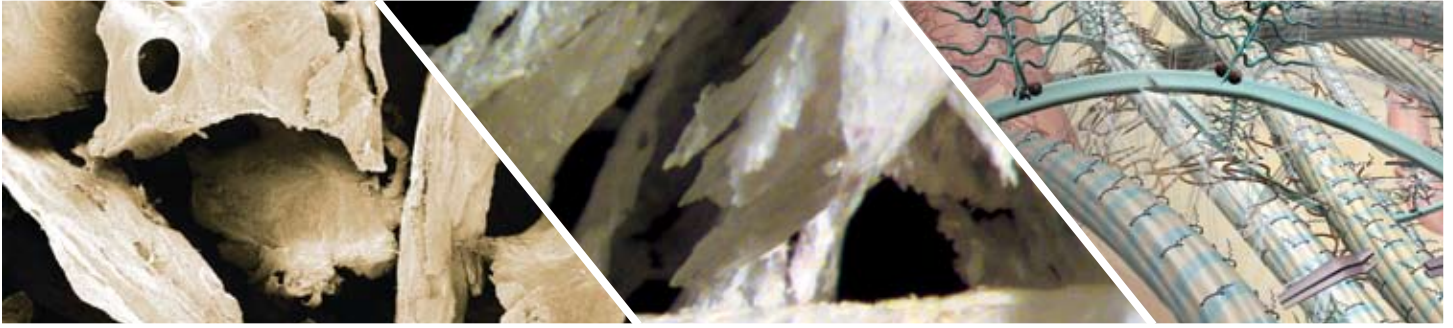


BIOHORIZONS[®]
regeneration



**Comprehensive Bone
Regeneration Solutions**

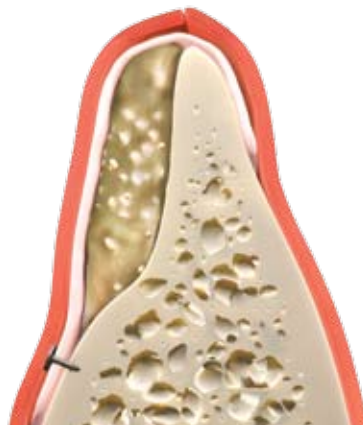
Comprehensive Bone Regeneration Solutions

Achieving functional and esthetic results when placing a dental implant requires an adequate amount of quality bone. Many implant sites that are not sufficient for dental implants due to inadequate bone height or width may be regenerated to allow for successful implant placement. In the U.S. bone grafts are used in 49% of dental implant procedures to ensure sufficient bone height and width.¹

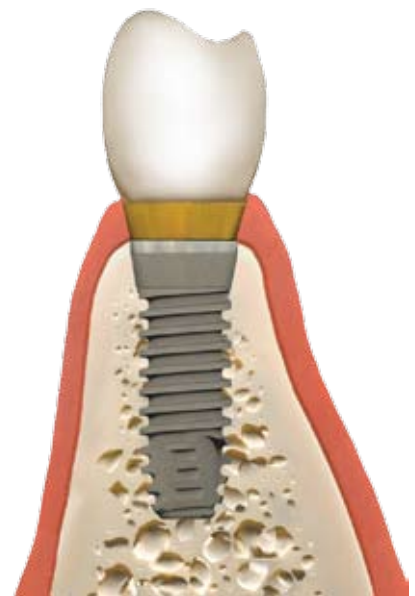
Our broad line of grafting products and ancillary instruments addresses all aspects of bone and soft tissue regeneration, allowing you to achieve predictable clinical and esthetic results. The BioHorizons complete line of Regeneration products equip you with solutions to deliver your patients back to their intended form and function.



Inadequate bone width for successful implant placement.



In some cases, a membrane will be used to protect and contain the graft.



Adequate bone width regenerated for placement of a dental implant.

