MULTI-UNIT mini

Reduced platform 3.8mm. | H: from 1.5mm. to 6.5mm.

sis

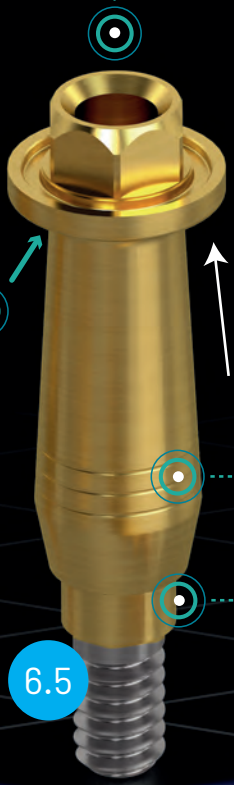
Smart Implant Solutions

MULTI-UNIT mini

New transepithelial abutment designed for the fight against peri-implantitis thanks **to the improvement of the supracrestal biological space.**

REDUCED
PLATFORM 3.8mm.

Heights
from 1.5mm. to 6.5mm.

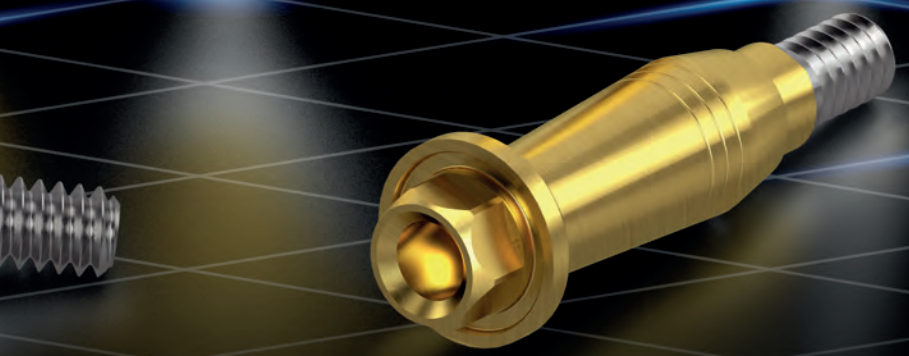


NARROW DESIGN
It improves the amount of collagen fibers, increasing the vascurization of the mucous seal.

EXTERNAL GEOMETRY
Convergent towards coronal. It favours the migration in that direction of the myofiberblasts present in the connective tissue.

BIOGOLD
Biocompatible surface coating.

MATERIAL
Titanium 6AL-4V
Grade 5 (High strength).



exocad 3shape

Libraries available at: www.smartimplantsolutions.com

MULTI-UNIT mini compatibilities

MIS SEVEN®
Internal Hexagon

	NP 3,30	SP 3,75/4,20
H. 1.5mm.	ARO-0380XH1	ARO-0380NH1
H. 2.5mm.	ARO-0380XH2	ARO-0380NH2
H. 3.5mm.	ARO-0380XH3	ARO-0380NH3
H. 4.5mm.	ARO-0380XH4	ARO-0380NH4
H. 5.5mm.	ARO-0380XH5	ARO-0380NH5
H. 6.5mm.	ARO-0380XH6	ARO-0380NH6

ZIMMER® SCREW-VENT®
Internal Hexagon

	NP 3,5
H. 1.5mm.	ARO-0380NH1Z
H. 2.5mm.	ARO-0380NH2Z
H. 3.5mm.	ARO-0380NH3Z
H. 4.5mm.	ARO-0380NH4Z
H. 5.5mm.	ARO-0380NH5Z
H. 6.5mm.	ARO-0380NH6Z

ASTRA® TECH OSSEOSPEED®
Internal Conical

	Yellow 3,0	Aqua 3,5/4,0
H. 1.5mm.	ARO-0580XH1	ARO-0580NH1
H. 2.5mm.	ARO-0580XH2	ARO-0580NH2
H. 3.5mm.	ARO-0580XH3	ARO-0580NH3
H. 4.5mm.	ARO-0580XH4	ARO-0580NH4
H. 5.5mm.		ARO-0580NH5
H. 6.5mm.		ARO-0580NH6

BIOMET 3i® CERTAIN®
Internal Hexagon "Click"

	NP 3,4
H. 1.5mm.	ARO-0480NH1
H. 2.5mm.	ARO-0480NH2
H. 3.5mm.	ARO-0480NH3
H. 4.5mm.	ARO-0480NH4
H. 5.5mm.	ARO-0480NH5
H. 6.5mm.	ARO-0480NH6

BIOHORIZONS® TAPERED®
Internal Hexagon

	3,0	3,5
H. 1.5mm.	ARO-1680NH1	ARO-1680RH1
H. 2.5mm.	ARO-1680NH2	ARO-1680RH2
H. 3.5mm.	ARO-1680NH3	ARO-1680RH3
H. 4.5mm.	ARO-1680NH4	ARO-1680RH4
H. 5.5mm.	ARO-1680NH5	ARO-1680RH5
H. 6.5mm.	ARO-1680NH6	ARO-1680RH6

BTI® Internal
Internal Tetra-lobe

	NP 3,5
H. 1.5mm.	ARO-0780NH1
H. 2.5mm.	ARO-0780NH2
H. 3.5mm.	ARO-0780NH3
H. 4.5mm.	ARO-0780NH4
H. 5.5mm.	ARO-0780NH5

NOBEL BIOCARE® NOBELACTIVE®
Internal Active

	NP 3,5/3,75
H. 1.5mm.	ARO-0980NH1
H. 2.5mm.	ARO-0980NH2
H. 3.5mm.	ARO-0980NH3
H. 4.5mm.	ARO-0980NH4
H. 5.5mm.	ARO-0980NH5
H. 6.5mm.	ARO-0980NH6

