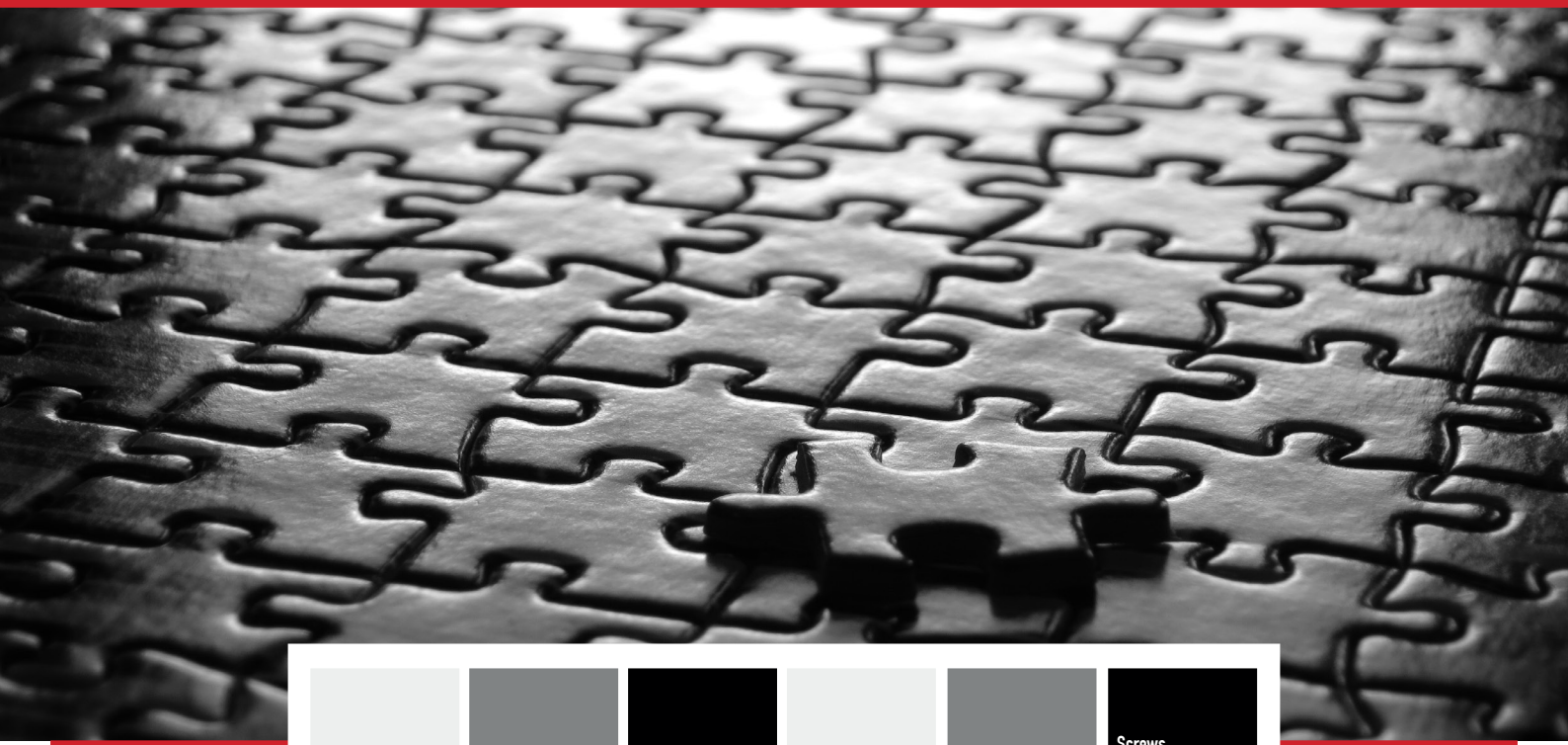
Regenerative
Line

Bionnovation
biomedical

Products
catalog



Bonefill®
Bovine bone graft

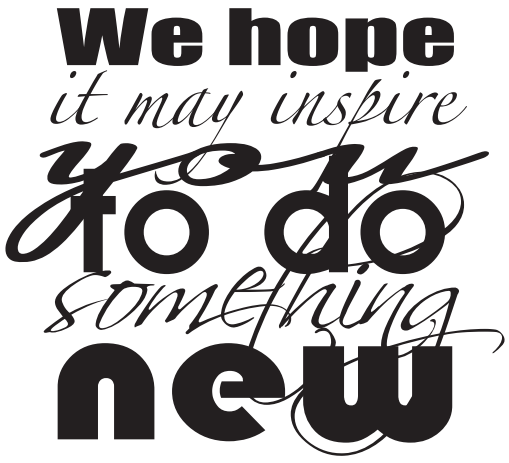
Barrier
Non Resorbable

ßeta TCP
Synthetic bone graft

Hydroxyapatite
Synthetic bone graft

Membranes
Non Resorbable

Screws
Kits
Instrument


We hope
it may inspire
you
to do
something
new

Company

Innovation with quality

Bionnovation Biomedical is a Brazilian company located at the Industrial District II, in Bauru inland of São Paulo. The constant investments in research, technology and professional qualification makes Bionnovation a company committed with the quality of its products and with the satisfaction of its customers.

The entire production process is strictly verified, from receiving of the raw material to distribution to its customers. Each stage is executed, verified and documented according to the procedures of the Good Manufacturing Practices.

Bionnovation has international certificates required for the commercialization of its products in the global market. The quality of the processes and products are strictly audited by the major certifying bodies, always according to the regulation of ANVISA.

Tests and Analyses

Bionnovation identified special processes in its production stages and conducts tests and analyses to control and validate these processes with the aim to ensure that the product sold are according to design.

Biocompatibility, genotoxicity, carcinogenicity, cytotoxicity in vitro, systemic toxicity, irritation tests, sensitivity and post-implant site effects were conducted for biomaterials according to ISO 10993 – Biological evaluation of medical devices.

More than 15 years of experience and research;
+ than 1,5 million implants sold worldwide;
+ than 4T (tons) bonegraft sold worldwide;
+ than 15 km membranes & barriers sold worldwide;
Products, services and training available in over 30 countries;

