

Temporary Abutments and Copings



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Description

Temporary abutments and copings are pre-manufactured dental implant abutments which can be connected to an endosseous dental implant or dental implant abutment to support the placement of a temporary dental prosthesis.

An assortment of temporary abutments and copings are available for use with various Nobel Biocare implant systems.

Temporary Snap Abutments Engaging

 Temporary Snap Abutments Engaging 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.

Temporary Abutments Engaging

- Temporary Abutment Engaging Conical Connection 3.0 is available in the 3.0 platform, features a conical connection and can be used with Nobel Biocare's NobelActive® implant system.
- Temporary 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.
- Temporary Abutments Engaging NobelReplace[®] are available in NP/RP/WP and 6.0 platform, feature an internal tri-channel connection and can be used with Nobel Biocare's NobelReplace[®], Replace Select[™] and/or NobelSpeedy[®] Replace[™] implant systems.
- Temporary Abutments Engaging 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.

Temporary Abutments Non-Engaging

- Temporary Abutments Non-Engaging 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.
- Temporary Abutments Non-Engaging NobelReplace[®] are available in NP/RP/WP and 6.0 platform, feature an internal tri-channel connection and can be used with Nobel Biocare's NobelReplace[®], Replace Select[™] and/or NobelSpeedy[®] Replace[™] implant systems.
- Temporary Abutments Non-Engaging 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.

Temporary Abutment for	Available Platforms	Engaging	Non-engaging	Color Coding	Available Margin Heights	Tightening Torque	Screwdriver
Conical Connection (CC)	3.0	Х	-	None	1.5 mm	15 Ncm	Unigrip™
	NP	Х	х	•	1.5 mm	35 Ncm	
	RP	Х	Х	•	3.0 mm		
	WP	х	х	•	-		
Tri-oval Conical Connection (TCC)	NP	х	-	(screw)	1.5 mm	20 Ncm	Omnigrip™ Mini
	RP	Х	-	e (screw)	3.0 mm		
Tri-channel	NP	х	х	•	1.5 mm	35 Ncm	Unigrip™
	RP	Х	х	•			
	WP	Х	Х	•	-		
	6.0	х	х	•	-		
External Hex	NP	х	х	None	1.5 mm	35 Ncm	Unigrip™
	RP	Х	Х	None	-		
	WP	Х	х	None	-		

Table 1 – Temporary Snap Abutments Engaging, Temporary Abutments Enganing/Non-Engaging – Compatible Implant Platforms, Screwdrivers, and Torque Specifications

Temporary Copings Multi-unit and Temporary Snap Copings Multi-unit

- Temporary Snap Copings Multi-unit Titanium are available for Nobel Biocare's Multi-unit Abutments which feature conical connection and/or tri-oval conical connection.
- Temporary Coping Multi-unit are available for Nobel Biocare's Multi-unit Abutments which feature external hex connection and/or internal tri-channel connection.

Temporary Abutments Anatomical PEEK

- Temporary 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 temporary abutments and copings, including the specifications for tightening torque, required screwdrivers, and other key information for each type of temporary abutment and coping, based on their connection type.

Temporary Abutment	Available	Color	Available	Tightening	Screwdriver
Anatomical PEEK for	platforms	coding	sizes	torque	
Conical Connection (CC)	WP	None	6 x 7 mm 7 x 8 mm	35 Ncm	Unigrip™

Table 2 – Temporary Abutments Anatomical PEEK – Compatible Implant Platforms, Screwdrivers, and Torque Specifications

Temporary coping	MUA connection/platform	Color coding	Tightening torque	Screwdriver
Temporary Snap Coping Multi-unit	CC / NP, RP, WP TCC / NP, RP	None	15 Ncm	Unigrip™
Temporary Coping Multi-unit	Tri-channel / NP, RP, WP External Hex / NP, RP			
Temporary Coping Multi-unit Bmk WP	External Hex / WP	-		

Table 3 – Temporary Copings Multi-unit and Temporary Snap Copings Multi-unit – Compatible Abutments, Screwdrivers, and Torque Specifications Temporary Snap Abutments Engaging, Temporary Abutments Engaging, Temporary Abutments Non-Engaging and Temporary/Snap Copings Multi-unit, Temporary 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 <u>ifu.nobelbiocare.com</u>.

