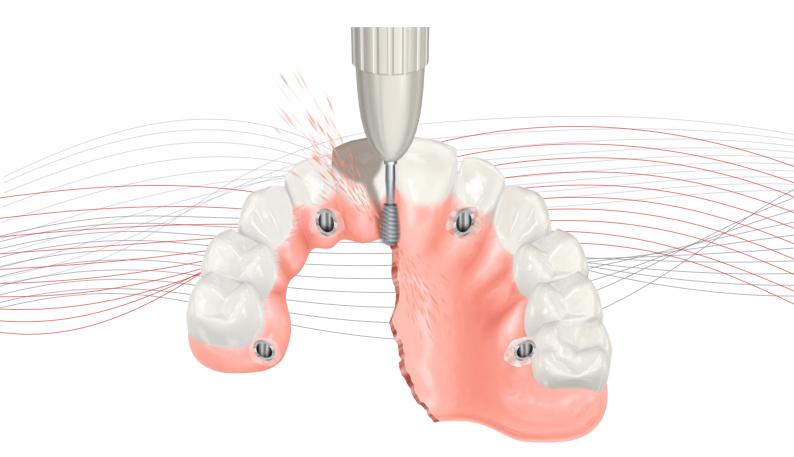
Conversion of existing denture into a fixed provisional bridge – direct method Procedures manual





Note: In order to improve readability, Nobel Biocare does not use $^{\text{TM}}$ or $^{\text{o}}$ in the running text. By doing so, however, Nobel Biocare does not waive any right to the trademark or registered mark and nothing herein shall be construed to the contrary.

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Position and angulation of implants

Prosthetic-driven planning

The tooth positions for the planned restoration should be determined preoperatively, allowing for the selection of the most appropriate position and angulation for each planned implant. The existing or the newly fabricated full denture must be in the correct VDO (vertical dimension of occlusion) and have the proper AP (anterior-posterior) tooth position in order to allow fabrication of a surgical guide.



Replica of the existing or newly fabricated denture.

Surgical guide

The prosthetic team should ensure that the surgical team understands the tooth positions required for the final prosthesis. An appropriate method can be to provide a surgical guide. A quick and simple way of fabricating such a guide is to make a replica in clear acrylic resin, either of the existing or the newly fabricated denture.

To help visualize the surgical field, the palatal portion of the clear surgical guide can be removed, except for a supporting posterior connection. Leaving only the buccal contours of the teeth helps the surgeon to angulate the drills correctly during osteotomy preparation and to maintain the desired implant angulation during insertion.

If immediate loading is planned, the guide also helps to select the appropriate abutments (angled or straight), allowing for properly aligned prosthetic screw access holes.

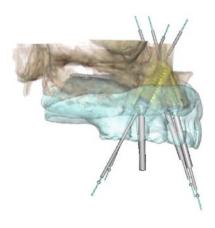


Surgical guide helps to angulate the drills correctly and to maintain the desired implant angulation during insertion.

NobelClinician

The NobelClinician Software helps the treatment team to achieve optimized esthetic outcomes, as they can plan the implant treatment based on the patient's anatomy and prosthetic requirements.

In addition, a surgical guide together with all required components for either guided pilot drilling or fully guided surgery can be ordered through the NobelClinician Software.



Direct method chairside

Notes:

- The following illustrations show the conversion of either an existing or a previously fabricated denture into a fixed provisional full-arch bridge on abutment level following the Immediate Function protocol.
- This chairside procedure can be applied if limited adjustments have been made to the tissues during surgery and the denture is forseen to be stable.
- The fixed provisional bridge can be used for immediate (Immediate Function) or delayed loading of four or more implants in either jaw with an existing opposing dentition.

1 Ensure denture is suitable

In order to successfully convert a denture into a fixed provisional bridge, the following is recommended for consideration:

- Function: The denture should be functional. After several years of use, many dentures are worn and weakened, which will ultimately affect the strength of the fixed provisional bridge.
- Fit: The fit of the denture is critical. If the base is not stable, the conversion process may not be successful.
- Occlusion: The denture should be in an ideal occlusal and vertical relationship.
- Esthetics: If the esthetics of the denture are not acceptable to the patient, a new denture is recommended for this procedure.



