

Internal

Implant System

Prosthetic Manual

Cemented / Temporary / Angled / UCLA Gold / Solid / Ball Abutment

Internal *Implant System*

Prosthetic Manual

Cemented / Temporary / Angled / UCLA Gold / Solid / Ball Abutment

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Cemented Autment system

- 1) Used for standard cement type prosthetic fabrication
- 2) Section embodiment to prevent prosthesis turning around
- 3) Secure 8° morse tapered connection construction
- 4) Uses 1.7 torx driver
- 5) Packing unit: abutment + abutment screw
- 6) Tightening Torque : 35N/cm

Step 1) Healing abutment separation .07

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Step 4) Attach the abutment and modification .11

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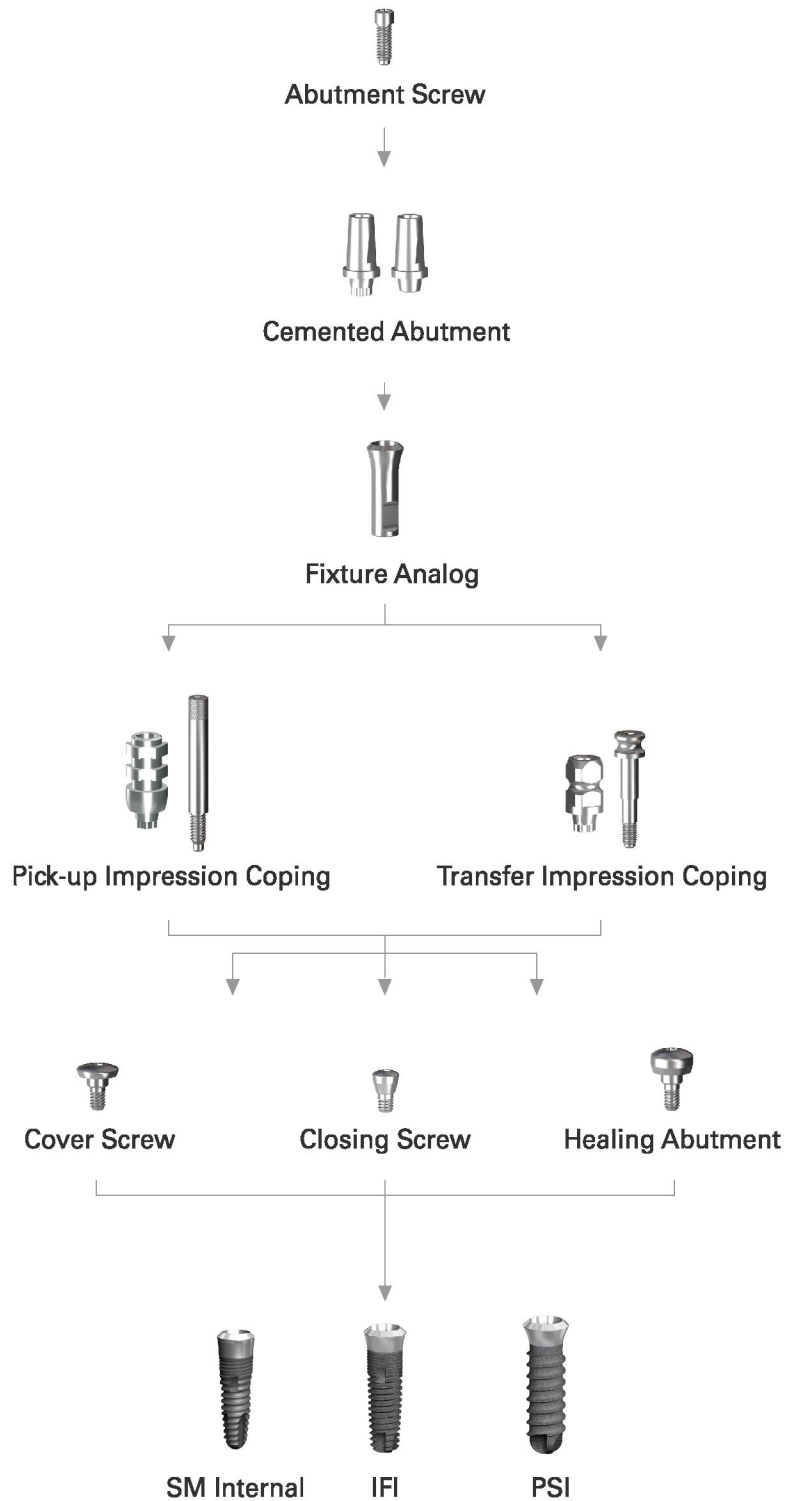
Step 6) Porcelain build-up & contouring .15

Step 7) Test Application in the Oral Cavity .16

Internal System

Flowchart

Cement-Retained Restorations - Cemented abutment



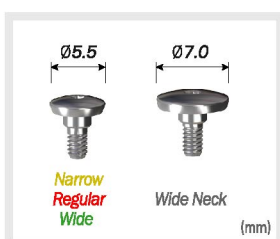


Clinical Procedure

Mandibular Posterior teeth: 6| Cemented type single (screw hole formation)
7| Cemented type single

Step 1) healing abutment separation

Separate healing abutment using 1.2 hex driver



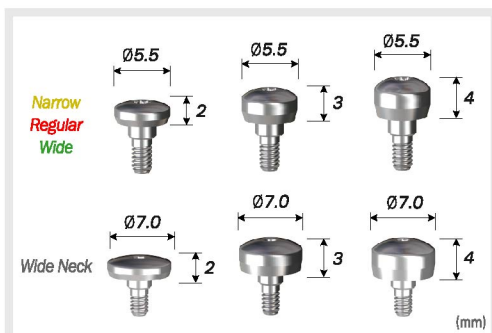
Cover screw

- Use 1.2 hex driver
- packing unit: cover screw
- Tightening torque : 5~8N/cm



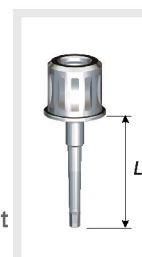
Closing screw

- Use in case of limited space with adjacent teeth or short of gum in suture.
- Use 1.2 hex driver
- packing unit: closing screw
- Tightening torque:5~8N/cm



Healing abutment

- Use 1.2 hex driver
- packing unit: healing abutment
- Tightening torque:5~8N/cm

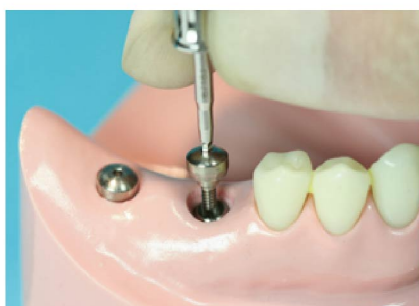


1.2 hex driver

- Type: 1.2 Hex
- Length: 5/10/15/20 mm



Healing abutment connected

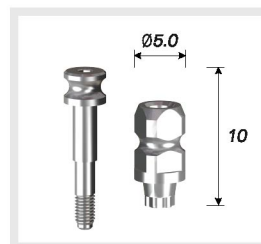
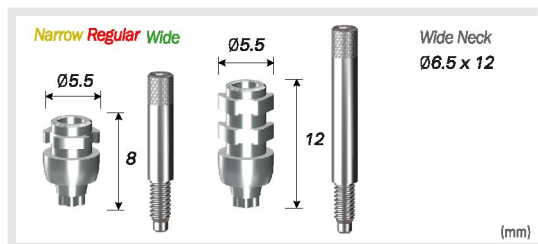


Remove healing abutment

Clinical Procedure

Step 2) Impression

Place the pick-up impression coping to the fixture with 1.2 hex driver. And check it with x-ray. After impression with custom tray and send antagonist tooth model, occlusion record, fixture analog, abutment to the laboratory.

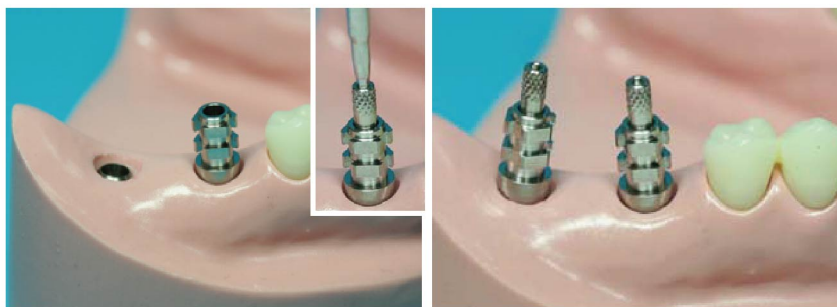


Pick-up Impression Coping

- Used for pick-up impressions with custom trays
- Minimizes distortion
- Long and short compositions available
- Uses 1.2 hex driver
- packing unit: impression coping + guide pin

Transfer Impression Coping

- Used for Transfer Type impressions with trays
- Popular three sides construction used in impressions
- Torx Type Two-pieces Construction
- Uses 1.2 hex driver
- packing unit: impression coping + guide pin



Placing Pick-up impression coping



Custom tray

Ensuring the correct position of hole & guide on the custom tray in the mouth



Applying the adhesive

Apply the adhesive materials inside of the custom tray for the impression to be fixed stably.



Mandibular Posterior teeth: 6| Cemented type single (screw hole formation)
7| Cemented type single

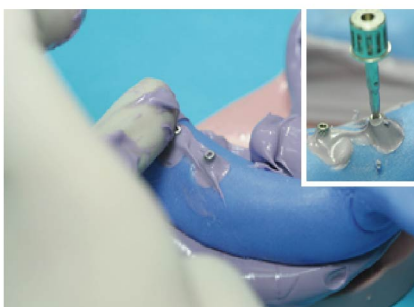


DIOSIL light body & DIOSIL heavy body



Impression Procedures

Inject the light body impression material around the impression coping and fill the tray with medium body impression material

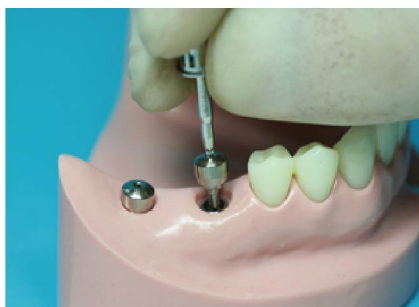


Remove guide pin

Remove the overflowed impression material to avoid the block out of the hole



Check coping status



Place healing abutment

After impression taking, re-place healing abutment on fixtures in the mouth.
(Tightening torque 5~8N/cm)

Internal System

Laboratory Procedure

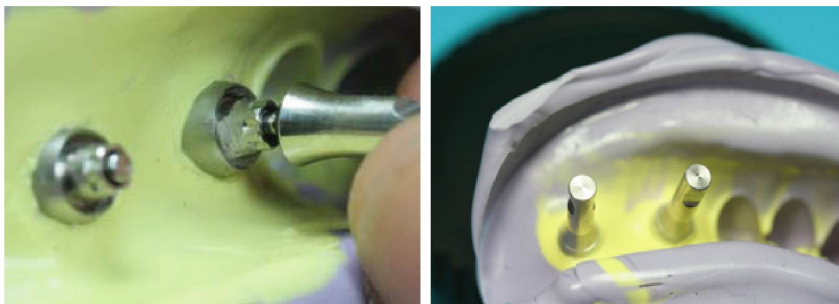
Step 3) Master model (Final working model)

Attach the impression coping to the fixture analog and fabricate the artificial gum around analog. And then, pour the dental stone to make the master model.



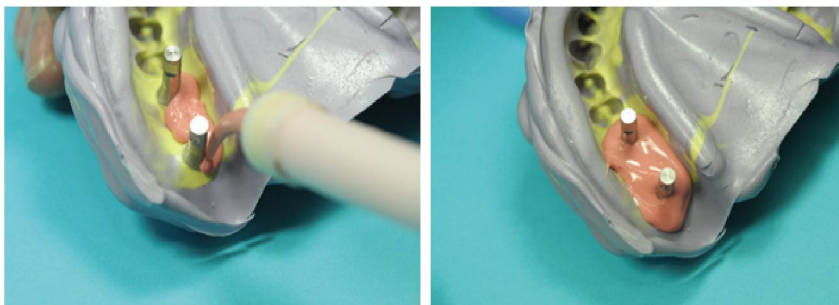
Fixture Analog

- Fixture embodiment on the working model in the mouth
- packing unit: Analog



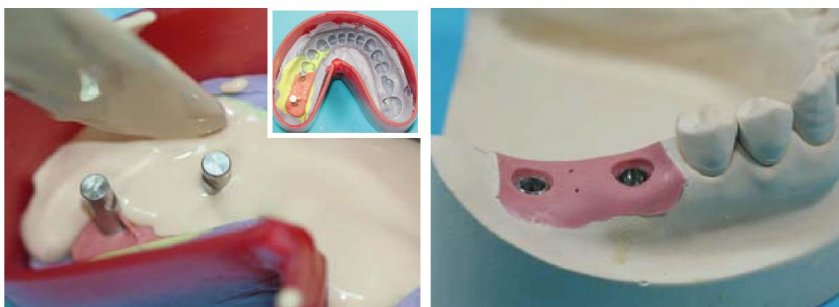
Attaching the Fixture analog

Note that impurities are not included between coping and analog



Artificial gum Fabrication

Inject the separator around fixture Analog In order to easily separate gum and analog.