Product Line

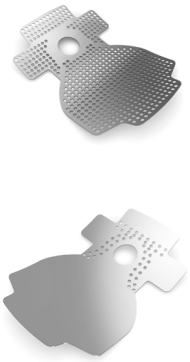
Bonefill
Dense, Mix, Porous • Block

Hydroxyapatite

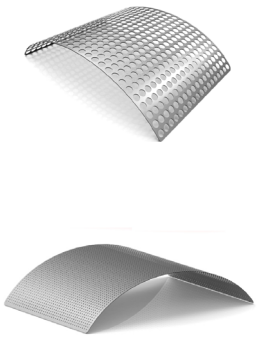
Hydroxyapatite **Duo**

ßeta *tcp*

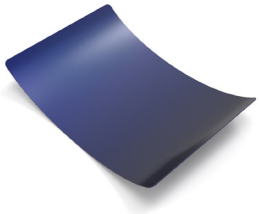
Surgitime *ptfe*



Surgitime 3d
titanium



Surgitime
titanium

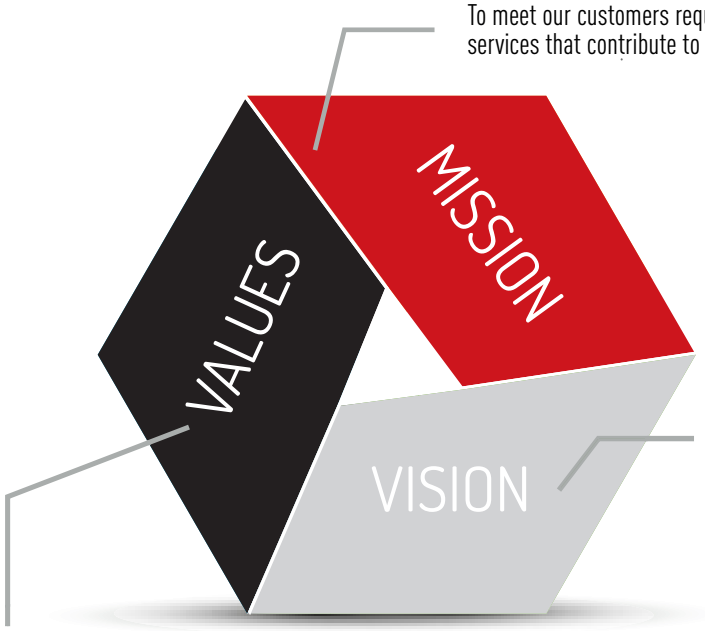


Surgitime *Seal*

> We innovate to obtain the highest quality and technology possible in Biomaterials.

MISSION, VISION & VALUE

To meet our customers requirements with excellence, by developing and offering products and services that contribute to the improvemente of people's quality of life.



The company that is recognized by customers, peers, employees, community and investors as the best option due to the quality of our products, services and relationships.

- Integrity
- Commitment
- Emphasis on People
- Innovation
- Sustainability

IDENTITY

A company formed by professionals with different strengths and skills who, when working together, complement each other in the search for common goals and dreams. We summarize our Values, our Mission and our Vision here. They are elements which are part of who we are, reflect how we think and guide how we behave.

Research & Development

To achieve optimal, predictable results, we offer you the Bionnovation Product system. It includes all long-term proven biological materials (e.g., bovine, synthetic (hydroxyapatite & beta TCP), collagen, granules, blocks, titanium mesh, titanium foil and PTFE membranes, which can be used in various combinations for each specific indication. Bionnovation is committed to quality and continuous improvement of its products and is always in search of upgrading and innovating its scientific methods and techniques, setting and keeping up with the most current trends of dentistry and medicine.

All of our products are **developed**, **evaluated** or **approved** by renowned universities and the scientific community in Brazil and abroad, interacting with the company's team of researchers and engineers.

USP unesp POROUS Advanced Porous Materials

ufscar UNICAMP CCDM DEMa/UFSCar

Bonefill® Dense, Porous & Mix

Registro ANVISA **10392710012**

Bovine Bone Graft

The highly purified osteoconductive mineral structure is produced from natural bone through a multiphase process, complying with the safety regulations established by the control agencies. The fresh bone is crushed, receiving a sequence of baths that solubilize the organic structures such as, for example, remaining cells, fibers and proteins, with only the mineral portion remaining this way in order to avoid the induction of possible immunogenic processes in the body. The products made of mineralized bovine bone have an expected incorporation of 6 to 9 months.

Due to the natural origin, Bonefill® is comparable to the mineral and morphological structure of the mineralized human bone, it is biocompatible, does not present cytotoxicity, acute systemic toxicity, carcinogenicity and it is not a sensitizing product (ISO 10993-1).

The mineralized inorganic bone matrix of the Bonefill® has a porous macro and micro structure similar to the human cortical and spongy bones. In granulate form, Bonefill® Dense, Porous & Mix act as osteoconductive mechanism promoting bone growth and regeneration. With time, the Bonefill® is partially remodeled through the action of osteoclasts and osteoblasts, being a viable alternative to autologous bone in defects suitable for its use and indication.

Mode of Action

The first healing stage promotes the migration of bone forming cells that suffer differentiation through contact with apatite, the mineral portion of the bone. The process occurs between six and eight months resulting in a high density bone formed around the Bonefill® particles.

Indications

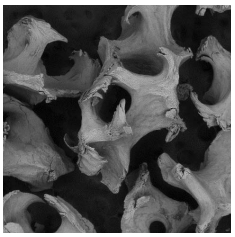
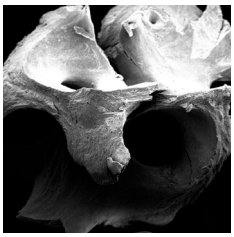
Bonefill® is recommended for filling bone defects and for volumetric increase in the following situations: increase/reconstructions of alveolar crests, filling of post-extraction cavities, filling of cavities produced by post-surgery treatment interventions of cysts, granulomas and other lytic, oral and maxillofacial and dental pathologies, preparation of implant and filling sites of bone dehiscence, besides bone grafts in maxillary sinuses and in the periodontal area it can be used in filling bone defects and to support the membrane during guided bone regeneration.

- Fast integration through new bone formation;
- Long term stability of the three-dimensional graft
- No foreign body or inflammatory reaction;
- Rough and hydrophilic surface;
- Excellent cell adhesion and blood absorption;
- Interconnected pores (rapid vascularization);
- Safe, biocompatible;

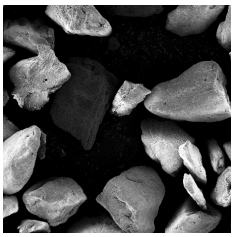
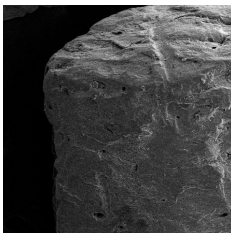
Topography: Porous, Dense & Mix

Topography is a key factor for clinical

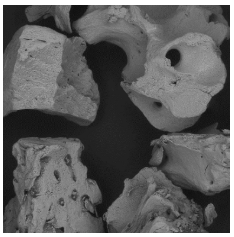
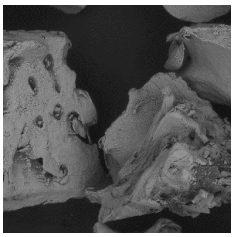
The surface helps the absorption of proteins in the Bonefill® Porous particles, enabling the efficient adhesion of the osteoblasts. This biological interaction enables a reliable bone formation.

Bonefill® Porous Particulate Topography • Micro & Macro structure

Bonefill® Dense Particulate Topography • Micro & Macro structure

Bonefill® Mix Particulate Topography • Micro & Macro structure

Summary of advantages

- Preservation of the natural bone structure with improved mechanical properties
- Interconnected pores;
- The production process ensures the exclusion of organic components;
- There are no immunological reactions;
- **Highly hydrophilic surface;**

IFU

Hydrophilism is a key factor for clinical

Hydrophilism

The rapid and complete hydration with blood or saline solution is an important feature of the handling, new bone formation and clinical success.
Its strong capillary action allows the rapid and efficient penetration of particles with fluids in the material, nutrients and blood through its three-dimensional network of the trabecular bone, resulting in excellent handling, application and predictability in daily clinical use.

Safe

All the bone substitutes of bovine origin are produced with bones from cattle tracked by the SISBOV system. According to the geographical risk classification issued by the International Zoosanitary Code and by the Scientific Steering Committee of the European Community (SSCEC August 2005), Brazil is free from Bovine Spongiform Encephalopathy (BSE). However, according to ordinance 516/97, even with Brazil declaring to be free from Bovine Spongiform Encephalopathy, and the processing to which the products are subjected are known to be efficient in the inactivation of the causing agent of BSE and the animals used for the production of the Bonefill® line are registered in the Brazilian bovine and bubaline identification and certification system – SISBOV, all products of bovine origin, even if remote, have the risk of BSE transmission.

