

## STRAUMANN® EMDOGAIN® AND EMDOGAIN® FL





of thousands of periodontists, oral surgeons, implantologists and dentists around the world over the last 25 years.

Straumann® Emdogain® is the only biological solution that promotes the true regeneration of periodontal tissues¹ and enhances oral wound healing.² After 25 years of clinical success, Straumann® Emdogain® is still unique in the field of regenerative dentistry. There is nothing quite like it. While alternative treatments only slow down the advancement of periodontitis, Straumann® Emdogain® can actually regenerate the tissues lost due to periodontal disease.¹





#### **LONG-TERM STABILITY**

Documented in over 1000 publications<sup>6</sup> including 10-year follow-up studies.<sup>3,4</sup>



#### **MORE PATIENT COMFORT**

Enhances wound healing and leads to less pain and less postoperative swelling.<sup>15,16</sup>



#### **BETTER ESTHETIC OUTCOME**

Provides enhanced esthetic results: keratinized tissue and improved recession coverage.<sup>14</sup>

#### **DID YOU KNOW?**

- → Every 3 minutes a patient benefits from a treatment with Straumann® Emdogain® somewhere in the world.
- → Straumann® Emdogain® is still manufactured in Malmö, the Swedish city where it was discovered in 1987 by Prof. Lars Hammerström.

#### **TREATMENT**

Courtesy of Prof. Carlos Nemcovsky



Before treatment with Straumann® Emdogain®



20 years after treatment with Straumann® Emdogain®

### YOU CAN'T BUY EXPERIENCE. YOU GAIN IT.

Experience comes in time. Over the last 25 years, respected leaders in the field of regenerative dentistry have counted on Straumann® Emdogain® to improve the clinical outcome in various treatment indications. Some of them shared their experiences on the following pages.

"I have been using Emdogain® since 1998. The appropriate use of EMD in intraosseous and furcation lesions may help our patients in restoring the missing periodontal support, thus ensuring long-term retention of their dentition."



Professor of Periodontology, University of Ferrara, Italy

See full interviews on our website.





**Prof. Adrian Kasaj** Professor of Periodontology, University of Mainz, Germany





"Emdogain® is a gold standard, having the most solid evidence among biological materials.

I recommend it to every clinician that starts to work on periodontal regeneration."

"Emdogain® is very flexible and I can use it in several types of defects, not only intrabony, but also suprabony and furcation defects. And now, the new flapless application gives us four times more chance to obtain a complete resolution from the non-surgical phase of the treatment."



**Prof. Filippo Graziani** Professor of Periodontology, University of Pisa, Italy



"I started to use Emdogain® during my postgraduate education, either solely or combined with bone grafts. Apart from its effectiveness, the main advantages of Emdogain® compared to other regenerative approaches are that the material is easy-to-use due to its gel formulation and that it is associated with less postoperative complications."



Mastering periodontal regeneration.

Straumann® Emdogain®'s unique mixture of natural proteins forms a matrix that can induce biological processes that usually take place during the development of the periodontium and may stimulate certain cells involved in the healing

action of soft and hard tissues.<sup>7</sup> By modulating the wound healing process, Straumann<sup>®</sup> Emdogain<sup>®</sup> induces the regeneration of a functional attachment in periodontal procedures as evidenced by human histological data.<sup>8,9</sup>



#### **MORE EFFICIENT**

Straumann® Emdogain® provides higher clinical attachment level (CAL) gains and probing pocket depth (PPD) reductions,\* <sup>10,11</sup> greater reductions in the horizontal depth of buccal class II furcations in mandibular molars\*\* <sup>12</sup> and leads to more root coverage (RC).\*\*\* <sup>13,14</sup>



#### PROVEN REGENERATION

Straumann® Emdogain® supports the formation of new periodontal tissue¹ and the formation of periodontal attachment8 in conjunction with coronally advanced flap (CAF), as indicated by histological studies.



