Instructions for use

NobelGuide® for NobelParallel™ Conical Connection

Important: Please read.

Disclaimer of liability:
This product is part of an overall concept and may only be used in conjunction with the associated original products according to the instructions and recommendation of Nobel Biocare. Non-recommended use of products made by third parties in conjunction with Nobel Biocare products will void any warranty or other obligation, express or implied, of Nobel Biocare. The user of Nobel Biocare products has the duty to determine whether or not any product is suitable for the particular patient and circumstances. Nobel Biocare disclaims any liability, express or implied, and shall have no responsibility for any direct, indirect, punitive or other damages, arising out of or in connection with any errors in professional judgment or practice in the use of Nobel Biocare products. The user is also obliged to study the latest developments in regard to this Nobel Biocare product and its applications regularly. In cases of doubt, the user has to contact Nobel Biocare. Since the utilization of this product is under the control of the user, they are his/her responsibility. Nobel Biocare does not assume any liability whatsoever for damage arising thereof. 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:
The guided surgery system is designed for dental implant treatment of edentulous and partially edentulous jaws including patients missing a single tooth. The system enables indirect, punitive or other damages, arising out of or in connection with any errors in professional judgment or practice in the use of Nobel Biocare products. The user is also obliged to study the latest developments in regard to this Nobel Biocare product and its applications regularly. In cases of doubt, the user has to contact Nobel Biocare. Since the utilization of this product is under the control of the user, they are his/her responsibility. Nobel Biocare does not assume any liability whatsoever for damage arising thereof. Please note that some products detailed in this Instruction for Use may not be regulatory cleared, released or licensed for sale in all markets.

The NobelGuide® surgical system is intended to transfer a treatment planning done by the clinician into a physical clinical reality. The system is intended to facilitate implant installation with high predictability and contribute to better restoration of these implants placed in both mandible and maxilla.

Contraindications:
It is contraindicated to place NobelParallel™ CC implants in patients:
- Who are medically unfit for an oral surgical procedure.
- With inadequate bone volume unless an augmentation procedure can be performed.
- In whom adequate sizes, numbers or desirable position of implants are not achieved to provide safe support of functional or eventually parafunctional loads.
- Allergic or hypersensitivity to commercially pure titanium (grade 4), stainless steel or surgical template material acrylate-based photopolymer.

Warnings:
- Failure to recognize actual lengths of drills relative to radiographic measurements can result in permanent injury to nerves or other vital structures. Drilling beyond the depth intended from lower jaw surgery may potentially result in permanent numbness to the lower lip and chin or lead to a hemorrhage in the floor of the mouth.
- Besides the mandatory precautions for any surgery such as aspesis, during drilling in the jawbone, one must avoid damage the nerves and vessels by referring to anatomical knowledge and preoperative radiographs.

Indications:
The guided surgery concept is intended for the treatment of edentulous and partially edentulous jaws (including patients missing a single tooth) for placement of implant fixtures, if indicated in combination with immediate function to restore esthetics and functionality (e.g. masticatory, speech). The following prerequisites must be fulfilled:
- Adequate amount jawbone.
- The quality of jawbone must be judged as adequate.
- Adequate jaw opening (minimum 40mm) to accommodate guided surgery tooling.
- Adequate compliance.

Note: For Contraindications, Warnings and Cautions for NobelParallel™ CC implants, please refer to the applicable NobelParallel™ CC Implant Instructions for Use.

Cautions:
General:
One hundred percent implant success cannot be guaranteed. Especially, nonobservance of the indicated limitations of use and working steps may result in failure. Treatment by means of implants may lead to loss of bone, biologic or mechanical failures including fatigue fracture of implants.

Close cooperation between surgeon, restorative dentist and dental laboratory technician is essential for a successful implant treatment. It is strongly recommended that clinicians, new as well as experienced implant users, always go through special training before undertaking a new treatment method. Nobel Biocare offers a wide range of courses for various levels of knowledge and experience. For more info please visit www.nobelbiocare.com.

It is strongly recommended that NobelParallel™ CC implants are used only with Nobel Biocare surgical instruments and prosthetic components, as combining components that are not dimensioned for correct mating can lead to mechanical and/or instrumental failure, damage to tissue or unsatisfactory esthetic results. Working the first time with a colleague, experienced with the new device/treatment method, avoids eventual complications. Nobel Biocare has a global network of mentors available for this purpose.

Before surgery:
Careful clinical and radiological examination of the patient has to be performed prior to surgery to determine the psychological and physical status of the patient. Pre-operative hard tissue or soft tissue deficits may yield a compromised esthetic result or unfavorable implant angulations. Before performing guided surgery, the delivered surgical template must be carefully inspected and cleared by the clinician performing the surgery. Optimal fit on stone model and in patient’s mouth needs to be verified. If in doubt, please contact Nobel Biocare technical support.

At surgery:
Particular caution should be used when placing narrow platform implants in the posterior region due to risk of prosthetic overload. All instruments and tooling used in surgery must be maintained in good condition and care must be taken that instrumentation does not damage implants or other components. Because of the small size of the devices, care must be taken that they are not swallowed or aspirated by the patient. After implant installation, the surgeon’s evaluation of bone quality and initial stability will determine when implants may be loaded. Lack of adequate quantity and/or quality of remaining bone, infection and generalized diseases may be potential causes for failure of osseointegration both immediately after surgery, or after osseointegration is initially achieved.

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 about appropriate oral hygiene.

