

# BIOMATERIALS

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## BIOMATERIALS

# BONE GRAFTS & BIOMEMBRANE

BioMembrane

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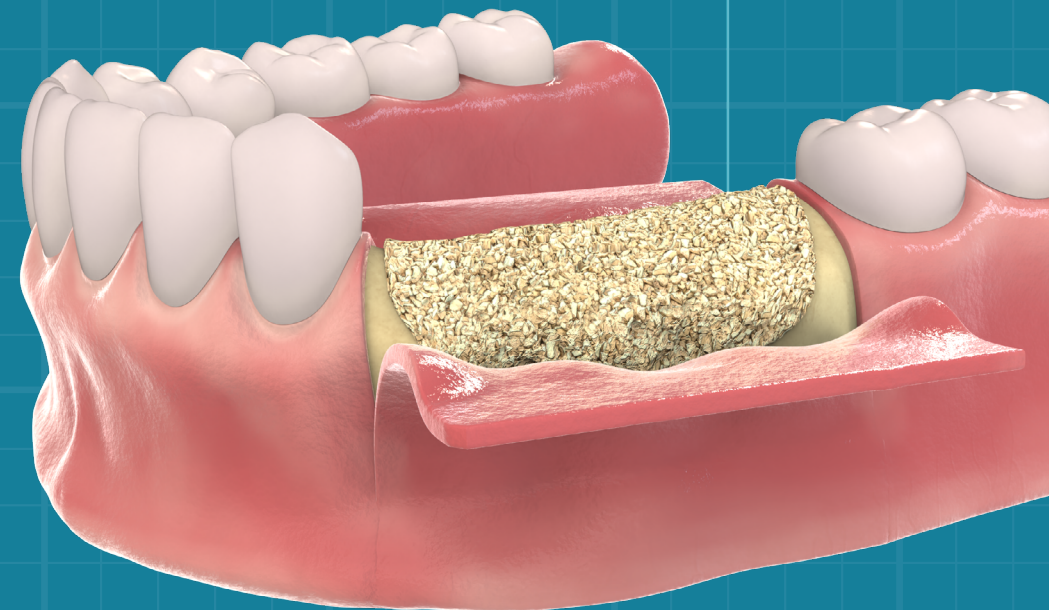
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VARIETY OF VOLUMES



Scan the QR Code to visit GDT Implants website



# BIOMEMBRANE

BioMembrane offers a dependable biodegradable barrier suitable for a wide range of osseous regenerative applications. Specifically designed for use during GBR (Guided Bone Regeneration) and GTR (Guided Tissue Regeneration), it fulfills all four essential requirements:

- Excludes unwanted cells and tissues.
- Creates and maintains the necessary space.
- Provides wound protection.
- Stabilizes the underlying blood clot.



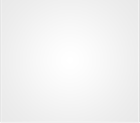
Through its biocompatible nature, BioMembrane actively enhances the binding of growth factors, platelet aggregation, osteoblasts, and osteoclasts. This stimulation promotes bone tissue remodeling and aids in repairing bone defects effectively.

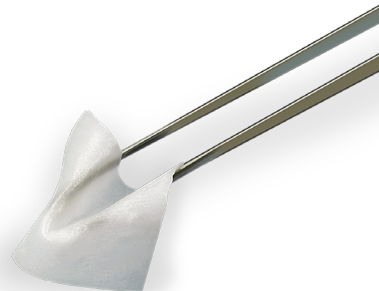
With its unique fibrillar matrix structure, BioMembrane boasts significantly higher suture pull-out strength, ensuring greater stability. Moreover, it offers a longer degradation profile (16-24 weeks), perfectly aligned with the healing time required in most GBR procedures.

Notably, BioMembrane demonstrates excellent resistance to a wide array of bacteria, making it an essential component for wound dressing.

Its natural ability to fight infections helps maintain wound sterility effectively. Engineered from highly purified type I collagen extracted from the dermis of young steer tissues, BioMembrane incorporates key factors such as increased resorption period, rapid hydration, excellent tensile strength, and ease of shaping and trimming, all of which contribute to optimal bone regeneration.



MEMBRANE SIZES			
VOLUME	15x15mm	25x25mm	30x40mm
			
CODE	GD-BM1515	GD-BM2525	GD-BM3040



## SYNTHETIC BONE GRAFT

Used as a filler and scaffold to facilitate bone formation and promote wound healing by acting as a mineral reservoir that induces new bone formation.

