

Neodent® **EasyGuide**

Surgical Manual





SUMMARY

CONCEPT

NEODENT® **EASYGUIDE**

HELIX GM™ UNBEATABLE VERSATILITY

NEODENT EASYGUIDE® WORKFLOW

NEODENT EASYGUIDE® QUICKGUIDE

PREVIOUS PROCEDURES

EASYGUIDE SURGICAL WORKFLOW

PREVIOUS PROCEDURES

EASYGUIDE® OVERVIEW

GENERAL ASPECTS

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EASYGUIDE® VIDEOS

DRILLING PROTOCOL FOR BONE TYPES I AND II
DRILLING PROTOCOL FOR BONE TYPES III AND IV







Neodent® EasyGuide brings all to your hand:



STRAIGHTFORWARD GUIDED SURGERY TECHNIQUE

Surgical convenience with one-hand procedures



PREDICTABLE SURGICAL RESULTS

Confidence for accurate implant positioning



EFFICIENT TREATMENT PROTOCOLS

Intuitive and simple technique



PATIENT TREATMENT ACCEPTANCE

Communication building trust and patient engagement

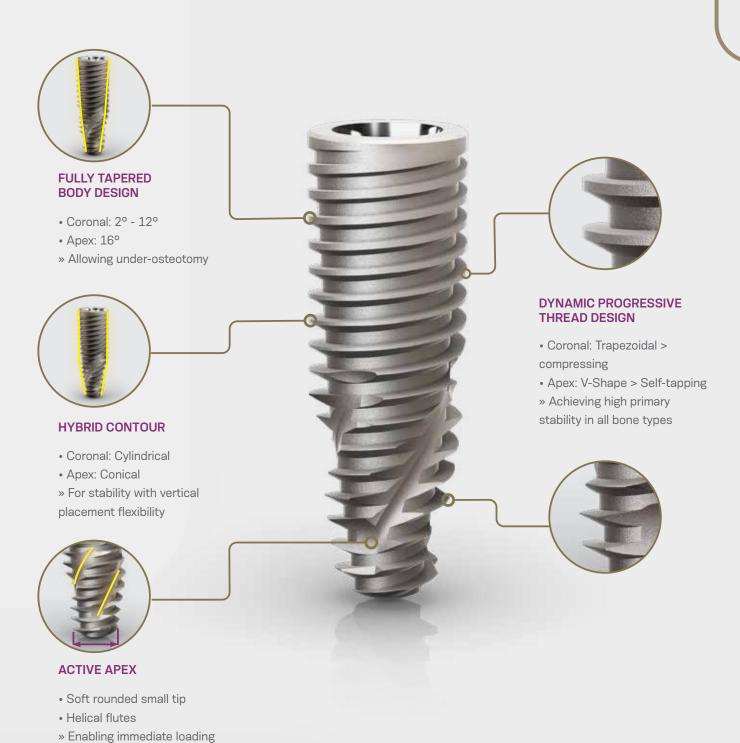




HELIX GM™ UNBEATABLE VERSATILITY

The Neodent® **Grand Morse™** system offers an implant designed to maximize primary stability.

Helix[®] **Grand Morse**[™] maximizes treatment options and efficiency in all bone types, with a wide portfolio of implant lengths.





