lacking



space or to divergencies, please proceed as follows:

1 Prepare an individual transfer cap of acrylic material (for instance GC Pattern Resin LS®) on the model analog in the laboratory.

2 Modify the post through the acrylic cap step by step, according to the required space or the insertion direction.

3 If necessary, modify also the original impression and modelling cap accordingly at the incisal/occlusal side.

4 The acrylic individual transfer cap is mounted on the original implant in the patient's mouth by the doctor who is now able to precisely reduce the protruding material accordingly.

New in the Bicortical Family

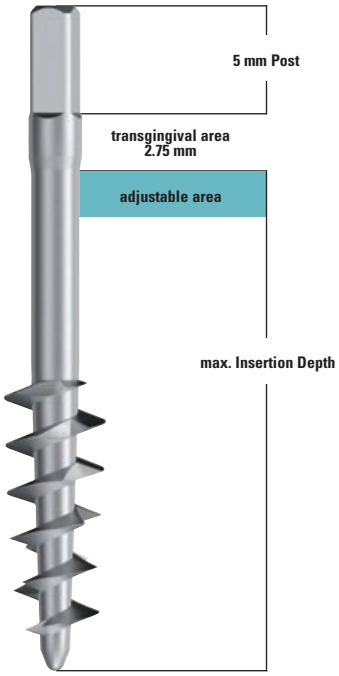
Ball Posts

For an additional indication, the Bicortical Implant is now available also in a ball post version.

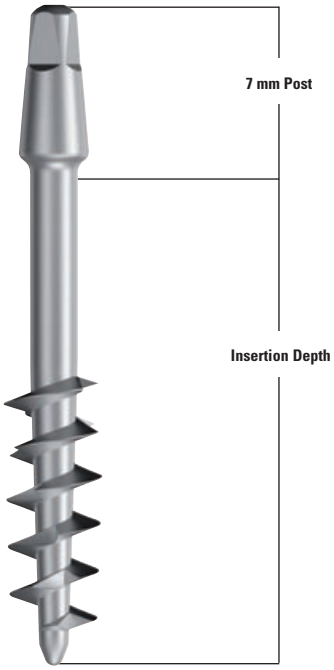
This is an additional possibility to anchor full dentures on Bicortical Implants.

The following retention elements can be applied alternatively:
- Metal ringhousing with O-ring
- Retention cap Dalbo®-PLUS elliptic

