WELCOME TO THE

REVOLUTION OF IMPLANTOLOGY

FGM DENTAL GROUP

FGM

Arcsys

MT IMPLANT SYSTEM

THE REVOLUTION OF IMPLANTOLOGY

With the Arcsys System, you will find what is most modern in terms of planning, health, function and esthetics.

Minimize exhausting steps, save time, plan with more resources and reduce the number of stock components, rediscovering simplicity.

Customization of prosthetic component angulation *from 0° to 20°.*

98.2% success rate *of dental implants.*

Health and safety *with Frictional Morse Taper.*

Possibility of **single-step drilling.**

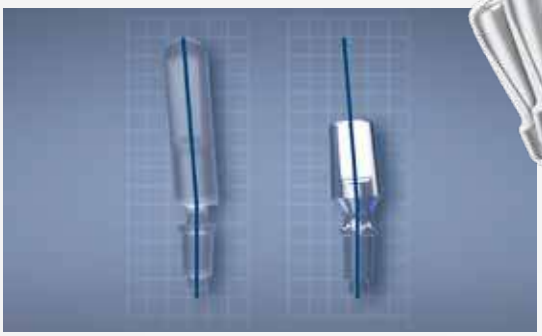
Reduction of up to 90% of stock *and logistic optimization.*

Over 6 years of development **with scientific proof.**

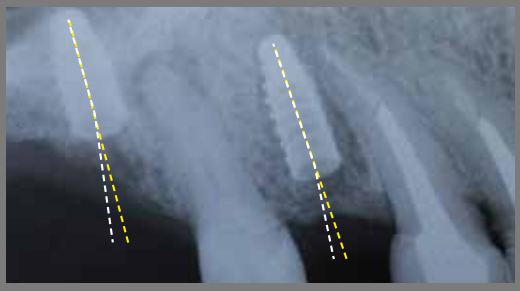
[1]Source: Ricardo Magini e equipe. CEPID – UFSC. Florianópolis (SC).

BETTER PLANNING, ESTHETICS AND HEALTH

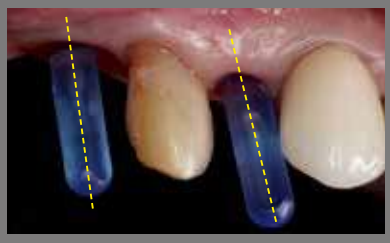
Enhance surgical and prosthetic planning with the exclusive Arcsys customization of prosthetic components from 0 ° to 20° in the office or laboratory. Easily, quickly and safely, leave behind purchasing and logistics processes and get the **best implant and prosthesis positioning to achieve superior esthetic and functional results.**



IMPLANT AND PROSTHESIS IN THE BEST POSITION.



COMPARISON BETWEEN **ARCSYS X CONVENTIONAL SYSTEMS**



BEFORE ANGULATION

AFTER ANGULATION

REVOLUTIONARY EVEN IN THE RESULTS

In a recent study carried out at UFSC* (Brazil), Arcsys Implants showed a success rate close to 100%, in single and multiple prostheses.[1]

98,2%
success rate
of Arcsys Implants in single and multiple prostheses (including patients in risk groups).[1]

ALSO
97,3%
success rate among dentists with less than 2 years of experience.[1]

0%
loosening or fracture rate
The same study shows 0% loosening or fracture rate in straight or custom-folded components.

3X
more resistance
The Arcsys foldable prosthetic components show resistance 3 x superior to pre-angle machined components.[2]

[1] *CEPID - Centro de Ensino e Pesquisa em Implantes Dentários. Universidade Federal de Santa Catarina. Prof. Dr. Ricardo Magini e equipe. 2018.*
[2] *WIGGERS, William de Souza. Desmistificando a resistência mecânica de componentes protéticos angulláveis. FGM News Implantes, Joinville, v. 1, n. 1, p.46-49, jan.*

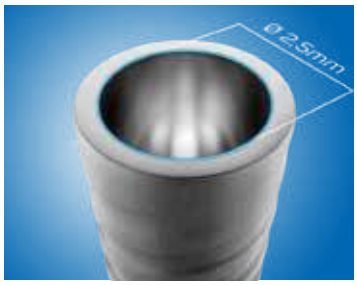
THE BEST CONCEPTS IN MACRO AND MICROGEOMETRY IN ONE SINGLE IMPLANT

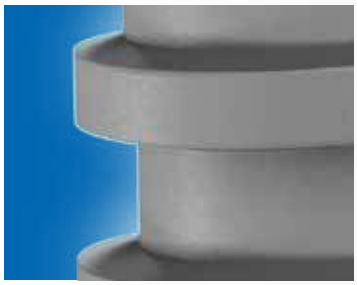
MACROGEOMETRY

Implants manufactured in Titanium Alloy (Ti_6Al_4V)[1], with a design that facilitates primary locking and trilobular wrenches with anti-locking system: quicker and safer installation. It is time-saving with single prosthetic interface and geometry for all bone types.

