

INNO Implant Submerged System

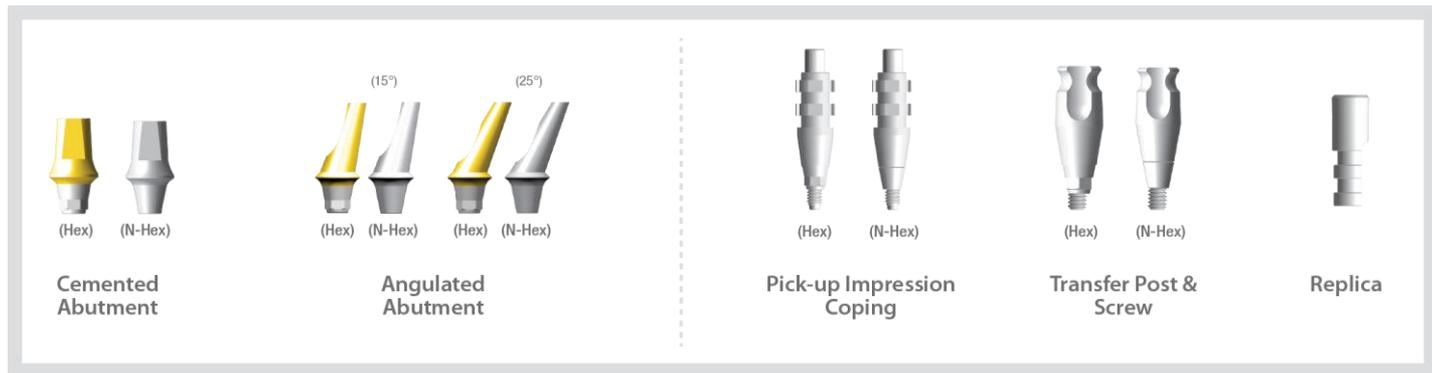
PROSTHETIC MANUAL



Cemented / Angulated Abutment

Prosthesis Summary

1. Impression taking method : Pick-Up Impression Coping
2. Prosthesis materials : PFM (Porcelain Fused to Metal)
3. Prosthesis retaining method : Cement Retain or SCRIP



1. Removal of Cover Screw and Healing Abutment.

Remove Cover Screw or Healing Abutment using a 1.2 Hex Ratchet Driver.



Healing Abutment in place.



Remove the Healing Abutment using a 1.2 Hex Ratchet Driver.

2. Using Pick-up Impression Coping

Connect Pick-up Impression Coping to internal fixture using a 1.2 Hex Ratchet Driver and fasten the Guide Pin. Check for accurate joining of Impression Coping and fixture.



Place Pick-up Impression Coping.



Tighten using a 1.2 Hex Ratchet Driver.

3. Impression Taking

Make an appropriate hole for the head of the Guide Pin to be exposed outside the prepared resin tray.

Then place the tray to check if the head of the Guide Pin is showing through that hole.

For precise impression taking, fix the Impression Coping with resin.

Inject light body impression material around the Pick-up Impression Coping, and apply adhesive to the resin tray.

Fill the tray using sufficient amount of heavier impression material, then position the tray accurately into the oral cavity and take the impression.

Once the impression material is set, release the Guide Pin and remove the tray from the mouth.

Check for any problems with the impression and remove any remaining bone debris or soft tissue.



Check the position of Guide Pin.



Apply impression materials to tray.



Apply impression materials after extracting Guide Pin.



Check inside the tray after removal.

4. Seating Replica

While locking the Guide Pin to the Impression Coping inside the impression using 1.2 Hex Ratchet Driver, connect the Replica accurately.

Make sure to check that Replica has been accurately connected to the coping.

If the Impression Coping moves inside the impression, an inaccurate prosthesis will result, requiring another impression to be taken.



Connect Replica to the Impression Coping.



Fix the Replica and fasten the Guide Pin.



After taking the impression, place the Healing Abutment.

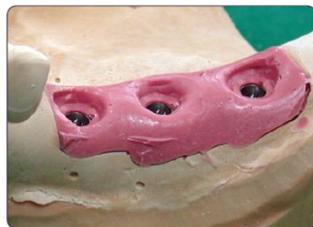
5. Fabrication of working model

Form artificial gum around the Replica, and pour mixed stone to produce a working model.

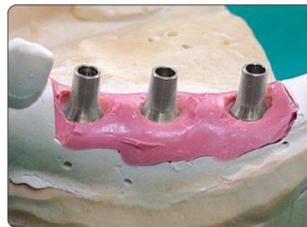
Accurately fasten Cement Abutment that is consistent with the Replica of the working model.



