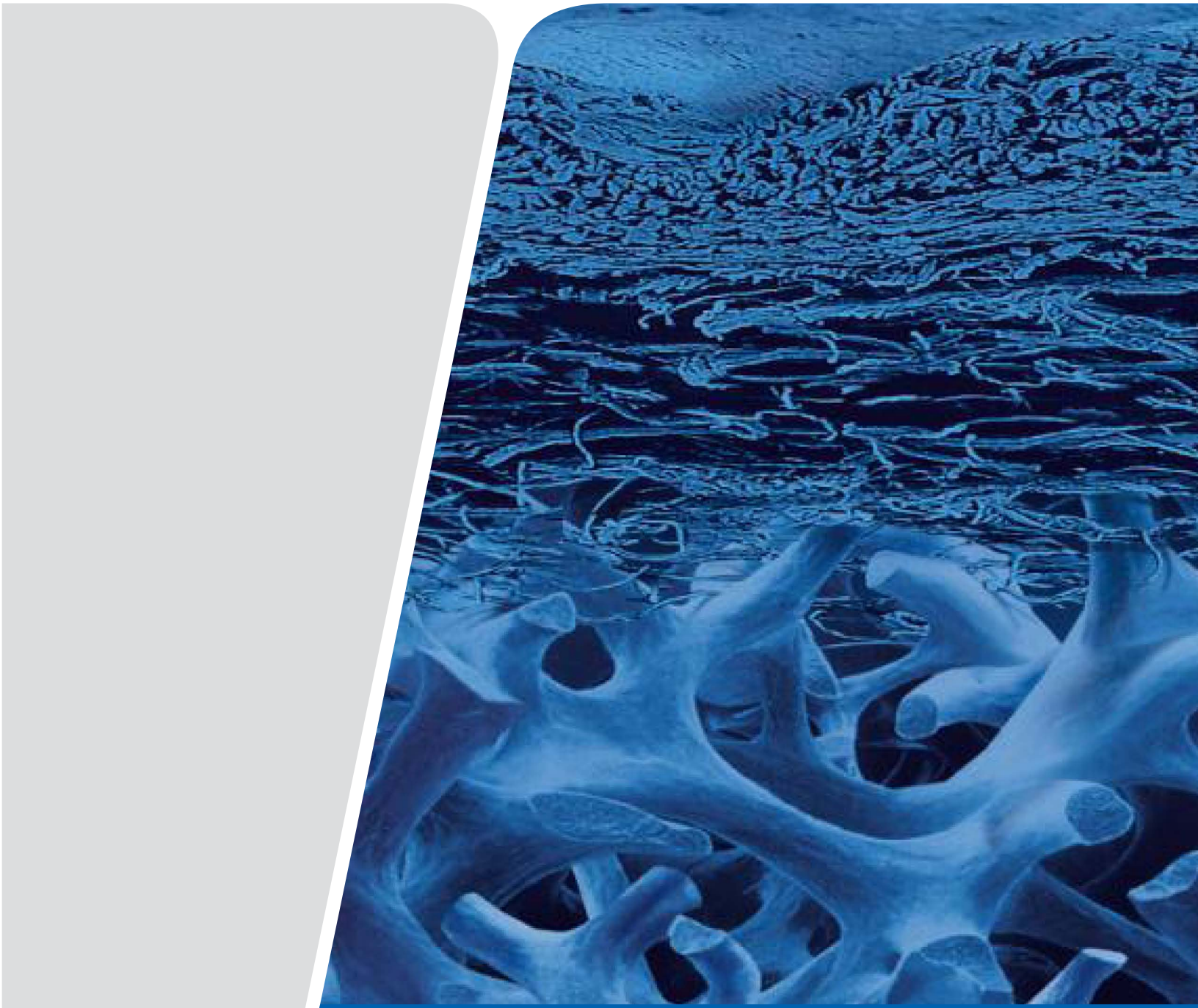
Geistlich Bio-Gide®

Geistlich Bio-Oss®

Indications | Handling



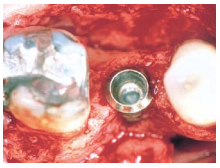
LEADING REGENERATION

Indications

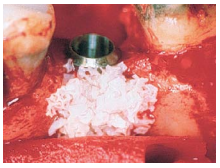
Recommended treatment

Dehiscence

Case: Prof. Dr. Ch. Hämmerle

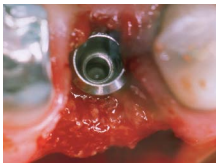


Bone dehiscence on the buccal aspect of the implant.



Filling of the defect with Geistlich Bio-Oss®.

