



Digital Implant Treatment Planning

Utilizing NobelGuide™

Fully Edentulous Cases

Introduction

Through 3-D imaging and virtual software, you have a tremendous amount of information to plan your implant cases, including the patient's anatomy and the ideal prosthetic positions of the teeth to be replaced. Our Digital Implant Treatment Planning service allows you to easily integrate this technology into your practice.

This guide is intended to walk you through the Digital Treatment Planning and Guided Surgery process for Nobel Biocare NobelGuide. Items required to utilize NobelGuide include:

- A Radiographic Guide
- A dual CT scan
- Digital Rx and CT scan files (DICOM)
- Guided Surgical Kit from Nobel Biocare

A critical step in the NobelGuide process is the accurate fabrication of the Radiographic Guide (Fig. 1). To obtain an appliance that has the denture teeth set in the ideal positions requires accurate impressions and occlusal records. This appliance, worn by the patient during the CT scan, sets the ideal position of the teeth to be replaced. The scan of the Radiographic Guide is also used to fabricate the Surgical Template. We utilize the patient's existing denture, as the Radiographic Guide is typically not recommended; it may not have an intimate fit to the soft tissues and ridge or it may be too thin.

Submitting a Digital Rx

Our secure online portal allows you to submit your Rx and CT scan files with ease. You can also access all information related to your case, including a viewer version of your digital implant plan, through your online account. To login, visit inclusivedental.com (Fig. 2).

- Select "Treatment Planning" on the homepage, then "Dentist" under "Submit Digital Case."
- Sign in to "My Account" (Fig. 3). To set up your online account, please call Customer Service at 800-854-7256.
- Completely fill out Digital Rx (Fig. 4), including how you will be sending your CT scan files (Fig. 5).
- Print Digital Rx and include it with your impressions and bite registration when ordering a Radiographic Guide.

Note: You will receive an e-mail notification of your submission.

First Appointment

Preliminary Impressions

- Take full-arch impressions including the palate and vestibules.
- Take an impression of the opposing dentition (or denture), as well as the denture to be replaced.
- Print Digital Rx and include it with your case.

Important: The guided parallel-walled drills are 10 mm longer and the guided tapered drills are 6 mm longer than the standard drills. **The patient's vertical opening should be evaluated to ensure he or she is a candidate for Guided Surgery.**



Fig. 1 Radiographic Guide



Fig. 2 Start by logging on to our website.



Fig. 3 Sign in to "My Account."



Fig. 4 Fill out Digital Rx.



Fig. 5 Send CT scan files.

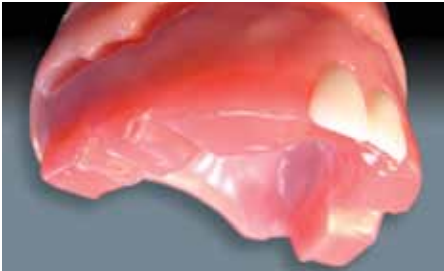


Fig. 6 Bite block



Fig. 7 Trial denture

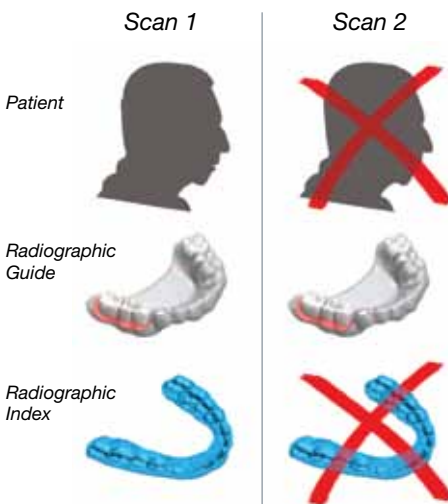


Fig. 8 Dual CT scan

Second Appointment Jaw Relation Records

- Seat the bite block (Fig. 6).
- With the patient seated, use conventional denture techniques to achieve accurate jaw relation records.
 - a. For maxillary cases, shape the rim for lip contour. Place a small amount of vaseline on the labial aspect of the wax rim and confirm.
 - b. With the patient facing you, mark the midline, high lip line and corners of the mouth in the wax rim. Move the central incisors as necessary. From a profile view, evaluate the mid-face support.
 - c. Determine centric relation and the vertical dimension of occlusion.

Note: The patient's existing denture should be evaluated and can be utilized as a benchmark in determining the new VDO.

- i. Place a dot with an indelible marker on the tip of the patient's nose and chin.
- ii. Have the patient lick their lips, swallow, then relax their jaw. Measure the distance between the two dots. Repeat this procedure three to four times until a consistent vertical dimension of rest measurement is obtained.
- iii. Ask the patient to bite together gently. The measurement should be approximately 3 mm less than the vertical measurement at rest. Adjust the rims if necessary so they meet evenly.
- iv. There should be a 2–4 mm speaking space between the rims when the patient pronounces "s" sounds (e.g., Mississippi, sixty, sixty-one, etc.). The incisal edges of the central incisors should lightly touch the lower lip during "f" sounds (e.g., forty, forty-one, etc.).
- d. Once the VDO and a verifiable, repeatable CR are established, inject bite registration material on top of the wax rim and into the notches on the bite block. Have the patient bite together gently.
- e. Select the shade and mold of the denture teeth. A study model of the patient's existing denture can be used as a reference regarding the size and shape of the new teeth.