NEODENT® EASYGUIDE® QUICK GUIDE

Previous Procedures •



DIAGNOSIS/ DATA GATHERING

CBCT Scanner

Intraoral Scanner

CADCAM Scanner



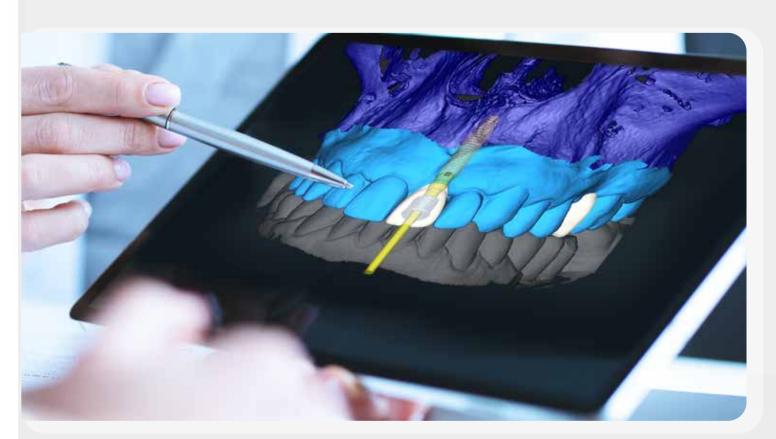
VIRTUAL PLANNING

coDiagnostiX®



SURGICAL GUIDE PRODUCTION

3D Printer and Surgical Guide





NEODENT® EASYGUIDE® QUICK GUIDE

EasyGuide Surgical Workflow



FIX THE SURGICAL GUIDE ON THE PALATE



PLACE THE GUIDES



MAKE THE CIRCULAR INCISION IN THE MUCOSA



PREPARE THE BONE BED



BREAKING OF THE CORTICAL BONE



PERFORM THE OSTEOTOMY WITH NEODENT® EASYGUIDE TAPERED DRILLS



INSTALL THE HELIX GM™ IMPLANT



STABILIZE THE GUIDE (OPTIONAL)



Neodent® **EasyGuide** instruments are designed for procedures with 3D planning software using Cone Beam Computed Tomography (CBCT). They are designed to prepare the osteotomy and install Neodent® **Grand Morse™** implants in combination with surgical guide, including Neodent® Sleeves.



1

Diagnosis/ Data gathering

The treatment plan is based on the diagnosis that is made in the consultation room and the specific needs of the patient. Bone volume and density, anatomy of the restoration area, type of restoration, load type, number of implants, esthetic, functional factors and any other important factors that justify the guided surgery treatment plan must be taken into consideration.

Regardless of imaging technology, a CBCT scan (following the correct parameters) is the basis for a precise digital plan and for accurate implant installation. To obtain correct scanning data, the radiologist and the patient should be correctly positioned and scanning instructions/parameters should be followed in accordance with the software manufacturer's instructions for use (IFU). A dental tray is mandatory and can be made conventionally or digitally.

Note: For procedures with surgical guides, the patient's mouth opening capacity must be sufficient to accommodate guided surgery instruments.





2) Virtual planning

The 3D data set (DICOM) can be imported directly into commercially available planning software (for example, coDiagnostiXTM) and superimposed with the dental tray extracted with the scanners (STL File). The implant is positioned in relation to the patient's anatomy and the desired prosthetic result.





Surgical guide production

Once virtual planning has been successfully completed, the treatment plan is sent to the surgical guide manufacturer. Either the software manufacturer or dental prosthesis laboratory can make the surgical guide depending on the software concept used.

Note: In this step, the surgical guide manufacturer guarantees compatibility with Neodent® EasyGuide Instruments, using Neodent® sleeves for guided surgery, positioned according to Neodent® parameters.



General aspects



Tapered drill to be used with narrow sleeve on the left and regular sleeve on the right.



Offset of the Neodent® EasyGuide System

Once the surgical guide is placed in the patient's mouth, optionally using the Neodent® Clamp, osteotomies for the Neodent® GM line of implants can be prepared with Neodent® EasyGuide instruments. The surgical protocol, provided along with the surgical guide, states which instruments are required for preparing each implant site. Neodent® EasyGuide instruments allow fully guided preparation of the bone bed using drills with physical depth control (stops) and guided implant insertion using surgical guides with guided surgery GM drivers.

The patient's mouth opening capacity must be sufficient to allow correct use of Neodent® **EasyGuide** drills and drivers in the region of the implant to be installed.

The drills and drivers used in guided surgery techniques must offset soft tissue thickness and sleeve height and are therefore considerably longer than instruments used in conventional techniques. Limited mouth-opening capacity may hinder implant installation in guided surgery procedures.

Neodent® **EasyGuide** features a line of drills specifically developed to be used directly in the surgical guide sleeve, making the use of drill guides or reducers unnecessary. Moreover, they have titanium stops to physically control drilling depth, in the same color as the sleeve with which they are to be used with. The standard distance (offset) of the system is 10 mm (H10) between the upper part of the sleeve and implant platform. This will provide sufficient height for soft tissue thickness and placement below the bone crest, should that be the surgeon's choice. The choice of drills should always have the length of the implant be taken into consideration to be installed during the procedure, regardless of its final position in relation to the bone level.

In the case of osteotomy for regulating bone crest or various extractions, immediate installation of implants with guided surgery technique is not suitable due to bone remodeling after this procedure. The physiological process of ridge reduction may result in loss of structure that would be used before planning implant installation.





