Volume preservation under pontics
Ridge Preservation with Geistlich biomaterials offers the solution
Ridge Preservation – straightforward

Ridge Preservation is a minimal-invasive method that serves to maintain the contour of the alveolar ridge following tooth extraction.
Clinical procedure – step-by-step
Case study of alveolar Ridge Preservation for bridge restorations

<table>
<thead>
<tr>
<th>Region</th>
<th>Bone situation</th>
<th>Soft tissue situation</th>
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<tbody>
<tr>
<td>aesthetic region</td>
<td>bone defect present</td>
<td>thick biotype</td>
</tr>
<tr>
<td>single tooth gap</td>
<td></td>
<td>intact papillae</td>
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<td></td>
<td></td>
<td>sufficient keratinised mucosa</td>
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<td></td>
<td></td>
<td>no recession</td>
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Clinical case from Dr. Manuel Neves, Porto, Portugal

1/2 Clinical and radiological initial situation. Tooth 11 is to be extracted.

3 Minimal invasive extraction. Probing with the periodontal probe shows that the buccal bone wall is defective.

4 Geistlich Bio-Gide® collagen membrane is applied dry into the socket. The membrane is placed buccally on the inner alveolar wall and slightly protrudes the crestal bone.

5 The socket is filled with Geistlich Bio-Oss® Collagen. It may be advantageous to cut up the Geistlich Bio-Oss® Collagen and to introduce it piece-by-piece into the socket.
Conclusion:
Ridge Preservation with Geistlich biomaterials ensures that volume is maintained. The use of Geistlich Bio-Oss® Collagen and Geistlich Bio-Gide® is particularly worthwhile and effective in the case of planned prosthetic restoration in the anterior region. In the aesthetic anterior region the patient’s wishes play a major role. In this case a specialist is needed.

The Geistlich Bio-Gide® collagen membrane is folded over the filled socket, adapted under the palatinal sulcus and heals uncovered.

Temporary restoration.

Radiological and clinical examination 4 months after surgery shows that the tissue has healed well.

Fine preparation and preparation for the final impression.

Impression for producing the permanent bridge.

Aesthetically attractive result after one year. As a result of the Ridge Preservation measure, the volume under the pontic could be well maintained.
The alveolar ridge is losing volume – Is that a problem?

On average, 50% of the surrounding bone and soft-tissue volume is lost when a tooth is extracted and the extraction socket heals spontaneously. In individual cases the bone loss can also be much more pronounced, especially in the event of tooth trauma or chronic inflammation. The volume loss on the buccal aspect is particularly prevalent. Here the bone wall is often thinner than 1 mm and can be completely resorbed. Which means the soft-tissue is no longer supported and collapses into the socket. The formation of new bone in the alveolus cannot compensate for the loss of volume.

Clinical challenges in bridge restoration

Bone resorption can lead to a gap formation under the pontics. Possible consequences are impaired aesthetics, as well as phonetic problems and maintaining oral hygiene in the region of the bridge restoration.

Maintain tissue volume under pontics – with Ridge Preservation

Ridge Preservation is a simple, minimal-invasive method for preserving the ridge contour following tooth extraction.

Ridge Preservation with Geistlich Bio-Oss® Collagen and Geistlich Bio-Gide® helps maintain around 90% of the volume. A collagen sponge, if used to stabilise the blood coagulum, does not have this volume preserving effect. Ridge Preservation prevents gaps beneath pontics.

Alveolar ridge contour without vs. with Ridge Preservation after 6 months. (Clinical Case by Dr. Stefan Fickl, Germany)

References

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The world’s best documented collagen
membrane for regenerative dentistry5
> Stabilizes the grafted area, protecting bone particles from dislocation6
> Prevents soft-tissue ingrowth (barrier function)8–12
> Uneventful wound healing9,13
> Resorbed without inflammation13
> Supports bone formation7

Geistlich Bio-Oss® Collagen
> Geistlich Bio-Oss® with over 1,400 published studies, is the best documented bone substitute material in regenerative dentistry.2
> Geistlich Bio-Oss® Collagen = 90% Geistlich Bio-Oss® + 10% collagen.
> The additional 10% collagen improve clinical handling, but do not replace a barrier membrane.
> Integrated in the natural bone6

Geistlich Bio-Gide® / Geistlich Bio-Gide® Shape
> The world’s best documented collagen membrane for regenerative dentistry5
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> Stabilizes the grafted area, protecting bone particles from dislocation6
> Resorbed without inflammation13

Geistlich Combi-Kit Collagen
Highly attractive in a convenient double pack including Geistlich Bio-Oss® Collagen (100 mg) and Geistlich Bio-Gide® (16 x 22 mm).

Geistlich biomaterials – The expert for bone substitute material & collagen
> 160 years of expertise for bone and collagen materials
> Dr. Peter Geistlich revolutionised regenerative dentistry – with the development of Geistlich Bio-Oss® and Geistlich Bio-Gide®
> Geistlich biomaterials are the most commonly used biomaterials in regenerative dentistry1

References
1 Based on the number of units currently sold. Data on file (Wolhusen, Switzerland)