Covering with Geistlich Bio-Gide®.



Complete regeneration of the defect 8 months postoperatively.

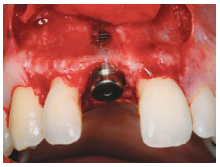
Geistlich Bio-Oss®
0.25–1 mm
Geistlich Bio-Gide®
25 x 25 mm

Scientific evidence:

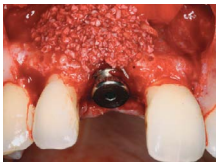
Joudzbalys et al. 2007
Hämmerle/Lang 2001
Van Steenberghe et al. 2000
and more...

Fenestration

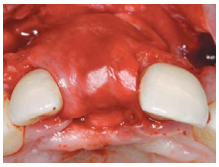
Case: Dr. K.-L. Ackermann



Bone loss exposing apical implant threads.



Application of Geistlich Bio-Oss®.



Covering with Geistlich Bio-Gide®.

Good healing of hard and soft tissue 13 months postoperatively.

Geistlich Bio-Oss®
0.25–1 mm
Geistlich Bio-Gide®
25 x 25 mm

Scientific evidence:

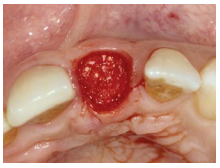
Zitzmann et al. 2001
Hämmerle/Lang 2001
and more...

Indication sheets:
PIR1 Gardella

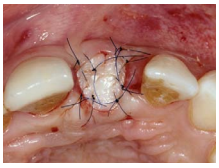
Extraction socket

Case: PD Dr. R. Jung

Following extraction: Application of Geistlich Bio-Oss Collagen® sized to the corresponding tooth root.



Insertion to the level of the crestal bone margin.



Covering the socket with a soft- tissue graft.

Good soft-tissue healing 6 weeks postoperatively allowing for implant placement.

Geistlich Bio-Oss Collagen®
100 mg / 250 mg

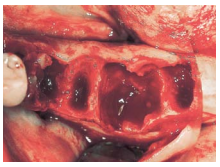
Scientific evidence:

Ackermann 2009, Schlee/Esposito 2009,
Araujo et al. 2009, Jung et al. 2004
and more...

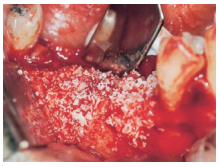
Indication sheets:
E1 Hämmerle/Jung, E2 Nevins,
E3 Ackermann, IIP–1 Testori,
IIP2 De Lange/Randelzhofer

Ridge augmentation

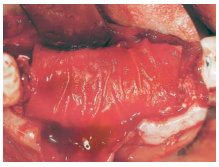
Case: Prof. Dr. C. Maiorana



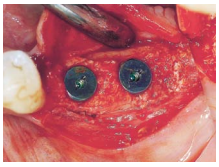
Occlusal view after opening the defect.



Application of Geistlich Bio-Oss®.



Covering with Geistlich Bio-Gide®.



Optimal bone support for implant placement 6 months postoperatively.

Geistlich Bio-Oss®
1–2 mm
Geistlich Bio-Gide®
25 x 25 mm / 40 x 50 mm
(depending on defect size)

Scientific evidence:

Von Arx/Buser 2006
Maiorana/Simion 2005
and more...

Sinus floor elevation

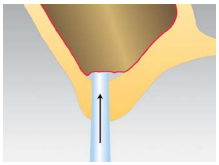
Procedure of choice (Zitzmann et al. 1998)

Two-stage procedure:	with residual bone height < 4–5 mm
Simultaneous procedure:	with residual bone height > 5 mm and sufficient primary stability
Osteotome technique:	with residual bone height > 6 mm

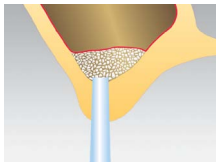
Treatment of perforations of the Schneiderian membrane

Medium to Large perforations: cover with Geistlich Bio-Gide®
Small perforations: use Geistlich Bio-Gide® or biological adhesive

Crestal procedure/Summer's technique (internal)



Crestal approach with osteotome: elevate Schneiderian membrane carefully.



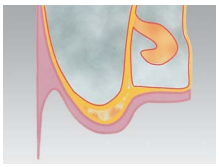
Augmentation with Geistlich Bio-Oss® and implant placement. Loading after 6–8 months.

Geistlich Bio-Oss®
0.25–1 mm

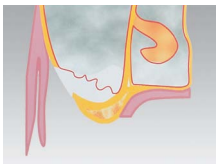
Scientific evidence:

Meriszke et al. 2006
and more...

