SINCE 1983

Denti®

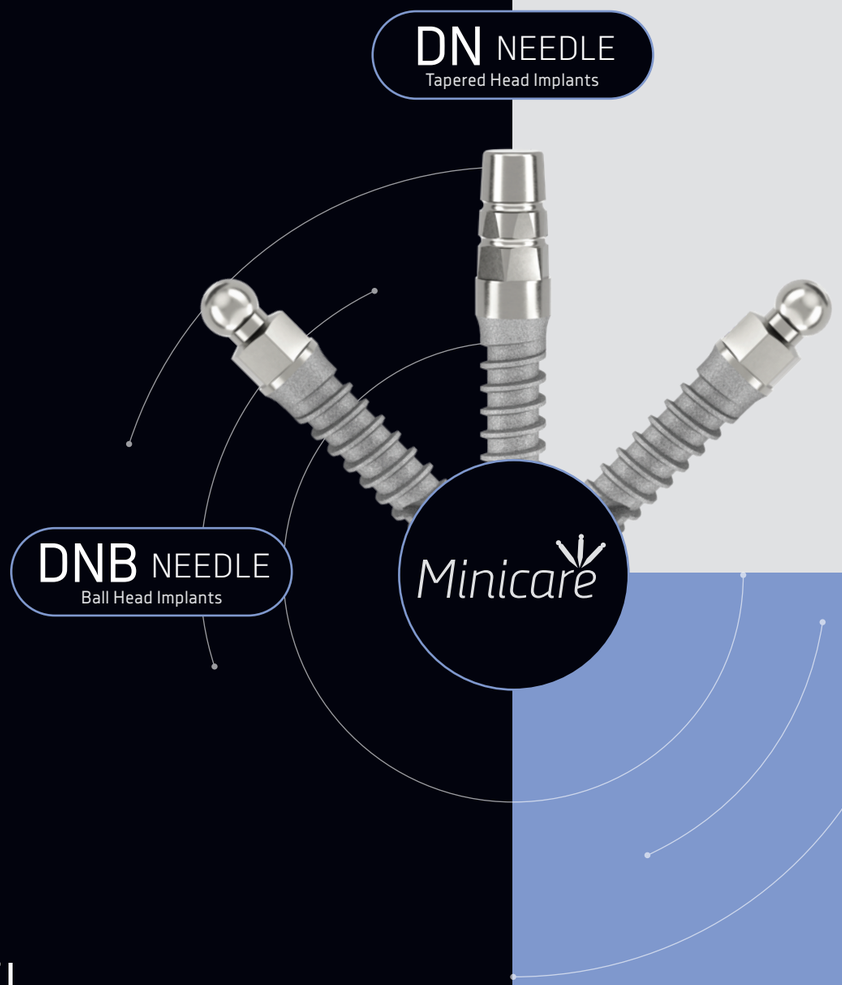
INNOVATIVE IMPLANT SOLUTIONS

# MINI IMPLANTS

## Minicare

**DNB** NEEDLE
Ball Head Implants

**DN** NEEDLE
Tapered Head Implants




# DENTI NEEDLE-SHAPED IMPLANT SYSTEMS

With the application of Denti® small-diameter implants, patients can benefit from minimally invasive procedures that provide immediate denture stabilization. This enables quick and straightforward solutions for fixed denture retention at an affordable cost.

Minicare
minimal care

## WORKS ALONGSIDE EXISTING SYSTEMS

Denti Mini is not just another implant system – it's a powerful **supplementary tool** that expands clinical possibilities while offering **faster, simpler, and more affordable solutions** to patients.