Master model

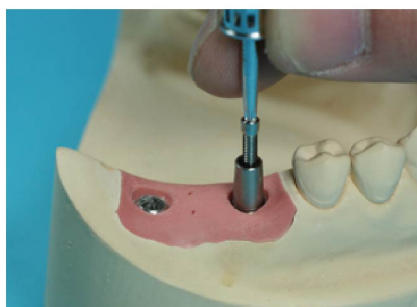
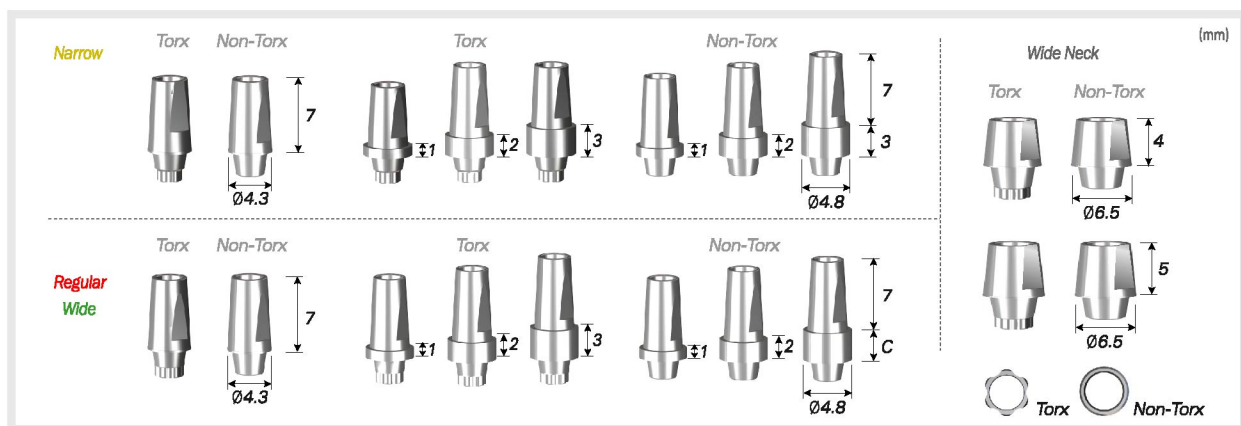
Pour the dental stone in the impression body after boxing the wax. After stone gets hardened, unscrew guide pin and remove the tray (Re-appear patient's oral cavity)



Mandibular Posterior teeth: $\overline{6}$ Cemented type single (screw hole formation)
 $\overline{7}$ Cemented type single

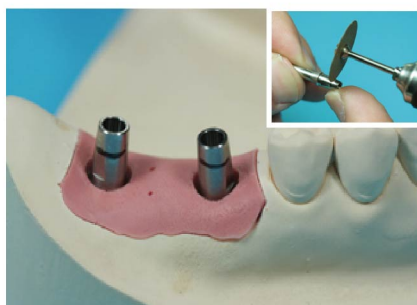
Step 4) Attach the abutment and modification

Attach an abutment chosen on an analog using 1.7 torx driver.
 (Enable to do milling abutments by its milling tool in consideration of insertion path and aesthetic position of margin. Regarding milling rotation frequency, it would be adjusted according to the quality of abutment material & bar condition. Through putting milling oil, the bar could be used for longer period without overheating.)



Attaching abutment

Attaching proper-high cemented abutment and checking itself



Abutment Modification

Adjusting abutment by disk through marking



Milling

Modify the abutment in accordance with insertion path and margin with the milling bur

Laboratory Procedure

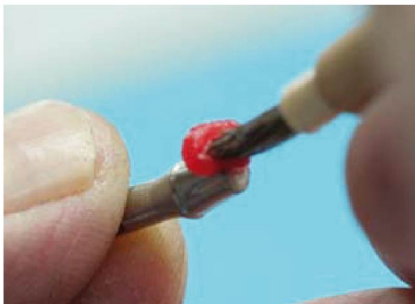
Step 5) Metal coping production

Block-out the screw hole of the abutment by wax and applying separator on abutment. After that, doing wax-up & resin-up for making the substructure of prosthesis. After Spruing, investment and casting process, checking the adaptation between cast framework and abutment.

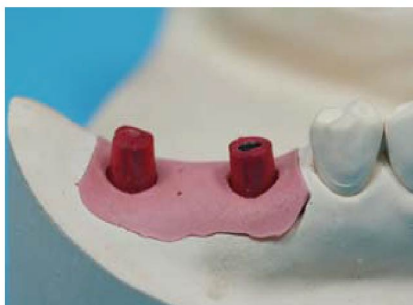


Applying separator

Applying rubber separator on abutment, it provides a room for cementing and taking a role as a separator



Applying GC pattern resin



Resin Modification



Wax-up

Forming screw hole with guide pin



Mandibular Posterior teeth: $\overline{6}$ Cemented type single (screw hole formation)
 $\overline{7}$ Cemented type single



Wax-up

Wax up in consideration of bite & proximal teeth



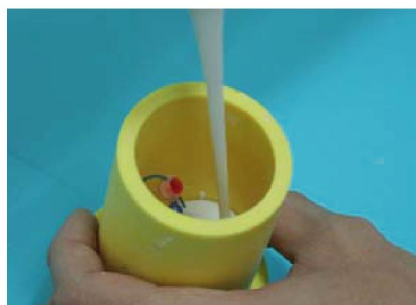
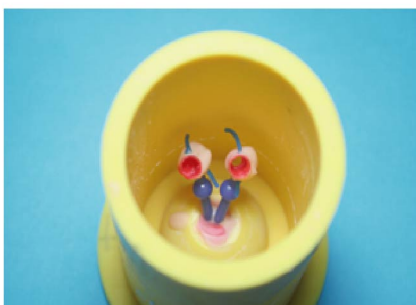
cut-back

Applying cut-back for equal thickness of Porcelain



Spruing

Applying Spruing on the cusp which is the most thickness



Investment



Casting

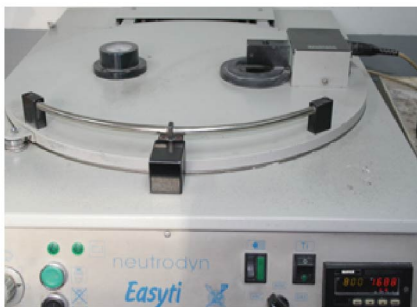
With centrifugal casting apparatus

Internal System

Laboratory Procedure



Spruing



With pressure device



Cast framework



Fitness



Sanding

After trimming cast framework by disk & carbide bur and then, doing sand blaster itself.



Cemented Abutment

Mandibular Posterior teeth: $\overline{6}$ Cemented type single (screw hole formation)
 $\overline{7}$ Cemented type single

Step 6) Porcelain build-up & contouring

Through degassing cast framework and the fortification of porcelain considering patient's tooth color, it would be properly adjusted according to patient's occlusion & harmony of adjacent teeth and then finally doing grazing it.



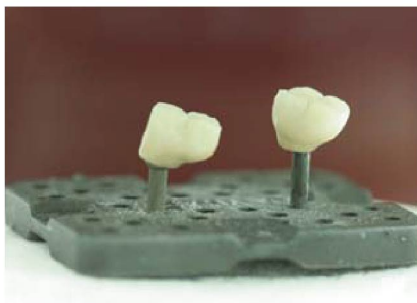
Opaque Spreading



1st Build-up Application
 Body, enamel powder fortification



2nd Build-up Application
 T-powder fortification



Plasticity
 Plasticize on fitting in the kind of dental porcelain.



Contouring
 Considerate the connection of bumped tooth and neighboring tooth, grazing after trimming of the form.

Clinical Procedure

Mandibular Posterior teeth: $\overline{6}$ Cemented type single (screw hole formation)
 $\overline{7}$ Cemented type single

Step 7) Test Application in the Oral Cavity

Making a transfer-jig to move the abutment put in the work frame into the same site of the oral cavity. Send the finished prosthetics together with jig to the medical office. After the separation of healing abutment equipped in the oral cavity, combine the cemented abutment. Block out the Screw hole using an impression material or a clip and join the prosthetics properly in cementizing. Complete the Screw hole by resin filling.



Transfer jig

Make a transfer jig and positioning it in the oral cavity after fixing an abutment on the transfer jig.



Abutment combine

Combine an abutment using 1.7 torx driver(30N/cm).



Cementation

Spread a cement in the internal face of the prosthetics after Screw hole block-out.



Resin filling



Angled Abutment system

- 1) Used in cases where prosthetic path adjustment is necessary (15°, 25°)
- 2) Two types of Angled abutment (torx A type and torx B type) enable the axis to be corrected 12 different alignments (in 30° graduations)
- 3) Secure 8° Morse tapered connection construction
- 4) Uses 1.7 torx driver
- 5) Packing unit: abutment + abutment screw
- 6) Tightening Torque : 30N/cm

Step 1) Remove the Healing abutment .19

Step 2) Impression .21

Step 3) Master model (Final working model) .22

Step 4) Attach the abutment and modification .23

Step 5) Fabricating the frame-work .24

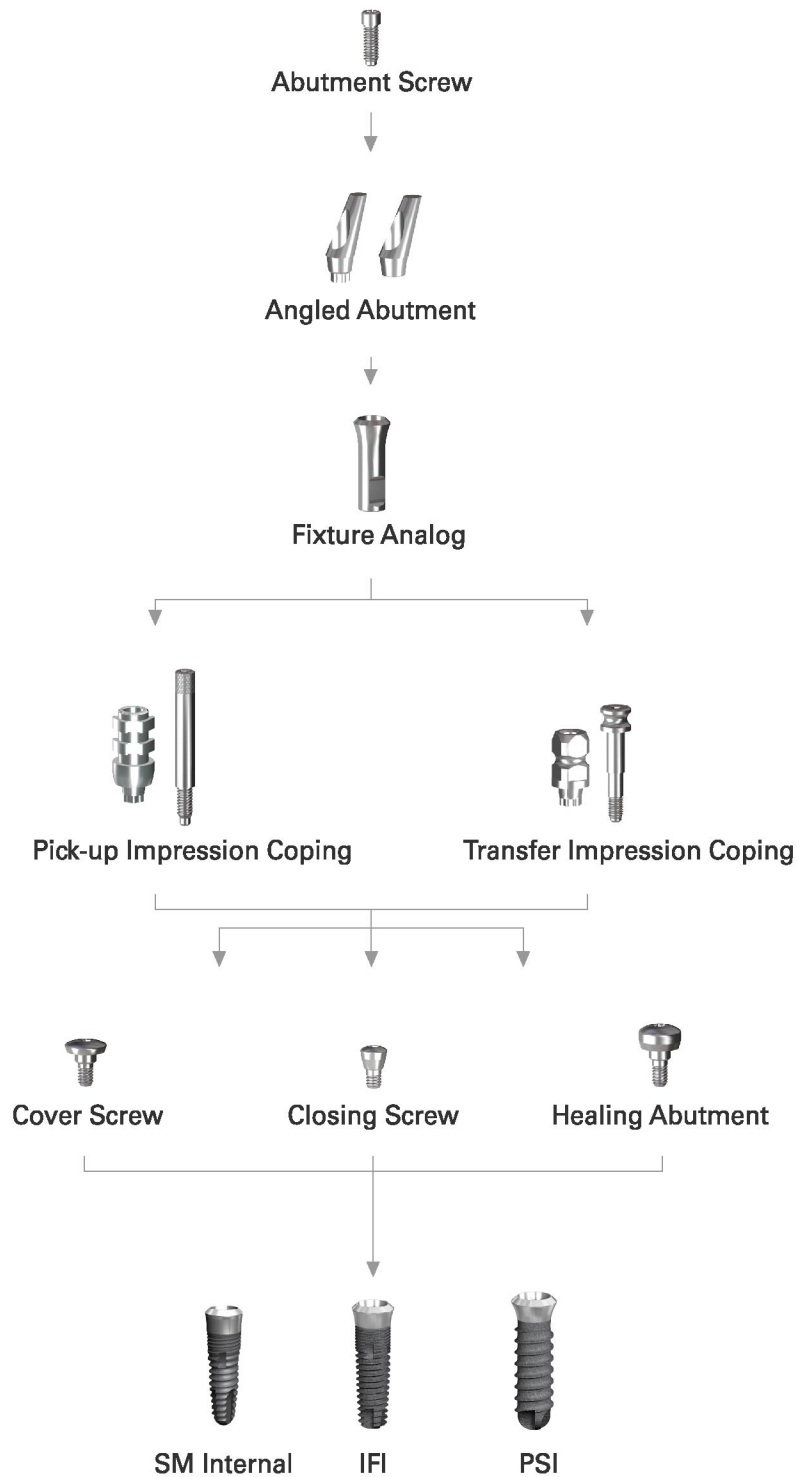
Step 6) Porcelain build-up & contouring .25