STRAUMANN® BONE LEVEL®
Internal

	NC 3,3
H. 1.5mm.	ARO-1180NH1
H. 2.5mm.	ARO-1180NH2
H. 3.5mm.	ARO-1180NH3
H. 4.5mm.	ARO-1180NH4

OSSTEM® TS/ HIOSSEN® ET
Internal Conical

	MINI
H. 1.5mm.	ARO-2880NH1
H. 2.5mm.	ARO-2880NH2
H. 3.5mm.	ARO-2880NH3
H. 4.5mm.	ARO-2880NH4
H. 5.5mm.	ARO-2880NH5
H. 6.5mm.	ARO-2880NH6

For MULTI-UNIT mini

 Engaging impression coping	ARO-1301NA
 Analog	ARO-1302N
 Healing abutment Ti	ARO-1303N
 Provisional engaging abutment	ARO-1350NA
 Provisional non-engaging abutment	ARO-1350NR
 Screw M1.8 (unigrip)	ARO-1307N

 Engaging Scanbody	ARO-1390NA
 Engaging Ti-base	ARO-1312NA
 Non-engaging Ti-base	ARO-1312NR
 Smart Angle screw	ARO-2012N
Multi-Unit Transport Wrench 	ARO-9136N

Intro

It has been radiologically observed that patients treated with dental implants usually suffer from early peri-implant bone loss **MBL** (MARGINAL BONE LOSS). Over time, bone losses are greater, causing a **high rate of peri-implant diseases** in the medium and long term, with subsequent **loss of the implant. (1)**

Although it may be different factors that trigger implant failure, the study of multiple authors such as Linkevisius, Michelli, Blanco, Galindo, etc... have shown that probably, **the features of the transepithelial abutment are determinant in the stability of the peri-implant bone**, and therefore in the success of treatment with implants. **(2)**

Current literature suggests that these abutments must be **high**, and must leave **the greatest space** around them, to **increase the volume of soft tissue**.

Smart Implant Solutions together with **Dr. Antonio Romero** and **Dr. Macarena Romero**, based on these studies, have carried out the design of a new abutment that contributes to meeting those goals in the supracrestal complex, and therefore, **improves the results of treatment with implants. (3)**

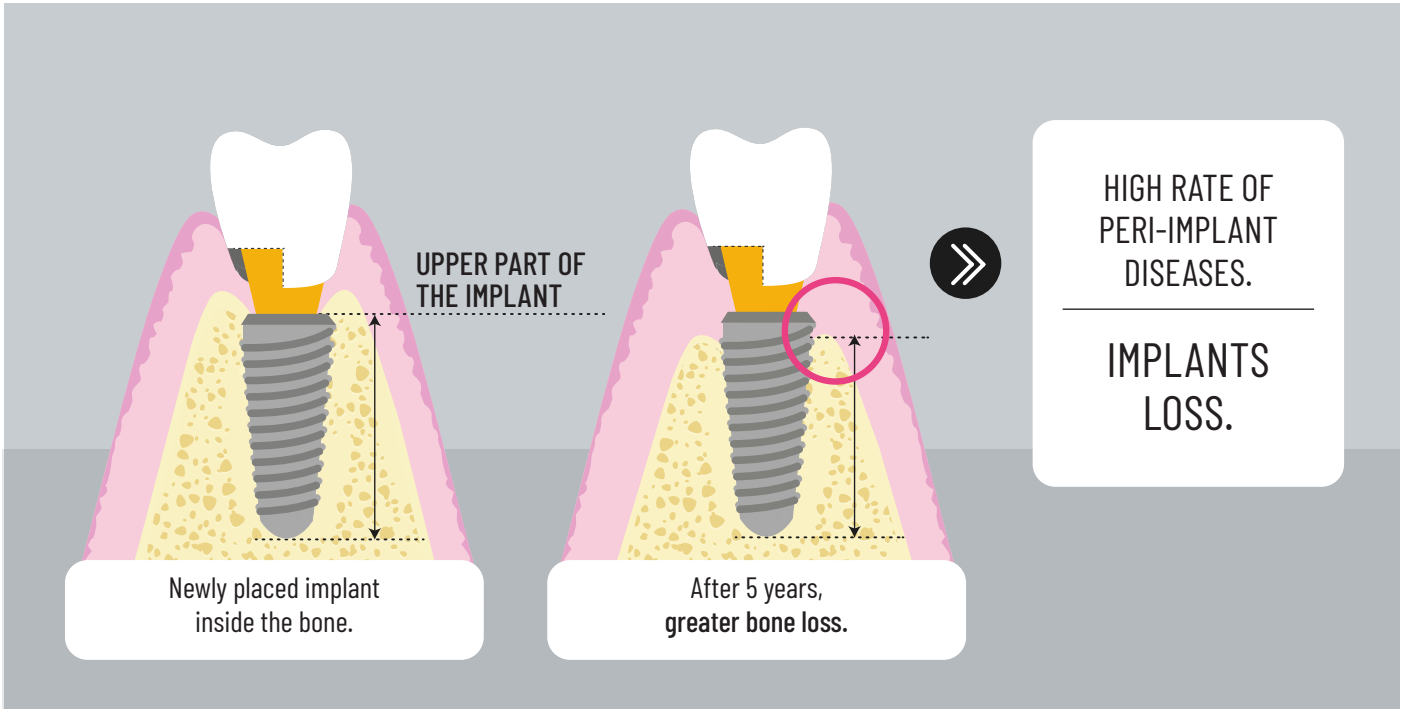


Figure 1.