## EASY TO USE, MINIMALLY INVASIVE, IMMEDIATELY LOADABLE, AFFORDABLE

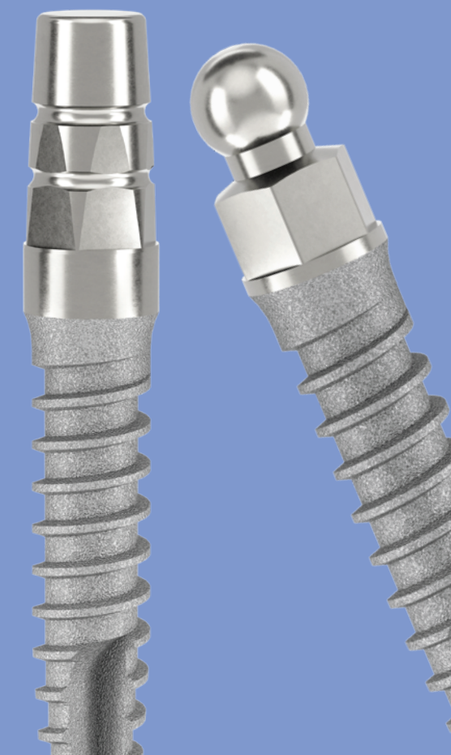
EXPANDS ACCESS TO IMPLANT TREATMENT

SIMPLIFIED SURGICAL PROCESS

FINANCIAL BENEFITS FOR BOTH CLINICIAN AND PATIENT

RELIABLE, DURABLE, AND BIOCOMPATIBLE

PREMIUM MATERIALS AND SURFACE TREATMENT

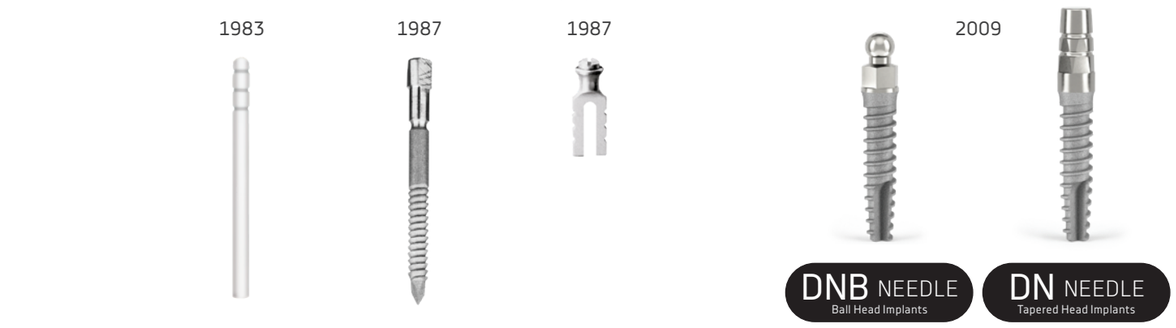


# LONG-TERM SUCCESS

The first generation of Denti Diakor needle-shaped implants, made from aluminum oxide bioceramics, was introduced in 1983. By early 1987, the second generation of blade, double-needle, and needle-shaped implants was made from titanium, featuring the unique characteristic of being bendable at the neck area. Two decades later, the tapered and ball-head Denti Needle Implant System was introduced with diameters of 2.3 mm and 2.8 mm.

## CLINICALLY PROVEN RESULTS

**OVER THREE DECADES OF CLINICAL EXPERIENCE**






# MINIMALLY INVASIVE PROCEDURES

The surgical procedure for Denti Needle Implants is quick and minimally traumatic. Implantation requires minimal bone preparation, significantly reducing the likelihood of postoperative complications. Both the surgical and prosthetic processes are easy to learn, simple, and fast to perform.

Denti Needle Implants are immediately loadable after placement in case of adeqate bone quality. They can also be used in cases where the narrow jawbone ridge cannot accommodate two-phase implants due to their larger diameters.

## APPLICABLE

- TRANSGINGIVALLY, WITHOUT SURGICAL EXPOSURE
- FOR DENTURE RETENTION IN BOTH THE MAXILLA AND MANDIBLE
- SUITABLE FOR REMOVABLE DENTURES – FOR THEIR STABILIZATION
- FOR SIMPLE AND COMPLEX UNITS, INCLUDING BRIDGES AND CROWNS

Can also be used as **temporary or permanent support** during the healing period in traditional implant-supported dental restorations. **Simple and fast** to apply.