Purified

Bonefill® is subjected to a multiphase purification system that removes the organic material content from the bone. This process results in a Bonefill® chemically and structurally similar to mineralized human bone (natural nanocrystalline apatite). Furthermore, it proved that Bonefill® is biocompatible.

Bovine Bone Graft **Particulate**

Product Codes

16001 •	Bonefill® **Dense** [0,10 - 0,60 mm] (Fine)	0,50 g • 0,50 cc
16024 •	Bonefill® **Dense** [0,60 - 1,50 mm]	0,50 g • 0,50 cc
16026 •	Bonefill® **Dense** [1,50 - 2,50 mm] (Large)	0,50 g • 1,00 cc
16043 •	Bonefill® **Dense** [0,10 - 0,60 mm] (Fine)	2,50 g • 2,60 cc
16042 •	Bonefill® **Dense** [0,60 - 1,50 mm]	2,50 g • 2,60 cc
16041 •	Bonefill® **Dense** [1,50 - 2,50 mm] (Large)	2,50 g • 5,0 cc
16338 •	Bonefill® **Dense** [0,10 - 0,60 mm] (Fine)	5,00 g • 5,2 cc
16351 •	Bonefill® **Dense** [0,60 - 1,50 mm]	5,00 g • 5,2 cc
16364 •	Bonefill® **Dense** [1,50 - 2,50 mm] (Large)	5,00 g • 10,0 cc
16343 •	Bonefill® **Dense** [0,10 - 0,60 mm] (Fine)	10,0 g • 10,4 cc
16356 •	Bonefill® **Dense** [0,60 - 1,50 mm]	10,0 g • 10,4 cc
16369 •	Bonefill® **Dense** [1,50 - 2,50 mm] (Large)	10,0 g • 20,0 cc
16344 •	Bonefill® **Dense** [0,10 - 0,60 mm] (Fine)	15,0 g • 15,6 cc
16357 •	Bonefill® **Dense** [0,60 - 1,50 mm]	15,0 g • 15,6 cc
16370 •	Bonefill® **Dense** [1,50 - 2,50 mm] (Large)	15,0 g • 30,0 cc
16345 •	Bonefill® **Dense** [0,10 - 0,60 mm] (Fine)	20,0 g • 20,8 cc
16358 •	Bonefill® **Dense** [0,60 - 1,50 mm]	20,0 g • 20,8 cc
16371 •	Bonefill® **Dense** [1,50 - 2,50 mm] (Large)	20,0 g • 40,0 cc

Supplied in double sterile pack (Gamma Radiation 25 KGy).

16894 •	Bonefill® **Porous** [0,10 - 0,60 mm] (Fine)	0,50 g • 0,75 cc
16911 •	Bonefill® **Porous** [0,60 - 1,50 mm]	0,50 g • 1,05 cc
16928 •	Bonefill® **Porous** [1,50 - 2,50 mm]	0,50 g • 1,45 cc
16891 •	Bonefill® **Porous** [0,10 - 0,60 mm]	1,00 g • 1,50 cc
16892 •	Bonefill® **Porous** [0,60 - 1,50 mm]	1,00 g • 2,10 cc
16893 •	Bonefill® **Porous** [1,50 - 2,50 mm]	1,00 g • 3,00 cc
16897 •	Bonefill® **Porous** [0,10 - 0,60 mm]	2,50 g • 3,75 cc
16914 •	Bonefill® **Porous** [0,60 - 1,50 mm]	2,50 g • 5,25 cc
16931 •	Bonefill® **Porous** [1,50 - 2,50 mm]	2,50 g • 7,25 cc
16902 •	Bonefill® **Porous** [0,10 - 0,60 mm]	5,00 g • 7,50 cc
16919 •	Bonefill® **Porous** [0,60 - 1,50 mm]	5,00 g • 10,5 cc
16936 •	Bonefill® **Porous** [1,50 - 2,50 mm]	5,00 g • 14,5 cc
16955 •	Bonefill® **Mix** [0,10- 1,50 mm] Fine/	0,50 g • 0,88 cc
16964 •	Bonefill® **Mix** [0,60-1,50 mm] Medium/	0,50 g • 0,88 cc

• Dental Products • Medical Products

Bonefill® **Dense** = 100% Cortical
Bonefill® **Porous** = 100% Cancellous
Bonefill® **Mix** = 70% Cancellous + 30% Cortical

Bovine Bone Graft **Block**

Advantages and Features

- Excellent alternative to autogenous and allogenous bone;
- Porous structure allows tissue penetration;
- Slow absorption that provides increased tissue stability;
- Easy to handle, can be cut into desired size;
- Storage at room temperature;
- Safe and Sterile
- **Allows Bolting;**

Sizes

Bonefill® **Block** 5 x 10 x 10 mm	16495 •
Bonefill® **Block** 5 x 20 x 20 mm	16498 •
Bonefill® **Block** 5 x 20 x 20 mm	16498 •

Hydroxyapatite

Synthetic Graft Particulate

Registro ANVISA **10392710010**

Certified by the European Community CE 0434

Descriptions

Hydroxyapatite, Ca10(PO4)6(OH)2 is a hydrated calcium phosphate, major component (about 95%) of the mineral phase of human bones and teeth. Used by the body to make up the skeleton due to its capacity to act as a calcium and phosphorus reserve. Due to its chemical similarity with the chemical phase of bone tissues, it is one of the most biocompatible materials known, promoting bone growth in regions where it is found (osteoconductive), establishing chemical bonds between it and the bone tissue (bioactive), allowing the proliferation of fibroblasts, osteoblasts and other bone cells, which are not different from the bone surface indicating a high surface chemical similarity.

Product Codes

16028 •	**Hydroxyapatite** 0,05 - 0,10 mm	0,50 g • 1,3 cc
16029 •	**Hydroxyapatite** 0,35 - 0,40 mm	0,50 g • 1,3 cc
16030 •	**Hydroxyapatite** 0,50 - 0,60 mm	0,50 g • 1,4 cc
16031 •	**Hydroxyapatite** 0,70 - 0,80 mm	0,50 g • 1,5 cc
16032 •	**Hydroxyapatite** 0,90 - 1,00 mm	0,50 g • 1,7 cc
16033 •	**Hydroxyapatite** 1,41mm	0,50 g • 1,5 cc
16035 •	**Hydroxyapatite** 1,71 mm (10 mesh)	1,00 g • 2,6 cc
16034 •	**Hydroxyapatite** 1,71 mm (10 mesh)	5,00 g • 13,0 cc
16053 •	**Hydroxyapatite** 1,71 mm (10 mesh)	10,0 g • 26,0 cc
16054 •	**Hydroxyapatite** 1,71 mm (10 mesh)	15,0 g • 39,0 cc
16055 •	**Hydroxyapatite** 1,71 mm (10 mesh)	20,0 g • 52,0 cc
16056 •	**Hydroxyapatite** 1,71 mm (10 mesh)	25,0 g • 65,0 cc
16178 •	**Hydroxyapatite** 0,05 - 0,10 mm	5,0 g • 13,8 cc
16320 •	**Hydroxyapatite** 2,80 - 3,30 mm	5,0 g • 12,8 cc
16255 •	**Hydroxyapatite** 3,30 - 4,00 mm	5,0 g • 14,2 cc

• Dental Products • Medical Products

The surface of the hydroxyapatite allows the integration of bipolar alloys, causing water molecules, proteins and collagen to be absorbed on the surface, thereby inducing tissue regeneration. The application of Hydroxyapatite enables the restoration of bone tissue through the osteoconduction process.
Hydroxyapatite is a synthetic material composed of macro and nano pores with low substitution rate. It is used for bone tissue regeneration and can be used in combination with autogenous bone, PRP and PRF.
The Bionnovation Hydroxyapatite has up to 80% of interconnected porosity to support the formation of vascularized bone. Its low substitution rate helps provide the long-term stability of the graft and maintain volume when necessary for a longer period of time. The Bionnovation Hydroxyapatite is a synthetic alternative but with chemical and structural features similar to the Xenogenous bone substitutes.