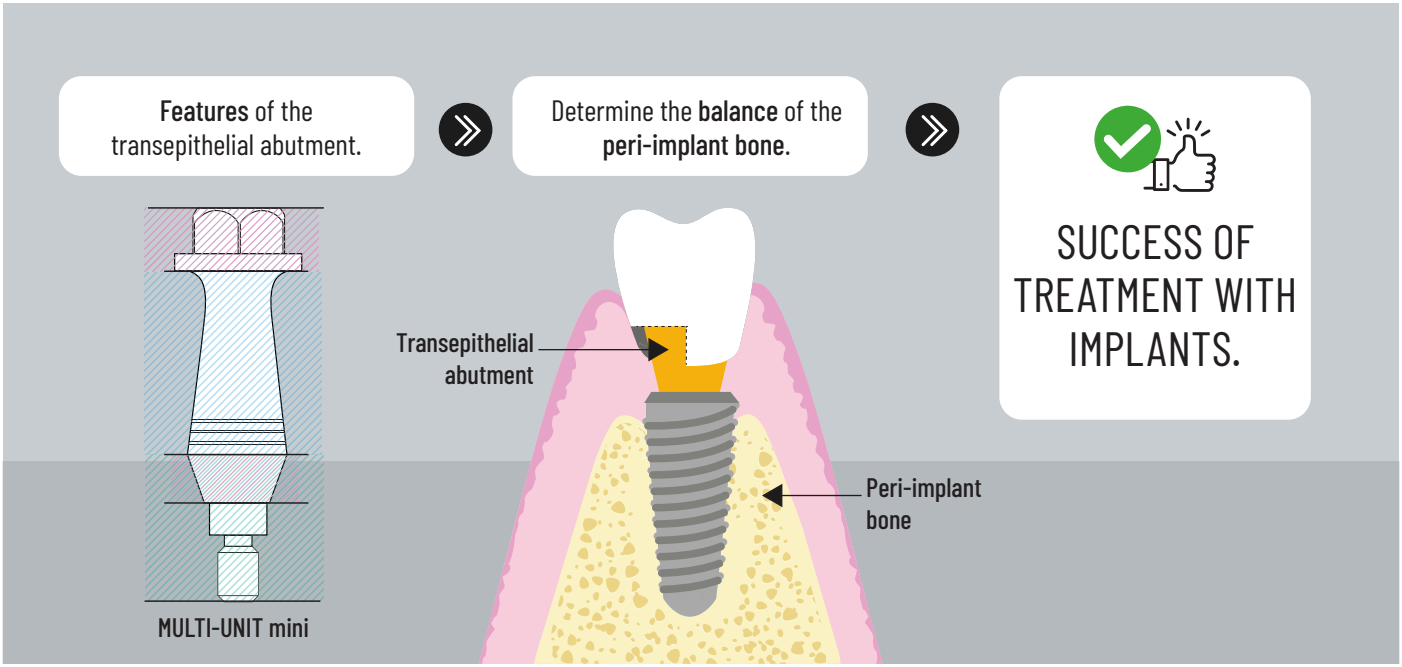


Figure 2.

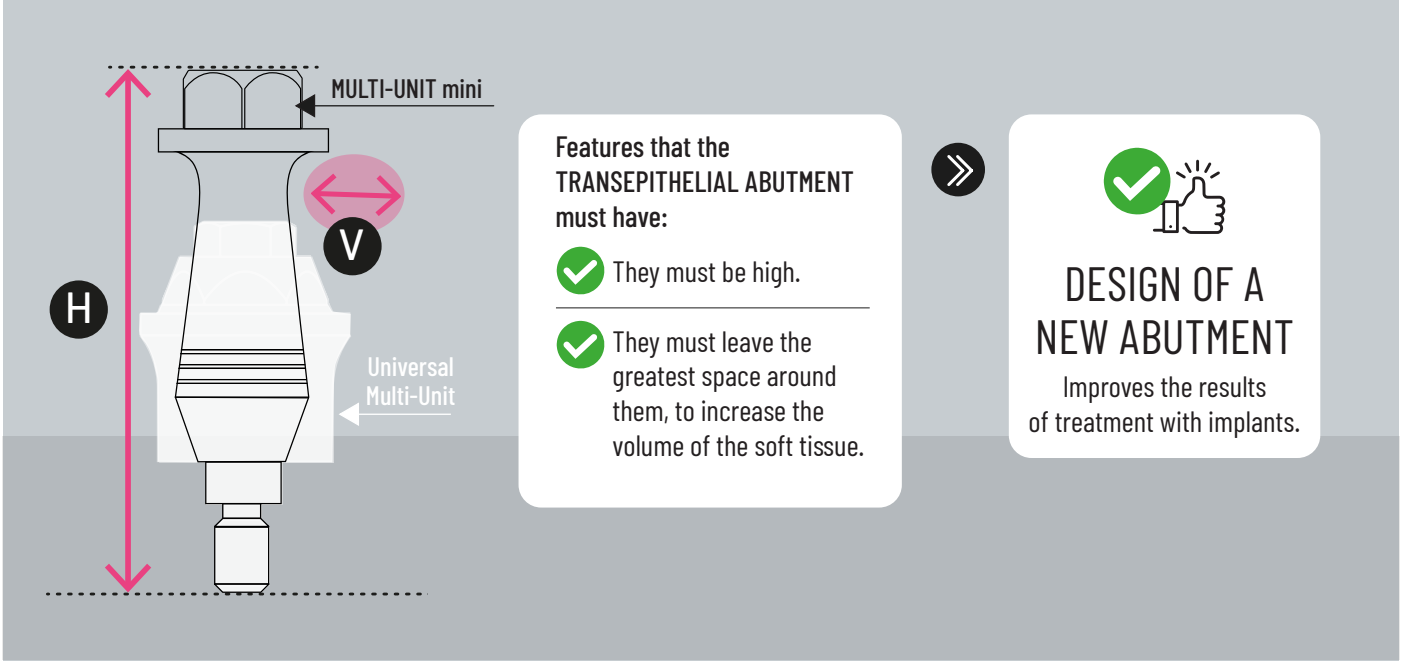


Figure 3.