## FAST AND TRAUMA-FREE SURGICAL PROCEDURES

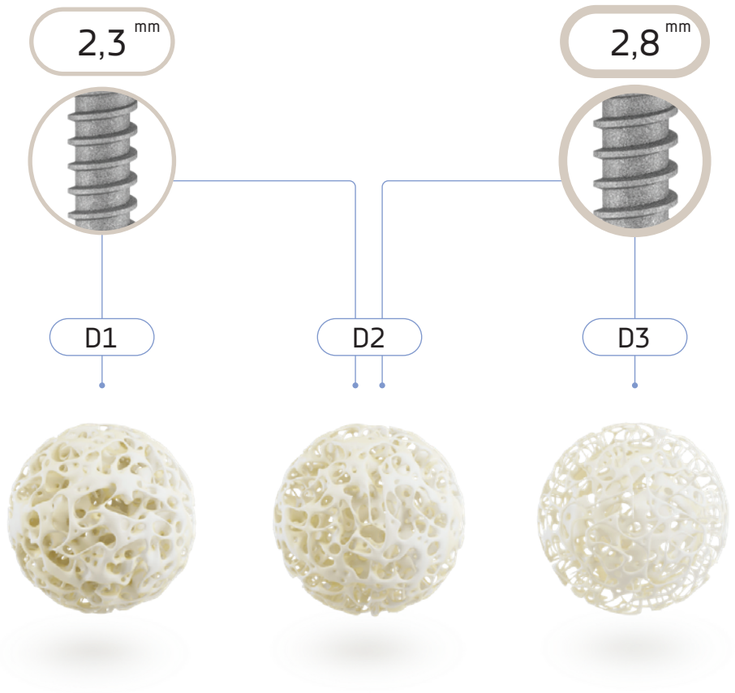
# DESIGN

## CLINICALLY PROVEN RESULTS

The body of the Denti Needle Implants is root-shaped, resembling the natural tooth root. Thanks to their specialized threading, the implants exhibit a high bone-condensing effect, ensuring perfect primary stability, even in **D3 bone quality.** Their insertion is facilitated by self-tapping edges.

The **2.3 mm** diameter Denti® Needle Implants are primarily recommended for **D1** and **D2** bone quality.

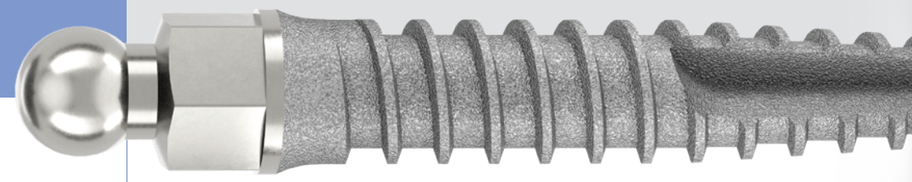
The **2.8 mm** diameter Denti® Needle Implants are primarily recommended for **D2** and **D3** bone quality.




# SURFACE

## MICROPOROUS, HYDROPHILIC SURFACE

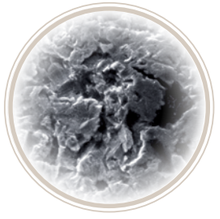
The surface of Denti Needle Implants is identical to the proven Denti implants, which boast a success rate exceeding **98.7%.** The implant body that contacts bone tissue has a microporous, hydrophilic surface achieved through physical and chemical surface modifications. This design provides high surface energy, ensuring the rapid and secure formation of hard tissue and long-lasting stability on the Denti implant surface.



