

Geistlich
Bio-Gide[®]

The Original
remains unique.



LEADING REGENERATION

Geistlich – leading regeneration

Geistlich is the world leader in regenerative dentistry.^{2A, 2B}

We transform natural biomaterials into safe and reliable treatment methods that recreate lost structures. Our family of products connect regenerative professionals and patients around the world. At the core of this connection is trust.

It is this trust and an innovative spirit at Geistlich that create a unique environment for developing evidence-based treatment solutions. For 160 years, our family-owned Swiss company has pioneered the technological advances that make clinical treatment with natural biomaterials the preferred choice for predictable regenerative outcomes.

Today, Geistlich continues this spirit of innovation and scientific collaboration in North America.



Geistlich Bio-Gide® – the original

Since its introduction more than 15 years ago, Geistlich Bio-Gide® has redefined predictability in guided tissue/bone regeneration.

As the first membrane of its kind, Geistlich Bio-Gide® was originally developed to eliminate problems associated with soft tissue dehiscences, as well as to offer improved handling characteristics. This naturally resorbable non cross-linked collagen membrane has unique properties built into its bilayer structure that support bone and periodontal regeneration underneath as well as soft tissue healing over the barrier.

Supported by more than 100 publications, the original Geistlich Bio-Gide® has also become the reliable choice for:

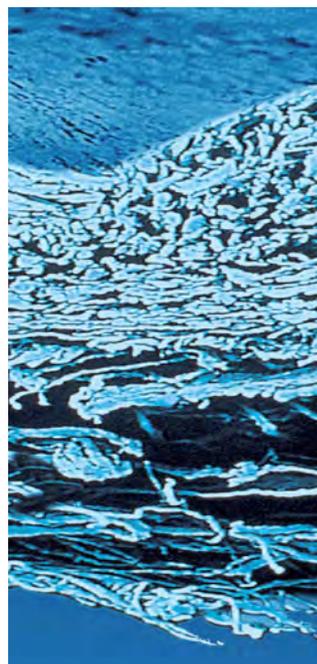
- Optimal soft-tissue healing^{4,5}
- Excellent tissue integration^{3,8}
- Early and complete vascularization^{1,3}
- Undisturbed bone regeneration^{1,11}
- Predictable outcomes in the esthetic zone⁹
- Ease of use in a wide range of indications

For optimal bone and soft-tissue healing, a barrier function is just the beginning.

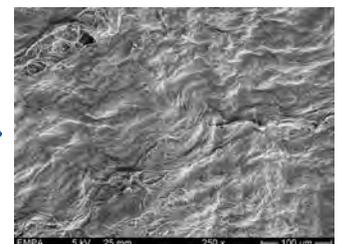
Geistlich Bio-Gide® is designed with a smooth, compact upper layer which is an ideal catalyst for the attachment of fibroblasts¹⁻¹¹ that lead to favorable healing of the gingival tissue. The dense porous lower layer acts as a guide for osteoblasts which become the foundation^{1,3-11} for optimal bone formation and healing. These properties, in combination with an optimally timed barrier function, prevent premature growth of soft tissue into the defect and create an environment for the appropriate cascade of biological events. For specific clinical indications where both a physical matrix and a barrier are needed, Geistlich Bio-Oss® is a natural companion to Geistlich Bio-Gide®.*

* Additional information regarding indications for Geistlich Bio-Gide® and Geistlich Bio-Oss® can be found on the back panel of this brochure.

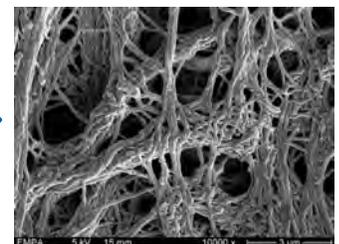
Geistlich Bio-Gide® – natural bilayer structure



Geistlich Bio-Gide® with a natural bilayer structure (scanning electronic microscope image, 100x).



The smooth side of Geistlich Bio-Gide® prevents soft tissue from growing into the defect (scanning electronic microscope image, 250x, Dr. Bufler, Wolhusen).



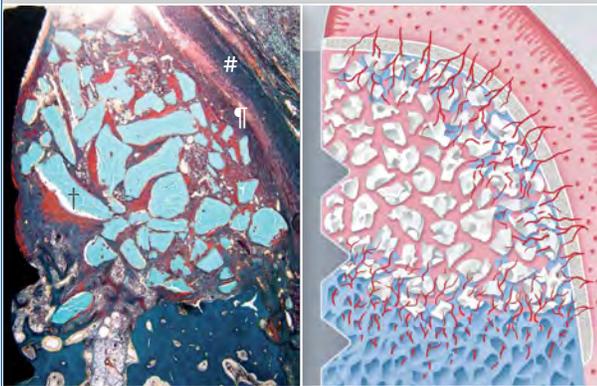
The porous side of Geistlich Bio-Gide® serves as a framework for bone cells and blood vessels.³⁻⁵ (scanning electronic microscope image, 10,000x, Dr. Bufler, Wolhusen).