Step 7) Seating the final prosthesis on the patient's mouth .26

Internal System

Flowchart

Cement-Retained Restorations - Angled abutment



Angled Abutment

Clinical Procedure

Mandibular Posterior teeth: 1 Cement type single (regular platform)

Step 1) Remove the Healing abutment

Remove the Healing abutment with the 1.2 hex driver for the Impression



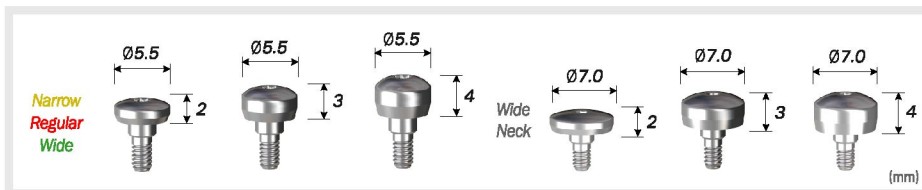
Cover screw

- Use 1.2 hex driver
- packing unit: cover screw
- Tightening torque : 5~8N/cm



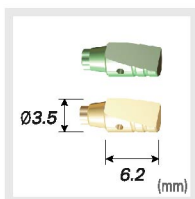
Closing screw

- Use in case of limited space with adjacent teeth or short of gum in suture.
- Use 1.2 hex driver
- packing unit: closing screw
- Tightening torque:5~8N/cm



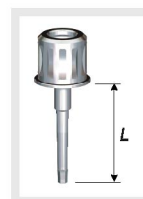
Healing abutment

- Use 1.2 hex driver
- packing unit: healing abutment
- Tightening torque:5~8N/cm



Angle path pin

- Select the abutment with Angle path pin
- Connect 15°A type angle path pin to
- check path angle and torx type



1.2 hex driver

- Type: 1.2 Hex
- Length: 5/10/15/20 mm



Remove the Healing abutment

Remove the Healing abutment from the implant



Select the abutment

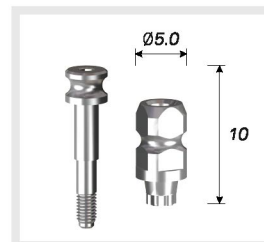
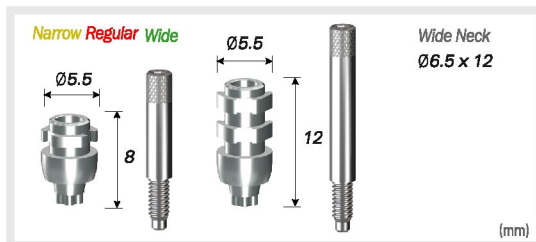
Select the 15°A type Angled abutment

Internal System

Clinical Procedure

Step 2) Impression

Place the pick-up impression coping to the fixture with 1.2 hex driver. And check it with x-ray. After impression with custom tray and send antagonist tooth model, occlusion record, fixture analog, abutment to the laboratory.

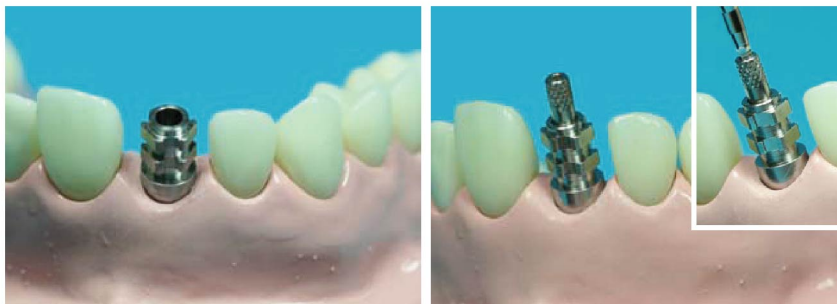


Pick-up Impression Coping

- Used for pick-up impressions with custom trays
- Minimizes distortion
- Long and short compositions available
- Uses 1.2 hex driver
- packing unit: impression coping + guide pin

Transfer Impression Coping

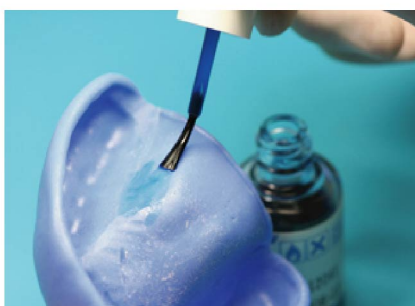
- Used for Transfer Type impressions with trays
- Popular three sides construction used in impressions
- Torx Type Two-pieces Construction
- Uses 1.2 hex driver
- packing unit: impression coping + guide pin



Placing the pick-up impression coping



Custom tray
Ensuring the correct position of the hole.

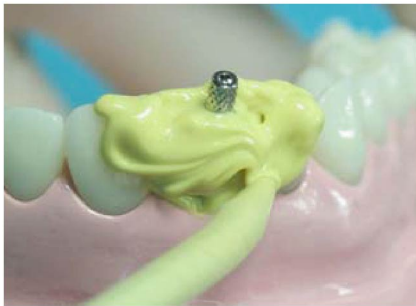


Applying the adhesive

Apply the adhesive materials inside of the custom tray for the impression to be fixed stably.

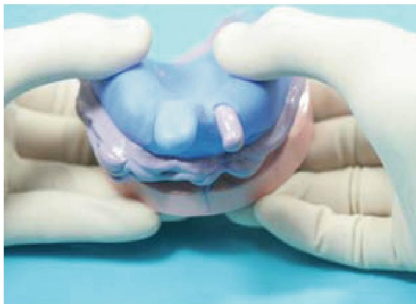
Angled Abutment

Mandibular Posterior teeth: 1 Cement type single (regular platform)



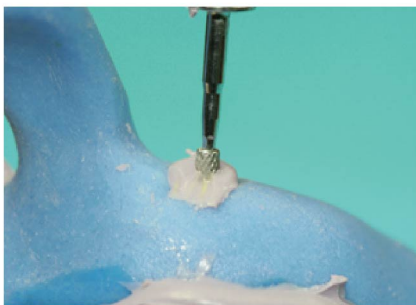
Impression Procedures

Inject the light body impression material around the impression coping and fill the tray with medium body impression material



Making the Impression body

Remove the overflowed impression material to avoid the block out of the hole.



Final Impression body

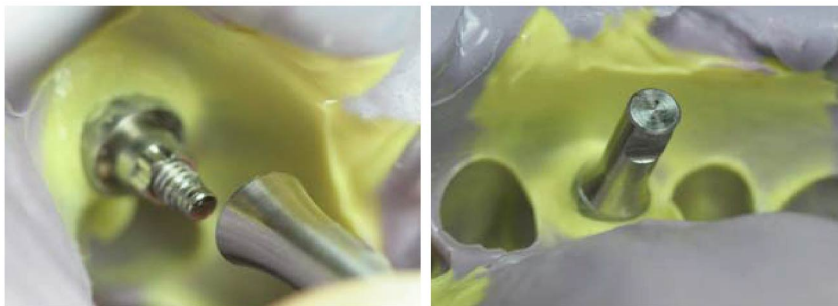
Remove the tray by unscrewing the guide pin using the 1.2 hex driver after the impression material gets hardened

Internal System

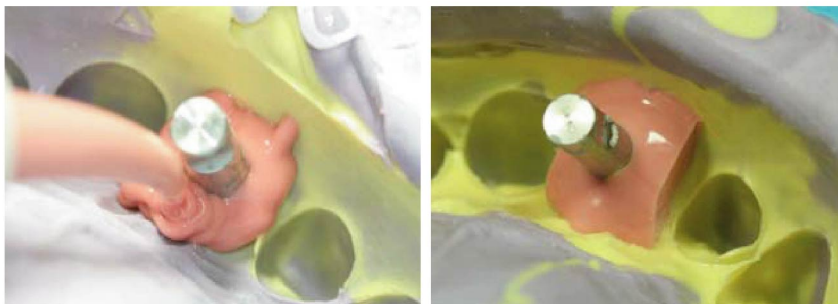
Laboratory Procedure

Step 3) Master model (Final working model)

Attach the impression coping to the fixture analog and fabricate the artificial gum around analog. And then, pour the dental stone to make the master model



Attaching the Fixture analog



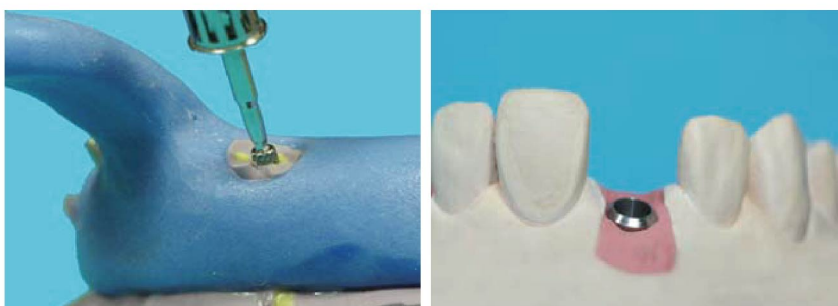
Fabrication the Artificial gum

Inject the soft tissue replication material around the junctions of the Impression Coping and Analog. Apply the utility wax around the impression body edges in order to fabricate a working stone model.



Boxing

Pour the dental stone in the impression body after boxing the wax.



Master model

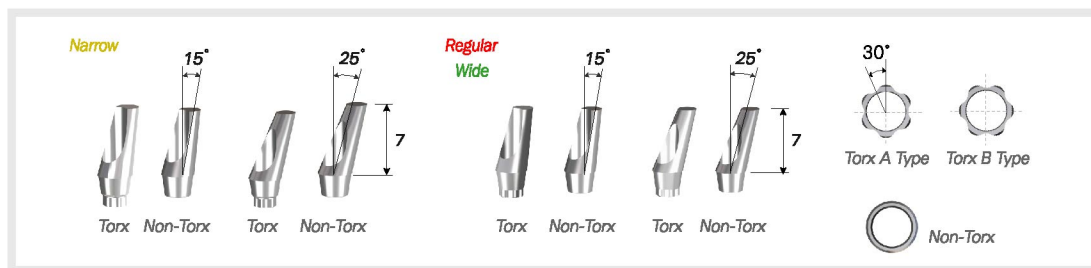
Remove the tray with the 1.2 Hex driver after the dental stone gets hardened. The Fixture analog and the artificial gum are constructed in the Master model that replicate the condition of the patient's mouth.

Angled Abutment

Mandibular Posterior teeth: 1 Cement type single (regular platform)

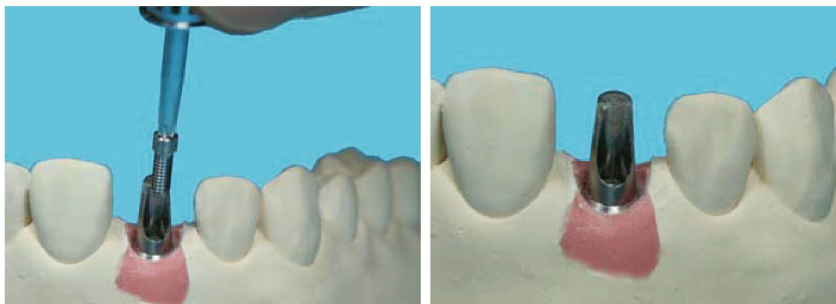
Step 4) Attach the abutment and modification

Attach the Angled abutment of choice using a 1.7 torx driver and determine if the modification is required.



Angled Abutment

- Used in cases where prosthetic path adjustment is necessary
- Secure 8° Morse tapered connection construction
- Uses 1.7Torx driver
- packing Contents: Abutment + Abutment screw
- Tightening Torque: 35Ncm



Attaching the Angled abutment



Modification of the Angled abutment

Modify the length or the margins of the abutment with cut-off disks or carbide burs, if required.