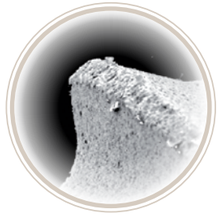
SUCCESS RATE EXCEEDING

98,5%

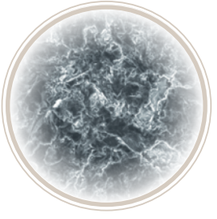
*Raw processed surface*



*Sand-blasted surface*



*Passivated surface*



*Surface microstructure of Denti implants (MPS, SEM 500x)*

*Surface microstructure of Denti implants (MPS, SEM 10.000x)*

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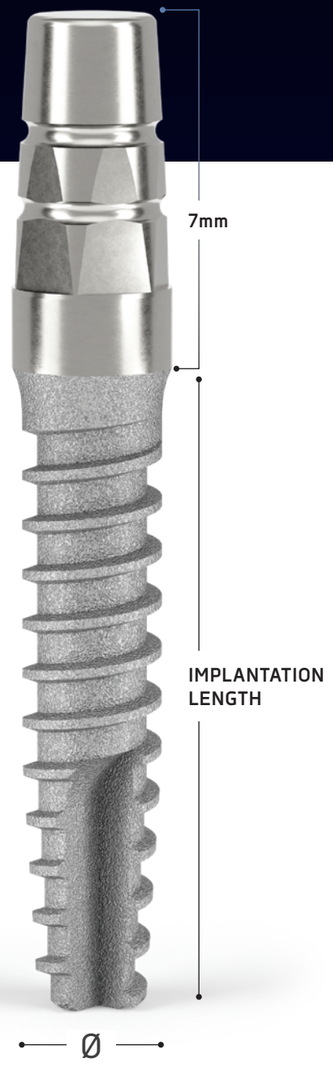
# TYPES AND SIZES

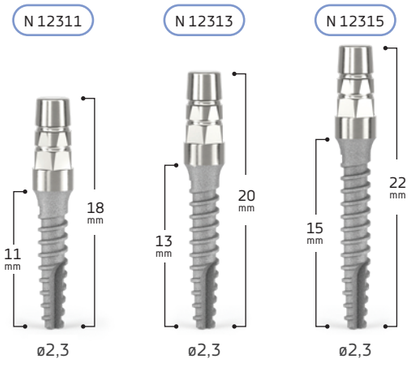
## NEEDLE-SHAPED IMPLANT WITH TAPERED HEAD

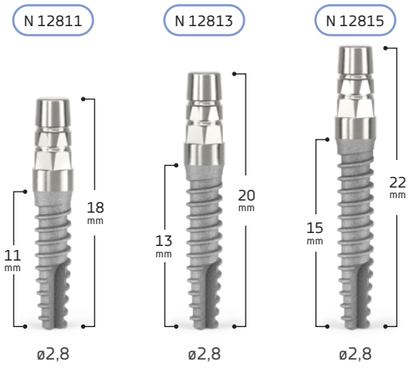
The Denti® Needle Implant Systems are available in **two diameters** and **three different lengths**, with **two distinct head designs**.

| Reference Number | Implantation Length | Total Length |
|---|---|---|
| N 12311 | 11 mm | 18 mm |
| N 12313 | 13 mm | 20 mm |
| N 12315 | 15 mm | 22 mm |
| N 12811 | 11 mm | 18 mm |
| N 12813 | 13 mm | 20 mm |
| N 12815 | 15 mm | 22 mm |




**DN** NEEDLE
Tapered Head Implants



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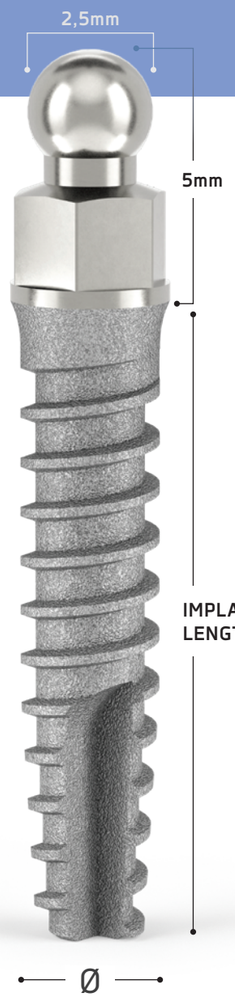
# TYPES AND SIZES