Early vascularization encourages bone and periodontal regeneration

The unique properties of Geistlich Bio-Gide® allow for early vascularization of the membrane and play a central role in the angiogenesis fundamental to new bone and periodontal tissue regeneration.^{1,6}

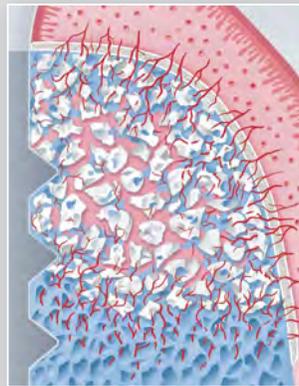
Membrane vascularization is a key step in bone and periodontal regeneration with Geistlich Bio-Gide®:

At 2 weeks*



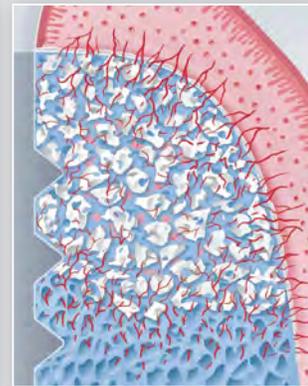
The dense network of blood vessels is surrounded by newly formed trabeculae of woven bone at two weeks. Due to early and complete vascularization, new bone formation occurs not only adjacent to the bone defect but also directly underneath Geistlich Bio-Gide®.¹

At 6 weeks*



Wound healing is characterized by ongoing bone formation at six weeks. The blood clot has transformed into a primary reinforced scaffold of woven bone.¹

At 12 weeks*



Within 12 weeks, healing is primarily characterized by a continual filling of the intertrabecular spaces where maturation to lamellar bone begins.^{1,7}

* dog model

#		Geistlich Bio-Gide®
†		Geistlich Bio-Oss® Collagen
¶		newly formed bone

Membrane resorption
(adapted from Schwarz 08)



New bone formation
(adapted from Schwarz 08)



2 weeks*

6 weeks*

12 weeks*

Geistlich Bio-Gide® – optimally timed for enhanced performance

Optimal esthetics with Geistlich Bio-Gide®

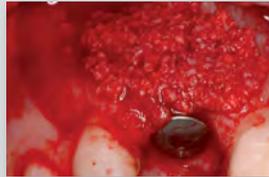
Optimal bone formation is crucial for predictable long-term results, leading to successful hard tissue contour and soft-tissue stability.⁹

Predictable esthetic outcomes

Case: Prof. Dr. Buser, Berne



With a visible buccal dehiscence, the implant has been placed in an optimal position.



Geistlich Bio-Oss® is mixed with blood and placed in the defect.



Geistlich Bio-Gide® is applied in two layers to enhance stabilization of the augmentation material.



Individual results may vary.

8 weeks post-operative result. The augmentation site with an esthetically pleasing contour and soft-tissue healing.

Case: PD Dr. Jung, Zurich



Visible bony defect after flap elevation.



Following implant placement, the defect is filled with Geistlich Bio-Oss®.

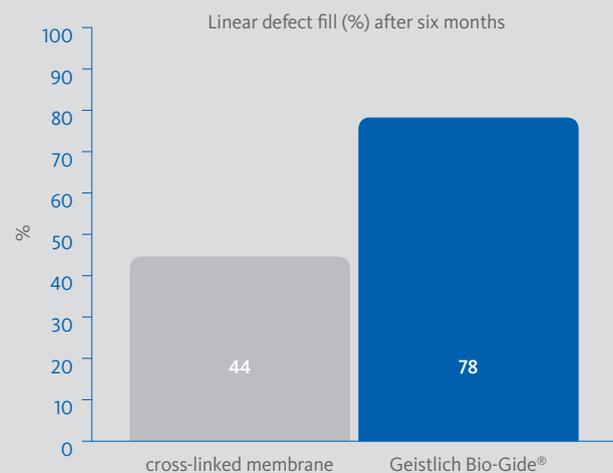
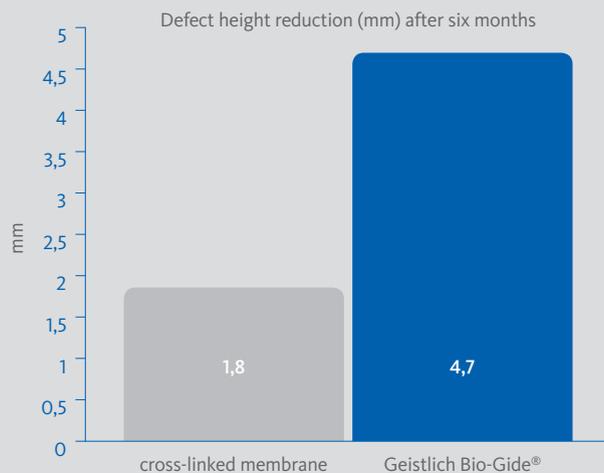


Placement of Geistlich Bio-Gide® over the augmentation material.



