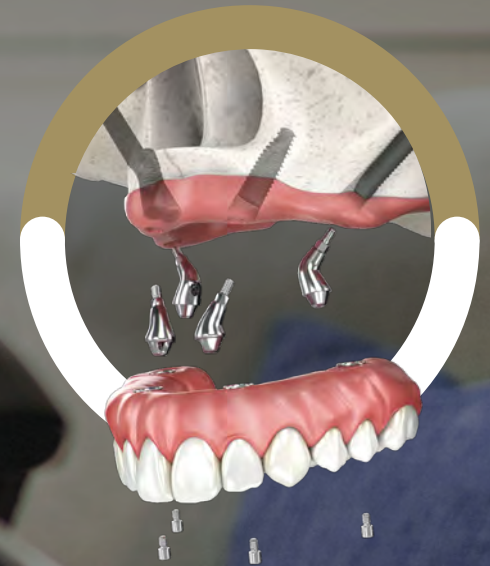


*A SMILE FOR EVERYONE*  
**NEODENT<sup>®</sup> NEOARCH<sup>®</sup> IMMEDIATE  
FIXED FULL-ARCH SOLUTION.**



# HIGH LEVELS OF ATROPHIC MAXILLA ARE MAINLY AFFECTING A GROWING POPULATION OF 60+

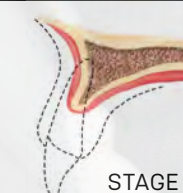
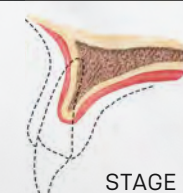
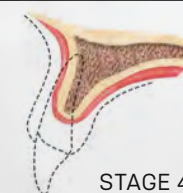
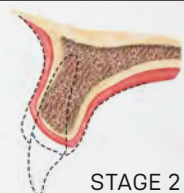
Globally, poor oral health among elderly people represents high levels of tooth loss. Following this, the severe atrophic maxilla is a very common oral disease particularly in this population aged 60 and above.<sup>[1-2]</sup>

YOUNG (20 - 40)

MIDDLE-AGED (41 - 60)

OLD (61 - 80)

ATROPHY STAGES BY AGE →





A phenomenon known as population ageing, is occurring throughout the world. The population of older persons is growing at a rate of about 3 per cent per year and is projected to be 2.1 billion by 2050.<sup>(3)</sup>



INCREASE OF  
MORE THAN  
**4X**



# A SMILE FOR EVERYONE

## NEODENT® NEOARCH®

### IMMEDIATE FIXED FULL-ARCH SOLUTION

Increasing expectations for shortened treatment duration represent a significant challenge for dental professionals especially in patients with anatomical deficiencies. The Neodent® Implant System offers an optimized solution for immediate fixed treatment protocols in edentulous patients even with severe atrophic maxilla. Neodent® NeoArch® allows to significantly improve patient satisfaction and quality of life by immediately restoring function and esthetics.<sup>(4)</sup>



#### IMMEDIATE FUNCTION RESULTING IN SHORTER TREATMENT TIMES.

- Different implants techniques to avoid the use of grafting procedure.<sup>(5)</sup>
- Optimized implant design to achieve high primary stability in all bone types.<sup>(6)</sup>



#### IMMEDIATE NATURAL-LOOKING ESTHETICS WITH VERSATILE RESTORATIVE OPTIONS.

- A broad gingival height abutment range to cater the patient's needs.
- Options of straight and angled abutments (17°, 30° and 45°).



#### IMMEDIATE PEACE OF MIND THANKS TO A STABLE FOUNDATION.

- One connection regardless of the diameters.
- Unique connection combining platform switching associated with a deep 16° Morse taper including an internal indexation.

BONE RESORPTION



Helix GM®



Helix GM® Long



Zygoma GM™



*SOLUTIONS FOR  
ALL CLINICAL NEEDS*

A implant system designed for predictable immediate treatments in all bone types even with different conditions of the residual alveolar bone.