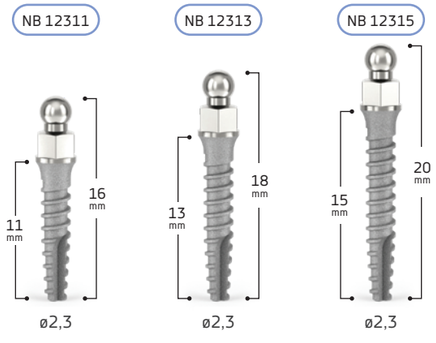
## NEEDLE-SHAPED IMPLANT WITH BALL HEAD

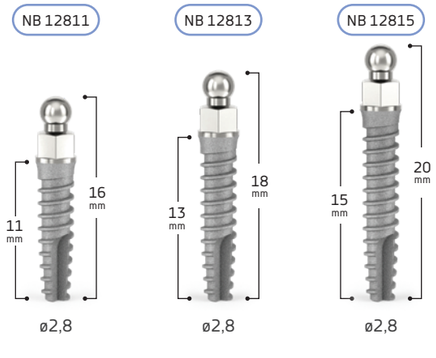
# OT CAP
compatible

| Reference Number | Implantation Length | Total Length |
|---|---|---|
| NB 12311 | 11 mm | 16 mm |
| NB 12313 | 13 mm | 18 mm |
| NB 12315 | 15 mm | 20 mm |
| NB 12811 | 11 mm | 16 mm |
| NB 12813 | 13 mm | 18 mm |
| NB 12815 | 15 mm | 20 mm |




**DNB** NEEDLE
Ball Head Implants



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# SURGICAL EQUIPMENT

## SURGICAL TRAY FOR DENTI NEEDLE IMPLANTS

The **Denti® Needle Implant System** includes a specialized surgical kit containing all the instruments necessary for surgical and prosthetic procedures. The surgical kit for the Denti® Needle Implant System is easy to navigate, ensuring fast, efficient, and hassle-free implant placement.

The same surgical instruments are used for both head designs (tapered and OT-CAP-compatible ball head).


| REF. NUMBERS | |
|---|---|
| 8000-067 | Initial Drill |
| 40018 | Pilot Drill for Ø 2.3 mm Denti® Needle Implants |
| N 80028 | Pilot Drill for Ø 2.8 mm Denti® Needle Implants |
| N 8000-079 | Driver with power drive |
| 8000-143 | Torque-Limiting Ratchet Wrench |
| 8000-002 | Driver Manual |



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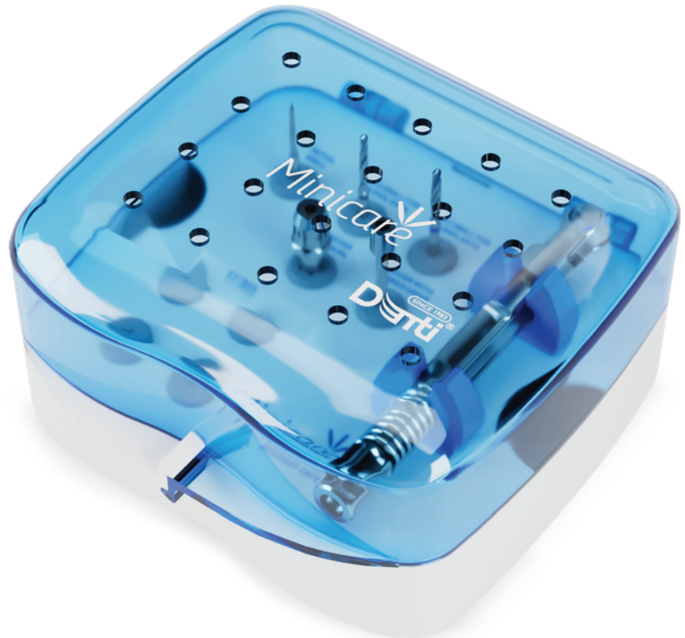
# SURGICAL EQUIPMENT