SINGLE PLATFORM

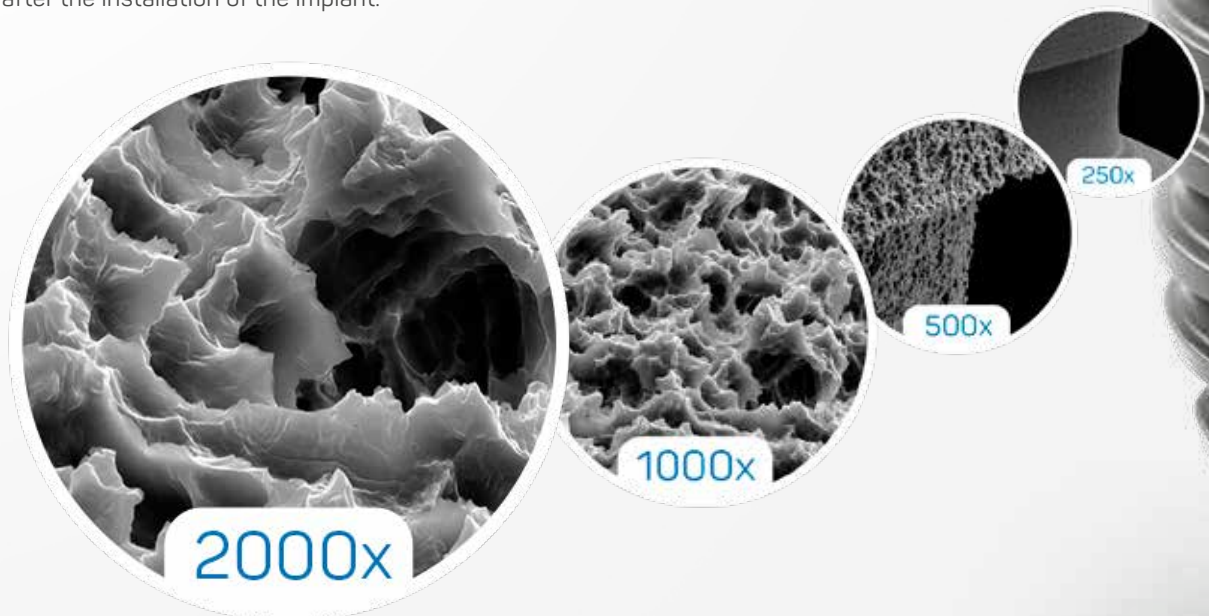
STOCK REDUCTION





MICROGEOMETRY

In an international study, the Arcsys Duoattack Finishing has shown better mechanical behavior in relation to the other surfaces tested even when tested shortly after the installation of the implant.[2]



[1]AMERICAN SOCIETY FOR TESTING AND MATERIALS. ASTM F136-12a, Standard Specification for Wrought Titanium-6Aluminum-4Vanadium ELI (Extra Low Interstitial) Alloy for Surgical Implant Applications (UNS R56401). ASTM International, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959, USA.
[2]Yoo D, Marin C, Freitas G, Tovar N, Bonfante EA, Teixeira HS et al. Surface Characterization and In Vivo Evaluation of Dual Acid-Etched and Grit-Blasted/Acid-Etched Implants in Sheep. Implant Dent 2015; 24: 256–262

REAL MORSE TAPER

MORE SAFETY

The Frictional Morse Taper is a connection system commonly used in mechanical projects when you need to join two bodies together with stability without a screw.
It works by juxtaposing a cone inside a small conical chamber angle. Thus, the metal interface suffers a micromechanical enticement called "cold weld", and the pressure exerted for the locking of the intermediate in the implant generates a resistance frictional enough for a secure connection. **The non-use of the screw eliminates the risk of its loosening or fracturing and favors the long-term performance of the system, different from what happens with implants with other platforms.**

NO NEED FOR SCREW

Does not allow the loosening of the prosthetic component.

GREATER BIOLOGICAL SEALING

Protection against bacterial proliferation and saucerization.

GREATER ESTHETICS

Favors the emergence profile, especially in folded components.

FAST INSTALLATION

Activation by means of an abutment placement tool with only three impacts.

SAFETY

More safety for the installation and removal (if necessary) of the prosthetic component.

100% BACTERIAL SEALING

Another important issue for the longevity of the frictional system is the **resistance against bacterial infiltration and colonization in the component/ implant interface.** The microbial accumulation around dental implants may lead to a peri-implantitis condition, which, if not adequately treated may compromise the stability of the implant culminating in its loss.

QUALITY GUARANTEED

1-by-1 inspection of 100% of the pieces: every piece of Arcsys Morse Taper is 100% inspected to ensure the effectiveness of its union.

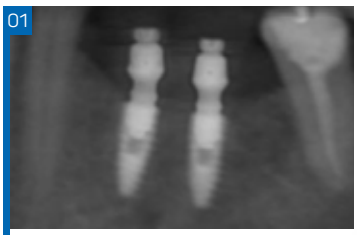
High quality machinery: for the manufacture of implants and components, Swiss-quality, high-performance CNC lathes are used.

High-precision measuring equipment: all components of the Arcsys System undergo high-tech three-dimensional measuring equipment.