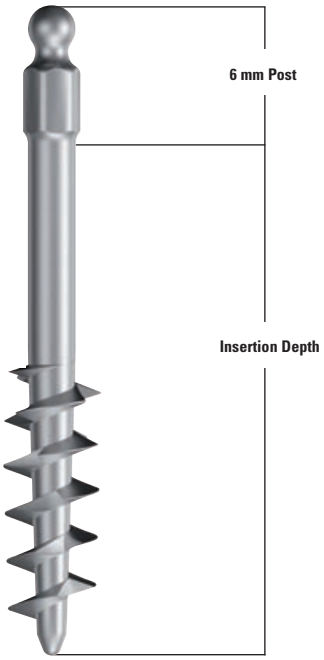
Square Post



Round Post



Ball Post

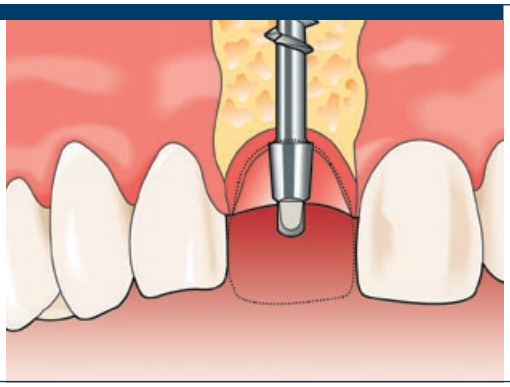


Prosthetic Procedure

1 Impression

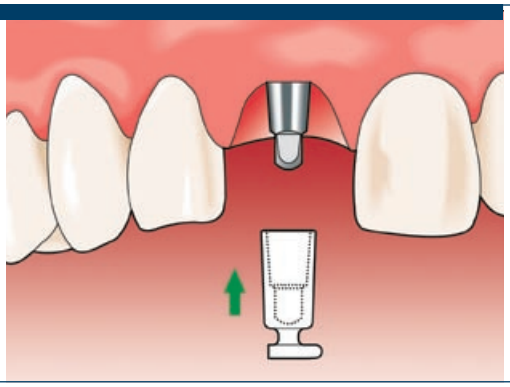
In the mouth the modelling/impression cap (antirotation) is mounted on the implant post and the impression taken with a stable material (e.g. Espe Impregum F®) in an individual impression tray.

When removing the tray from the mouth, the cap remains and is retained in the impression material.

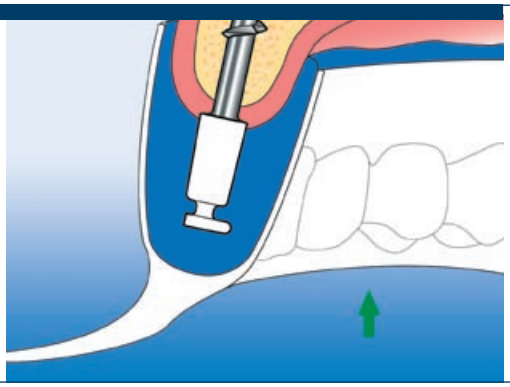


Post-op situation in the mouth

Single tooth replacement with Bicortical Implant with round post



Mounting the modelling/impression cap on the post of the Bicortical Implant

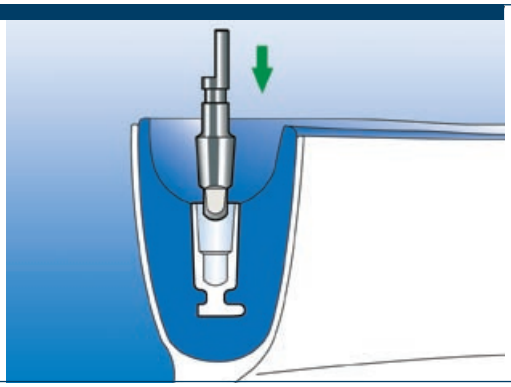


Impression-taking of the modelling/impression cap

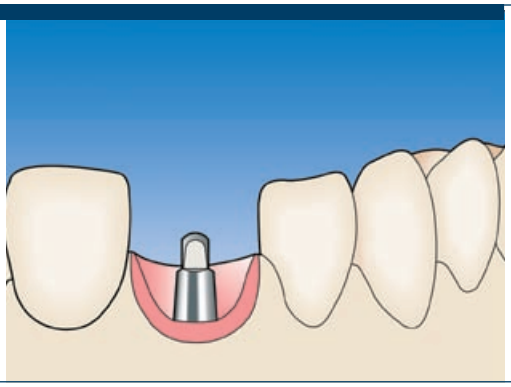
2 Model preparation

Place the corresponding model analog (antirotation) into the impression cap which is in the impression material.

Prepare an artificial gingiva and cast the impression with a class 4 plaster. After curing of the plaster, remove the impression tray and also remove the impression cap from the impression material by using a scalpel, and clean.



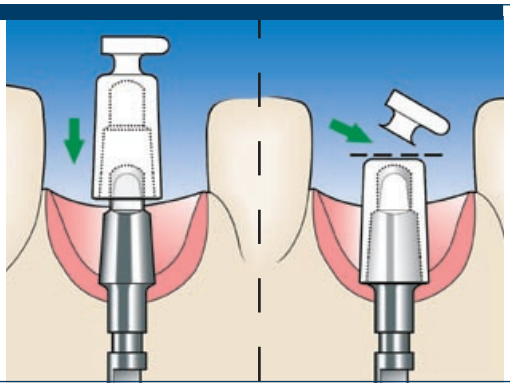
Insertion of the model analog into the impression