## SURGICAL INSTRUMENT SET FOR DENTI NEEDLE IMPLANTS

Tools for accurate and efficient insertion:
**Initial Drill:** Used to precisely mark the implant site.
**Pilot Drill:** The pilot drill prepares the core hole for the implant.
Select the appropriate drill diameter based on bone quality.
Recommended speed: 800–1200 rpm


8000-067 | 40018 | N 80028 | N 8000-079 | 8000-143 | 8000-002



# PACKAGING

The implants are supplied sterilized with gamma radiation. Prosthetic components and instruments must be sterilized in an autoclave prior to use.


**DN** NEEDLE
Tapered Head Implants

**DNB** NEEDLE
Ball Head Implants

| | | | |
|---|---|---|---|
| | Manufacturer | STERILE R | Sterilized using irradiation |
| | Use-by date | | Do not resterilize |
| | Date of manufacture (year, month) | | Do not use if package is damaged |
| Ø | Size: Diameter (mm) | | Keep away from sunlight |
| L | Size: length (mm) | | Keep dry |
| LOT | Batch code (lot number) | | Consult instructions for use |
| REF | Catalogue number (reference number) | | Caution |
| CE 2409 | CE mark | Rx only | United States Federal law restricts medical devices to sale by or on the order of a licensed healthcare practitioner |
| | Do not reuse | | |



# PROSTHETIC COMPONENTS

For **ball-head Denti® Needle Implants,** direct impression-taking is recommended. The **tapered-head Denti® Needle** Implant can tolerate minor angulation corrections (up to **7°**) without preparation.


N 3232884 | N 3232887 | NB 3232887 | 3000-880 | 3000-882 | 3000-883 | 3000-884

| REFERENCE NUMBERS | COMPONENTS AND ACCESSORIES |
|---|---|
| N 3232884 | Impression Cap for Ø 2.3 mm and Ø 2.8 mm Denti® Needle Implants |
| N 3232887 | Laboratory Analog Implant for Ø 2.3 mm and Ø 2.8 mm Denti® Needle Tapered Head Implants |
| NB 3232887 | Laboratory Analog Implant for Ø 2.3 mm and Ø 2.8 mm Denti® Ball Head Implants |
| 3000-881 | OT-CAP metal housing |
| 3000-880 | OT-CAP retaining cap standard |
| 3000-882 | OT-CAP retaining cap soft |
| 3000-883 | OT-CAP retaining cap hard |
| 3000-884 | OT-CAP retaining cap extra hard |

# IMPLANT SURGICAL PROTOCOLS

**DN** NEEDLE
Tapered Head Implants

**DNB** NEEDLE
Ball Head Implants

## 1. Marking the Implant Site

The placement site of the implant is marked transgingivally using the **scoring drill (8000-067).** This ensures that in the next step, the corresponding **pilot drill** remains stable in the bone and does not slip.

8000-067

## 2. Preparing the Implant Site

For implants with a **2.8** mm diameter, use the pilot drill marked with code **N 80028**

N 80028

For implants with a **2.3** mm diameter, use the pilot drill marked with code **40018**.

