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Mission Statement

"We are a State-of-the-Art Implant-Periodontal practice devoted to advanced regenerative therapies and esthetic implant solutions. Our mission is to provide exceptional periodontal and dental implant care to our patients. We will strive to exceed the expectations of both our patients and our referring doctors through extraordinary customer service. As health care professionals we embrace the responsibility of patient care and believe that our patients deserve the highest level of care possible . Our further mission is to **Facilitate the Success** of our **Referring Offices** and their **Patients** following a **Shared Vision of Education, Motivation and Compassionate, Individualized Patient Care** while utilizing **the Most Advanced Treatment Available**."

Together, We Change Lives

We have three locations

Toledo Office

4447 Talmadge Road
Toledo, Ohio
Tel: 419-473-1222.
Fax 419-473-1452
info@periotoledo.com

Findlay Office

223 W Crawford
Findlay , Ohio
Tel 800-824-2048
Fax 419-473 1452
info@periotoledo.com

Maumee Office

3550 Briarfield BLVD
Maumee Ohio
Tel 419-866-4442
Fax 419- 866-6561
maumee@periotoledo.com

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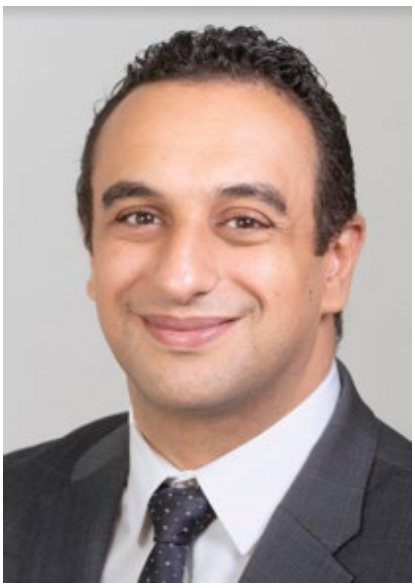
***Our team of Specialists* at Implant Perio Centre perform a full range of dental treatments, including *dental implant placement*, *bone augmentation*, *gum grafts*, *aesthetic crown lengthening* and all other aspects of periodontal surgery to achieve your full smile makeover - all performed in a warm and caring environment.**

Dr. Sorin Boeriu

- Associate Professor Case Western Reserve University School of Dental Medicine, Graduate Periodontal Program
- Fellow of the Royal College of Dental Surgeons Ontario , Canada
- Diplomate of the International Congress of Oral Implantologists
- Fellow of the American Board of Oral Implantology
- Fellow of Misch International Implant Institute

"My mission is to exceed every patient expectations and to provide the most comfortable experience possible with exceptional clinical results. "



Dr. Karim Basta

- Master in Dental Sciences , Case Western reserve University School of Dental Medicine
- Fellow Of Periodontics Case Western Reserve University School of Dental Medicine
- Fellow of the American Academy of Periodontics
- Certified periodontist of the American Academy of Periodontics
- Member of the American Academy of Periodontics

"My mission is to provide the most compassionate care to my patients utilizing the most current technological advancements making their dental visit as comfortable as possible"

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Technology

At **The Surgical Center for Implant and Periodontal Therapy** our mission is to provide a friendly and comfortable environment in which our patients can receive the highest quality pf periodontal and implant care i an efficient manner . We are committed to using state of the art technologies instruments, and procedures that provide great benefits to our patients. We strive to maintain the highest standard of professional care .

Cone Beam CT 3D Imaging .

Our offices are equipped with state-of-the art Cone Beam CT scans that revolutionizes our patient care . With the help of this innovative technology , our specialists are able to diagnose more accurately and provide treatment with confidence . The precise crystal-clear 3D images provide valuable insight into the patients' dental regions of interest . This technology provides a wide range of diagnostic information that helps our clinicians devise more accurate treatment plans and answers many questions that may arise during the treatment.

Sedation

We recognize that some of our patients may be apprehensive about their treatment. We will take as much time as necessary to ensure a comfortable and enjoyable experience for patients who require added comfort , we offer moderate sedation if needed . This option will provide for a deep relaxation during their visit while still being conscious .

Biologics : Gem 21 , Emdogain

HELPING YOU HEAL

GEM 21S® growth-factor enhanced matrix is indicated to treat the following periodontally related defects: intrabony periodontal defects; furcation periodontal defects; and gingival recession associated with periodontal defects.
GEM 21S® growth-factor enhanced matrix combines a bioactive protein – highly purified rhPDGF-BB – with an osteoconductive matrix, ß-TCP.
GEM 21S® is the only dental therapy containing rhPDGF-BB, one of the main growth factors found in the human body and well known for its stimulatory role in wound healing.

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Biologics : Emdogain

Straumann® Emdogain® is a unique gel containing enamel matrix derivative. This mixture of natural proteins can induce biological processes that usually take place during the development of the periodontium and may stimulate certain cells involved in the healing process of soft and hard tissues.