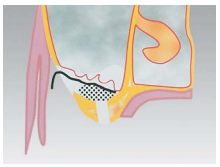
Lateral/fenestration technique (external)



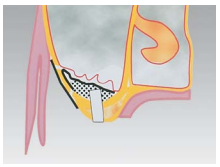
Insufficient bone thickness posteriorly.



Open a lateral window; carefully elevate the sinus mucosa using a blunt periosteal elevator.



Application of Geistlich Bio-Oss®. Place a Geistlich Bio-Gide® if Schneiderian membrane is thin or ruptures.



Cover the lateral window with Geistlich Bio-Gide®.

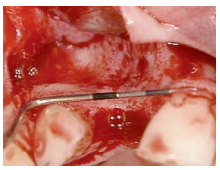
Geistlich Bio-Oss®
0.25–1 mm / 1–2 mm
Geistlich Bio-Gide®
25 x 25 mm

Scientific evidence:

Del Fabbro et al. 2004, Wallace/Froum
2003, Aghaloo et al. 2007,
Pjetursson et al. 2008, Ferreira et al. 2009
and more...

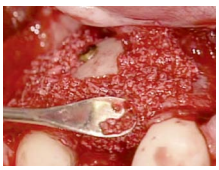
Horizontal augmentation

Case: Prof. Dr. D. Buser

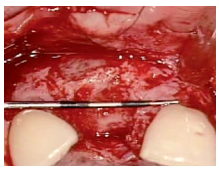


Defect with severe horizontal bone loss.

Corticocancellous bone graft from the chin region.



Contouring with Geistlich Bio-Oss® and covering with Geistlich Bio-Gide®.



Suitable bone site for implant placement 6 months postoperatively.

Recommended treatment

Geistlich Bio-Oss®
0.25–1 mm / 1–2 mm
Geistlich Bio-Gide®
25 x 25 mm / 40 x 50 mm
(depending on defect size)

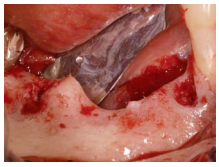
Scientific evidence:

Von Arx et al. 2006
Maiorana et al. 2005
and more...

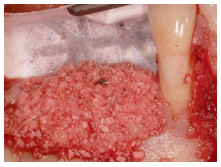
Indication sheets:
H1 Maiorana

Vertical augmentation

Case: Prof. Dr. M. Simion



Defect exposed after opening.



Augmentation with Geistlich Bio-Oss® (addition of autogenous bone should be considered).

A shape-retaining membrane, fixed buccally with 2 screws, protects the graft.

Suitable bone support for implant placement 6 months postoperatively.

Geistlich Bio-Oss®
1–2 mm

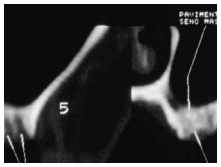
Scientific evidence:

Canullo/Simion et al. 2006
Artzi et al. 2003
and more...

Indication sheets:
V1 Simion/Rocchietta

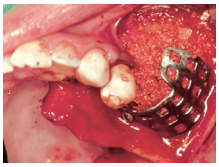
Ridge reconstruction

Case: Prof. Dr. C. Maiorana

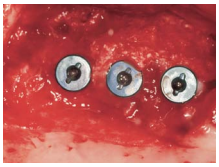


Computed tomogram shows horizontal and vertical bone deficit.

Clinical appearance preoperatively.



Augmentation with a mixture of iliac crest chips and Geistlich Bio-Oss®, covered with titanium mesh.



Stable bone support for implant placement 12 months postoperatively.

Geistlich Bio-Oss®
1–2 mm
Geistlich Bio-Gide®
25 x 25 mm / 40 x 50 mm
(depending on defect size)

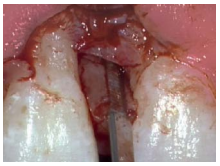
Scientific evidence:

Artzi et al. 2003
Maiorana et al. 2001
and more...

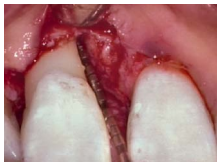
Periodontal regeneration

Intraosseous defects (1–3 walls)

Case: Dr. P. Cortellini



A modified papilla preservation incision is shown.



After elevation of a full thickness buccal and lingual flap, a deep and wide 1-wall intrabony defect is evident.

A bio-resorbable collagen barrier membrane (Geistlich Bio-Gide®) is adapted and positioned.

Geistlich Bio-Oss® is implanted to fill the intrabony defect and support the collagen barrier membrane.

Geistlich Bio-Oss®
1–2 mm
Geistlich Bio-Gide®
25 x 25 mm / 40 x 50 mm
(depending on defect size)

Scientific evidence:

Cortellini et al. 2011 and more...