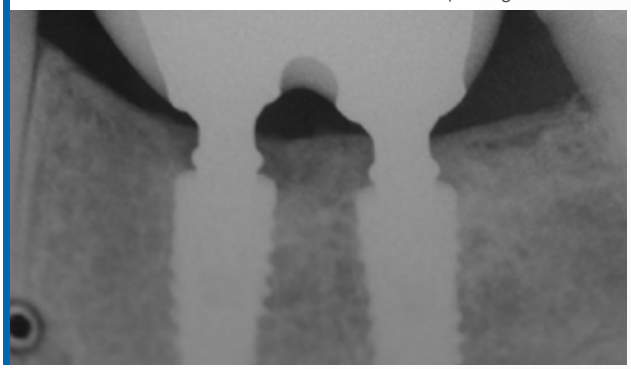
LONGEVITY AND PERI-IMPLANT HEALTH

Follow-up of clinical cases demonstrates the quality of bone formation, stability and esthetics of the Arcsys System.

01



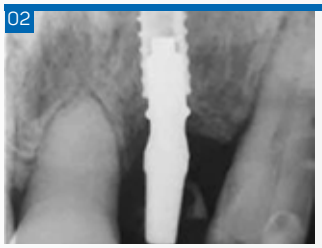
Tomography - panoramic view after reopening.



Follow-up radiography after 3 years and 8 months.

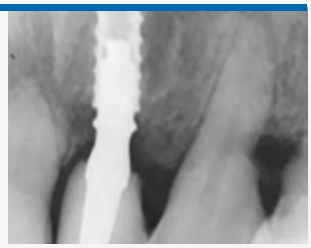
Source: Prof. Rafael Cecato

02



Initial.

Source: Prof. Piero Zanardi



Follow-up radiography after 3 years.

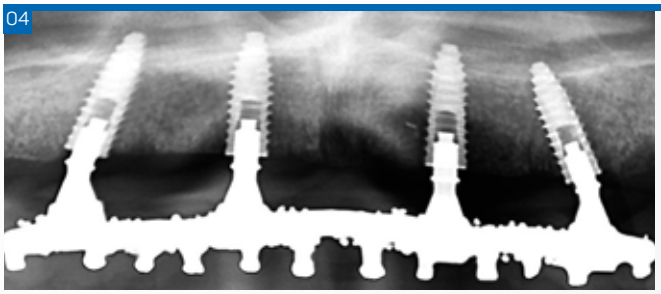
03

Initial.

Source: Prof. Carolina Morsch

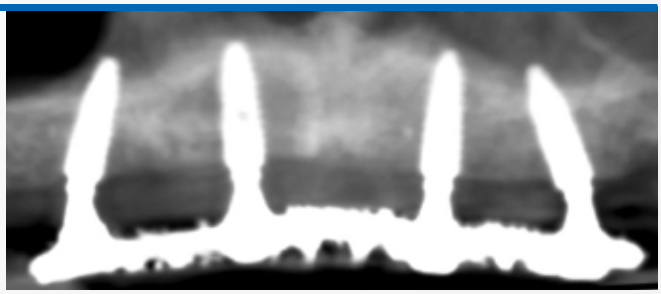
Follow-up radiography after 1 year and 10 months.

04



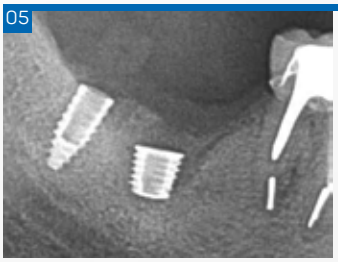
Initial.

Source: Prof. Renato Savi



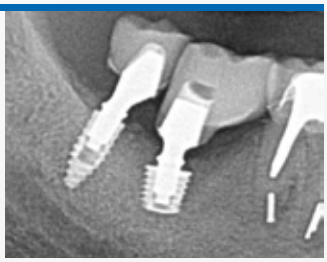
Follow-up tomography after 3 years.

05



Initial.

Source: Prof. Gustavo Greco



Follow-up radiography after 1 year and 10 months.

06

Initial.

Source: Prof. Rogério Goulart

Follow-up radiography after 1 year and 2 months.

VERSATILE AND EFFICIENT DRILLS HELP YOU SAVE TIME AND PROVIDE COMFORT FOR THE PATIENT

Arcsys Drills can be used according to scaling or single-drilling protocols (when the surface is wide and plane enough).

TIME-SAVING

SAFETY AND COMFORT

INNOVATIVE GEOMETRY
Self-controlled throughout the surgical preparation.

MATERIAL
TiN (titanium nitride) coating, which provides greater surface hardness, lower friction and greater durability.

STABILITY
Prevents vibration during drilling.

SAFE INSTALLATION
Visual or mechanical depth control (drill stops).

ACTIVE TIP
Acts like an initial drill: stability throughout drilling.

STRAIGHT FLUTES
Irrigation through the whole extension of the drill and capacity to collect bone tissue.

ONE COMPONENT, SEVERAL POSSIBILITIES

Reduce your stock, customize the PEEK components at your office or laboratory and gain better quality in molding, temporary prosthesis and, consequently, the result. Check out the multifunctions of the Arcsys healing abutment and impression caps.

ARCSYS HEALING ABUTMENTS

Healer for peri-implant tissues.

Support for temporary prosthesis over implants.

Implant impression cap.

STOCK REDUCTION

IMPRESSION CAPS

Impression caps for the prosthetic component.

Support for the temporary prosthesis.

Protection for the prosthetic components.