# THE NEXT LEVEL OF IMMEDIATE FIXED FULL-ARCH

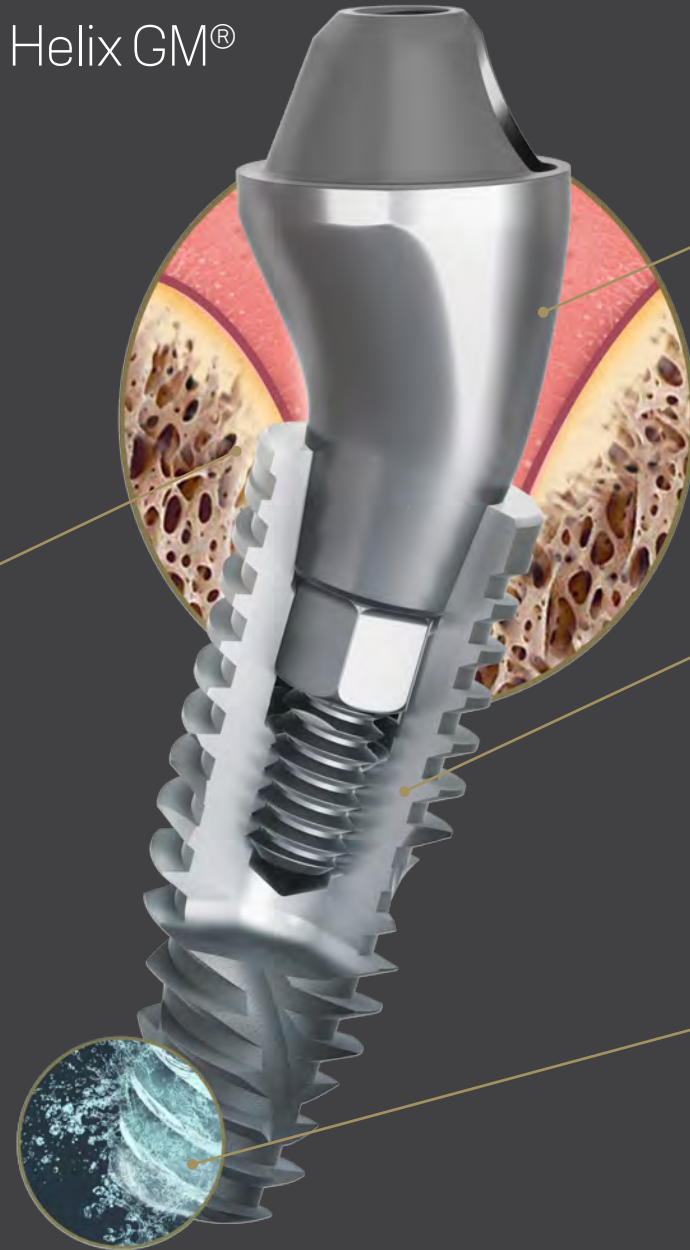
The NeoArch® Grand Morse® combines Neodent's technologies designed to enhance immediate full-arch rehabilitation. The Grand Morse® stability, the Helix® versatility, the Acqua surface predictability, and optimized Mini Conical abutment shape all combined, maximize NeoArch® efficiency: one implant, one connection, one abutment.

## **GRAND MORSE® CONNECTION: A STABLE AND STRONG FOUNDATION DESIGNED FOR LONG TERM SUCCESS.**

- One prosthetic connection for all Grand Morse® Implants: ease of use.
- 16° Morse Taper connection: designed to ensure a tight fit for an optimal connection seal.
- Platform switching morse taper connection: fulfils the platform switching concept.
- Deep Morse taper connection: designed for optimal load distribution.
- Internal Indexation: precise abutment positioning, protection against rotation and easy handling.



Helix GM®



**MINI CONICAL ABUTMENT:  
IMMEDIATE NATURAL-LOOKING ESTHETICS.**

- Optimized emergence profile: reducing the need of bone profiling.
- Several gingival height options: adapting to tissues availability.
- Optimal angulation of 17° and 30°: fitting to patient anatomy.
- Short cone, wide angle: maximizing passive fit and angulation compensation.