Intended Use / Intended Purpose

Temporary Abutments and Copings

Dental implant abutments are intended to be used in the upper or lower jaw and used for supporting tooth replacements to restore chewing function.

The PEEK Temporary Abutment is a pre-manufactured prosthetic component directly connected to the endosseous dental implant and is intended for use as an aid in prosthetic rehabilitation. It is indicated for single and multiple unit cement retained temporary restorations.

Indications

Temporary Abutment Engaging and Non-Engaging is a pre-manufactured prosthetic component directly connected to the endosseous dental implant and is intended for use as an aid in prosthetic rehabilitation.

The Temporary Abutments and Copings in combination with endosseous implants are indicated for single unit to multiple units screw retained temporary restorations.

Temporary Abutment Engaging Titanium is indicated for single unit screw-retained temporary restorations.

Temporary Abutment Engaging Conical Connection 3.0 is indicated for use in the treatment of missing single maxillary lateral incisors or in the mandibular central and lateral incisors.

Temporary Abutment Non-Engaging Titanium is indicated for screw-retained multiple temporary restorations, for implants with less than 40° overall divergences to allow path of insertion.

Temporary Coping Multi-unit Titanium is indicated for screw retained Multi-unit abutments intended for multiple unit temporary restorations.

For Temporary Abutment Titanium and Temporary Coping Titanium no specific time limit applies.

Temporary Abutments Nobel Biocare N1[™] TCC are indicated for use with single unit screw-retained temporary dental prostheses placed on endosseous dental implants in the maxilla and mandible, for up to 180 days.

The Nobel Biocare anatomical PEEK Temporary Abutments are pre-manufactured, adjustable prosthetic components directly connected to endosseous dental implants and are intended for temporary use up to 180 days as an aid in prosthetic rehabilitation.

Contraindications

It is contraindicated to use temporary abutments and copings 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 static and dynamic loads.
- Patients who are allergic or hypersensitive to PEEK (Polyetheretherketone) titanium alloy Ti-6Al-4V (90% titanium, 6% aluminum, 4% vanadium) and DLC (Diamond Like Carbon).

It is contraindicated to use the Temporary Abutment Conical Connection 3.0 in positions other than for lateral incisors in the maxilla or central and or lateral incisors in the mandible.

It is contraindicated to use the Temporary Abutment Conical Connection 3.0 for multiple unit restorations.

Cautions

General

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

It is strongly recommended that Nobel Biocare surgical instruments and prosthetic components are used only with Nobel Biocare implants, as combining components that are not dimensioned for correct mating can lead to mechanical and/or instrumental failure, damage to tissue or unsatisfactory aesthetic results.

It is especially important to achieve proper stress distribution through adaptation and fitting of the crown or bridge by adjusting occlusion to the opposing jaw. In addition, avoid excessive transverse loading forces, particularly in immediate loading cases.

Before Surgery

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 laboratory procedure must be maintained in good condition and care must be taken that instrumentation does not damage implants or other components.

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 jaw bone growth phase has been properly documented. In general, implant placement and prosthetic design must accommodate individual patient conditions.

In the case of bruxism, other parafunctional habits, or unfavorable jaw relationships, reappraisal of the treatment option or appropriate pre- and post-treatment measures may be considered.

At Surgery

Because of the small sizes 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 throat shields).

Never exceed the recommended maximum tightening torque for the clinical/prosthetic screw. Overtightening of the abutment may lead to a screw fracture.

After Surgery

To help ensure a successful 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.

