Minor Bone Augmentation
Overview

Guided bone regeneration utilizing bone grafting materials and barrier membranes result in stimulating and directing the growth of new bone. Autologous bone and/or a biomaterial is placed into the defect and then a barrier membrane is applied on top of the graft to assist in wound-healing and prevent the ingrowth of soft-tissue.

Although effective in stimulating new bone formation, the resorption rate of an autologous bone graft is substantial over time. Due to their unique properties, Geistlich biomaterials bone substitutes offer a viable alternative by providing a stable scaffold for new bone formation and maintaining long-term volume preservation due to their low resorption rate.

The use of Geistlich Bio-Gide® in conjunction with a bone substitute provides undisturbed and significantly enhanced bone regeneration. Geistlich biomaterials can be used successfully in cases with fenestration or dehiscence defects around implants.

Advantages of Utilizing Geistlich Biomaterials in Guided Bone Regeneration Procedures

› Undisturbed bone regeneration¹²
› Reliable bone formation³⁹
› Excellent osseointegration and long-term volume preservation⁵³⁰
› Long-term implant survival rate¹¹
› Complication-free healing⁵²
› Excellent esthetic outcomes³³
› The extent of any future invasive surgery can be reduced

Numerous Studies Prove Excellent Long-Term and Stable Esthetic Results

After 12–14 years implants that were placed in bone augmented with Geistlich Bio-Oss® and Geistlich Bio-Gide® show the same survival rate as implants in native bone.¹¹

| Implants in Intact Bone | 94.6 |
| GBR with Geistlich Bio-Oss® and Geistlich Bio-Gide® | 91.9 |

91.9% Implant survival rate after 12-14 years

Predictable Results

Excellent preservation of facial bone wall at 5 years.⁴

Implant treatment with no graft placement (peri-implant defect)

Contour augmentation of peri-implant defect after prior decontamination of the implant surface with Geistlich biomaterials

5 year result with good hard and soft-tissue contour
Case courtesy of: Prof. Dr. Anton Sculean
Berne, Switzerland
Case Documentation

Peri-Implant Defects with Minor Bone Augmentation
Dr. Ronald Jung, Zurich, Switzerland

Objectives
› Correct peri-implant defects in the esthetic zone
› Build buccal bone volume
› Mimic natural root prominence
› Support the peri-implant tissue to yield an optimally constructed contour
› Achieve long-term optimal esthetic results

1 After implant placement, a bone dehiscence associated with a one wall defect is observed in tooth # 8.
2 Geistlich Bio-Oss Collagen® is carefully applied. Geistlich Bio-Oss® is used in addition to round the edge.
3 The defect is covered with Geistlich Bio-Gide®.
4 At 10 months: optimal ridge contour is achieved.

Dehiscence Defects Around Implants
Prof. Dr. Daniel Buser, Berne, Switzerland

Objectives
› Obtain soft-tissue healing over 4-8 weeks, in order to achieve an intact soft-tissue covering
› Obtain the correct 3D position of the implant during and after implant placement
› Local contour augmentation in the facial region with autologous bone chips, Geistlich Bio-Oss® and Geistlich Bio-Gide®
› Primary wound closure with 6-8 week healing phase
› Esthetic restoration with screw-retained implant crown

1 Defect filled with autologous bone.
2 Contour augmentation is achieved with Geistlich Bio-Oss®.
3 The augmentation material is covered with Geistlich Bio-Gide® applied with a double-layer technique.
4 An optimal esthetic outcome and stable tissue height at 5 year follow-up.

Minor Bone Augmentation
Prof. K. L. Achermann, Filderstadt, Germany

Objectives
› Esthetic restoration of tooth # 8
› After implant placement the fenestration defect is treated with Geistlich Bio-Oss® and Geistlich Bio-Gide®
› Obtain functional and esthetic restoration

1 Bone loss showing apical implant threads.
2 Application of Geistlich Bio-Oss®.
3 Application of Geistlich Bio-Gide®.
4 Good healing of the hard and soft-tissue 13 months after surgery.

For additional information on Minor Bone Augmentation, please visit our website: www.geistlich-na.com
Therapeutic Areas

At Geistlich Biomaterials, we are committed to developing treatments that are uniquely matched to the clinical situations you see every day. That’s why we do more than bring you a family of products – we provide proven solutions in specific therapeutic areas.

The recommended Geistlich products below are the ideal biomaterials for use in **Minor Bone Augmentation** procedures.

### Recommended Products for Minor Bone Augmentation

#### BONE SUBSTITUTES

- **Geistlich Bio-Oss**
- **Geistlich Bio-Oss Pen**
- **Geistlich Bio-Oss Collagen**

#### MEMBRANES

- **Geistlich Bio-Gide**
- **Geistlich Bio-Gide Compressed**

#### COMBINATION

- **Geistlich Combi-Kit Collagen**

For additional information about Minor Bone Augmentation, please visit the Dental Professional section of our website: [www.geistlich-na.com](http://www.geistlich-na.com)

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


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