

Healing Abutments, Healing Screws



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Please note that some products detailed in this Instruction for Use may not be regulatory cleared, released or licensed for sale in all markets.

Description

Healing abutments and Healing Screws are premanufactured dental implant abutments which can be directly connected to the endosseous dental implant to support healing of the surrounding soft tissue.

Healing Abutments/Healing Screws

- Healing Abutments Conical Connection are available in 3.0/ NP/RP/WP platforms, feature a conical connection and can be used with Nobel Biocare's® NobelActive®, NobelParallel™ CC and/or NobelReplace® CC implant systems. They are available with different emergence profiles and anodization types.
- Healing Abutments Bridge Conical Connection are available in NP/RP/WP platforms, feature a conical connection and can be used with Nobel Biocare's NobelActive®, NobelParallel™ CC and/or NobelReplace® CC implant systems. Healing Abutments Bridge Conical Connection are to be used exclusively for bridges.
- Healing Abutments Nobel Biocare N1[™] TCC are available in NP/RP platforms and feature a tri-oval conical connection and can be used with Nobel Biocare's Nobel Biocare N1[™] implant system.
- Healing Abutments NobelReplace® are available in NP/RP/WP and 6.0 platform, feature an internal trichannel connection and can be used with Nobel Biocare's NobelReplace®, Replace Select™ and/or NobelSpeedy® Replace implant systems.
- Healing Screw Replace Select is available in NP and RP platforms, feature an internal tri-channel connection and can be used with Replace Select TC.
- Healing Abutments Brånemark System® are available in NP/RP/WP platforms, feature an external hex connection and can be used with Nobel Biocare's Brånemark System and/or NobelSpeedy® Groovy implant systems. The RP can be used with NobelZygoma.
- Healing Abutments Brånemark System® Zygoma feature an external hex connection and can be used with Nobel Biocare's Brånemark System® Zygoma implant system.

Slim Healing Abutments

 Slim Healing Abutments Conical Connection are available in 3.0/NP/RP platforms, feature a conical connection and can be used with Nobel Biocare's NobelActive®, NobelParallel™ CC and/or NobelReplace® CC implant systems.

Healing Abutments Anatomical PEEK

 Healing Abutments Anatomical PEEK Conical Connection are available in WP platform, feature a conical connection and can be used with Nobel Biocare's NobelActive® and/or NobelParallel™ CC implant systems.

The following tables summarize the implant platforms which are compatible with the various healing abutments, including the specifications for required screwdrivers, and other key information for each type of healing abutment, based on their connection type.

Table 1 – Healing Abutments – Compatible Implant Platforms and Screwdrivers

Healing Abutment for	Available	Color coding	Screwdriver
	platforms		
Conical connection (CC)	3.0	none	Unigrip™
	NP	•	
	RP	•	
	WP	•	
Tri-oval conical connection (TCC)	NP	(screw)	Omnigrip™ mini
	RP	(screw)	
Tri-channel	NP	•	Unigrip™
	RP	•	
	WP	•	
	6.0	•	
External Hex	NP	none	Unigrip™
	RP	none	
	WP	none	

Table 2 – Healing Screws – Compatible Implant Platforms and Screwdrivers

Healing Screw for	Available platforms	Color coding	Screwdriver
Tri-channel	NP	•	Unigrip™
	RP	•	

Table 3 – Slim Healing Abutments – Compatible Implant Platforms and Screwdrivers

Slim Healing Abutment for	Available platforms	Color coding	Screwdriver
Conical connection (CC)	3.0	none	Unigrip™
	NP	•	
	RP	•	

Table 4 – Healing Abutments Anatomical PEEK – Compatible Implant Platforms and Screwdrivers

Healing Abutment Anatomical PEEK for	Available platforms	Color coding	Screwdriver
Conical connection (CC)	WP	none	Unigrip™

Healing abutments which feature tri-oval conical connection and Healing Abutments Anatomical PEEK are co-packed with a clinical screw. Refer to Nobel Biocare Instructions for Use (IFU) IFU1057 for information regarding clinical screws. This IFU is available for download at ifu.nobelbiocare.com.

Nobel Biocare products are intended and available to be used in a variety of configurations. For further information refer to Nobel Biocare publication Compatibility Information by navigating to ifu.nobelbiocare.com.

Intended Use/Intended Purpose

Healing abutments/healing screws

Intended to be temporarily connected to an endosseous dental implant or implant abutment, to support healing of the surrounding soft tissue.

Indications

Healing abutments and healing screws are indicated for use with endosseous dental implants or implant abutments in the maxilla or mandible for supporting single tooth to full arch denture procedures.

Healing abutments Nobel Biocare $N1^{TM}$ TCC are indicated for use for up to 180 days.