Design

The implant has been correctly placed inside the bone and with enough bone thickness around it **to avoid the processes of oxidative stress or avascular necrosis. Biology manages the closure outside** to prevent the entry of bacteria, responsible as we know for peri-implant phlogotic processes.

That natural biological management of the closure with the transepithelial abutment creates a space of approximately **3mm. of three-dimensional height around the abutment**. **Nature can not do it in any other way**. Therefore, we will have to design an abutment, which in **geometry** and **height**, allows the organism to generate that supracrestal biological complex. **(4)**

1. EXTERNAL GEOMETRY: Taking into account the external geometry, the ideal abutment should be **convergent towards coronal** to favour the migration in that direction of the myofiberblasts present in the connective tissue. **(5)**

2. MINIMUM HEIGHT: The height should allow us to have at least those **3mm**. for the creation of the **natural biological space**.
This, in many cases, could only be achieved with a subcrestal placement of the implant, or with soft tissue increments. In a nutshell, **thickness** of that mucosa that allows its good vascularization, which ensures its long-term **stability**. **(6)**

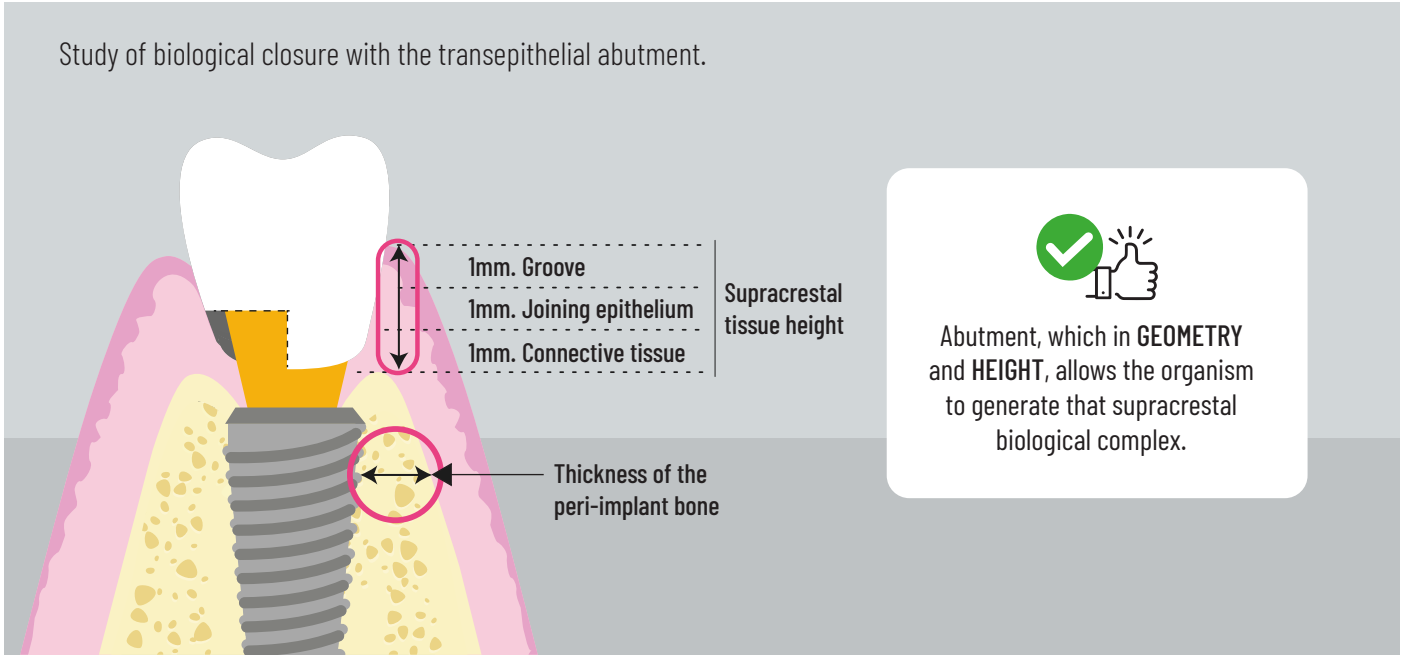


Figure 4.