Handling Procedure

Handling Procedure for Temporary Abutments Engaging/Non-Engaging

- 1. Connect the Temporary Abutment to the implant using the appropriate screwdriver according to Table 1 and check the post height. Modify the abutment, if necessary, outside of the patient's mouth. Do not modify the abutment seating area.
- 2. After modifying the abutment, it must be cleaned and sterilized prior to further intraoral use, following the instructions in the Cleaning and Sterilization Instructions section.
- Re-connect the abutment to the implant using the clinical screw and block the screw access hole. For temporary snap abutments, use the snap feature to engage the abutment into the implant.
- 4. Make a temporary restoration using a pre-fabricated mold with a suitable temporary restoration material, following the instructions by the material manufacturer.
- 5. For temporary snap abutments: remove the temporary restoration by pulling the crown. Connect the abutment with the restoration to the dedicated protection analog and use the apical drill to create the screw access hole.
- For temporary abutments without the snap feature: drill a hole through the mold, loosen the screw(s) using a dedicated screwdriver and remove the restoration.
- Make final adjustments to the restoration. Protect the abutment connection while making adjustments using dedicated instruments.
- 8. Connect the temporary restoration to the implant using the clinical screw and appropriate screwdriver according to Table 1.
- Tighten the restoration to the required torque according to Table 1, using the appropriate screwdriver and the Manual Torque Wrench Prosthetic. Refer to Nobel Biocare Instructions for Use (IFU) IFU1047 for information regarding the Manual Torque Wrench Prosthetic.

It is recommended to verify the final seating using radiographic imaging.

IFU1028 016 04

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

Caution For Conical Connection 3.0: Never exceed 15 Ncm prosthetic tightening torque for the abutment screw. Over tightening of abutment may lead to a screw fracture.

- Block the screw access hole using suitable material, before closing it with composite.
- If removal of the temporary restoration is needed, open the screw access and untighten the screw using the appropriate screwdriver.
- If the abutment cannot be removed, use the Abutment Retrieval Tool. Refer to Nobel Biocare Instructions for Use (IFU) IFU1041 for information regarding Abutment Retrieval Tool.

Note For processing of the temporary restoration in the dental laboratory, a dedicated laboratory screw should be used.

Handling Procedure for Temporary/Snap Copings Multi-unit

1. Connect the Temporary/Snap Coping to the Multi-unit Abutment and modify it if necessary, using copious irrigation.

Note Until the Temporary/Snap Coping is secured with the Prosthetic Screw, care should be exercised that it does not detach from the Multi-unit Abutment (e.g., through pressure from the tongue).

- 2. Close the screw access hole.
- 3. Make a temporary restoration using a pre-fabricated mold with suitable temporary crown and bridge material.
- Drill a hole through the mold, loosen the screw(s) using Unigrip[™] Screwdriver and remove the restoration.
- 5. Make final adjustments.
- Connect and tighten the temporary restoration to 15 Ncm using a Unigrip[™] Screwdriver and Manual Torque Wrench prosthetic.

Note If the restoration on Temporary Snap Copings Multi-unit Abutment is cemented, temporary cement should be used.

Handling procedure PEEK Temporary Abutment

The Nobel Biocare Anatomical PEEK Temporary Abutment may be used for cement retained provisional restorations.

- Select appropriate temporary abutment. Height may be adjusted by use of a rotary instrument (e.g., carbide or acrylic bur).
- 2. Cut a small axial 'flat' or 'groove' into the provisional abutment to assist in correct location during cementation.
- 3. Construct a provisional crown/bridge in conventional manner. It is important to remove and replace the provisional crown/bridge at least once prior to final setting of the restorative material to avoid difficulty in removing the crown/bridge once the restorative material has set.
- 4. Contour margins and polish modified area.
- 5. Tighten the PEEK Temporary Abutment to 35 Ncm using Unigrip™ Screwdriver and Manual Torque Wrench Posthetic.

Cement provisional crown/bridge onto PEEK Abutment with preferred temporary cement. Care should be taken to ensure that all excess cement is completely removed.