AutoTac System Kit:

- Efficient “no touch” tack system
- Convenient one-handed delivery system
- Effective fixation of membrane

AutoTac System Kit™

The BioHorizons AutoTac System efficiently and effectively fixates membranes with the push of a button through the patented AutoTac Delivery Handle. The 2.5mm titanium alloy tacks remain securely in place through the healing process.



AutoTac System Kit includes:

- Delivery Handle
- Autoclavable Titanium Tack Cassette (pre-loaded with 21 Titanium Tacks)
- Forceps
- Sterilization Tray

Bone Fixation Screw Kit:

- Compact kit that is conveniently organized
- Versatility allows drills to be used with both latch-type and friction grip Handpieces
- Precise engineering to ensure effective delivery of screw

Bone Fixation Screw Kit

This precision-machined kit with titanium alloy components is essential for the stabilization of block grafts in Guided Bone Regeneration procedures. The kit is conveniently organized for efficient retrieval of instruments and screws. Cortical bone drills (for both latch-type and friction-grip handpieces), flexible titanium mesh and multiple screw sizes offer the versatility to customize the kit.

Bone Fixation Screw Kit includes:

- 24 Screws
 - (6) 1.4 x 8mm Micro Screws
 - (6) 1.4 x 10mm Micro Screws
 - (6) 2.0 x 10mm Mini Screws
 - (6) 2.0 x 12mm Mini Screws
- Flexible Micro Mesh
- Comprehensive Instrument Set
- Screwdriver Body
- Autoclavable Screw Block with Lid



Function Follows Form

- Controlled remodeling and resorption rate
- Space maintenance and volume enhancement
- Preferred particle size range
- Biocompatible mineralized matrix

Ideal particle size - Ideal composition

MINERoss[®] is a mixture of mineralized allograft cancellous and cortical chips that provide an osteoconductive scaffold to encourage bone growth. MINERoss has demonstrated excellent outcomes and provides you the features of having a combination of cancellous and cortical chips in one vial.

The cancellous chips provide a readily-resorbed, osteoconductive scaffold for the rapid ingrowth of bone cells leading to remodeling of the bone. The slower-resorbing cortical chips offer structure to maintain space during the bone remodeling phase. The unique blend of MINERoss allows you to achieve the regeneration of bone tissue essential for the support of dental implants.

Multiple applications

- Ridge and sinus augmentation
- Socket grafting
- Periodontal defects
- Composite grafting with DFDBA



Cortical chips provide space maintaining structure



Cancelous chips provide osteoconductive scaffold

MINERoss encourages solid bone growth through retaining the inherent osteoconductive properties of human bone. MINERoss serves as a scaffold for the in-growth of new bone structure.

Ridge Reconstruction

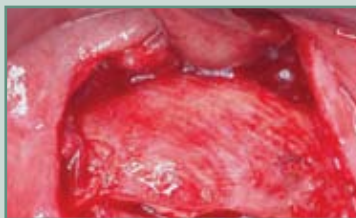
Photos courtesy of Dr. Yuval Zubery

MINERoss



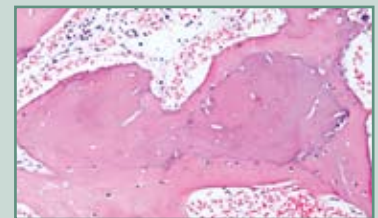
Defect site treated with MINERoss.

Post-op



5 month post-op demonstrating increased bone width.

Histology



Post-op histology illustrating vital bone surrounded by MINERoss particles.

Bone Regeneration

Photos courtesy of Dr. Michael Reddy, Birmingham, Alabama

Pre-op Radiograph



Pre-op radiograph indicating lack of bone structure.

MINERoss



Defect site treated with MINERoss.

Post-op Radiograph



Post-op radiograph indicating increase in bone structure.



