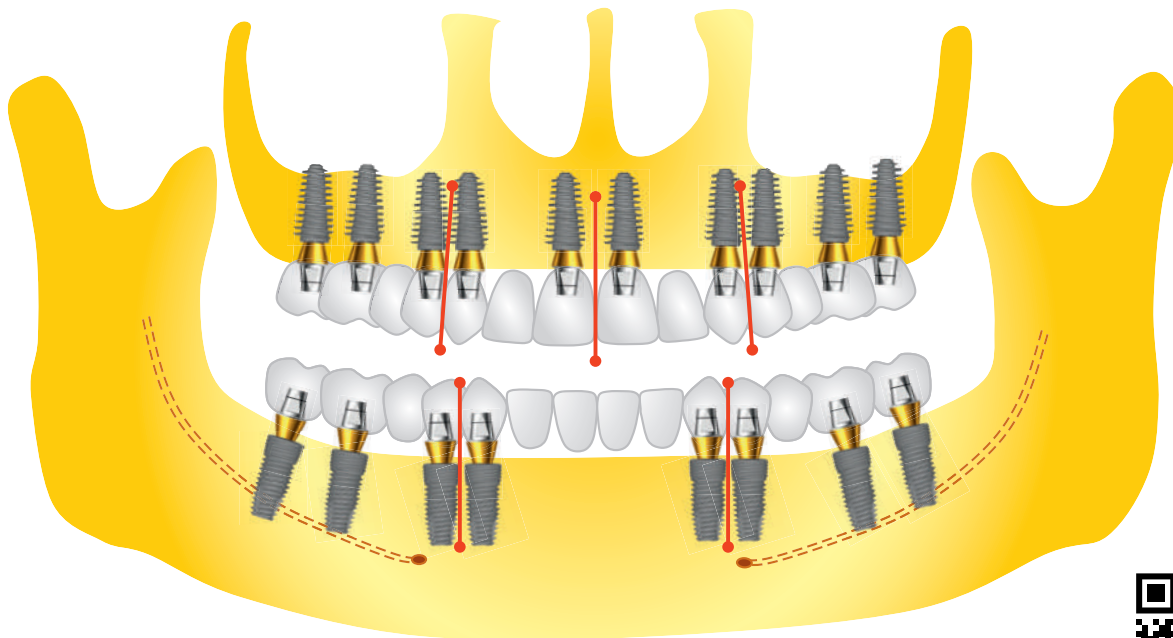


# IMPLANT TREATMENT PLANS | 2025





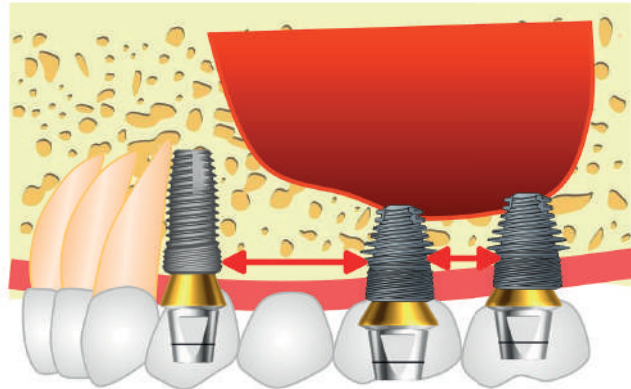
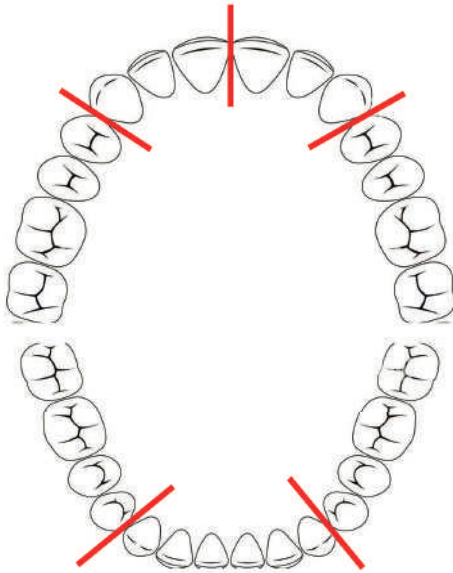
## FIXED PROSTHETIC RESTORATIONS ON IMPLANTS

### Full Arch



## KEY CRITERIA FOR TREATMENT PLANNING

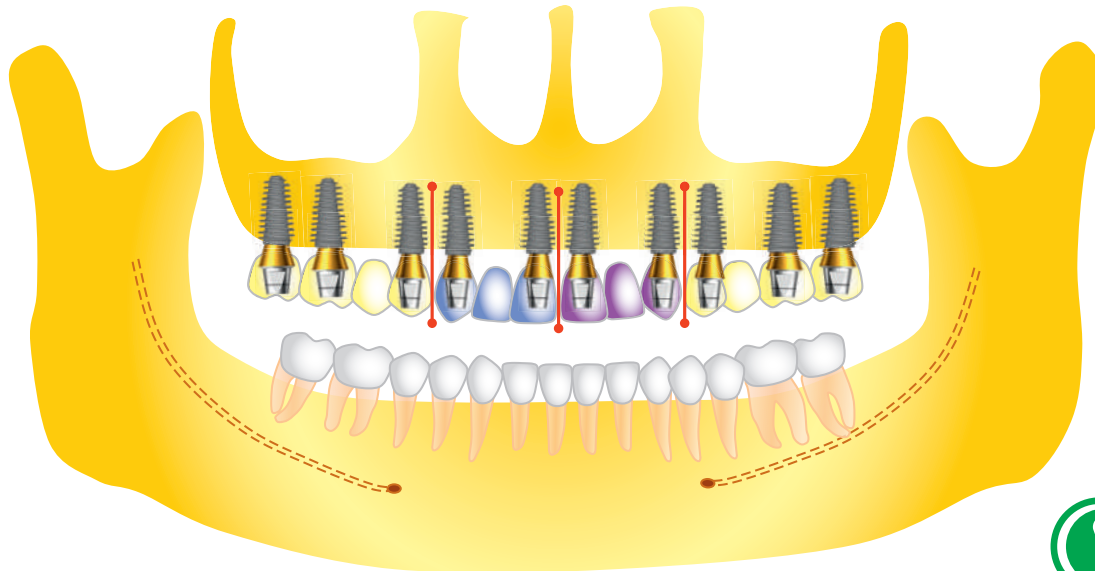
- Separate the prosthetic restoration into segments – anterior and posterior
- An optimal distance between implants should be maintained
- Avoid cantilevers
- Cement-retained fixation on individual abutments is preferred





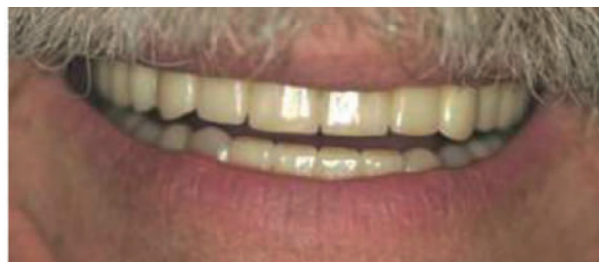
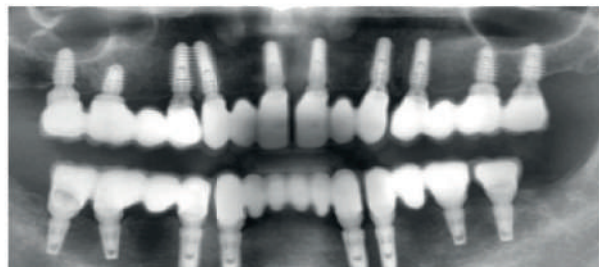
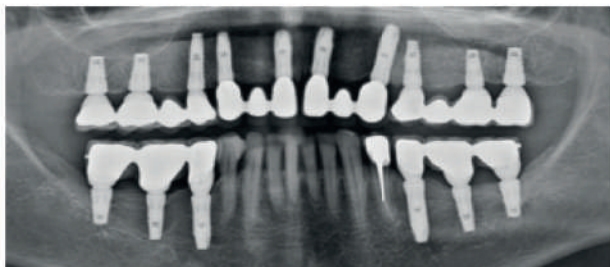
## OPTIMAL IMPLANT DISTRIBUTION

- Optimal load distribution
- Ease of repair and maintenance
- High esthetics
- Front: Ceramics (or Zirconia)
- Distal: PFM (porcelain fused metal)



**10 IMPLANTS — 14 CROWNS, 4 FIXED BRIDGES**



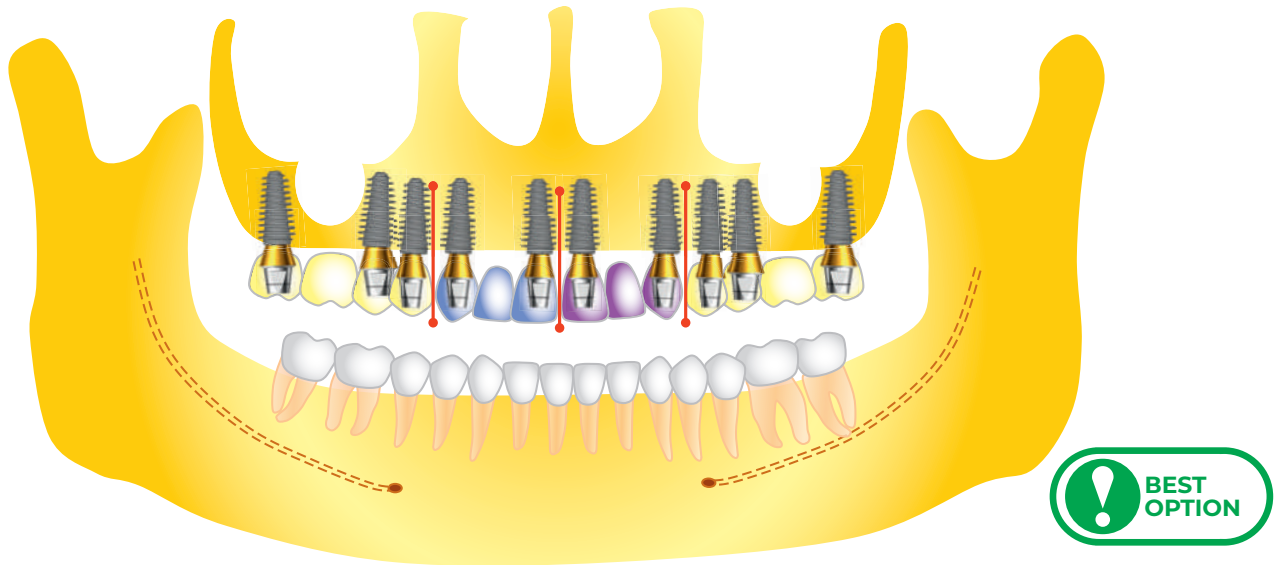




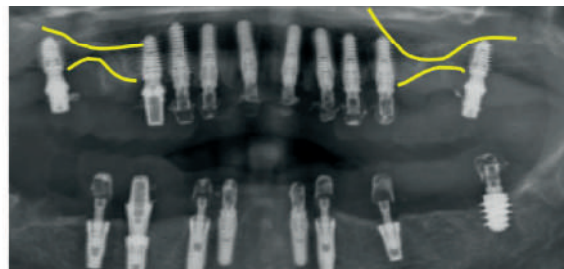
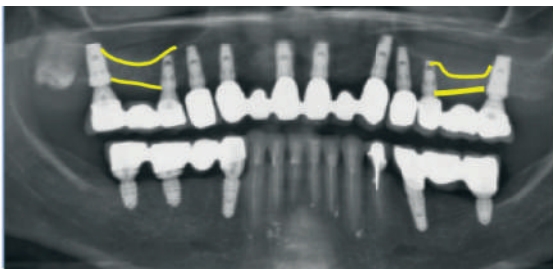
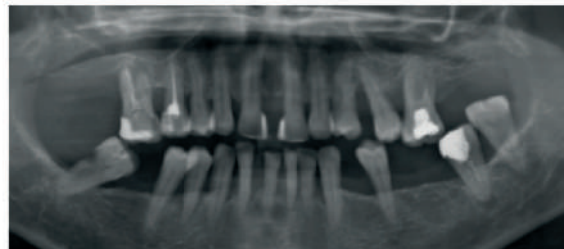
## OPTIMAL IMPLANT DISTRIBUTION

### To avoid sinus lift procedures

- Allows to avoid sinus lift procedures
- In the region of teeth 3/4/5, an implant with a minimal body diameter should be selected



**10 IMPLANTS — 14 CROWNS, 4 FIXED BRIDGES**





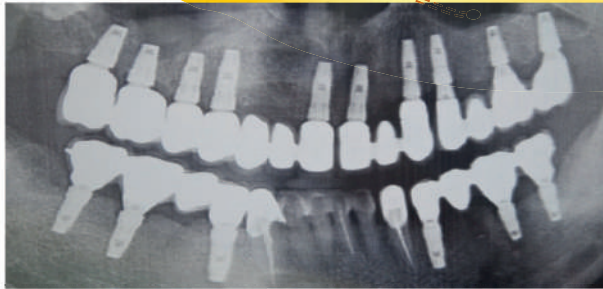
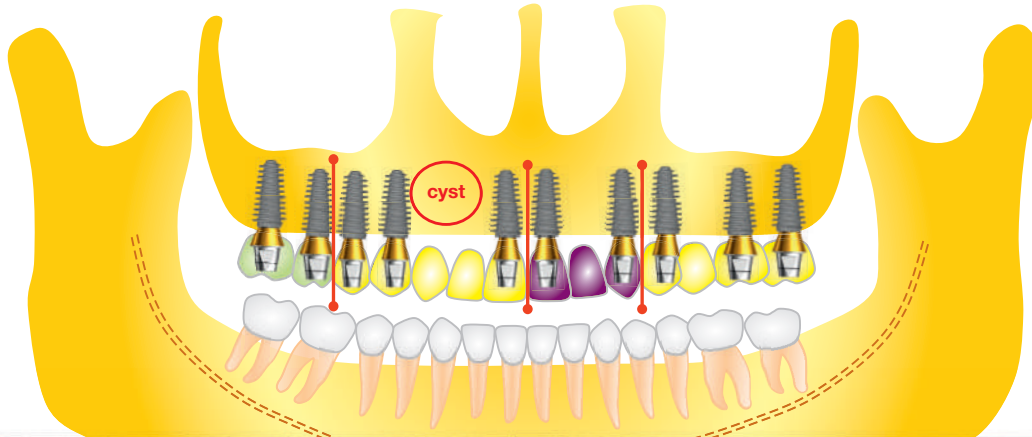
To achieve optimal results in the anterior region, highly aesthetic zirconia abutments with ceramic crowns can be used, while in the posterior regions, high-strength titanium abutments with PFM crowns are recommended. This approach also helps reduce the overall cost of the treatment.

**It is not recommended to combine zirconia and titanium abutments in the same restoration. The prosthetic constructions should be separate.**





## A NON-STANDARD APPROACH TO IMPLANT DISTRIBUTION ON THE UPPER JAW

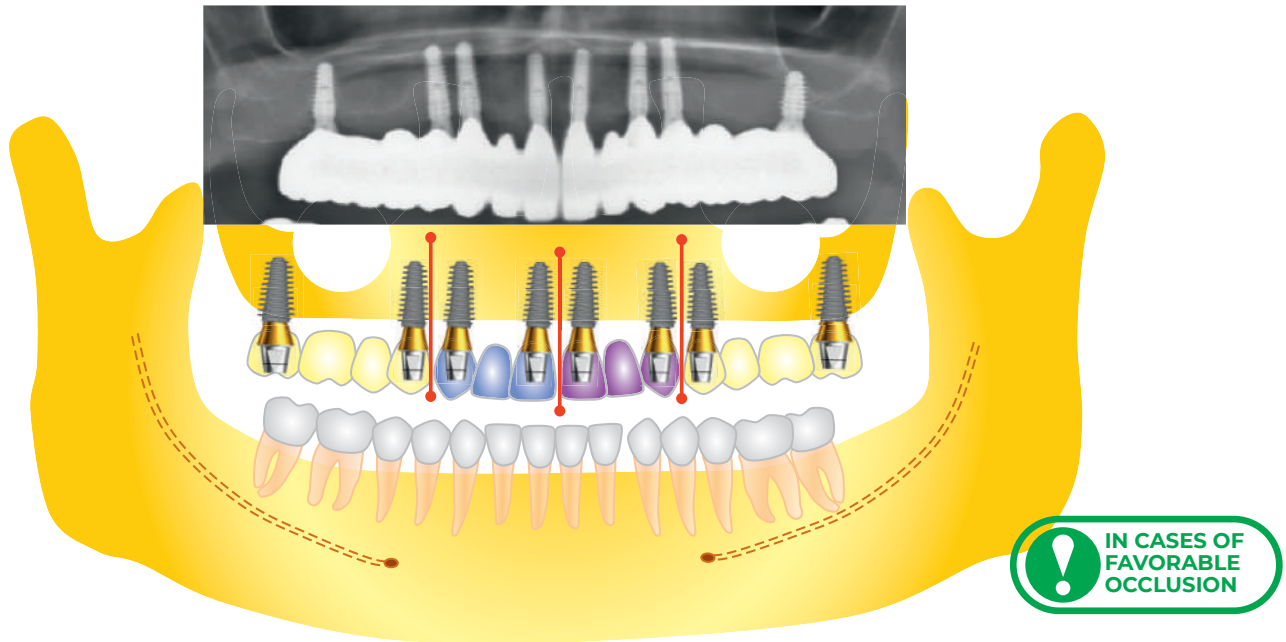






## In cases of favorable occlusion

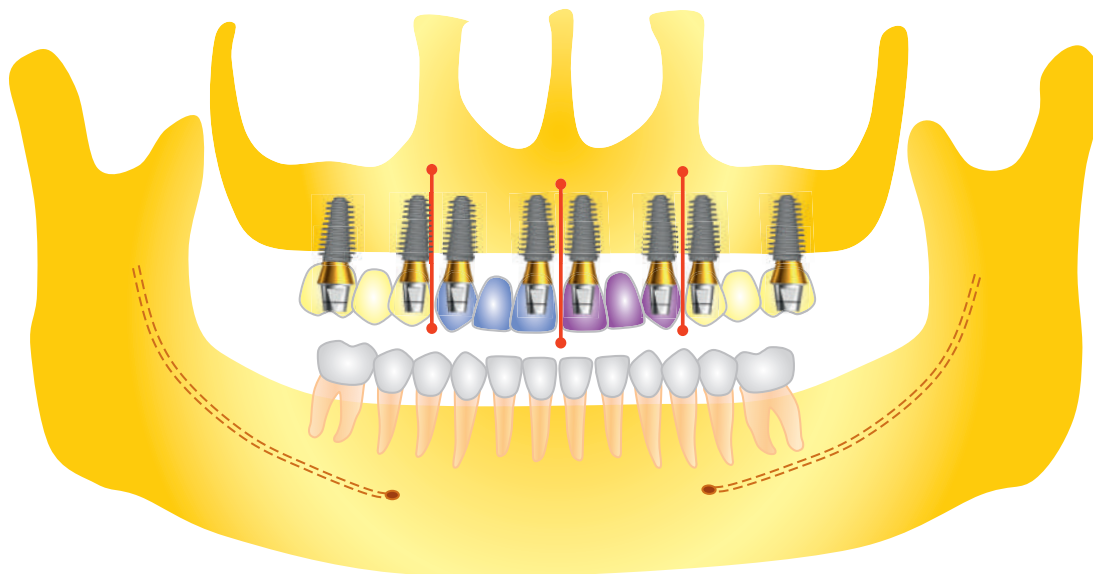
- Allows to avoid sinus lift procedures
- In the region of 2<sup>nd</sup> molar, a spongy implant with the maximum possible thread diameter should be used