Laboratory procedure (laboratory made provisionals)

Laboratory receives an implant or abutment level impression from the clinician.

- 1. Assemble the impression coping and implant or abutment replica and carefully reposition into the impression.
- 2. Fabricate a working model with removable gingival material.

Follow step 1–5 from the "Clinical procedure (chair-side made provisionals)" to fabricate a single or multiple unit provisional restoration.

Additional laboratory use (NobelProcera® restoration)

The Temporary Abutment and Temporary Coping can also be used as a component onto which the dental technician applies wax/pattern resin material to fabricate a diagnostic representation of the framework which he/she desires to receive back as a NobelProcera® CAD/CAM product. To obtain this NobelProcera® CAD/CAM restoration, place this wax-up framework into the NobelProcera® or an approved scanner and follow the CAD system software tutorial.

- 1. Use Temporary Abutment Engaging for NobelProcera® CAD/CAM abutment fabrication.
- 2. Use Temporary Abutment Non-Engaging or Temporary Coping – for NobelProcera® CAD/CAM implant bridge fabrication.

Materials

- Temporary Abutment Engaging Conical Connection, Temporary Abutments Nobel Biocare N1[™] TCC, Temporary Abutments Engaging NobelReplace®, Temporary Abutments Engaging Brånemark System®, Temporary Abutments Non-Engaging Conical Connection, Temporary Abutments Non-Engaging NobelReplace®, Temporary Abutments Non-Engaging Brånemark System®, Temporary Snap Copings Multi-unit, and Temporary Copings Multi-unit: Titanium alloy 90% Ti, 6% Al, 4% V according to ASTM F136 and ISO 5832-3.
- Anatomical PEEK Healing and Temporary Abutment: PEEK (Polyetheretherketone).
- Clinical screw: Titanium alloy 90% Ti, 6% Al,
 4% V according to ASTM F136 and ISO 5832-3
 with DLC (Diamond Like Carbon) coating.

Sterility and Reusability Information

Temporary Abutments Nobel Biocare N1[™] TCC and PEEK Temporary abutments have been sterilized using irradiation and are intended for single use only. 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.

Temporary Abutment Engaging Conical Connection, Temporary Abutments Engaging NobelReplace®, Temporary Abutments Engaging Brånemark System®, Temporary Abutments Non-Engaging Conical Connection, Temporary Abutments Non-Engaging NobelReplace®, Temporary Abutments Non-Engaging Brånemark System®, Temporary Snap Copings Multi-unit, and Temporary Coping Multi-unit are delivered non-sterile for single use only. Prior to use clean and sterilize the product following the manual or automated procedure in the Cleaning and Sterilization Instructions. Warning Do not use device if the packaging has been damaged or previously opened as the device sterility and/or integrity may be compromised.

Warning Use of non-sterile device may lead to infection of tissues or infectious diseases.

Caution Temporary abutments and copings 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.

Note Temporary Abutment Engaging Conical Connection, Temporary Abutments Nobel Biocare N1[™] TCC, Temporary Abutments Engaging NobelReplace®, Temporary Abutments Engaging Brånemark System®, Temporary Abutments Non-Engaging Conical Connection, Temporary Abutments Non-Engaging NobelReplace®, Temporary Abutments Non-Engaging Brånemark System® must be cleaned and sterilized after performing any modifications to the abutment as described in the Handling Procedure.

Cleaning and Sterilization Instructions

Temporary Abutment Engaging Conical Connection, Temporary Abutments Engaging NobelReplace®, Temporary Abutments Engaging Brånemark System®, Temporary Abutments Non-Engaging Conical Connection, Temporary Abutments Non-Engaging NobelReplace®, Temporary Abutments Non-Engaging Brånemark System®, and Temporary Coping Multi-unit are delivered non-sterile by Nobel Biocare and are intended for single use. Prior to use, the devices must be cleaned and sterilized by the user.

Additionally, if any Temporary Abutment or coping is modified after initial cleaning and sterilization, the device must be cleaned and sterilized again prior to intraoral use.