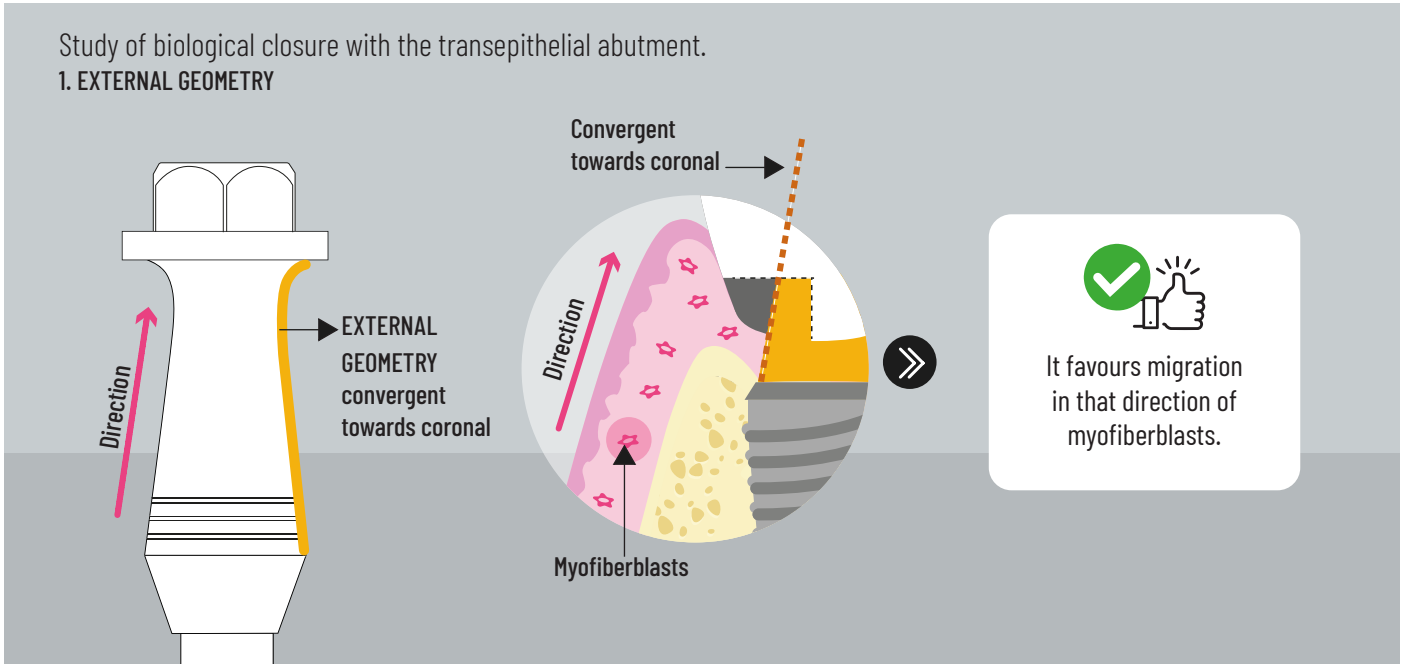


Figure 5.

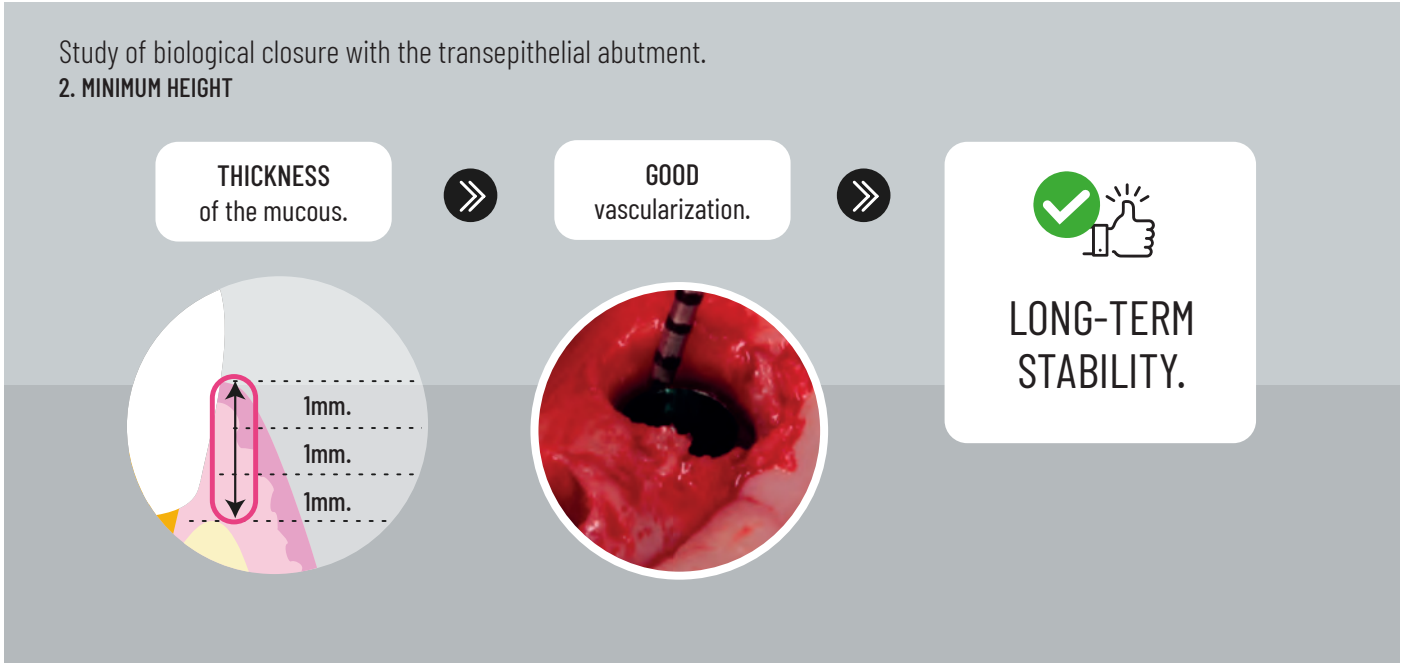


Figure 6.

Features

HEIGHT AND CONVERGENCE: Manufactured in heights greater than usual in the market, according to the marked trend of subcrestal placement, so we **reach 6.5mm. (7)**

3.8mm. PLATFORM: It has a platform of 3.8mm. in diameter compared to 4.8mm. of the universal multi-unit.
This condition clearly **increases the horizontal thickness** (we dimensionally improve the horizontal biological space) of **the tissue around the abutment. (8)**