**8 IMPLANTS — 14 CROWNS, 4 FIXED BRIDGES**



In the absence of antagonists  
in the region of the 2<sup>nd</sup> molars



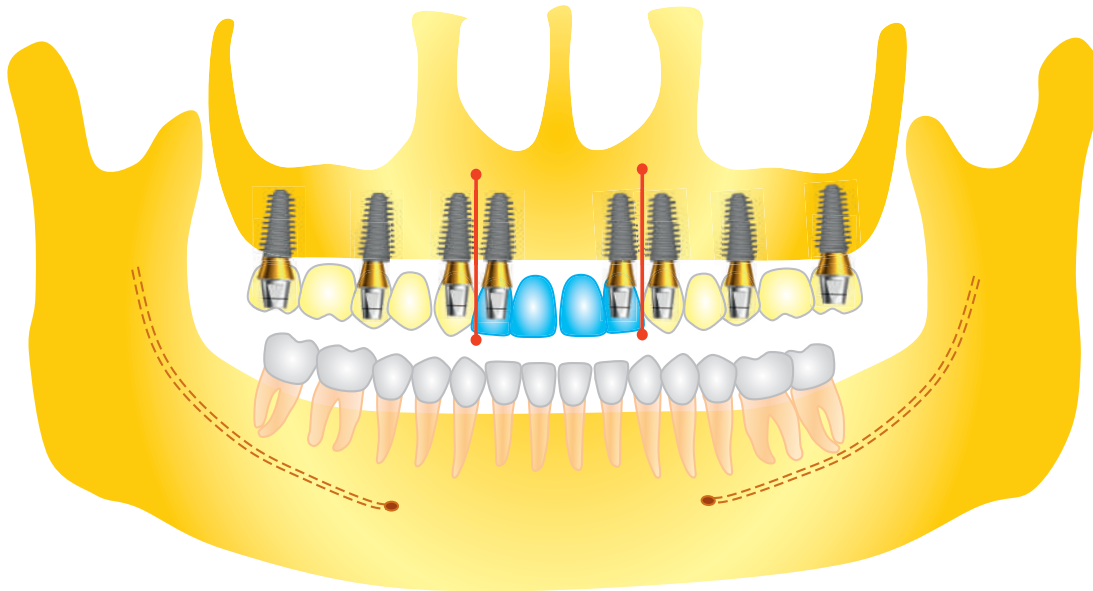
**8 IMPLANTS — 12 CROWNS, 4 FIXED BRIDGES**





## When it is not possible to place implants in the region of the central incisors

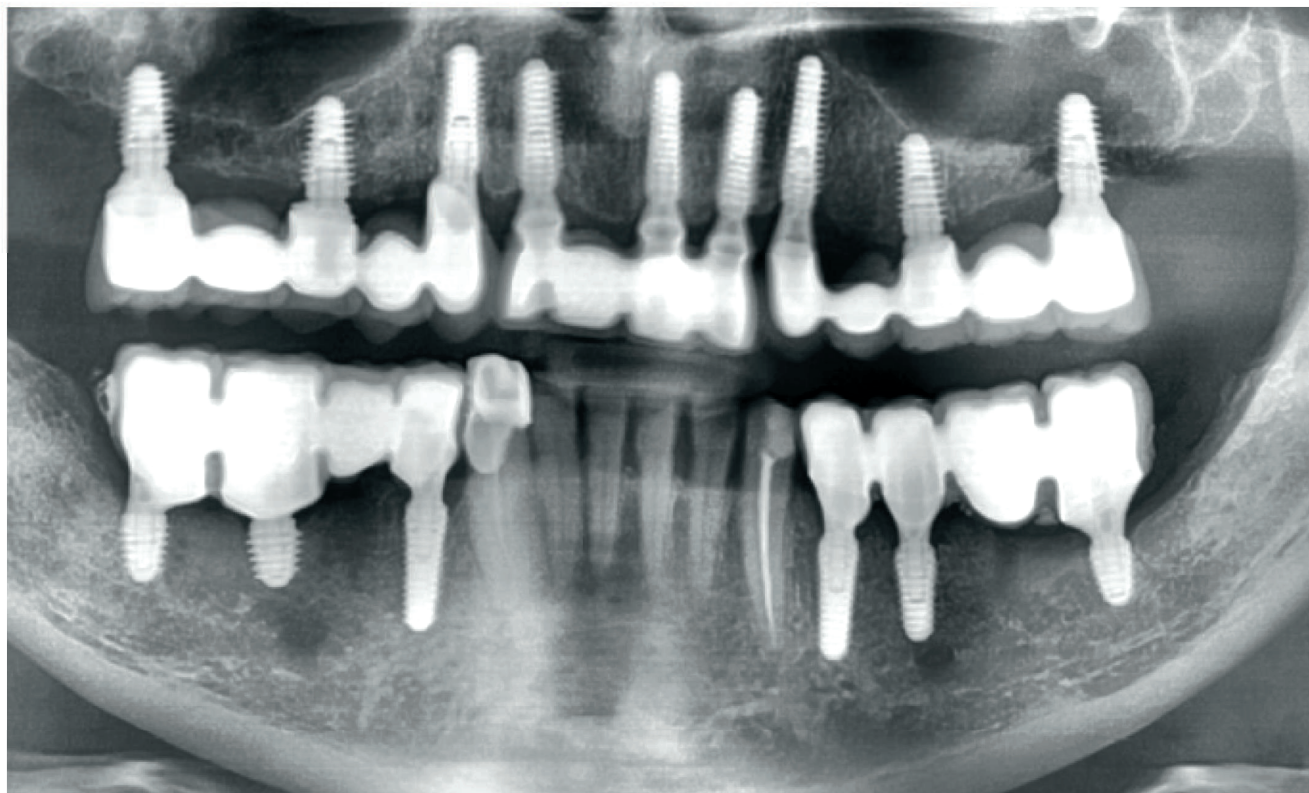
In the anterior region, PFM crowns are preferred



**8 IMPLANTS — 14 CROWNS, 3 FIXED BRIDGES**

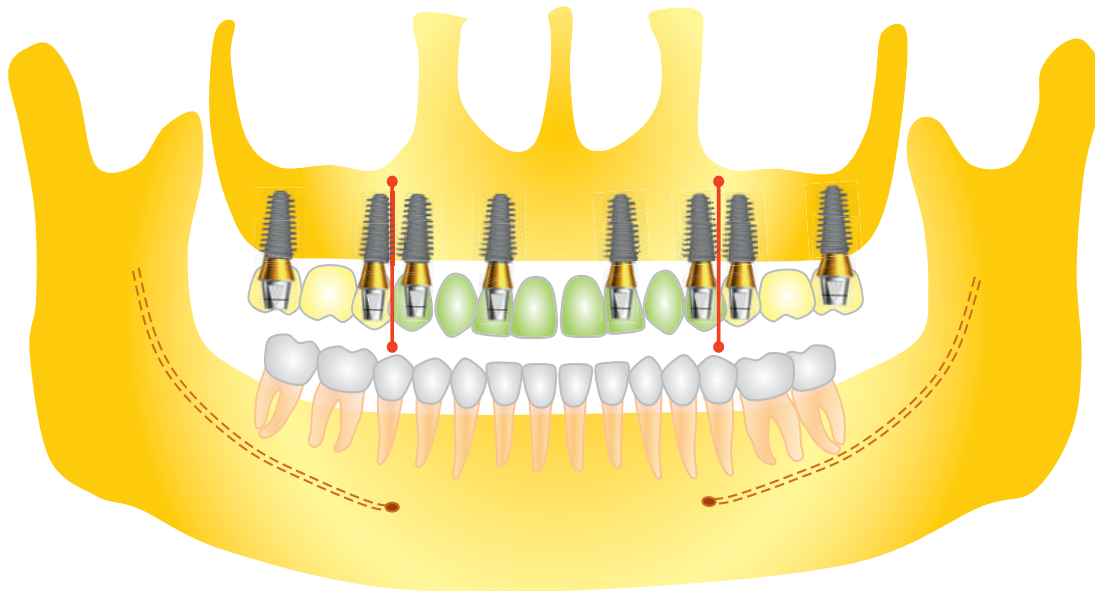


## CLINICAL CASE

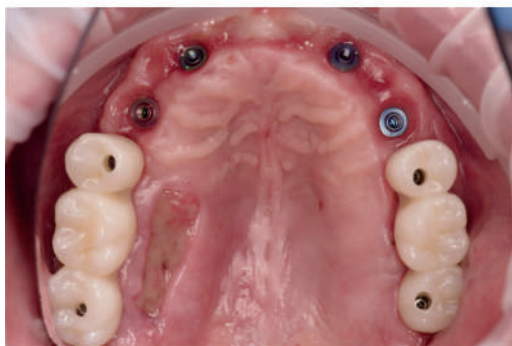
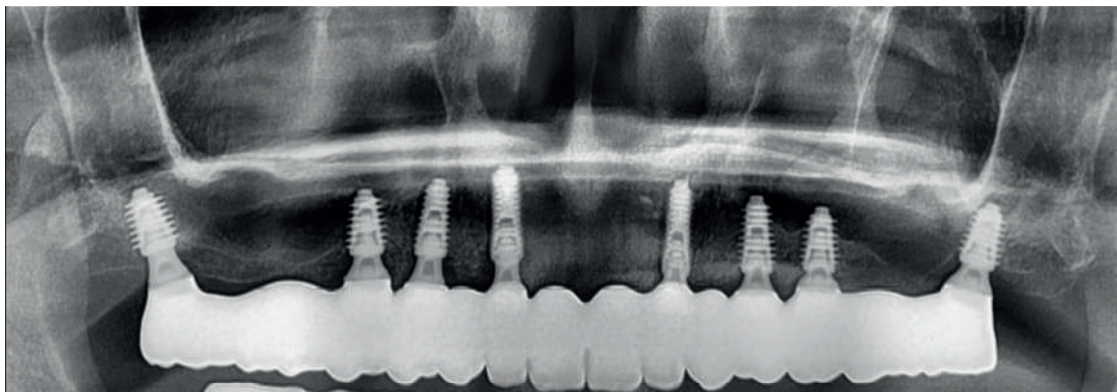




When it is impossible to place implants in the region of central incisors and canines



**8 IMPLANTS — 14 CROWNS, 3 FIXED BRIDGES**

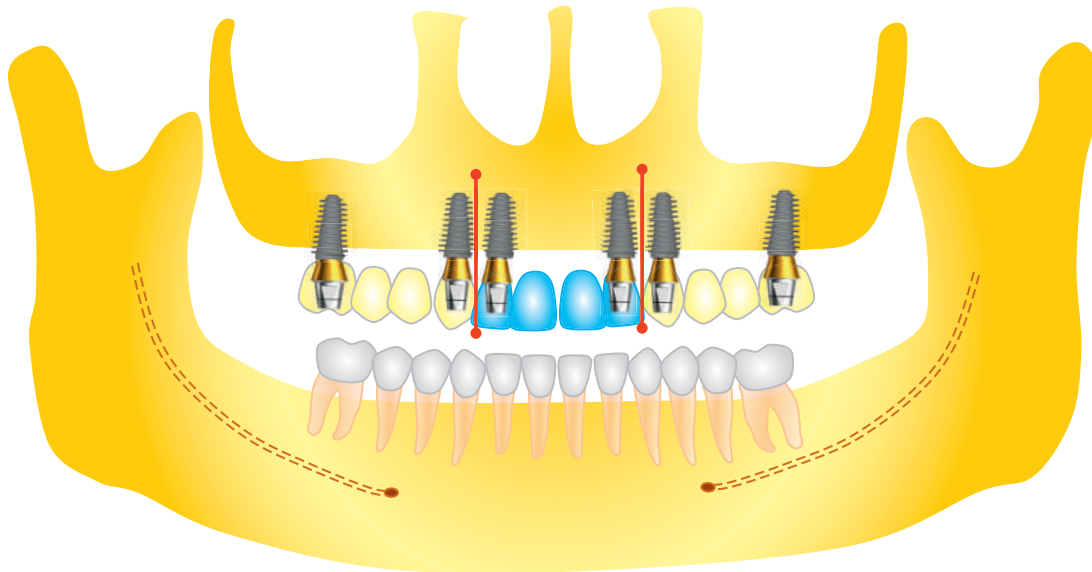


Clinical case of Dr. D. Semerikov

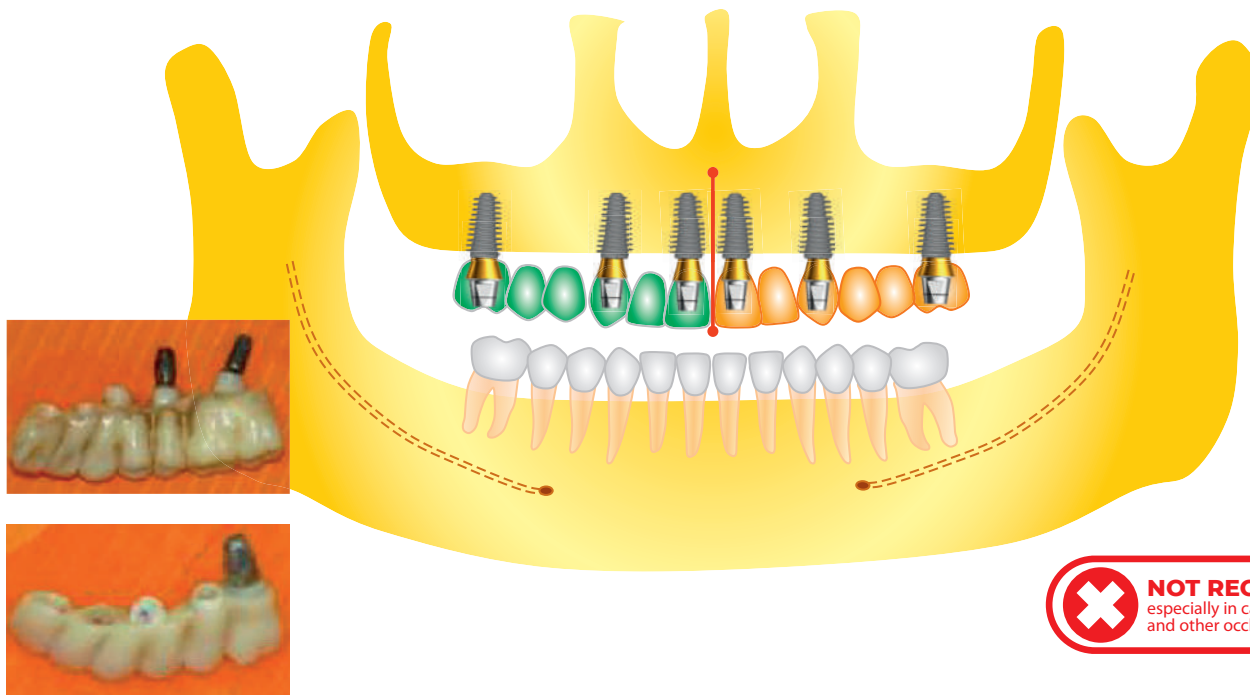


## Only in cases of favorable occlusion and absence of antagonists in the region of the 2<sup>nd</sup> molar

In the anterior region, PFM crowns are preferred



**6 IMPLANTS — 12 CROWNS, 3 FIXED BRIDGES**



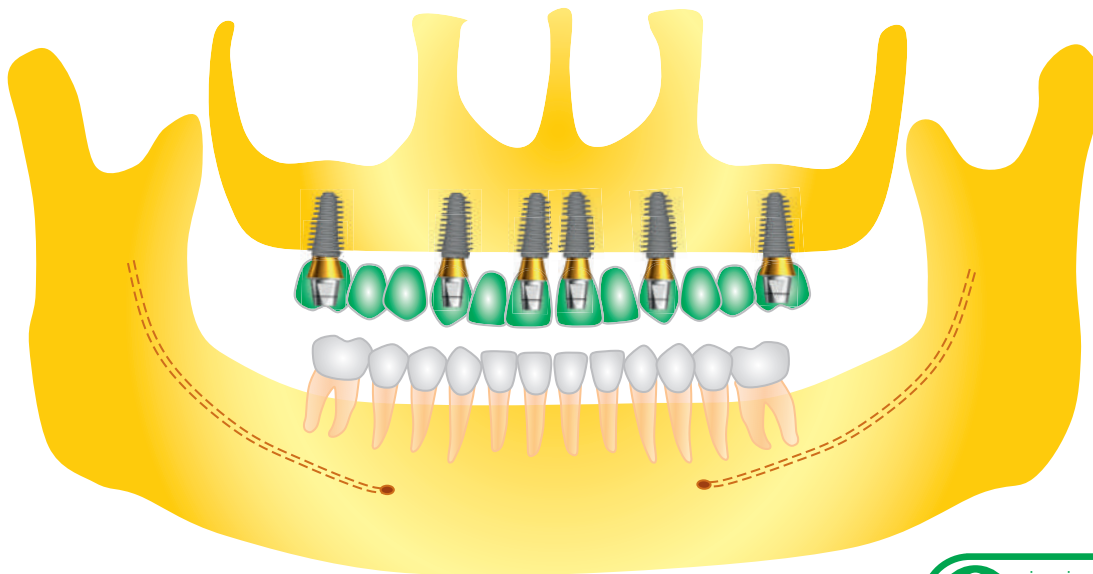
 **NOT RECOMMENDED**  
especially in cases of bruxism  
and other occlusal disorders

**6 IMPLANTS — 12 CROWNS, 2 FIXED BRIDGES**





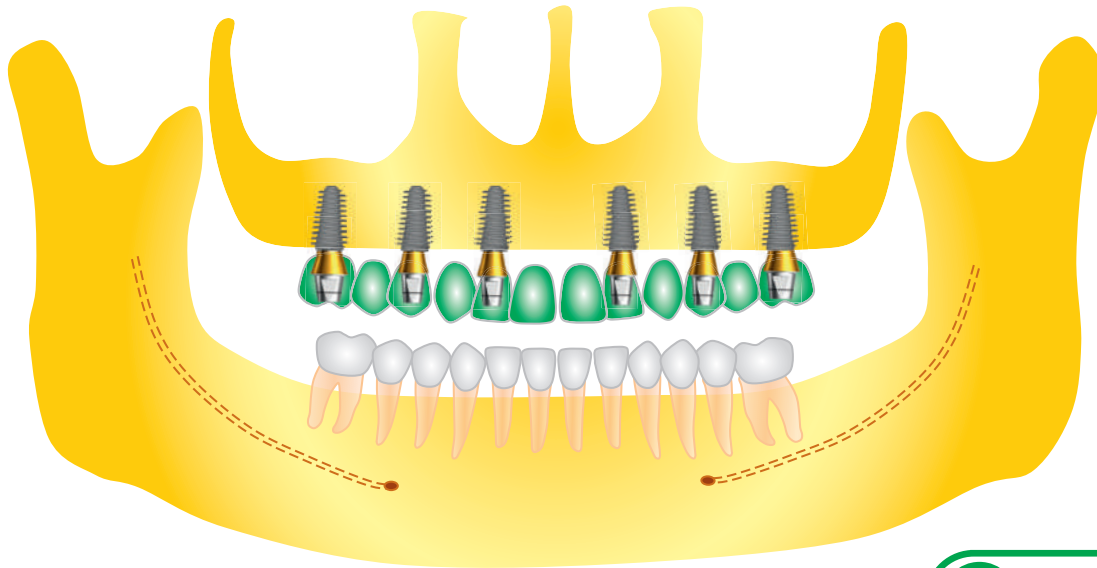
- The full-arch PFM bridge may require framework passivation
- In the absence of antagonists in the region of the 2<sup>nd</sup> molar



## 6 IMPLANTS — 12 CROWNS, FULL-ARCH BRIDGE



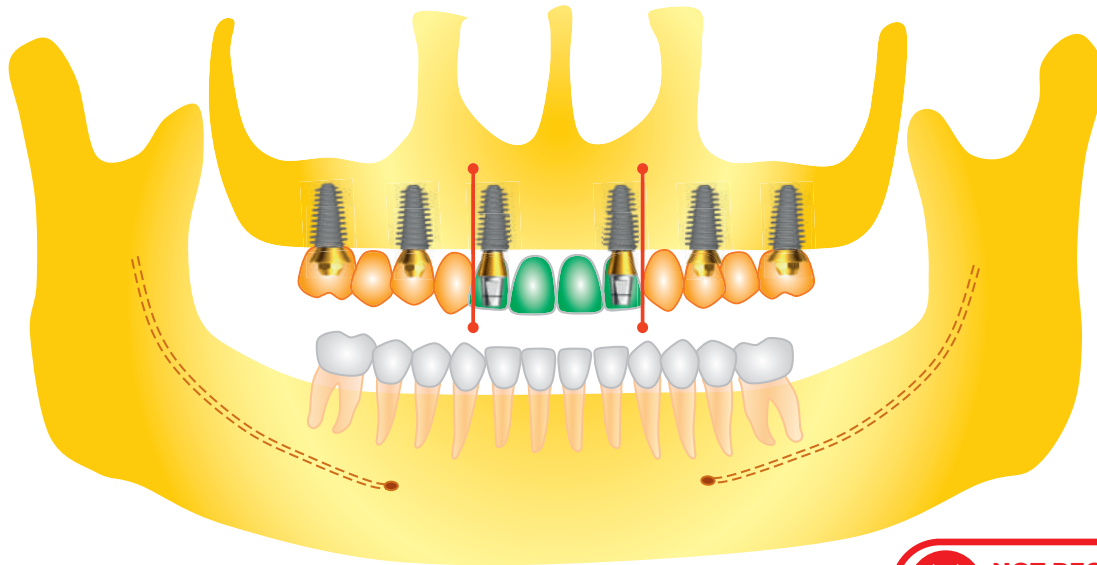
- The full-arch PFM bridge may require framework passivation
- In the absence of antagonists in the region of the 2<sup>nd</sup> molar