CUTOMIZATION

ARCSYS CASES

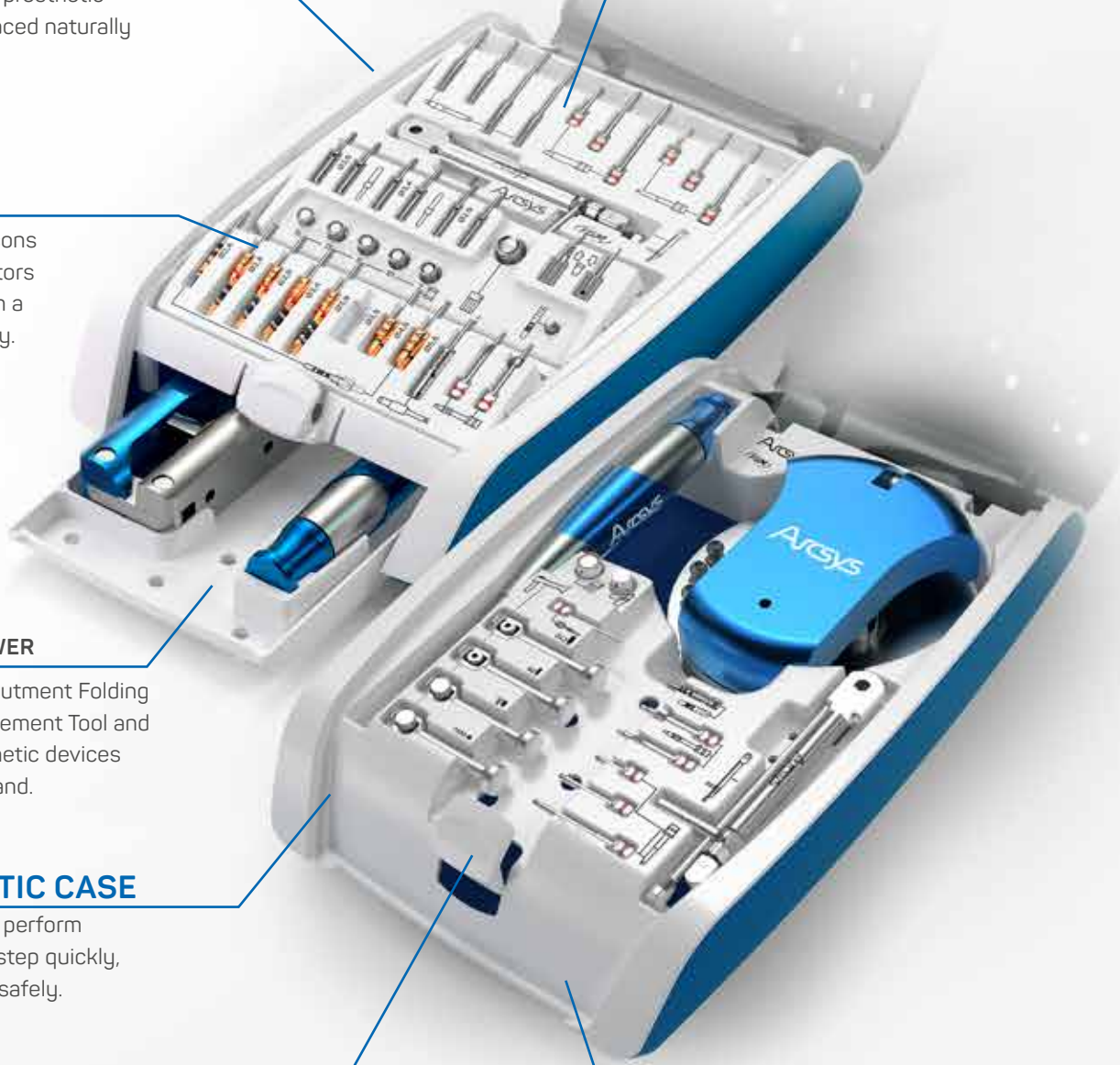
LIGHT, COMPACT AND **ERGONOMIC.**

SURGICAL AND PROSTHETIC CASE

All surgical and prosthetic instruments placed naturally and intuitively.

✓ ERGONOMIC TRAY

Enjoy the possibility of lifting the tray of surgical and prosthetic case for better viewing and access to instruments while operating.



✓ INTUITIVE

Tools with icons and descriptors positioned in a practical way.

✓ WITH DRAWER

Have the Abutment Folding Device, Placement Tool and other prosthetic devices always at hand.

PROSTHETIC CASE

All you need to perform the prosthetic step quickly, efficiently and safely.