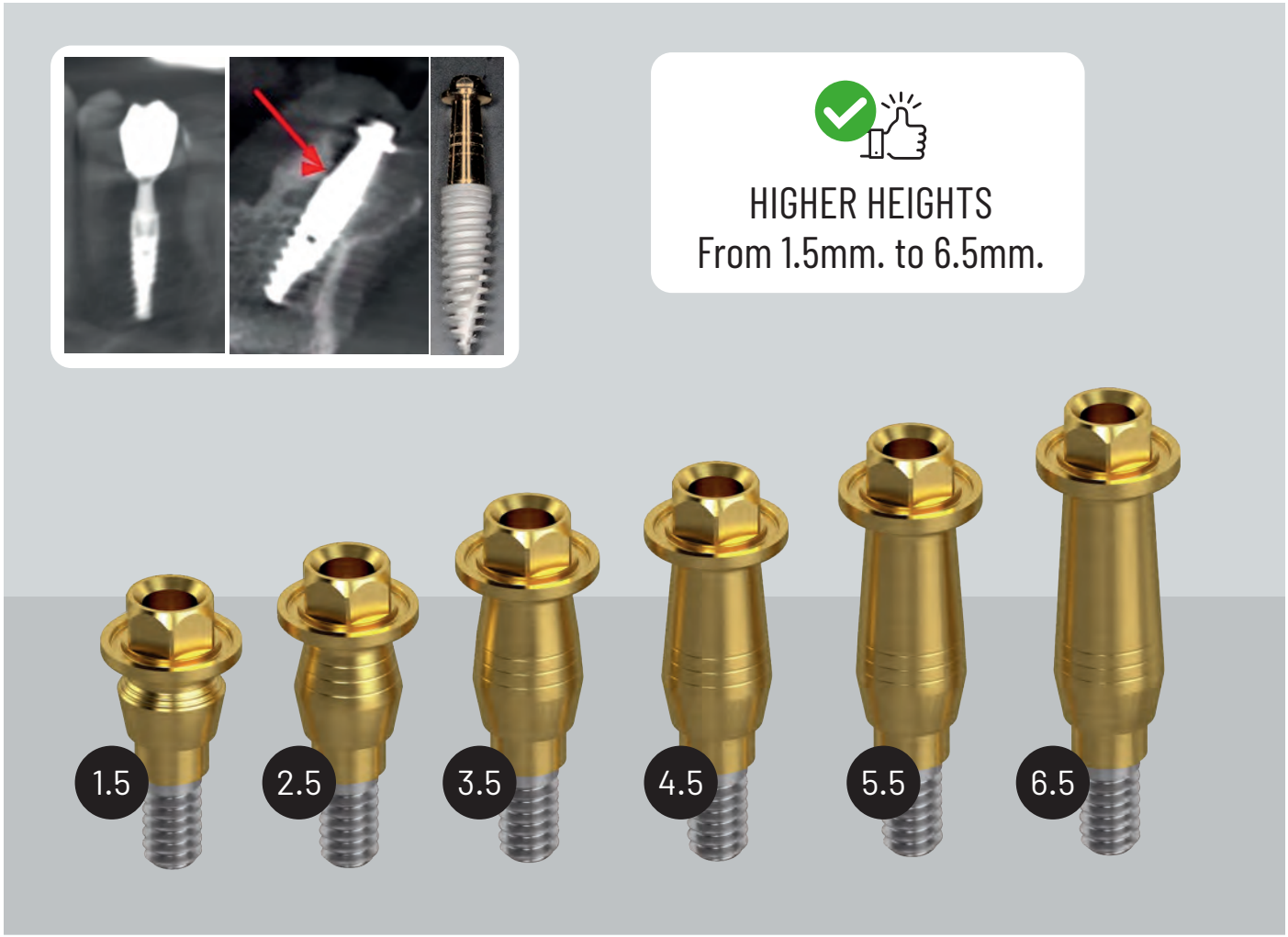


Figure 7.