## 6 IMPLANTS — 12 CROWNS, FULL-ARCH BRIDGE



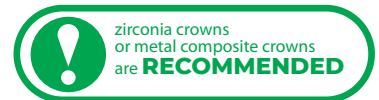
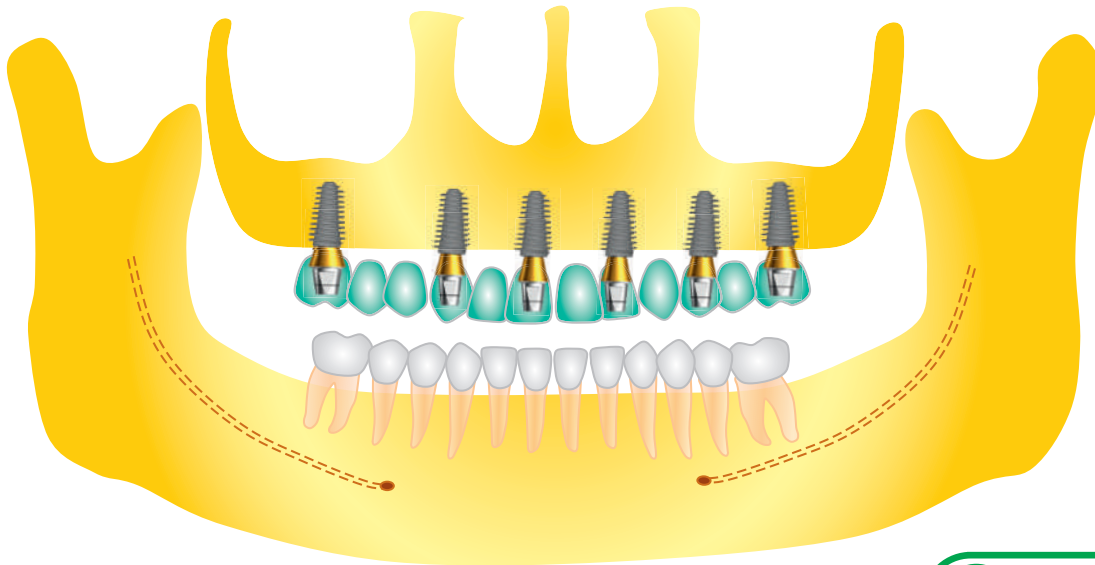
- In the posterior regions, screw retention on multi-unit abutments is recommended
- An anterior cantilever is preferable to a distal cantilever



**6 IMPLANTS — 12 CROWNS,  
3 BRIDGES ( 2 WITH CANTILEVERS )**



In cases of asymmetrical implant placement, there should be no more than two pontic units

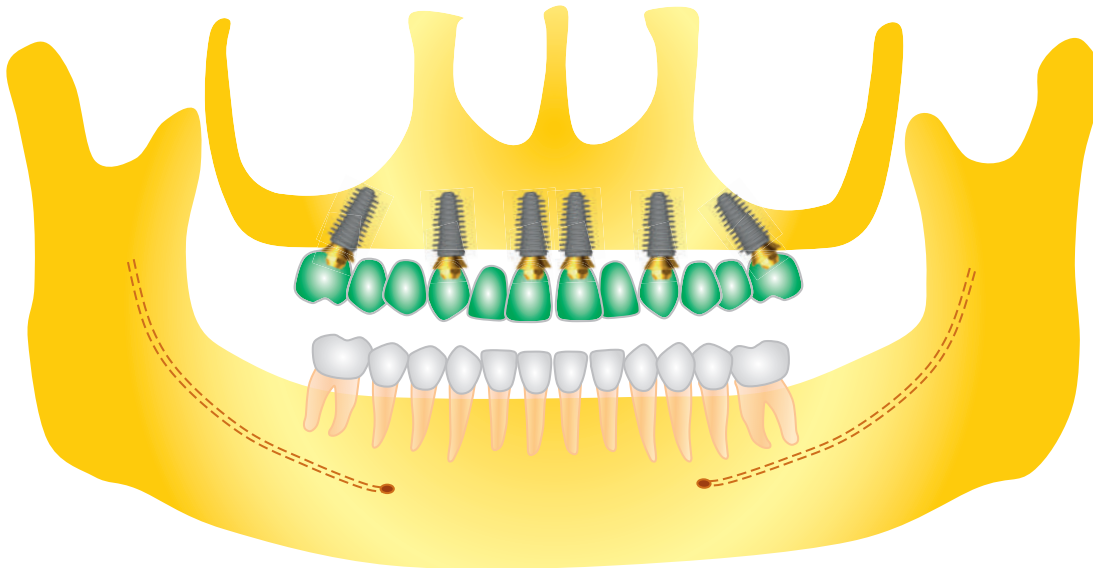


**6 IMPLANTS — 12 CROWNS, FULL-ARCH BRIDGE**

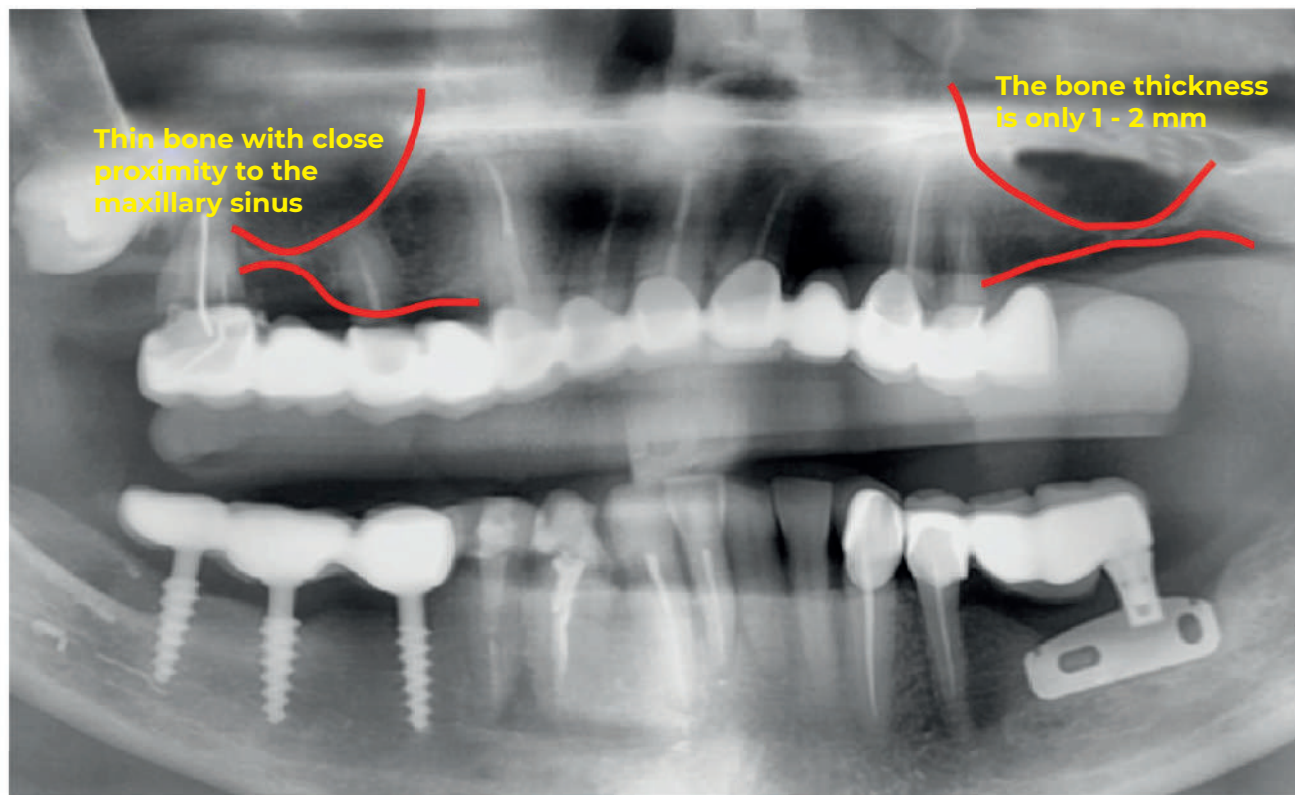


## Implant angulation in distal area is recommended to avoid the need for sinus lift procedures

- Screw retention on multi-unit abutments is recommended
- Symmetrical implant placement is preferred



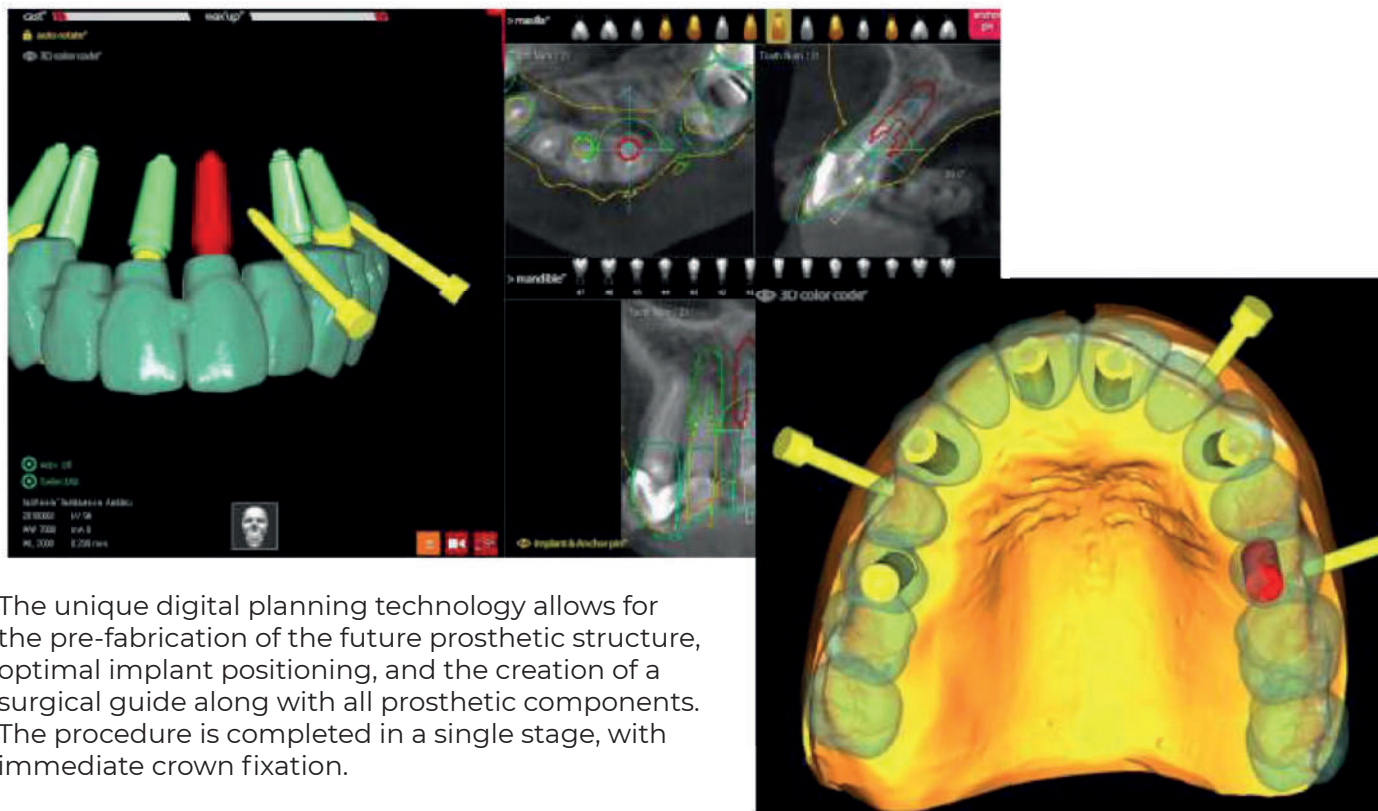
**6 IMPLANTS — 12 CROWNS, FULL-ARCH BRIDGE**



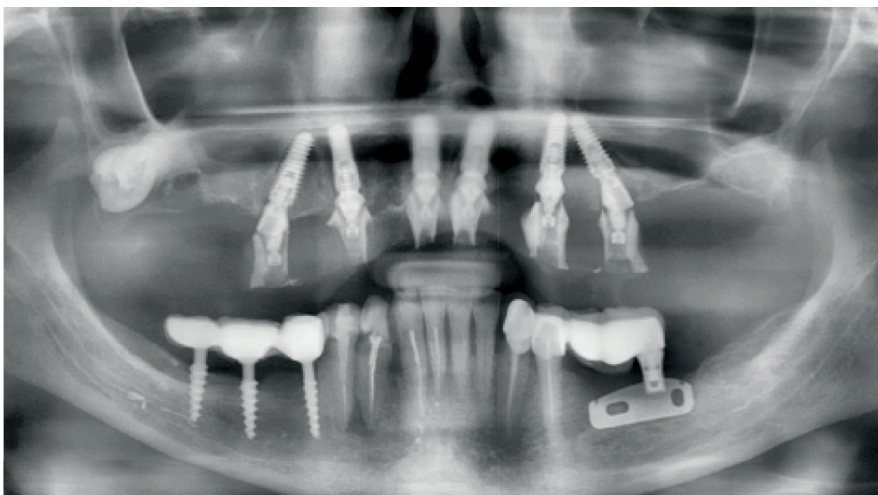




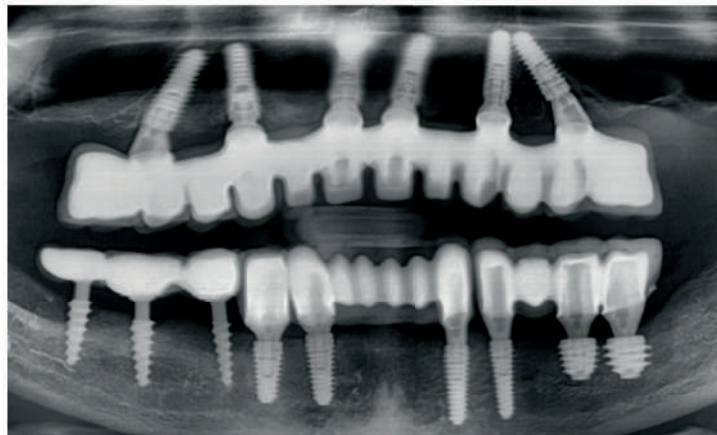
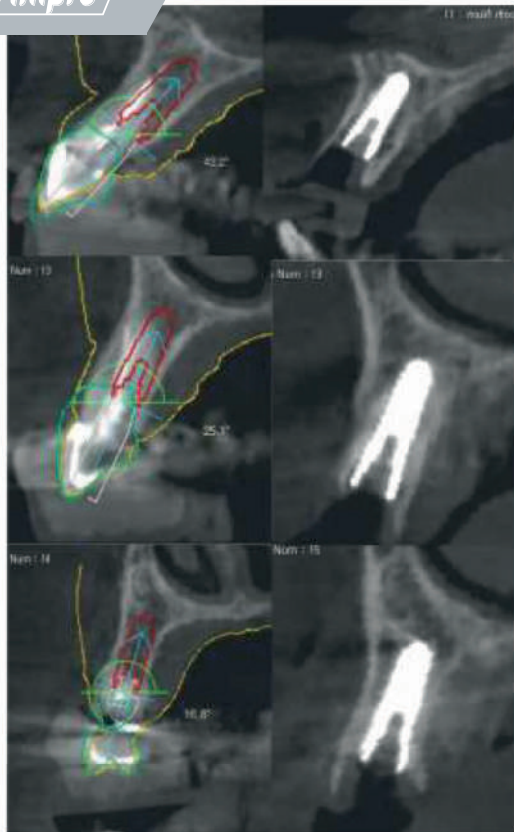
## VIRTUAL DIGITAL PLANNING



The unique digital planning technology allows for the pre-fabrication of the future prosthetic structure, optimal implant positioning, and the creation of a surgical guide along with all prosthetic components. The procedure is completed in a single stage, with immediate crown fixation.



Thanks to the surgical guide, the entire implantation procedure, including the placement of final abutments and temporary crowns, took only 1.5 hours. The patient left with temporary crowns, which were replaced with final ones after 3 months. Achieving such results without the use of a surgical guide would simply not be possible.

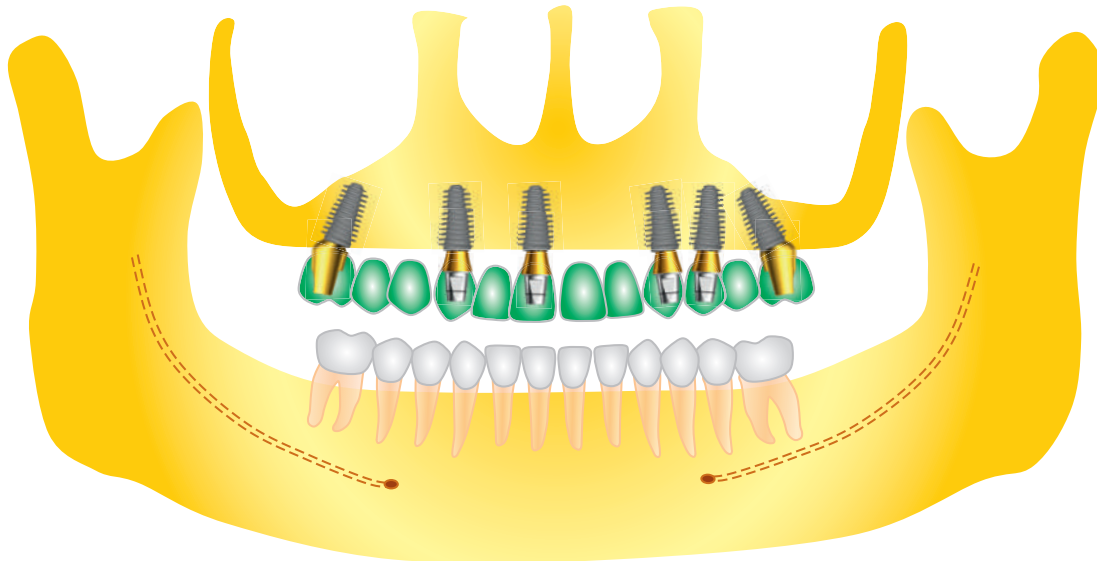


Note the precision of the implant placement. The position of the implant perfectly matches the computer-designed planing. Final crowns are fixed onto final abutments 3 months after the surgery.