Form soft tissue with gum Around the Replica and carry out a boxing with wax.



Final working model.



Final model with Cement Abutment

6. Wax-Up, Casting & Porcelain Build-Up

Connect the abutment to remaining Replica or dummy fixture and produce resin cap outside the model.
After grinding roughness on the cap, carry out the wax-up.
When necessary, carry out a full wax-up and take an index.
Carry out cut-back and check the suitability of the metal coping.

1) Cementation



Production of resin cap.



Wax-up



Cut-back



Completion of metal coping.



Completed prosthesis..



2) SCRIP



7. Fabrication of transfer jig and fastening of abutment to stone model.

Connect the abutment to remaining Replica or dummy fixture and produce resin cap outside the model.

After grinding roughness on the cap, carry out the wax-up.

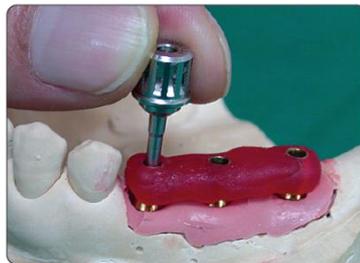
When necessary, carry out a full wax-up and take an index.

Carry out cut-back and check the suitability of the metal coping.

1) Cementation



Transfer jig and abutment
Produced with pattern resin.



Seat the abutment to stone model
using 1.2 Hex Ratchet Driver.



Connect the completed prosthesis
to the stone model.



Check the fitness and margin
by seating the final prosthesis.

2) SCRP



8. Delivery and seating of final prosthesis in oral cavity

Position the abutment in the mouth accurately using a transfer jig and seat it using 1.2 Hex Driver. Radiographically verify the correct seating of the abutment and fixture.

Tighten it using 1.2 Hex Driver and Torque Wrench to 25N.cm.

After checking the passive fit status of the prosthetics margin, proper contact with adjacent teeth, and occlusion of opposing dentition, carry out cementation of final prosthetics on abutment and seat the final prosthetics.

1) Cementation



Tighten to a value of 25N.cm using Torque Wrench.



Fill the screw hole with cotton or a material of surgeon's choice.



Cementation



Seated final prosthesis.

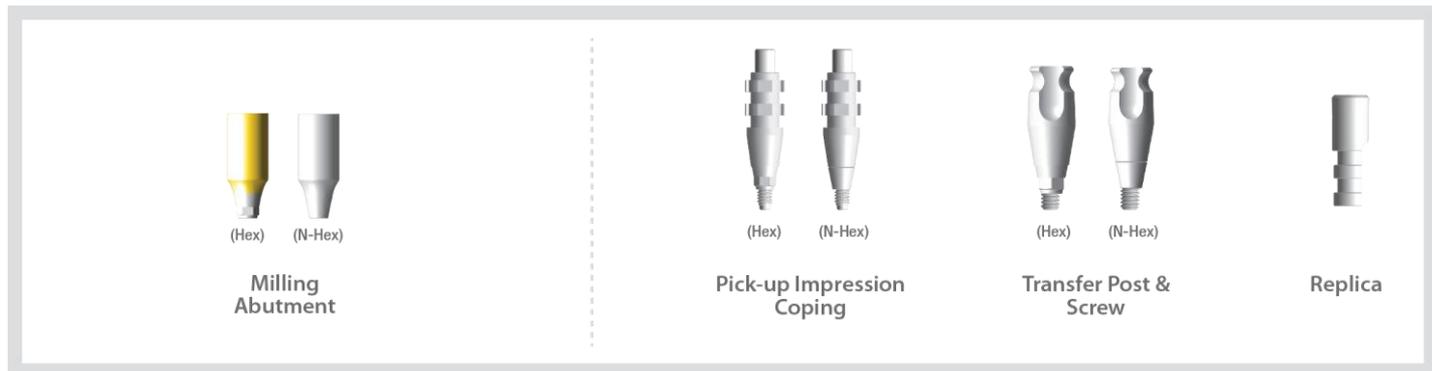
2) SCRP



Milling Abutment

Prosthesis Summary

1. Impression taking method : Pick-Up Impression Coping
2. Prosthesis materials : PFM (Porcelain Fused to Metal)
3. Prosthesis retaining method : Cement Retain



1. Removal of Cover Screw and Healing Abutment

Remove Cover Screw or Healing Abutment using a 1.2 Hex Ratchet Driver.