Indications

The hydroxyapatite-based biomaterials have been widely used in bone replacement. Hydroxyapatite is a bone graft material indicated with success in orthopedic, cranio-maxillofacial and dental surgeries. It is recommended for the repair of cranial base defects, spinal fusion and orthopedic applications, besides bone graft around dental implants and metal hip prostheses.

Beta TCP

Phosphocalcium Ceramic

Registro ANVISA **10392710019**

Description

Pure phase **Beta tricalcium phosphate (ß-TCP)** (Ca3(PO4)2) is a resorbable synthetic particulate ceramic made from Calcium Hydroxide (Ca(OH)2), Phosphoric Acid (H3PO4), with the proportion of Ca3(PO4)2 being 91.67% according to the X-Ray Diffraction test. It is used as matrix for bone tissue neoformation because, in terms of composition, it is identical to the bone matrix and allows the restoration of this tissue through the osteoconduction process.

Mode of Action

The first healing stage promotes the migration of vessels through porosities, followed by the migration of bone forming cells that suffer differentiation through contact with the mineral portion of the bone.

Indications

Beta TCP is a biomaterial used in bone graft procedures, and it is a synthetic bioceramic, elective for regenerative techniques in Periodontics, Implant Dentistry, Orthopedics or medical and dental surgery procedures that require bone neoformation. It can be used in the reconstruction of traumatic or degenerative bone wall defects, sinus floor elevation, periodontal or alveolar bone filling and osteotomies, as well as the site preservation and preparation. In medical procedures, it is used in orthopedics and traumatology cases such as correction of musculoskeletal tumors, spinal chord and cervical spine injuries.

16057 •	**Beta TCP** [0,1 - 0,5] mm	0,50 g • 1,9 cc
16062 •	**Beta TCP** [0,1 - 0,5] mm	3,00 g • 11,5 cc
16066 •	**Beta TCP** [0,1 - 0,5] mm	5,00 g • 19,2 cc
16071 •	**Beta TCP** [0,1 - 0,5] mm	10,00 g • 38,0 cc
16072 •	**Beta TCP** [0,1 - 0,5] mm	20,00 g • 79,0 cc

• Dental Products • Medical Products

Surgitime Titanium *Seal*

Titanium Foil

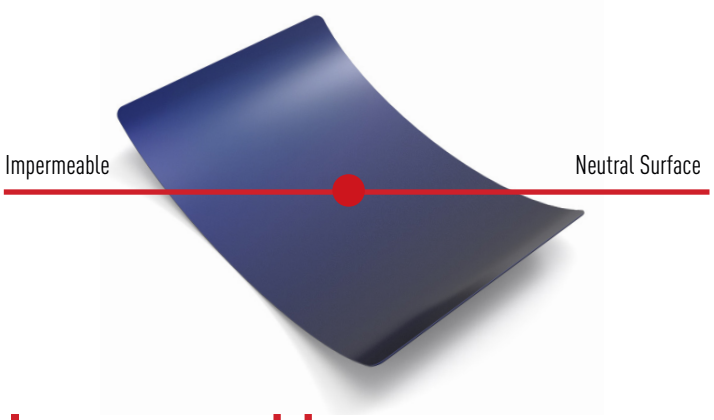
Registro ANVISA **10392710035**

Certified by the European Community CE 0434 TGA Australia

Surgitime Titanium Seal (Titanium-Foil) is ideal for three-dimensional bone regeneration (GBR, Guided Bone Regeneration). If necessary, it can be attached with pins or screws.

Material

Titanium Grade I (ASTM F-67) : Thickness 0.04mm.



Impermeable,
it performs well even when
exposed!

Surgitime Titanium SEAL 34 x 25 mm • Thickness 0,04 mm 16890

Safety

Titanium is a safe material with an excellent history in all the surgical procedures.

Handling Benefits

The fully impermeable Titanium-Foil is prestressable, stable and acts as a space maker, e.g. for alveolar ridge augmentation. Surgitime Titanium SEAL neutral bioelectrically thanks to electrochemical passivation and thus contribute to an uneventful growth of new bone.

Advantages: Manipulation

Surgitime Titanium Seal is very flexible and can be used to cover periodontal or alveolar defects and generally does not require fixation, but if necessary, the Bionnovation graft and fixation screw accessory can be used.

Surgical Procedure

The Titanium Seal is indicated for alveolar sealing procedures, protecting the surgical wound against the invagination of the soft tissues, which promotes resorption of the alveolar process. Therefore, there is a statistically proven decrease of absorption reduction. It should be used through the modeling of the mesh with the careful covering of the operated zone completely with a margin that varies from 2 to 4 mm. It should not be reprocessed and attention must be paid to the sterilization period and correct instrumentations. Regarding the restrictions, the professional is responsible for choosing the implementation site, that is, he must carefully consider its use in the esthetic environment. Due to its color, it may cause some discomfort from the social point of view.
Due to its malleability, it can be cut to adapt to the surgical sites and for being bio-electrically neutral thanks to the electrochemical passivation, it contributes to new bone growth without intercurrences.

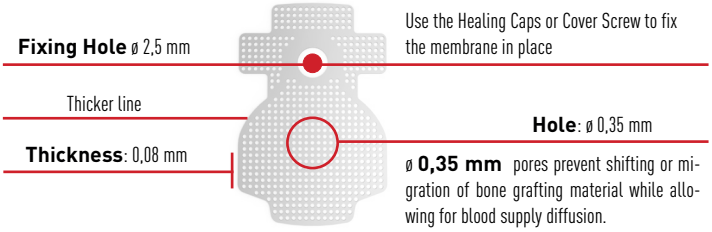
Surgitime Titanium *3d*

Customized *3d*imensional and preformed

Registro ANVISA **10392710009**

Certified by the European Community CE 0434

Original format



Flexibility

Easily produce a desired shape because has excellent flexibility.

Biocompatibility

Titanium material has an excellent biological stability, and it is beneficial to bone formation.

Built to promote bone formation

Customized for all degrees of bone defect is categorized as 3 different shapes:

Buccal
bone deficiency

Buccal Proximal
(medial - distal)
bone deficiency

Buccal Proximal
(medial - distal) and Lingual
bone deficiency

Type of *3d* membranes

161256

161256

Surgitime Titanium 3df 12 x 18 mm	161256
Surgitime Titanium 3dl 12 x 18 mm	161261

Surgitime Titanium

Titanium Mesh

Registro ANVISA **10392710028**

Certified by the European Community CE 0434 TGA Australia

Description

Surgitime Titanium (Titanium Mesh) is a nonabsorbable titanium screen made with pure Titanium (ASTM F-67) and has different sizes, thicknesses and hole diameters in order to meet the different clinical needs.
It is supplied sterile, as long as it is kept under ideal storage and preservation conditions and the integrity of the pack is not compromised. It is sterilized by Gamma Radiation (25kGy).