Healing Abutments Bridge Conical Connection are additionally indicated to prevent growth of bone on the implant platform to support placement of an Impression Coping Bridge.

Healing Abutments Anatomical PEEK Conical Connection are adjustable abutments which are indicated for use for up to 180 days with endosseous dental implants in the maxilla or mandible, for supporting single tooth to full arch denture procedures.

Contraindications

It is contraindicated to use healing abutments and healing screws in:

- Patients who are medically unfit for an oral surgical procedure.
- Patients in whom adequate sizes, numbers or desirable positions of implants are not reachable to achieve safe support of functional or eventually parafunctional loads.
- Patients who are allergic or hypersensitive to titanium alloy Ti-6Al-4V (titanium, aluminum, vanadium), DLC (Diamond Like Carbon) or PEEK (Polyetheretherketone).

Materials

- Healing abutments and healing screws and Slim Healing Abutments:
 Titanium alloy 90% Ti, 6% Al, 4% V according to ASTM F136 and ISO 5832-3.
- Healing Abutments Anatomical PEEK:
 PEEK (Polyetheretherketone) according to SPE 130322.
- Clinical screws for Healing Abutments Nobel Biocare N1TCC and for Healing Abutments Anatomical PEEK: Titanium alloy 90% Ti, 6% Al, 4% V according to ASTM F136 and ISO 5832-3 and DLC (Diamond Like Carbon) coating.

Cautions

General

Close cooperation between surgeon, restorative dentist and dental laboratory technician is essential for successful implant treatment.

Healing Abutments and Healing Screws must only be used with compatible Nobel Biocare instruments and/or components and/or prosthetic components. Use of instruments and/or components and/or prosthetic components that are not intended to be used in combination with Nobel Biocare's Healing Abutments and Healing Screws can lead to product failure, damage to tissue, or unsatisfactory esthetic results.

Before Surgery

Special attention must be given to patients who have local or systemic factors that could interfere with the healing process of either bone or soft tissue or the osseointegration process (e.g. cigarette smoking, poor oral hygiene, uncontrolled diabetes, oro-facial radiotherapy, steroid therapy, infections in the neighboring bone). Special caution is advised in patients who receive bisphosphonate therapy.

In general, implant placement and prosthetic design must accommodate individual patient conditions. In case of bruxism, other parafunctional habits or unfavorable jaw relationships, reappraisal of the treatment option may be considered.

The device has not been evaluated in pediatric/adolescent patients and is not recommended for use in children. Routine treatment is not recommended for pediatric patients until the end of the jawbone growth phase has been properly documented.

Pre-operative hard tissue or soft tissue deficits may yield a compromised esthetic result or unfavorable implant angulations.

All components, instruments and tooling used during the clinical and/or laboratory procedure must be maintained in good condition and care must be taken that instrumentation does not damage implants or other components.

At Surgery

Because of the small size of the devices, care must be taken that they are not swallowed or aspirated by the patient. It is appropriate to use specific supporting tools to prevent aspiration of loose parts (e.g gauze, a dental dam, or a throat shield).

After Surgery

To secure the long-term treatment outcome, it is advised to provide comprehensive regular patient follow up after implant treatment and to inform the patient about appropriate oral hygiene.

Intended Users and Patient Groups

Healing abutments and healing screws are to be used by dental health care professionals.

Healing abutments and healing screws are to be used in patients subject to dental implant treatment.

Clinical Benefits and Undesirable Side Effects

Clinical Benefits Associated with Devices in the IFU

Healing abutments and healing screws are a component of treatment with a dental implant system and/or dental crowns and bridges. As a clinical benefit of treatment, patients can expect to have their missing teeth replaced and/or crowns restored.

Undesirable Side Effects Associated with Healing Abutments and Healing Screws

The placement of these devices is part of an invasive treatment which may be associated with typical side effects such as inflammation, infection, bleeding, hematoma, pain, and swelling. During abutment placement or removal the pharyngeal reflex (gag reflex) may be triggered in patients with a sensitive gag reflex

Healing abutments and healing screws are part of a multi-component system that replaces teeth and as a result, the implant recipient may experience side effects similar to those associated with teeth, such as retained cement, calculus, mucositis, ulcers soft tissue hyperplasia, soft and/or hard tissue recessions. Some patients may experience discoloration in the mucosal area such as graying.

Notice regarding serious incidents

For a patient/user/third party in the European Union and in countries with an identical regulatory regime (Regulation 2017/745/EU on Medical Devices); if, during the use of this device or as a result of its use, a serious incident has occurred, please report it to the manufacturer and to your national authority. The contact information for the manufacturer of this device to report a serious incident is as follows:

Nobel Biocare AB www.nobelbiocare.com/complaint-form

Handling Procedure

Handling Procedure for Healing abutments and healing screws

- 1. Select appropriate abutment and check occlusal clearance.
- Connect the abutment to implant and hand-tighten using dedicated screwdriver.

