BONE GRAFTING
Product Catalog
“We innovate to achieve the highest quality technology in surgical products.”
Bionnovation is a Brazilian company specialized in Biomaterials, offering advanced solutions for the replacement of Dental Elements and reconstruction of tissues. With more than 12 years of clinical and scientific knowledge this division of the company commitment to bring the benefits of dental implants accessible to all patients regardless of their bone structure.

The main mission of the company is to offer patients advanced features and innovative solutions bringing back the keys functions of the tooth structure and consequently the smile and well-being of everyone in these conditions. Bionnovation has invested in a full line of Biomaterials, keeping a line of products which include: biomaterials composed of bovine grafts, synthetic grafts, non-resorbable synthetic barriers and the titanium mesh.

Developed with cutting-edge technology, the accuracy, strict Quality Control, clinical and scientific testing provide for elevated results in clinical and aesthetic performance.

Bionnovation Clinical Solutions with excellent results, high success rate, and low discomfort to patients.

The Innovation with Quality

The Tests and Analyzes

Bionnovation has identified the specific procedures in manufacturing stages and throughout clinical and scientific testing which have been the basis to evaluate control and validation of each product. These tests and the clinical performance all ensure that the products available are in accordance to international standards and designed to meet their performance.

For each biomaterials, biocompatibility, genotoxicity, carcinogenicity and systemic toxicity tests are performed specifically evaluating the of irritation sensitivity post-implant and local effects according to ISO 10993 - Biological Evaluation of Medical devices.

The identification of the phases present in Biomaterials is Provided by the X-ray diffraction test.

Research & Development

Bionnovation is committed to quality and continuous improvement of its products and hence is always in search of upgrading and innovating in its scientific methods and techniques, having in view the most current trends of dentistry.

In this context, we have created a Program to encourage the research, with the objective of encouraging and supporting the researchers, so that they can use our products in their researches.

For more information, contact us via our website or e-mail address bionnovation@bionnovation.com.br
Surgitime Titanium is a non-absorbable titanium mesh made of pure Titanium (ASTM F-67). It comes in many different lengths, widths, thicknesses and hole diameters, in order to fulfill many different clinical needs. Titanium Surgitime is furnished in STERILE form (25 kGy Gama Radiation), provided the packaging's integrity has not been hampered.

Advantages
- Easy to handle to the surgical sites
- Supple
- No trauma on soft tissue
- Proper containment of the bone graft
- Improve space for bone regeneration
- Ultra thin (0.04mm and 0.08mm)
- Biocompatible
- Grade 1 titanium

Benefits
The titanium mesh provides excellent biocompatibility, and occlusive property, and it is permeable thus enabling the transmission of nutrients, and easy utilization because it is highly malleable and can be cut for surgical site adaptations, having the capacity to ensure an unaltered regenerative space and the possibility of graft vascularization on both sides (periosteum and endosseous). It has been designed to ensure a tridimensional reconstruction of alveolar bone defects and to facilitate bone replacement through the replacement material’s adequate fixation.

Purpose
It assists bone neoformation, acting as a barrier hindering the migration of epithelial cells and of the conjunctive tissue, thus avoiding competition with the bone graft.

Surgitime Titanium being used to secure graft material

Titanium Mesh

<table>
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<th>Sizes</th>
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<tbody>
<tr>
<td>Surgitime Titanium 34 x 25 mm • Thickness 0.04 mm / Round hole 0.15 mm</td>
<td>16565</td>
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<tr>
<td>Surgitime Titanium 34 x 25 mm • Thickness 0.04 mm / Round hole 0.85 mm</td>
<td>16472</td>
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<tr>
<td>Surgitime Titanium 34 x 25 mm • Thickness 0.08 mm / Round hole 0.85 mm</td>
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Surgitime Titanium SEAL (Titanium-Foil) are ideal for three-dimensional bone regeneration (GBR, Guided Bone Regeneration). If necessary, they can be secured with a matched easy-to-handle fixation system.

Material
Titanium-Foils – 0.04mm thickness.

Safety
Titanium is a safe material with an excellent track record in all surgical procedures.

Product Benefits and Strengths
The Surgitime Titanium SEAL (Titanium-Foil) provides microstability. Its surface is electropassivated chemically, so that it is bioelectrically neutral. Impermeable, it performs well even when exposed. The Surgitime Titanium SEAL is very flexible and can be used for covering periodontal defects or extraction sockets. It usually does not need fixation.

Clinical Procedure (Three-dimensional Augmentation)
The foil is trimmed to size with the edges carefully rounded, bent to shape by prestressing and secured with Bionnovation Bone Screws usually in the vestibulum. Foils can also be used in an exposed position as they are impermeable so that they protect the grafting material. On completion of treatment the pins are simply unscrewed and removed.

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.
Surgitime PTFE is a synthetic non-absorbable membrane that is 100% biocompatible and not derived from animal source. This membrane is considered to be a barrier for tissue regeneration. It is indicated for regeneration procedures. Polytetrafluoroethylene (PTFE) membranes or mechanical barriers for Guided Tissue Regeneration (GTR) are used to prevent migration of cells from epithelial and connective tissues, what would cause bone growth inhibition, thus providing a proper space for the formation of a natural fibrin structure, which is the bone tissue precursor. The membrane provides a space between the flap and the bone tissue and its tissue isolating property promotes tissue growth.

Surgitime PTFE are a high-density sheet with a surface structure and porosity suitable to prevent integration and passage of bacteria within the interstices of the material, and simultaneously facilitate adhesion of host cells to the material.

Indications
Surgitime PTFE is used in regenerative techniques of periodontics, implantology or any surgical procedure requiring a mechanical barrier, such as the treatment of horizontal and vertical periodontal defects, formation of new bone in alveolar ridges, protection against epithelial invagination in sinus lift procedures and formation of proximal areas around dental implants. For better adaptation to the receiving site can also be molded by using scissors or a sterile scalpel.

PTFE Membrane (Polytetrafluoroethylene)

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<tr>
<td>Surgitime PTFE 30 x 20 mm - Thickness 0,25 mm</td>
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Bionnovation Graft and Fixation Screw is a surgically-inserted medical and dental device used on bone graft surgery for the fixation of grafts and membranes on the maxilla or mandible.

- The screws are temporary, and they only remain within the bone repair period, as its purpose is to keep either the graft or the membrane in position and not for the purpose of osseo-integration;
- Self-tapping;
- It has a conic edge, cylindrical shaped body and cross-fit head and it is intended for the fixation of bone grafts and membranes.

Set Pieces

<table>
<thead>
<tr>
<th>Driver Handle</th>
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<tbody>
<tr>
<td>Philips Connection for Manual Drive (Ratchet) Short</td>
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<tr>
<td>Philips Connection for Manual Drive (Ratchet) Long</td>
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<tr>
<td>Twist Drill - Ø 1,0 x 15 mm</td>
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<td>Twist Drill - Ø 1,2 x 15 mm</td>
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<td>Installation rod - 70 mm</td>
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<td>Screwdriver handle</td>
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