Soft tissue healing and excellent esthetic outcome.

Predictable bone formation with Geistlich Bio-Gide®

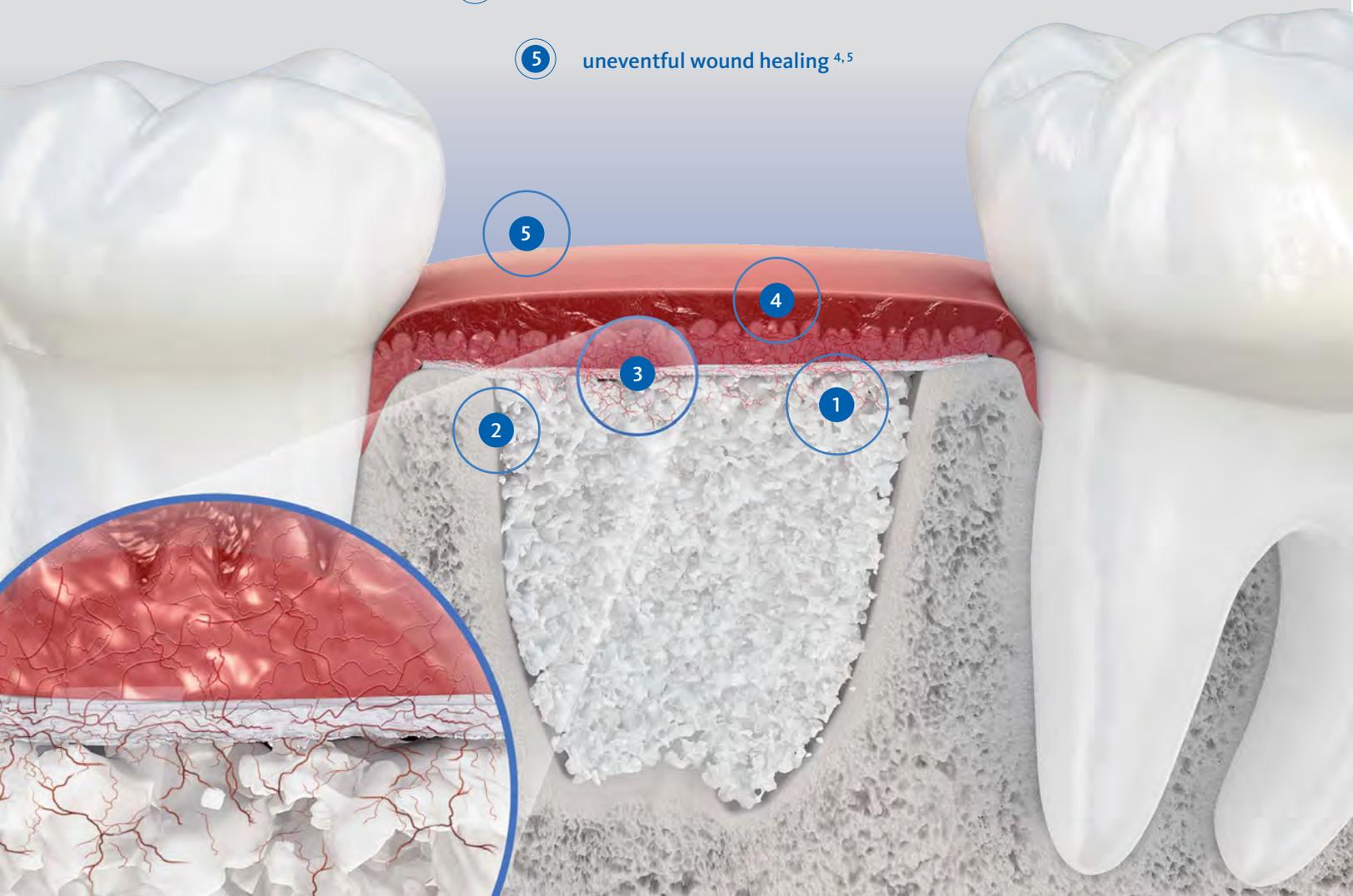


In a randomized controlled clinical trial, patients treated with Geistlich Bio-Gide® showed significantly greater defect fill than those with an experimental cross-linked membrane. Insufficient bone regeneration was associated with the cross-linked membrane having a prolonged resorption time, while substantial defect fill was observed with Geistlich Bio-Gide®.¹⁰