Purpose

Surgitime Titanium aids in bone neoformation, acting as a barrier that prevents the migration of epithelial cells and connective tissue, avoiding the competition with the bone graft.

Benefits

The titanium mesh provides excellent biocompatibility, occlusive property, its permeability enables the transmission of nutrients, easy use because it is very malleable and can be cut to adapt to surgical sites, has the capacity of keeping the regenerative space whole and enables vascularization of the graft on both sides (periosteum and endosteum). It was designed to ensure the three-dimensional reconstruction of alveolar bone defects and to facilitate bone replacement through suitable fixation of the replacement material.

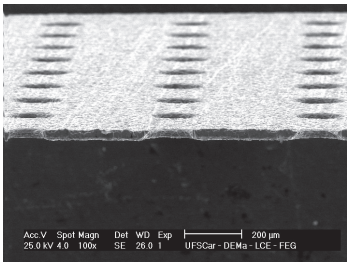
Advantages

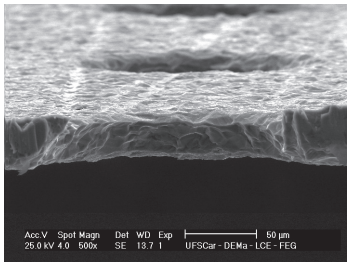
- **Easy to use in surgical sites (Flexible);**
- **No trauma on soft tissues;**
- **Suitable containment of the bone graft;**
- **Improves the space for bone regeneration;**
- **Ultra fine (0.04 mm and 0.08 mm);**
- **Biocompatible;**
- **Titanium Grade 1;**

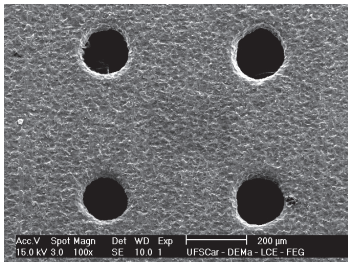
		Size • Thickness • Hole
16565	•	**Surgitime Titanium** 34 x 25 mm • 0,04 mm • 0,15 mm
16472	•	**Surgitime Titanium** 34 x 25 mm • 0,04 mm • 0,85 mm
16698	•	**Surgitime Titanium** 34 x 25 mm • 0,08 mm • Hole 0,85 mm
16605	•	**Surgitime Titanium** 60 x 60 mm • 0,08 mm • 0,85 mm
16714	•	**Surgitime Titanium** 120 x 120 mm • 0,08 mm • 0,85 mm
16732	•	**Surgitime Titanium** 200 x 200 mm • 0,08 mm • 0,85 mm

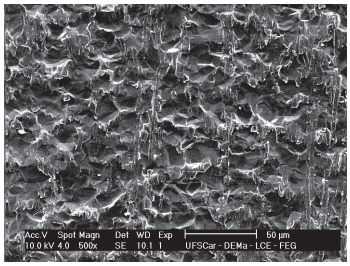
07097 Fixation Screw **ø1,20 x 3,00 mm**

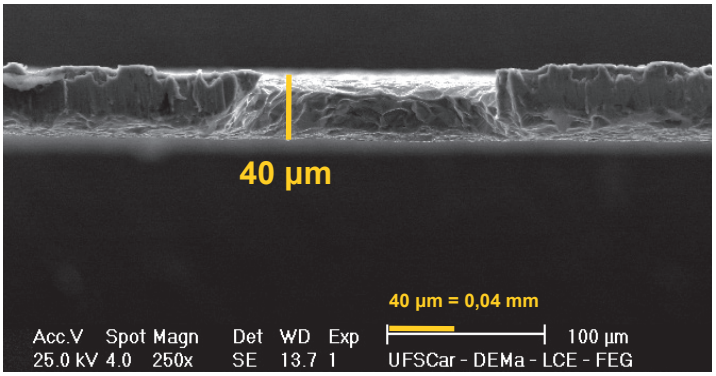
World's *thinnest* titanium mesh ... and *smallest* pores as well!

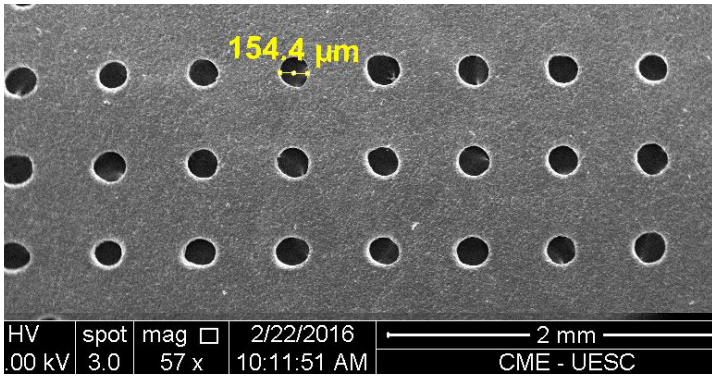












Surgitime Titanium (16565) - **Thickness 0,04 mm = 40µm** / **Hole 154,4µ = 0,154 mm**

Surgitime PTFE

Nonabsorbable Membrane (PTFE Porous)

Registro ANVISA **10392710009**

Certified by the European Community CE 0434 TGA Australia

Description

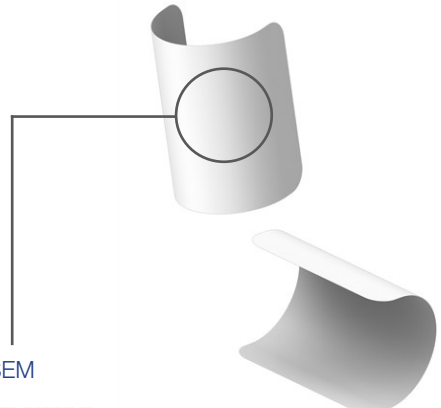
Surgitime PTFE is a nonabsorbable membrane composed of Polytetrafluoroethylene, with thickness of 0.10 or 0.25 mm. Surgitime PTFE is 100% biocompatible, synthetic and not of animal origin. It is indicated for in orthopedic, neural, maxillofacial procedures and other medical or dental surgery procedures.

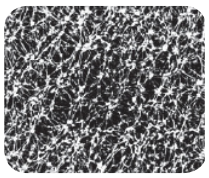
The polytetrafluoroethylene (PTFE) membranes or mechanical barriers for RTG (Guided Tissue Regeneration) has the aim of preventing the migration of epithelial and connective tissue cells, which would cause the inhibition of bone growth, promoting suitable space for the formation of a natural fibrin framework, the bone tissue precursor.

The membrane avoids the tissue competition between the connective tissue and the bone, and has the purpose of isolating the bone grafts promoting tissue regeneration.
Surgitime PTFE has selective permeability through its porosity, which enables the nutrition of the fibrin framework and simultaneously preventing the passage of bacteria.