Temporary Abutments Nobel Biocare N1[™] TCC and PEEK Temporary abutments are delivered sterile but if modified during Handling Procedure, must be cleaned and sterilized by the user.

The devices can be cleaned manually, or in an automatic washer. Each device must then be individually sealed in a sterilization pouch and sterilized.

The following cleaning and sterilization processes have been validated according to international standards and guidelines as applicable:

- Manual and Automated Cleaning: AAMI TIR 12.
- Sterilization: AAMI ST79 and ISO 17665-1.

According to EN ISO 17664, it is the responsibility of the user/processor to ensure that the processing/reprocessing is performed using equipment, materials and personnel which are suitable to ensure the effectiveness of the processes. Any deviation from the following instructions should be validated by the user/processor to ensure the effectiveness of the process.

Note The manufacturer's instructions for use for any detergent/cleaning solution and/or equipment and accessories used to clean and/or dry the device(s) must be strictly followed where applicable.

Note The Temporary abutments and copings have been validated to withstand these cleaning and sterilization procedures.

Automated Cleaning and Drying (Including Pre-cleaning)

Pre-cleaning

- 1. Disassemble the screw from the abutment.
- 2. Immerse the device in 0.5% lukewarm enzymatic cleaning agent (e.g., Neodisher Medizym) for a minimum of 5 minutes.
- Fill lumina (where applicable) with 0.5% lukewarm enzymatic cleaning agent (e.g., Neodisher Medizym) using a 20 ml syringe.
- 4. Brush the outer surfaces with a soft bristled nylon brush (e.g., Medsafe MED-100.33) for a minimum of 20 seconds until all visible soil is removed.
- Brush the inner surfaces, lumina and cavities (where applicable) with an appropriately sized bottle brush (e.g., 1.2 mm / 2.0 mm / 5.0 mm diameter) for a minimum of 20 seconds until all visible soil is removed.
- Thoroughly rinse all outer and inner surfaces, lumina and cavities (where applicable) with cold running tap water for a minimum of 10 seconds to remove all cleaning solution.
- 7. Rinse lumina (where applicable) with 20 ml tap water using a 20 ml syringe.

Automated Cleaning and Drying

The following washer was used in the Nobel Biocare validation: Miele G7836 CD with the Vario TD program.

Note It is recommended to perform the automated cleaning and drying with a maximum load of 11 individual devices.

- 1. Place the devices in a suitable rack or load carrier (e.g., metal sieve basket).
- 2. Load the devices into the washer. Ensure the rack or load carrier is oriented in a horizontal position.
- 3. Perform automatic cleaning. The following parameters are based on the Vario TD program on the Miele G7836 CD washer:
 - Minimum 2 minutes pre-cleaning with cold tap water.
 - Draining.
 - Minimum 5 minutes cleaning with minimum 55°C (131°F) tap water and 0.5% mildly alkaline detergent (e.g., Neodisher Mediclean).
 - Draining.
 - Minimum 3 minutes neutralization with cold desalinated water.
 - Drainina.
 - Minimum 2 minutes rinsing with cold desalinated water.
 - Draining.
- 4. Run drying cycle at minimum 50°C (122°F) for a minimum of 10 minutes.
- 5. Dry with compressed air or clean and lint-free single use wipes, if any residual moisture remains after the drying cycle.

Note FDA-cleared washer-disinfectors are to be used for the recommended cleaning parameters.

Visual Inspection

After cleaning and drying, inspect the device for unacceptable deterioration such as corrosion, discoloration, pitting, or cracked seals and properly discard any devices that fail the inspection.