Geistlich Bio-Gide® - optimal results for predictable bone regeneration

Advantages of early vascularization:

- ① supports bone formation^{1,6}
- ② wound stabilization^{3,4}
- ③ oxygen and nutrient transfer^{3,6}
- ④ tissue integration^{3,8}
- ⑤ uneventful wound healing^{4,5}



DOCUMENTED: More than 700 publications
RELIABLE: More than 25 years of clinical experience
EXPERIENCED: 160 years of Geistlich collagen competence



Geistlich Bio-Gide®

Resorbable bilayer collagen membrane
 13 mm x 25 mm
 25 mm x 25 mm
 40 mm x 50 mm



Geistlich Bio-Oss®

Natural bone substitute
 Small granules (0.25 – 1 mm)
 Quantities: 0.25 g, 0.5 g, 2 g, 5 g (1 g ≈ 2 cc)
 Large granules (1–2 mm)
 Quantities: 0.5 g, 2 g (1 g ≈ 3 cc)



Geistlich Bio-Oss® Collagen

Geistlich Bio-Oss® (small granules)
 + 10 % collagen (porcine)
 100 mg (0.2–0.3 cc)
 250 mg (0.4–0.5 cc)
 500 mg (0.8–1.2 cc)

References:

- Schwarz F et al. Clin. Oral Implants Res. 2008; 19 : 402-415
- Data Research Inc., US Dental Bone Graft Substitutes and other Biomaterials Market, 2011.
- Data Research Inc., European Dental Bone Graft Substitutes and other Biomaterials Market, 2010.
- Schwarz F et al., Clin. Oral Implants Res. 2006; 17 : 403-409
- Becker J et al., Clin Oral Implants Res. 2009; 20(7) : 742-749
- Tal H et al., Clin Oral Implants Res. 2008; 19(3) : 295-302
- Wang Y et al., Ann N Y Acad Sci. 1117, 2007 : 1-11
- Jerosch J, Bader A, Uhr G, Knochen. 2002 Georg Thieme Verlag. ISBN 3-13-132921-1
- Rothamel D et al., Clin. Oral Implants Res. 2005; 16 : 369-378
- Buser D. et al., J Periodontol. 2011 ; 82(3) : 342-349
- Annen BM et al., Eur J Oral Implantol. 2011: in press
- Zitzmann NU et al., Int J Oral Maxillofac Implants. 1997; 12 : 844-852

Geistlich Bio-Oss®
 and Geistlich Bio-Gide®
 Available directly from
 Geistlich Pharma North America

Customer Care
Toll-free 855-799-5500

www.GeistlichOnline.com
www.biooss-na.com
www.biogide-na.com

Geistlich Pharma North America, Inc.
 202 Carnegie Center • Princeton, NJ 08540

CAUTION: Federal law restricts these devices to sale by or on the order of a dentist or physician.

Indications:

Geistlich Bio-Gide® is indicated for the following uses: Augmentation around implants placed in immediate and delayed extraction sockets; Localized ridge augmentation for later implantation; Alveolar ridge reconstruction for prosthetic treatment; Filling of bone defects after root resection, cystectomy, removal of retained teeth; GBR in dehiscence defects; and GTR procedures in periodontal defects.

Warnings:

As it is a collagen product, allergic reactions may not be totally excluded. Possible complications which may occur with any surgery include swelling at the surgical site, flap sloughing, bleeding, dehiscence, hematoma, increased sensitivity and pain, bone loss, redness, and local inflammation.

Indications:

Geistlich Bio-Oss® and Geistlich Bio-Oss Collagen® are indicated for the following uses: Augmentation or reconstructive treatment of the alveolar ridge; Filling of periodontal defects; Filling of defects after root resection, apicoectomy, and cystectomy; Filling of extraction sockets to enhance preservation of the alveolar ridge; Elevation of the maxillary sinus floor; Filling of periodontal defects in conjunction with products intended for Guided Tissue Regeneration (GTR) and Guided Bone Regeneration (GBR); and Filling of peri-implant defects in conjunction with products intended for GBR.

Warnings:

Possible complications which may occur with any surgery include swelling at the surgical site, flap sloughing, bleeding, local inflammation, bone loss, infection or pain. As Geistlich Bio-Oss Collagen® contains collagen, in very rare circumstances cases of allergic reactions may occur.

For more information on contraindications, precautions, and directions for use, please refer to the Geistlich Bio-Oss®, Geistlich Bio-Oss Collagen®, and Geistlich Bio-Gide® Instructions for Use at: www.geistlich-na.com/ifu