Abutment milling

Modify the abutment in accordance with insertion path and margin with the milling bur

Laboratory Procedure

Step 4) Fabricating the frame-work

Fabricating the zirconia coping with CAD/CAM



Spray color spray after block-out of screw hole for scanning



Fabricating the coping

Fabricating the zirconia coping with CAD/CAM


Angled Abutment

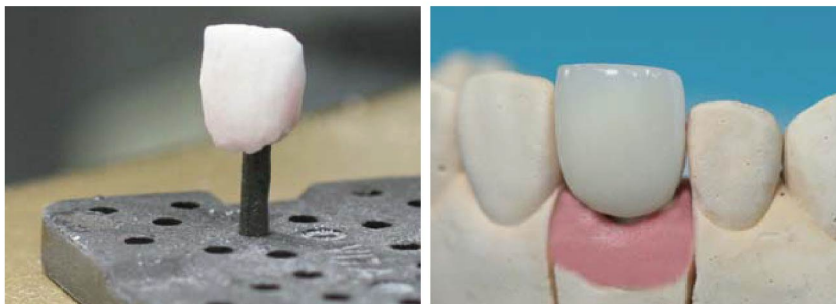
Mandibular Posterior teeth: 1 Cement type single (regular platform)

Step 5) Porcelain build-up and contouring

Build-up the crown with an appropriately shaded ceramic material after Degassing and replicate the most suitable contour to the patient and glaze it.



Build-up



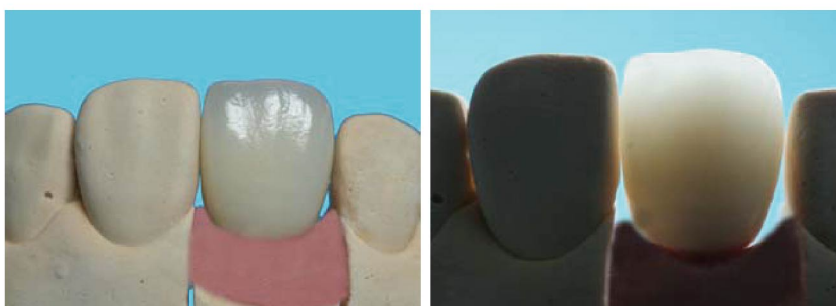
Placement

Placing on the model after firing



Contouring

Replicate the most suitable contour to the patient.



Glazing

Clinical Procedure

Mandibular Posterior teeth: \perp Cement type single (regular platform)

Step 6) Seating the final prosthesis on the patient's mouth

Place the abutment into the implant with the Transfer jig and check the connection between abutment and implant with x-ray. Block-out the screw hole and pour an appropriate amount of cement in the final prosthesis.

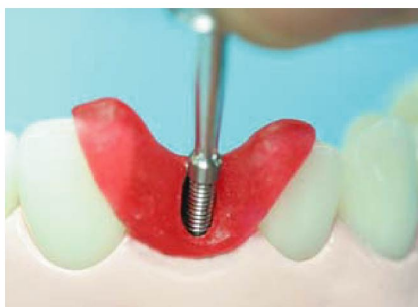


Transfer jig



Place the Abutment

Place the abutment into the implant with the Transfer jig.



Tightening the Abutment

Tighten the screw to 30N/cm using 1.7torx driver and torque wrench.



Cementation

Block-out the hole of the abutment and pour an appropriate amount of cement in the final prosthesis.



The final prosthesis seated on the patient's mouth



Solid ***Abutment system***

- 1) Used for standard cement type prosthetic fabrication
- 2) Single body abutment and screw construction
- 3) Secure 8° morse tapered connection construction
- 4) Prosthetic rotation prevention
- 5) Uses Solid abutment driver
- 6) Packing unit: abutment + protect cap
- 7) Tightening Torque: 30N/cm

Step 1) Healing abutment separation .29

Step 2) Solid abutment connection & impression taking .30

Step 3) Solid abutment analog connection & master model making .33

Step 4) Metal coping making .34

Step 5) Pcelain Build-up & Contouring .36

Step 6) Trial application in oral cavity .37

Prosthetics making in case of abutment adjusting in oral cavity

Step 1) Abutment connection .34

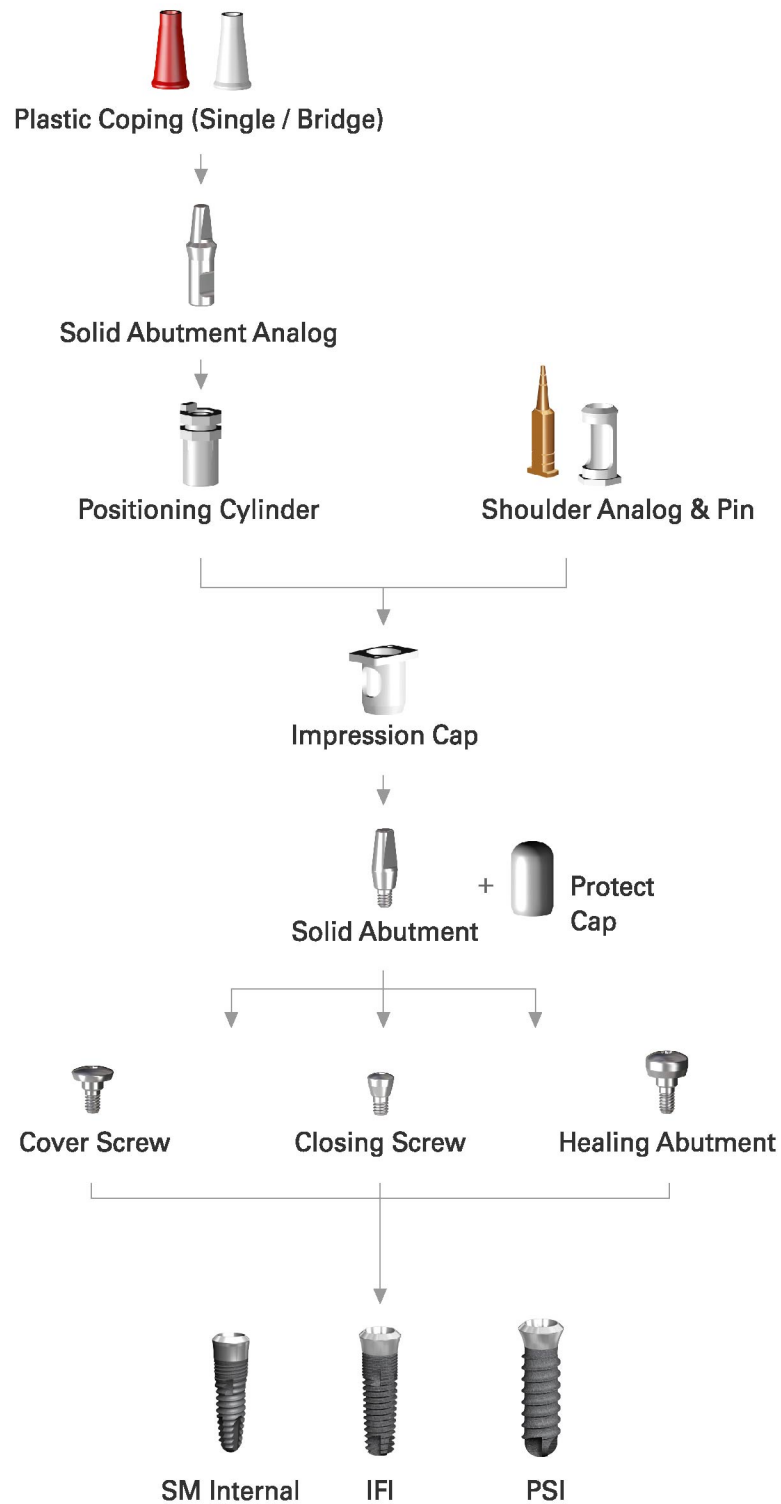
Step 2) Impression Taking .36

Step 3) Master model making .37

Internal System

Flowchart

Cement-Retained Restorations - Angled abutment



Clinical Procedure

Mandibular Posterior teeth: 6 Cement type single (regular platform) in case of no correction of abutment

Step 1) Healing abutment separation

Separate healing abutment using 1.2 hex driver



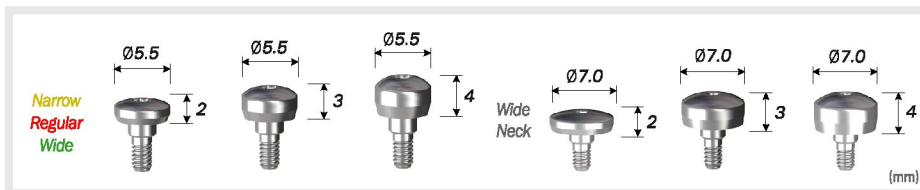
Cover screw

- Use 1.2 hex driver
- packing unit: cover screw
- Tightening torque : 5~8N/cm



Closing screw

- Use in case of limited space with adjacent teeth or short of gum in suture.
- Use 1.2 hex driver
- packing unit: closing screw
- Tightening torque:5~8N/cm



Healing abutment

- Use 1.2 hex driver
- packing unit: healing abutment
- Tightening torque:5~8N/cm

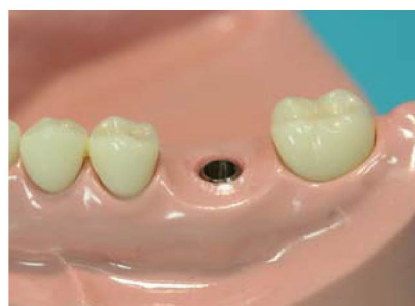


1.2 hex driver

- Type: 1.2 Hex
- Length: 5/10/15/20 mm



Healing abutment connected



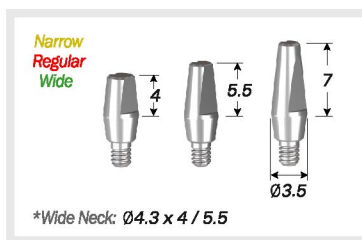
Abutment separated

Internal System

Clinical Procedure

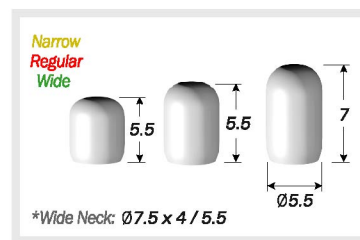
Step 2) Solid abutment connection & impression taking

Connect abutment on Fixture with solid abutment driver & torque wrench (over 30N/cm). Infuse impression into custom-made tray after connecting impression cap & positioning cylinder to connected abutment. After impression taking, connect protect cap on abutment upper. After checking impression, send impression body, solid abutment analog, plastic coping & bite record to an operation room



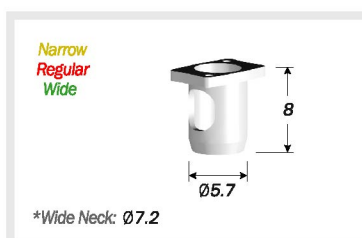
Solid Abutment

- Used for standard cement type prosthetic fabrication
- Single body abutment and screw construction
- Secure 8° Morse tapered connection construction
- Prosthetic rotation prevention
- Uses Ø3.5 / Ø4.3 solid abutment driver
- Packing unit: Abutment + Protect Cap
- Tightening Torque: 35Ncm



Protect Cap

- Protects the abutment and keeps foreign particles to a minimum
- Keeps the place of future prosthetic
- Convenient locking mechanism



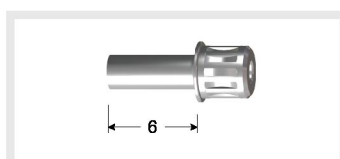
Impression Cap

- Used for making impression with abutments Used in conjunction with solid positioning cylinder
- Convenient locking mechanism
- Packing unit: impression cap



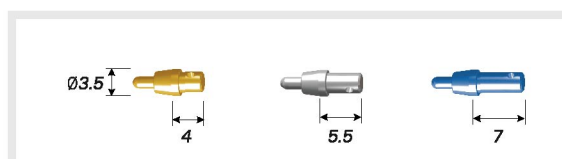
Positioning Cylinder

- Used for making impression with solid abutments
- Used in conjunction with solid impression cap
- Packing unit: Positioning Cylinder



Solid Abutment Driver

- For use with abutments
- Torque confirmed only after driver is firmly engaged with the solid abutment groove



Path Pin

- Provide proper solid abutment selection with using Path pin
- Simple color coding according to Length

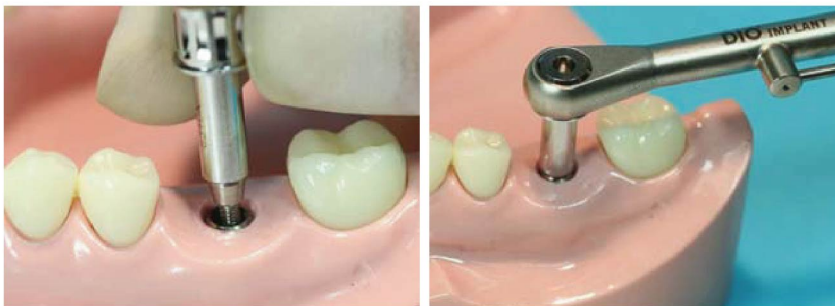


Mandibular Posterior teeth: [6 Cement type single (regular platform)
in case of no correction of abutment