This graft is bioresorbable and has no antigen-antibody reaction.

GDT Synthetic artificial bone is chemically created from 60%  $\beta$ -tricalcium phosphate and 40% hydroxyapatite (e.g. bioglass and calcium sulfate) which are similar to that of bone and are capable of bonding chemically to bone and dentin.

Granules have a high micro-, macro- and intergranular porosity, which creates ideal conditions for the fast recovery of the bone. The material is radiopaque.

Both materials are biologically active, hypoallergenic, and have no counter-indications therefore this graft can be used in any surgical or dentine procedure.

### Advantages:

- Radiopaque.
- 100% Synthetic & Safe.
- Completely Resorbable.
- Unsurpassed Handling.
- Osteoconductive and Osteostimulative.

	TYPE	VOLUME	CODE
	Granules Bits: 500-1000 $\mu$ m	0.25cc	GD-SG025
	Granules Bits: 500-1000 $\mu$ m	0.5cc	GD-SG050
	Granules Bits: 500-1000 $\mu$ m	1.0cc	GD-SG100
	Granules Bits: 500-1000 $\mu$ m	2.0cc	GD-SG200
	Granules Bits: 500-1000 $\mu$ m	5.0cc	GD-SG500
	4 Blocks	5x5x5mm	GD-SG5X5
	2 Blocks	5x5x10mm	GD-SG5X10
	2 Cones	$\varnothing$ 5-15mm	GD-SG5X15

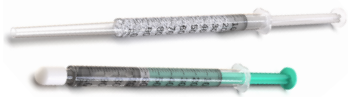
### Syringe:

GDT Synthetic Graft Paste is an osteoplastic material in a handy syringe form applicator. Synthetic Graft Paste is designed to apply granules in a more efficient and precise method to simplify the bone grafting procedures.

The synthetic graft paste system consists of two syringes:

- One with the beta-tricalcium phosphate granules coated with a thin shell of a biodegradable copolymer.
- Second is a solvent/activator. Instantly after the mixing, the granules stick together, and forming a plastic material with a high micro- and intergranular porosity, which can be submitted into the bone defect directly from the syringe.

The material form the bone defect by contact with blood or oral fluids, and quickly solidifies while forming an ideal and 100% mechanical stable environment.

	TYPE	VOLUME	CODE
	2 Syringes	0.5cc graft & 0.25cc solvent	GD-SP100



## BOVINE BONE GRAFT

Used as a filler and scaffold to facilitate bone formation and promote wound healing. This graft is bioresorbable and has no antigen-antibody reaction.

Based on a bovine 20/80 cortical-cancellous bone mineral matrix, making it perfect choice use in guided bone regeneration procedures.

This is a Xenograft bone material is harvested from cows as a part of a controlled manufacturing process.

This bone is specially treated to make it sterile and biocompatible.

Physical properties (i.e., composition, morphology, and restorability) are exceptionally reproducible.

The bio-functionality of Bovine graft is characterized by its topographic structure, hydrophilic properties and the biologic interaction that supports reliable bone formation. Bovine (cow) bone is considered as a safe and very effective material for bone grafting with dental implants.

GDT Bovine graft is sterilized by gamma-ray and contains no cellular elements.

It's considered the highest-grade bone substitute in dental bone regeneration – meeting the requirements from clinicians for predictable outcomes.

### Advantages:

- Radiopaque.
- 100% Natural bovine.
- Fully sterilized and contains no cellular elements.
- Higher implant survival rates, comparable with implants placed in the native bone.
- Completely resorbable.
- Optimal osteointegration - high porosity supports osteoconduction.

	TYPE	VOLUME	CODE
	Granules Bits: 200-1000 µm	0.25cc	GD-BG025
	Granules Bits: 200-1000 µm	0.5cc	GD-BG050
	Granules Bits: 200-1000 µm	1.0cc	GD-BG100
	Granules Bits: 200-1000 µm	2.0cc	GD-BG200
	Granules Bits: 200-1000 µm	5.0cc	GD-BG500
	4 Blocks	5×5×5mm	GD-BG5X5
	2 Blocks	5×5×10mm	GD-BG5X10
	2 Cones	Ø5-15mm	GD-BG5X15

### Syringe:

GDT Bovine Graft BioPaste is designed to apply granules in a more efficient and precise method to simplify the bone grafting procedures.

This highly purified material comes in easy-to-use pre-filled sterile syringes and is dedicated for single use.