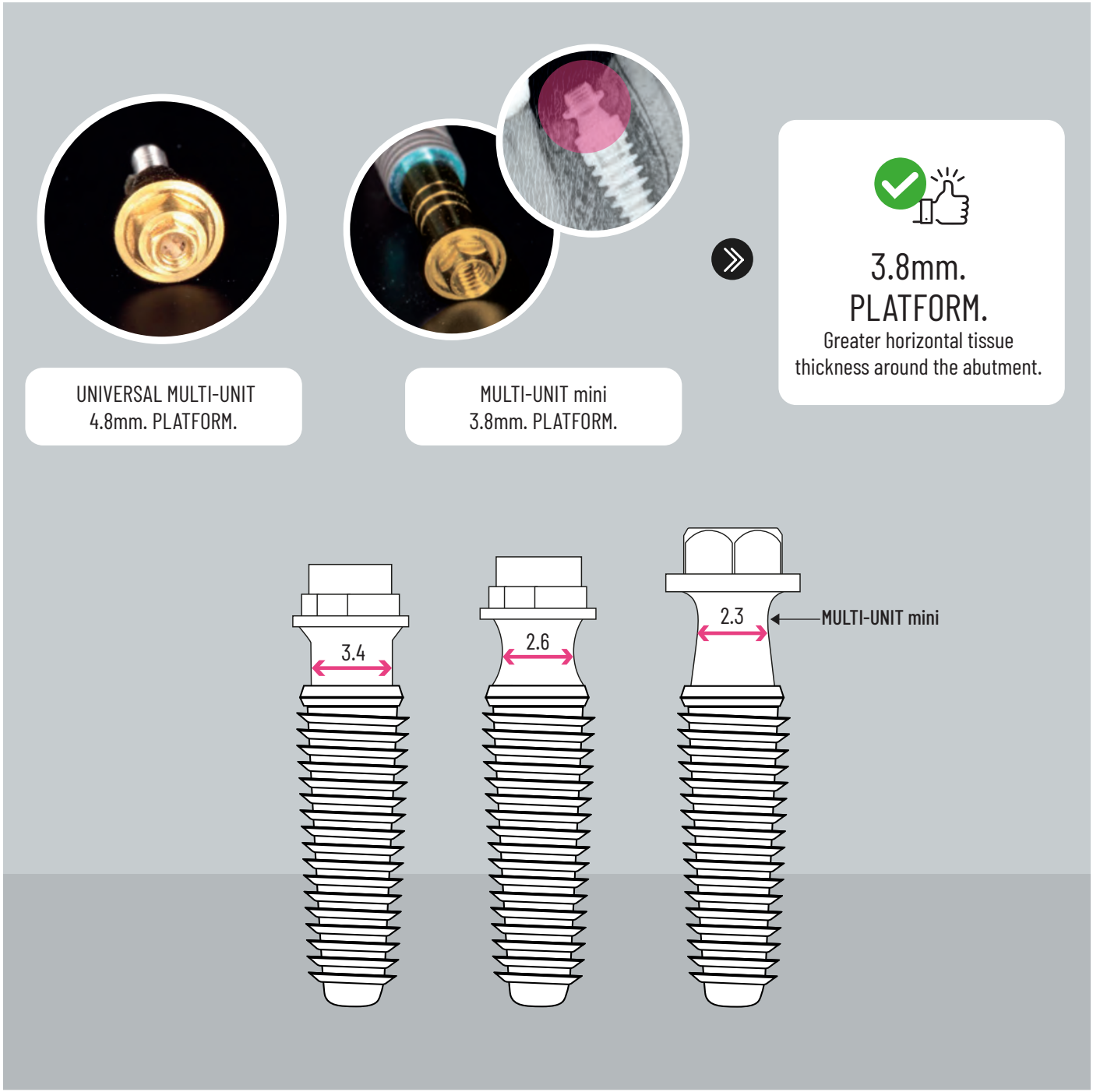

UNIVERSAL MULTI-UNIT
4.8mm. PLATFORM.
MULTI-UNIT mini
3.8mm. PLATFORM.
3.8mm.
PLATFORM.
Greater horizontal tissue thickness around the abutment.
3.4
2.6
2.3
MULTI-UNIT mini

Figure 8.

Features

NARROW MULTI-UNIT, MECHANICAL LIMIT OF BREAKING RESISTANCE: Biology leads us to try narrow designs of these abutments, **to improve the number of collagen fibers around** and, in a nutshell, **increase the vascularization of the mucous seal**, which will bring us greater stability and greater resistance to bacterial entry, but it is necessary to know where is the **mechanical limit of resistance** to break is, in areas of high masticatory load, such as in posterior **mandibular** and **maxillary** areas.

Engineering studies point to the **great resistance to breakage** of these abutments, made of **Titanium 6AL-4V, Grade 5 of high strength**. Therefore, they are indicated for both, front and rear sectors. **(9)**