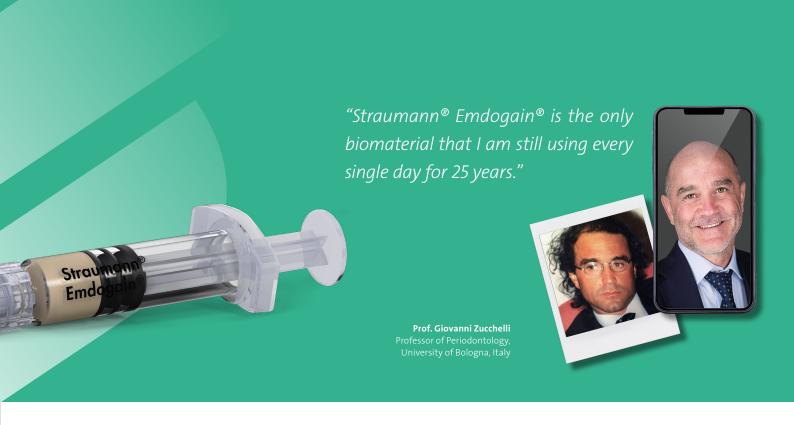
#### LONG-TERM STABILITY

The use of Straumann® Emdogain® leads to documented 10-year stable results in terms of osseous defect fill³ and root coverage.⁴

<sup>\*</sup> compared to open flap debridement alone

<sup>\*\*</sup> compared to membranes

<sup>\*\*\*</sup> compared to coronally advanced flap without Straumann® Emdogain®



#### STRAUMANN® EMDOGAIN® IN FACTS AND FIGURES

> 25 years on the market

> 600 clinical & 1,000 scientific publications\*\*

> 2.5 million patients treated\*

\* Based on the number of syringes sold to date, globally

**Extremely** well tolerated\*\*\*

Stable results
documented
over 10 years
in two indications

#### **DID YOU KNOW?**

→ A single batch of Straumann® Emdogain® takes approximately 50 days to manufacture and more than 30 steps are performed merely to ensure that the product meets all quality requirements.

<sup>\*\*</sup> According to PUBMED search for "Emdogain" or "enamel matrix derivative"

<sup>\*\*\*</sup> Based on a global post-surgical complication rate of less than 0.003 %



Patients' main concerns in oral surgical treatment are esthetics, comfort and efficiency, and Straumann® Emdogain® satisfies all these demands. By accelerating healing,<sup>15</sup> it ensures less swelling and less pain,<sup>16</sup> thus minimizing discomfort. Straumann® Emdogain® initiates and supports the natural healing process. As a result, patients recover faster and can begin to enjoy the esthetic outcomes they expect.<sup>17</sup>

#### **TREATMENT**

Pictures courtesy of Prof. George Furtado Guimarães, Brazil







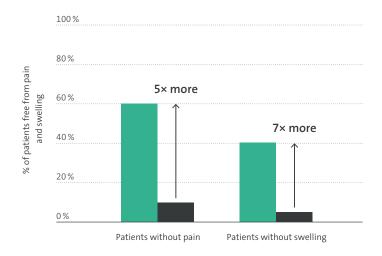
With Straumann® Emdogain®

Patients receiving Straumann® Emdogain® are more likely to accept a complex treatment plan as they enjoy more comfort and feel reassured by the lower risk of complications. There is clinical evidence of accelerated wound healing after implant placement with Straumann® Emdogain® in the same patient. The site treated with Straumann® Emdogain® shows advanced healing and less swelling and redness 10 days post-surgery. Faster healing over the same period minimizes the risk of complications.<sup>17</sup>





"Data exists for the use of Straumann® Emdogain® alone for the management of severely compromised situations where initially questionable teeth have been maintained in stable situations for over 20 years following the therapy with Emdogain.®"



■ With Emdogain® ■ Without Emdogain®

Significantly more patients are free of pain and swelling after treatment with Straumann® Emdogain® when compared to treatment with membranes (guided tissue regeneration – GTR) one-week post-surgery.¹8

## STRAUMANN® EMDOGAIN® FL

Cultivating flapless periodontal regeneration.

Following decades of clinical success in regenerative periodontal surgery, and thanks to the introduction of a new applicator, Straumann® Emdogain® FL can now be applied flapless\* in periodontal pockets after scaling and root planing procedures.



#### **MORE EFFICIENT**

Straumann® Emdogain® FL stimulates periodontal regeneration,<sup>19,20</sup> significantly reduces the bleeding on probing (BOP) and pocket probing depth (PPD)<sup>21</sup> and solves more periodontal pockets as part of the periodontal debridement process.<sup>22</sup>



#### **MORE PATIENT COMFORT**

Straumann® Emdogain® FL improves the quality of life of patients by reducing pain, swelling¹⁵ and systemic inflammation and by significantly reducing the need for follow-up treatments including surgery.²²



#### **IMPROVED NON-SURGICAL OUTCOME**

Straumann® Emdogain® FL supports the flapless treatments and leads to results that are similar to the surgical procedure.<sup>23</sup>