	TYPE	VOLUME	CODE
	Syringe	0.5cc graft	GD-BP050
	Syringe	1.0cc graft	GD-BP100



BIOMATERIALS

# ABSORBABLE SPONGES

HemoSponges

160-162

PerioFocus

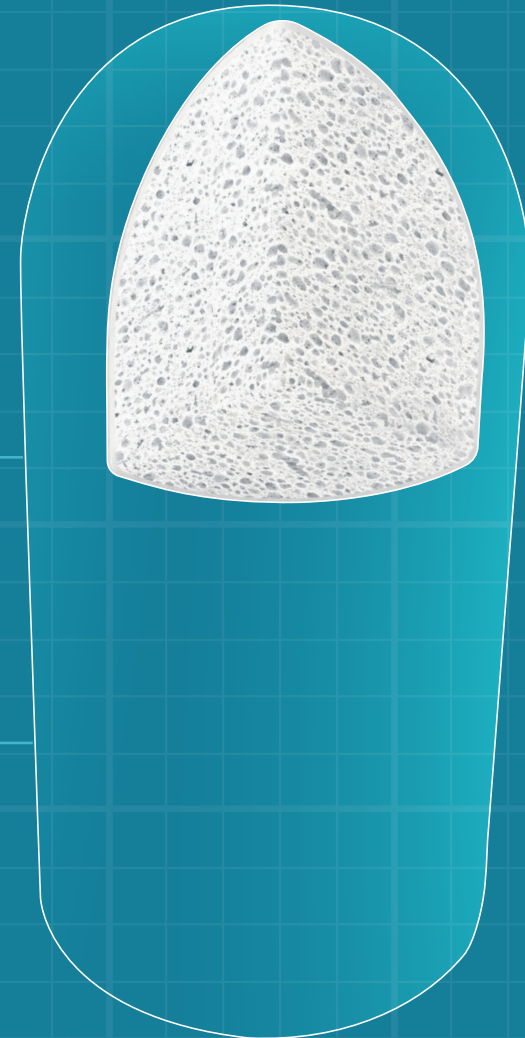
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Bonegrafting Plugs

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 COLLAGEN

 ABSORBABLE



### GDT HEMOSPONGE - Hemostatic Non-Sterile Sponge 99.7% Pure

- **SIZE:** 10x10x10mm

GDT Hemosponge Absorbable Gelatin Sponges are non-sterile, surgical sponges prepared from a specially treated collagen material. Made to aid in providing hemostasis (cessation of bleeding). May be used in combination with antibiotics, Thrombin, chemotherapeutics without reduction of the sponge's hemostatic effect. The porous structure of the sponges stops the bleeding, absorbs the wound secretions, and effectively help the wound to start healing.

**Advantages:**

- Non-toxic, hypoallergenic and does not provoke an immune reaction, 100% biocompatible.
- Seals up the bleeding tissues immediately.
- Excellent liquid absorption ability up to 40 times of its weight.
- Completely absorbed in 3 weeks.
- No side effects.



CODE	CONTENT
SPO-ST	50 Pieces

### GDT HEMOSPONGE - Hemostatic Sponge With Iodoform

Hemostatic antiseptic collagen sponge is used for the treatment and prevention of inflammatory complication in surgical dentistry and periodontics: after tooth extraction, in particular, the treatment of alveolitis and periodontal abscesses, as well as the filling of periodontal pockets after a local anti-inflammatory therapy or curettage.

GDT Hemosponge consists of lyophilized collagen, which introduced hemostatic components affecting the separate stages of blood coagulation, to stop capillary bleeding, and anesthetic components (lidocaine).

As an antiseptic sponge, GDT Hemosponge contains Iodoform that in contact with living tissues allocates iodine, providing antimicrobial action, enabling the formation of granulation tissue, and also has astringent and anti-inflammatory properties. GDT Hemosponge does not have local irritating and bio-toxic action, stimulates the regeneration of tissues in the healing stage. It does not require a doctor's intervention to remove it, full absorption happens after a few days.



CODE	CONTENT
SPO-50	50 Pieces



### GDT HEMOSPONGE - Hemostatic Sterile Sponge

- **SIZE:** 10x10x10mm

GDT Hemosponge is a non-toxic, non-allergic, non-immunogenic, non-pyrogenic and overall biocompatible material used for the treatment and prevention of inflammatory difficulties in surgical dentistry and periodontics. After tooth extraction, in particular, the treatment of alveolitis and periodontal abscesses, as well as the filling of periodontal pockets after a local anti-inflammatory therapy or curettage.