Manual Cleaning and Drying

- 1. Disassemble the screw from the abutment.
- 2. Immerse device for a minimum of 5 minutes in a sterile 0.9% NaCl solution.
- 3. Scrub the outer surfaces of the device with soft-bristled nylon brush for a minimum of 20 seconds until all visible soil is removed.
- Flush the inner surfaces, lumina and cavities (where applicable) with 20 ml lukewarm enzymatic cleaning solution (e.g., Cidezyme ASP; maximum 45°C (113°F)) using an irrigation needle connected to a 20 ml syringe.
- Brush the inner surfaces, lumina and cavities (where applicable) with appropriately sized bottle brush (e.g., 1.2 mm / 2.0 mm / 5.0 mm diameter) for a minimum of 10 seconds until all visible soil is removed.
- Thoroughly rinse the outer surfaces and lumina of the device with cold running tap water for a minimum of 10 seconds to remove all cleaning solution.
- Immerse the device in an ultrasonic bath (e.g., Bandelin; frequency 35 kHz; effective ultrasonic power 300 W_{eff}) containing 0.5% enzymatic cleaning agent (e.g., Cidezyme ASP) and treat for a minimum of 5 minutes at minimum 40°C (104°F) / maximum 45°C (113°F).
- 8. Flush the inner surfaces, lumina and cavities (where applicable) with 20 ml lukewarm tap water using an irrigation needle connected to a 20 ml syringe.
- Thoroughly rinse the outer surfaces of the device with purified or sterile water for a minimum of 10 seconds to remove all cleaning agent.
- 10. Dry with compressed air or clean and lint-free single use wipes.

Visual Inspection

After cleaning and drying, inspect the device for unacceptable deterioration such as corrosion, discoloration, pitting, cracked seals and properly dispose any devices that fail the inspection.

Sterilization

The following steam sterilizers were used in the Nobel Biocare validation: Systec HX-320 (pre-vacuum cycle); Amsco Century Sterilizer (gravity cycle).

Note It is recommended to perform sterilization with a maximum load of 11 devices individually sealed in sterilization pouches.

- Seal each device in a suitable sterilization pouch. The sterilization pouch should fulfill the following requirements:
 - EN ISO 11607 and/or DIN 58953-7.
 - Suitable for steam sterilization (temperature resistance up to at least 137°C (279°F), sufficient steam permeability).
 - Sufficient protection of the instruments as well as of the sterilization packaging to mechanical damage.

Table 2 presents examples of suitable sterilization pouches.

Method	Recommended Sterilization Pouch
Gravity Cycle	SPSmedical Self-Seal sterilization pouch
Pre-vacuum Cycle	SteriCLIN [®] pouch

Table 2 – Recommended Sterilization Pouches

- 2. Label the sterilization pouch with information necessary to identify the device (for example, the product name with article number and lot/batch number (if applicable)).
- 3. Place the sealed sterilization pouch into the autoclave/sterilizer. Ensure that the sterilization pouch is oriented in a horizontal position.
- 4. Sterilize the device. Both the gravity displacement cycle and pre-vacuum (top dynamic air removal) cycle can be applied, using the following recommended parameters:
 - Gravity Cycle: Steam sterilization at 132°C (270°F) for 15 minutes at saturated steam pressure, followed by a minimum drying time of 15 minutes in chamber.
 - Pre-Vacuum Cycle: Steam sterilization at 132°C (270°F) for 4 minutes at saturated steam pressure, followed by a minimum drying time of 20 minutes in chamber.

Note FDA-cleared sterilization equipment and accessories are to be used for the recommended sterilization parameters.

Note Autoclave/sterilizer design and performance can affect the efficacy of the sterilization process. Healthcare facilities should therefore validate the processes that they use, employing the actual equipment and operators that routinely process the devices. All autoclaves/sterilizers should comply with the requirements of, and be validated, maintained and checked in accordance to SN EN 13060, EN 285, EN ISO 17665-1, and/or AAMI ST79, or to the applicable national standard. The autoclave/sterilizer manufacturer's instructions for use must be strictly followed.

Storage and Maintenance

After sterilization, place the labeled and sealed sterilization pouch in a dry and dark place. Follow the instructions provided by the manufacturer of the sterilization pouch regarding the storage conditions and expiration date of the sterilized device.