Finished model with artificial gingiva and model analog

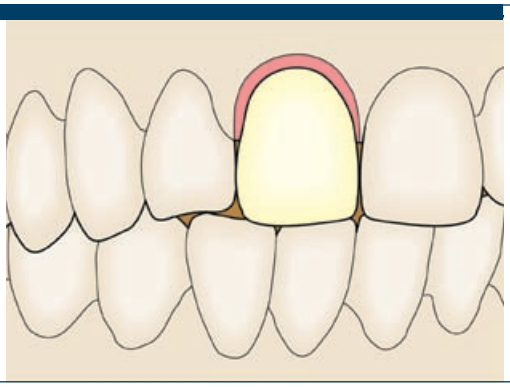
3 Modelling

Remove the impression cap from the impression and use now as modelling cap. Place on the model analog (antirotation) and remove the retention part. The complete modelling (full wax-up) of the crown or bridge can now take place. Place a silicone pattern over the model and cut on the top. This will serve as orientation for the next following reduction of the wax-up to the required shape of the construction. The silicone pattern serves also an aid for modelling the artificial gingiva to ensure a precise cervical design of the crown.

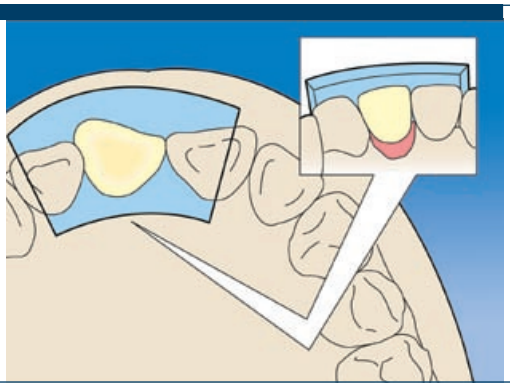


The impression/modelling cap is mounted on the implant analog
Remove the retention
The cap now serves as modelling cap

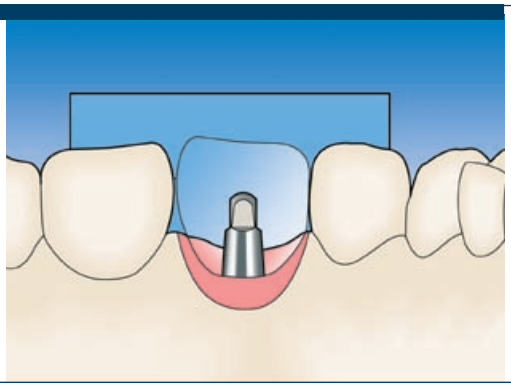
Tip
The cap for the square post is slightly longer than the square itself. If the crown margin is to be level with the square, shorten the cap accordingly.



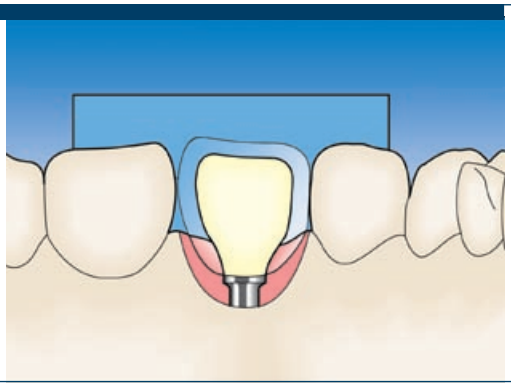
Complete wax-up on the modelling cap
Occlusal view with antagonist jaw