With the addition of Dr. Basta we provide the following service			
Dental implants	**Dental implants**	**Periodontal treatment**	**Other**
Socket preservation	**Immediate &delayed implant placement**	**Nonsurgical periodontal treatment**	**IV and oral sedation**
Sinus elevation and ridge augmentation	**Immediate & delayed temporary crowns for anterior implants**	**Surgical periodontal treatment Laser assisted New Attachment procedure (LANAP)**	**Impacted canine exposure**
Pre-treatment consultation with you and your lab	**Implants for fixed , hybrid or removable prostheses**	**Guided tissue regeneration for periodontal defects Gen 21, Emdogain**	**3D cone beam scans and analysis**
We provide stock or custom scannable abutments and impression components	**Treatment of peri- implant disease**	**Esthetic and functional crown lengthening**	**Frenectomy**
Single or multiple implants	**Digital treatment planing**	**Soft tissue grafting (autografts and allografts)**	**Biopsy and wisdom teeth extractions**

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Clinical cases

Treatment of gingival recession using a tissue substitute (Alloderm) providing the same long -term result as the autogenous tissue harvested form the patient's palate

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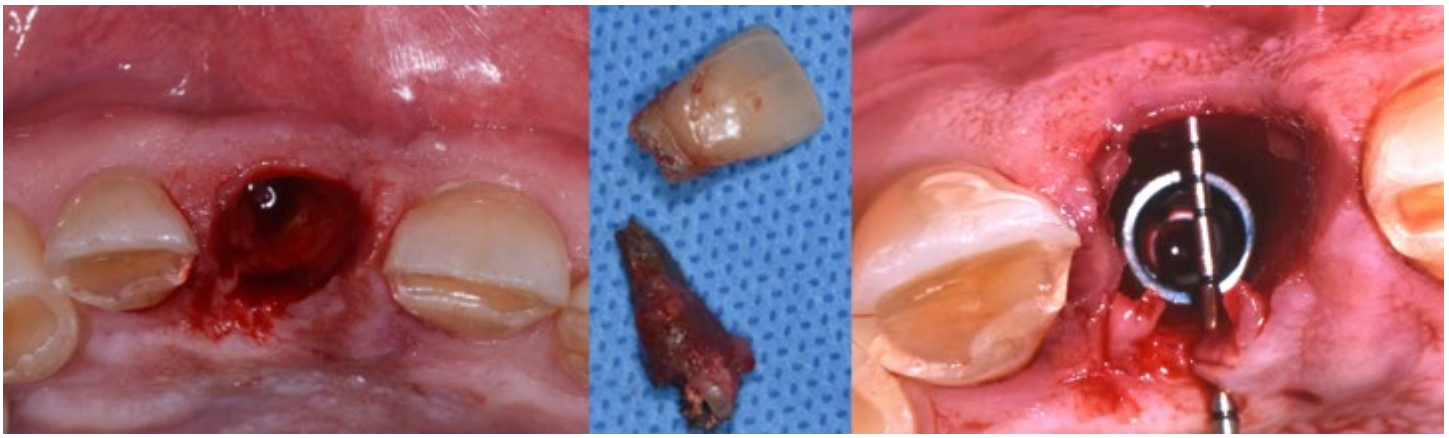
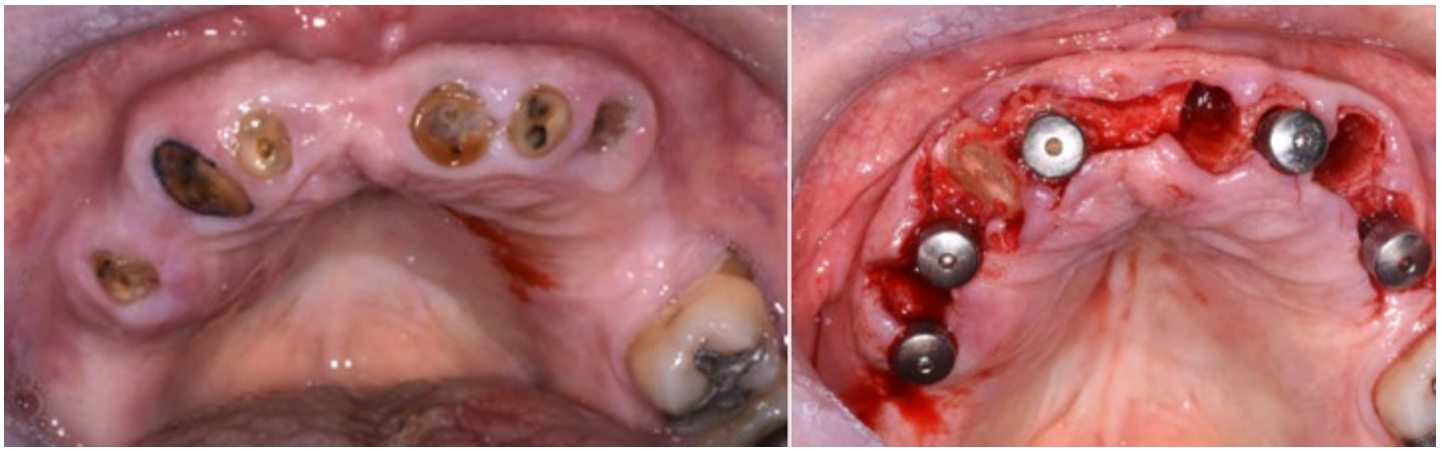
Immediate implant placement : Single or multiple implants





