

# Implantology

## Recommended treatment

### Dehiscence

Case: Prof. Dr. Ch. Hämmerle



Buccal bone dehiscence at 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 × 25 mm  
**Geistlich Combi-Kit Collagen**  
Scientific evidence:  
Joudzbalys et al. 2007  
Hämmerle/Lang 2001  
Van Steenberghe et al. 2000  
and more...

### Fenestration

Case: Dr. K.-L. Ackermann



Bone loss over apical implant thread.



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 × 25 mm  
Scientific evidence:  
Zitzmann et al. 2001  
Hämmerle/Lang 2001  
and more...  
Indication sheets:  
PIRI Gardella

### Extraction socket

Case: PD Dr. R. Jung



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



Insertion to the level of the crestal bone margin.



Covering the socket with a soft-tissue graft.



Good soft-tissue situation 6 weeks postoperatively allows for implant placement.

**Geistlich Bio-Oss® Collagen**  
100 mg / 250 mg  
**Geistlich Combi-Kit Collagen**  
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 insertion 6 months postoperatively.

**Geistlich Bio-Oss®**  
1–2 mm  
**Geistlich Bio-Gide®**  
30 × 40 mm  
Scientific evidence:  
Von Arx/Buser 2006  
Maiorana/Simion 2005  
and more...

### Horizontal augmentation

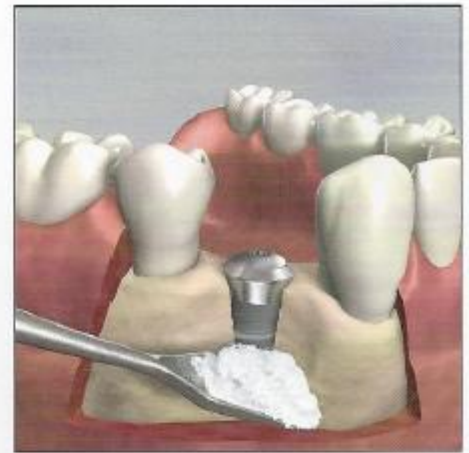
Case: Prof. Dr. D. Buser



**Geistlich Bio-Oss®**  
0.25–1 mm / 1–2 mm  
**Geistlich Bio-Gide®**  
25 × 25 mm / 30 × 40 mm  
Scientific evidence:

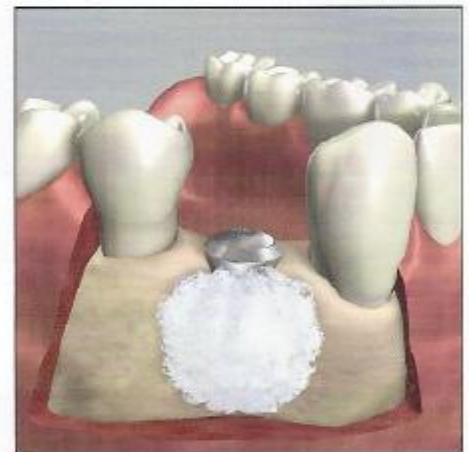
## Application

- Apply the maximal possible bone to the graft interface. An adequate amount of viable bone must be present at the placement site.
- Straumann Bone Ceramic should be applied loosely into the osseous defect. Fill the defect as completely as possible. Ensure maximum contact between the graft material and viable bone in a well-vascularized area.
- If required by the defect morphology, it is recommended to use a membrane specifically approved for augmentation procedures.



## Wound closure

- Ensure that soft tissue coverage of the grafted site is complete and free of tension.
- Use appropriate sutures made of a non-irritating material.



## Healing

- A minimum healing period of six months is recommended in order to allow bone to form and mature at sites augmented using Straumann Bone Ceramic.  
The appropriate healing time is patient- and site-dependent and has to be assessed by the clinician based on a diagnosis of the patient's individual situation.

# Successful ridge augmentation with simultaneous dental implant placement

Courtesy of the University of Berne



1 The clinical situation shows two NN Standard Plus Implants placed in a deficient site in the anterior mandible\*.



2 In a first step, autogenous bone chips are placed around the dental implants.



3 Next, the remaining defect volume is filled with Straumann Bone Ceramic mixed with the patient's blood, which is then modeled to the desired shape.



4 Before wound closure, the augmented site is covered with a collagen membrane.



5 After 14 days of uneventful healing, the provisional restoration is bonded to the adjacent teeth.



6 Six months after implant placement, the final restoration is fitted. In the same session, a biopsy is taken from the augmented site.