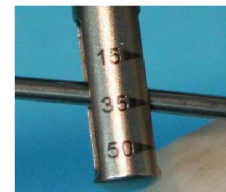


Abutment selection

Select 4mm solid abutment in consideration of ideal abutment thickness

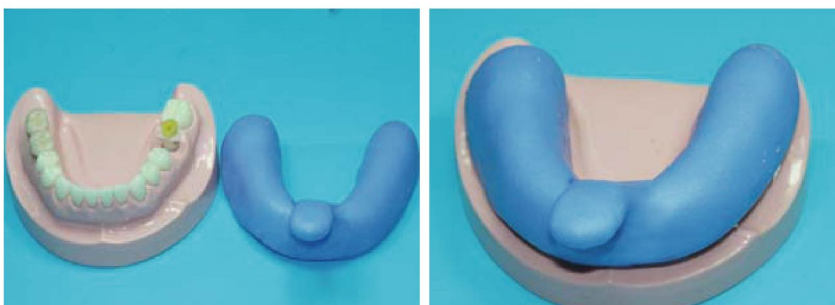


Solid abutment connection



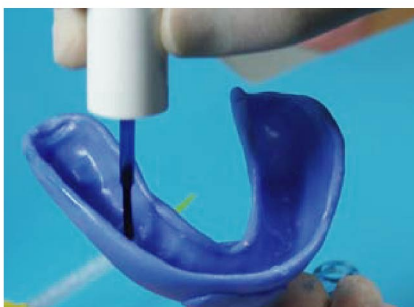
Impression cap & positioning cylinder connection

Correct connection with click sound



Custom-made tray

Test application of custom-made tray in oral cavity



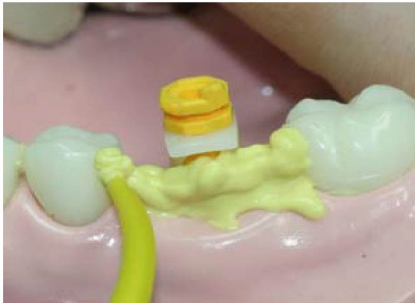
Adhesive paint

In order to prevent separation of impression material and tray, paint adhesive inside tray

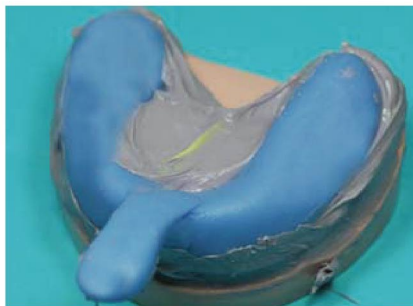
Internal System

Clinical Procedure

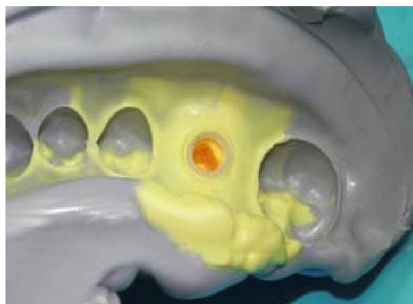
Mandibular Posterior teeth: $\overline{6}$ Cement type single (regular platform)
in case of no correction of abutment



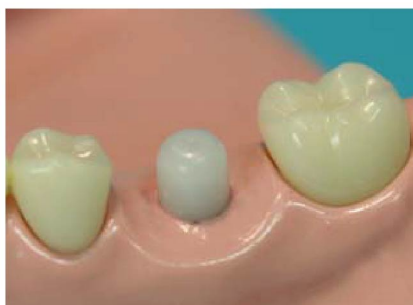
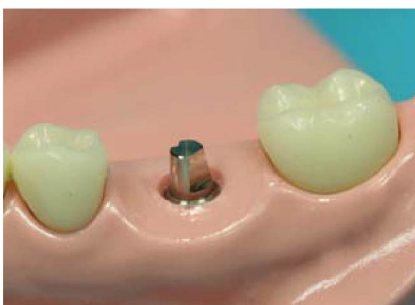
Impression material infusion
Low Hardness-Light Body Impression Material
infusion around Coping
High Hardness-Medium Body Impression Material
infusion around Coping



Impression
Separate impression material from oral cavity
after impression material hardened



Check impression body
Check impression body inside



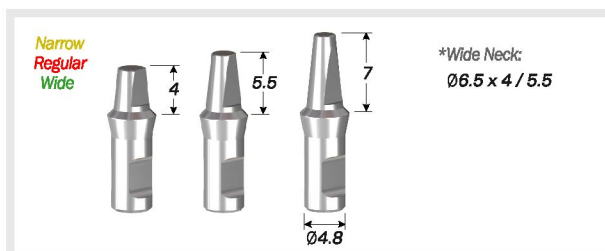
Protect cap connection

Laboratory Procedure

Mandibular Posterior teeth: $\overline{6}$ Cement type single (regular platform)
in case of no correction of abutment

Step 3) Solid abutment analog connection & master model making

Check status of impression body and place the solid analog on positioning cylinder inside of impression body. After connection, formation artificial gum around analog and make a final model with stone infusion

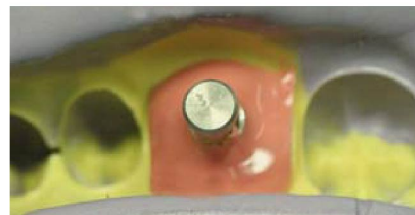


Solid Abutment Analog

- realization solid abutment configuration of oral cavity on working model



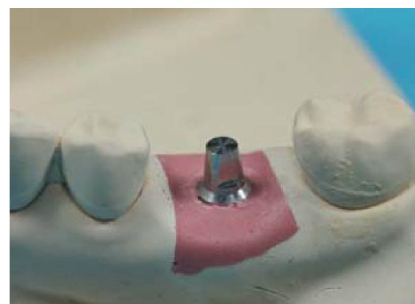
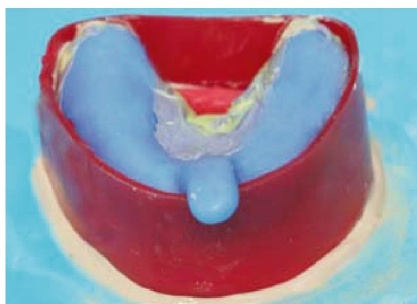
Solid abutment analog connection
Push down and connect until you hear click sound



Artificial gum formation



Boxing
In order to prevent falling stone, wrap around impression body with boxing wax and then, infuse the stone



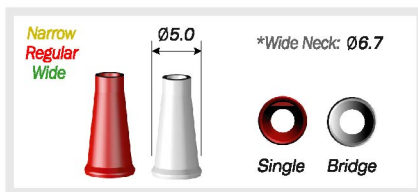
Master model (final model)
Reappear patient's oral cavity condition

Internal System

Laboratory Procedure

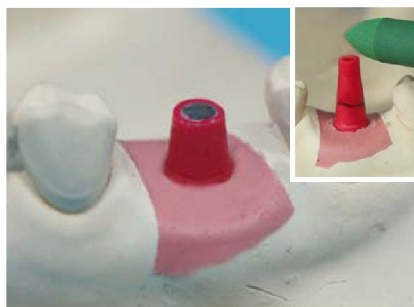
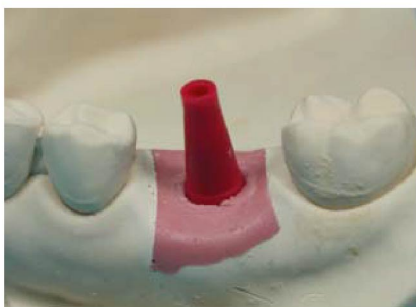
Step 4) Metal coping making

After checking final model status, connect plastic coping into analog for frame work (Plastic coping prevents contraction of resin or wax)



Plastic Coping

- Provides a framework for prosthetic for use with Solid Lab Analog
- Simple color coding according to type of prosthetic
- Determine margin using Reamer after casting prosthetic
- Package Contents : Plastic Coping



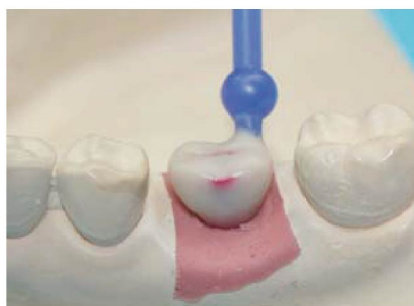
Plastic coping connection

After connection of Plastic coping, check adjustment region
Adjust the region with using rubber point or knife



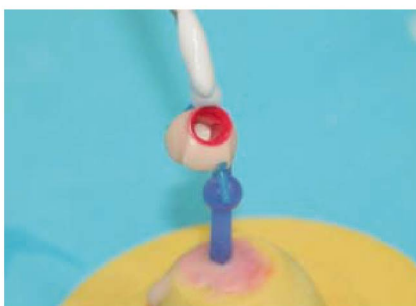
Wax-up

Wax up in consideration of bite & proximal teeth



Cut-back

Cut-back in consideration of Porcelain thickness



Investing

Investing proper investment into casting alloy according to production company instruction

Mandibular Posterior teeth: [6 Cement type single (regular platform)
in case of no correction of abutment



Fitness

After casting, extinct fixing spur inside of casting body with using reamer



Disking

After check fitness, trim into proper form with using carbide bur

The correct use of the Reamer

1. Prepare the corresponding size of the reamer tip to the abutment
2. Fix the framework and cut-off the projections while rotating the reamer in blades direction.
3. Ream the framework until there is no further cutting actions.

*The reamer is recommended to be used for metal framework, thus the cutting force gets reduced when the reamer is applied to non-metal framework.



	SM Implant System	Internal Implant System
Reamer Cutter		
Reamer Pin		

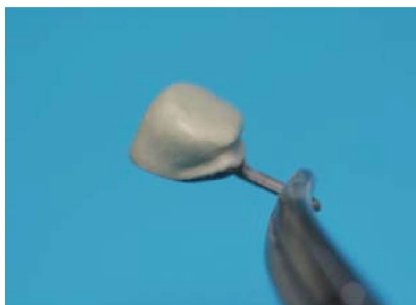
Internal System

Laboratory Procedure

Mandibular Posterior teeth: $\overline{6}$ Cement type single (regular platform)
in case of no correction of abutment

Step 5) Porcelain Build-up & Contouring

After degassing completed casting body, construct porcelain in consideration of patient's teeth color and adjust the foam in consideration of patient's bite & proximal teeth and then, do the final grazing.



Opaque
Prevent metal penetration



Build-up
Build up harmoniously to patient's proximal teeth color



Contouring
Contouring Becoming on patient (form adjustment)



Grazing
Grazing after form adjustment

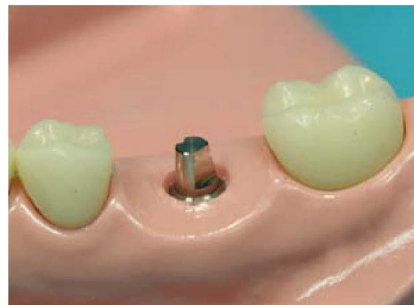
Solid Abutment

Clinical Procedure

Mandibular Posterior teeth: $\overline{6}$ Cement type single (regular platform)
in case of no correction of abutment

Step 6) Trial application in oral cavity

Separate protect cap. After checking with bite & aesthetic of completed prosthetics, cementation on solid abutment upper part (after abutment trial application, educate patient for oral cavity care)



Protect cap separation
Separate protect cap inside of oral cavity



Cementation
Paint cement on margin part of final prosthetics



Trial application in oral cavity

Internal System

Prosthetics making in case of abutment adjusting in oral cavity

Prosthetics making in case of abutment adjusting in oral cavity

Step 1) Abutment connection

In case of 4.0 / 5.5 / 7.0mm solid abutments are not fit to occlusal clearance or bad insertion path, abutment can be adjusted in oral cavity



Abutment Connection

Uses driver & torque wrench to connect abutment



Abutment adjustment



Impression cap connection

Push down and connect until you hear click sound



Solid Abutment

Step 2) Impression Taking

In case of 4.0 / 5.5 / 7.0mm solid abutments are not fit to occlusal clearance or bad insertion path, abutment can be adjusted in oral cavity



Custom-made tray

Paint adhesive inside tray after checking hole site with placing custom-made tray



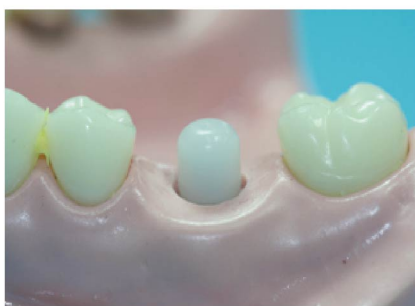
Impression Infusion

Infuse Impression inside tray & around Impression cap



Impression

Check inside Impression body after Impression taking



Protect cap Connection

Push down and connect until you hear click sound

Internal System

Prosthetics making in case of abutment adjusting in oral cavity

Prosthetics making in case of abutment adjusting in oral cavity

Step 3) Master model making

In case of 4.0 / 5.5 / 7.0mm solid abutments are not fit to occlusal clearance or bad insertion path, abutment can be adjusted in oral cavity

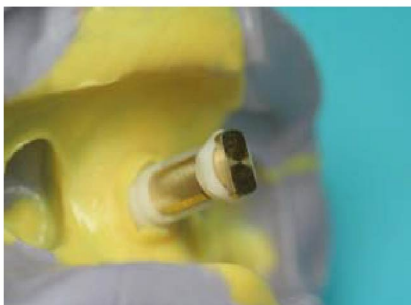


Shoulder analog connection

Push down and connect until you hear click sound



Shoulder pin adjustment



Shoulder pin connection

No interval allowed between pin and shoulder analog

Tip>

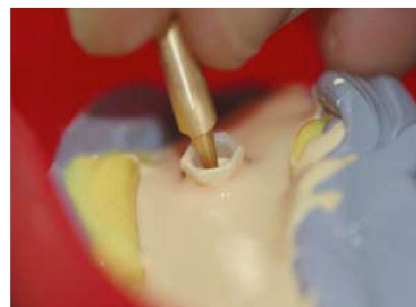
2 lines on shoulder pin upper. In order to get correct connection without interval, in case of using 5.5mm abutment, cut 1st line and in case of using 4.0mm abutment, cut 2nd line. In case of using 7.0mm abutment, no need to cut the shoulder pin.