**HELIX® GRAND MORSE®:  
UNBEATABLE VERSATILITY.**

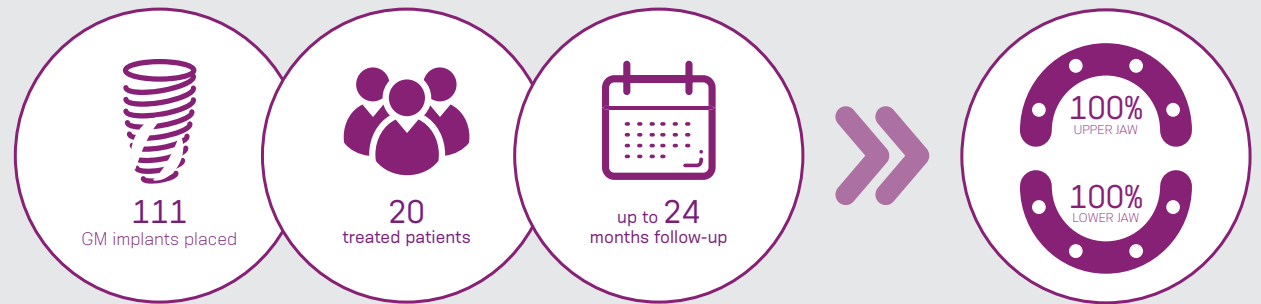
- Fully tapered body design: allows for under prepping of the osteotomy.
- Hybrid contour: enabling stability with vertical placement flexibility.
- Dynamic progressive thread design: designed to achieve high primary stability in all bone types.
- Active apex: self-tapping.

**ACQUA SURFACE:  
HIGH TREATMENT PREDICTABILITY.**

- Sand-blasted Large grit and Acid etched surface: NeoPoros highly successful surface.
- Hydrophilic surface: immediate greater surface accessibility. <sup>(7)</sup>

## HIGH SURGICAL AND RESTORATIVE PREDICTABILITY

A prospective cases analysis demonstrated the high predictability of the Neodent® Grand Morse® implant system; from 111 GM implants (37 in upper jaw and 74 in lower jaw) placed with a follow up of up to 24 months, NeoArch® has performed and achieved a success rate of 100%.<sup>(8)</sup>



**NEODENT® NEOARCH® SURVIVAL RATE UP TO 24 MONTHS**



# IMMEDIATE SOLUTION IN SEVERE ATROPHIC MAXILLA

The Neodent® Helix GM® Long and Zygoma GM™ complement the standard implant system for achieving immediate loading protocol in fixed full-arch restoration. They are specifically designed to bring surgical predictability to atrophic maxilla cases, as an alternative to grafting procedures.

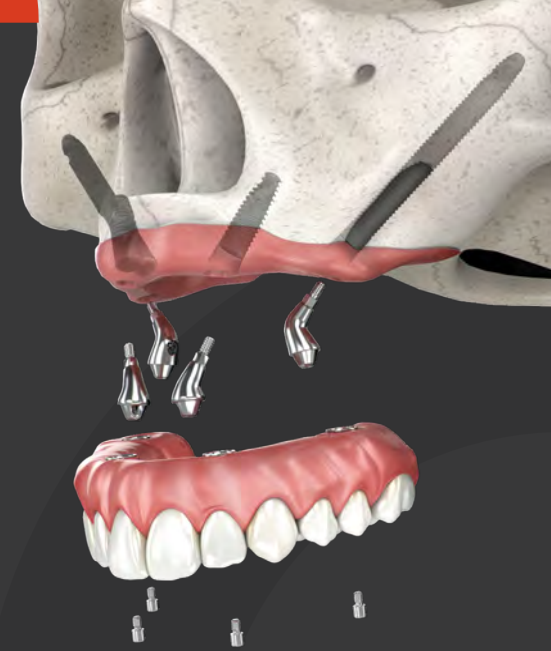
## Helix GM® Long *Solution for bicorticalization*

- 1. GRAND MORSE® CONNECTION**
  - All benefits of the original 16° Morse taper GM connection designed to ensure a tight fit for an optimal connection seal.
  - One connection regardless of the diameter.
- 2. IMPLANT DESIGN**
  - Helix® hybrid implant body to maximize treatment options and efficiency.
  - Dynamic progressive threads, designed to achieve high primary stability.
- 3. COMPREHENSIVE PORTFOLIO**
  - 3.75 and 4.0 mm diameters for more treatment versatility.
  - 20, 22.5 and 25 mm lengths designed to achieve bicorticalization.

**NeoPoros**

“The use of long implants may avoid more complex solutions, like bone grafting procedures, with a minimal invasive approach that can even represent a reduction in treatment time.”