## Implant angulation in distal area is recommended to avoid the need for sinus lift procedures

In the absence of cantilevers, cement retention is recommended

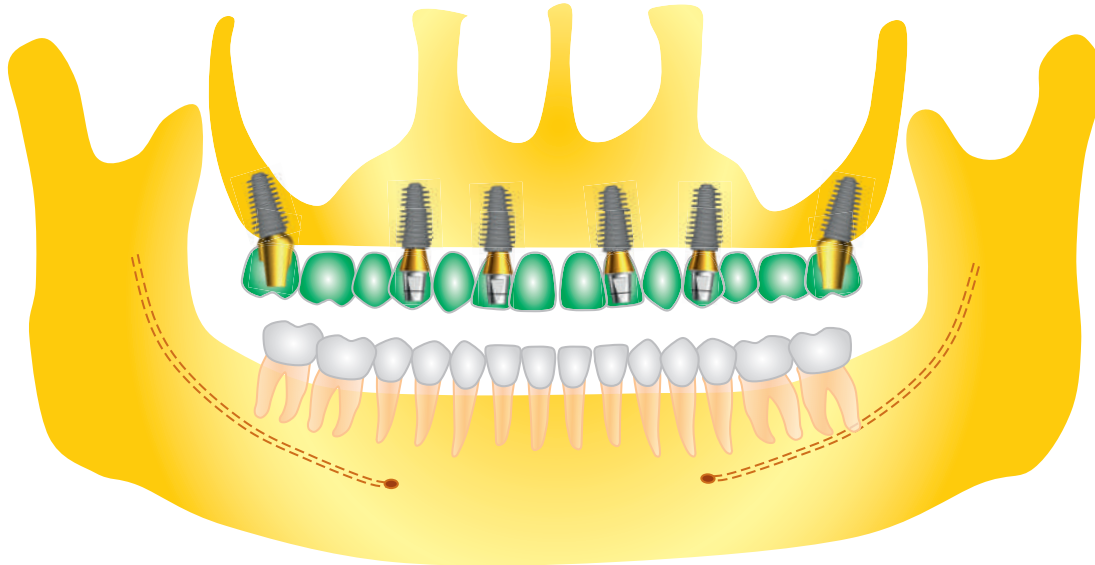


**6 IMPLANTS — 12 CROWNS, FULL-ARCH BRIDGE**



## Angulated implant placement in the maxillary tuberosity is recommended to avoid the need for sinus lift procedures

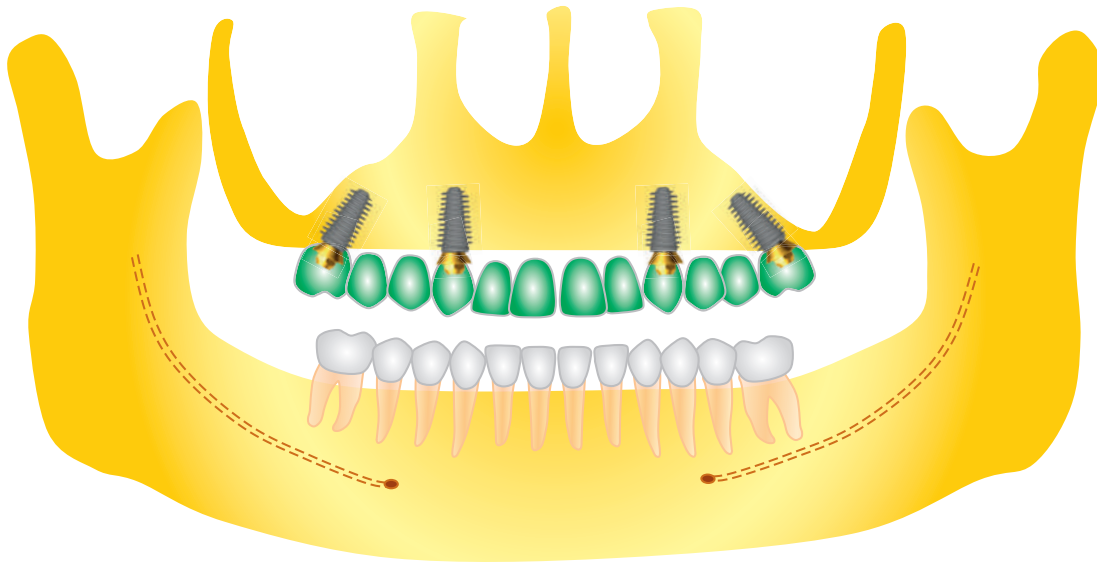
- In the absence of cantilevers, cement retention is recommended
- Screw retention to multi-unit abutments is also available



**6 IMPLANTS — 14 CROWNS, FULL-ARCH BRIDGE**

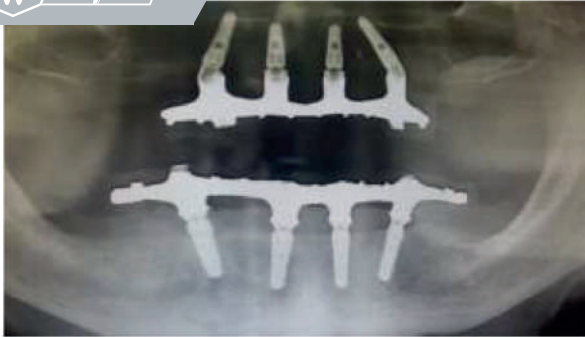


- Screw retention on multi-unit abutments is recommended
- Zirconia crowns or metal composite crowns are recommended



## 4 IMPLANTS — 12 CROWNS, FULL-ARCH BRIDGE





- An artificial gum is used
- Sufficient bone volume is required for the placement of long implants
- Zirconia crowns or metal composite crowns are recommended
- Daily use of an oral irrigator is recommended







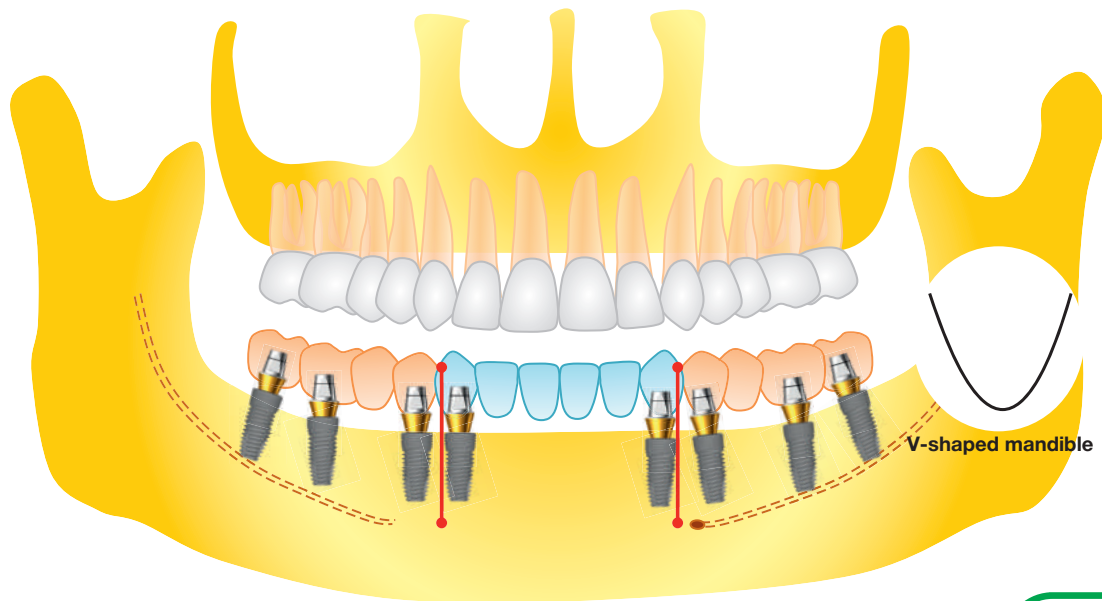
## A BAR-RETAINED OVERDENTURE (MAXILLARY)



The palate remains open, allowing for full taste sensation and rapid restoration of phonetics (sound pronunciation). The prosthesis is securely and rigidly fixed. The entire support is on the implants, preventing gum irritation. It is durable due to the metal framework. It does not need to be removed (except for cleaning before sleep). Often, bone grafting (sinus lift) can be avoided.



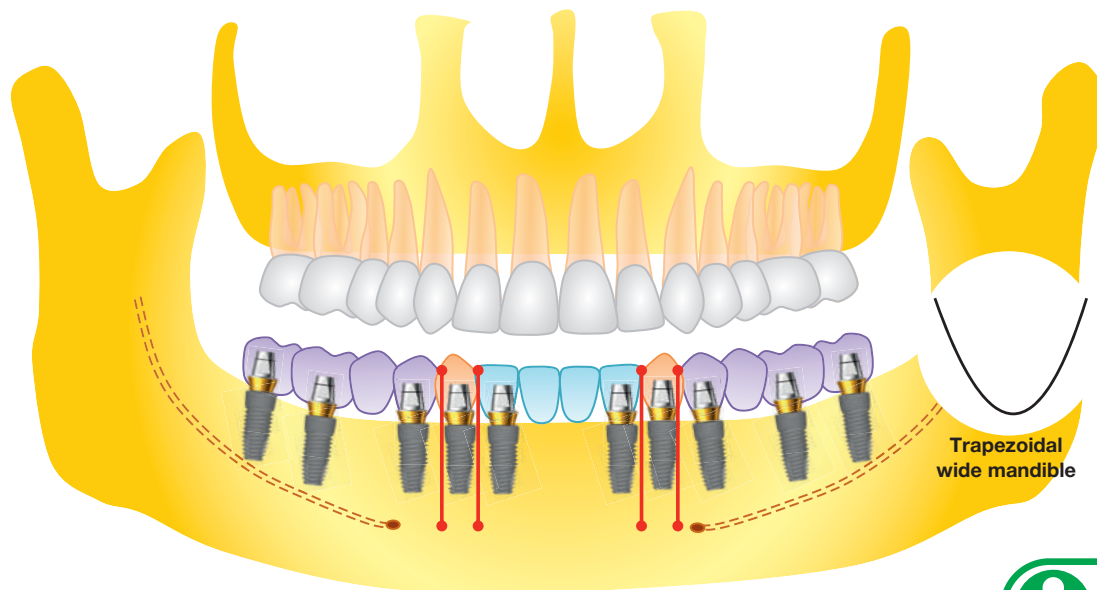
- Optimal load distribution
- Repairability
- High aesthetics



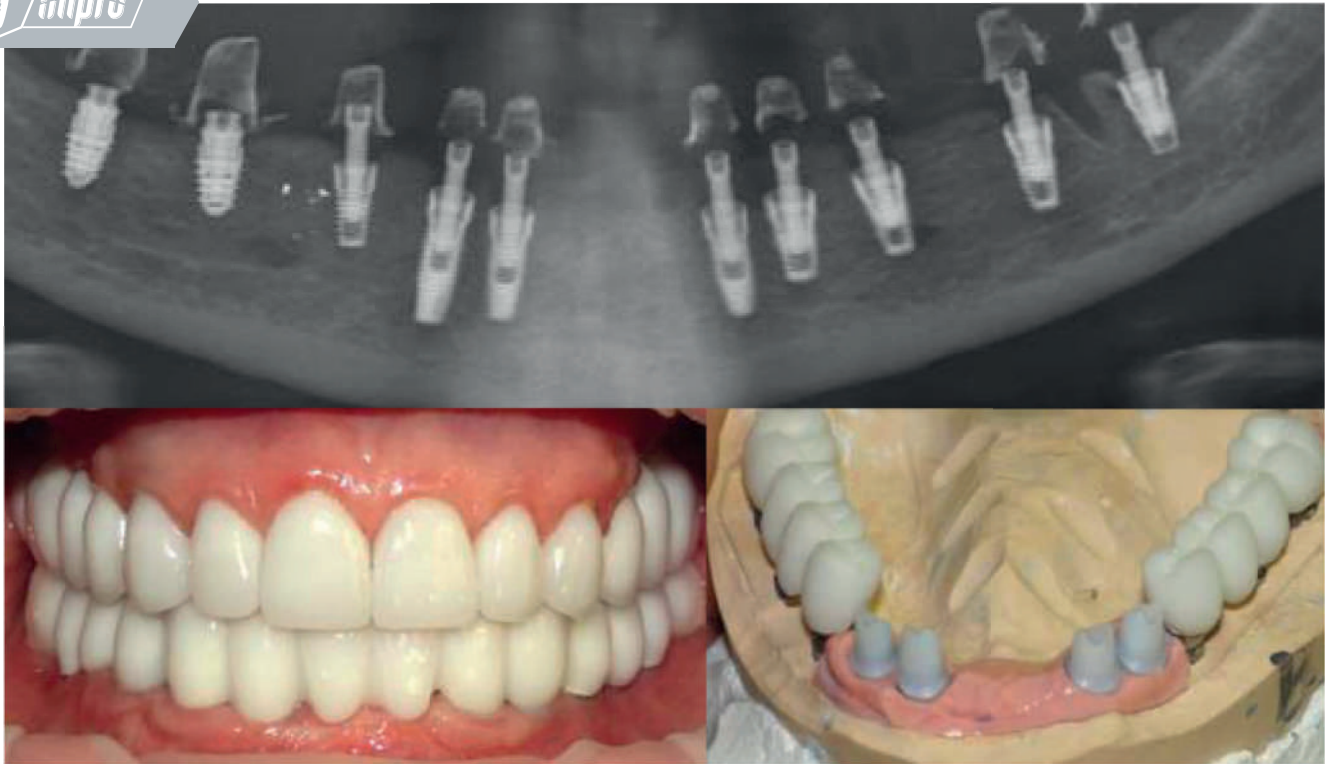
**4 IMPLANTS — 12 CROWNS, 3 FIXED BRIDGES**



Recommended in cases where the bone ridge in the area of the lower incisors is insufficient in thickness or when the lower incisors are very narrow.



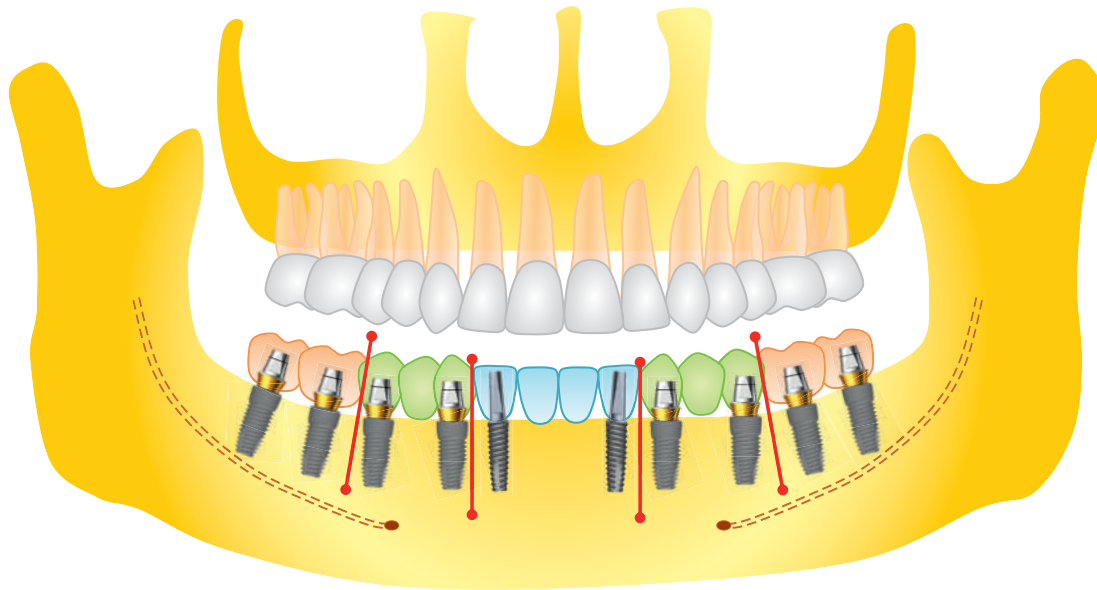
**10 IMPLANTS — 14 CROWNS,  
3 FIXED BRIDGES AND 2 SINGLE CROWNS**



Recommended for immediate loading, when the lower incisors are large, and in case of the placement of short implants.



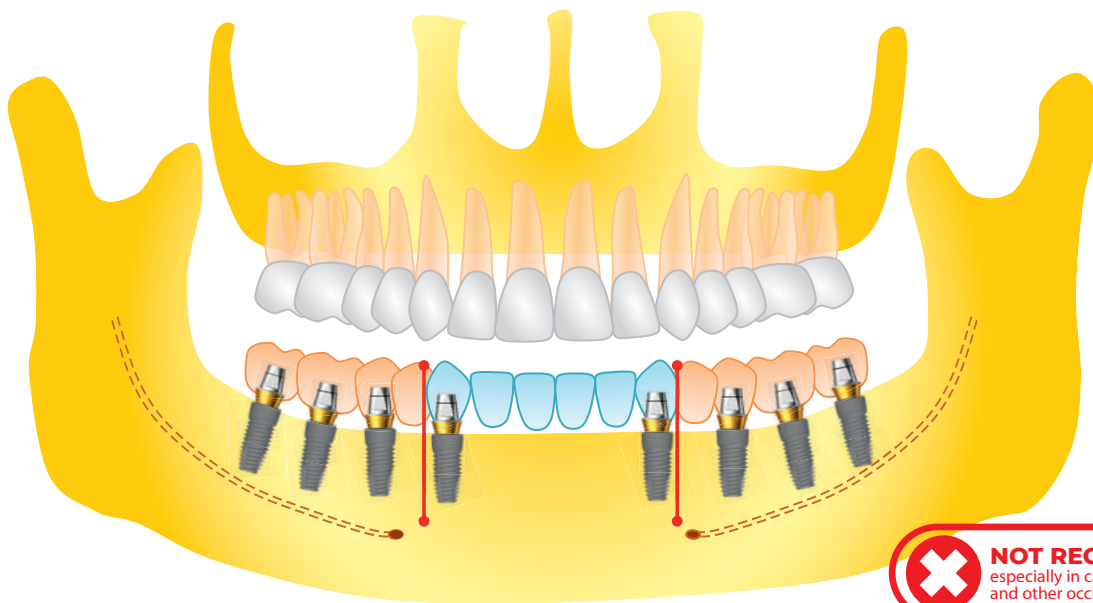
**In cases where the mental foramen  
avoid implant placement**