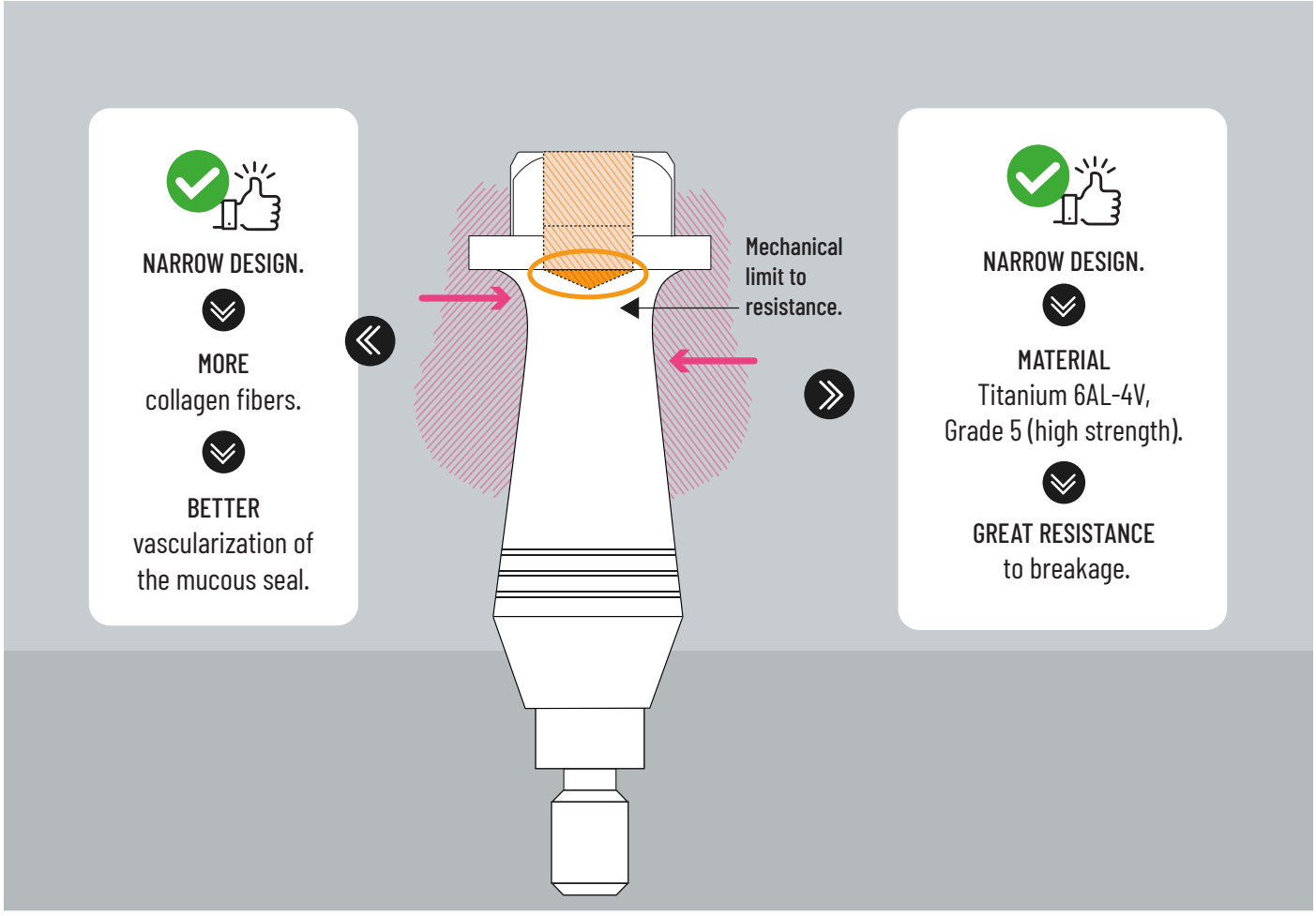
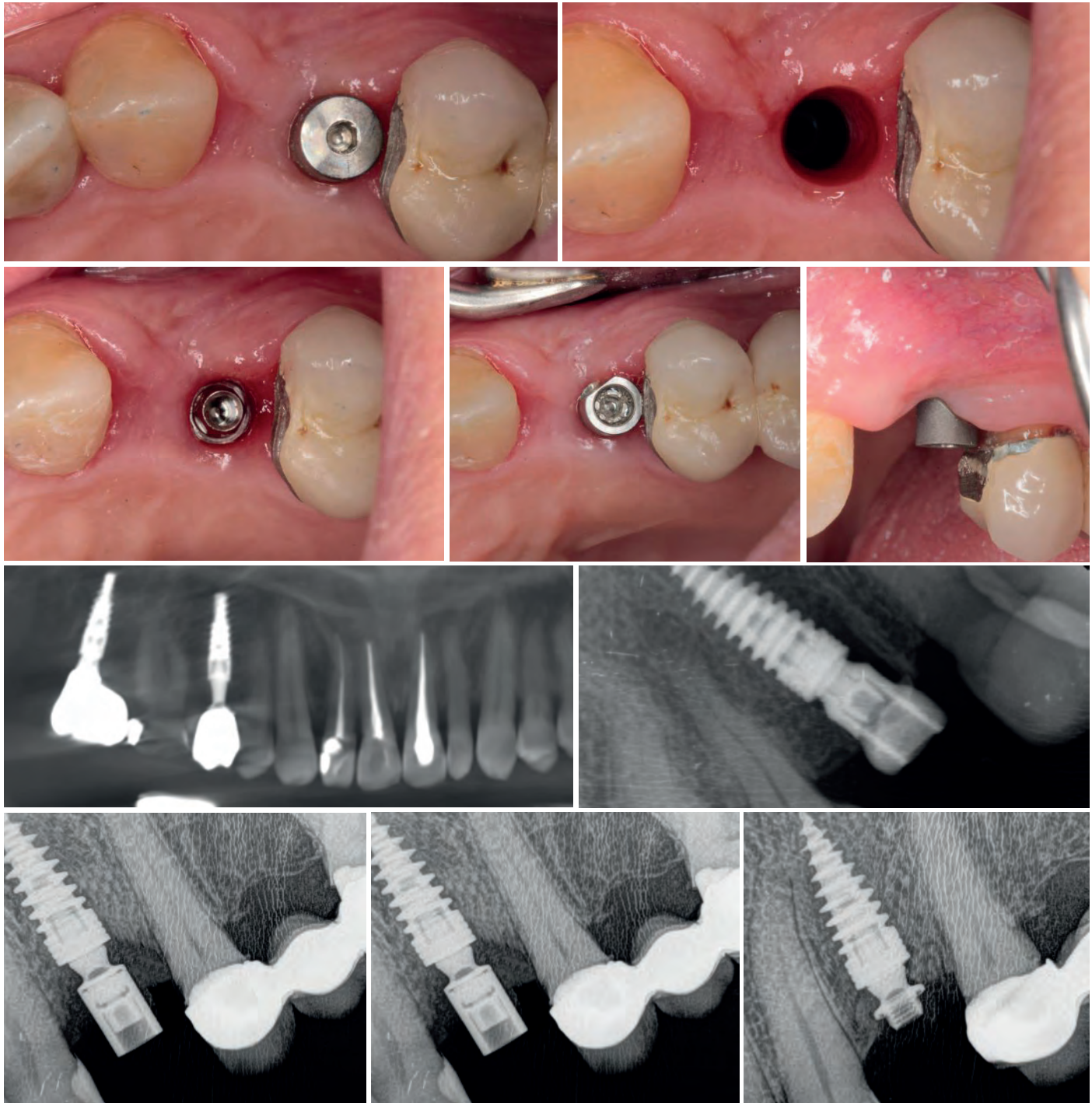


Figure 9.



Dr. Macarena Romero

- PhD Degree in Dentistry from the UEM.
- Master in Oral Surgery, Implants and Periodontics. UMA.
- Master in FISSA Prosthetics (Dr. Mauruc Fradeani, Pesaro-Italy).
- Expert in Advanced Endodontics. (Carlos Stambolsky and Soledad Rodríguez)
- Expert in Straight Arch Technique (Cervera).
- Expert in Aesthetics of the Lower Facial Third (Dr. Ana Sanz Cerezo, Madrid).
- Speaker in courses at national and international level on digital flow in Dentistry
- Author of scientific articles.

Dr. Antonio Romero

- Stomatologist Doctor PhD (U.C.M.).
- Director of Romero and Álvarez Clinic and 3D radiological centre.
- Expert in Oral Surgery, Prosthetics and Digital Flow.
- Member of SEPA, SOCE and SEPES.
- Full Digital Workflow course director.
- Speaker in courses at national and international level on digital flow in Dentistry.
- Author of scientific articles.

BIBLIOGRAPHY

Monje A, Insua A, Wang H-L, Understanding Peri-implantitis as a Plaque-Associated and Site-Specific Entity; On the Local Prefisposing Factors. J. Clin. Mod. 2019, 8, 279. Rakic, M; Galindo-Moreno, P; Monje, A; Radovanic, S; Wang, H-L; Cochran, D; Sculean, A; Canulo,L. How frequent does peri-implantitis occur? A systematic review and analysis, Clin. Oral Investing, 2018, 22, 1805-1816. Derks, J; Tomasi, C; Peri-implant health and disease, A systematic review of current epidemiology, J, Clin. Periodontol, 2015, 42 (Suppl, 16), 158-171.

VIDEO

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