Healing Abutment in place.



Remove the Healing Abutment using a 1.2 Hex Ratchet Driver.

2. Using Pick-up Impression Coping

Connect Pick-up Impression Coping to internal fixture using a 1.2 Hex Ratchet Driver and fasten the Guide Pin. Check for accurate joining of Impression Coping and fixture.



Place Pick-up Impression Coping.



Tighten using a 1.2 Hex Ratchet Driver.

3. Impression Taking

Make an appropriate hole for the head of the Guide Pin to be exposed outside the prepared resin tray.

Then place the tray to check if the head of the Guide Pin is showing through that hole.

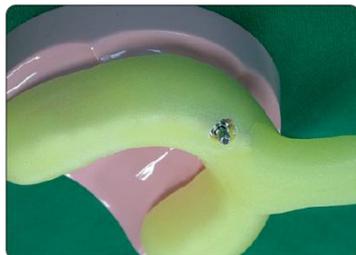
For precise impression taking, fix the Impression Coping with resin.

Inject light body impression material around the Pick-up Impression Coping, and apply adhesive to the resin tray.

Fill the tray using sufficient amount of heavier impression material, then position the tray accurately into the oral cavity and take the impression.

Once the impression material is set, release the Guide Pin and remove the tray from the mouth.

Check for any problems with the impression and remove any remaining bone debris or soft tissue.



Check the position of Guide Pin.



Apply impression materials to tray.



Apply impression materials after extracting Guide Pin.



Check inside the tray after removal.

4. Seating Replica

While locking the Guide Pin to the Impression Coping inside the impression using 1.2 Hex Ratchet Driver, connect the Replica accurately.

Make sure to check that Replica has been accurately connected to the Coping.

If the Impression Coping moves inside the impression, an inaccurate prosthesis will result, requiring another impression to be taken.



Connect Replica to the Impression Coping.



Fix the Replica and fasten the Guide Pin.



After taking the impression, place the Healing Abutment.

5. Working model production and Abutment Milling

Form artificial gum around the Replica, and pure stone mix to produce a working model.

Accurately seat Milling Abutment that is consistent with the Replica of the working model.

Mark the area to be deleted and carry out milling.



Form soft tissue with gum Around the Replica.



Final model for prosthesis.



Marking of area to be milled.



Abutment Milling.



Abutment seating.



Finished Milling Abutment.

6. Wax-Up, Casting & Porcelain Build-Up

Fabricate resin cap on the working model using pattern resin.

After grinding roughness on the cap, carry out the wax-up.

When necessary, carry out a full wax-up and take an index to carry out cut-back.



Fabrication of resin cap.



Wax-up



Cut-back



Sprue



Completion of metal coping.



Completed prosthesis.

7. Production of transfer jig

Place the abutment using 1.2 Hex Ratchet Driver.

Then form pattern resin and make transfer jig.

Transfer jig facilitates easier and more accurate seating of abutment.



Making of transfer jig.



Abutment linked to transfer jig.

8. Delivery and seating of final prosthesis in oral cavity

Position the abutment in the mouth accurately using a transfer jig, and seat it using 1.2 Hex Driver.

Radiographically verify the correct seating of the abutment and fixture.

Tighten it using 1.2 Hex Driver and a Torque Wrench to value of 25N.cm at a specified interval more than three times.

After checking the passive fit status of the prosthetics margin, proper contact with adjacent teeth and occlusion of opposing dentition, carry out cementation of final prosthetics on abutment and seat the final prosthetics.



Delivery with 1.2 Hex Driver.



Seat the abutment to 25N.cm.



Filling screw hole with resin.