**10 IMPLANTS — 14 CROWNS,  
5 FIXED BRIDGES**



In cases where the mental foramen  
avoid implant placement

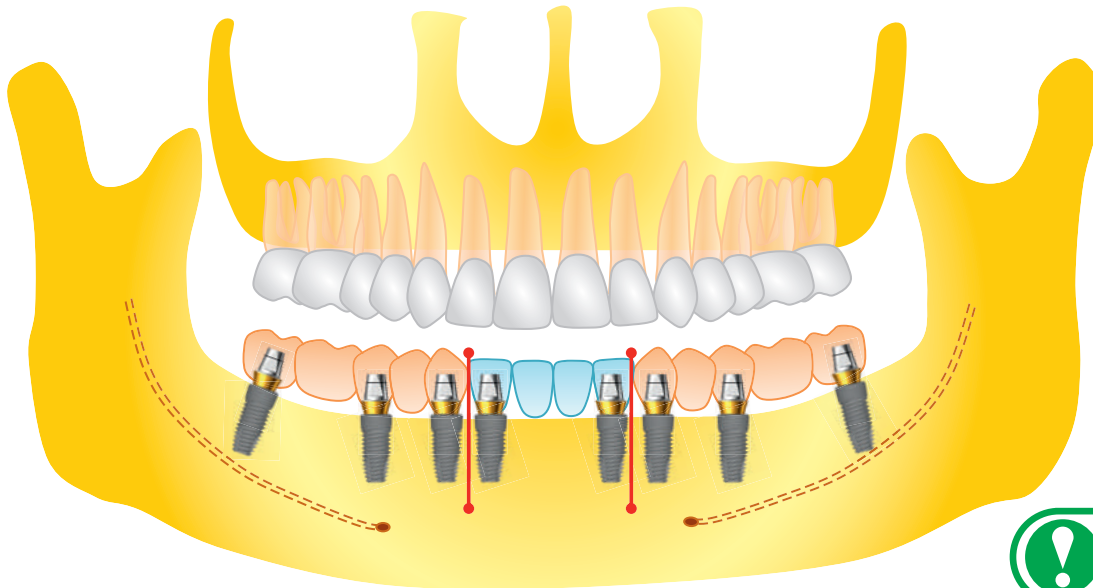


**8 IMPLANTS — 14 CROWNS,  
3 FIXED BRIDGES (2 WITH A CANTILEVER)**

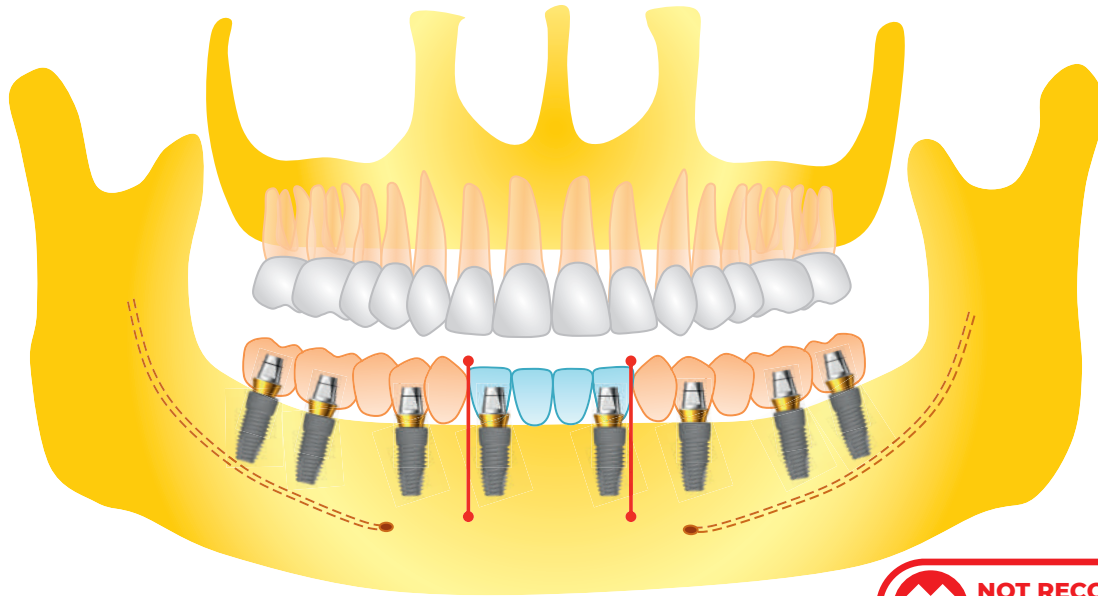




In cases where the mental foramen  
avoid implant placement

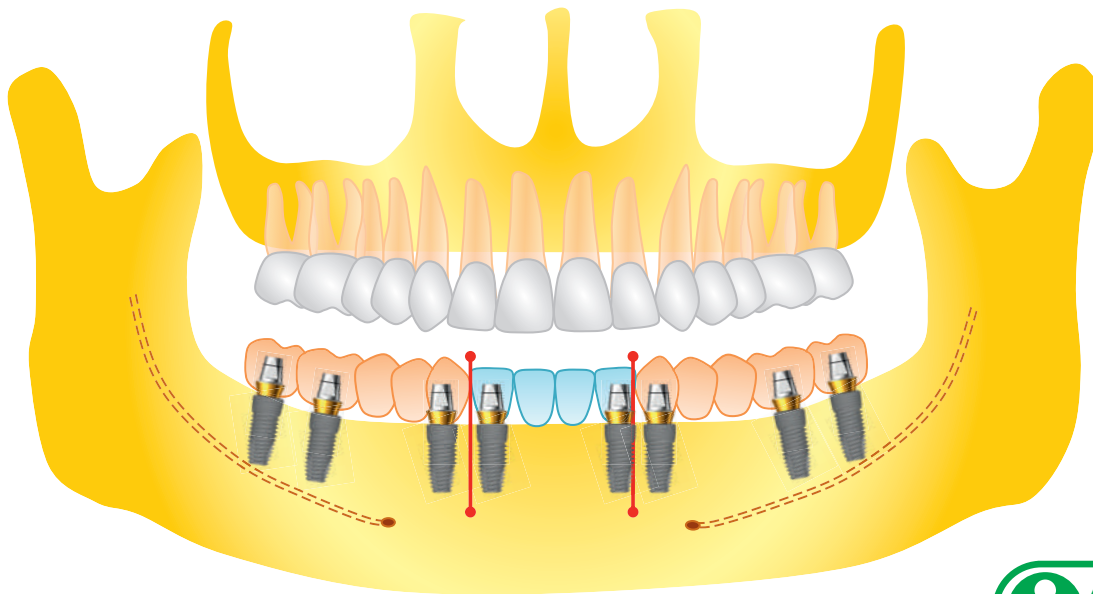


**8 IMPLANTS — 14 CROWNS,  
3 FIXED BRIDGES**



**✗ NOT RECOMMENDED**  
especially in cases of bruxism  
and other occlusal disorders

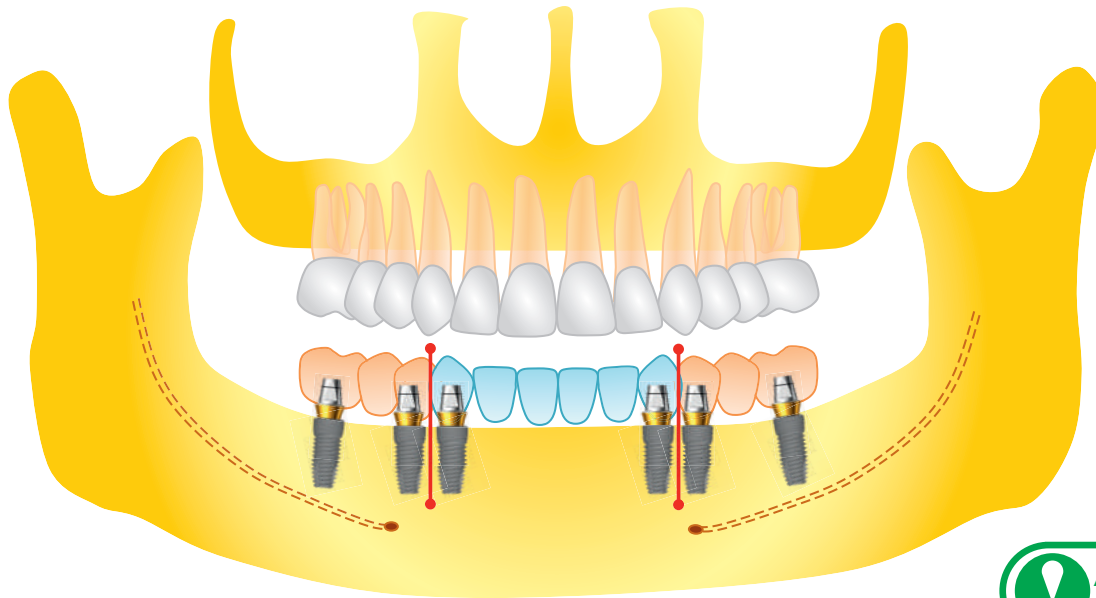
**8 IMPLANTS — 14 CROWNS,  
3 FIXED BRIDGES (2 WITH A CANTILEVER)**



**8 IMPLANTS — 14 CROWNS,  
3 FIXED BRIDGES**



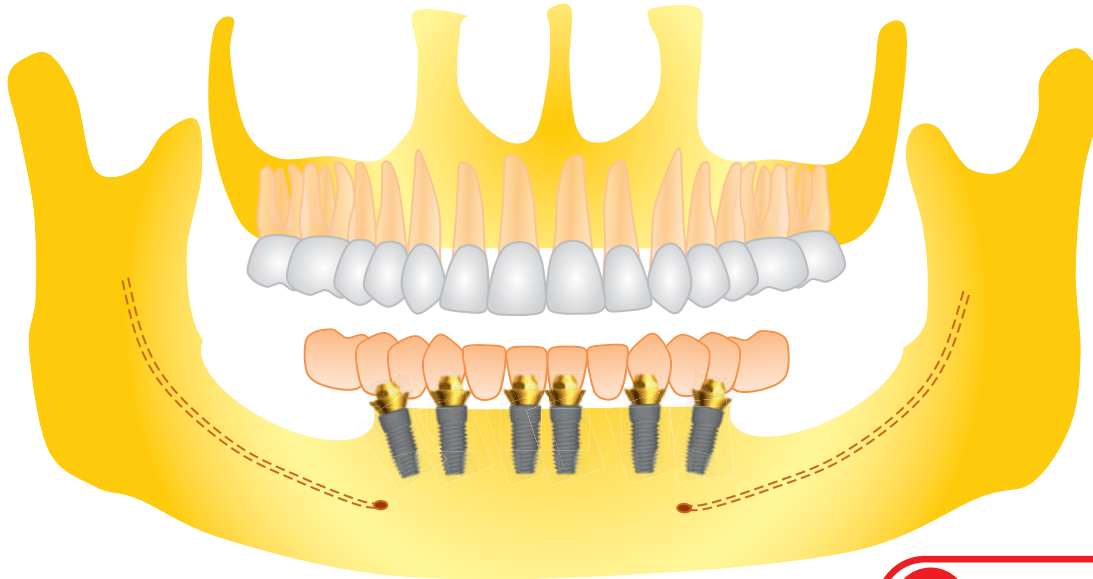
In the absence of antagonists in the area  
of the 2<sup>nd</sup> molar



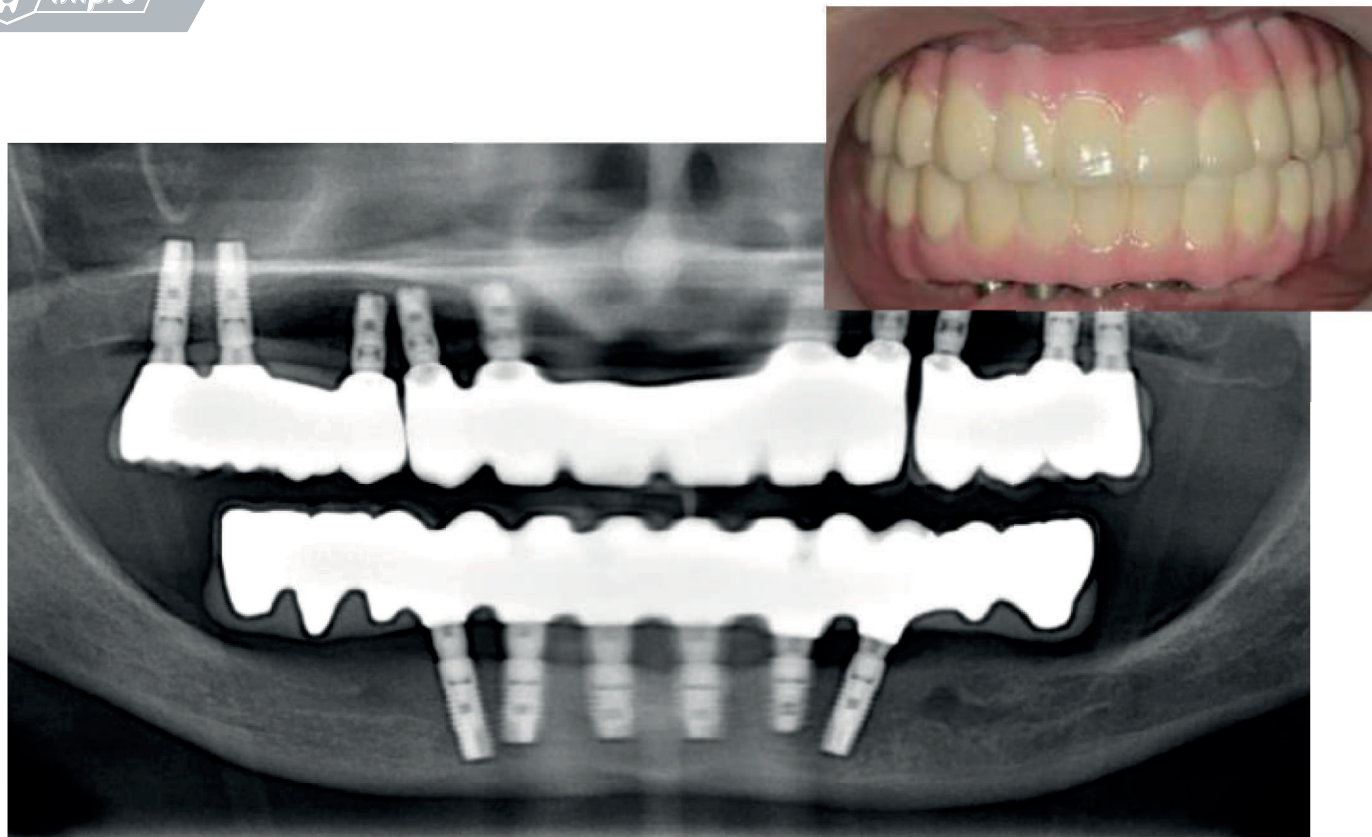
**6 IMPLANTS — 12 CROWNS,  
3 FIXED BRIDGES**



- Zirconia crowns or metal composite crowns are recommended
- Screw-retained on multi-unit abutments

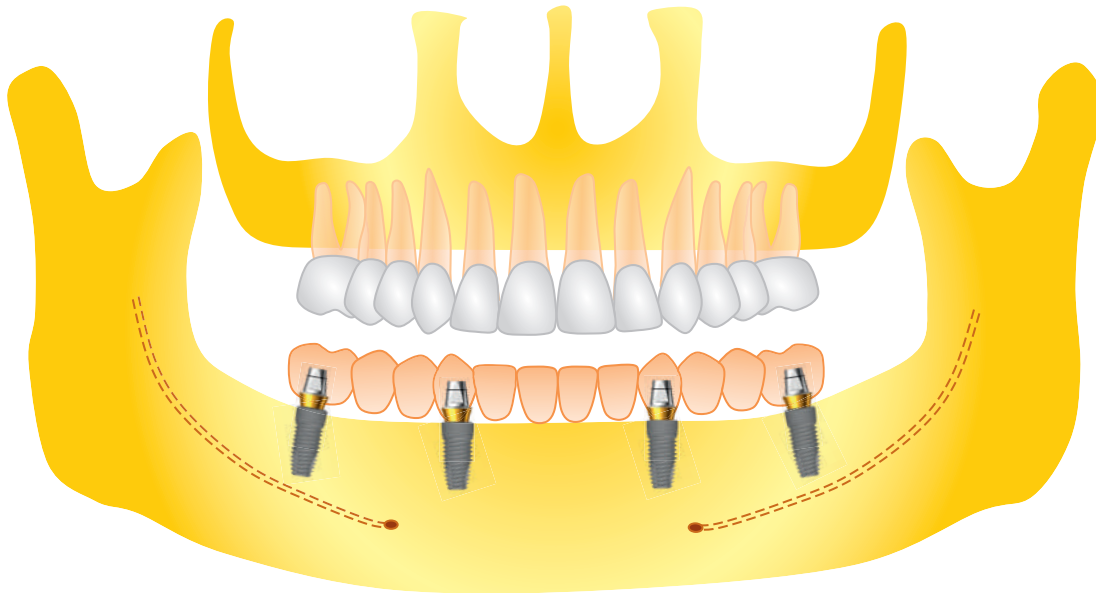


## 6 IMPLANTS — 12 CROWNS, FULL-ARCH BRIDGE WITH CANTILEVERS





Zirconia crowns or metal composite crowns are recommended

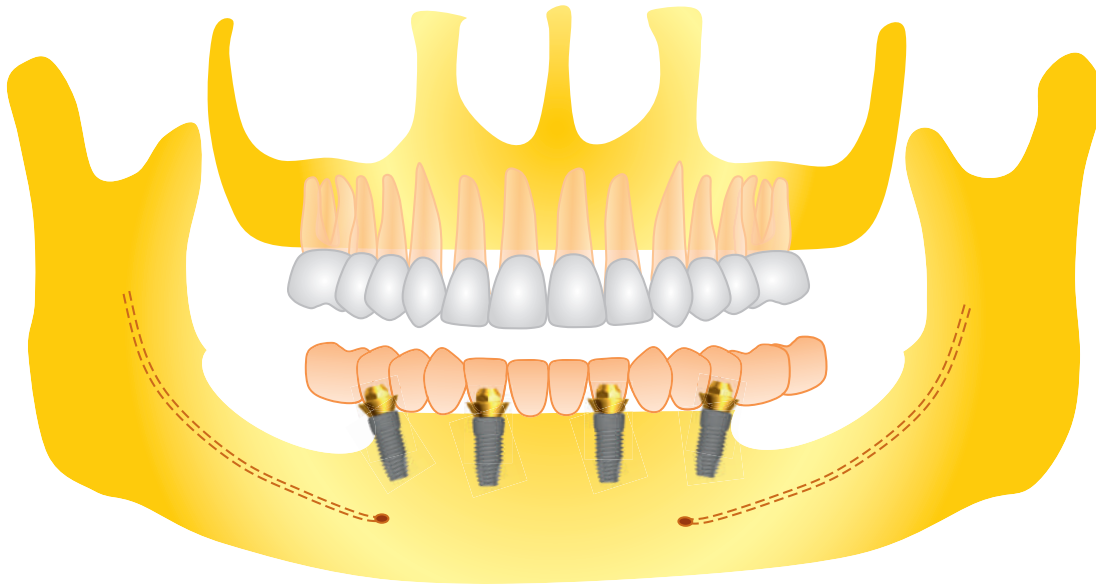


**4 IMPLANTS — 12 CROWNS, FULL-ARCH BRIDGE**





- This implants placement configuration should only be employed when there is inadequate bone height in the posterior mandible
- Zirconia crowns or metal composite crowns are recommended



## 4 IMPLANTS — 10-12 CROWNS, FULL-ARCH BRIDGE



## CLINICAL CASE





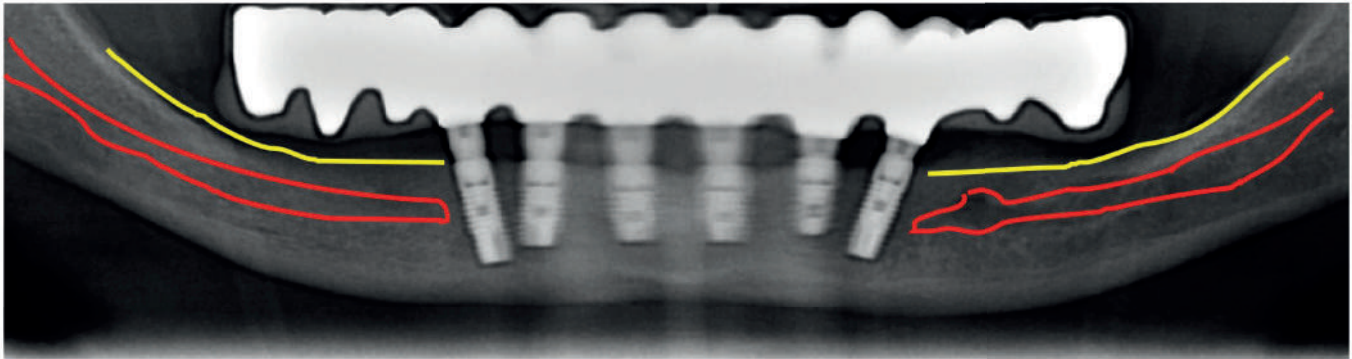
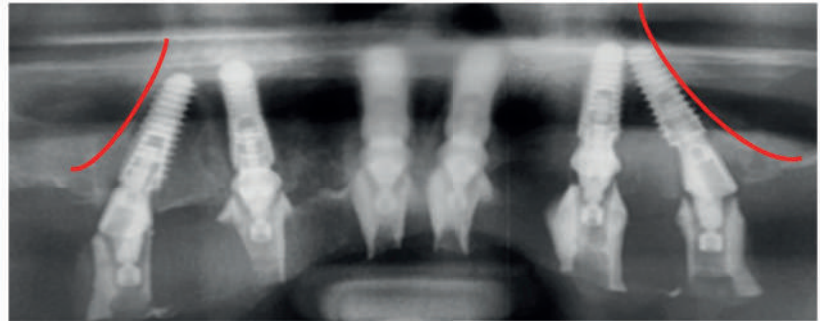
- An artificial gum is used
- Sufficient bone volume is required for the placement of long implants
- Zirconia crowns or metal composite crowns are recommended
- Daily use of an oral irrigator is recommended





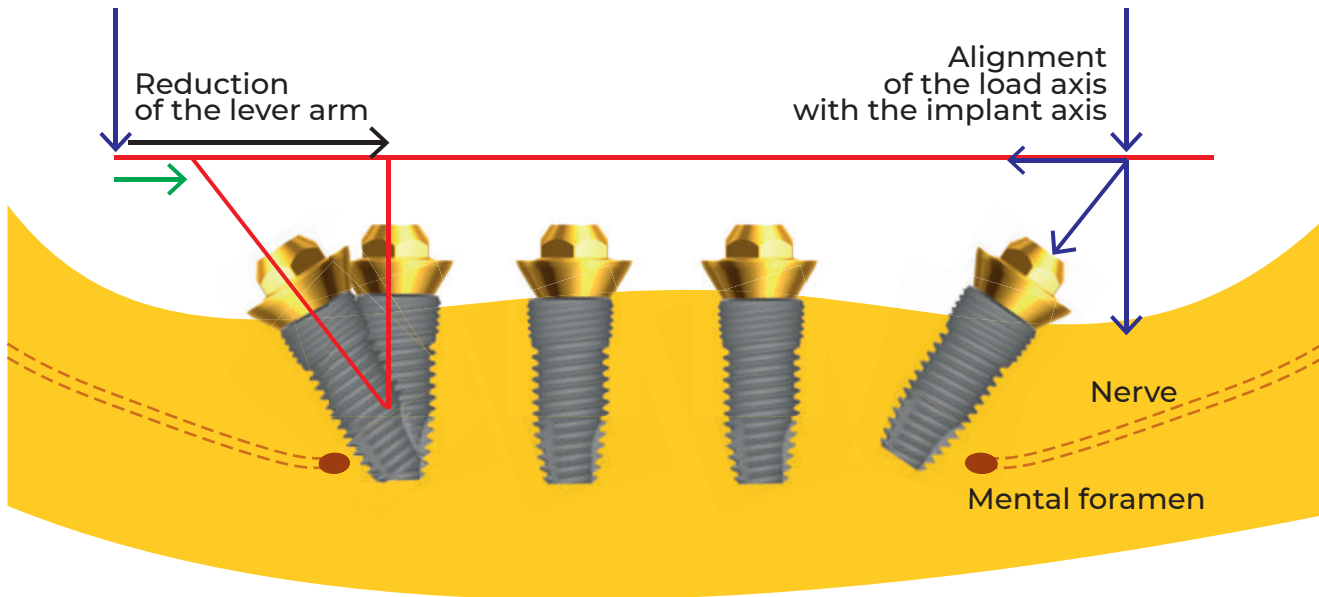
## WHAT IS THE PURPOSE OF THE PROSTHESIS WITH THE SUPPORT ON THE 4 OR 6 IMPLANTS WITH A CANTILEVER?