— DR. LUIS EDUARDO PADOVAN —



## Zygoma GM™ *Implant for zygomatic anchorage*

### 1. GRAND MORSE® CONNECTION

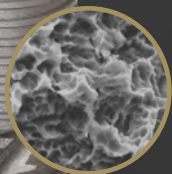
- All benefits of the original 16° Morse taper GM connection designed to ensure a tight fit for an optimal connection seal.
- Straight head designed to bring flexibility to the implant positioning.

### 2. IMPLANT DESIGN

- Tissue protect portion without threads for a friendly contact with the mucosa.
- Progressive increase of the thread depth at the apical area.

### 3. COMPREHENSIVE PORTFOLIO

- 4.0 mm of diameter.
- Ten different lengths: 30 / 35 / 37.5 / 40 / 42.5 / 45 / 47.5 / 50 / 52.5 / 55 mm.



**NeoPoros**

“The new design of the ZygomaGM™ implant has been developed to increase surgical predictability and reduce complexity in Zygomatic surgeries.”

DR. GENINHO THOMÉ

# PROSTHETIC VERSATILITY

The Neodent® Grand Morse® restorative portfolio offers optimal abutments angulations and a broad range of gingival heights to attend different clinical needs. It allows to reach immediate function and esthetics, regardless of the maxilla atrophy level.

## MINI CONICAL ABUTMENT:

Several gingival heights and angulations combined with an anatomical shape, short cone and wide angle, resulting in an optimized emergence profile.



0°

17°

30°

45°\*

GINGIVAL HEIGHTS

0.8 / 1.5 / 2.5 / 3.5 / 4.5 / 5.5 mm

1.5 / 2.5 / 3.5 mm

1.5 / 2.5 / 3.5 mm

1.5 / 2.5 mm

\*The 45° Mini Conical Abutment is indicated for use only with Helix GM® Long and Zygoma GM™.

## DIGITAL SOLUTION

Comprehensive restorative solutions: designed to meet all patient expectations.

Provisional fixed prosthesis




Provisional fixed prosthesis



Provisional fixed prosthesis  
Mini Conical temporary coping/  
Mini Conical distal bar coping




Meet patient stability and comfort expectations thanks to comprehensive customized milled frameworks for provisional or final restoration at the abutment level using a broad range of material and any workflows.




Final fixed prosthesis

Straumann® CARES®/Creotech Medical  
Milling center solution



Final fixed prosthesis

Straumann® M series/Zirkonzahn M4  
In-house milling solution



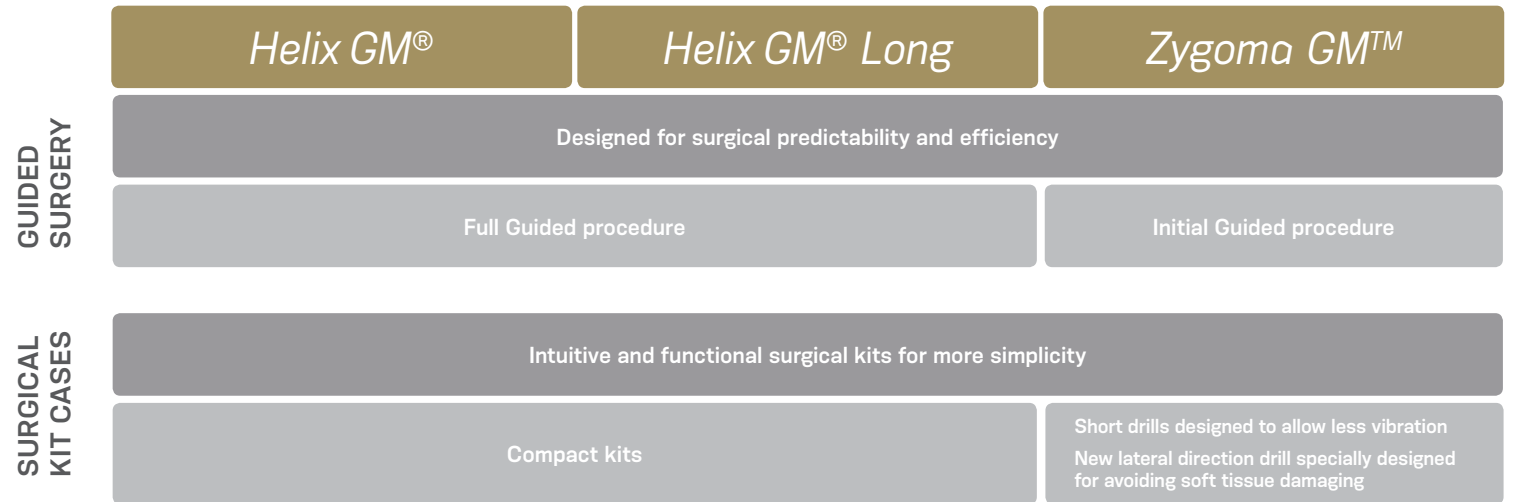
Final fixed prosthesis  
One Step Hybrid