Cementation

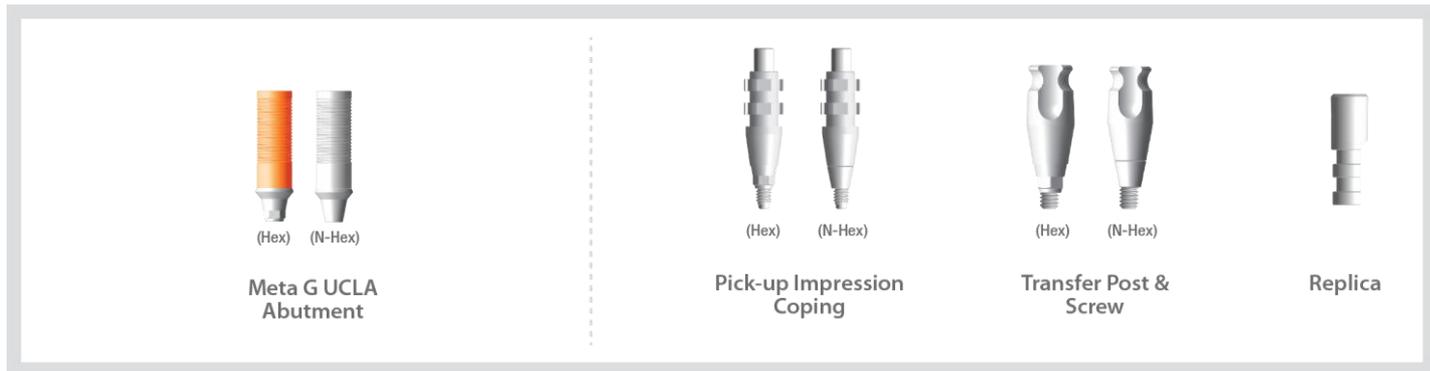


Remove remaining cement and complete final prosthesis.

UCLA Abutment

Prosthesis Summary

1. Impression taking method : Pick-Up Impression Coping
2. Prosthesis materials : PFG (Porcelain Fused to Metal)
3. Prosthesis retaining method : Screw Retain



1. Removal of Cover Screw and Healing Abutment

Remove Cover Screw or Healing Abutment using a 1.2 Hex Ratchet Driver.



Healing Abutment in place



Remove the Healing Abutment using
a 1.2 Hex Ratchet Driver

2. Using Pick-up Impression Coping

Connect Pick-up Impression Coping to internal fixture using a 1.2 Hex Ratchet Driver and fasten the Guide Pin. Check for accurate joining of Impression Coping and fixture.



Place Pick-up Impression Coping.



Tighten using a 1.2 Hex Ratchet Driver.

3. Impression Taking

Make an appropriate hole for the head of the Guide Pin to be exposed outside the prepared resin tray. Then place the tray to check if the head of the Guide Pin is showing through that hole.

For precise impression taking, fix the Impression Coping with resin.

Inject light body impression material around the Pick-up Impression Coping, and apply adhesive to the resin tray.

Fill the tray using sufficient amount of heavier impression material, then position the tray accurately into the oral cavity and take the impression.

Once the impression material is set, release the Guide Pin and remove the tray from the mouth.

Check for any problems with the impression and remove any remaining bone debris or soft tissue.

Seat Healing Abutment for Semi-Healing period.



Check the position of Guide Pin.



Apply impression materials after extracting Guide Pin



Check inside the tray after removal.



Seat Healing Abutment.

4. Seating Replica

While locking the Guide Pin to the Impression Coping inside the impression using 1.2 Hex Ratchet Driver, connect the Replica accurately.

Make sure to check that Replica has been accurately connected to the Coping.

If the Impression Coping moves inside the impression, an inaccurate prosthesis will result, requiring another impression to be taken.

Create artificial gum around Replica, and pour mixed stone to create working model.



Connect Replica to the Impression Coping.



Fix the Replica and tighten the Guide Pin.



Completed Replica placement.

5. Fabrication of working model

Form artificial gum around the Replica, and pour mixed stone to produce a working model.



Form soft tissue with gum
Around the Replica and carry
out a boxing with wax.



Final working model.

6. Seating Abutment and Resin connection on working model

Use 1.2 Hex Ratchet Driver to seat the abutment.

Adjust Plastic Sleeve to proper height, and connect abutments with pattern resin to prevent movement.



Abutment seating.



Abutment Cutting.



Connection with resin.

7. Wax-Up & Casting

Create a screw hole after wax-up. Create bead on buccal surface, and cast.



Wax-up



Spruing



Casting



Resin filling.



Finished Prosthesis.

8. Delivery and seating of final prosthesis in oral cavity

Seat the polished final prosthesis to 25N.cm using 1.2 Hex Ratchet Driver.

After carefully checking proper margin, contact, and occlusion, fill the screw hole with resin.



Seat final prosthesis.



Tighten Coping Screw.



Tighten using Torque Wrench.

