

Straumann® Biomaterials > Perio hygiene

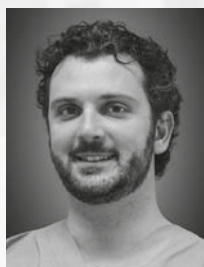
**Straumann® Emdogain® FL**

**Quick-guide for Emdogain® FL  
used during initial phase  
periodontal therapy.**





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**Treatment concept from Prof. Filippo Graziani and Dr. Stefano Gennai, University of Pisa, Italy**

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# About Straumann® Emdogain® FL

Straumann® Emdogain® FL leads to true periodontal regeneration based on biomimicry. Emdogain® FL contains enamel matrix derivative – the active natural protein matrix responsible for tooth formation. When applied to cleaned tooth root surfaces the unique protein composition in Emdogain® FL is able to induce the regeneration of all periodontal tissues: cementum, periodontal ligament, alveolar bone and gingiva.



## **MORE EFFECTIVE**

Eliminate more pockets.



## **MORE EFFICIENT**

Achieve results comparable to periodontal flap surgery.

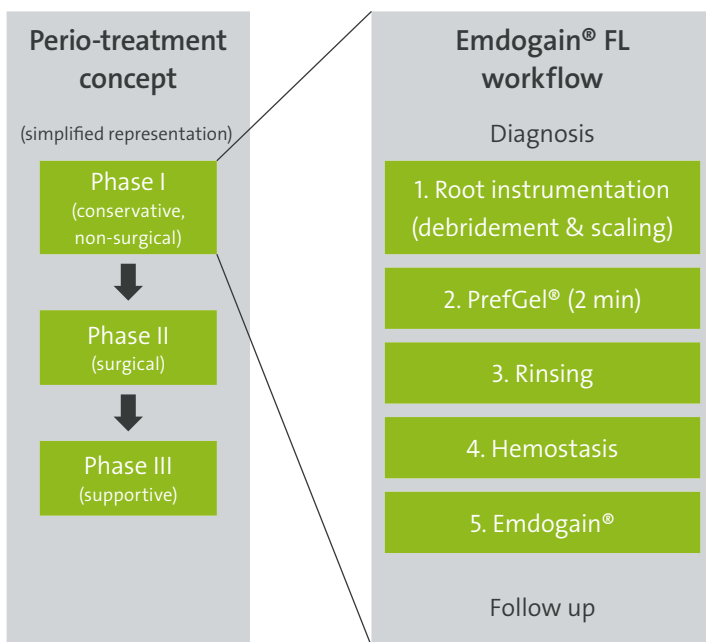


## **INCREASE PATIENT COMFORT**

Render your procedures milder and more tolerable.



## INITIAL PHASE PERIODONTAL THERAPY

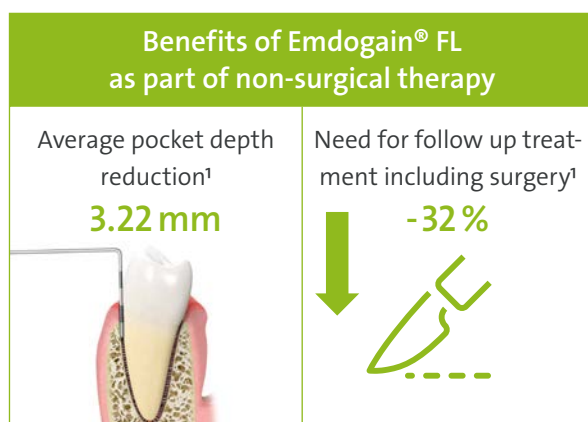


Modern periodontal treatment concepts include three treatment phases. After diagnosis of periodontal disease, periodontal therapy starts with changing patient's behaviors through improvement of oral hygiene practice and smoking control. Then, the non-surgical subgingival instrumentation (scaling and root planing) is performed to remove the causative bacteria, plaque and biofilm (phase I). Reevaluation after this first causative treatment will decide on the need for repeated or follow-up treatments like surgery (phase II) or supportive treatments (phase III). Straumann® Emdogain® FL can be seamlessly integrated into the workflow of initial phase therapy for the treatment of pockets from 5 mm onwards with a sequence of 5 steps.