✓ EASILY CLOSED

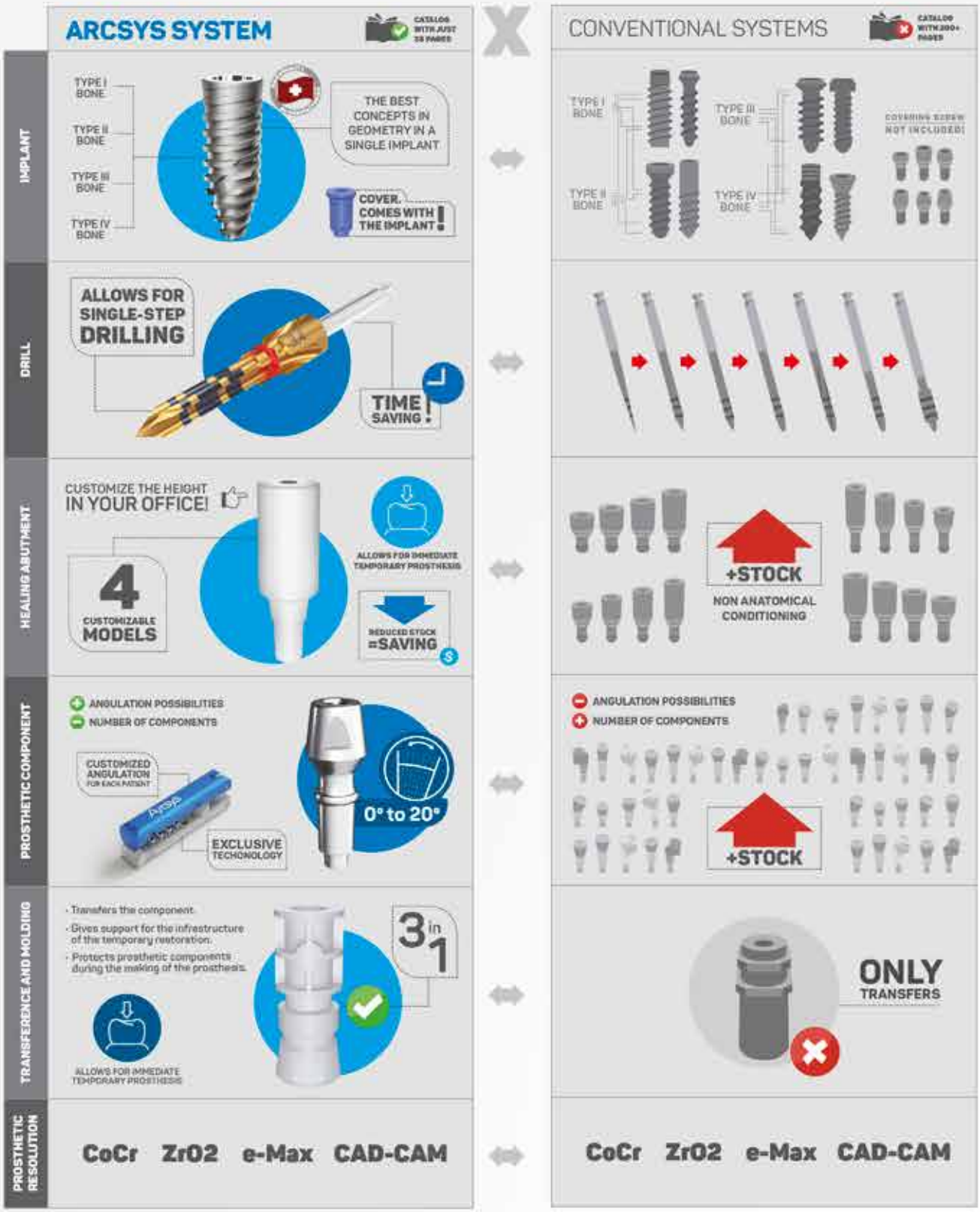
Convenience and safety with the "easy press" system for opening the cases.

✓ COMPACT

The cases are small in size, ideal for autoclaving and use in the surgical field.

COMPARE AND CHOOSE

Customization, time saving, stock reduction and many more advantages!
Compare Arcsys with conventional systems and understand why it is revolutionizing implantology.



FGM

Nanosynt

BONE GRAFT

BONE FORMATION
IN RECORD TIME

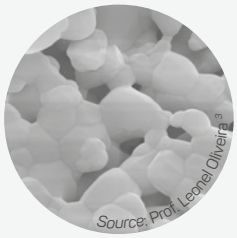
NEW PACKAGING

The new packaging is extremely safe, easy to handle and avoids waste. It is manufactured with the same material and opening technique widely used in the pharmaceutical industry.

[1]Study conducted by Mônica Calasans - UFF. Source: Uzeda MJ et al. Randomized clinical trial for the biological evaluation of two nanostructured biphasic calcium phosphate biomaterials as a bone substitute. Clin Implant Dent Relat Res. 2017;1–10. | [2]Estudo conduzido por Paulo Coelho - Universidade de Nova York. Fonte: Freitas G, Tovar N, Granato R, Marin C, Coelho PG. NanoSynt: Avaliação histológica e histomorfométrica de um novo substituto ósseo. O uso da nanotecnologia na conquista de um melhor padrão de osteocondução. ImplantNews. 2014; 11(3):296–301. | [3]Source: Prof. Leonel Oliveira. *| [4] Foto: Profa. Dra. Vânia Coutinho (CERTBIO/ LAMMEa-UFCG-PB) 2017.*

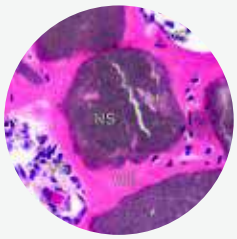
NANOTECHNOLOGY BENEFITING BONE GRAFTING

Nanosynt is a synthetic material for bone replacement made of biphasic calcium phosphate (60% hydroxyapatite and 40% s-tricalcium phosphate) that has demonstrated its efficiency in several clinical studies.[1,2]



ULTRA-POROSITY 80% TO 90%

Its ultra-porous morphology, besides allowing blood flow, helps in anchoring bone cells for new bone formation[1,2].



OSTEOCONDUCTIVITY

It allows vascularization (VS) for new bone formation (ON) around and inside the biomaterial (NS).