Conventional manufacturing solution



## SURGICAL SIMPLICITY & PREDICTABILITY

Neodent® provides a complete range of products designed to bring simplicity to the dental practice and predictability during the surgeries.



## PATIENT MEDICAL HISTORY

Patient aged 47, with no systemic alteration and non-smoker.  
History of tooth loss due to caries and tartar buildup.

## PLANNING

- Full lower arch
- Immediate loading protocol

## DESCRIPTION OF THE PROCEDURE

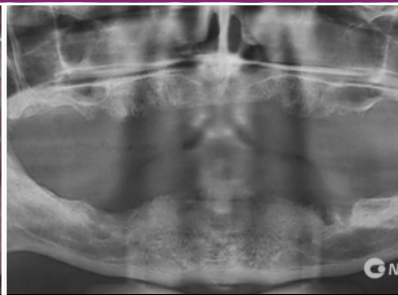
Total extraction of the lower teeth. Four implants placed in the mandible, with a 60 N.cm torque. Two Helix GM® Acqua 3.75 x 16 mm placed on positions 35 and 45 and two Helix GM® Acqua 3.5 x 16 mm on positions 32 and 42. A total prosthesis was fabricated and 70 days after extractions, the x-ray and computed tomography were realized.

## DESCRIPTION OF THE RESULTS

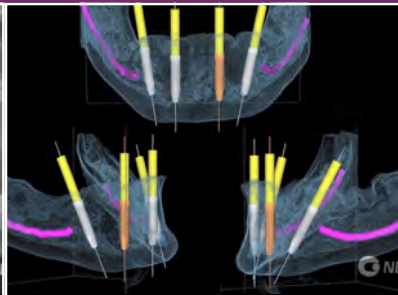
The GM surgical kit facilitates the instrumentation on bones with high density. Helix GM® implants were placed with high stability. In this specific case, bone type II allowing the immediate loading and patient rehabilitation.



1. Image, before teeth extraction.



2. 3-4 months after teeth extractions and immediate denture.



3. Tomography analysis and implant planning.



4. Angle measurer of 30° after drill 2.0 checking the final abutment positioning.



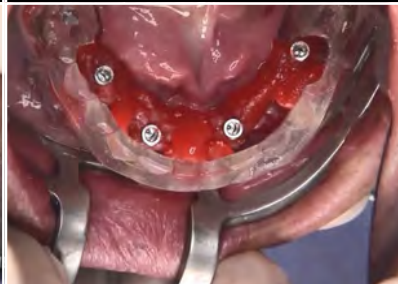
5. Preview of the final implants positioning with multifunctional guide.



6. Posterior tilted implant placement.



7. Checking final 30° angled implant positioning according to the antagonist arch.



8. Splinting open tray impression copings over mini conical abutment with multifunctional guide.



9. Final panoramic image with the bar positioned on Neodent® abutments.



10. Clinical view of the prosthesis rehabilitation.

Clinical case performed by Dr. Geninho Thomé.

## PATIENT MEDICAL HISTORY

Patient aged 47, with no systemic alteration and non-smoker.  
History of tooth loss due to caries and tartar buildup.

## PLANNING

- Full upper arch
- Immediate loading protocol
- Guided Surgery protocol

## DESCRIPTION OF THE PROCEDURE

Local anesthesia with intravenous sedation. Placement of the surgical guide on the maxilla, drilling sequence followed according to each implant specification. Placement of 2 Zygoma GM™ implants 4.0x42.5 mm with a torque greater than 60 N.cm in the zygomatic bone area and placement of 4 Helix GM® Acqua 3.5x8 mm with a 60 N.cm torque in the maxillary anterior region. Zygomatic region filled with Botiss biomaterial.