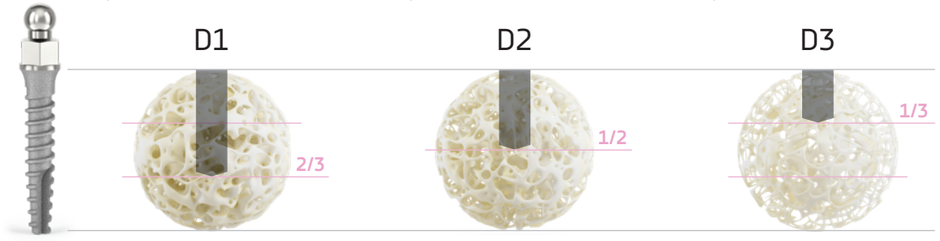
40018

**Drilling Depth Recommendations Based on Bone Quality**

**D1 bone quality:** Drill to **2/3** of the threaded length of the implant.

**D2 bone quality:** Drill to **1/2** of the threaded length of the implant.

**D3 bone quality:** Drill to **1/3** of the threaded length of the implant.




**Important:** Always perform drilling with intensive irrigation.
Recommended speed:
**900 – 1200 RPM**

The **Denti Needle implants** are equipped with **self-tapping threads,** eliminating the need for separate thread-cutting.

This initial osteotomy will define the **final angulation of the implants,** so it is **essential to maintain parallelism** between them.

## 3. Implant Placement

Open the sterile packaging of the Denti Needle implant.

Using the **implant holder,** remove the implant and begin insertion into the prepared osteotomy. The holder is suitable for the initial few turns of the implant.

Once the implant has achieved **primary stability** in the bone, gently detach the holder and proceed with one of the following methods:

**a.** OR **b.**

**a.** Attach the **Driver with Power Drive (N 8000-079)** and continue insertion using a contra-angle handpiece at low speed, applying a **maximum torque of 45 Ncm,**

N 8000-079

**b.** Attach the **Manual Driver (8000-002)** and continue insertion using a **ratchet (8000-143)** with **slow, controlled movements,** also limited to a **maximum of 45 Ncm** torque.

8000-002


8000-143

Continue insertion until the entire treated surface of the implant is within the bone, with only the polished collarremaining visible.

**For immediate loading,** a minimum insertion torque of **35 Ncm** is required.

If **45 Ncm** torque is insufficient for full insertion, the implant must be **removed** and the osteotomy **deepened** to preserve bone tissue integrity.

# INDIRECT RESTORATIVE PROTOCOL

**DN** NEEDLE
Tapered Head Implants

**DNB** NEEDLE
Ball Head Implants

## 1. Placement of Impression Caps

Snap the **impression caps** directly onto each **Denti Needle implant.**

**Note:** The impression cap included in the system is **compatible with all types and sizes** of Denti Needle implants.

(3232884 Impression cap)

For **Ball Head** Implants
and **Tapered Head** Implants

## 2. Taking the Impression

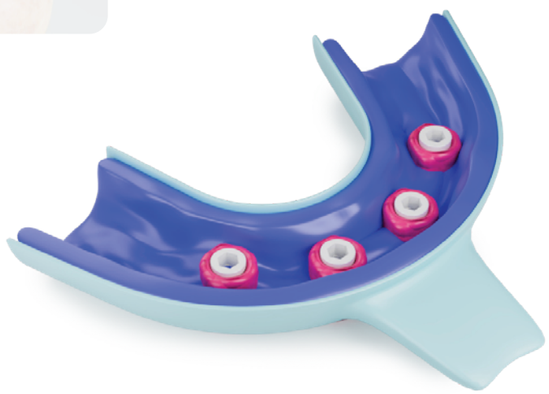
Use **standard impression techniques** to ensure that the impression caps are accurately captured and retained within the impression material.

**Recommended material: Polyether impression material** – ideal for high-precision implant impressions.

## 3. Removing the Impression

Once the impression material has **fully set,** carefully remove the impression tray from the patient's mouth.

Check to ensure that **all impression caps** are securely embedded in the impression.