Preparation of the silicone pattern placed over the wax-up for orientation

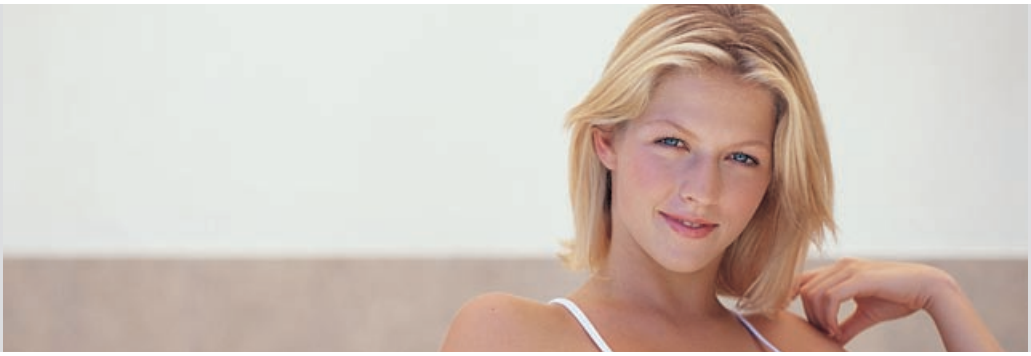


Silicone pattern without modellation with reduced/adjusted artificial gingiva



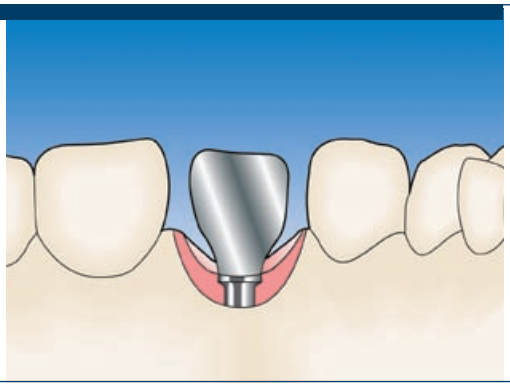
Reduced wax-up ready for precise investment, casting and trimming

Fig.
Silicone pattern for control of the modellation



4 Investing, casting and trimming

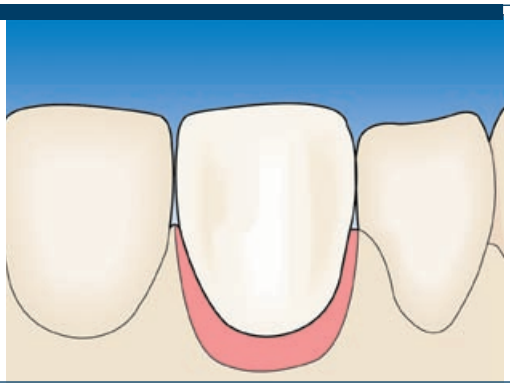
The reduced wax-up is invested as usual in precision investment material. Take care that the modelling cap is filled completely with the material, avoiding blisters. We recommend to cast in a vacuum pressure casting unit. The internal contour of the modelling cap should be blasted with blast brightening pearls. When inserting the cast of a single crown on the model analog with round post, make sure that the antirotation protection is guaranteed. The final trimming of the construction should proceed as usual.



Metal structure ready for ceramics veneering

5 Veneering

After trial insertion of the structure, the metal structure is veneered with ceramics. The adjusted artificial gingiva serves for a precise cervical design of the crown.

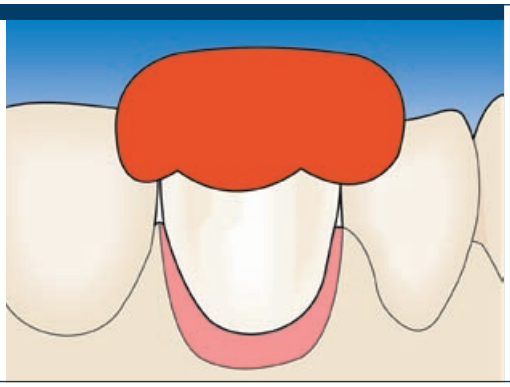


Finished ceramics veneered crown on the model

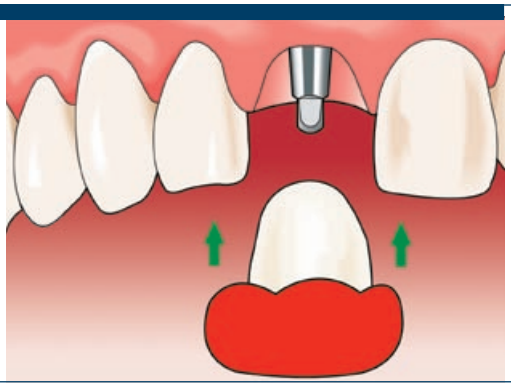
Important
The basal contact surface of the crown to the gingiva should be polished and easy to clean.