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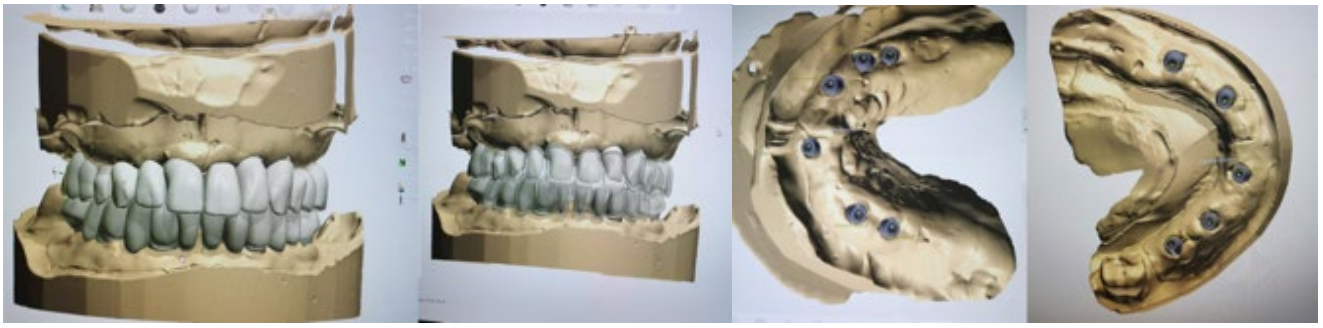
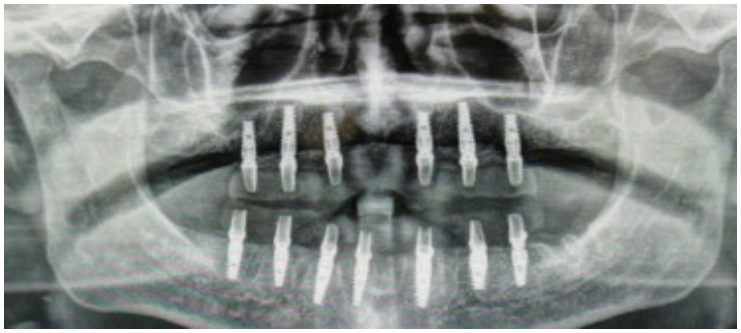
All on X (4,5,6 implants) Digital workflow :Planning, Printing, Placement





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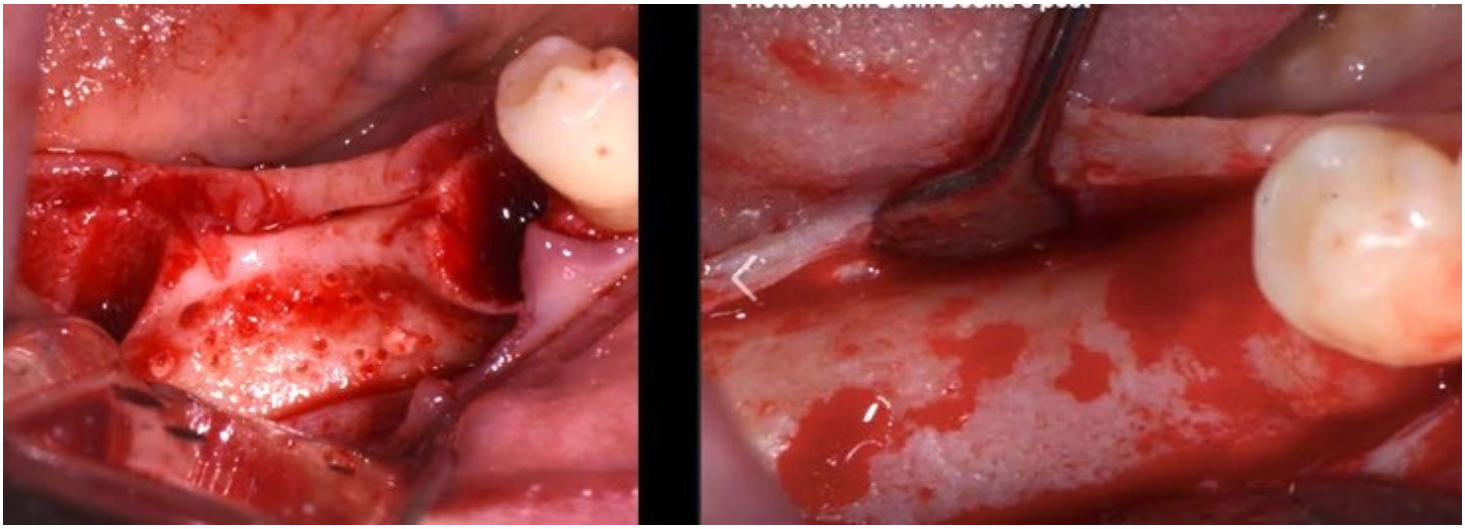
Aesthetic Crown lengthening

Esthetic Crown Lengthening is a common periodontal surgical procedure in which gum tissue is re-contoured to expose more of the tooth. It is normally performed in order to improve the health of gum tissue or to prepare the patient's mouth for a restorative or cosmetic procedure. This procedure can be performed on a single tooth, many teeth or the entire gum line in order to expose a pleasant, aesthetically appealing smile.