## 4. Placement of Laboratory Analogs

Ensure that you are using the correct **Denti Needle laboratory analogs,** depending on the implant type used:

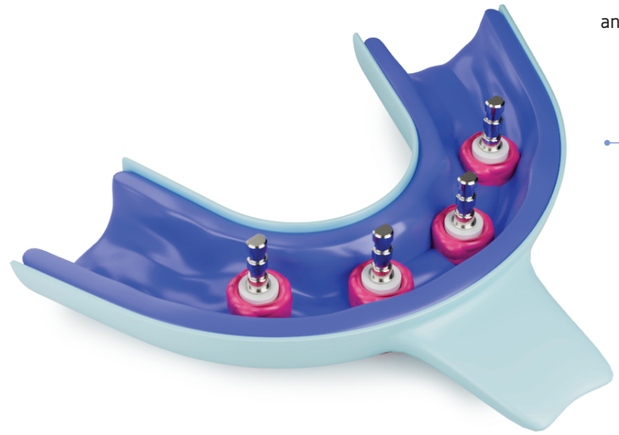
- **Denti Needle Tapered Head Implants:** Laboratory Analog Implant for DN, **N 3232887**
- **Denti Needle Ball Head Implants:** Laboratory Analog Implant for DNB, **NB 3232887**

Insert one analog into each impression cap, then prepare the impression for **plaster model fabrication.**

N 3232887

NB 3232887

For **Ball Head** Implants
and **Tapered Head** Implants



## 5. Fabrication of the Plaster Model

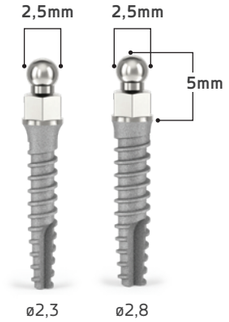
Use standard dental laboratory techniques to pour the **plaster model.** Once the plaster has fully set, **carefully remove the impression** from the model.

For **Ball Head** Implants
and **Tapered Head** Implants

## DN NEEDLE
Tapered Head Implants


| Reference Number | Implantation Length | Total Length | Diameter |
|---|---|---|---|
| N 12311 | 11 mm | 18 mm | ø2,3mm |
| N 12313 | 13 mm | 20 mm | ø2,3mm |
| N 12315 | 15 mm | 22 mm | ø2,3mm |
| N 12811 | 11 mm | 18 mm | ø2,8mm |
| N 12813 | 13 mm | 20 mm | ø2,8mm |
| N 12815 | 15 mm | 22 mm | ø2,8mm |

## DNB NEEDLE
Ball Head Implants




| Reference Number | Implantation Length | Total Length | Diameter |
|---|---|---|---|
| NB 12311 | 11 mm | 16 mm | ø2,3mm |
| NB 12313 | 13 mm | 18 mm | ø2,3mm |
| NB 12315 | 15 mm | 20 mm | ø2,3mm |
| NB 12811 | 11 mm | 16 mm | ø2,8mm |
| NB 12813 | 13 mm | 18 mm | ø2,8mm |
| NB 12815 | 15 mm | 20 mm | ø2,8mm |

N 3232887

Laboratory Analog Implant for Ø 2.3 mm and Ø 2.8 mm Denti® Needle Tapered Head Implants

N 3232884

Impression Cap for Ø 2.3 mm and Ø 2.8 mm Denti® Needle Implants

NB 3232887

Laboratory Analog Implant for Ø 2.3 mm and Ø 2.8 mm Denti® Ball Head Implants

3000-881
OT-CAP metal housing

3000-880
OT-CAP retaining cap standard

3000-881
OT-CAP metal housing

3000-882
OT-CAP retaining cap soft

3000-881
OT-CAP metal housing

3000-883
OT-CAP retaining cap hard

3000-881
OT-CAP metal housing

3000-884
OT-CAP retaining cap extra hard

SINCE 1983

Denti®

INNOVATIVE IMPLANT SOLUTIONS

Minicare

dentisystem.com

minicareimplant.com

callusimplants.com