Stone die sometimes come off during a craft process due to less interval between shoulder analog & pin. In order to prevent that, sometimes die is made of resin.



Artificial gum formation

Gum formation after paint separator around Shoulder analog



Stone infusion

In order to prevent falling stone, boxing with utility wax around impression body and then, infuse the stone



Master model

Tip>

Following procedures are same as normal abutment making procedure with using solid abutment



Octa *Abutment system*

- 1) Used in bridge case deviated from right path to make prosthetic part of screw retained.
- 2) The structure to make prosthetic on cylinder after connecting an abutment of the mouth.
- 3) Classified as the gold cylinder and plastic cylinder according to the material. Octa cylinder is only for single case and non-octa is only for bridge.
- 4) Should use Octa abutment driver
- 5) Packing unit: abutment
- 6) Tightening Torque : 35N/cm

Step 1) Separation of healing abutment .45

Step 2) Octa abutment connection and impression .46

Step 3) Master model .49

Step 4) Attaching cylinder and form adjustment .50

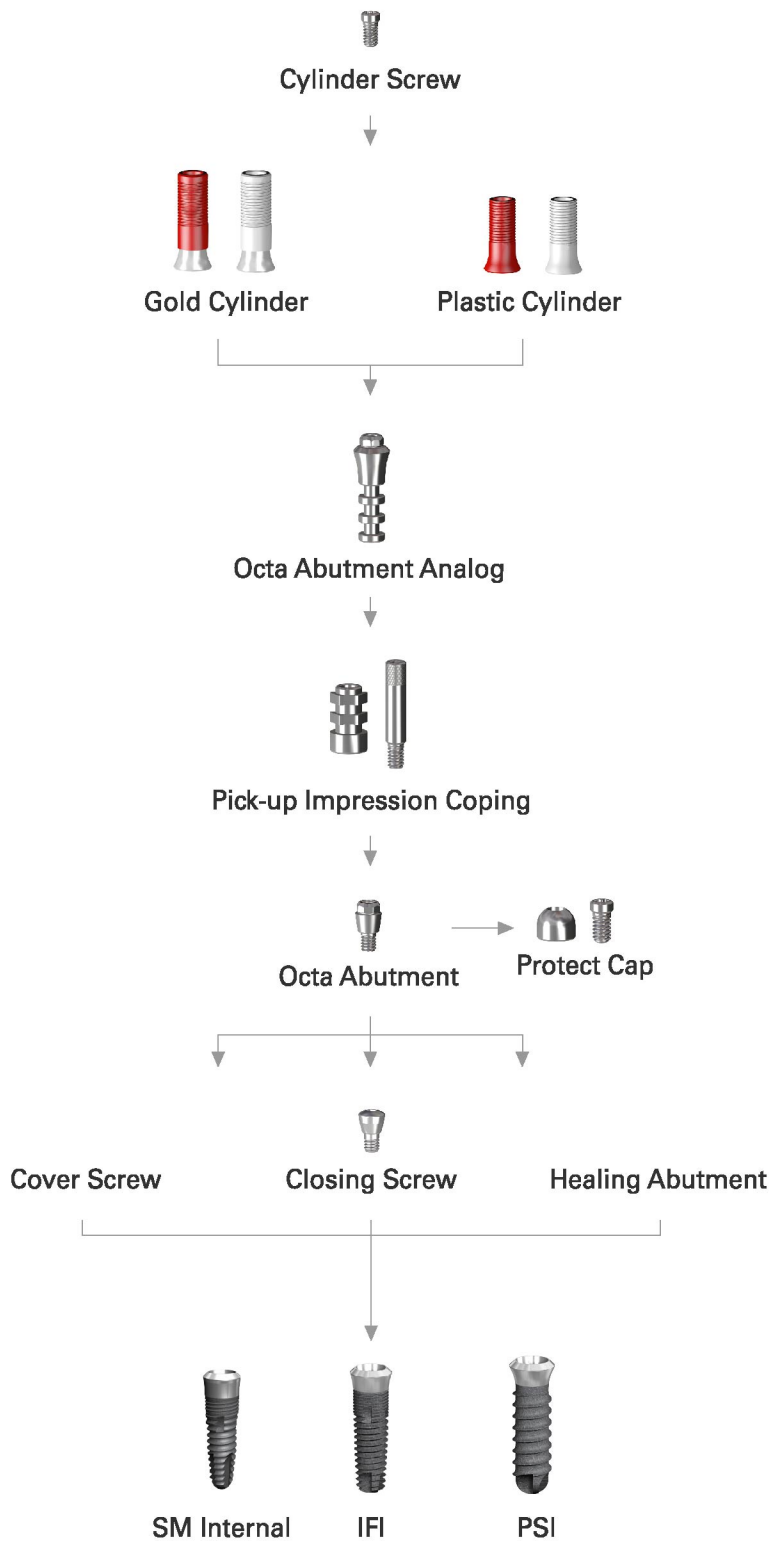
Step 5) Porcelain build-up and contouring .53

Step 6) Test Application in the Oral Cavity .54

Internal System

Flowchart

Screw-Retained restorations - Octa abutment





Octa Abutment

Clinical Procedure

Mandibular Posterior teeth: 5 6 7 Screw type bridge (regular platform)

Step 1) Separation of healing abutment

Separate healing abutment with 1.2 hex driver.



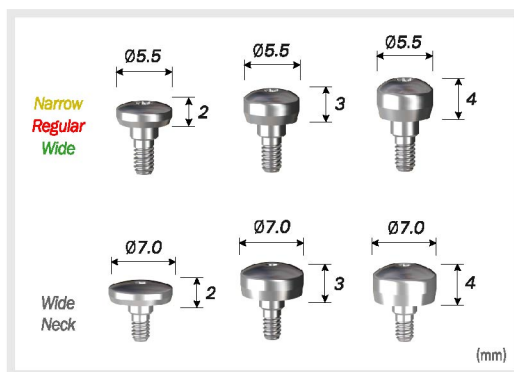
Cover screw

- Use 1.2 hex driver
- packing unit: cover screw
- Tightening torque : 5~8N/cm



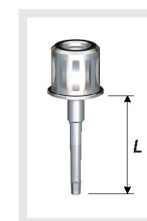
Closing screw

- Use in case of limited space with adjacent teeth or short of gum in suture.
- Use 1.2 hex driver
- packing unit: closing screw
- Tightening torque:5~8N/cm



Healing abutment

- Use 1.2 hex driver
- packing unit: healing abutment
- Tightening torque:5~8N/cm

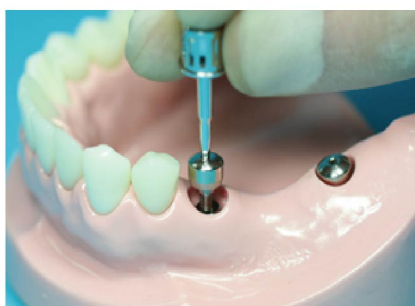


1.2 hex driver

- Type: 1.2 Hex
- Length: 5 / 10 / 15 / 20 mm



Healing abutment is connected

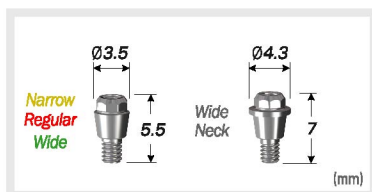


Remove healing abutment

Clinical Procedure

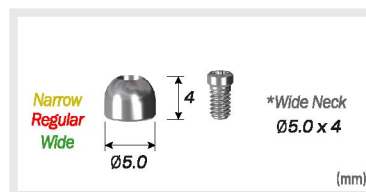
Step 2) Octa abutment connection and impression

Connecting abutment using octa abutment driver and torque wrench(over 30N/cm) on the top of fixture after detaching Healing abutment,
To take impression from the prepared personal tray in advance after connecting impression coping with completed abutment connected.
Octa abutment should be connected with protect cap after impression and confirm the accuracy of the impression body and then send impression body with required components such as analog, gold cyliner, interocclusal records and antagonist tooth model to the laboratory.



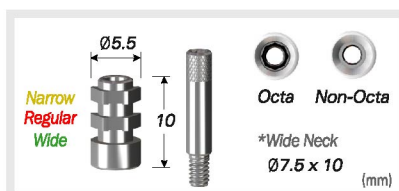
Octa Abutment

- Used in case of crossed path or screw corrosion prevention
- Uses Octa Abutment Driver
- Package Contents: Octa Abutment
- Tightening Torque: 35Ncm



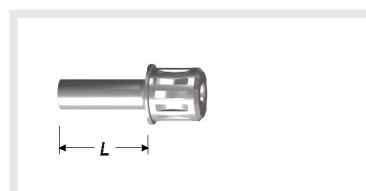
Protect Cap

- Protects the Octa abutment and keeps foreign particles to a minimum
- Uses 1.7 Torx Driver
- Package Contents: Protect Cap + Cylinder Screw
- Tightening Torque: 20Ncm



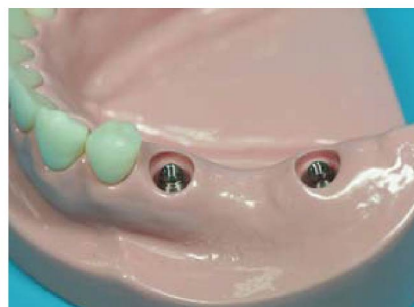
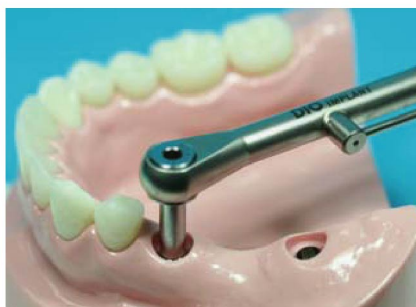
Pick-up Impression Coping

- Used in pick-up impression with custom trays
- Minimizes distortion
- Uses 1.2Hex Driver
- Package Contents: Impression Coping + Guide Pin



3.0 Octa Abutment Driver

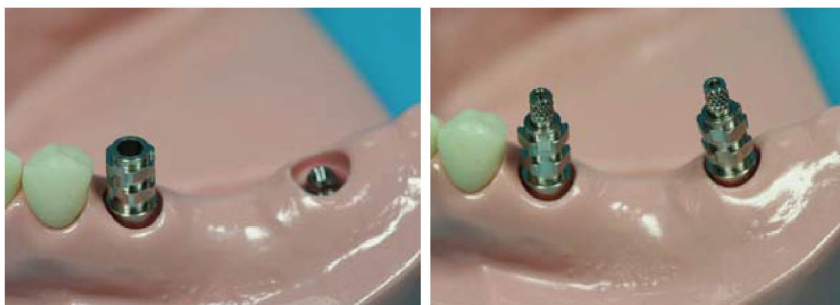
- Length: 6 / 12 mm



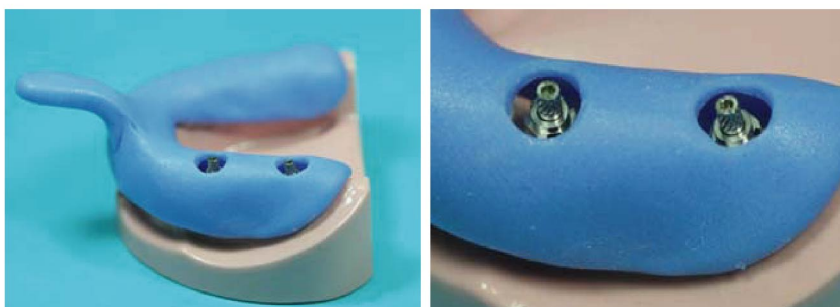
Placing Octa abutment



Mandibular Posterior teeth: $\overline{5}$ $\overline{6}$ $\overline{7}$ Screw type bridge (regular platform)



Placing impression coping



Custom tray

Ensuring the correct position of hole & guide on the custom tray in the mouth



Impression Procedures

Inject the light body impression material around the impression coping and fill the tray with medium body impression material



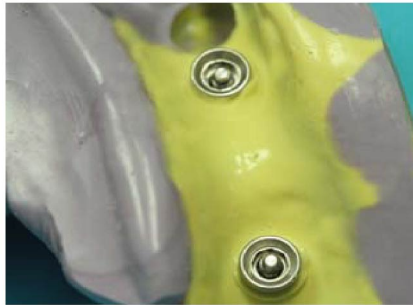
Impression

To remove overflowed impression material to cover screw hole before the impression material gets hardened. To remove tray after releasing the screw in hardening status and then releasing the screw using driver.