6 Insertion

In order to facilitate the final insertion of the crown, we recommend that the technician prepares a positioning aid made of acrylic material. This will help to precisely fit the crown into the final position and cement the crown, by pushing the gingiva slightly.

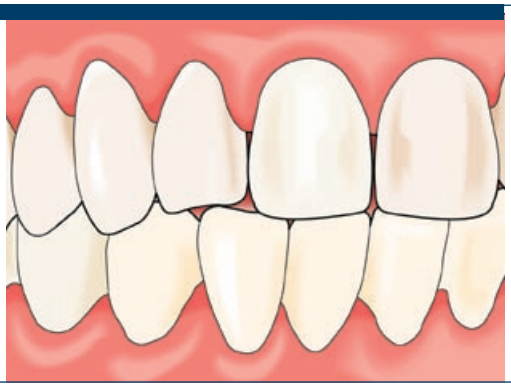


Positioning aid fixed on
crown and neighboring teeth



Situation in the mouth

Trial insertion of the crown
using a positioning aid



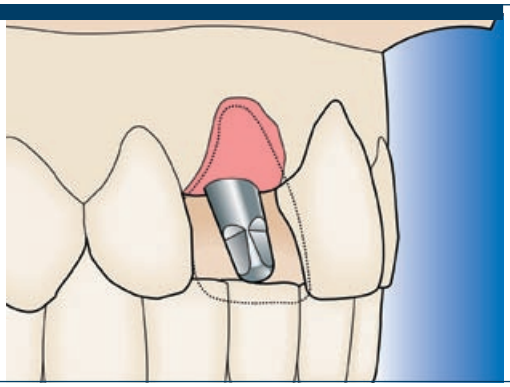
Result

The final ceramics crown inserted

Modification of the implant posts

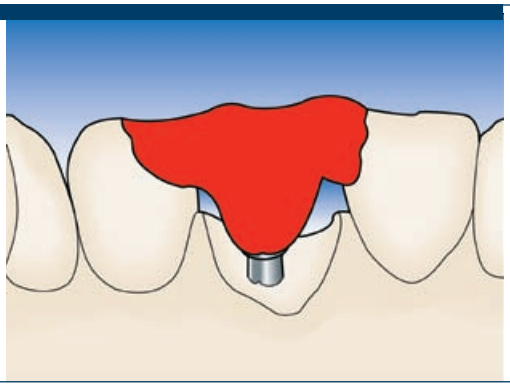
1 Preparation

Preparation of an individual transfer cap of acrylic material (e.g. GC Pattern Resin LS®) on the model analog in the laboratory.



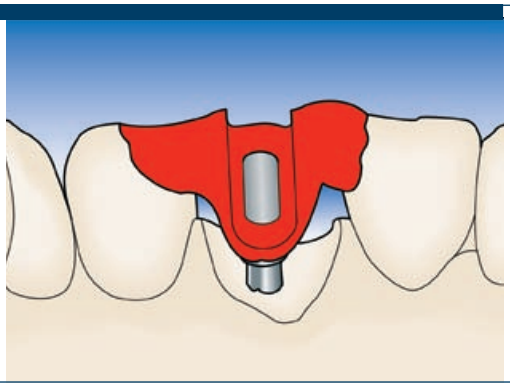
Situation on the model

Between implant post and incisal margin of the lower incisor, there is no space for insertion of a crown.