Surgical guide: Types of support

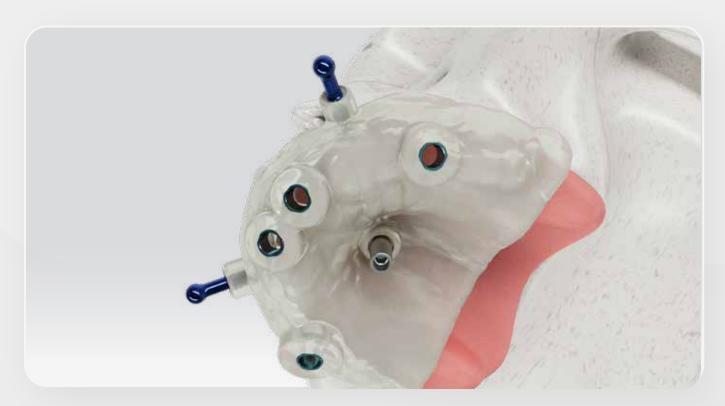






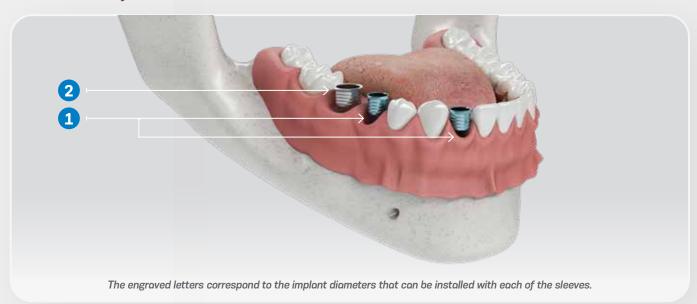
Tooth-supported surgical guide

Various types of support for surgical guides are commercially available, depending on personalized surgical recommendations, taking into consideration software planning characteristics and guide manufacturer. All are possibilities, depending on dentist preference, planning software used and the surgical guide manufacturer.





Neodent® EasyGuide Sleeves



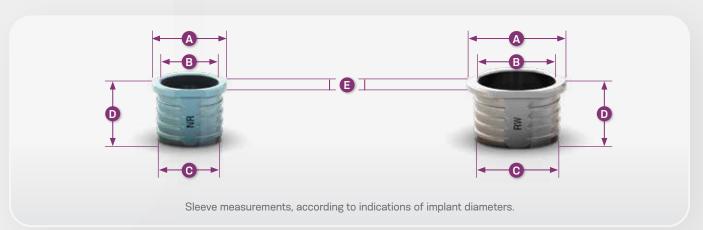


Narrow: identified by the light blue color and laser engraved letters NR ("Narrow/Regular")



Regular: identified by the silver color and laser engraved letters RW ("Regular/Wide")

The Neodent® **EasyGuide** Sleeve is selected according to mesiodistal space and implant diameter. During digital planning, sleeve positions must be assessed to avoid impact. Neodent® **EasyGuide** Sleeves have three-sided surfaces on the upper part, which helps to distinguish them from other sleeves. Neodent® **EasyGuide** offers two sleeve diameters for optimizing positioning.



Model	Indication	(A) Stop diameter (mm)	(B) Internal Diameter (mm)	(C) Body Diameter (mm)	(D) Height (mm)	(E) Shoulder height (mm)
Narrow	Helix GM [™] Ø3.5 and Ø3.75	5.0	3.88	4.45	4	0.5
Regular	Helix GM [™] Ø4.0/4.3/5.0	6.7	5.2	5.8	4	0.5



1 • Surgical guide placement on palate





Drilling speed: 500-800 rpm for bone type III/IV and 800-1200 rpm for bone type I/II.

The Palatal Setter should be used to clamp the guide to the palate and provide greater stability. It should be inserted after drill use, through the sleeve to the Palatal Setter, with the aid of the GM Implant Driver for Contra-angle using a maximum torque of 20 Ncm. Before installing it, the Palatal Setter Drill must be used. It should be removed with the same driver by applying a reverse torque.









2 • Surgical Guide Placement

- Drilling speed: 500-800 rpm;
- Use intermittent drilling technique until reaching the 1.3 mm drill stop;
- After osteotomy, fully engage the clamp as far as the stop.





Note: This procedure will not be necessary in all cases. Particularly suitable for totally edentulous patients.