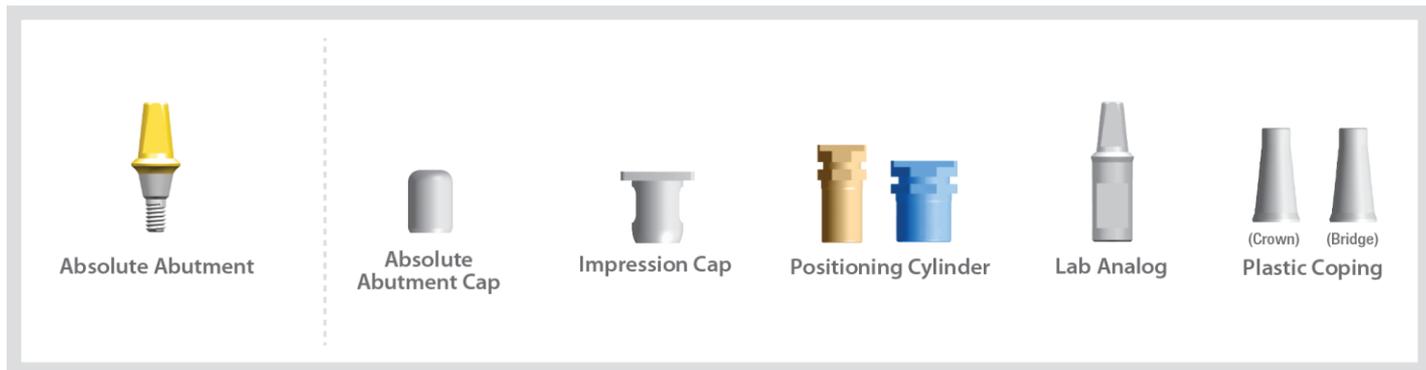


Seated final prosthesis.

Absolute Abutment

Prosthesis Summary

1. Impression taking method : Indirect Impression Technique
2. Prosthesis materials : PFM (Porcelain Fused to Metal)
3. Prosthesis retaining method : Cement Retain



1. Separation of Cover Screw and Healing Abutment

Separate Cover Screw or Healing Abutment using a Hex Ratchet Driver.



Healing Abutment in place.



Remove the Healing Abutment using a 1.2 Hex Ratchet Driver.

2. Selection and seating Absolute Abutment

After checking the gingival height of the patient, select abutment with proper cuff height and diameter. Then the proper size abutment is seated using Shoulder Driver. Using a Torque Wrench, tighten it to maximum of (25 Newton per centimeter) 25N.cm torque. Abutment height can be adjusted using a disc to either 4mm or 5.5mm cutting line. Lab Analog should also be adjusted to same height accordingly.

1) When abutment milling is not necessary



Tighten with Torque Wrench. (25N.cm)



Seated abutment.



Cut Abutment. (5.5mm)



Cut Lab Analog. (5.5mm)



Cut Abutment and Lab Analog in consistent length.

2) Abutment milling



Cut the abutment to desired length. (4mm / 5.5mm Cutting Line)



Cut the Lab Analog consistent with abutment.

3. Impression

Snap on the cap by pressing firmly onto the implant. After semi-healing period, position the Impression Cap that is same size as the abutment being used. Place the Positioning Cylinder to the abutment inside the seated Impression Cap. When restoring a crown, make sure to match the anti-rotation section of the abutment to the anti-rotation section of Positioning Cylinder. Pour sufficient amount of impression material around the Impression Cap using an injection syringe.

Position the filled tray with the impression material into the oral cavity, and take the impression accurately. After removing the tray check for blood stains and other remaining debris etc. in the impression, then Absolute Abutment Cap is snapped onto the abutment in the mouth.

1) Indirect impression (Using Impression Cap and Positioning Cylinder)



Snap on the Cap, and have semi healing period.



Seat Impression Cap.



Seat Positioning Cylinder.



Apply sufficient impression Materials around the Impression Cap.



View of obtained impression.



Snap on the Cap after taking impression.

2) Direct impression (In many cases, you can directly apply impression materials to abutment and take the impression)



Apply the impression materials around the abutment after removing the Cap.



Take the impression.



View of obtained impression.

4. Using Lab Analog

In case of indirect impression, place the Lab Analog into the impression or Plus Plastic Coping that are located inside the impression until it snaps on and feels stable both vertically and laterally. Form gum around the Lab Analog and inject stone to complete work model.

In case of direct impression, carry out boxing with a wax on the impression and inject stone to complete work model.

1) Indirect impression



Place Lab Analog into coping.



Snapped on Lab Analog.

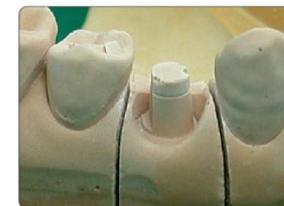


Completed stone model.