Bone Augmentation (sinus grafts , ridge augmentation and socket preservation) procedures

Ridge augmentation sinus graft procedures facilitate the placement of dental implants in areas where there is a lack of bone width in a horizontal or vertical dimension



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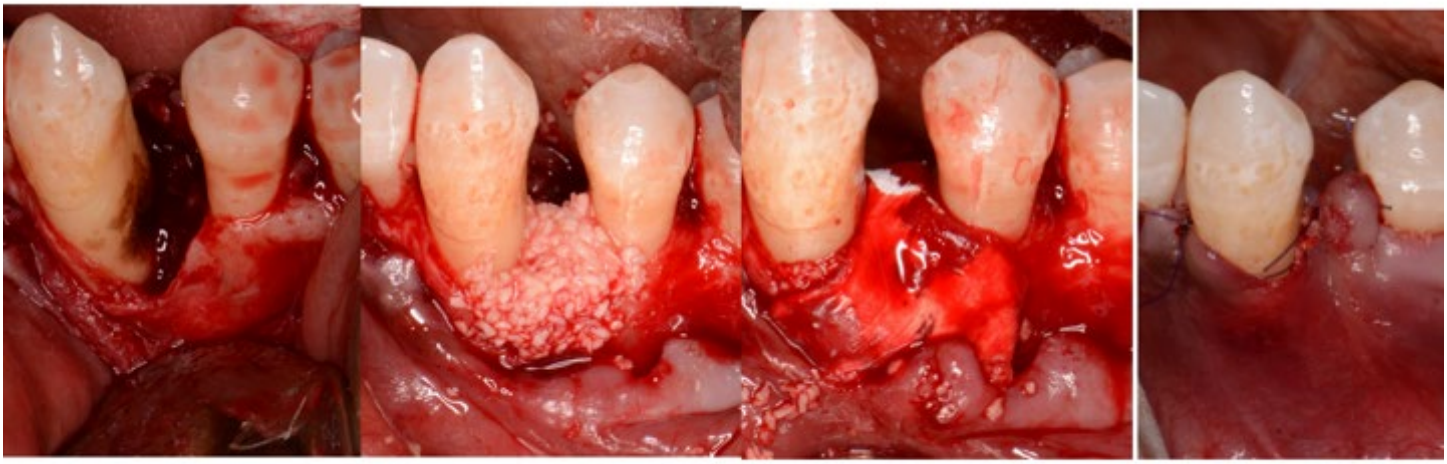
Periodontal regeneration :

Periodontal regenerative technologies are applied to improve the short- and long-term clinical outcomes of periodontally compromised teeth presenting with deep residual pockets and reduced periodontal support . The aims of periodontal regeneration are; increase the periodontal attachment and bone of the severely compromised tooth , decrease the pocket depth and minimal root recession. Periodontal regeneration has been shown to be highly effective in the treatment of one two , and three intrabony defects



LANAP. (Laser Assisted New Attachment Procedure) for the treatment of moderate to severe periodontal disease

An FDA-cleared laser treatment called the LANAP protocol offers a less painful, more successful treatment alternative to conventional surgery. LANAP=LAR (Laser Assisted Regeneration) is the only scientifically, research proven methodology that results in true periodontal regeneration, new bone growth and gum tissue reattachment. The LANAP=LAR treatment is one of the most successful protocols in treating gum disease because it can target the source of the inflammation without hurting or removing any healthy gum tissue, slow or stop

attachment loss and decrease pocket depth, and allowing the body to recover from the chronic infection without the need for scalpel or sutures.

Laser Probe inserted into the pocket Immediately post LANAP procedure

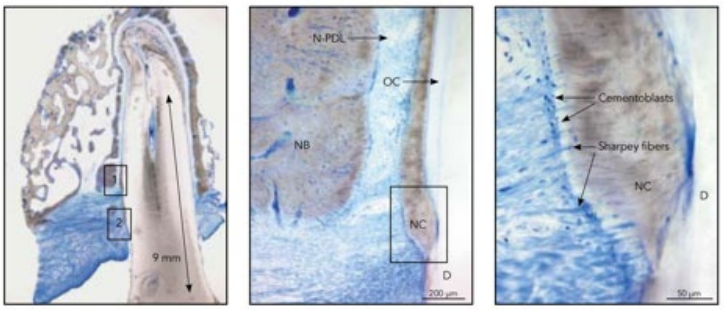


Fig 3d *Panoramic view showing bone fill of the intrabony defect and periodontal regeneration. The 9-mm notch measurement from the cementoenamel junction confirms the notch location.*

Fig 3e *Higher-magnification view of box 1 in Fig 3d revealed a layer of new cementum (NC) extending to the coronal extent of the defect with adjacent periodontal ligament (N-PDL) and new bone (NB) defining periodontal regeneration. OC = old cementum; D = dentin.*

Fig 3f *Inserting Sharpey fibers into the new cementum and presence of cementoblasts (magnified view of box in Fig 3e). NC = new cementum; D = dentin.*

Human Clinical and Histologic Evaluation of Laser-Assisted New Attachment Procedure
Marc L. Nevins, DMD, MMSc /Marcelo Camelo, DDS Peter Schupbach, PhD/Soo-Woo Kim, DMD, MS[4] David M. Kim, DDS, DMS /Myron Nevins, DDS

The LANAP protocol using the PerioLase MVP-7 was the first laser-mediated periodontal therapy to achieve FDA clearance for "cementum mediated new attachment to the root surface in the absence of long junctional epithelium," and the **ONLY protocol and laser to achieve FDA clearance for True Regeneration** (regeneration of new alveolar bone, new cementum, and new periodontal ligament without the use of additive biologic materials). The LANAP protocol is the only laser-based protocol backed with two independent studies demonstrating efficacy and regeneration with actual human histology. Patients with pocket depths from 6mm-19mm+ or with ailing implants are the candidates who will maximally benefit from this minimally invasive, comfortable, tissue-sparing procedure.

