Treatment Solutions for
PERIODONTAL REGENERATION

LEADING REGENERATION
Every dentist aims to improve and restore proper function and esthetics in patients affected by periodontitis. Accordingly, it has been argued that periodontally compromised teeth should be treated for as long as possible, and should only be extracted when periodontal and endodontic treatment is no longer possible.1,2

The extraction of teeth affected by periodontitis will not resolve the underlying host response-related problems contributing to the disease. Moreover, periodontally compromised but treated teeth are known to have survival rates equal to the survival rates of implants in well-maintained patients.3

**Aims of Regenerative Treatment**

- Restoration of the complete tooth attachment apparatus with bone, cementum and periodontal ligament
- Prevention of long junctional epithelial downgrowth as a risk factor for recurrence of periodontitis
- Long-term tooth retention
- Excellent appearance

**Guided Tissue Regeneration**

It has been shown that carefully selected biomaterials used with proven treatment protocols may not only stop progression of periodontal disease, but effectively regenerate both hard and soft-tissue.4,5

Some evidence shows that the combined filling of periodontal defects with the graft material Geistlich Bio-Oss Collagen® or Geistlich Bio-Oss® followed by coverage with a Geistlich Bio-Gide® membrane has a history of proven effectiveness in regenerative periodontal therapy.6-12

The gain in clinical attachment level (CAL) and the reduction in pocket depth (PD) are significantly larger in the test group than in the control group respectively, (p=0.01 and ≤ 0.05 respectively) both after one year and after 5 years.1
**Periodontal Regenerative Surgery**
Dr. Pierpaolo Cortellini (Florence, Italy)

**Objectives**
- Resolution of deep pockets associated with deep intrabony defects and preservation of esthetics on upper incisors.

**1** Pre-operative radiographs showing the intrabony defects mesial to tooth 8 and distal to tooth 9
**2** Intra-operative probing at tooth 8. Note the absence of the interdental bone peak between teeth 8 and 9 and the severe buccal dehiscence. Geistlich Bio-Oss® was used to prevent the postoperative shrinkage of the soft tissues.
**3** 1 year post-op clinical situation showing healthy condition and a minimal gingival recession relative to baseline.
**4** 1 year radiographs showing the resolution of the intrabony components of the defects.

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**Intrabony 2-Wall Defect: Interproximal Crater**
Dr. Frank Bröseler (Aachen, Germany)

**Objectives**
- Functional and esthetic reconstruction in chronic periodontitis with deep intrabony defects.

**1** Initial situation after anti-infective therapy. Radiographically, the intrabony defect cannot be represented in toto due to palatal bone plate.
**2** Intra-surgical situation after preparation of the mucoperiostal full-thickness flap reveals deep osseous defect.
**3** The grafted site is covered with Geistlich Bio-Gide® Perio.
**4** 4.5 years post-op radiograph showing sustained defect fill from Geistlich Bio-Oss Collagen®. Clinical situation at 7 years follow-up; note the naturally reformed papilla between the central incisors, and no gingival recession.

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**3-Wall Defect: Rapid Progression of Lesion**
Dr. Diego Capri (Bologna, Italy)

**Objectives**
- Regeneration of a 2 to 3 wall defect caused by a cemental tear.

**1** Diagnosis: Cemental tear – likely caused by a parafunctional habit overlapped to partial edentulism and malocclusion in the area.
**2** The defect is filled with a mixture of autogenous bone and Geistlich Bio-Oss®.
**3** A trimmed Geistlich Bio-Gide® collagen membrane is positioned on the augmented area.
**4** Clinical situation 4 months after periodontal regenerative surgery a probing depth of 3 mm and a clinical attachment loss of 6 mm was measured distally. Intraoral radiographic aspect of the site showing the healing of the defect.

For additional information on Periodontal Regeneration, please visit the dental professional section of our website: [www.geistlich-na.com](http://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 **Periodontal Regeneration** procedures.

### EXTRACTION SOCKET MANAGEMENT

### MINOR BONE AUGMENTATION

### SOFT-TISSUE REGENERATION

### MAJOR BONE AUGMENTATION

### SINUS FLOOR ELEVATION

### PERIODONTAL REGENERATION

### PERI-IMPLANTITIS

### RECOMMENDED PRODUCTS FOR PERIODONTAL REGENERATION

The Ideal Geistlich Biomaterials for Periodontal Regeneration

When used in combination, these proven and reliable products provide a foundation for long-term clinical success in regenerative dentistry.

Geistlich Bio-Gide® ensures undisturbed bone regeneration and prevents soft-tissue ingrowth, while Geistlich Bio-Oss® or Geistlich Bio-Oss Collagen® provides a stable scaffold for bone formation leading to long-term volume preservation.

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


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