See Table 1 or Table 2 for compatibility. Refer to Nobel Biocare IFU1085 for information regarding the screwdriver. It is recommended to verify the final abutment seating using radiographic imaging.

Caution Never exceed recommended tightening torque for the screw. Overtightening of abutment screw may lead to a screw fracture.

- 3. If removal of the abutment is needed, untighten it using dedicated screwdriver.
- For abutments featuring tri-oval conical connection, if the removal is not possible, use the Abutment Retrieval tool. Refer to Nobel Biocare IFU1096 for information regarding the Abutment Retrieval Tool.

Handling Procedure for Healing Abutments Anatomical PEEK

- 1. Select appropriate abutment and check occlusal clearance.
- If necessary, adjust the abutment height using a rotary instrument (e.g. carbide or acrylic bur). The tissue facing axial contours of the abutment may be modified to achieve the desired shape. If axial modification is done, polishing with silicone points or similar methods is recommended.
- Connect to implant and hand-tighten using Unigrip™ screwdriver. Refer to Nobel Biocare IFU 1085 for information regarding the screwdriver. It is recommended to verify the final abutment seating using radiographic imaging.
- If removal of the abutment is needed, untighten the screw using dedicated screwdriver.
- If the abutment cannot be removed, use the Abutment Retrieval tool. Refer to Nobel Biocare IFU1096 for information regarding the Abutment Retrieval Tool.

Sterility and Reusability Information

Healing abutments and healing screws have been sterilized using irradiation and are intended for single use. Do not use after the labeled expiration date.

Warning Do not use device if the packaging has been damaged or previously opened as the device sterility and/or integrity may be compromised.

Caution Healing abutments and healing screws are single use products and must not be reprocessed. Reprocessing could cause loss of mechanical, chemical and/or biological characteristics. Reuse could cause local or systemic infection.

Magnetic Resonance (MR) Safety Information

These products are fabricated from a metal material which can be affected by MR energy. For further information refer to Nobel Biocare publication **MRI Safety Information** by navigating to <u>ifu.nobelbiocare.com</u>.

Performance Requirements and Limitations

To achieve the desired performance, the devices must only be used with the products described in this Instructions for Use and/or in the Instructions for Use for other compatible Nobel Biocare products, and in accordance with the Intended Use for each product. To confirm the compatibility of products which are intended to be used in conjunction with the devices, check the color coding, dimensions, lengths, connection type and/or any direct marking as applicable on the products or product labeling.

Facilities and Training

It is strongly recommended that new and experienced users of Nobel Biocare products always go through special training before using a new product for the first time. Nobel Biocare offers a wide range of courses for various levels of knowledge and experience. For more information, please visit www.nobelbiocare.com.

Storage, Handling and Transportation

The device must be stored and transported in dry conditions in the original packaging at room temperature and not exposed to direct sunlight. Incorrect storage and transportation may influence device characteristics leading to failure.

Disposal

Safely discard potentially contaminated or no longer usable medical devices as healthcare (clinical) waste in accordance with local healthcare guidelines, country and government legislation or policy.

Separation, re-cycling or disposal of packaging material shall follow local country and government legislation on packaging and packaging waste, where applicable.

Manufacturer and Distributor Information

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CE Mark for Class IIb Devices	C € ₂₇₉₇
UKCA Mark for Class IIb Devices	UK CA 0086

Note Refer to the product label to determine the applicable conformity marking for each device.

Note Regarding Canadian device licensure, not all products described in the IFU may have a device licence according to Canadian law.

Basic UDI-DI Information

Product	Basic UDI-DI Number
Healing Abutments Conical Connection 3.0/NP/RP/WP	733274700000012367
Healing Abutments Bridge Conical Connection NP/RP/WP	_
Healing Abutments Nobel Biocare N1™ TCC NP/RP	_
Healing Abutments NobelReplace® NP/RP/WP/6.0	
Healing Abutments Brånemark System NP/RP/WP	_
Brånemark System® Zygoma Healing Abutments	_
Slim Healing Abutments Conical Connection 3.0/NP/RP	
Healing Abutments Anatomical PEEK Conical Connection WP	
Healing Screws	_

Legal Statements

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Symbols Glossary

Please refer to the packaging label for the applicable symbols related to the product. On the packaging label you may encounter various symbols to convey a specific information about the product and/or its use. For further information refer to Nobel Biocare publication to the **Symbols Glossary** by navigating to ifu.nobelbiocare.com.