2 Confirm implant positions and choose Multi-unit Abutments

Place the surgical guide to confirm implant positions. This guide also helps in selecting the correct Multi-unit Abutments.



3 Connect and tighten Multi-unit Abutments

Connect Multi-unit Abutments to the implants and tighten them.

Notes:

- For straight Multi-unit Abutments, tighten the abutment screw to 35 Ncm using Screwdriver Machine Multi-unit and Manual Torque Wrench Prosthetic.
- For angulated Multi-unit Abutments, tighten the abutment screw to 15 Ncm using Screwdriver Machine Unigrip and Manual Torque Wrench Prosthetic.

Caution: Never exceed recommended maximum tightening torque. Overtightening may lead to a screw fracture.



4 Place healing caps and suture surgical site

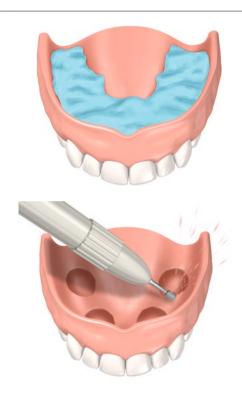
- Place Healing Caps Multi-unit and manually tighten prosthetic screws with the Screwdriver Manual Unigrip.
- Close and suture tissue flap around the abutments.



5 Make trial insertion

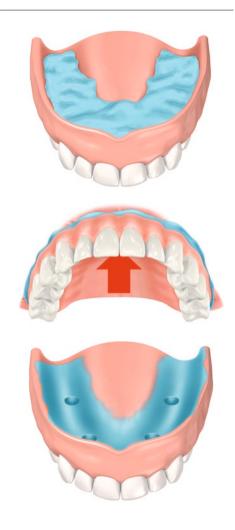
- Place impression material into denture. Be sure to keep the palatal aspect of the denture free from impression material.
- Make trial insertion and check denture against the opposing dentition to assure that occlusal relationships are correct.
- Remove any undercuts or tissue interferences.
- Verify clearance for Healing Caps Multi-unit.
- Remove impression material and repeat above until the final esthetic position with the correct occlusal plane is achieved.
- Remove trial impression material before final indexing.

Note: Trial insertion may take several attempts to remove any undercuts or tissue interferences that keep the denture from seating in the final esthetic position at the correct occlusal plane.



6 Register abutment positions for final indexing

- Place impression material into denture. Be sure to keep the palatal aspect free from impression material.
- Place denture into patient's mouth with finger pressure on palatal area to index the position of the Healing Caps Multi-unit.
- Use opposing dentition to verify occlusal relationship.
- Remove denture together with impression material.



7 Make holes for temporary copings

- Drill holes into the denture where Healing Caps Multi-unit have left an impression using a carbide bur.
- Remove impression material.



8 Place temporary copings

- Remove Healing Caps Multi-unit.
- Place Temporary Copings Multi-unit Titanium on the Multi-unit Abutments and manually tighten the prosthetic screws with the Screwdriver Manual Unigrip.

Note: Ensure that no soft tissue is trapped between coping and abutment.



9 Verify passive fit

- Confirm passive fit of the denture by placing denture over the temporary copings.
- Confirm proper midline position as well as occlusal plane.





10 Lute denture to temporary copings

- Block out screw access holes.
- Use rubber dam or other suitable material to protect surgical site.
- Lute the denture with liquid resin to the temporary copings in the patient's mouth.
- With the denture in patient's mouth, allow the resin to set in an ideal occlusal relationship.



11 Remove denture

- Manually unscrew the prosthetic screws of the temporary copings with the Screwdriver Manual Unigrip.
- Remove denture together with luted temporary copings from patient's mouth.
- Finish luting procedure extraorally and polish.

Tip: A Protection Analog Multi-unit could be used to protect the temporary copings from liquid resin.