Containment and Transportation/Shipping to Point of Use

The container and/or outer packaging used to transport or ship theprocessed device back to the point of use must be suitable to protect and safeguard the sterility of the devices during transportation, taking the device packaging and the required transportation or shipping process (intrafacility transportation or shipping to an external site) into account.

Magnetic Resonance (MR) Safety Information

MR Safety Information for Single Tooth Restoration

MRI Safety Information

Non-clinical testing has demonstrated that Temporary Abutments are MR conditional. A patient with this device can be safely scanned in an MR system meeting the following conditions mentioned here below. Failure to follow these conditions may result in injury to the patient.

Nominal value(s) of Static Magnetic Field [T]	1.5-Tesla (1.5 T) 3-Tesla (3 T)
Maximum Spatial Field Gradient [T/m and gauss/cm]	Maximum spatial field gradient of 58.9 T/m (5,890 G/cm).
RF Excitation	Circularly Polarized (CP).
RF Transmit Coil Type	Whole body transmit coil.

Maximum Whole-Body SAR [W/kg]	Inferior to the neck: 2.0 W/kg Superior to the neck: 0.5 W/kg	Inferior to the xyphoid: 2.0 W/kg Between the xyphoid and neck: 1.0 W/kg Superior to the neck: 0.5 W/kg	
Limits on Scan Duration	Under the scan conditions defined above, the dental implant systems are expected to produce a maximum temperature rise less than 6.0°C after 15 minutes of continuous scanning.		
MR Image Artifact	In non-clinical tes dental implant sy 3.0 cm from the imaged in a 3 T M	ting, the image artifact caused by the stems extend radially approximately devices or device assemblies when IRI system.	

MR Information for Single Tooth Configurations Zygoma Implants (applicable only during Zygoma Implant healing phase)

MRI Safety Information	MR			
Non-clinical testing has demonstrat A patient with this device can be sa mentionned here below. Failure to f	ted the Temporary Coping fely scanned in an MR sys follow these confitions ma	Multi-unit is MR conditional. tem meeting the following conditions y result in injury to the patient.		
Nominal value(s) of Static Magnetic Field [T]	1.5-Tesla (1.5 T)	3-Tesla (3 T)		
Maximum Spatial Field Gradient [T/m and gauss/cm]	Maximum spatial field gradient of 58.9 T/m (5,890 G/cm).			
RF Excitation	Circularly Polarized (CP).			
RF Transmit Coil Type	Whole body transmit coil.			
Maximum Whole-Body SAR [W/kg]	Inferior to the shoulders: 2.0 W/kg	Inferior to the xyphoid: 2.0 W/kg Superior to the xyphoid: 0.2 W/kg		
	Superior to the shoulders: 0.2 W/kg			
Limits on Scan Duration	Under the scan conditions defined above, the dental implant systems are expected to produce a maximum temperature rise less than 6.0°C after 15 minutes of continuous scanning.			
MR Image Artifact	In non-clinical testing, dental implant system 2.4 cm from the device imaged in a 3 T MRI sy	the image artifact caused by the is extend radially approximately as or device assemblies when stem.		
Caution	Configurations with m have not been evaluat in the MR environment for heating, migration environment. The safe than 2 Zygom cimplan unknown. Scanning a may result in patient in	ore than 2 Zygoma implants ed for safety and compatibility They have not been tested , or image artifact in the MR ty of configurations with more ts in the MR environment is patient who has this configuration njury.		

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**

Manufacturer	Nobel Biocare AB PO Box 5190, 402 26 Västra Hamngatan 1		
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Distributed in USA by	Nobel Biocare USA, LLC 22715 Savi Ranch Parkway Yorba Linda, CA, 92887 USA		

Caution Federal law restricts this device to sale by or on the order of a licensed physician or dentist.

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Symbols Glossary

The following symbols may be present on the device labeling or in information accompanying the device. Refer to the device labeling or accompanying information for the applicable symbols.