2) Direct impression



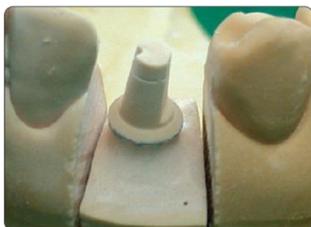
Carry out boxing with wax to
Pour stone mix.



Completed stone model.

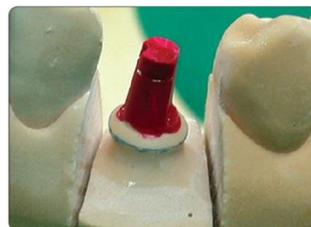
5. Fabrication of working model

To obtain margin, carry out margin trimming and make a line to check margin. Apply hardener and die spacer on the margin to grant gap of cementation.



Margin trimming

To obtain margin, carry out margin trimming and make a line to check margin.



Giving cement gap

Spread hardener on margin and apply die spacer. (giving cement gap)

6. Wax-up, casting & porcelain build-up

Carry out the wax-up. Where necessary carry out a full wax-up. Then obtain an index and carry out cut-back and casting to complete the metal coping. Complete the final prosthetics by porcelain build-up.



Wax-up



Cut-back



Sprue



Completed metal coping.



Completed prosthetics.

7. Delivery and seating of final prosthesis in oral cavity

After checking the passive fit, prosthetics margin, proper contact with adjacent teeth, and occlusion of opposing dentition, carry out cementation of final prosthetics on the abutment, and seat the final prosthetics.



Check correct margin of final prosthesis on the model.



Check suitability of soft tissue on the model.



Cementation



Remove remaining cement and adjust occlusion to complete prosthesis delivery.

Straight Abutment

Prosthesis Summary

1. Impression taking method : Direct Impression Technique
2. Prosthesis materials : PFM (Porcelain Fused to Metal)
3. Prosthesis retaining method : Cement Retain



Straight Abutment

1. Removal of Cover Screw and Healing Abutment

Remove Cover Screw or Healing Abutment using a 1.2 Hex Ratchet Driver.



Healing Abutment in place.



Remove the Healing Abutment using a 1.2 Hex Ratchet Driver.

2. Selection and seating Straight Abutment

Connect abutment using a Shoulder Driver and using a Torque Wrench, tighten it to a maximum of (25 Newton per centimeter) 25N.cm torque. Cut it consistent with length and path (Remove in the basis of cutting line of 4/5.5/7mm). This type is mostly used in limited space of mandible anterior.



Connection of abutment.



Tightening with Torque Wrench.



Seated abutment.



Abutment milling.

3. Direct impression

Fill sufficient amount of impression material around the abutment using an injection syringe. Position the filled tray with the impression material into the mouth, and take the impression accurately. After removing the tray, check for blood stains and other remaining debris etc. in the impression. Then snap on the abutment cap.



Apply impression materials around abutment.



View of obtained impression.

4. Fabrication of working model

Carry out boxing to the impression using wax. Inject stone and complete working model. To obtain margin, carry out margin trimming and make a line to check margin. Apply hardener and die spacer on the margin to grant gap of cementation. (giving cement gap)



Carry out the wax-up to pour stone mix.



Completed work model.



Margin check.



Applied die spacer.

5. Wax-up, casting & porcelain build-up

Carry out the wax-up. When necessary, carry out a full wax-up. Then obtain an index and carry out cut-back, and casting to complete the metal coping. Complete the final prosthetics by porcelain build-up.



Wax-up



Cut-back



Sprue



Completed metal coping.



Completed prosthetics.

6. Delivery and seating of final prosthesis in oral cavity

After checking the passive fit, prosthetics margin, proper contact with adjacent teeth, and occlusion of opposing dentition, carry out cementation of final prosthetics on the abutment, and seat the final prosthetics.