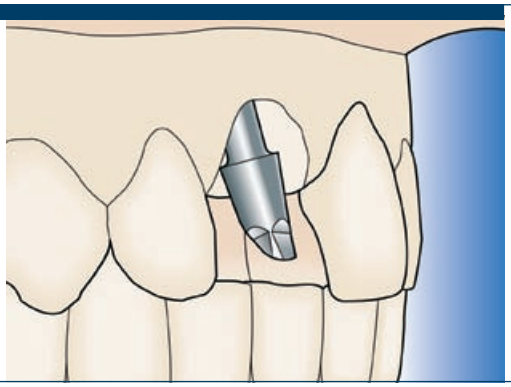
Preparation of an individual transfer cap

of acrylic material (e.g. GC Pattern Resin LS®) on the model analog in the laboratory (here antirotation supported on the neighboring teeth)



Reduction of the posts

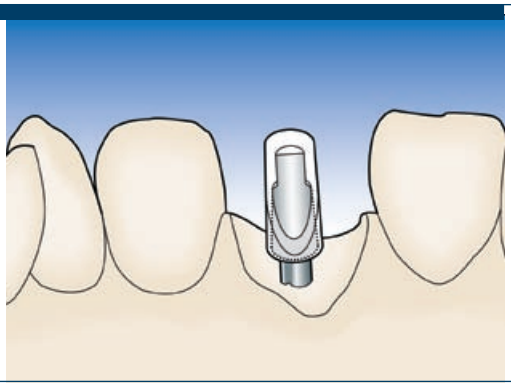
for optimal use of the available space by abrading through the transfer cap, “step by step“



Model situation after preparation

2

If required, the original modelling/impression cap must also be shortened accordingly on the incisal/occlusal side.

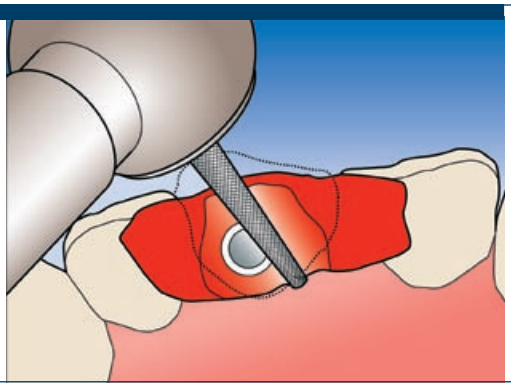


Modification of the modelling/impression cap

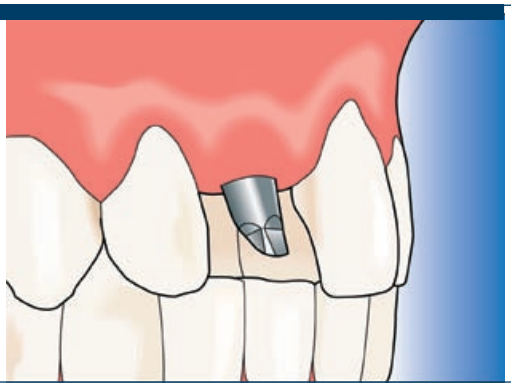
according to the new available space

3

Transfer of the model situation to the mouth



By placing the individual transfer cap onto the original implant in the mouth, the doctor has the chance to modify the model analog post by reducing the protruding parts precisely and copy this to the original implant.



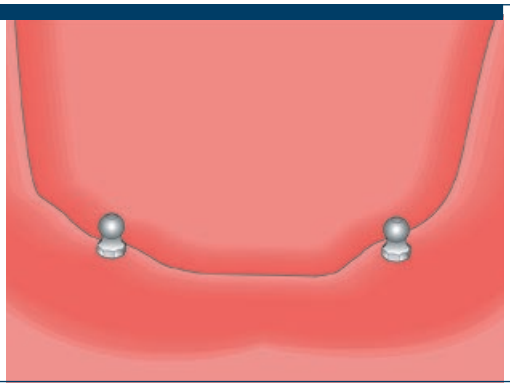
Situation in the mouth after modification

Now the individually custom-made crown can be cemented by using an acrylic positioning aid to a precise fit.