## DESCRIPTION OF THE RESULTS

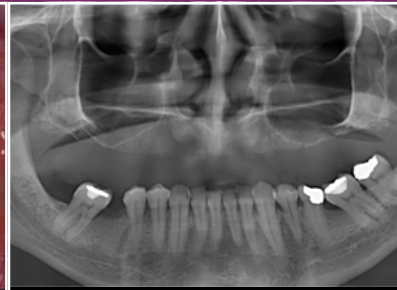
The Helix GM® and Zygoma GM™ surgical kits facilitate the instrumentation on bones with high density. All implants placed with high stability allowing the immediate loading and patient rehabilitation.  
The patient presented satisfactory results (1-year follow up).



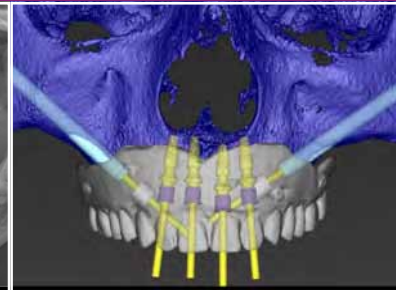
1. Initial aspect - frontal view.



2. Initial aspect - occlusal view. Narrow ridge width.



3. Panoramic radiograph recording the initial patient condition.



4. Surgical Virtual Planning of Zygomatic and also regular length implants.



5. Positioning the Surgical Guide and stabilizing with a palatal screw.



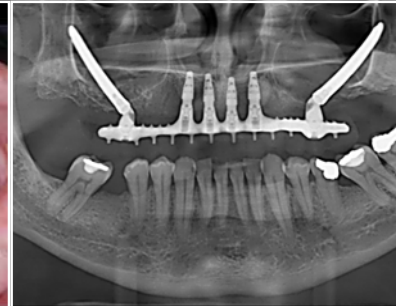
6. Implant bed preparation.



7. Zygoma GM™ implants placed, lightly touching sinus membrane.



8. Post operative aspect (7 months) showing a good distribution of implants in the arch.



9. Post operative Xray (7 months), showing the final positioning of Zygoma GM™ implants.



10. Intra-oral clinical appearance of the prosthetical solution (7 months).

Clinical case performed by Dr. Geninho Thomé based on the ethics committee project approval under N° 2.960.049 on October 10<sup>th</sup>, 2018.

- (1). Petersen, P. E., Kandelman, D., Arpin, S., & Ogawa, H. (2010). Global oral health of older people-call for public health action. *Community dental health*, 27(4), 257-67.
- (2). Reich, K. M., Huber, C. D., Lippnig, W. R., Ulm, C., Watzek, G., & Tangl, S. (2011). Atrophy of the residual alveolar ridge following tooth loss in an historical population. *Oral diseases*, 17(1), 33-44.
- (3). United Nations, Department of Economic and Social Affairs, Population Division (2017). *World Population Prospects: The 2017 Revision, Key Findings and Advance Tables*. Working Paper No. ESA/P/WP/248.
- (4). Babbush CA. Post treatment quantification of patient experiences with full-arch implant treatment using a modification of the OHIP-14 questionnaire. *J Oral Implantol*. 2012 Jun;38(3):251-60.
- (5). Block MS, Haggerty CJ, Fisher GR. Nongrafting implant options for restoration of the edentulous maxilla. *J Oral Maxillofac Surg* 2009;67:872-881.
- (6). Steigenga J, Al-Shammari K, Misch C, Nociti FH Jr, Wang HL. Effects of implant thread geometry on percentage of osseointegration and resistance to reverse torque in the tibia of rabbits. *J Periodontol*. 2004;75(9):1233-41.
- (7). Sartoretto SC, Alves ATNN, Zarranz L, Jorge MZ, Granjeiro JM, Calasans-Maia MD. Hydrophilic surface of Ti6Al4V-ELI alloy improves the early bone apposition of sheep tibia. *Clin Oral Implants Res*. 2017;28(8):893901.
- (8). Data based on the ethics committee project approval under No. 1.677.012 on August 13th, 2016.

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