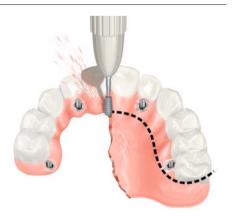
12 Trim titanium copings

Use a carbide bur to trim the titanium copings extraorally so that they are flush with the resin.



13 Trim denture

In order to complete the conversion of the denture into a fixed provisional bridge, remove the palatal portion and recontour the buccal flange. In addition, remove cantilevers that exist distal to the position of the most posterior implants.



14 Finalize provisional bridge

Make sure that the palatal surface of the bridge is convex and smoothly polished to avoid food impaction and bacteria accumulation.



15 Connect provisional bridge

- Place the provisional bridge on the Multi-unit Abutments and tighten the prosthetic screws to 15 Ncm using Screwdriver Machine Unigrip and Manual Torque Wrench Prosthetic.
- Block out screw access holes and fill them with suitable material.
- Check and adjust the occlusion if necessary.



16 Wait for sufficient healing

Allow for the implants to osseointegrate before fabrication of the final restoration.

Direct method with dental laboratory support when additional acrylic needs to be added

Notes:

- The following illustrations show the conversion of either an existing or a previously fabricated denture into a fixed provisional full-arch bridge on abutment level with the support of the dental laboratory following the Immediate Function protocol.
- This procedure can be applied if adjustments have been made to the tissues and the denture therefore needs to be adjusted to fill the voids.
- The fixed provisional bridge can be used for the immediate (Immediate Function) or delayed loading of four or more implants in either jaw with an existing opposing dentition.

1 Ensure that denture is suitable

In order to successfully convert a denture into a fixed provisional bridge, the following is recommended for consideration:

- Function: The denture should be functional. After several years of use, many dentures are worn and weakened, which will ultimately affect the strength of the fixed provisional bridae.
- Fit: The fit of the denture is critical. If the base is not stable, the conversion process may not be successful.
- Occlusion: The denture should be in an ideal occlusal and vertical relationship.
- Esthetics: If the esthetics of the denture are not acceptable to the patient, a new denture is recommended for this procedure.



2 Confirm implant positions and choose Multi-unit

Place the surgical guide to confirm implant positions. This guide also helps in selecting the correct Multi-unit Abutments.



3 Connect and tighten Multi-unit Abutments

Connect Multi-unit Abutments to the implants and tighten them.

Notes:

- For straight Multi-unit Abutments, tighten the abutment screw to 35 Ncm using Screwdriver Machine Multi-unit and Manual Torque Wrench Prosthetic.
- For angulated Multi-unit Abutments, tighten the abutment screw to 15 Ncm using Screwdriver Machine Unigrip and Manual Torque Wrench Prosthetic.

Caution: Never exceed recommended maximum tightening torque. Overtightening may lead to a screw fracture.



4 Suture surgical site

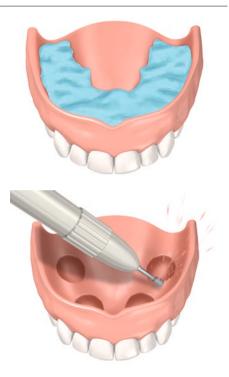
- Place Healing Caps Multi-unit and manually tighten prosthetic screws with the Screwdriver Manual Unigrip.
- Close and suture tissue flap around the abutments.



5 Make trial insertion

- Place impression material into denture. Be sure to keep the palatal aspect of the denture free from impression material.
- Make trial insertion and check denture against the opposing dentition to assure that occlusal relationships are correct.
- Remove any undercuts or tissue interferences.
- Verify clearance for Healing Caps Multi-unit.
- Remove impression material and repeat above until the final esthetic position with the correct occlusal plane is achieved.
- Remove trial impression material before final indexing.

Note: Trial insertion may take several attempts to remove any undercuts or tissue interferences that keep the denture from seating in the final esthetic position at the correct occlusal plane.