CELLULAR INTERACTION

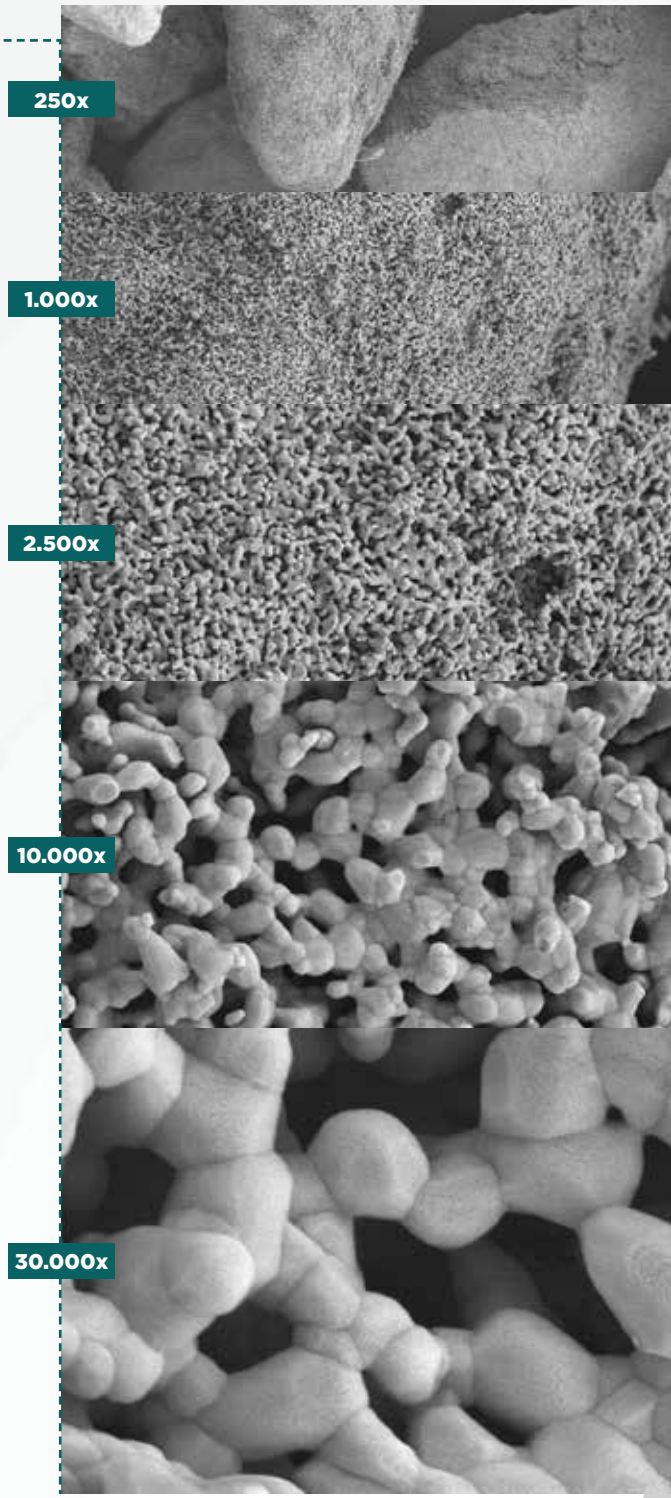
Surface with regular pattern, highly favorable to cell anchoring and biological agents.

EXCELLENT HANDLING

Effective transport to the surgical area and excellent hydration with a few drops (drip hydration).

SMART PACKAGING

Available in fractions (0.27cc portions) to eliminate the waste of biomaterial.



Source: Internal data. Scanning electron microscopy.

AVAILABILITY

Granules	200 - 500µm		500 - 1000µm	
Portions	4 x 0,27cc	2 x 0,27cc	4 x 0,27cc	2 x 0,27cc

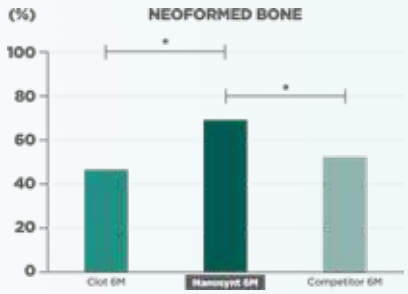
NANOSYNT IS UNIQUE, AND SO ARE ITS RESULTS

1

RANDOMIZED CLINICAL TRIAL FOR THE BIOLOGICAL EVALUATION OF TWO NANOSTRUCTURED BIPHASIC CALCIUM PHOSPHATE BIOMATERIALS AS A BONE SUBSTITUTE.

"(...) The Group of biomaterial 1 (Nanosynt) after 6 months ***showed a greater amount of newly formed bone*** *when compared to the other groups. Both materials proved to be safe and effective for use on humans."* [1]

[1]Study conducted by Mônica Calasans - UFF. Source: Uzeda MJ et al. Randomized clinical trial for the biological evaluation of two nanostructured biphasic calcium phosphate biomaterials as a bone substitute. Clin Implant Dent Relat Res. 2017;1–10.



Histomorphometric evaluation of experimental groups for newly formed bone after 6 months of implantation (n=5). * = p<0,05.