It is essential that patients diagnosed with periodontitis are instructed to have appropriate oral hygiene measures, avoid smoking and if possible adopt a healthier lifestyle.

# Making periodontal regenerative therapy as easy and convenient as possible.

## STRAUMANN® EMDOGAIN® FL CAN HELP TO RENDER INITIAL PHASE PERIODONTAL THERAPY MORE EFFECTIVE<sup>1</sup>



When used as an adjunct to non-surgical initial phase periodontal therapy Emdogain® FL can help to:

- Reduce pocket probing depth
- Gain additional clinical attachment<sup>2</sup>
- Reduce the need for follow up treatments including surgery by up to 32 %

<sup>1</sup> Based on the results using Emdogain® FL compared to control, published in: Graziani F, Gennai S, Petrini M, Bettini L, Tonetti M. Enamel matrix derivative stabilizes blood clot and improves clinical healing in deep pockets after flapless periodontal therapy: A Randomized Clinical Trial. J Clin Periodontol. 2019 Feb; 46(2):231-240

<sup>2</sup> In pockets deeper ≥6mm

# Clinical application of Straumann® Emdogain® FL as part of initial phase periodontal therapy.

This case presentation illustrates the clinical procedure used within Graziani et al. Journal of Clinical Periodontology 2019.

## Initial condition, diagnosis

Periodontal charting and X-ray revealed a periodontal pocket/intrabony defect between the upper central incisors at the mesial aspect of the 11 displaying a probing depth of 7 mm and bleeding on probing.



## 1. Root instrumentation (debridement and scaling)

Following positive diagnosis of periodontitis, causative plaque and biofilm were removed by instrumentation of the root surface using a combination of ultrasonic periodontal tips (left) and where appropriate manual curettes also (right). The use of manual micro-mini curettes is recommended to facilitate cleaning of deep pockets. In addition, to improve the visibility, magnification devices (e.g. loupes) should be used.



## 2. PrefGel® used for root conditioning

Biofilm removal was followed by application of PrefGel®. PrefGel® was applied with distinct pressure in order to dislocate any blood from the pocket. PrefGel® was left in situ for 2 minutes.



## 3. Rinsing and removal of PrefGel®

Residual PrefGel® was removed by copious rinsing with water or saline. Removal from the interior pocket can be facilitated by the use of the water jet of the ultrasonic scaler for few seconds.



#### 4. Hemostasis / Control of bleeding

Adequate measures to reduce bleeding and to achieve hemostasis have to be taken in order to avoid that Emdogain® FL is washed out from the pocket.

In our developed protocol (Graziani et al, JCP 2019), floss was applied in bleeding pockets and left in place for ca 1 minute until adequate low levels of bleeding were achieved.



#### 5. Emdogain® FL application

After achieving adequate hemostasis, Emdogain® FL was applied starting from the very bottom of the pocket until excess Emdogain® FL expelled from the pocket margin.

The application procedure is recommended for all pockets with probing depth  $\geq 5$  mm.



#### 6. Post-treatment care instructions

Post-treatment care instructions should include careful brushing in the treated area. Optimal supragingival cleaning and polishing as well as interdental cleaning should be encouraged and monitored as soon as possible.

#### 7. Re-evaluation

Patients are advised to be included in a routine periodontal follow-up treatment regime. Periodontal probing is recommended earliest after 2–3 months of healing phase.

#### 8. Follow-up

3 months after the treatment, the periodontal probing indicates a “solved” case with a probing depth of 3 mm.



# Non-surgical treatment with Emdogain® FL as part of initial phase periodontal therapy.

- Efficient and effective
- Increased patient comfort
- Reduced need for follow-up treatments including surgery



For further information please visit:  
[www.straumann.com/emdogain-fl](http://www.straumann.com/emdogain-fl)

## LITERATURE

Graziani F, Gennai S, Petrini M, Bettini L, Tonetti M. Enamel matrix derivative stabilizes blood clot and improves clinical healing in deep pockets after flapless periodontal therapy: A Randomized Clinical Trial. J Clin Periodontol. 2019 Feb; 46(2):231-240.



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