6 Make vent and retention holes

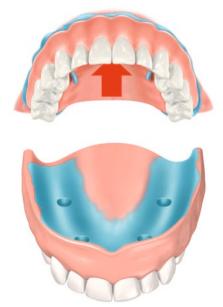
- Before placing impression material for the final index, make vent holes in the palatal side of the denture to reduce hydraulic pressure.
- In addition, place retention holes in the flange for increased retention of the impression material.



7 Register abutment positions for final indexing

- Place impression material into denture. Be sure to keep the palatal aspect free from impression material.
- Place denture into patient's mouth with finger pressure on the palatal area to index the position of the Healing Caps Multi-unit.
- The denture is checked against the opposing dentition to verify that occlusal relationships are correct.

Note: Do not remove impression material from denture.



8 Make anterior holes for anterior temporary copings

Drill holes into the anterior part of the denture where the Healing Caps Multi-unit have left an impression using a carbide

Note: Do not remove impression material from denture.



9 Place anterior temporary copings

- Remove anterior Healing Caps Multi-unit.
- Place anterior Temporary Copings Multi-unit Titanium on the anterior Multi-unit Abutments and manually tighten the prosthetic screws with the Screwdriver Manual Unigrip.
- Block out screw access holes with wax.

Note: Ensure that no soft tissue is trapped between coping and abutment.



10 Verify anterior passive fit

- Confirm passive fit of the denture by placing it over the anterior temporary copings.
- Confirm proper midline position.
- Check occlusion with opposing dentition to be sure that there are no interferences from the temporary copings in centric occlusion.

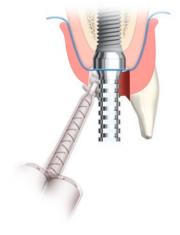
Note: If needed, reduce length of the anterior temporary copings to eliminate any occlusal interferences.



11 Lute denture to anterior temporary copings

- Use rubber dam or other suitable material to protect the surgical site.
- Lute the denture with liquid resin to the anterior temporary copings in the patient's mouth.
- With the denture in patient's mouth, allow the resin to set in an ideal occlusal relationship.





12 Remove denture

- Manually unscrew the prosthetic screws of the temporary copings with the Screwdriver Manual Unigrip.
- Remove denture together with luted temporary copings from the patient's mouth.



13 Make posterior holes for temporary copings

Drill holes into the posterior part of the denture where the Healing Caps Multi-unit have left an impression using a carbide bur.

Note: Do not remove impression material from denture.



14 Place posterior temporary copings

- Remove posterior Healing Caps Multi-unit.
- Place posterior Temporary Copings Multi-unit Titanium on the posterior Multi-unit Abutments and manually tighten the prosthetic screws with the Screwdriver Manual Unigrip.
- Block out screw access holes with wax.

Note: Ensure that no soft tissue is trapped between coping and abutment.



15 Verify posterior passive fit

- Attach denture to anterior Multi-unit Abutments by manually tightening the prosthetic screws with the Screwdriver Manual Unigrip.
- Be sure there is no denture base material touching the posterior temporary copings.
- Confirm proper midline position.
- Check occlusion with opposing dentition to be sure that there are no interferences from the temporary copings in the centric occlusion.

Note: If needed, reduce length of the posterior temporary copings to eliminate any occlusal interferences.



16 Lute denture to posterior temporary copings

- Use rubber dam or other suitable material to protect the surgical site.
- Lute the denture with liquid resin to the posterior temporary copings in the patient's mouth.
- With the denture in patient's mouth, allow the resin to set in an ideal occlusal relationship.



17 Remove denture

- Manually unscrew the prosthetic screws from the temporary copings with the Screwdriver Manual Unigrip.
- Remove denture together with luted temporary copings from the patient's mouth.

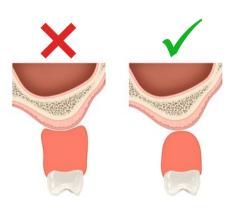


18 Finalize provisional bridge in dental laboratory

- Fabricate a working model according to established procedures and mount in articulator.
- Trim Temporary Copings Multi-unit Titanium, if applicable, and fill voids with acrylic.
- Remove the palatal portion of the denture and recontour the buccal flange. In addition, remove cantilevers that exist distal to the position of the most posterior implants.