2

NANOSYNT: HISTOLOGICAL AND HISTOMORPHOMETRIC ANALYSES OF A NEW BONE SUBSTITUTE. THE USE OF NANOTECHNOLOGY TOWARDS A BETTER OSTEOCONDUCTIVE PATTERN.

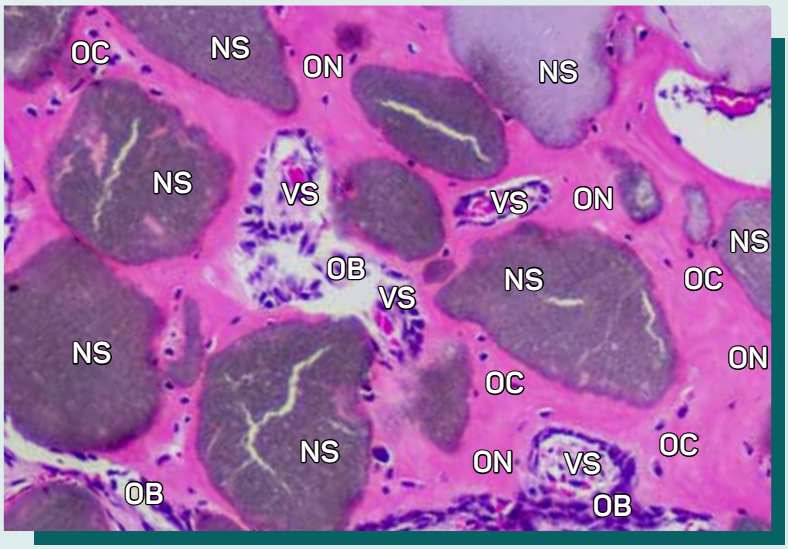
"(...) ***the synthetic material Nanosynt showed better level of bone formation and maintenance of the space of the bone defect*** *when compared to the materials Competitor 1 and Competitor 2, during the two in-vivo periods of the present study."* [2]

[2]Study conducted by Paulo Coelho - Universidade de Nova York. Source: Freitas G, Tovar N, Granato R, Marin C, Coelho PG. NanoSynt: Avaliação histológica e histomorfométrica de um novo substituto ósseo. O uso da nanotecnologia na conquista de um melhor padrão de osteocondução. ImplantNews. 2014; 11(3):296–301.

Periods	Groups	Bone	Biomaterial	Soft Tissue
4 weeks	**Nanosynt**	**23,14%**	21,54%	55,31%
	Competitor 1	11,69%	17,72%	70,59%
	Competitor 2	17,32%	22,40%	60,27%
8 weeks	**Nanosynt**	**30,25%**	20,29%	49,45%
	Competitor 1	27,22%	12,85%	59,93%
	Competitor 2	23,93%	15,38%	60,69%

ABSOLUTE INTEGRATION

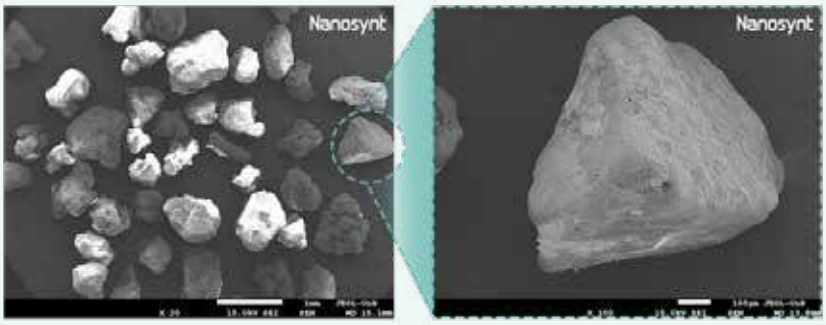
Histologically, Nanosynt's behavior is extremely favorable to the bone replacement process. Its ultra-porosity gives it a perfect surface for cell anchoring, anticipating mineralized matrix deposition. The following image shows the presence of blood vessels (VS) providing nutrition to the biomaterial (NS), which is entirely surrounded by neoformed bone tissue (ON).
OC: Osteocytes showing the proper pattern of bone deposition in the intergranular space.
OB: Osteoblasts showing the intense activity of peripheral bone neoformation to the neoformed bone tissue (ON).



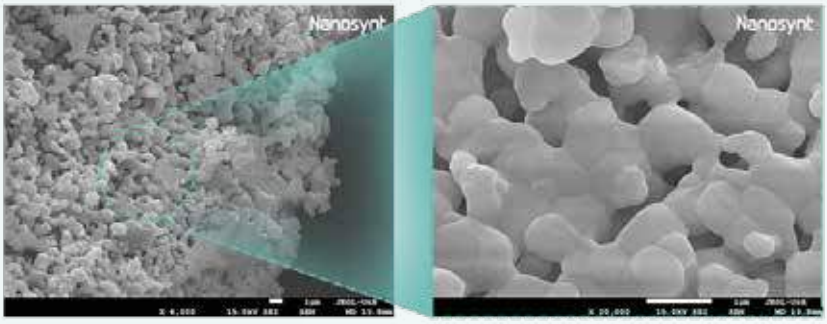
Cross-sectional histological image of human. Prof. Thiago Roberto Gemeli.

DAZZLING CELLULAR INTERACTION

Although its chemical formulation is similar to other products available, its dazzling ultraporous and cellular interaction anticipates the repairing process.