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Step-by-step guidelines for the treatment of periodontal disease

(Stages I to III)

The EFP has published the first formal evidence-based guidelines for treating periodontitis in a move that will help clinicians all over the world provide the best possible treatment for their patients. *The EFP S3-level Clinical Practice Guideline* has recently been published in the *Journal of Clinical Periodontology* as an open-access supplement. It offers oral-healthcare professionals precise therapeutic pathways basedon individual patient diagnoses and makes recommendations on specific interventions to treat periodontitis.

The Guideline approaches the treatment of periodontitis stages I, II, and III using a preestablished stepwise approach to therapy that – depending on the disease stage – should be incremental, each including different interventions. An *essential prerequisite* to therapy is to inform the patient of the diagnosis, including causes of the condition, risk factors, treatment alternatives and expected risks and benefits including the option of no treatment.

Step 1 . Supragingival dental biofilm control (by the patient) Guiding behaviour change by motivating the patient to undertake successful removal of supragingival dental biofilm and risk-factor control.

Recommendation 1. What are the adequate oral hygiene practices of periodontitis patients in the different steps of periodontitis therapy?

The EPF recommends that the same guidance on oral hygiene practices to control gingival inflammation is enforced throughout all the steps of periodontal therapy including supportive periodontal care. Achieving adequate home care is an essential component of prevention of periodontal disease, successful periodontal therapy and long-term retention of the dentition. Clinicians should educate patients about the importance of effectively removing dental biofilm at home, especially prior to proceeding with active periodontal therapy . The importance of adequate home care should be reinforced frequently during the initial and subsequent phases of periodontal treatment. [28] Furthermore the supragingival professional mechanical plaque removal (PMPR) and control of retentive factors, is recommended as part of the first step of therapy.

Guiding behaviour change by motivating the patient to undertake successful removal of supragingival dental biofilm and risk-factor control.

Recommendation 1.1: **What are the adequate oral-hygiene practices of periodontitis patients in the different steps of periodontitis therapy?**

We recommend that the same guidance on oral-hygiene practices to control gingival inflammation is enforced throughout all the steps of periodontal therapy including supportive periodontal care. Supporting literature Van der Weijden and Slot (2015)

Recommendation 1.4: **What is the efficacy of supragingival professional mechanical plaque removal (PMPR) and control of retentive factors in periodontitis therapy?** We recommend supragingival professional mechanical plaque removal (PMPR) and control of retentive factors, as part of the first step of therapy. Supporting literature ;Needleman, Nibali, and Di Iorio (2015); Trombelli, Franceschetti, and Farina (2015)

Recommendation 1.6: **What is the efficacy of tobacco smoking cessation interventions in periodontal therapy?**
We recommend tobacco- smoking cessation interventions to be implemented in patients undergoing periodontal therapy. Supporting literature Ramseier et al. (2020)

Recommendation 1.7: **What is the efficacy of promotion of diabetes-control interventions in periodontal therapy?** We recommend diabetes- control interventions in patients undergoing periodontitis therapy. Supporting literature : Ramseier et al. (2020)

Recommendation 1.9: **What is the efficacy of dietary counselling in periodontal therapy?** We do not know whether dietary counselling may have a positive impact in periodontitis therapy. Supporting literature Ramseier et al. (2020)

Step 2 : Cause-related therapy, aimed at controlling (reducing/eliminating)the subgingival biofilm and calculus (subgingival instrumentation).

The second step of therapy (also known as cause-related therapy) is aimed at the elimination (reduction) of the subgingival biofilm and calculus and may be associated with removal of root surface (cementum We suggest that subgingival periodontal instrumentation can be performed with either traditional quadrant- wise or full- mouth delivery within 24 hours). The procedures aimed at these objectives have received in the scientific literature different names: subgingival debridement, subgingival scaling, root planning. Scaling and root planing should be performed at the sites with periodontal probing depths of 5 mm or greater. This phase of treatment should be delivered in conjunction with correction of local contributing factors, extraction of hopeless teeth and treatment of active carious lesions. During scaling and root planing, adequate local anaesthesia should be administered prior to initiating the procedure to ensure patient comfort. Automated instruments, such as piezoelectric or ultrasonic scalers, may be used in combination with manual instruments The establishment of infection control as measured by absence of clinical signs of inflammation and increased resistance to probing is the main goal of treatment, (reduction in pocket depth, both in terms of average measures as well as frequencies of *closed pockets* (probing pocket depth ≤ 4 mm and absence of bleeding on probing). Subgingival instrumentation is an efficacious treatment in reducing inflammation, probing pocket depth and number of diseased sites in patients affected by periodontitis. This effect was consistent, irrespective of the choice of instrument (sonic/ultrasonic vs. hand) or mode of delivery (full-mouth vs. quadrant). Thus, at shallow sites (4–6 mm), a mean reduction of PD of 1.5 mm can be expected at 6/8 months, while at deeper sites (≥7 mm) the mean PD reduction was estimated at 2.6 mm. [29] Hung et al.[30] in a comprehensive meta-analysis of nonsurgical treatment reported similar results as Cobb et al. for patients with chronic periodontitis.

AT 4-6 mm probing depths, clinicians should expect a mean reduction in probing depth of about 1 mm and an average gain in CAL of approximately 0.5 mm . At deep sites probing depth > 7 mm, the probing depth reduction should average 2 mm and the gaining clinical attachment about 1 mm. The meta-analysis results showed that periodontal probing depth and gain of attachment level do not improve significantly following root planing

and scaling for patients with shallow (<4 mm) initial periodontal probing depths. The decrease in the probing depth consists of two components : clinical attachment gain and recession . As a rule of the thumb clinicians can expect the gaining clinical attachment to be about half of the probing depth reduction .