		Thickness
16021 •	**Surgitime PTFE** 30 x 20 mm	0,10 mm
16044 •	**Surgitime PTFE** 30 x 20 mm	0,25 mm
16528 •	**Surgitime PTFE** " **H** " 30 x 20 mm	0,25 mm
16037 •	**Surgitime PTFE** 60 x 60 mm	0,10 mm
16051 •	**Surgitime PTFE** 60 x 60 mm	0,25 mm
16173 •	**Surgitime PTFE** 80 x 80 mm	0,10 mm
16530 •	**Surgitime PTFE** 80 x 80 mm	0,25 mm
16040 •	**Surgitime PTFE** 60 x 100 mm	0,10 mm
16052 •	**Surgitime PTFE** 60 x 100 mm	0,25 mm
16175 •	**Surgitime PTFE** 100 x 100 mm	0,10 mm
16532 •	**Surgitime PTFE** 100 x 100 mm	0,25 mm
16533 •	**Surgitime PTFE** 120 x 120 mm	0,25 mm

07097 Fixation Screw **ø1,20 x 3,00 mm**





POREX
Advanced Porous Materials

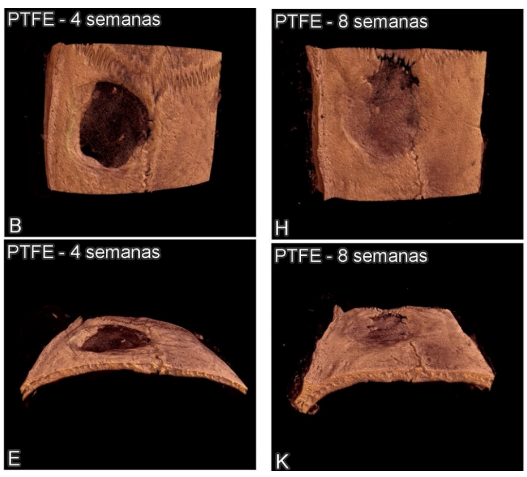
Features

- **High resistance (weight/resistance ratio);**
- **Chemically inert;**
- **High chemical resistance in aggressive environments;**
- **Low inflammability;**
- **Low coefficient of friction;**
- **Low dielectric constant;**
- **Good weathering properties;**

Micro CT: Morphometry Analysis

Three-dimensional images of the defects created in thecalvaria of mouse: Implanted PTFE membrane.

Scale bar: 2 mm.



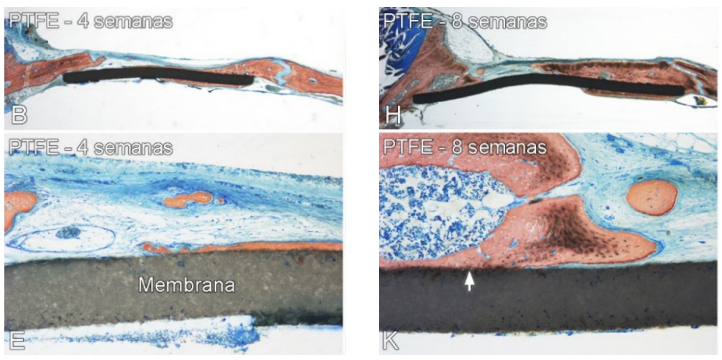
Lopes, Helena Bacha,
Efeito da Membrana de Poli(Vinilideno-Trifluoretileno)/Titanato de Bário sobre a Formação Óssea em Defeitos Criados em Calvárias de Ratos. Ribeirão Preto, 2014.

Light microscopy: Histological Analysis

Light microscopy of the defects created in the calvaria of mouse: Implanted PTFE membrane.

The newly formed mineralized bone tissue was observed in both sides of the membranes B (4 weeks) and H (8 weeks). The arrows indicate the close contact between bone tissue and the membrane of PTFE (K)

Colour: Stevenel's blue and Alizarin red
Scale bar: B and H = 2 mm; E and K = 200 micrometers.



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Efeito da Membrana de Poli(Vinilideno-Trifluoretileno)/Titanato de Bário sobre a Formação Óssea em Defeitos Criados em Calvárias de Ratos. Ribeirão Preto, 2014.

Bone Graft Kit

Registro ANVISA **10392719001**

Certified by the European Community CE 0434 TGA Australia

Bionnovation Bone Graft Kit composed by a complete line of instruments, are used for the fixation and stabilization of bone grafts and membranes (barriers) with the use of screws.

Single

Small and compact, the Bionnovation Graft Kit consists of a practical kit that contains all the necessary instruments (drills, drivers and screws) for fixation procedures of the bone block and membranes (barriers). It is produced with precise tolerances to ensure the easy pick-up of screws, stable transfer to the surgical site and rapid engagement in the maxilla or mandible. All components of the kit are organized and stored together to simplify the procedures.

Differential

The Bionnovation Graft Kit has Exclusive Digital and Contra-Angle Installation Drivers providing an additional ease in the handling of screws during surgical procedures.

Bionnovation Fixation Set **13118**

Driver Handle	13066
Philips Connection for Manual Drive (Ratchet) Short	13129
Philips Connection for Manual Drive (Ratchet) Long	13130
Twist Drill - Ø 1,0 x 15 mm	05051
Twist Drill - Ø 1,2 x 15 mm	05053
Twist Drill - Ø 1,4 x 15 mm	05055
Twist Drill - Ø 1,6 x 15 mm	05057
Philips Connection for Contra Angle Short	13132
Philips Connection for Contra Angle Long	13133
Installation rod - 70 mm	13127
Screwdriver handle	13085

Bone Grafting Screw

Registro ANVISA **10392719001**

Bionnovation Graft Screw

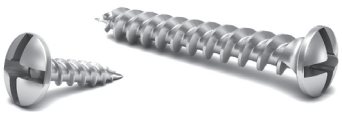
Certified by the European Community CE 0434 TGA Australia

Bionnovation Graft Screws: Are used for the fixation and stabilization of bone grafts and nonabsorbable membranes (barriers) used in guided bone regeneration (GBR).
The bone graft screws are temporary and must only stay within the bone reparation period because its purpose is to keep the graft and membrane stable for consolidation and bone neoformation.

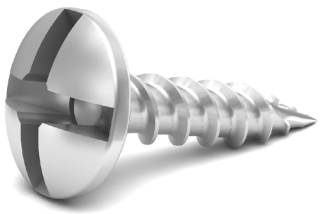
Versátil

The screws have a diameter of 1.2, 1.4, 1.6 and 1.8 mm and are available in lengths of 4, 6, 8, 10, 12 and 14 mm to enable the fixation of blocks of various shapes and sizes.

- **Self-drilling;**
- **Self-perforation;**
- Has a conical end and cylindrical, body;
- Head inert in cross form;
- Drilling speed: 200 rpm;
- Placement speed: 30 rpm;



	Ø 1,2 mm	*Ø 1,4 mm*	*Ø 1,6 mm*	*Ø 1,8 mm*
4 mm	07098	07145	07191	07236
6 mm	07092	07090	07093	07238
8 mm	07101	07148	07194	07240
10 mm	07103	07150	07094	07242
12 mm	07105	07152	07095	07244
14 mm	07107	07091	07198	07246



- Excellent screw retention;
- Reliability when carrying for installation in the surgical site;
- Produced in titanium alloy (F136 6Al 4V);

Bone Expander Kit

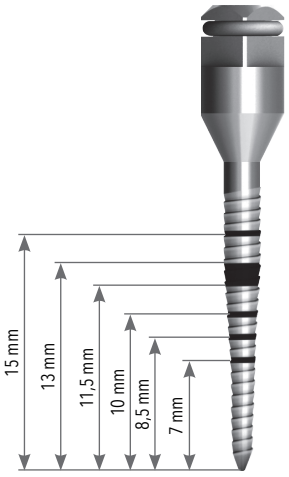
Registro ANVISA **10392710033**

Certified by the European Community CE 0434 TGA Australia

It is used for bone expansion and condensation, executing the preparation and instrumentation for installation of dental implants. The expanders can also help in the crest division techniques.