Indication sheets:
V1 Cortellini

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

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.

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.

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**

Product line

Geistlich Bio-Oss®
Small granules (0.25 – 1 mm)
Quantities: 0.25 g, 0.5 g, 2 g, 5 g (1 g ≈ 2 cc)
The small Geistlich Bio-Oss® particles allow close contact with the surrounding bony walls. Small particles are recommended for smaller 1 to 2 defects and to supplement autogenous block grafts for improved contours.

Geistlich Bio-Oss®
Large granules (1–2 mm)
Quantities: 0.5 g, 2 g (1 g ≈ 3 cc)
The large Geistlich Bio-Oss® granules offer more volume and are ideal for the regeneration of larger defects such as ridge augmentation.

Geistlich Bio-Oss Collagen®
Geistlich Bio-Oss® (small granules)
+ 10 % collagen (porcine)
Sizes: 100 mg (0.2–0.3 cc), 250 mg (0.4–0.5 cc), 500 mg (0.8–1.2 cc)
Geistlich Bio-Oss Collagen® is indicated for use in any implant or periodontal regenerative procedure. Due to it's enhanced handling characteristics, Geistlich Bio-Oss Collagen® is increasingly used in the treatment of extraction sockets (socket preservation and ridge preservation).[1] With the addition of collagen, Geistlich Bio-Oss Collagen® can be adapted to the morphology of the defect and is easy to apply.

Geistlich Bio-Gide®
Resorbable bilayer membrane
Sizes: 13 mm x 25 mm, 25×25 mm, 40×50 mm
Geistlich Bio-Gide® consists of porcine collagen (type I and III) and has a bilayer structure – a rough side that faces the bone tissue to be regenerated and a smooth side that faces the soft tissue. Geistlich Bio-Gide® is easy to handle: it can be positioned easily, adheres well to the defect, and is resistant to tension and tearing.

Geistlich – leading regeneration

Geistlich is the world leader in regenerative dentistry.[1, 2]
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.

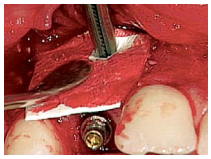
1 Data Research Inc., US Dental Bone Graft Substitutes and other Biomaterials Market, 2011.
2 Data Research Inc., European Dental Bone Graft Substitutes and other Biomaterials Market, 2010.

Using Geistlich Bio-Oss®

1. Preparing Geistlich Bio-Oss®
Mix Geistlich Bio-Oss® in a container with blood from the defect or with saline solution. The exceptional hydrophilic characteristics of the material allow the particles to adhere well to one another.

2. Application in situ
Geistlich Bio-Oss® is delivered in situ and can be modeled easily. It also exhibits optimal adhesion to the walls of the defect. Excessive compression should be avoided to allow sufficient room between the particles for new bone formation.

3. Protection by the membrane
The graft is covered with Geistlich Bio-Gide®. The unique properties built in to its bilayer structure support bone and periodontal regeneration "underneath" as well as soft tissue healing over the barrier.



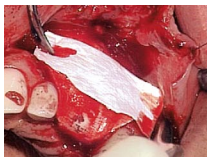
Using Geistlich Bio-Oss Collagen®
Geistlich Bio-Oss Collagen® can be cut to the desired shape either dry or after moistening (with saline solution). It can then be applied easily with forceps and adheres well to periodontal defects due to the collagen content.

Using Geistlich Bio-Gide®

1. Adjusting it to the defect size
After measuring the defect (e.g. with sterile aluminum foil or periodontal probe), the dry Geistlich Bio-Gide® is cut to the desired shape.

2. Apply dry – moisten in situ
Geistlich Bio-Gide® is applied dry (rough side facing toward the defect) and is only moistened with blood from the defect region when it is in situ. In order to maintain the shape and stability of the graft material Geistlich Bio-Gide®, a resorbable bilayered membrane, should be used.

3. Fixation
The superior hydrophilic characteristics of Geistlich Bio-Gide® allows the membrane to adhere well to the graft and the surrounding bone. In routine cases, no further fixation is necessary. For some large defects, applying a double-layer of Geistlich Bio-Gide® can lead to increased stability. Alternatively, Geistlich Bio-Gide® can be sutured or pins can be used.



4. Open healing
Whenever possible, the soft tissue flaps should be completely closed and sutured tightly but without tension. However, it has been shown that open healing is possible with Geistlich Bio-Gide® in cases where the wound cannot be fully closed. Complete healing usually occurs within a few weeks. However, appropriate postoperative treatment with disinfectant oral rinses is indicated. (Valentini P., Dentale Implantologie, 2003).

Geistlich Biomaterials

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