Surgical procedures:
If applicable, anchor the surgical template using an adequate number of anchor pins placed with strategic positioning and orientation to secure the surgical template in the correct position. During surgery maximum attention must be paid to secure the surgical template is in the correct position in the patient’s mouth and that it does not move in

The kit also contains the following components:
- Unigrip™ Screwdriver
- Guided Anchor Pins
- Torque Wrench Surgical
- Torque Wrench Prosthetic Adaptor
- Connection to Handpiece
- Drill Extension Shaft
Guided Start Drill, Guided Twist/Step Drills, Guided Screw Taps and Guided Counterbores are ordered separately.

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Caution: This indicates the drills are 10 mm longer than the “freehand” Twist/Step Drills to compensate for the height of the surgical template and the Guided Drill Guide. The depth marks on the Guided Twist/Step Drills correspond to 7, 10, and 13 mm implants for 7–13 mm drills and 7, 10, 13, 15, and 18 mm for 7–18 mm drills (A). The level should be measured with the Guided Drill Guide in place. Drills extend 1 mm longer than the implant when seated. Allow for this additional length when drilling near vital anatomical structures.

1. If a flapless procedure is chosen, it is recommended to use the Guided Soft Tissue Punch before any other instruments are used to generate a clean cut. The surgical template can be temporarily detached after punching to carefully remove the punched soft tissue. The surgical template is carefully repositioned and the anchor pins replaced into the existing anchorage holes in the bone.

2. During drilling procedures bone quality should be considered. (See Table 1 for recommended drill sequences based on bone quality to ensure optimal primary stability when applying Immediate Function). Use the Guided Start Drill prior to the Guided Twist Drill 2 mm (with the appropriate Guided Drill Guide to Ø 2 mm) to create a start point for the following drill. Then select the appropriate Guided Drill Guide based on the sleeve size and the Guided TwistStep Drill. The Handle for Guided Drill Guide can be used for easier handling of the Guided Drill Guide. Drilling must proceed at high speed (maximum 800 rpm for Guided TwistStep Drills) under constant and profuse external irrigation with sterile saline solution. An in-and-out drilling motion, over the complete extent of the ostectomy is needed when preparing the site to avoid overheating. The Drill Extension Shaft can be used if required for easier access.

3. Prepare implant site. 

4. Medium and dense bone protocol: to be used when implant will not be fully seated. 
   - Select the Guided Counterbore matching the diameter of the implant. Place the Guided Counterbore directly in the guided sleeve of the surgical template and drill to the built-in drill stop at maximum speed of 800 rpm with copious irrigation.
   - Select the Guided Screw Tap matching the diameter and length of the implant.
   - Place the Guided Screw Tap directly into the sleeve of the surgical template and prepare the site to the desired depth based on the implant dimensions using low speed (20-45 rpm) with copious irrigation. B:1 shows depth markings which correspond to full depth tapping of 7 mm and 10 mm for Ø 3.75, Ø 4.3, Ø 5.0 and Ø 5.5 implants. B:2 shows depth markings which correspond to full depth tapping 11.5 mm and 13 mm for Ø 3.75, Ø 4.3, Ø 5.0 and Ø 5.5 implants. B:3 shows depth markings which correspond to full depth tapping of 11.5 mm and 18 mm for Ø 3.75, Ø 4.3 and Ø 5.0 implants only and B:4 shows depth markings which correspond to full depth tapping of 11.5 mm and Ø 5.5 for implants only. 
   - Switch the drill device to reverse mode and remove the Guided Screw Tap.

5. Open the implant package. Connect the Guided Implant Mount NobelParallel™ CC to the implant using the Unigrip™ Screwdriver. Insert the Connection to Handpiece in the drilling unit handpiece and pick up the mounted implant. NobelParallel™ CC implants are ideally installed with low speed, maximum 25 rpm, using the drilling device. Place and tighten the implant using maximum 45 Ncm installation torque. Stop tightening the implant when the Guided Implant Mount touches the surgical template. The Guided Implant Mount NobelParallel™ CC includes a vertical stop. Secure that the Guided Implant Mount in kept in the center of the guided sleeve during the entire insertion process. 

Caution: Never exceed insertion torque of 45 Ncm for NobelParallel™ CC Implants. Over tightening an implant may lead to damage of the implant, fracture or necrosis of the bone site.

6. If the implant gets stuck during implant installation or 45 Ncm is achieved before fully seated, rotate the implant counter clockwise using the drilling device (reverse mode) or the Manual Torque Wrench and remove from the site. Replace the implant in the inner casing before proceeding further (refer to the Medium and dense bone protocol section). Without removing the surgical template, continue with implant installation until desired position is achieved. For Immediate Function, the implant should be able to withstand a final torque of 35–45 Ncm.

7. In partially edentulous and edentulous situations the Guided Implant Mount can be replaced by the Guided Template Abutment on the first 1–2 implants. Release the Guided Implant Mount using the Unigrip™ Screwdriver and remove the implant mount. Anchor the surgical template using the Guided Template Abutment, tightening manually using the Unigrip™ Screwdriver. Ensure the surgical template maintains its initial correct position for the next implant site preparation.

8. Prepare and install the remaining implant sites.

9. Once all implants are installed, remove Guided Implants Mounts and Guided Template Abutments using the Unigrip™ Screwdriver. Remove anchor pins, if applicable and remove the surgical template.

10. Final implant installation torque can be measured following surgical template removed using the Torque Wrench.
Storage and handling:
The product must be stored in a dry place in the original packaging at room temperature and not exposed to direct sunlight. Incorrect storage may influence device characteristics leading to failure.

After sterilization, place the devices in a dry and dark place such as a closed cupboard or drawer. Follow the instructions of the manufacturer of the sterilization pouch regarding storage conditions and expiration date of sterilized goods.

Disposal:
Disposal of the device shall follow local regulations and environmental requirements, taking different contamination levels into account.

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Canada license exemption: Please note that not all products may have been licensed in accordance with Canadian law.

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