Internal System

Clinical Procedure

Mandibular Posterior teeth: $\overline{5}$ $\overline{6}$ $\overline{7}$ Screw type bridge (regular platform)



Check coping status



Placing protect cap

Placing the protect cap with abutment after impression taking.
(Tightening torque torque 20N/cm)



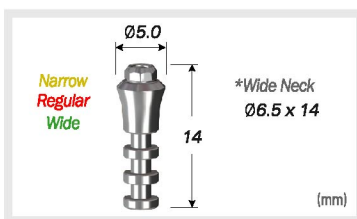
Completion

Laboratory procedure

Mandibular Posterior teeth: $\overline{5}$ $\overline{6}$ $\overline{7}$ Screw type bridge (regular platform)

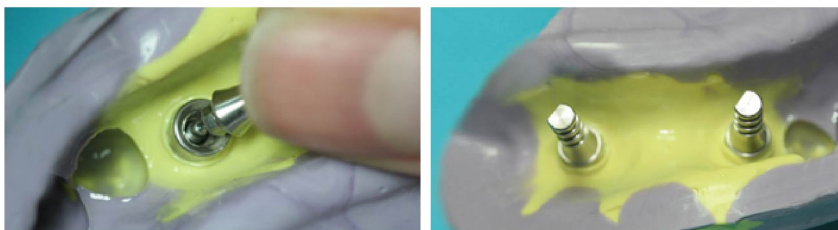
Step 3) Master model

Attach the impression coping to the octa abutment analog and fabricate the artificial gum around analog. And then, pour the dental stone to make the master model.



Octa Abutment Analog

- Provides anchor point for fabricating Octa Abutment configuration
- Package Contents: Octa Abutment Analog



Attaching the octa abutment analog

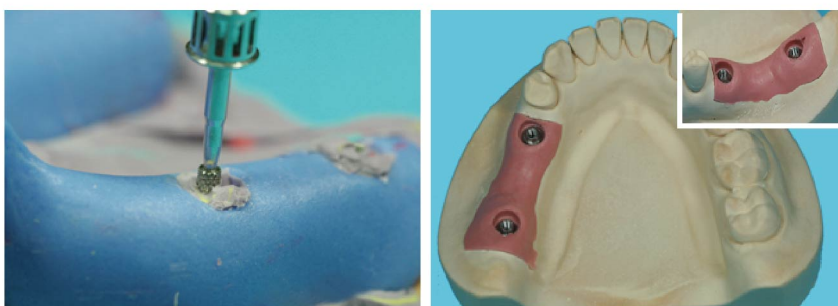


Artificial gum Fabrication

Inject the separator around octa abutment Analog



Inserting stone after boxing



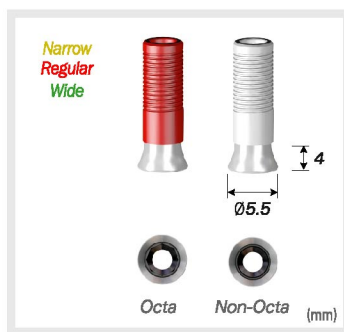
Master model

After stone gets hardened, unscrew guide pin and remove the tray. Check the Master Model status.

Clinical Procedure

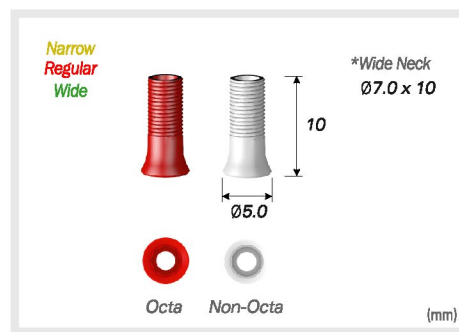
Step 4) Attaching cylinder and form adjustment

Placing the gold cylinder with top part of analog in the master model.
It's available to customize the cylinder form with necessary.



Gold Cylinder

- To make prosthetic using for dental alloy for casting after customizing.
- Cylinder melt temperature range: 1400~1450°C (non metal alloy).
- Packing unit: gold cylinder + cylinder screw.
- Using 1.7 torx driver
- Tightening Torque: 20N/cm.



Plastic Cylinder

- To make prosthetic using for dental alloy for casting after customizing
- The plastic cylinder is less precise than the gold cylinder.
- Packing unit :gold cylinder + cylinder screw Using 1.7 torx driver.
- Tightening Torque: 20N/cm.



Gold cylinder in non-octa type connection

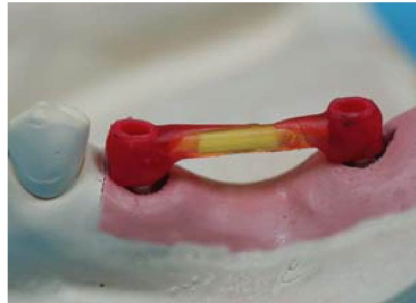


Gold cylinder adjustment

Adjust gold cylinder using rubber point or knife after checking adjustable margin.



Mandibular Posterior teeth: $\overline{5}$ $\overline{6}$ $\overline{7}$ Screw type bridge (regular platform)



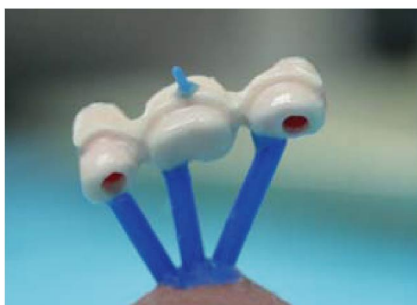
Resin work
To connect bridge using pattern resin.



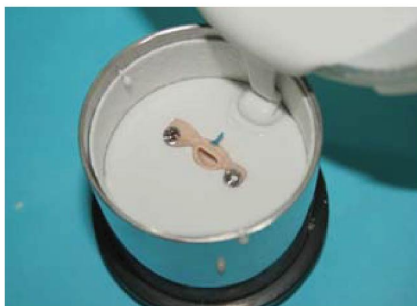
Wax-up
Wax up in consideration of bite & proximal teeth



Cut-back
Cut-back in consideration proper thickness of Porcelain



Spruing
To locate a ring after spruing



Investment
Follow manufacturer guide line

Internal System

Clinical Procedure



Casting
Casting using centrifugal casting machine



Fitting
To fit casting material and trimming after casting



Sanding

**Solid** Abutment

Mandibular Posterior teeth: $\overline{5}$ $\overline{6}$ $\overline{7}$ Screw type bridge
(regular platform)

Step 5) Porcelain build-up and contouring

Build-up the crown with an appropriately shaded ceramic material after Degassing and replicate the most suitable contour to the patient and glaze it.



Apply the Opaque



Build-up



Complete prosthetic material

To complete glazing after Trimming the form

Laboratory Procedure

Mandibular Posterior teeth: $\overline{5}$ $\overline{6}$ $\overline{7}$ Screw type bridge (regular platform)

Step 6) Test Application in the Oral Cavity

To locate final prosthetic in the abutment after separating protect cap seated on the Oral cavity and to connect cylinder screw using 1.7 torx driver and torque wrench. To finish the screw hole with resin filling. (Tightening Torque: 20N/cm.)



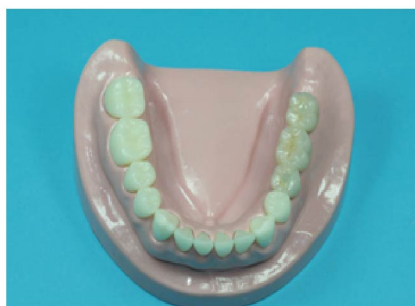
To separate Protect cap



Placing prosthetic part
Locate the prosthetic in the oral cavity and connect the screw with 20N/cm



Seated on the oral cavity



Resin filling



Ball *Autment system*

- 1) Use over-denture prosthesis for Ball type
- 2) O-ring color
 - For lab : black
 - For denture : orange
- 3) Stability of compensation by changing O-ring
- 4) Compensation of path max.20°
- 5) Use ball abutment driver
- 6) Packing unit: abutment + O-ring
- 7) Tightening torque : 35N/cm

Step 1) Separation of healing abutment .57

Step 2) Connect ball abutment and take impression .58

Step 3) Master model .60

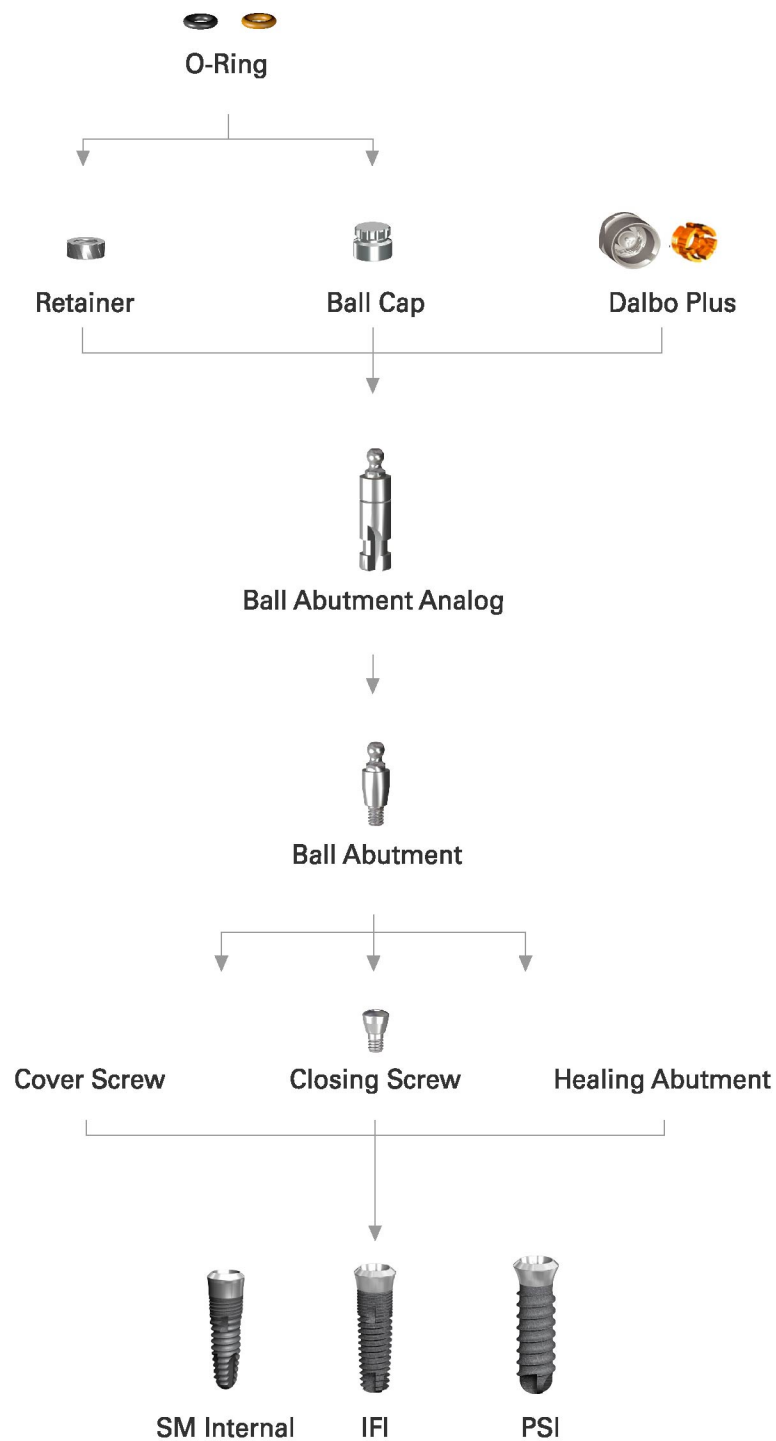
Step 4) Make wax denture .61

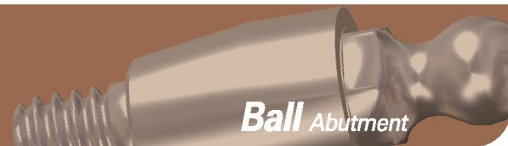
Step 5) Make resin denture .62

Internal System

Flowchart

Overdenture-Retained restorations - Ball abutment





Clinical Procedure

Step 1) Separation of healing abutment

Separate healing abutment with 1.2 hex driver.