BICORTICAL® Implant with Ball Post

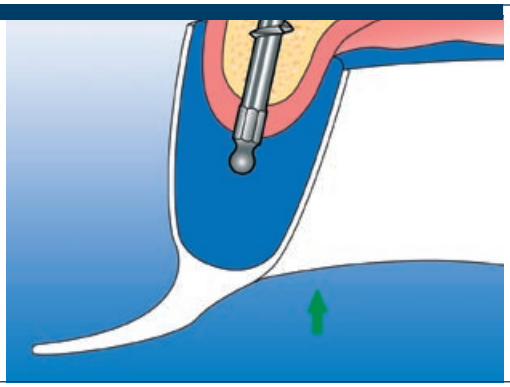
1 Impression

The impression of the Bicortical Implant with ball post is taken directly on the ball post.



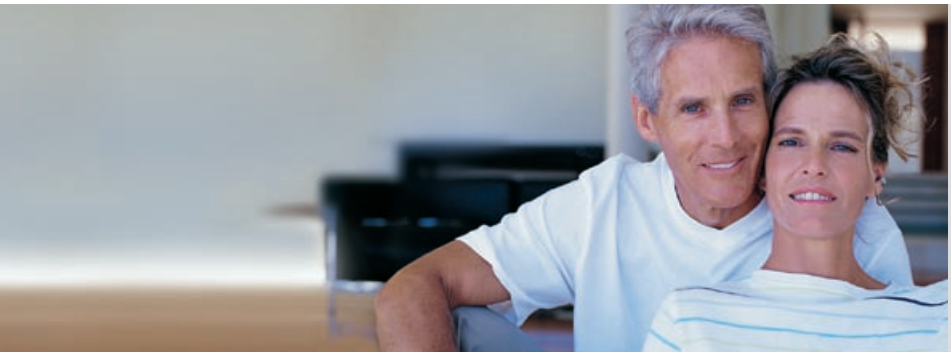
Situation in the mouth

Two Bicortical Implants with ball post in region 33/43 for anchoring a mandibular full denture



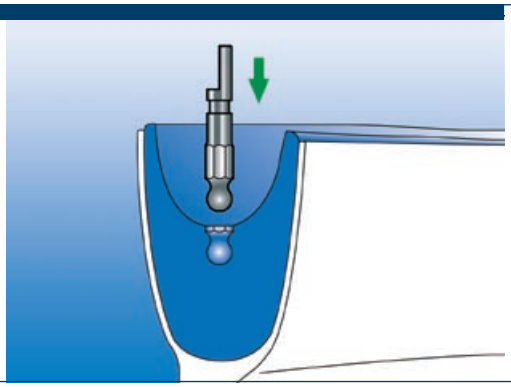
Impression taking

Direct impression of the ball post with an individual impression tray

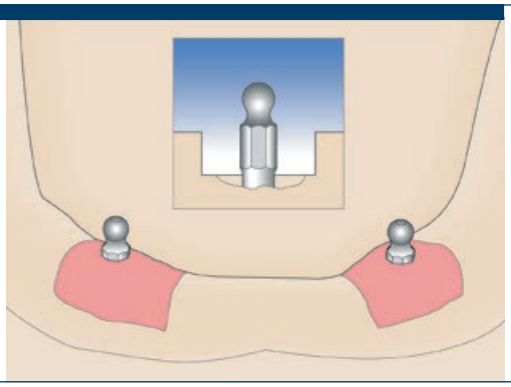


2 Model preparation

For direct impression on the ball post, the corresponding model analog is fixed directly in the impression. The impression is casted with a Class 4 plaster material. After curing of the plaster, the impression tray is removed from the model. An artificial gingiga is not required in this case.