Notes:

- Make sure that the palatal surface of the bridge is convex and smoothly polished to avoid food impaction and bacteria accumulation.
- Avoid or minimize any cantilever on the provisional bridge.









19 Connect provisional bridge

- Place the provisional bridge on the Multi-unit Abutments and tighten the prosthetic screws to 15 Ncm using Screwdriver Machine Unigrip and Manual Torque Wrench Prosthetic.
- Block out screw access holes and fill them with suitable material.
- Check and adjust the occlusion, if necessary.



20 Wait for sufficient healing

Allow for the implants to osseointegrate before fabrication of the final restoration.

Multi-unit Abutments

Internal conical Internal tri-channel External hex connection connection connection NobelReplace®, Replace Select™, NobelSpeedy® Replace, NobelReplace® Platform Shift Brånemark System® and NobelSpeedy® Groovy NobelActive®, NobelParallel™ and NobelReplace® Conical Connection NP 6.0 NP RP NP WP WP RP STERILE R NP WP NP WP NP RP WP 6.0 29184 29196 29199 29204 Multi-unit Abutment 1 mm 29176 29179 Multi-unit Abutment 1.5 mm 36611 37829 Multi-unit Abutment 2 mm 29177 29180 29185 29197 29200 29205 Multi-unit Abutment 2.5 mm 36613 37830 29201 29181 29186 29198 Multi-unit Abutment 3 mm 29178 29206 Multi-unit Abutment 3.5 mm 36624 36625 37831 29182 29202 Multi-unit Abutment 4 mm Multi-unit Abutment 4.5 mm 36626 29183 Multi-unit Abutment 5 mm 29203 0.5 mm -Adapter NobelReplace® 6.0 to WP (add 0.5 mm to abutment height) 32412

External hex connection Brånemark System® and NobelSpeedy® Groovy

connection

NobelActive®, NobelParallel™ and

NobelReplace® Conical Connection

Internal conical

Internal tri-channel

connection

NobelReplace®, Replace Select™,
NobelSpeedy® Replace,
NobelReplace® Platform Shift

STERILE R		NP	RP	WP	NP	RP	WP	NP	RP	WP	6.0
		NP	RP	WP	NP	RP	WP	NP	RP	WP	6.0
			6	2mm						2mm	
17° Mult	ti-unit Abutment 2 mm	29187	29189	_	-	-	_	29235	29237	_	-
					,		- 5 mm -				
17° Mult	ti-unit Abutment 2.5 mm	-	_	_	36614	36618	37832	-	_	_	-
			0	3mm						3mm	
17° Mult	ti-unit Abutment 3 mm	29188	29190	_	-	-	_	29236	29238	_	-
						$\sqrt{\frac{3}{3}}$	- .5mm -				
17° Mult	ti-unit Abutment 3.5 mm	-	_	_	36615	36619	37833	_	-	_	-
			0	4mm						4mm	
17° Mult	ti-unit Abutment 4 mm	-	29191	_	-	_	_	-	29239	_	-
							- 5mm -				
30° Mult	ti-unit Abutment 3.5 mm	-	_	_	36620	36622		-	-	_	-
200 M	si wais Alausana dan		29192	4mm 					20240	4mm	
	ti-unit Abutment 4 mm	-	29192		-	_	_	-	29240	_	-
Non-Eng (For All-	ti-unit Abutment gaging 4 mm on-4° treatment		22411	4mm					23400	4mm —	
concept	with guided surgery)*	-	33411		-	6		_	33409	_	
30° Mult	ti-unit Abutment 4.5 mm	_	_	-	36621	36623	1.5 mm - -	-	_	_	=
30° M	ti-unit Abutment 5 mm		29193	5mm					29241	5mm	
		_	23133		_			_	23241		
Non-Eng (For All-	ti-unit Abutment gaging 5 mm on-4° treatment		22/12	5mm					22/10	5mm	
concept	with guided surgery)*		33412					_	33410		

Clinical screw included.