- To bypass anatomical limitations (sinus, nerve canal)
- To avoid the need for bone grafting
- To reduce invasiveness and shorten rehabilitation time





The distal implants are intentionally placed at an angle to align the resultant force vector along the implant axis. This reduces lateral loading. The angled placement also minimizes the lever arm effect, allows for the use of longer implants, and avoids interference with the mental nerve or maxillary sinus.





In cases of significant bone atrophy and gingival recession, the use of an artificial ceramic (or composite/resin) gum is required.







## REMOVABLE FULL OR PARTIAL DENTURES WITH IMPLANT SUPPORT



Mini implants are most commonly used, as they allow for the avoidance of bone grafting procedures. They are placed without the need for incisions or sutures, providing reliable prosthetic fixation.







## A removable prosthesis is not the final verdict

Advanced technologies significantly enhance the retention of removable dentures, allowing patients to forget about the constant issue of loose or dislodging.

Totally edentulous.



Complete removable dentures are retained through suction against the palate or gums, which is why they tend to slip out of the mouth.

Partial edentulous.



Partial removable dentures are retained using clasps that attach to adjacent teeth.

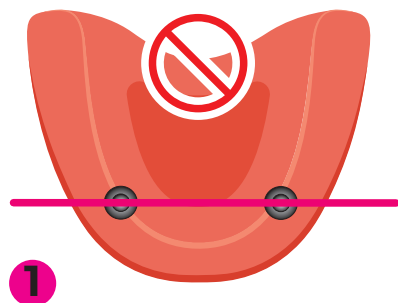
Sufficient number of supporting teeth.



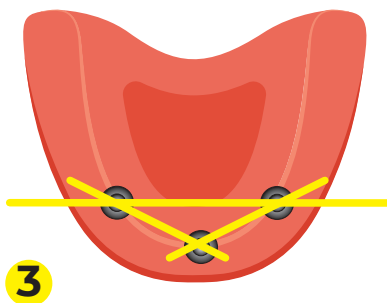
Cast partial dentures are rigidly anchored to natural teeth or crowns, which often leads to rapid loosening of the abutment teeth. Furthermore, the absence of adequate load distribution contributes to bone resorption in the edentulous areas.



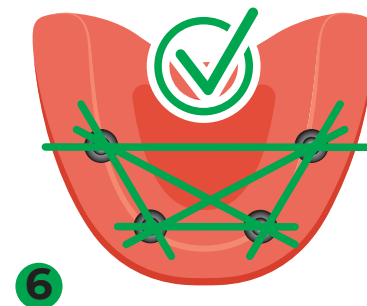
## THE NUMBER AND DISTRIBUTION OF IMPLANTS FOR THE RETENTION OF A FULL ARCH REMOVABLE PROSTHESIS



The prosthesis rotates along a single axis. There is no rigid fixation — the prosthesis relies on gum support.



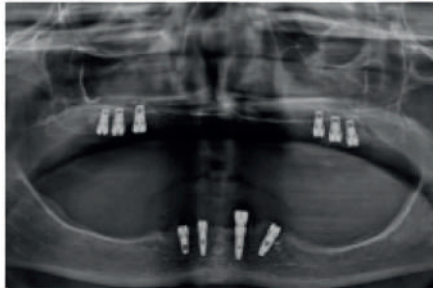
The prosthesis is stabilized against rotation along three axes. While rigid fixation of the prosthesis is achieved, a significant load is concentrated on the central implant.



The prosthesis is stabilized against rotation along six axes. Rigid fixation of the prosthesis is achieved. Optimal load distribution among the implants eliminates excessive stress on any single implant.



## A CAST PARTIAL DENTURE SUPPORTED BY A BAR (MANDIBULAR)



The prosthesis is rigidly and securely fixed. The entire support is on the implants, preventing gum irritation. It is durable due to its metal framework. It does not need to be removed (except for cleaning before sleep). Bone grafting may not be necessary.



## A CAST PARTIAL DENTURE SUPPORTED BY A BAR (MAXILLARY)



The palate remains open, allowing for full taste sensation and rapid restoration of phonetics (sound pronunciation). The prosthesis is rigidly and securely fixed, with all support provided by the implants, preventing gum irritation. Its durability is ensured by the metal framework. It does not need to be removed (except for cleaning before sleep). In many cases, bone grafting (sinus lift) can be avoided.



Optimal implant distribution:  
4 implants in the mandible  
(dense bone) and 6 implants  
in the maxilla (soft bone).

Restoring the occlusal height  
rejuvenates the face, reducing  
wrinkles and enabling full  
functionality for chewing,  
speaking, and smiling. The  
prostheses are securely fixed,  
eliminating concerns about  
them dislodging at the most  
inconvenient moment.





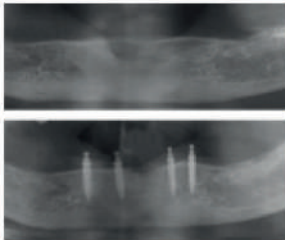


Locators are specialized attachments used to secure complete removable acrylic dentures. They significantly improve retention, though the fixation is less rigid compared to a bar-supported prosthesis.





The retention of a complete removable denture can be significantly enhanced by using mini implants with ball attachments. For the mandible, four implants are sufficient, while the maxilla requires at least six.



Four mini implants have been placed.



The procedure is performed without incisions.



After 3 months, once the implants have osseointegrated, the denture is relined with attachments.



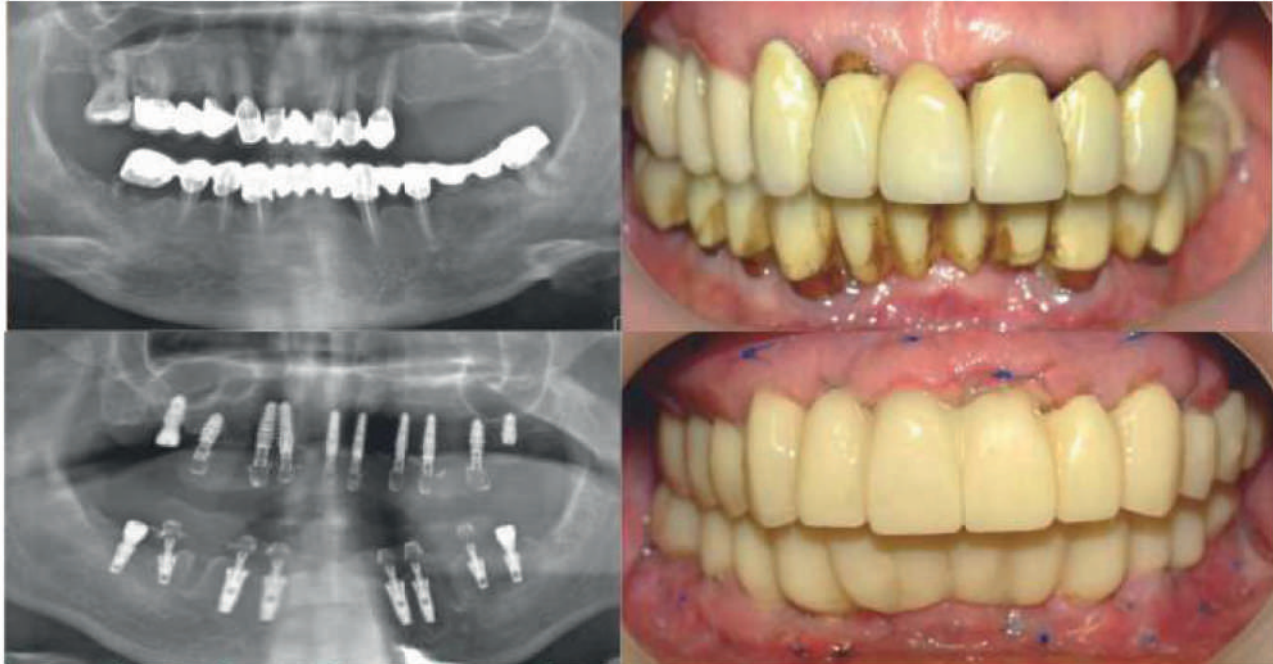
The complete removable denture is securely fixed in the oral cavity using attachments.

In this case, the ball attachments serve solely a retentive function, while the support of the removable denture relies on the gums. Periodic relining of the prosthesis is required (1-2 times per year).





## OPTIONS FOR IMMEDIATE PROVISIONAL PROSTHETICS FOLLOWING IMPLANT PLACEMENT



If a sufficient number of implants are placed, temporary crowns can be fixed immediately after implant placement.



## OPTIONS FOR IMMEDIATE PROVISIONAL PROSTHETICS FOLLOWING IMPLANT PLACEMENT



If temporary crowns cannot be fixed (due to very soft bone or the need for bone grafting), a temporary removable denture with a soft liner is used.

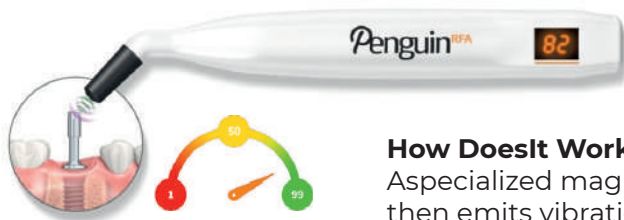


## HOW TO ACCURATELY DETERMINE IF AN IMPLANT HAS OSSEOINTEGRATED OR NOT? HOW TO ASSESS WHETHER THE BONE AROUND THE IMPLANT HAS «MATURED»?

The outdated and unreliable method involves tapping on the healing abutment—if it sounds ringing, the implant is likely osseointegrated.



**A new innovative method** — non contact assessment of implant stability using magnetic resonance technology. It accurately determines the level of implant stability within the bone tissue.



### How Does It Work?

A specialized magnetic peg is attached to the implant. The device's handpiece then emits vibrations, similar to a tuning fork, causing the peg to oscillate. The device detects these oscillations and displays their amplitude on the screen.

If the implant has successfully osseointegrated and the surrounding bone has matured, the implant remains stable, and the device registers high stability values (above 70 ISQ). If osseointegration is incomplete and the bone has not fully healed, the device detects micromobility and records lower stability values (below 60 ISQ).



**This allows the clinician to obtain precise and reliable information about the implant's stability and make an informed decision on whether to proceed with prosthetic restoration.**



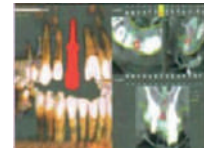
## WHAT EQUIPMENT IS NECESSARY TO PERFORM IMPLANT TREATMENT AT A HIGH LEVEL (SURGICAL STEP)?



A cone beam computed tomography (CBCT) scanner and a panoramic radiograph (Pano).



A centrifuge for obtaining fibrin clots (Clot-PRF). Fibrin clots help prevent many complications and significantly enhance wound healing and implant osseointegration!



Specialized software for virtual implant planning and the fabrication of surgical guides eliminates the «human factor» and ensures 100% safe implant placement.

## WHAT EQUIPMENT IS NECESSARY TO PERFORM IMPLANTOLOGICAL TREATMENT AT A HIGH LEVEL (PROSTHETIC STEP)?



A facebow for transferring occlusal information to the articulator.



An articulator for precise occlusal analysis allows for the reproduction of jaw movements and ensures maximum accuracy in prosthetic work, preventing issues with the temporomandibular joint (TMJ).



An automatic torque wrench for verifying the tightening force of fixation screws.



## HOW TO CHOOSE THE RIGHT IMPLANT?

### Explanation Using the Example of Choosing a Vehicle.

When you need to get to the nearby store (good bone), you can walk or ride a bicycle. This is simple implantation and an affordable procedure (IMPRO LIGHT).

When you need to get from Frankfurt to Stuttgart, walking is much harder. You can drive, take a train, or fly. You could walk, but will you make it? This is medium-complexity implantation – you can choose several almost equivalent options (IMPRO IMPLANTEM, DEEP THREAD).

For long distances (narrow ridge), for example, from Frankfurt to London, it's better to fly by plane – «splitting». You could take a cheaper option (bone block augmentation) – car or train, but it's more comfortable and much faster by plane. This is the IMPRO RESPECT technology.



**Simple Standard  
Implantation**



**Medium — Complexity  
Implantation**



**Complex Clinical Case**







## ULTRA - WIDE IMPRO RESPECT IMPLANTS

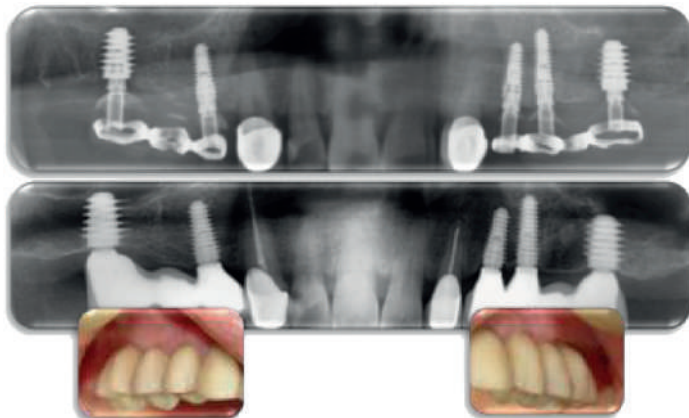
1) Simultaneous implantation in a wide socket with a large defect.



2) Re-implantation immediately after removal of a failed implant.



3) Immediate loading in very soft bone.



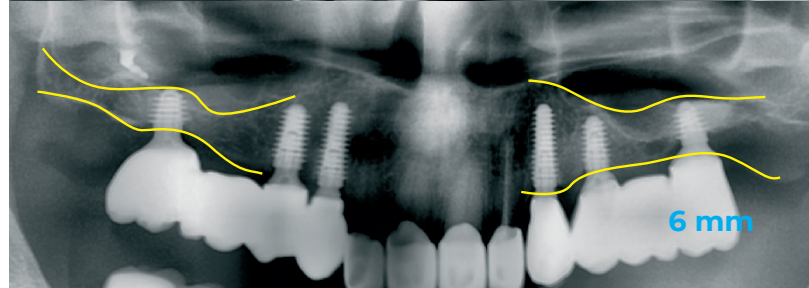
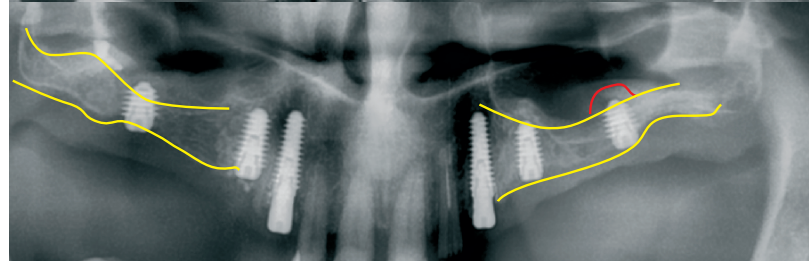
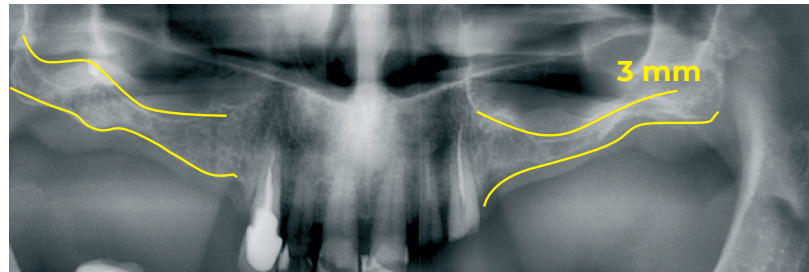
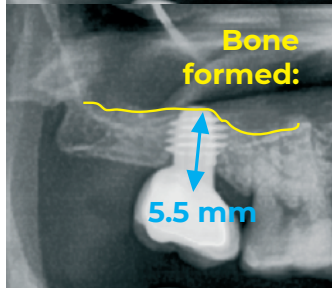
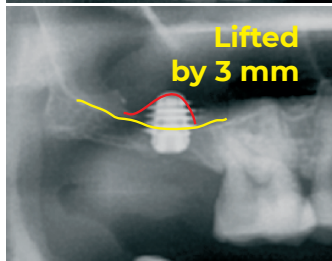
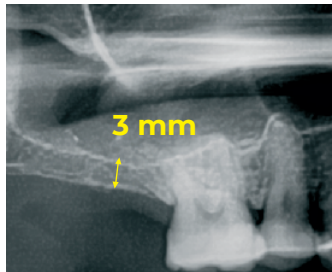
### Advantages:

- Reduction of surgical stages and significant acceleration of treatment
- Minimization of trauma, prevention of bone loss
- Formation of a larger volume of bone tissue and ensuring long-term results



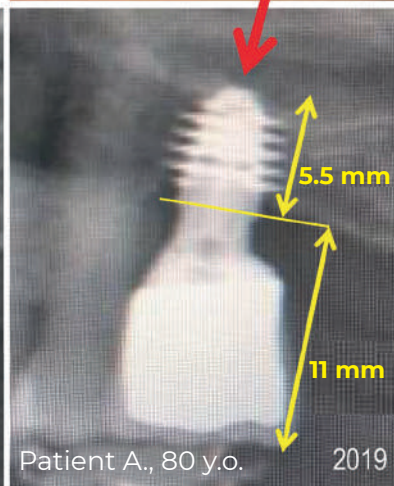
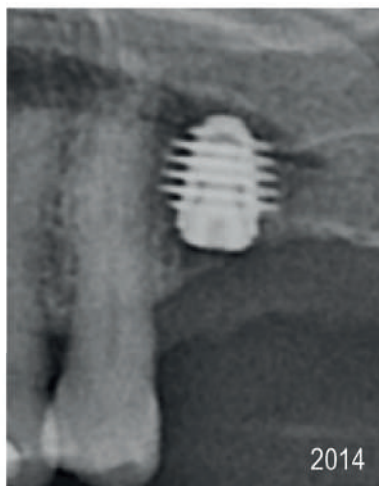
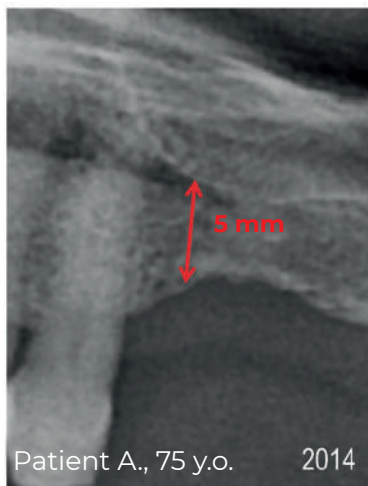
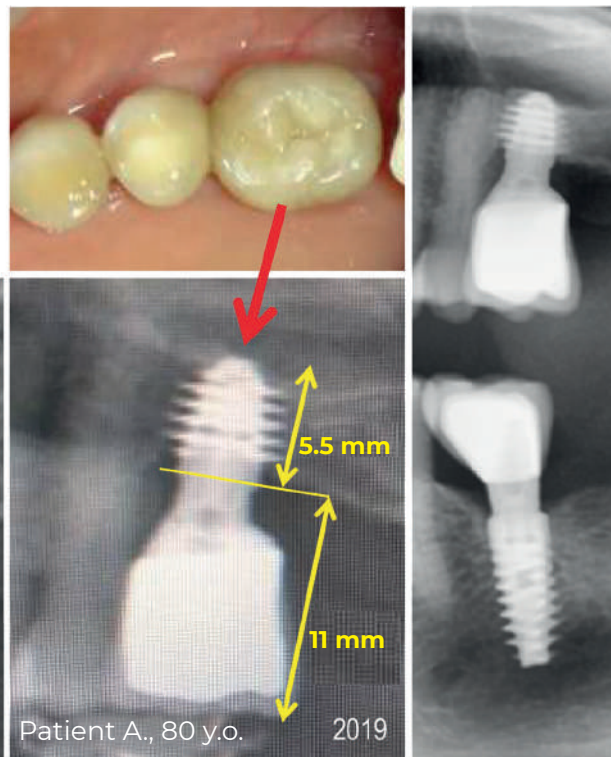


## EXAMPLE OF IMPLANT PLACEMENT





The implant placement took 10 minutes (without incisions or sutures). After 3 months, impressions were taken, and a permanent crown was fixed. After 5 years, a stable outcome is observed.