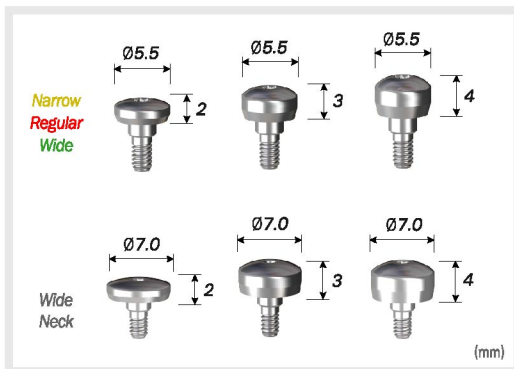
Cover screw

- Use 1.2 hex driver
- packing unit: cover screw
- Tightening torque : 5~8N/cm



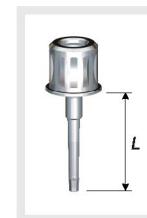
Closing screw

- Use in case of limited space with adjacent teeth or short of gum in suture.
- Use 1.2 hex driver
- packing unit: closing screw
- Tightening torque:5~8N/cm



Healing abutment

- Use 1.2 hex driver
- packing unit: healing abutment
- Tightening torque:5~8N/cm

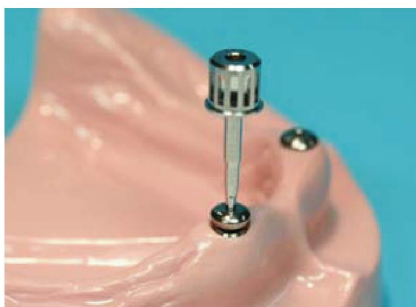


1.2 hex driver

- Type: 1.2 Hex
- Length: 5 / 10 / 15 / 20 mm



Healing abutment is connected.



Separate the healing abutment

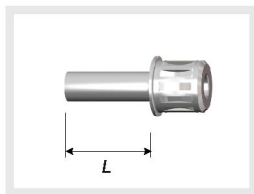
Clinical Procedure

Step 2) Connect ball abutment and take impression

After separating healing abutment, connect the abutment by using ball abutment driver and torque wrench.(over 30N/cm)

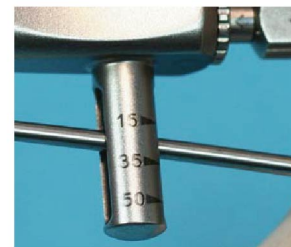
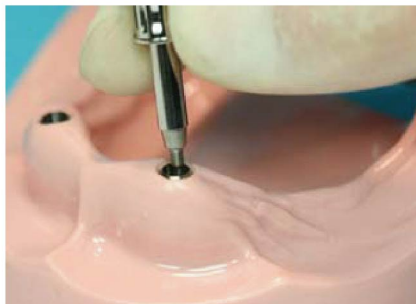
Take impression with customized tray on the connected abutment.

Check the condition of impression and send impression body, ball abutment analog, ball cap, retainer, occlusion record, antagonist tooth model to the lab.



Ball Abutment Driver

▪ Length: 6, 12mm

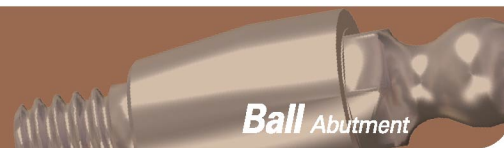


Connect Ball Abutment

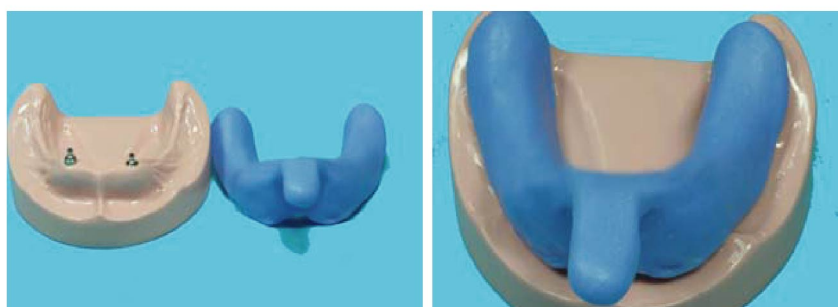


Customized tray

After alginate impression, pour plaster, make customized tray model and then, make customized tray.



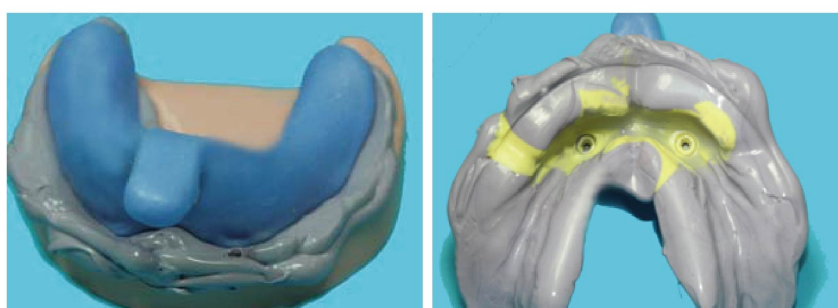
Overdenture-Retained restorations



Place the customized tray
and check the position.



Put impression material
After spread adhesive inside of customized tray,
and put impression material around
ball abutment and in the tray.



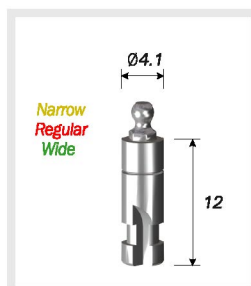
Impression
After hardening the impression,
check the condition inside impression body

Internal System

Laboratory procedure

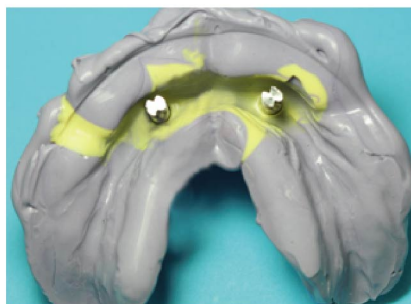
Step 3) Master model

After connecting the ball abutment analog inside impression body, make the master model by pouring stone. Insert analog into ball portion carefully.

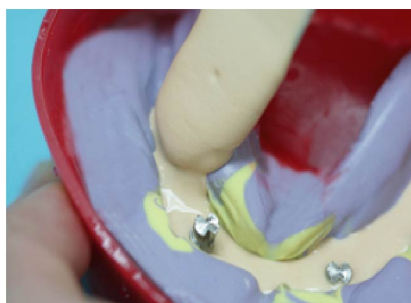


Ball Abutment Analog

- Materializing the shape of ball abutment in mouth



Connect ball abutment Analog



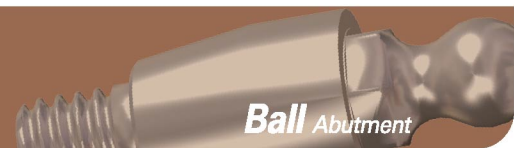
Pouring stone after boxing

Pour stone with care in order to make analog steady.



Master Model

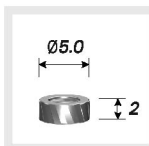
After hardening stone, remove tray and check the condition of the model.



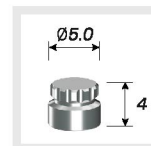
Overdenture-Retained restorations

Step 4) Make wax denture

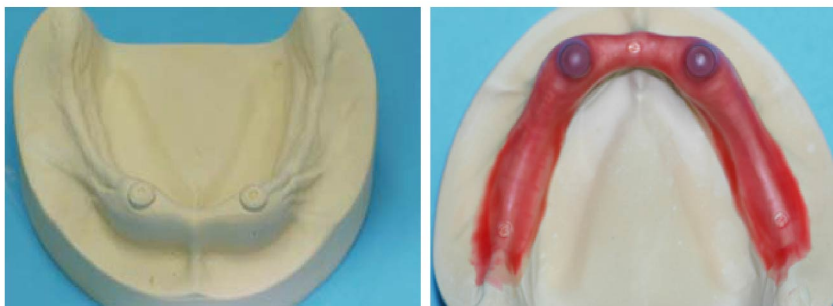
Make frame inside denture for solidity of denture and then make wax rim and send them to clinic for checking patient difficulty. After checking the occlusion condition, arrange the position of tooth on the wax rim according to occlusion record.

**Retainer**

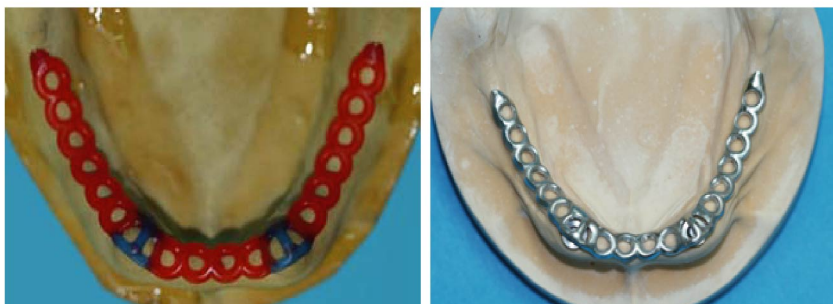
- In case that occlusion gap is close.
- Packing unit: retainer + o-ring
- Packing unit: retainer + o-ring

**Ball Cap**

- Excellent retainability and attachment on denture
- Packing unit: ball cap + o-ring

**Make Duplicate**

Make duplication model after relief on the spare model

**Make Frame**

Make the frame on the duplication model.

**Connect Retainer**

Insert black o-ring on Retainer and put them on analog.

**Arrange denture teeth**

Put the frame on the model and make wax rim on the frame. Arrange the denture teeth after check the occlusion stress.

Internal System

Laboratory procedure

Step 5) Make resin denture



Investing
After sealing around teeth,
invest to bottom of wax rim.



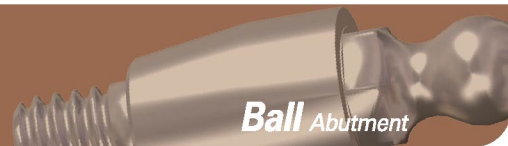
**Do 2nd investing around
inside teeth
and invest up to flask.**



**After 3rd invest,
join together the upper
and lower part.**



Wax-wash flask
Remove all the residue of wax.



Overdenture-Retained restorations



Resin operation



Vacuum pressurization
Inject resin continuously in dough stage.



Curing



Polishing
Do final polishing after adjustment for occlusion.



Completion of Denture
Check the fitness on master model.

Internal System

Clinical Procedure

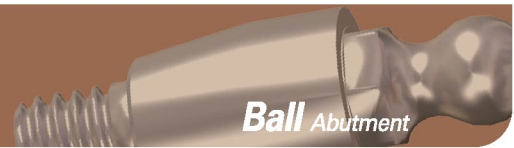
Change the o-ring(black) in the denture from lab to the o-ring for oral(orange).
Combine the denture in the mouth.



Change the o-ring for oral.(orange).



Place denture in mouth.



Overdenture-Retained restorations

Make hole regarding the size and position of retainer and then cut the rubber dam to put it on abutment with placing retainer. Inject resin through the open side and then start final polishing.

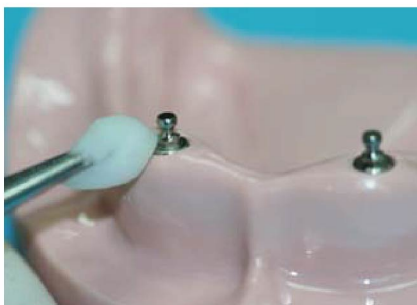


Denture without retainer assemble.



Make Hole

Make hole with small space for resin and put them in mouth and check the fitness.



Position for rubber dam

Sterilize around abutment and put the rubber dam on abutment



Connect Retainer

Put Retainer on abutment and make inside of denture clear with chisel

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