Third Appointment Trial Denture Try-in

- Seat the trial denture (Fig. 7).
- Evaluate CR, VDO, occlusion, esthetics and shade. Adjust as needed.

Fourth Appointment Radiographic Guide Try-in

- Try-in Radiographic Guide and Radiographic Index.

Note: A Radiographic Index is a bite registration of the Surgical Template to the opposing dentition. It is designed to keep the Radiographic Guide fully seated during the CT scan.

- Send the patient for a dual CT scan (Fig. 8). Include a copy of the NobelGuide scanning protocol with your Radiographic Rx. A copy of the scan protocol is available on the bottom of the NobelGuide section of our website.

NobelGuide requires a dual scan: One scan is of the patient with the Radiographic Guide and the Radiographic Index in place. The second scan is of the Radiographic Guide alone. A copy of the scan protocol is available at the bottom of the Nobel Guide section of our website.

Important: Ensure the Radiographic Guide is completely seated during the patient scan. In the second scan, the Radiographic Guide should be up off the metal table or bracket in the same orientation that it was in the patient scan.

■ Submit DICOM Folders

- Click on the link in the e-mail notification verifying receipt of your Digital Rx. Upload and send patient scan as well as the Radiographic Guide DICOM folders (Fig. 9).
 - a. Click on “Browse” and locate the DICOM folders.
 - b. Click “Attach.”
 - c. Click “Send.”

■ Web Conference

Once the draft of your plan is prepared, you will be contacted by the Digital Treatment Planning administrator to schedule a Web conference to review and finalize your digital plan. If you are part of a surgical-restorative team, we encourage all members to take part in the Web conference.

■ Reviewing and Accepting Digital Plan

All information regarding your case can be accessed through “My Account.”

- Sign in to “My Account” by clicking on “Treatment Planning,” then “Dentist” under “Submit Digital Case.”
- Click on “Open Cases” under “Case Status and Shipping” in the toolbar.
- Select “Details” for the selected case. Here you can access:
 - a. Your original Digital Rx
 - b. Pathology Report (if one was ordered)
 - c. Plan Viewer

You can download a viewer version of your plan. This includes full functionality of the software except adding, deleting or moving the implants.

- Accept the plan:

Note: The Surgical Template for your case will not be ordered until you submit your acceptance. By accepting the plan, you accept full responsibility as the treating clinician. Carefully review the plan before accepting it.

- a. Click on “Plan Viewer/Approval.”
- b. Check the “Accept” box; fill in your electronic signature and license number (Fig. 10).
- c. Click “Submit.”

Upon receipt, the Surgical Template will be inspected and, if ordered, the master cast and provisional restoration fabricated.

■ Fifth Appointment

- Try-in Surgical Template and Surgical Index to verify fit (Fig. 11). Perform Guided Surgery procedure per NobelGuide protocol (Fig. 12). Deliver immediate provisional, if indicated (Fig. 13).

■ Follow-up Appointments

- Schedule follow-up and recall appointments following standard implant protocol. Continue to final restoration when indicated.



Fig. 9 Upload and send DICOM folders.



Fig. 10 Accepting the plan



Fig. 11 Try-in Surgical Template and Surgical Index.



Fig. 12 Guided Surgery



Fig. 13 Provisional restoration



Lab Fees

Digital Treatment Planning provides total control for implant restoration

■ NOBEL BIOCARE NOBELGUIDE™

NobelGuide consists of one Surgical Template per case. A NobelGuide Surgical Kit is required.

NobelGuide Surgical Template for 1 implant

NobelGuide Surgical Template for 2-4 implants

NobelGuide Surgical Template for 5+ implants

Packages include: Digital Plan and Surgical Template

NobelGuide Surgical Template for 1 implant

NobelGuide Surgical Template for 2-4 implants

NobelGuide Surgical Template for 5+ implants

Packages include: Digital Plan, Radiographic Guide and Surgical Template

Digital Plan

Radiographic Guide (Partially Edentulous)

Radiographic Guide (Fully Edentulous)

NobelGuide is a trademark of Nobel Biocare.

Quick Reference

	Doctor	Glidewell
1st Appointment	Take preliminary impression. Fill in and submit Digital Rx.	Pour models, fabricate bite block.
2nd Appointment	Jaw relation records and select tooth shade/mould.	Articulate models, set denture teeth in wax.
3rd Appointment	Trial denture try-in.	Fabricate Radiographic Guide and Radiographic Index.
4th Appointment	Try-in Radiographic Guide and Index. Send patient for dual CT scan. Upload and send CT (DICOM) folders.	Convert DICOM files in NobelGuide software. Draft implant plan based on Digital Rx.
Web Conference	Review and finalize plan.	Post Viewer version of plan.
Accept Plan	Accept plan through "My Account."	Order SurgiGuide. Fabricate surgical template. Fabricate master cast and provisional restoration (if prescribed).
5th Appointment	Try-in Surgical Template and Surgical Index. Perform Guided Surgery procedure per NobelGuide protocol. Deliver immediate provisional (if indicated).	
Follow-up and Recall Appointments	Schedule per standard implant protocol. Continue to final restoration when indicated.	



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