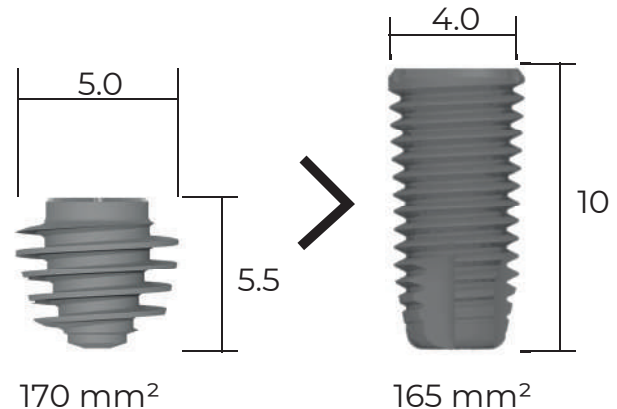




## WHY DOES IT WORK?

The bone-implant contact area (BIC) is one of the main factors of primary stabilization. The larger the area, the greater the stability [1]. Therefore, a short implant with a large surface area will be as effective as a long implant with the same area.

The length of the implant does not affect its survival rate provided there is sufficient surface area [2]. The ratio of implant length to the prosthetic structure also does not matter if there is a conical connection and platform switching [3].



[1] Clin Imperial Dent Relief Res. 2005;8(42):422. Scarano A., Deglisi M. Lezzi G. Pavone B., Pistelli A. Correlation between implant stability quotient and bone-implant contact: a retrospective histological and tissue-on-event study of season: human implant retrieval from humans.

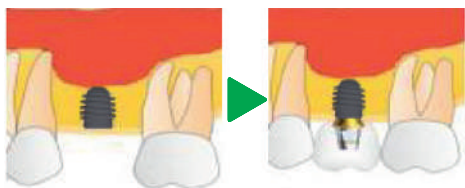
[2] AMP | Los Angeles, CA | Sept. 29-Oct. 2, 2012. Dragani, F. - Chuang S. K. - McKenna, M. - Uralanella R.A. Comparison Of Crestal Bone Level Changes Summinding Five, Six, And Eight Millimeter Long Platform Switching Implants.

[3] Journal of Prosthetic Dentistry, Vol 98, Issue 1, July 2007, Pages 1-8. Schuhs, J., Flores, A., Weed, M., Crown-to-implant ratios of single tooth implant-supported restorations.



## THE USE OF SHORT IMPLANTS ALLOWS AVOIDING BONE GRAFTING AND ASSOCIATED PROBLEMS

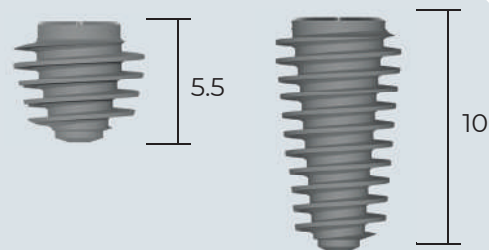
### IMPRO RESPECT Implantation.



Installation of a short RESPECT implant with wide threads WITHOUT sinus lifting.

Crown placement 3-4 months after the start of treatment.

Implantation is performed without sinus lifting. After 3 months, the crown can already be fixed. 1 operation, as comfortable and reliable as possible.



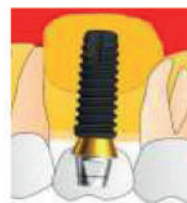
Sinus lifting is performed.

Installation of a standard implant.

Crown placement.



### STANDARD IMPLANTATION

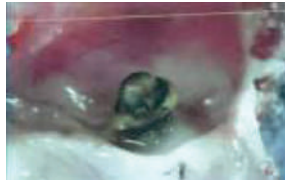


First, sinus lifting is performed, followed by implantation after 5-6 months, and only after 3-4 months is the crown fixed. 2 surgeries and the crown only after a year.



## COMPLICATIONS OF SINUS LIFTING REHABILITATION:

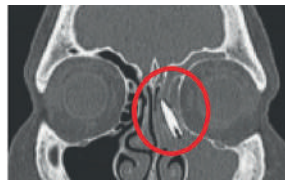
Perforation of the maxillary sinus membrane.



Implant displacement into the maxillary sinus.



Blockage of the middle nasal passage by the implant.



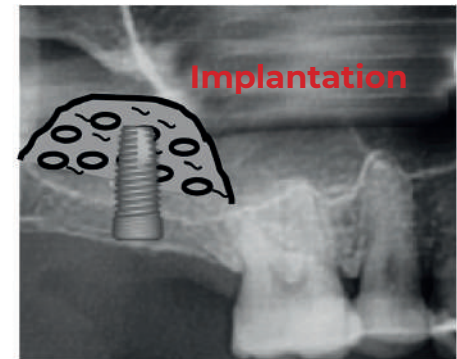
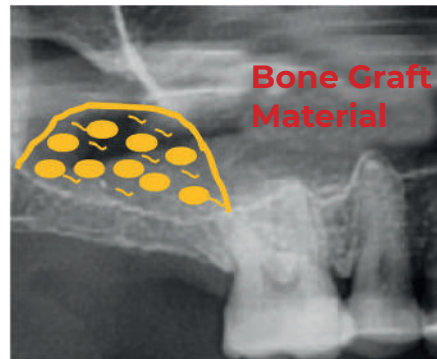
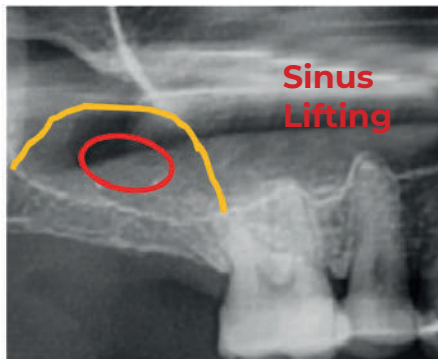
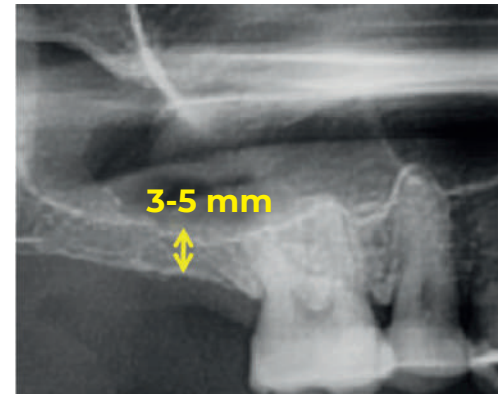
Swelling, pain and bruising may occur.



**It is recommended to take sick leave for 6-7 days.**



## PROBLEM: INSUFFICIENT BONE HEIGHT



Sinus lifting is usually performed, but this procedure has many complications!

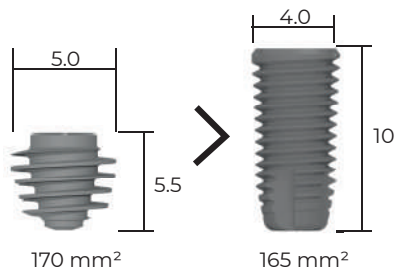




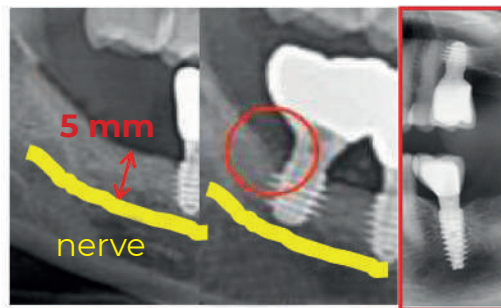
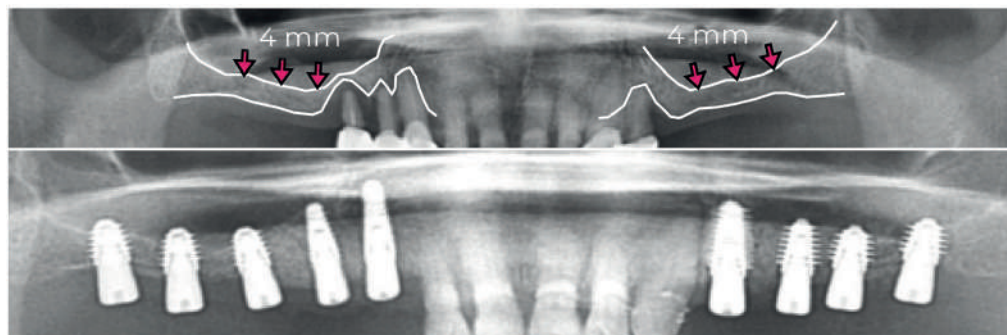
## FOR IMPLANTATION WITHOUT BONE GRAFTING



Ø 4.5 – 5.5 mm  
Length 5.5 mm



If the bone height is 4 mm and the width is more than 8 mm, sinus lifting can be avoided by using short RESPECT implants with a large surface area.



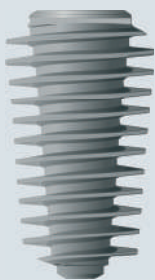
On the lower jaw, ultra-short RESPECT implants with a large surface area allow avoiding bone grafting and protect against nerve damage.





## SPECIFIC INDICATIONS FOR RESPECT

### Soft Bone



Ø 4.5 – 5.5 mm  
Length 6-14 mm



Like a corkscrew in a cork



The protruding threads provide excellent primary stability (like a self-tapping screw in chipboard or a corkscrew in a cork).



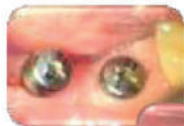
Due to the large surface area, even in soft bone, high implant stability can be achieved, allowing temporary crowns to be fixed immediately after surgery.



## COMPARISON OF BONE BLOCK GRAFTING AND RIDGE SPLITTING



Ridge Splitting and  
Implant Placement.

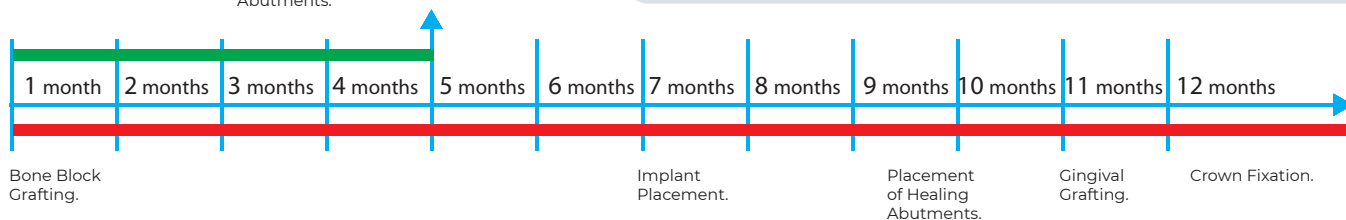


Placement  
of Healing  
Abutments.



Crown Fixation.

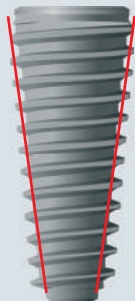
Installation of implants with split ridge allows  
to reduce rehabilitation time by 3 times.





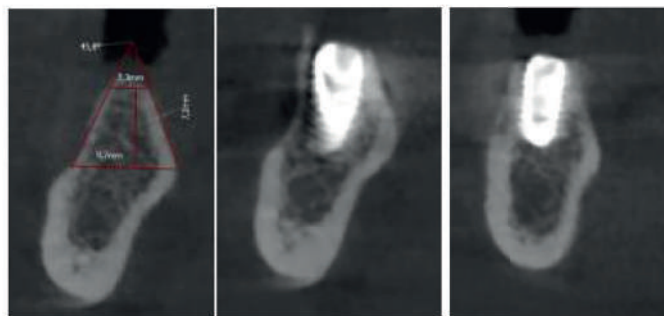
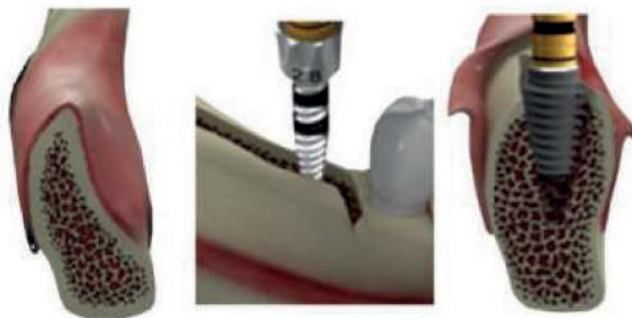
## SPECIFIC INDICATIONS FOR RESPECT

### Ridge Splitting



Ø 3.5 – 4.0 mm  
Length 6-10 mm

Ridge splitting allows avoiding additional bone grafting, significantly speeding up rehabilitation. The RESPECT implant itself splits the ridge due to its conical body design.





## SPECIFIC INDICATIONS FOR IMPRO RESPECT

1. Ridge splitting (narrow bone ridge)
2. Soft bone (D3-D4) – on the upper jaw
3. Wide socket
4. Emergency implantation
5. Immediate loading
6. A short implant is needed:
  - to avoid sinus lifting
  - to avoid vertical augmentation
7. Precise placement using a surgical guide with permanent abutments (crowns)
8. Replantation
9. High aesthetics
10. Limited space
11. Simultaneously with GBR
12. Fixation on 1-2 walls
13. Zero stabilization
14. Vertical augmentation
15. All-on-4
16. Acceleration of osseointegration
17. Flapless surgery and minimal trauma
18. Implant placement without drilling

**With a wide range of implant sizes and a unique design of the implant body and thread, the IMPRO RESPECT line allows you to perform tasks that other implant systems cannot.**

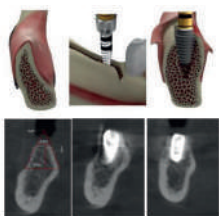


## WITH IMPRO RESPECT, YOU GET NOT 1, BUT 4 UNIQUE CLINICAL PROPERTIES

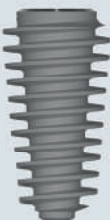
### For Ridge Splitting



Ø 3.5 – 4.0 mm  
length 6-14 mm



### For soft bone and immediate loading



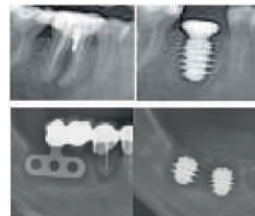
Ø 4.5 – 5.5 mm  
length 6-14 mm



### For wide socket and replantation



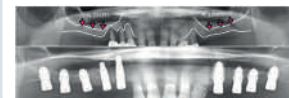
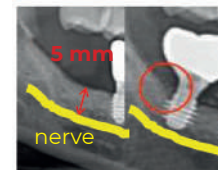
Ø 6.0 – 8.0 mm  
length 7-13 mm



### For implantation without bone grafting



Ø 4.5 – 5.5 mm  
length 5.5 mm

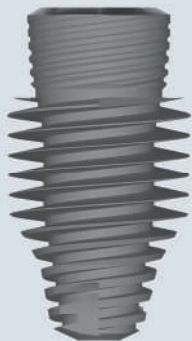


Over 60 sizes. A unified orthopedic platform for all sizes. Innovative SuperH surface treatment.

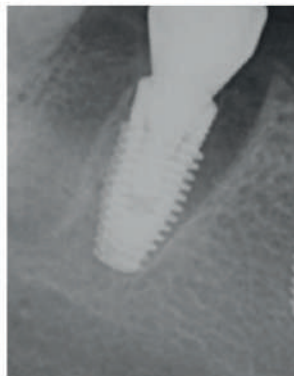


## INDICATIONS FOR IMPRO DEEP THREAD IMPLANTS

### DEEP THREAD



The IMPRO implant with deep threads is designed for better fixation in soft bone, placement in wide sockets, reimplantation, and to avoid sinus lifting.







## INDICATIONS FOR IMPRO DEEP THREAD IMPLANTS

### IMPLANTEM



Thanks to the unique design of the IMPRO IMPLANTEM tip, it is well fixed in the socket after tooth extraction or in the bone septum between molar root sockets, making it recommended for immediate implantation and loading. This allows preserving all tissues in full and immediately restoring function and aesthetics.



**Complex Cases**



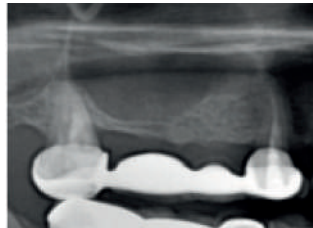
## INDICATIONS FOR IMPRO IMPLANTEM IMPLANTS

### IMPLANTEM



#### Complex Cases

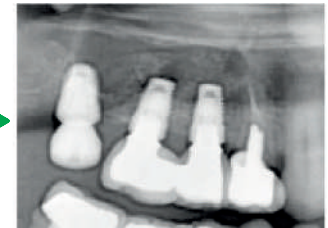
Due to the micro-threads on the neck, it can be fixed even in 1-2 mm of bone, making it suitable for placement simultaneously with sinus lifting, significantly reducing rehabilitation time and minimizing trauma.



**Before Surgery**

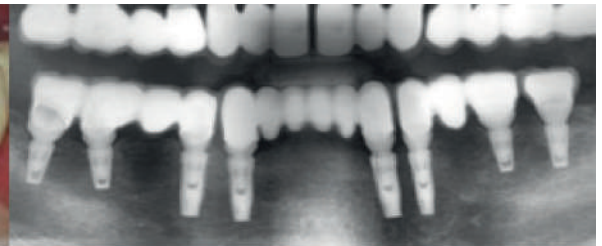


**Immediately After Surgery**



**After 5 Months**

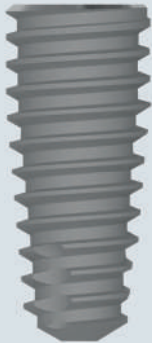
It has a pronounced cortical fixation type, making it suitable for use in dense cortical bone (usually in the lower jaw). Due to achieving predictably high primary stability in the lower jaw, it can undergo immediate or early loading.