Recommendation 2.3: **Are treatment outcomes of subgingival instrumentation better when delivered quadrant-wise over multiple visits or as a full-mouth procedure within 24 hours?**
We suggest that subgingival periodontal instrumentation
can be performed with either traditional quadrant- wise or full- mouth delivery within 24 hours.
Supporting literature Suvan et al. (2019)

Recommendation 2.7: **Does the adjunctive use of probiotics improve the clinical outcome of subgingival instrumentation? We suggest not to use probiotics as an adjunct to subgingival instrumentation.**
Supporting literature Donos et al. (2019)

Recommendation 2.16: **Do adjunctive systemically administered antibiotics improve the clinical outcome of subgingival instrumentation? A. Because of concerns about patient health and the impact of systemic-antibiotic use to public health, its routine use as adjunct to subgingival debridement in patients with periodontitis is not recommended. B. The adjunctive use of specific systemic antibiotics may be considered for specific patient categories (e.g. generalised periodontitis stage III in young adults).**
Supporting literature Teughels et al. (2020)

Re-evaluation after periodontal therapy

Re-evaluation should be conducted four to six weeks after completing scaling and root planing, A comprehensive periodontal charting should be updated and the findings compared to the initial charting to determine the degree of improvement. Furthermore, patient compliance, as determined by adherence to the suggested home care regimen, should be carefully evaluated. Generally, for areas with relatively shallow probing depths (i.e. 1–5 mm), non-surgical management, including repeated root planing if indicated, frequent periodontal maintenance therapy and continuous reinforcement of home care could be considered as a treatment approach. The efficiency of subgingival calculus removal decreases as the probing depth increase. Thus, for areas with persistently deep periodontal probing depths (i.e. 6 mm or deeper), surgical periodontal therapy may be indicated. It must be emphasised that excellent compliance with suggested home care is an indispensable pre-requisite for proceeding with surgical therapy in order to achieve the optimal surgical outcome Thus, if necessary, surgical therapy should be delayed until adequate biofilm removal is demonstrated by the patien.[28, 44, 45]

STEP 3 . Treating areas that do not respond adequately to the second step of therapy, to gain further access to subgingival instrumentation or aiming at regenerating or resecting lesions that add complexity to the management of periodontitis (intra-bony and furcation lesions)

In the presence of deep residual pockets (PPD ≥ 6 mm) in patients with stage III periodontitis after the first and second steps of periodontal therapy, we suggest performing access-flap surgery. In the presence of moderately deep residual pockets (4–5 mm), we suggest repeating subgingival instrumentation.

Periodontal surgical therapy

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The treatment of Stage III periodontitis should be carried out in an incremental manner, first by achieving adequate patient's oral hygiene practices and risk factor control during the first step of therapy and then, during the second step of therapy by profes- sional elimination (reduction) of supra and subgingival biofilm and calculus, with or without adjunctive therapies. However, in periodontitis patients, the complete removal of subgingival biofilm and calculus at teeth with deep probing depths (≥6 mm) or complex anatomical surfaces (root concavities, furcations, infra bony pockets) may be difficult, and hence, the endpoints of therapy may not be achieved, and further treatment should be implemented. The individual response to the second step of therapy should be assessed after an adequate healing period (periodontal re-evaluation). If the endpoints of therapy (no periodontal pockets >4 mm with bleeding on probing or deep pockets [≥6 mm]) have not been achieved, the third step of therapy should be implemented. If the treatment has been successful in Areas with persistently deep probing depths generally exhibit underlying infrabony or vertical defects. Such teeth with infrabony or vertical defects exhibit significantly reduced survival compared to teeth without those defects Thus, for these teeth, osseous resective surgery may be considered. During this surgery, infrabony or vertical osseous defects should be reduced or eliminated by osteotomy and osteoplasty . Lindhe et al [46]introduced the concept of critical probing depth. It represents a baseline probing depth value: above which the outcome of the therapy will result in attachment ga

PD<2.9 mm	Supragingival therapy	Nonsurgical therapy (SRP) will result in CAL loss
PD-2.9-4.2mm		**Nonsurgical therapy (SRP) will result in CAL Loss**
PD>4.2mm-5.5mm	**Surgery /nonsurgical treatment**	**Benefit from both surgical and nonsurgical therapy**
PD>5.5 mm	**Surgical treatment**	**Surgical periodontal treatment /conventional or LANAP**

Treating areas that do not respond adequately to the second step of therapy, to gain further access to subgingival instrumentation or aiming at regenerating or resecting lesions that add complexity to the management of periodontitis (intra-bony and furcation lesions).