**Advantages:**

- Promotes blood clot formation and rapid healing of wounds.
- Absorbs approximately 40-50 times of its weight, and adheres easily to the bleeding site.
- Full absorption happens in 3 weeks.



CODE	CONTENT
SPO-BL	32 Pieces

### GDT HEMOSPONGE SILVER - Hemostatic Sterile Sponge

- **SIZE:** 14x7x7mm

GDT Hemosponge Silver is a gelatin collagen sponge of hemostatic action to which 5% colloidal silver is added. It facilitates optimum wound treatment when applied to a surgical cavity and can be cut to the right size to fit smaller wound cavities. This prevents the formation of fissures and secondary cavities which, without GDT Hemosponge Silver could form by contraction of blood coagulum and trigger infection due to the invasion of contaminated saliva.

**Colloidal Silver:**

The addition of colloidal silver has an antibacterial effect and does not develop any body resistance. Unlike other potential antibacterial additives, colloidal silver cannot be washed away from the sponge so that its insolubility procedure a long-lasting depot effect.



CODE	CONTENT
SPO-SIL	24 Pieces

### GDT HEMOSPONGE - Hemostatic Sterile Sponge 100% Pure

- **SIZE:** Ø10, 20mm.

Premium wound dressing solution crafted from 100% bovine collagen type 1, ensuring optimal purity and sterility.

Features a bioabsorbable collagen protein matrix, allowing it to naturally degrade as the wound heals, free from any harmful residues, toxins, or pyrogens.

Beneficial in post-extraction protocols by minimizing alveolar ridge atrophy, preserving the integrity and structure of the extraction site for improved healing.

With its unique collagen matrix structure, the sponge offers additional support to blood clots, preventing the unwanted growth of soft tissue into the extraction alveoli and promoting optimal healing conditions for enhanced clinical outcomes.

Moreover, GDT Hemosponge excels in controlling bleeding and stabilizing blood clots, ensuring efficient hemostasis and minimizing complications.



CODE	CONTENT
SPO-PS100	10 Pieces

### GDT PERIFOCUS - Chlorhexidine Chip

For insertion into periodontal pockets as an adjunct to scaling and root planning procedures for reduction of pocket depth in patients with periodontitis.

After insertion, the periodontal pocket fills with saliva and the chip expands before it gradually dissolves.

This enables free circulation of chlorhexidine gluconate throughout the pocket.

A single chip contains 2.5mg chlorhexidine gluconate.

40% of the dose is released within the first 24 hours.

The release of the remaining 60% of the antibacterial components takes up to 10 days.



CODE	CONTENT
SPO-PER	5 Pieces

#### Advantages:

- Non-antibiotic.
- Biodegrades after placement.
- Suppresses the growth of bacteria in subgingival plaque.
- Simple and fast insertion.
- Highly efficient against periodontitis.

### GDT SPONGE GRAFTING PLUG

- **SIZE:** 10x20mm

GDT Sponge Grafting Plug offers a unique one-step solution for bone grafting procedures.

The Sponge Grafting Plug is a superb combination of 2 biomaterials: pure bovine collagen plug filled with calcium phosphate/hydroxyapatite formula.

The bioactive, calcium phosphate-based graft inside the plug has physicochemical properties similar to human bone mineral.

With GDT Sponge Grafting Plug no membrane is needed.

Being highly hydrophilic, the plug easily absorbs blood and fluid.

As the resorption process begins, calcium ions are released, creating an environment favorable to rapid bone growth.

On the day of placement, the material is radiolucent, becoming radiopaque 3-6 months later as it is replaced with native bone.



CODE	CONTENT
SPO-GD	5 Pieces

### GDT SPONGE BOVINE GRAFTING PLUG

- **SIZE:** 10x20mm

GDT Sponge Bovine Grafting Plug has two purposes, it provides sealing up properties of bleeding tissues and control oozing and missing bone filling while encouraging new bone tissue growth.

The Plug has internal Xenograft bone material, derived from bovine 20/80 cortical-cancellous bone mineral matrix and an external layer made of purified first-grade collagen.

This bovine bone material is harvested from cows as a part of a controlled manufacturing process. This bone is specially treated to make it sterile and biocompatible.



CODE	CONTENT
SPO-BG	5 Pieces

### SPONGE GRAFT DOUBLE SIDED TOOL

Double-ended instrument for inserting and pushing sponge graft plug directly into the tooth socket.



CODE
SGT