Neodent® **EasyGuide** Clamp is used to position the guide in the patient's mouth to ensure stability. It is used to keep the surgical guide in place during surgery.



2 • Surgical Guide Placement





To ensure stability, the Guide Clamp must be placed in an area with sufficient and adequate bone quality. The Neodent® Guide Clamp Sleeve for guided surgery must be surrounded by sufficient material from the surgical guide for better retention. The number of Guide Clamps should be adapted to the patient anatomy, surgical guide type, position and number of implants.





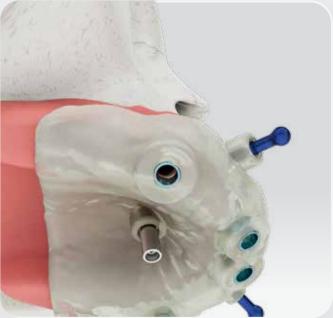
3 • Circular incision of the mucosa



The appropriate number of rotations per minute (rpm) for drilling is 60 rpm.

A circular incision is made in the tissue before preparing the bone bed using the guided surgery technique. This optional procedure is performed with a tissue punch (a surgical instrument with a contra-angle fitting at one end and a cylindrical cutter at the other).







4 • Bone bed preparation



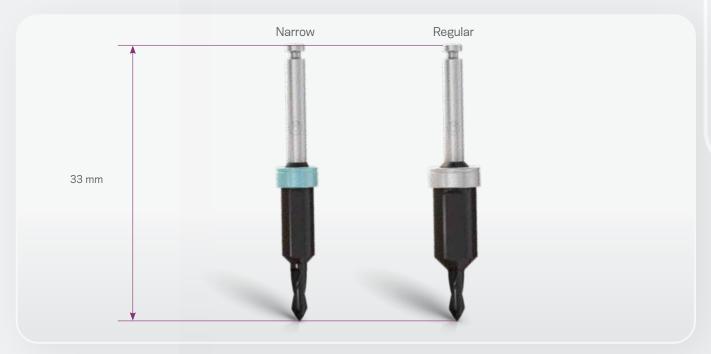
Drilling speed: 500-800 rpm for bone type III/IV and 800-1200 rpm for bone type I/II.

The Leveling Drill is used for the preparation of the bone bed prior to drilling; it has a titanium ring (stop) which limits the depth of drill insertion. Its geometry, size and diameter are compatible with the sleeves, in regular and narrow versions.





5 • Breaking of the cortical bone



Drilling speed: 500-800 rpm for bone type III/IV and 800-1200 rpm for bone type I/II.

For marking out and breaking the cortical bone, the Initial Drill is used; it has a titanium ring (stop) which limits the depth of insertion of the drills. Its geometry, size and diameter are compatible with the sleeves, in regular and narrow versions.





After use of the tissue punch and the leveling drill, followed by the initial drill, whenever necessary and in line with the plan, the selected sequence of tapered drills will vary according to implant diameter and length and the bone type.

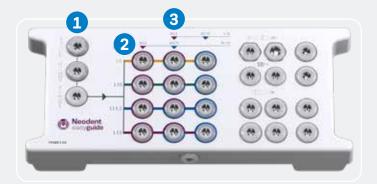
Instructions can be found in the surgical kit images, as shown in the figures below:

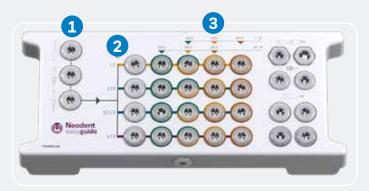
NEODENT® GM EASYGUIDE KIT NARROW/REGULAR

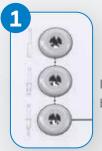
- Designed for installation of Grand Morse[™] implants of 3.5 and 3.75 diameters, with the use of the Neodent[®]
 EasyGuide technique;
- · A kit for all bone types;
- The color-coded sequences contribute towards a reliable workflow;
- Clear illustrations to check correct instrument installation;
- Safe instrument placement in silicone rings for sterilization and storage.

NEODENT® GM EASYGUIDE KIT REGULAR/WIDE

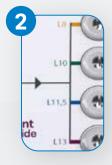
- Designed for installation of Grand Morse[™] implants of 4.0, 4.3 and 5.0 diameters, with the use of the Neodent[®]
 EasyGuide technique;
- · A kit for all bone types;
- The color-coded sequences contribute towards a reliable workflow;
- Clear illustrations to check correct instrument installation;
- Safe instrument placement in silicone rings for sterilization and storage.