## INDICATIONS FOR IMPRO LIGHT IMPLANTS

# LIGHT



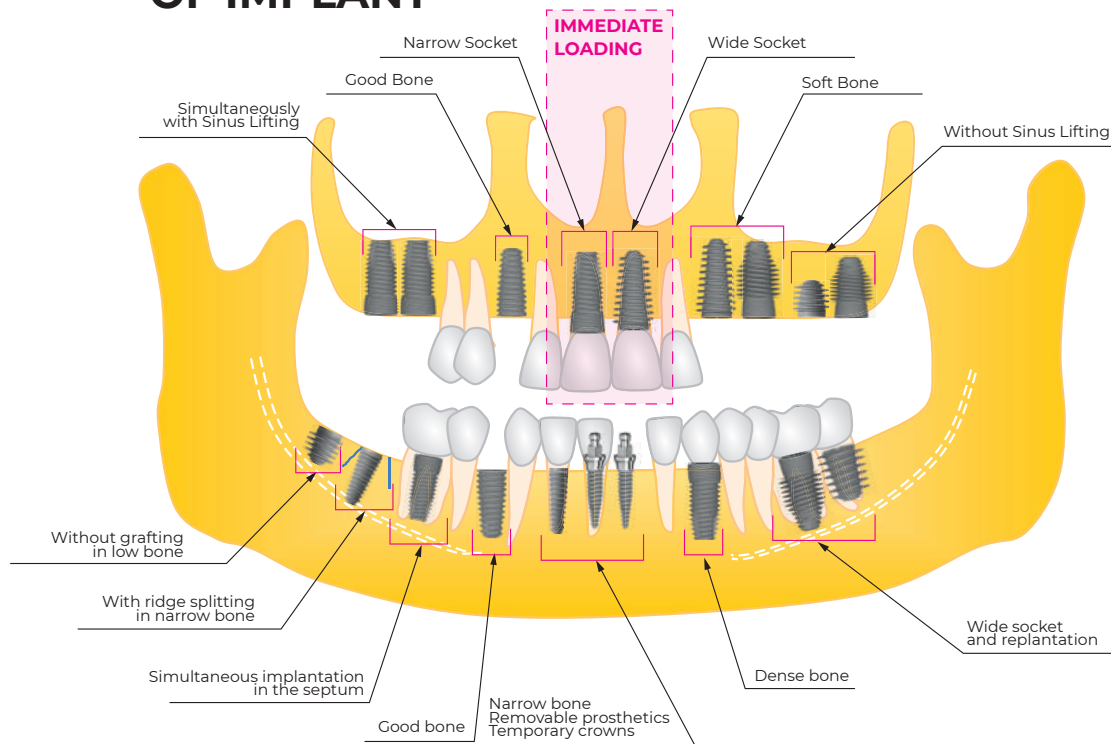
**Simple Cases**

These implants are designed for placement in good bone conditions, where the bone ridge width is at least 7 mm. If the bone ridge thickness is insufficient, preliminary preparation for implantation is required – bone grafting.





## INDICATIONS FOR USE DEPENDING ON THE TYPE OF IMPLANT



There is no perfect implant - there is a perfect implant for a specific clinical case.



## OPTIMAL IMPLANT FOR A SPECIFIC CLINICAL CASE



### MINI DUO (mini platform)

For implantation in narrow bone or when space is limited (**upper lateral incisors, lower incisors**)



### MINI LOCATOR

For fixing a complete removable plate prosthesis on the lower jaw (**D1-D2**) and upper jaw (**D3**)



### MINI ORTHO

For support during orthodontic treatment



### MINI BALL

For fixing a complete removable plate prosthesis on the lower jaw (**D1-D2**)



### MINI FIX

For implantation in narrow bone or when space is limited (**upper lateral incisors, lower incisors**)  
As temporary implants in the upper jaw (**D3**)



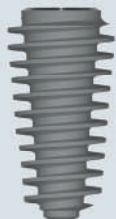
### MINI TEMPORARY

Temporary implants in the lower jaw (**D1-D2**)





## OPTIMAL IMPLANT FOR A SPECIFIC CLINICAL CASE



### RESPECT WIDE

For soft bone **D3-D4**  
For flapless implantation in soft bone (**D3-D4**)  
For immediate implantation (**D3-D4, wide socket**)  
and immediate loading (**D3-D4**)  
For replantation



### RESPECT SUPERWIDE

For soft bone **D3-D4**  
For flapless implantation in soft bone (**D3-D4**)  
For immediate implantation (**D3-D4, wide socket**)  
and immediate loading (**D3-D4**)  
For replantation



### RESPECT ULTRASHORT

For implantation without sinus lifting  
For implantation with closed sinus lifting  
For implantation without vertical GBR (Guided Bone  
Regeneration) on the lower jaw



### LIGHT LONG

For immediate  
loading in dense  
bone (**D1-D2**)  
For immediate  
loading with  
support on 4 or 3  
implants (**D1-D2**)



### RESPECT LONG

For immediate  
loading in soft  
bone (**D2-D4**)  
For immediate  
loading with  
support on 4 or 3  
implants (**D2-D4**)



## OPTIMAL IMPLANT FOR A SPECIFIC CLINICAL CASE



### LIGHT

For dense bone **D1**  
For flapless implantation (**D1-D2**)  
For affordable implantation  
(**low cost in ideal bone**)



### DEEP THREAD

For bone tissue type **D3**  
For simultaneous implantation (**D3, wide socket**) and immediate loading (**D3**)



### IMPLANTEM

For dense bone **D1-D2** and **D3**  
For flapless implantation (**D2-D3**)  
For immediate implantation (**D1-D2-D3**) and immediate loading (**D1-D2**)  
For implantation simultaneously with sinus lifting (**2-4 mm bone height is sufficient**)



### RESPECT SPLIT

For simultaneous implantation with ridge splitting  
In cases of limited space and narrow ridge (**D2-D3**)





## MODERN APPROACH TO IMPLANT SELECTION. ALWAYS HIGH PRIMARY STABILITY

**D<sub>1</sub>**

**=**

**D<sub>2</sub>**

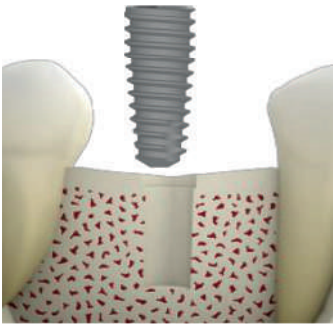
**=**

**D<sub>3</sub>**

**=**

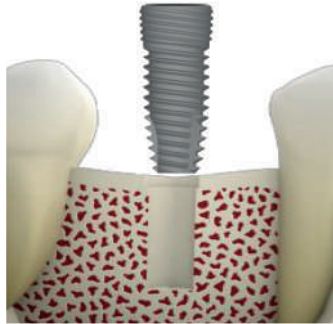
**D<sub>4</sub>**

Primary stability  
**2 months**



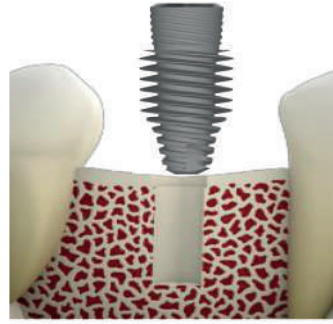
A cortical implant with a rounded neck is ideal for placement in the densest bone (D1). The narrowing of the implant neck reduces excessive stress on the bone in the cervical area.

Primary stability  
**2 months**



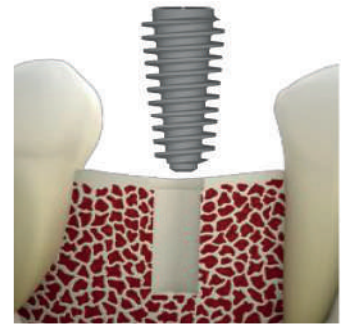
Cortical implant with an expanding conical neck: Ideal for placement in medium-density bone (D2) and for immediate loading. The conical neck allows achieving maximum primary stability and prevents the implant from sinking deeper due to support on the walls.

Primary stability  
**2 months**



Combined spongeous-cortical implant with deep thread: Excellent for placement in soft bone with a thin cortical plate (D3).

Primary stability  
**3 months**



Spongeous Implant: Due to the increased surface area (which also increases friction), it allows achieving almost the same primary stability in soft bone as a cortical implant in dense bone.



## OUTDATED APPROACH TO IMPLANTATION

**D<sub>1</sub>**



**D<sub>2</sub>**



**D<sub>3</sub>**



**D<sub>4</sub>**

Primary stability  
**2 months**

Primary stability  
**3 months**

Primary stability  
**4 months**

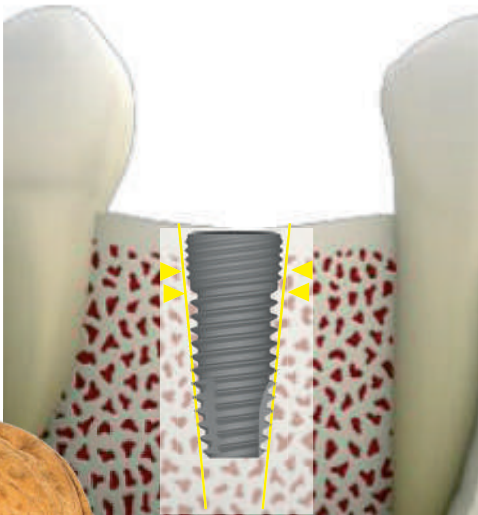
Primary stability  
**5-6 months**



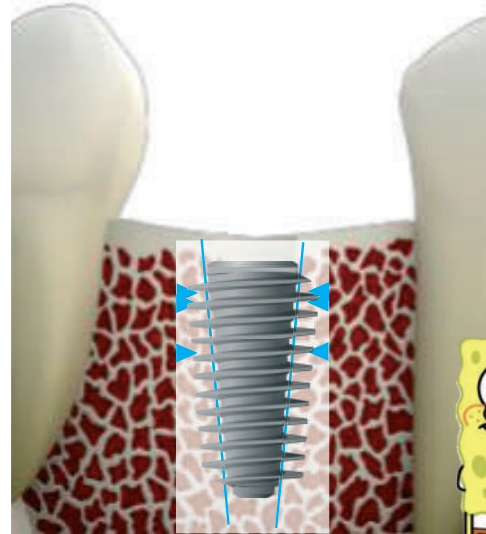


## SPECIAL REQUIREMENTS FOR IMPLANTS

Cortical implants –  
for dense bone tissue.



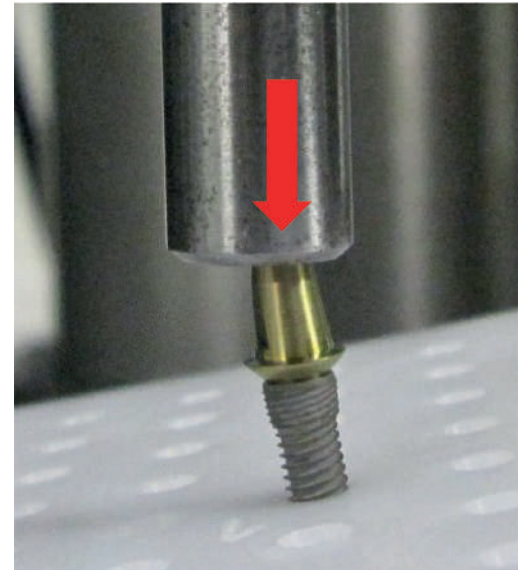
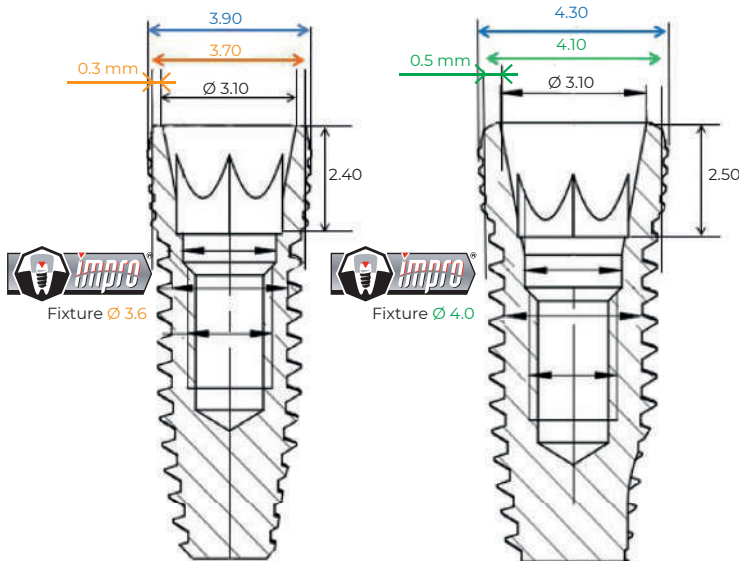
Spongy implants –  
for soft bone tissue.





## BASIC REQUIREMENTS FOR IMPLANTS

### Implant Strength



**Implant Strength:** The design must ensure strength, withstanding vertical and horizontal loads.

**Special Surface Treatment:** Hydrophilic surface accelerates osseointegration and prevents infection.

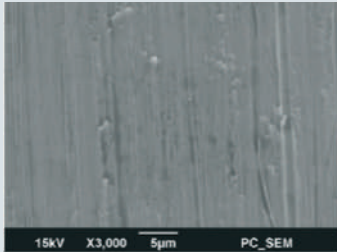
**Platform Switching:** Preserves bone and creates space for bone growth.

**Internal Conical Connection:** Ensures tightness, stability, and even load distribution.

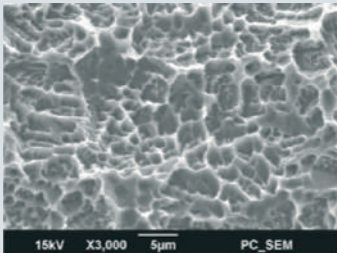


## BASIC REQUIREMENTS FOR IMPLANTS

### Special surface treatment



Without surface treatment.



Double three-dimensional SuperH etching.

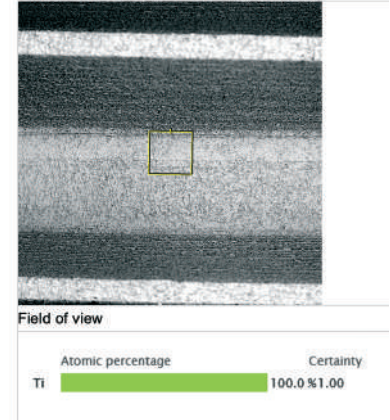


A conventional implant



IMPRO implant

Thanks to the specialized surface treatment, the implant becomes hydrophilic. During placement, the implant is immediately saturated with blood, which accelerates the osseointegration process and prevents infection.



The result of spectral analysis:

**The implant must be made of high-purity medical-grade titanium alloy – Grade IV.**

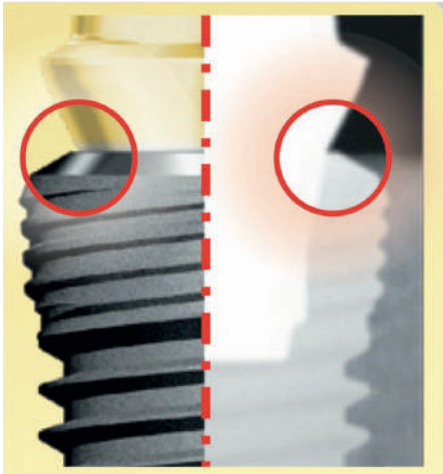
#### What does the specialized SuperH surface treatment provide:

1. Micro-roughness creates ideal conditions for the attachment of osteoblasts on the implant surface, thereby increasing the contact area between the implant and bone tissue.
2. Ensures the hydrophilicity of the implant surface.

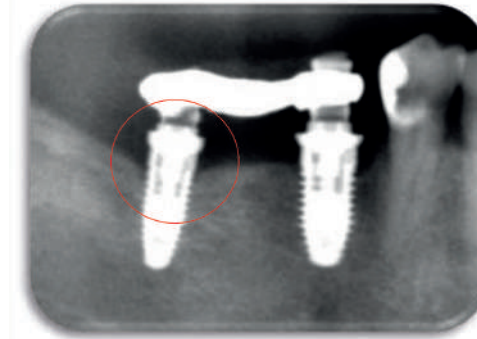


## BASIC REQUIREMENTS FOR IMPLANTS

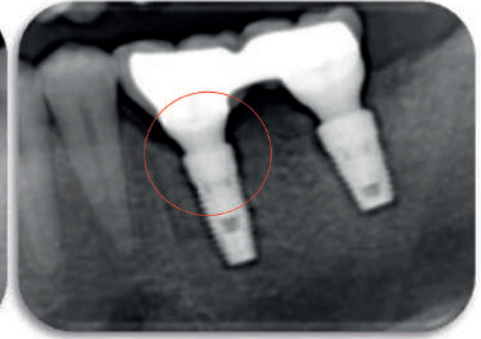
### Presence of Platform Switching



Without platform switching, bone resorption occurs.



Platform switching preserves bone.



**RJ Lazzara & SS Porter**

Platform Switching: A New Perspective on Dental Implants for Controlling Postoperative Bone Levels.

**IJPRD 2006**

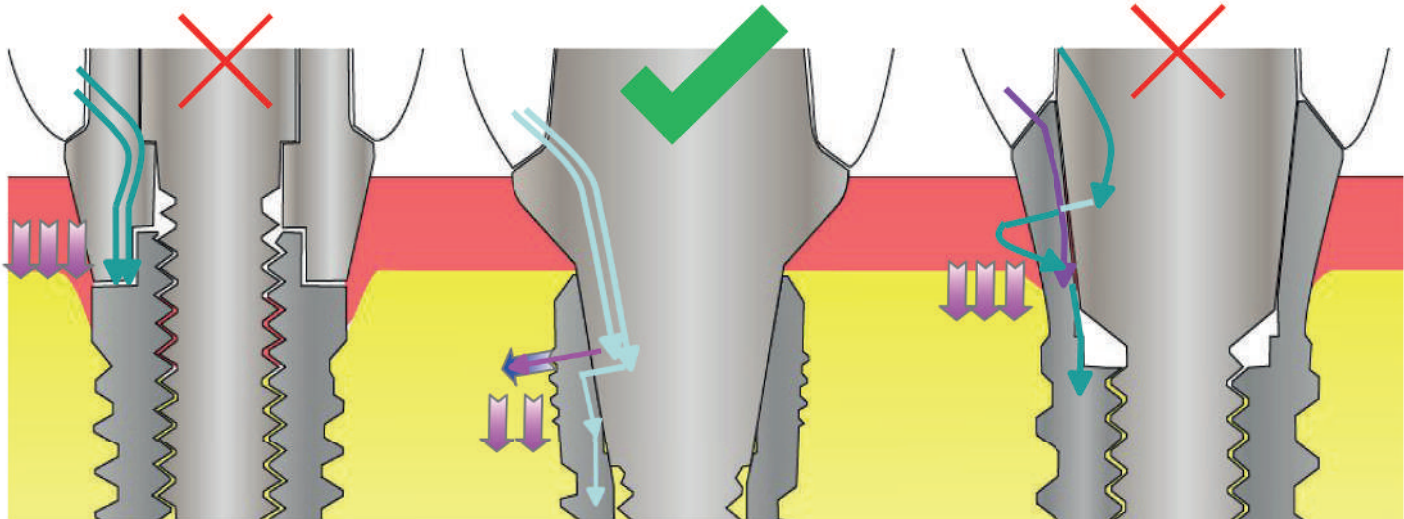
#### **What platform switching provides:**

1. Creates a protective barrier between the implant, bone, and gum, promoting long-term bone preservation
2. Creates space for bone growth above the implant platform



## BASIC REQUIREMENTS FOR IMPLANTS

### Internal Conical Connection (Between Implant and Abutment)



#### What the internal conical connection provides:

1. High tightness, which prevents microbes from entering the implant
2. High connection stability, which prevents the fixing screw from loosening and ensures a «cold welding» effect (when the implant and abutment become almost one piece)
3. Even distribution of load in the bone tissue, which promotes bone preservation





## WHAT CRITERIA SHOULD AN IMPLANT SYSTEM MEET?

1. **VERSATILITY** – the ability to use in any type of bone and in any clinical situation – there should be a WIDE range of designs and sizes
2. **RELIABILITY** – the success rate of osseointegration should be over 99%
3. **DURABILITY** – ensuring stability of bone and gum around the implant for a lifetime
4. **POSSIBILITY OF IMMEDIATE LOADING**, meaning a temporary crown can be fixed immediately after implantation
5. **REDUCTION OF REHABILITATION TIME** through simultaneous implantation and the absence of the need for bone grafting
6. **ACCELERATION OF OSSEOINTEGRATION** due to special surface treatment of the implant
7. **PRESENCE OF A DIGITAL PROTOCOL** for implantation and prosthetics

# CRITERIA FOR CHOOSING AN IMPLANT SYSTEM



improimplant.com