Cementation

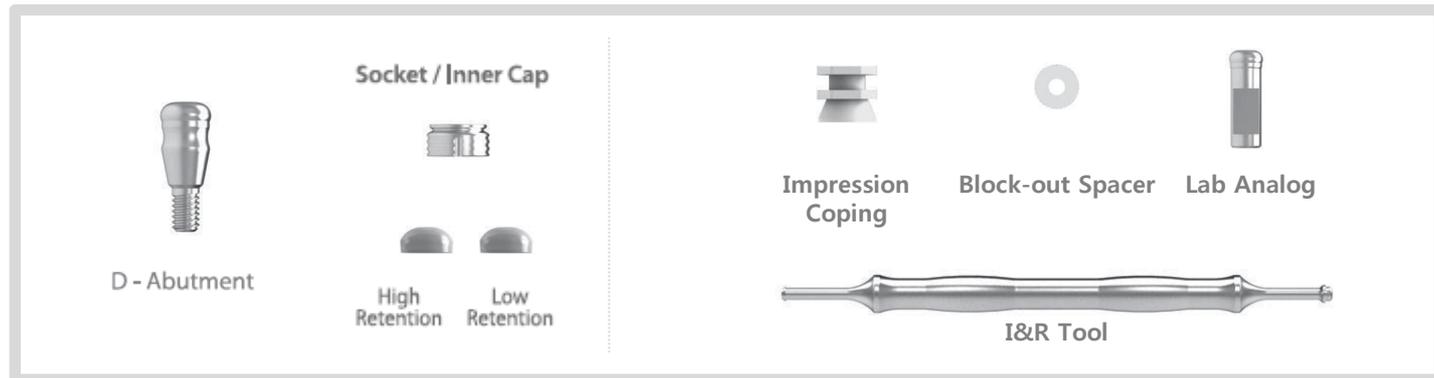


Remove remaining cement, and adjust occlusion to complete prosthesis delivery.

D Abutment

Prosthesis Summary

1. Impression taking method : Indirect Impression Technique
2. Prosthesis materials : Wax, Resin



1. Primary Impression Taking at Dental Clinic



Connect a D-Abutment to Fixture using 1.2 Hex Driver



Connect an impression coping for impression taking to a D-Abutment.



Impression taking using a ready-made tray



Inside of the impression taken

2. Individual Tray Preparation at a Dental Laboratory



Relief process using wax to make an individual tray on the working cast for preparing an individual tray



Resin mix for the individual tray



Preparation of an individual tray



Completed individual tray

3. Final Impression Taking at a Dental Clinic



Individual tray adaptation in the oral cavity



Application of adhesives on the individual tray



Application of impression materials on the individual tray



Application of the impression materials around the D-abutment in the oral cavity



Intraoral impression is being taken



Impression taking is completed



Impression taking is completed



4. Working Cast Preparation at a Dental Lab for Preparing Denture



Lab analog is connected to inside the impression.



Stone injection into the impression



Stone injection into the impression is completed.



Working cast is completed



Completed working cast



Working cast is completed



Working cast is completed



Denture preparation according to the completed working cast



※ A metal frame for strength reinforcement can be used for denture preparation (Replaced with a gypsum photo.)

5. Intraoral Denture Installation at Dental Clinic



Preparation of a socket (female) space inside the denture



A block-out spacer is connected to the D-abutment in the oral cavity.



An inner cap is connected to the socket using insert & remove tools (High Retention / Low Retention is selected.)



Connect the socket to the D-abutment.



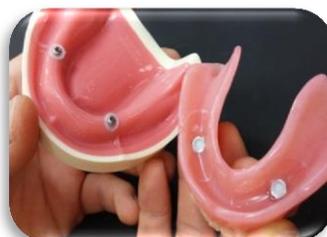
Resin application in the space for the socket inside the denture



Resin application on the surrounding areas of the D-abutment



Waiting for the resin to be cured after the denture is adapted in the oral cavity