Initial drills regardless of bone type



Indication of implant length



Color code indicating the last drill for each implant diameter and bone type

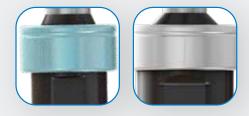


The geometry, size and diameter of Neodent® **EasyGuide** drills are compatible with the sleeves, in regular and narrow versions.

These drills are identified by a colored band and are available as shown below. The band indicates the last drill to be used in soft or hard bone types for each implant diameter, marked with corresponding colors.



The drill stops ensure a 100% guided osteotomy experience. The narrow drills are light blue for ease of identification.



- The drills are compatible with implants with a length of 8, 10, 11.5 and 13 mm:
 - The regular drills are suitable for installing implants with diameters of 4.0, 4.3 and 5.0 mm.
 - The narrow drills are suitable for installing implants with diameters of 3.5 and 3.75 mm.





USING THE NARROW/REGULAR KIT







Bone types III and IV





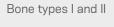
* Bone types III and IV optional use

Drilling speed: 500-800 rpm for bone type III/IV and 800-1200 rpm for bone type I/II.



USING THE REGULAR/WIDE KIT







Bone types III and IV



* Bone types III and IV optional use

Drilling speed: 500-800 rpm for bone type III/IV and 800-1200 rpm for bone type I/II.



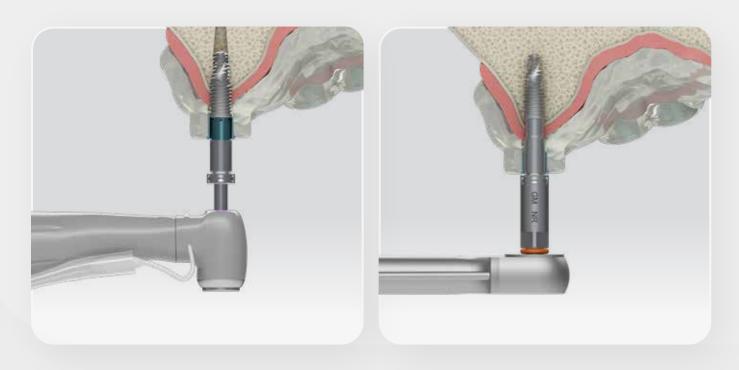
7 • Helix GM™ implant installation

GM implants were developed to begin installation with a Contra-angle handpiece or manually, then to be finished with the Torque Wrench.

Implant installation begins with the contra-angle handpiece in the bone bed with a maximum torque of 35 Ncm and the speed of 30 rpm clockwise.

Remove the Contra-Angle Implant Driver and use the torque wrench implant driver, finalizing implant installation, and check the torque.

Neodent® **EasyGuide** Implant Drivers fit into the sleeve on the surgical guide and ensure that implant insertion is fully guided, providing physical depth control. They allow installation of subcrestal implant due to the consistency of diameters between implant driver and the implant. The markings indicate the exact position of the Exact indexer, making the prosthetic workflow more practical, as it shows where the abutment should be placed.



Warning: Correcting the vertical position by reversing the rotation during surgery may lead to reduced primary or mechanical stability.



EASYGUIDE® WORKFLOW •

7 • Helix GM™ implant installation

Neodent® **EasyGuide** GM implant drivers allow fully guided insertion of Helix GM[™] implants using Narrow or Regular Sleeves and guarantee correct positioning with control of the physical depth. There are two models of Implant Drivers:



For contra-angle: to pick up the implant from the pack and begin installation.



- Fits into the surgical sleeve and guarantees fully guided implant installation, providing control of the physical depth.
- Consistent diameter between the implant driver and implant diameter allows subcrestal implant installation.
- Exact indexer position indicator allows positioning of the implant driver to be viewed.

For Torque Wrench Driver: to finalize installation and measure insertion torque.



7 • Helix GM™ implant installation

NEODENT® IMPLANT PACKAGING

Neodent® packaging has been specially updated for easy handling and safe surgical procedures, providing practicality from implant stocking to picking up and carrying to the implant bed. Implant features, such as type, diameter and length, are readily identifiable on the outside of the packaging.

Three self-adhesive labels are provided for use in the patient's medical records and for reporting to the prosthesis team.





After breaking the sterile seal on the blister pack, hold the primary packaging (glass tube) in non-dominant hand and open the cap.