The model implant with ball post is placed directly into the impression



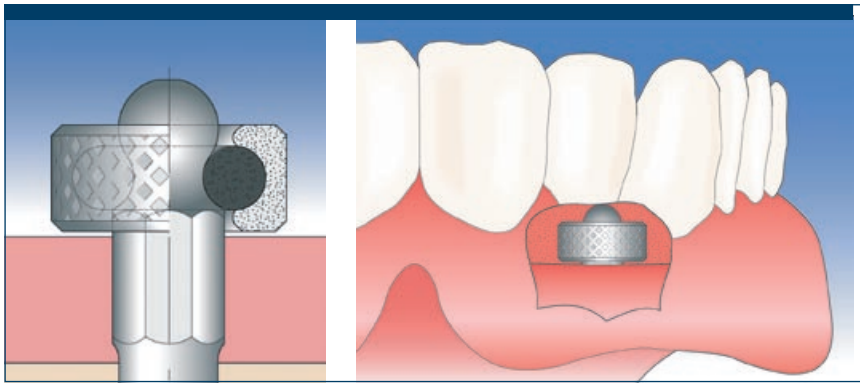
Model situation of the lower jaw with two ball post Bicortical Implant model analogs in region 33/43

3 Wax-up

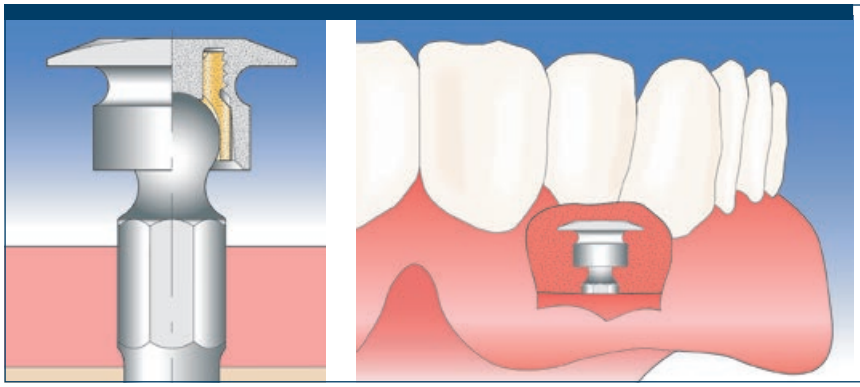
After preparing a wax-up of the mandibular full denture, the trial insertion is performed in the mouth of the patient. The denture is prepared and finalized as usual (e.g. invested in a flask).

4 Final insertion

For anchoring the full denture, two modalities are at your choice.
The wax-up is transferred to acrylic according to usual procedures.

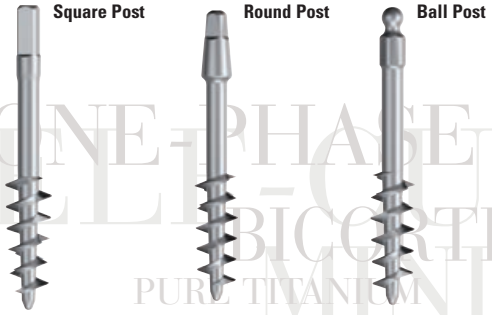


The metal ringhousing with O-ring



The retention cap Dalbo®-PLUS elliptic with lamellae retention insert

BICORTICAL® Prosthetics



Innovative products

- PITT-EASY®
- ENDOPORE®
- BICORTICAL®
- BIORESORB®
- CYTOPLAST®

INNOVA – ORALTRONICS – ATTACHMENTS
A World of Implant Solutions

The dental implant platform of Sybron Dental Specialties (SDS) brings over 85 years of combined experience in design and manufacturing of proprietary implant systems to the dental implant market.

Delivering two of the most respected, leading-edge dental implants on the market – ENDOPORE® and PITT-EASY® – we are giving you access to a world of implant solutions.

ORALTRONICS® Dental Implant Technology GmbH

Herrlichkeit 4 · 28199 Bremen · Germany
Phone +49 421 43939-0 · Fax +49 421 443936
www.oraltronics.com · info@oraltronics.com

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