Separate the denture after the resin is completely cured



Separate the block-out spacer in the oral cavity

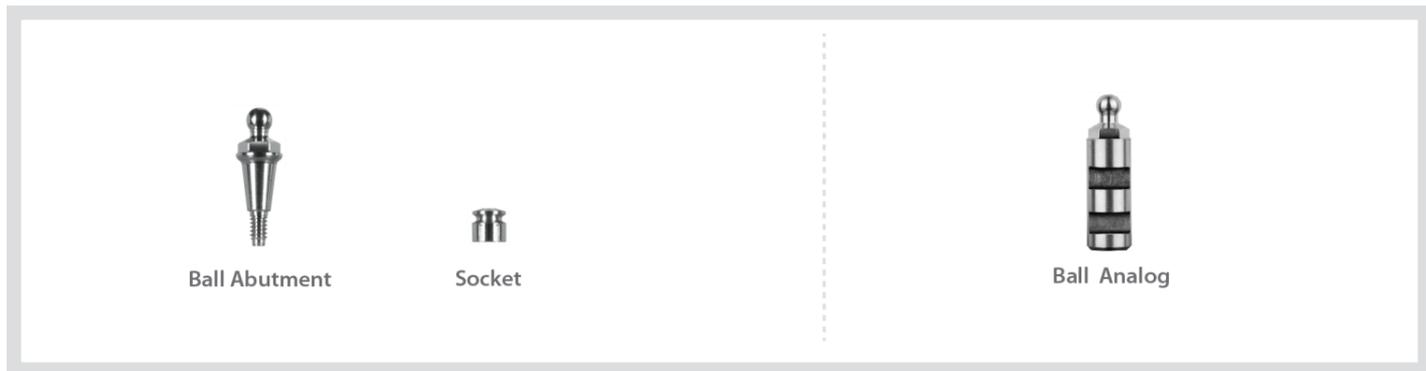


Denture preparation is completed for installation

Ball Abutment

Prosthesis Summary

1. Impression taking method : Indirect Impression Technique
2. Prosthesis materials : Wax, Resin



1. Removal of Cover Screw and Healing Abutment

Remove Cover Screw or Healing Abutment using a 1.2 Hex Ratchet Driver.



Healing Abutment in place.



Remove the Healing Abutment using a 1.2 Hex Ratchet Driver.

2. Selection and Connection of the Ball Abutment

After the abutment is connected using a ball driver, tighten it at 25 N.cm using a torque wrench.



Connection of abutment.



Tightening with Torque Wrench.



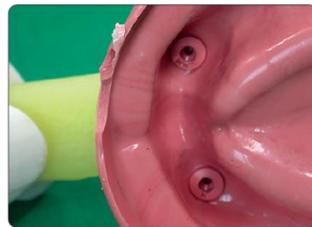
Seated abutment.

3. Impression Taking

After the impression material is sufficiently injected around the abutment using an injection syringe, the tray filled with the impression material is placed in the oral cavity to take an impression. The blood and other remnants attached to the impression are removed.



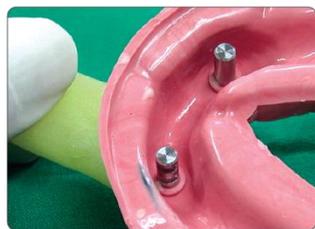
Apply impression materials around abutment.



View of obtained impression.

4. Fabrication of working model

After the analog is connected to the interior of the impression, the stone is injected using wax boxing to complete a working model.



Connection of analog



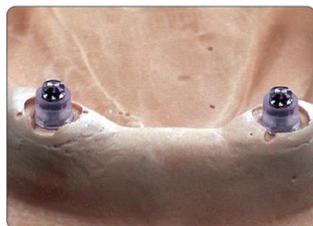
Completed work model.

5. Making Denture

1) When the height of the gingiva is sufficient or the socket position is secured

A socket is attached to the completed working model. For the blockout in the attached area, a primary heavy body impression material is applied and the blockout is conducted using gypsum in the area where the impression material is applied.

After a wax rim is prepared, the teeth are mounted on the dentition to complete the denture.



Connection of the socket



Impression material application



Block-out



Wax rim preparation



Mounting



Inside the denture after the mounting



Completed denture



Completed interior of the denture

2) Application to regular denture preparations

After the healing abutment is connected, a wax rim is prepared for the denture. After the tooth mounting is completed, the denture is completed.

An intra-orally connected die spacer is made and the denture is positioned for marking. At the marked position, a space for the resin is secured using a bur.



After the healing abutment is connected, an intra-oral impression is taken



Wax rim preparation



Mounting



Inside the denture after the mounting



Completed denture



Inside the completed denture



Marking with a Die Spacer



Position marking



Marked position



Securing the space for resin



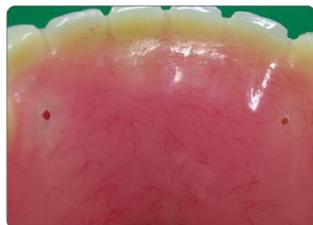
Completed denture

6. Intra-oral Denture Mounting (Common)

A hole is made on the denture to allow the resin to be released and the space is applied with self-curing resin. Then the intra-oral abutment is connected with socket, and the denture is connected.

While the resin hardens, the release of the resin through the hole is confirmed.

When the resin has hardened, the resin around the socket is thoroughly removed to complete the connection of the intra-oral abutment.



Hole preparation



Resin application



socket connection



Intra-oral connection



Confirmation of the resin exposure



Removal of the resin around the socket



Denture connection



Connected denture

For Simpler, Speedier, Safer & Superior Dentistry

Cowellmedi Co., Ltd.

The pioneers of world's E.rhBMP-2 & Korean dental implant



CWM
Cowellmedi Co., Ltd.
For Simpler, Speedier, Safer & Superior Dentistry