

# Clinical Observations on the New Epi-Guide® Barrier Matrix in Periodontological and Implantological Indications

## Clinical procedure and scientific background of the regenerative therapy of intra-osseous defects

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Today's regenerative periodontal therapy covers a broad field and offers many different (micro-) surgical techniques for the consolidation of intra-osseous defects. It uses a large number of different procedures and materials such as root surface pretreatment, transplantation and implantation of different bone regeneration materials, the use of enamel matrix proteins, and coverage of defects with a soft-tissue inhibiting barrier membrane (guided tissue regeneration, GTR). By contrast with conventional modes of periodontal therapy, where tissue repair is effected by long junctional epithelium, the objective of regenerative therapeutic approaches is to achieve the near-complete restoration of all architectural and functional aspects of the periodontal system (root cement, periodontal ligament, alveolar bone). However, it is impossible to differentiate clinically (ie, by probing) between therapeutic success due to tissue repair and therapeutic success due to tissue regeneration. Radiological examinations may

provide a first indication (bone gain). Concrete evidence could only be provided by histological examination, which for obvious reasons is not performed. The parameter available under clinical conditions to objectify therapeutic success is attachment gain.

### Previous Publications

A review of the recent literature shows that there are usually no statistically significant differences in treatment outcomes between membrane-supported GTR therapy and the use of enamel matrix proteins.<sup>1</sup> Depending on the baseline situation, a clinical attachment gain of between 2 and 4 mm is usually attained. This contrasts with conventional mechanical infection control with its resulting 1 to 1.5 mm of attachment gain. There are currently no predictable procedures for the therapy of lower molars with Class III furcation involvement and of maxillary furcation involvement.<sup>2</sup> It has also been shown

Fig. 1\_3-D architecture of the Epi-Guide® membrane.

Fig. 2\_Preoperative radiograph.

Fig. 3\_Postoperative radiograph.

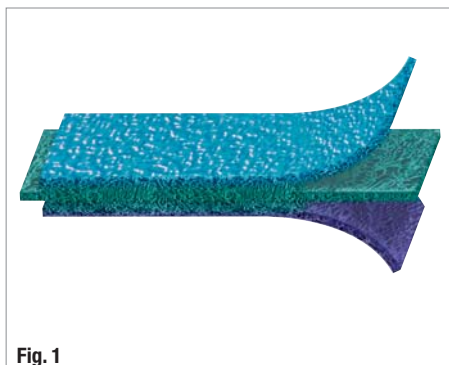


Fig. 1



Fig. 2



Fig. 3