#### **TREATMENT**

Case courtesy of Prof. Filippo Graziani



Before: Periodontal pocket with probing depth of 7 mm



Flapless application of Straumann® Emdogain® FL



3 months after: Solved pocket with probing depth of 3 mm

<sup>\*</sup> as described in the instructions for use for Emdogain® FL



### TIPS AND TRICKS FOR SUCCESSFUL FLAPLESS PROCEDURES WITH STRAUMANN® EMDOGAIN® FL:

- → Perform thorough scaling and root planing (SRP) using micro-mini curettes, ultrasonic instrumentation with fine tips and additional visual support (good light, micro-mirrors, loupes or other magnification devices microscope if available)
- → Dry the root surface as much as possible before applying Straumann® PrefGel® and Straumann® Emdogain® FL
  - Apply air spray for a few seconds immediately before product application
  - Use suction, absorbent sponges and sterile gauzes
  - Apply floss in bleeding pockets and leave in place for approx. 1 minute<sup>22</sup>

# STRAUMANN® EMDOGAIN® AND STRAUMANN® EMDOGAIN® FL

#### Mastering peri-implant treatment.

Adding Straumann® Emdogain® or Straumann® Emdogain® FL to the remedial treatment of perimplant disease improves the clinical outcome of the procedure.<sup>24</sup>,<sup>25</sup>

#### Peri-implant mucositis:

Straumann® Emdogain® FL significantly reduces\* the probing depth (PD) and bleeding on probing (BOP).<sup>25,26</sup>

#### Peri-implantitis:

Straumann® Emdogain® is positively associated with bone gain and implant survival and results in better treatment success.<sup>24,27,28</sup>

#### Easy handling:

Straumann® Emdogain® and Straumann® Emdogain® FL are easy to apply due to the gel formulation and specific cannulas suitable for surgical and flapless use.

#### **DID YOU KNOW?**

- → You are more likely to be struck by lightning than to experience a complication with Straumann® Emdogain?\*\*
- → Amelogenin, the main ingredient of Straumann® Emdogain's protein mix, is assumed to be 610 million years old?³o



<sup>\*</sup> compared to conventional non-surgical therapy without Straumann® Emdogain® FL.

<sup>\*\*</sup> Risk of complication with Emdogain 1 in 3333 cases.<sup>5</sup> Risk of being hit by lightning in US: 1 in 3000.<sup>29</sup>

# STRAUMANN® EMDOGAIN® AND EMDOGAIN® FL



#### **REFERENCES**

1.1 Boshardt DD. Biological mediators and periodontal regeneration: a review of enamed matrix proteins at the cellular and molecular levels. J Clin Periodontol. 2005;8: Suppl.871-06. doi:10.1116/j.100.075.2008.006.2016.2. 2 Minon SJ. Dand M. Weinreb M. Framed matrix derivative, inflamman and soft tissue wound healing. J Periodontal 282 2015 Oct.50(5):555-69. 3 Sculean A, Kiss A, Millauskaite A, Schwarz F, Arweiler NB, Hannig M. Ten-year results following treatment of intra-bony defects with enamel matrix proteins and guided tissue regeneration. J Clin Periodontol. 2008 Seps.59(6):817-24. 4 McGuire MK, Scheyer EJ, Nunn M. Evaluation of human recession defects treated with cronally advanced flaps and either enamel matrix derivatives comparison of clinical parameters by Ugass. J Periodontol. 2012 Novs8(3):1113-55. doi:10.1111/j.jcpc.123-6. 8 McGuire MK, Scheyer EJ, Nunn M. Evaluation of human recession defects treated with an enamel matrix derivative. The past, the present and the future of Line Predombrol. 2016;43(8):668-858. doi:10.1111/j.jcpc.123-6. 8 McGuire MK, et al. A Prospective. Cased-Controlled Study Evaluating the use of Enamel Matrix Derivative on Human Buccal Recession Defects. A Human Histological Evaluation of human intrabooy defects treated with an enamel matrix protein environment of the predombrol. 2015;43(8):668-858. doi:10.1111/j.jcpc.123-6. 8 McGuire MK, et al. A Prospective. Cased-Controlled Study Evaluating the use of Enamel Matrix Derivative on Human Buccal Recession Defects. A Human Histological Evaluation of Human Puccal Recession Defects. A Human Histological Evaluation of Human Puccal Recession Defects. A Human Histological Evaluation of Human Puccal Recession Defects. A Human Histological Evaluation of Human Puccal Recession Defects. A Human Histological Evaluation of Human Puccal Recession Defects. A Human Histological Evaluation of Human Puccal Recession Defects. A Human Histological Evaluation of Human Puccal Recession Defects. A Human Histological Puccal Recession Defects. A Human

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