Threaded Expanders increase the clinical success, improving stability and increasing bone density.

13086



	Digital Driver Adaptor	13066
	Expansor self-tapping 1,7/2,4 mm	13113
	Expansor self-tapping 2,0/3,1 mm	13114
	Expansor self-tapping 2,5/3,4 mm	13115
	Expansor self-tapping 3,0/3,9 mm	13116

Osteotome & Expander Kit

Registro ANVISA **10392710026 / 10392710025**

Certified by the European Community CE 0434 TGA Australia

Osteotome Kit 13055

Summers Osteotome • 2,5 mm 13070

Summers Osteotome • 3,0 mm 13071

Summers Osteotome • 3,5 mm 13072

Summers Osteotome • 4,0 mm 13073

Martelo 13067

Expander Kit 13056

Straight Expander• 2,5 mm 13076

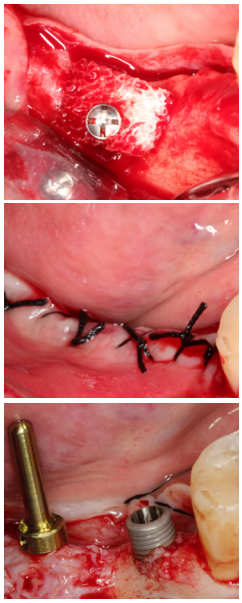
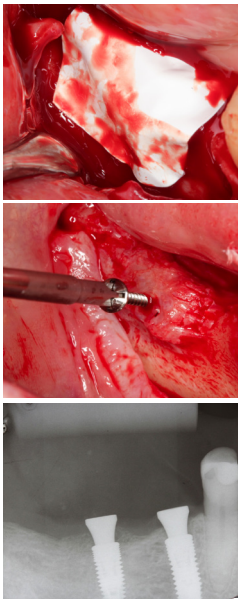
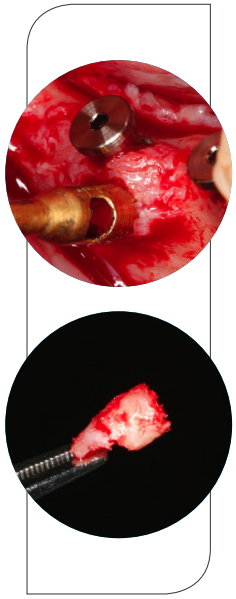
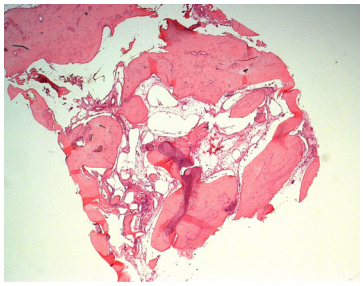
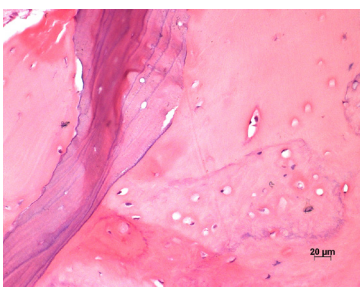
Straight Expander • 3,0 mm 13077

Straight Expander • 3,5 mm 13078

Straight Expander • 4,0 mm 13079

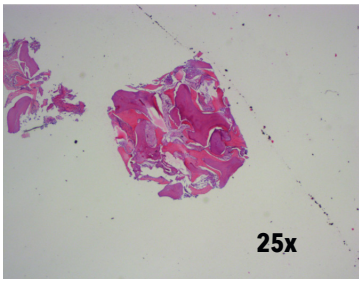
Bonefill blocco

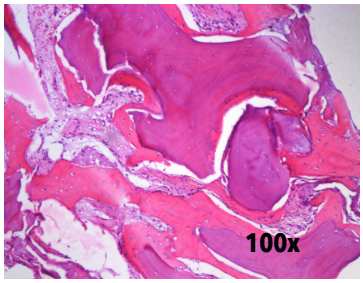
Images courtesy of **Fábio Mizutani, DDS MSc**

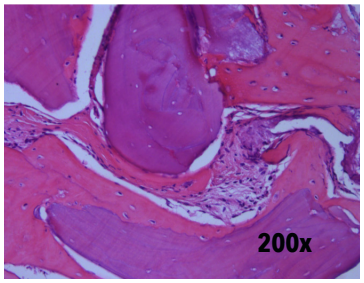






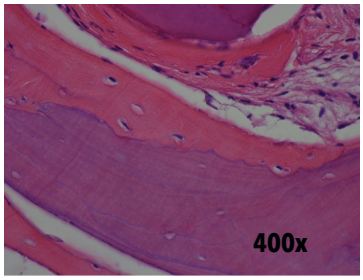
Bonefill porous

Images courtesy of **Danilo Reino Maeda, DDS MsC**





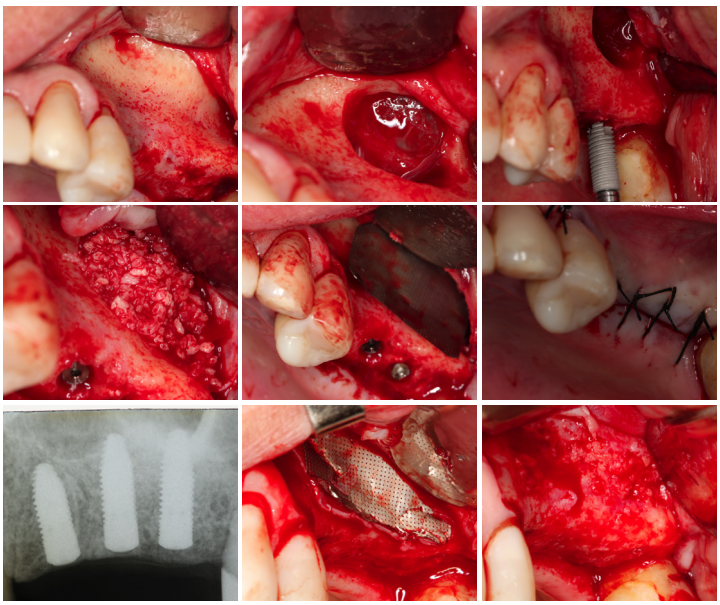
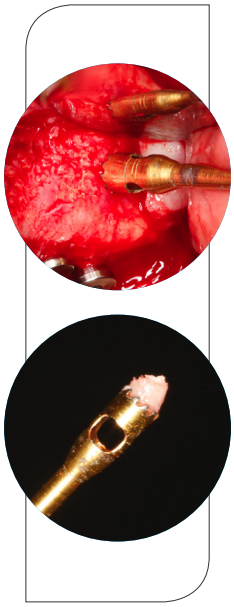
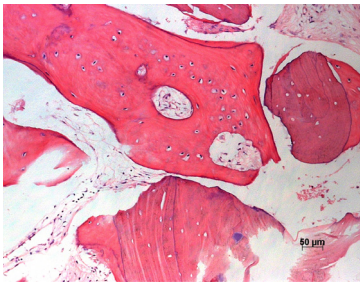


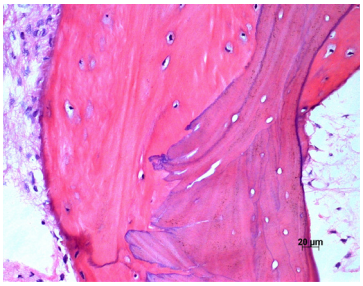


Histological results after maxillary sinus augmentation with **Bonefill Porous Medium** (6 months).