Recommendation 3.1: **How effective are access flaps compared to repeated subgingival instrumentation? In the presence of deep residual pockets (PPD ≥ 6 mm) in patients with stage III periodontitis after the first and second steps of periodontal therapy, we suggest performing access-flap surgery. In the presence of moderately deep residual pockets (4–5 mm), we suggest repeating subgingival instrumentation. Supporting literature Sanz- Sanchez et al. (2020)**

Recommendation 3.3: **What is the efficacy of pocket elimination/reduction surgery in comparison with access-flap surgery?**

In cases of deep (PPD ≥ 6 mm) residual pockets in patients with stage III periodontitis after an adequate second step of periodontal therapy, we suggest using resective periodontal surgery, yet considering the potential increase of gingival recession. Supporting literature Polak et al. (2020)

Recommendation 3.6: **What is the importance of adequate self-performed oral hygiene in the context of surgical periodontal treatment?**

We recommend not to perform periodontal (including implant) surgery in patients not achieving and maintaining adequate levels of self-performed oral hygiene. Supporting literature Expert opinion

Recommendation 3.10: **What is the adequate management of molars with class II and III furcation involvement and residual pockets?**

A. We recommend that molars with class II and III furcation involvement and residual pockets receive periodontal therapy. B. Furcation involvement is no reason for extraction.
· Supporting literature Dommisch et al. (2020), Jepsen et al. (2019)

Recommendation 3.11What is the adequate management of residual deep pockets associated with mandibular and or mandibular class II furcation involvement

We recommend treating mandibular molar with class II furcation defect with periodontal regenerative surgery. In maxillary interdental Class II furcation involvement non-surgical instrumentation, OFD, periodontal regeneration, root separation or root resection may be considered . Supporting literature : Jepsen et al (2019) Dommisch et al. (2020); Huynh-Ba et al. (2009); Jepsen, Eberhard, Herrera, and Needleman, (2002)

Regenerative periodontal therapy

Regenerative periodontal surgery is intended to re- establish periodontal tissues lost as a result of the disease process. Specifically, the goal of this type of surgery is to increase attachment of the teeth to the periodontium and induce bone gain and increased support for the dentition [47] For infrabony or vertical defects, periodontal regenerative therapy should also be considered . Guided tissue regeneration utilises a barrier membrane with various particulate bone graft materials.[48-56]

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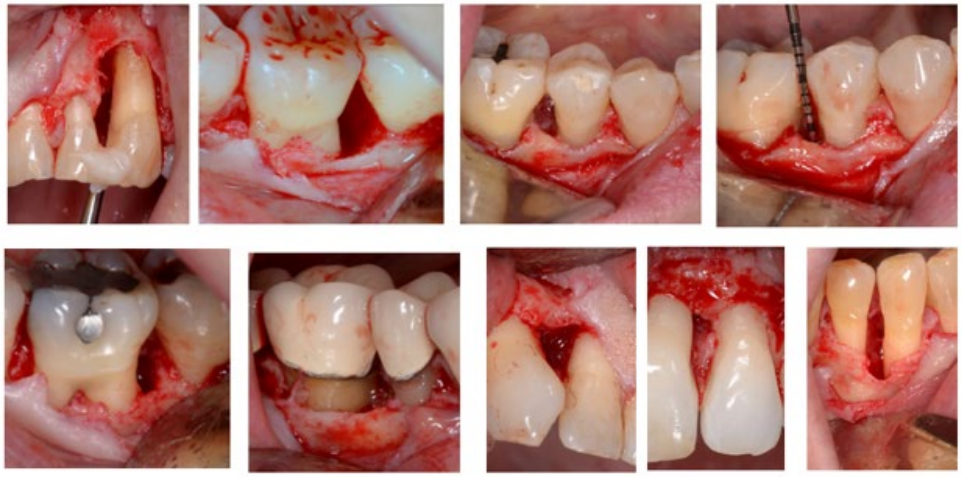
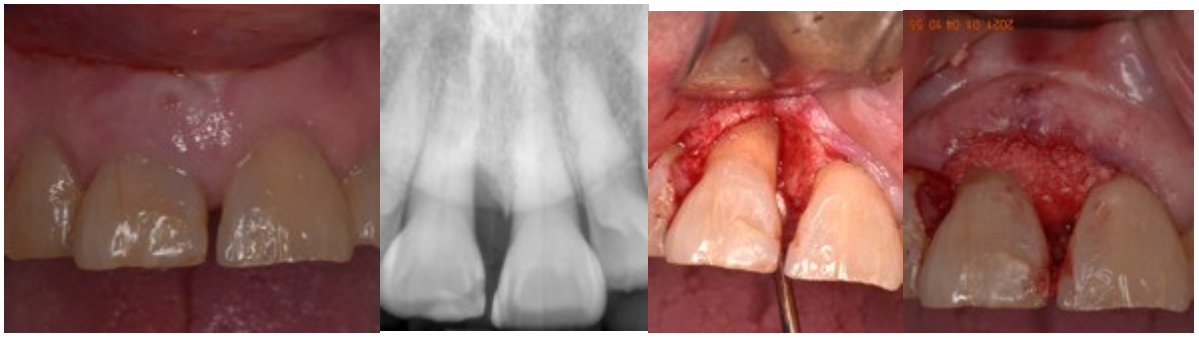


Enamel matrix derivatives (EMD) have been used in periodontal regenerative therapy with the intent of inducing cell proliferation of both osteoblasts and periodontal ligament cells . [57, 58] A meta analysis reported that intrabony defects that were treated with EMD revealed a significantly greater clinical attachment gain compared to sites that were treated with open flap debridement[59] . Enamel matrix derivatives (EMD) have been used in periodontal regenerative therapy with the intent of inducing cell proliferation of both osteoblasts and periodontal ligament cells . [57, 58] A meta analysis reported that intrabony defects that were treated with EMD revealed a significantly greater clinical attachment gain compared to sites that were treated with open flap debridement[59] .



Recommendation 3.8 What is the adequate choice of regenerative biomaterials for promoting healing of residual deep pockets associated with a deep intrabony defect?