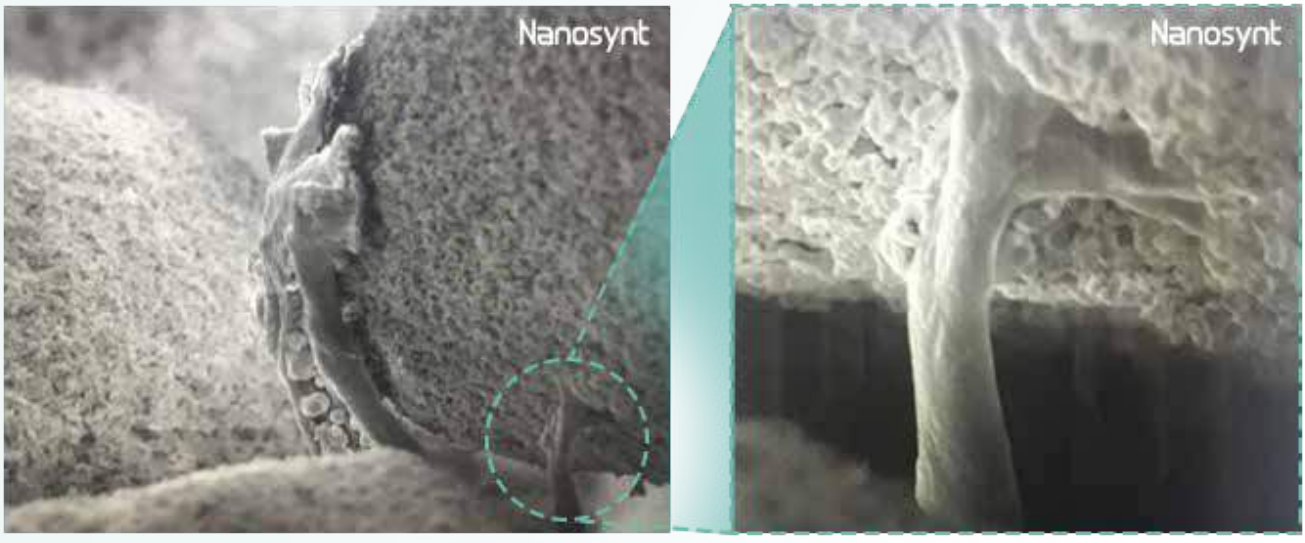
Nanosynt granules observed under electron microscopy scan (20x). Note its characteristic texture (100x).
Source: Prof. MS. Leonel Oliveira



The trabecular structure of the granules (4,000x and 20,000x, respectively) contributes to the understanding of the concepts of ultraporous and high hydrophilia, intrinsic to the FGM biomaterial. |
Source: Prof. MS. Leonel Oliveira

The ultrapore structure in the form of interconnected trabeculae provides a perfect environment for osteoblastic adhesion and fixation, while its exceptional hydrophilia enables blood, a source of undifferentiated mediators and cells, to enter the granules of the biomaterial and develop new ossification centers. Nutrition as a whole is optimized in permeable environments.

This behavior helps in understanding Nanosynt's 20% higher bone formation when compared to market leaders.[1]



Osteoblasts interacting closely with a granule of Nanosynt. In the detail, the cellular anchorage made possible by ultra-vapor synthetic constitution. | Source: Prof. Dr. Vânia Coutinho

ALSO GET TO KNOW

BRAVA

GLASS-CERAMIC COMPOSITE FOR CAD/CAM

THE **DURABILITY** YOU SEEK WIH THE TECHNOLOGY YOU HAVE NEVER IMAGINED

BEAUTY AND VERSATILITY FOR DEFINITIVE SOLUTIONS

- **High esthetics**
  Excellent shine and polishing capability.
- **Longevity**
  High wear resistance 86% conversion degree.
- **Comfortable chewing**
  Low abrasion of the antagonist tooth.
- **Always new**
  It allows future repairs and repolishing in appointments.
- **Very resistant**
  It allows the creation of ultrafine structures for indirect veneres.

Applications: crowns, inlays, onlays, veneers and over implants.

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FIND OUT MORE

Arcsys STUDY GROUP

DISCUSSIONS THAT ARE WORTH IT!

Participate in the Arcsys Study Group on Facebook, a group exclusive to Implantology professionals.

Check out forums, debates, live broadcasts and other interactions which foster the exchange of experiences and clinical practices, as well as the sharing of content that involves scientific research, international publications, new procedures and technologies.

EXCLUSIVE CONTENT

Access the FGM Internacional channel on YouTube and watch videos of surgical and prosthetic procedure, step-by-step angle adjustment, testimonials, events, clinical cases and more. Search for: FGM Implants or use the QR Codes.

SURGICAL AND PROSTHETIC 3D PROCEDURE

ARCSYS TIPS PLAYLIST

LEARN MORE ABOUT NANOSYNT

IMPLANT CATALOG

The **Implant Catalog** is a complete material that, in addition to providing information on the Arcsys System and Nanosynt, shows all product codes to assist you in placing orders and viewing the surgical and prosthetic sequence.

Order now: ***international@fgm.ind.br***

MATERIALS

We are constantly launching materials packed with studies, clinical cases and techniques to facilitate the daily routine of the dentist and prosthetician. One of these materials is the FGM News Magazine.

Download it on our website: ***www.fgm.ind.br***

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