Bonefill porous

Images courtesy of **Fábio Mizutani, DDS MSc**

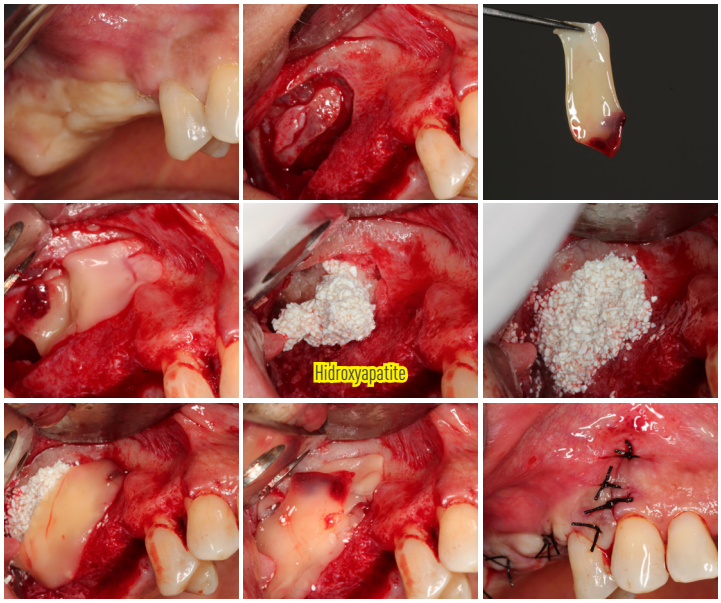


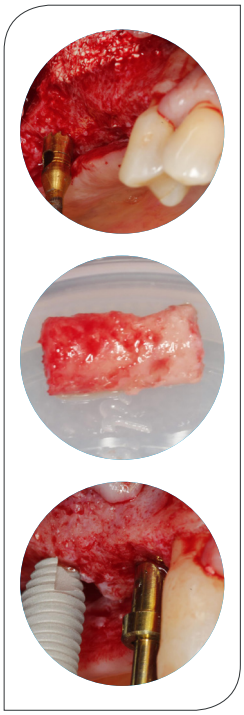
Histological results after maxillary sinus augmentation with **Bonefill Porous Medium**.

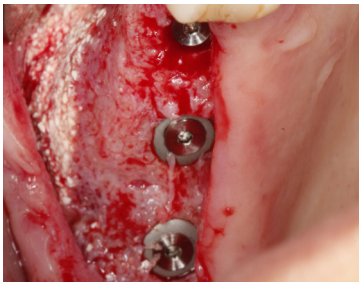
Hidroxiapatita

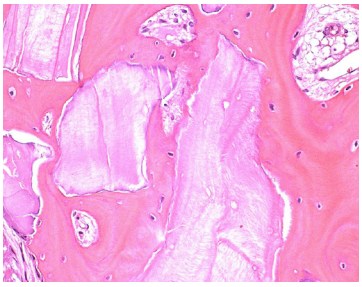
Histological Results

Imagens cortesias **Dra Mirian Cavalcanti Michelin**



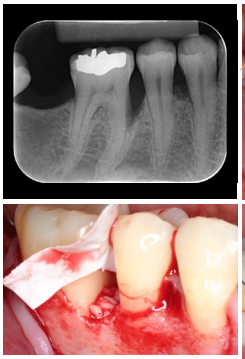


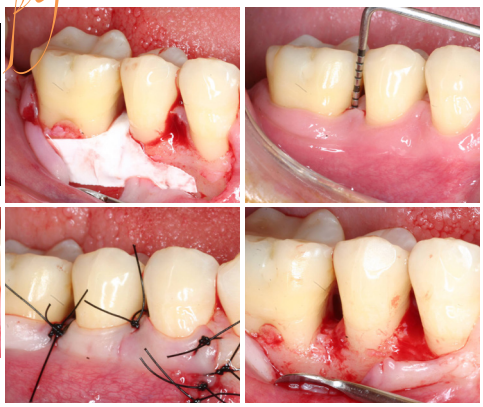


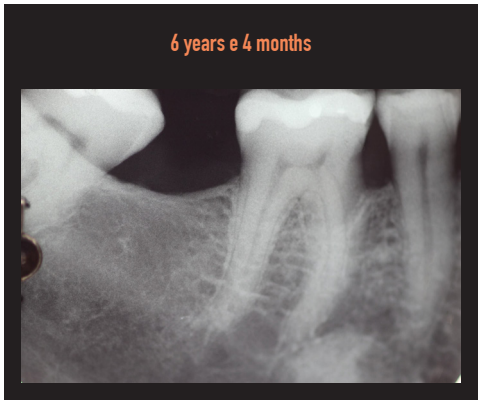


Bonefill *dense* **Surgitime** *ptfe*

Images courtesy of **José Henrique Villaça, DDS MSc**



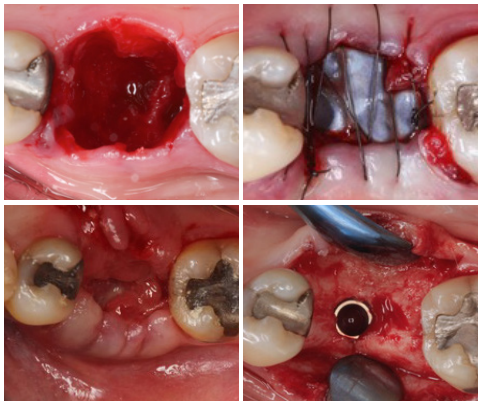




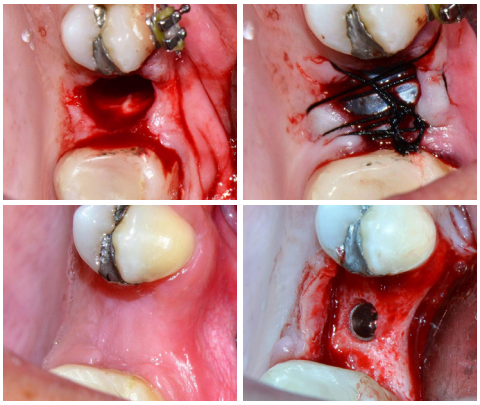
Bonefill Dense

6 years e 4 months

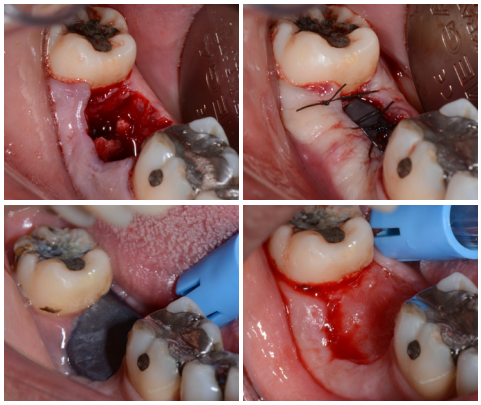
Surgitime *Seal*



Images courtesy of **Equipe REHABILITARE**



Images courtesy of **Ana Paula Moro Quinteiro, MSc**



Images courtesy of **Renato Martins, DDS MSc**

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Tel. +55 14 4009 2400

Distributor

www.bionnovation.com.br

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