^{*} Abutment Holder, Jig Stabilizer and clinical screw included.

Internal tri-channel

connection connection connection Connection NobelActive®, NobelParallel™ and NobelReplace® Conical Connection NobelReplace®, Replace Select™, NobelSpeedy® Replace, NobelReplace® Platform Shift Brånemark System® and NobelSpeedy® Groovy NP WP 6.0 NP RP NP RP WP RP NP RP WP NP RP WP NP RP WP 6.0 Abutment Screw Multi-unit Angled 29194 29195 36892 37893 37893 29242 29243 Prosthetic Screw Multi-unit 29285 29285 29286 29285 29285 29285 29285 29285 29285 Healing Cap Multi-unit (1/pkg) 31145 31145 31145 31145 29066 31145 31145 31145 31145 Healing Cap Multi-unit (5/pkg) 29064 29064 29064 29064 29064 29064 29064 29064 Healing Cap Wide Multi-unit (1/pkg) 31146 31146 29067 31146 31146 31146 31146 31146 31146

Internal conical

External hex

Torque guide for clinical screws for Nobel Biocare implant systems

Straight Multi-unit Abutment	35 Ncm
17° and 30° Multi-unit Abutment	15Ncm
Prosthetic screw	15Ncm

Prosthetic components

	External hex connection Brånemark System® and NobelSpeedy® Groovy			NobelAc	Internal conical connection NobelActive®, NobelParallel™ and NobelReplace® Conical Connection			Internal tri-channel connection NobelReplace®, Replace Select™, NobelSpeedy® Replace, NobelReplace® Platform Shift				
NON	NP	RP	WP	NP	RP	WP	NP	RP	WP	6.0		
	NP	RP	WP	NP	RP	WP	NP	RP	WP	6.0		
Temporary Coping Multi-unit Titanium (with Prosthetic Screw)	29046	29046	29047	29046	29046	29046	29046	29046	29046	-		
Abutment Replica Multi-unit (1/pkg)	31161	31161	31162	31161	31161	31161	31161	31161	31161	-		
Abutment Replica Multi-unit (5/pkg)	29110	29110	-	29110	29110	29110	29110	29110	29110	-		
Guide Pin Multi-unit 10 mm (1/pkg)	31154	31154	31156	31154	31154	31154	31154	31154	31154	-		
Guide Pin Multi-unit 10 mm (5/pkg)	29102	29102	• _	29102	29102	29102	29102	29102	29102	-		
Guide Pin Multi-unit 20 mm (1/pkg)	31155	31155	3 1157	31155	31155	31155	31155	31155	□ □□ 31155	-		
Guide Pin Multi-unit 20 mm (5/pkg)	29103	29103	-	2 9103	29103	29103	29103	29103	29103	-		

External hex connection Brånemark System® and NobelSpeedy® Groovy

Internal conical connection

NobelActive®, NobelParallel™ and NobelReplace® Conical Connection

Internal tri-channel connection

NobelReplace®, Replace Select™, NobelSpeedy® Replace, NobelReplace® Platform Shift





Prosthetic Kit

37448

(The articles below can also be purchased individually.)

Kit includes	
Screwdriver Machine Unigrip™ 20 mm	29151
Screwdriver Machine Unigrip™ 30 mm	29153
Screwdriver Machine Multi-unit 21mm	29158
Omnigrip™ Screwdriver Machine 20 mm	37379
Omnigrip™ Screwdriver Machine 30 mm	37381
Manual Torque Wrench Prosthetic	29165





Screwdrivers

Screwdriver Manual Unigrip 36 mm 29150 Screwdriver Manual Multi-unit 25 mm 29156 Screwdriver Manual Multi-unit Brånemark System® WP 25 mm 29157 Screwdriver Machine Multi-unit 21 mm 29158 Screwdriver Machine Multi-unit 29159 Brånemark System® WP 20 mm





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