Note: For Acqua implants, hold the bottle in the vertical position to avoid spilling the liquid.



Remove the holder containing the implant from the glass tube along with the cap.

Note: For Acqua implants, hold the bottle in position.



EASYGUIDE® WORKFLOW **∽**

7 • Helix GM[™] implant installation

NEODENT® IMPLANT PACKAGING



To secure the implant, grip both sides of the implant carrier.



Keep pressing the holder and remove the cap.



Pressing the holder, pick up the implant with the contra-angle driver, moving the holder until a perfect fit is found between the wrench and the implant. Check that the driver is completely fitted to the implant.



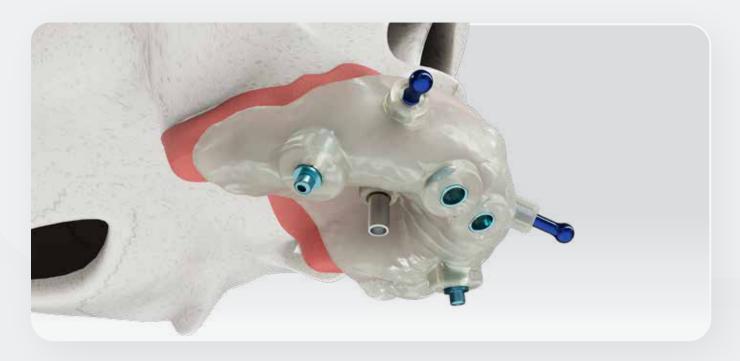
Carry the implant to the implant bed.



8 • Guide stabilizer (optional)

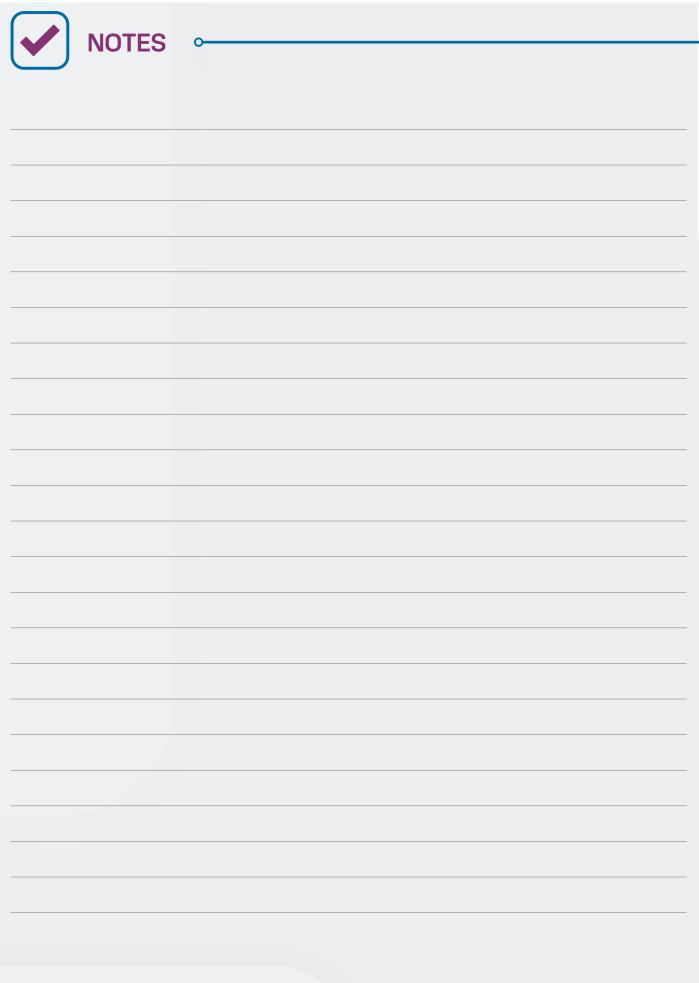


The Guide Stabilizer is used to help stabilize the surgical guide during the procedure, after implant installation using Neodent guided surgery techniques. Narrow Stabilizers are recommended for implants of 3.5 and 3.75 mm, and Regular Stabilizers for implants of 4.0, 4.3 and 5.0 mm.



Insert the Guide Stabilizer after implant installation, using the Neo Manual Screwdriver, fitting it completely as far as the Stop. Gently apply manual torque. Do not use the Guide Stabilizer when primary stability of the implant is less than 20 Ncm.









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