Even in such a difficult esthetic case including horizontal and vertical bone and tissue loss associated with recession on teeth 12 and 21, the combination of Geistlich Bio-Oss® plus autologous bone and Geistlich Bio-Gide® provided a stable mucosal result around implant restoration for the long-term success.

References
A Coordinated Interplay Between Vascularization and Barrier Time

Geistlich Bio-Gide® and Geistlich Bio-Oss® have demonstrated in numerous clinical studies sufficient gain of bone volume and quality.17–19

No Membrane?

Not using a membrane can lead to soft-tissue cell ingrowth into the graft material and slow vascularization with the consequence of more soft tissue and less bone volume.17–18

A site treated with a cross-linked membrane shows a soft-tissue dehiscence seven days post-surgery. Clinical case by Dr. Zumstein, Lucerne | Switzerland

Cross-linked Collagen Membrane?

For certain defects, longer barrier functions are needed. Usually the collagen of these membranes is cross-linked.17–18 Several problems can be associated with cross-linked collagen membranes:

- Causes inflammation which leads to delayed healing, encapsulation, less tissue integration
- Causes a high inflammation rate of soft tissue within an early phase of healing (seven days) which is correlated with less bone volume after six months
- Causes foreign body reactions like recruitment of multinucleated giant cells

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Native Collagen Membrane!

Let’s take a closer look on the role of a native collagen membrane

The most important requirements when choosing a suitable membrane for bone regeneration are biocompatibility, tissue integration, cell occlusiveness, nutrient transfer and handling.17–18 Geistlich Bio-Gide® meets all these requirements.

The natural collagen structure of Geistlich Bio-Gide® supports early vascularization resulting in good tissue integration and wound stabilization.17–18

The smooth layer oriented towards the soft-tissue serves as a scaffold for the attachment of fibroblasts, while the barrier function prevents the ingrowth of soft tissue into the newly forming bone underneath.17–18 The rough, open-pored bottom side serves as a framework for bone-forming cells like osteoblasts, nutrients and growth factors and allows ingrowth of blood vessels.17–18 These characteristics even make the handling of Geistlich Bio-Gide® easy and convenient. You have the choice between different product types and shapes – matching your specific needs.

Higher Inflammation rate is linked to less bone volume for proper implant placement17–18

Geistlich Bio-Gide® acts as a temporary barrier instead of unnecessary blockade

Once the protective function of Geistlich Bio-Gide® has been fulfilled the membrane resorbs. The cells in the area to be regenerated are predetermined for their desired function and will develop accordingly.17–18 The soft tissues heal with soft scanning and largely without further complications. Therefore, Geistlich Bio-Gide® has an appropriate barrier time.17–18

Your options when faced with these situations

Clinical case by Dr. Collin Campbell | United Kingdom

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