In regenerative therapy the EFP recommends the use of either barrier membranes or enamel matrix derivatives with or without the addition bone derived grafts
Supporting literature : Nibali 2019

Recommendation 3.9 what is the adequate choice for surgical flap design for the regenerative treatment of residual deep pockets associated with intrabony defect

We recommend the use of specific flap designs with maximum preservation of the interdental soft tissue such as papilla preservation flap .
Supporting literature : Nibali 2019 , Graziani 2012

STEP 4 Supportive periodontal care, aimed at maintaining periodontal stability in all treated periodontitis patients, combining preventive and therapeutic interventions defined in the first and second steps of therapy, depending on the gingival and periodontal status of the patient's dentition

The EFP recommends that supportive periodontal care visits should be scheduled at intervals of 3 to a maximum of 12 months and ought to be tailored according to patient's risk profile and periodontal condition after active therapy.

PERIODONTAL MAINTENANCE THERAPY

For patients with a history of periodontal disease, periodontal maintenance should be provided on a regular and recurrent basis, generally at intervals of 2– 6 months[61]; however, the appropriate interval should be determined following completion of active periodontal therapy, and modified by continuously assessing an individual's risk for periodontitis[61] Among the factors to be considered are medical history (i.e. diagnosis of diabetes), smoking habit, presence of residual sites with deep probing depths, presence of other aforementioned contributing factors, and the level of home care A regular recall interval allows timely detection and intervention upon the recurrence or re-activation of disease in patients who have been previously treated for periodontitis. For example, compared to erratic and non-compliant patients, compliant patients who regularly attended periodontal maintenance therapy exhibited a significantly reduced tooth loss due to periodontitis[62]. During maintenance therapy, periodontal charting should be updated and radiographs obtained as needed. Furthermore, home care should be thoroughly reviewed. For areas with persistently deep or progressing periodontal probing depths, re-initiating active periodontal therapy (i.e. scaling and root planing, and surgical periodontal therapy) should be considered

Supportive periodontal care, aimed at maintaining periodontal stability in all treated periodontitis patients, combining preventive and therapeutic interventions defined in the first and second steps of therapy, depending on the gingival and periodontal status of the patient's dentition.

Recommendation 4.1: **At what intervals should supportive periodontal care visits be scheduled?**

We recommend that supportive periodontal care visits should be scheduled at intervals of 3 to a maximum of 12 months and ought to be tailored according to patient's risk profile and periodontal condition after active therapy. Supporting literature Polak et al. (2020), Ramseier et al. (2019), Sanz et al. (2015), Trombelli et al. (2020), Trombelli et al. (2015)

Recommendation 4.7: **What is the value of dental flossing for interdental cleaning in periodontal maintenance patients?**
We do not suggest flossing as the first choice for interdental cleaning in periodontal maintenance patients. Supporting literature Slot et al. (2020)

Recommendation/statement 4.11: **Should adjunctive chemotherapeutics be recommended for patients in supportive periodontal care? A. The use of adjunctive antisepticsmay be considered in periodontitis patients in supportive periodontal care in helping to control gingival inflammation, in specific cases. B. We do not know whether other adjunctive agents (such as probiotics, prebiotics, anti- inflammatory agents, antioxidant micronutrients) are effective in controlling gingival inflammation in patients in supportive periodontal care.Supporting literature Figuero, Roldan et al. (2019)**

Recommendation/statement 4.20: **What is the role of physical exercise (activity), dietary counselling, or lifestyle modifications aiming at weight loss in supportive periodontal care?**

We do not know whether physical exercise (activity), dietary counselling or lifestyle modifications aiming at weight loss are relevant in supportive periodontal care. Supporting literature Ramseier et al. (2020)

DECISION TREE AND CURRENT TRENDS

A decision tree representing the management of a patient with periodontitis can be helpful in recognising that the goals of periodontal therapy include not only the arrest of periodontitis but when feasible the regeneration of periodontium lost as a result of disease[63] Traditional resective periodontal surgery offers reliable methods to access root surfaces, reduce periodontal probing depths and attain improved periodontal architecture. However, these procedures offer only limited potential towards recovering tissues destroyed during earlier active disease[63] The introduction of new biological modifiers and new approaches to successful periodontal regeneration indicates a trend favouring conservative surgical therapy [63] This represents a fundamental shift in the intent of periodontal surgery, away from tissue removal to an approach that maintains existing periodontium and seeks to re-establish support that was lost. With the introduction of dental implants, a natural tooth with a compromised periodontal prognosis may be extracted and replaced with a dental implant instead of receiving periodontal therapy. However, while implant retention is high (at least 90% after 5 years), a meta-analysis of a total of 6,283 implants estimated the frequency of peri-implant mucositis and peri-implantitis as 30.7% and 9.6%, respectively, indicating that implant therapy is not without complications[64]. Furthermore, peri-implantitis and periodontitis appeared to share common risk factors such as poor oral hygiene, smoking and diabetes[64, 65]. The previous history of periodontitis as well as having a residual site with a periodontal depth of 6 mm or more were also associated with greater odds

for developing peri-implantitis[66] Thus, the premature and strategic removal of a tooth with periodontitis for the sake of delivering implant therapy should be avoided In addition, when considering extraction of a tooth due to periodontitis and subsequent replacement with a dental implant, clinicians should inform patients regarding the potential risk of developing peri-implantitis, which may ultimately result in implant failure[67]