Clinically Proven Bone Graft Substitute

- Validated for osteoinduction in an *in vivo* model
- Superior osteoconduction through Bone Fiber Technology
- Multiple forms deliver excellent handling characteristics
- Biocompatible with a history of safety²

Multiple Forms of GRAFTON DBM

Different formulations allow clinicians to adapt GRAFTON DBM (demineralized bone matrix) to particular indications. GRAFTON DBM is available in the following forms: Matrix Plugs, Putty (available in a jar or syringe) and Flex.

Osteoinductive and Indications

GRAFTON DBM has been proven osteoinductive in the athymic rat model and has the most robust osteoinductive response of all the DBM product offerings tested.^{3,*} Only GRAFTON DBM is indicated as a bone void filler, bone graft extender and bone graft substitute.⁴



Demineralized bone fibers (DBF)

Osteoconductive

GRAFTON DBM incorporates patented DBF (demineralized bone fibers) technology to ensure superior osteoconductivity. Studies show that a graft material which provides a scaffolding for new bone to build upon helps in the healing process.⁵

- **Extraction Site Grafting** - Simple to use, effective and cost efficient, GRAFTON DBM Matrix Plugs are recommended for extraction site grafting.
- **Sinus Grafting** - GRAFTON DBM Putty and Matrix Plugs are ideal for sinus grafting and are typically combined with a mineralized bone (MINERoss) source for this purpose.
- **Periodontal Regeneration** - Proven to regenerate bone, cementum and periodontal ligament, GRAFTON DBM Putty is a superb choice for regeneration in intrabony defects.⁶
- **Ridge Augmentation** - GRAFTON DBM Flex and Putty are frequently used to regenerate 2-4 wall defects and to provide lateral bone augmentation.



GRAFTON DBM Matrix Plugs - network of DBM Fibers



GRAFTON DBM Putty - network of DBM Fibers in a glycerol carrier



GRAFTON DBM Flex - network of pressed DBM Fibers

Processed By:  **OSTEOTECH**[®]
Innovators in Musculoskeletal Science

Periodontal Regeneration

Photos courtesy of Dr. James Mellonig, San Antonio, Texas

Post-op histological analysis indicates presence of bone and periodontal ligament opposite the notch demonstrating GRAFTON DBM's ability to induce periodontal regeneration.⁷

Pre-op



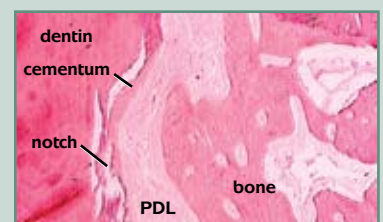
Pre-op probing depth > 10 mm.

GRAFTON DBM



The tooth was given a reference notch, the defect was filled with GRAFTON DBM.

Histology



Post-op histology showing bone and PDL opposite reference notch.



Excellent Biological Barrier

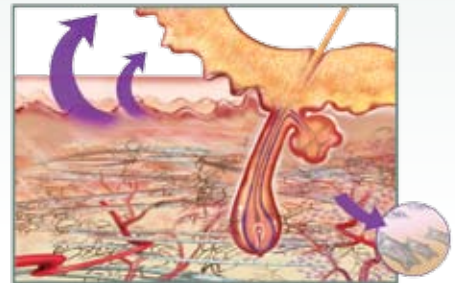
- Supports regeneration of host tissue
- Multiple size ranges to adapt to defect site
- May be left exposed to oral cavity⁸

Function and Esthetics

Guided Bone Regeneration (GBR) utilizing membranes can regenerate alveolar bone thereby widening the scope of implant indications. However membranes that resorb too slowly or do not resorb at all can lead to compromised esthetics and function. Conversely, AlloDerm GBR is remodelled into the host tissue producing **enhanced soft tissue and esthetics**.⁹

AlloDerm GBR Technology

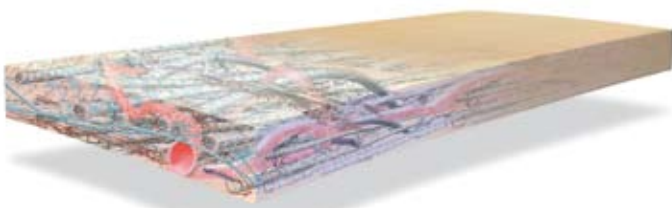
AlloDerm GBR allograft tissue is processed using LifeCell's patented matrix-preserving technology to remove epidermal and dermal cells, leaving behind an intact matrix consisting of collagens, elastin, vascular channels and proteins. The matrix supports the body's intrinsic tissue regeneration functions.



Processing of AlloDerm GBR - Removal of epidermal and dermal cells

AlloDerm GBR Minimizes Challenges

Wound dehiscence and membrane exposure are particular concerns in GBR procedures, and can lead to a reduction in the amount of regenerated bone. However, AlloDerm GBR left exposed during a GBR procedure has been shown to maintain the barrier function thus allowing the body to regenerate underlying bone.⁸



The processing of AlloDerm GBR produces an intact regenerative matrix.

Processed By:



AlloDerm GBR Characteristics

- Defect coverage comparable to other membranes⁸
- Maintains space during healing process
- Protects bone graft at the site
- Excellent remodeling characteristics
- Multiple size ranges to adapt to defect site
- Easy to handle once hydrated

Guided Bone Regeneration

Photos courtesy of Dr. Craig Misch, Sarasota, Florida

AlloDerm GBR is a biocompatible regenerative tissue matrix (0.7mm average thickness) that readily adapts to graft sites and can also be secured with sutures or tacks.

Grafted Sites



Extraction sites grafted with Grafton® DBM.

Left Exposed



AlloDerm in place to obtain tension-free closure.

Healthy Tissue



Post-operative result.



- Complete line of Bone Regeneration instruments
- Broad range of instruments to meet surgical needs
- Superior instrument design, materials and technology



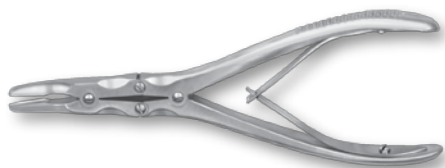
Periotome Set

Available in 4 different blade configurations - thick, thin and angled - and are color coded for easy identification. Gold and blue periotomes are indicated for buccal and lingual sides of the tooth. Gray and green periotomes are for the mesial and distal side of the tooth. Purchased as a complete set or individually.



Membrane Placement Instrument

Combination pointed and curved narrow placement design is ideal for use with periodontal membranes. The pointed end allows for membrane manipulation. The curved end is used for membrane positioning in and around flaps.



Double Hinged Rongeur

Used for trimming and recontouring alveolar and cortical bone. Also used to harvest bone from donor sites. The double action mechanism permits greater force to be exerted at the tip with minimal force at the handles.



Osteo-Crusher

Hand-held bone mill used to create particulate bone from harvested autogenous bone.



Osseous Scraper Straight

Collects autogenous bone in an atraumatic manner for use in augmentation procedures. Unique, rotatable blade ensures sharp cutting surface throughout harvest. Recommended for the ramus, symphysis and tuberosity areas. Single-patient use only.



Osseous Scraper Angled

Collects autogenous bone in an atraumatic manner for use in augmentation procedures. Unique, rotatable blade ensures sharp cutting surface throughout harvest. Optimized for the external oblique ridge. Single-patient use only.



Trephines

For use in harvesting autogenous bone. Set includes 6 trephines (2mm, 4mm, 6mm, 8mm, 10mm and 12mm) and autoclavable bur cushion. May also be purchased individually. Bur cuts to a maximum depth of 9.8mm. Used with latch-type contra-angle handpieces.

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* Not a predictor of human performance.

BioHorizons products are cleared for sale in the European Union under the EU Medical Device Directive 93/42/EEC. We are proud to be registered to ISO 13485:2003, the international quality management system standard for medical devices, which supports and maintains our product licences with Health Canada and in other markets around the globe.

Not all products are available in all markets. AlloDerm GBR tissue products must be shipped overnight.

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