

# prevention

international magazine for oral health

## science of prophylaxis

The holistic connection between oral and general health

## peri-implantitis

When to avoid implants

## practical prophylaxis

“Prevention is not just for children and young people”

**dti** Dental  
Tribune  
International

*Le microbe n'est rien,  
le terrain c'est tout*

*L. - Sarskewy*



**HOFFMANN'S**

since 1892



## OZONE THERAPY FOR DENTISTS

SAFE AND EFFECTIVE

Means to ameliorate the terrain.  
Ozone Water in combination  
with ozonated oil for periodontitis,  
periimplantitis treatment  
and in oral surgery.



**HOFFMANN'S**  
**PeriO<sub>3</sub> Oil**



[www.hoffmann-dental.com](http://www.hoffmann-dental.com)



MADE IN GERMANY

Booth 11.09C

**EuroPerio 9**

JUNE 20-23 | 2018  
RAI AMSTERDAM



**Magda Wojtkiewicz**

Managing Editor



## “Actually, prevention is *the* key”

Dear Readers,

I have been working as an editor at Dental Tribune International for over twelve years and as a clinical editor for its specialist publications, I have witnessed tremendous changes in many fields of dentistry. In only a few years, analogue become digital and the approach to diagnostics, treatment planning, implant placement and restorative treatment changed completely in dentistry. Currently, the dental professional can design a new smile for a patient before he or she even sits on the dental chair. There are so many new techniques and technologies to apply, but is this really the direction in which dentistry should be developing first of all?

A representative YouGov survey performed in 2017 found that one in three adults in the UK do not brush their teeth twice a day, including a third of men. According to a research conducted in 2015 by renowned toothpaste manufacturer, over 90 per cent of citizens of one of the European countries believe that eating an apple substitutes for brushing. Figures provided by National Smile Month, the UK's largest and longest-running campaign to promote good oral health, show that a third of all children starting school each year have signs of dental caries and tooth extractions are the main reason children are admitted to hospital for general anaesthesia.

These are only some of the frightening figures that continue to shock with information about the low level of oral health worldwide.

There are still patients who think that they do not have to clean their prostheses and parents who do not brush

their children's primary teeth because, after all, they will fall out anyway.

Despite the efforts of the FDI World Dental Federation, the leading global body committed to oral health, which organises educational programmes and awareness campaigns, the level of oral health, even in developed countries like the UK and most of the EU countries, is still unsatisfactory and many people only visit the dentist once they already have a problem.

Therefore, in my opinion, there is a great need to make people aware of the risks and health implications that come with poor oral hygiene and that prevention is the key to a beautiful smile, not zirconia crowns or dental implants. Prosthetic solutions are necessity when prevention fails, but dental professionals should be primarily focused on prevention, should they not?

I feel very grateful that, after so many years of writing and editing articles on how to improve prosthetic solutions, I am finally involved in producing a publication about how to prevent oral disease and maintain good oral health, because I believe that this should be a direction in which dentistry should develop primarily.

With this in mind, I wish you all happy reading of this year's first issue of the **prevention** magazine and hope that the articles will be informative to you and offer you ideas for efficient application in your practice.

Yours sincerely,  
Magda Wojtkiewicz  
Managing Editor



page 06



page 28



page 38

Cover image courtesy of EMS – Electro Medical Systems S.A. (Guided Biofilm Therapy campaign, Miami)



**editorial**

“Actually, **prevention** is *the* key” 03  
Magda Wojtkiewicz

**theory of prophylaxis**

European Federation of Periodontology news 06

**science of prophylaxis**

The holistic connection between oral and general health 10

Eklund Foundation—Supporting research in odontology 14

“Dental implants **require more attention**” 16

**systemic diseases**

Gain a child, lose a tooth? 18

Pregnant women are hardly informed about the importance of oral health 22

Oral microbiota, intestinal microbiota and inflammatory bowel disease 26

We have an enormous influence on children’s overall health 28

**biofilm**

The oral biofilm: What you should know 32

Gingival health benefits of enzymes and proteins in toothpaste 36

**peri-implantitis**

When to avoid implants 38

**special: dental hygiene**

Oral hygiene instructions and patient motivation 42

“We’re all about prevention” 48

Patient motivation techniques 50

My Guided Biofilm Therapy journey 52

**psychology of prophylaxis**

Knowing-doing gap in dentistry 54

**practical prophylaxis**

Already cleaning or still polishing? 56

Patient satisfaction is key 60

“Prevention is **not just** for children and young people” 64

Ozone therapy in dentistry 66

**manufacturer news**

**special**

When prophylaxis means everything and nothing 72

**international events**

**about the publisher**

submission guidelines 77

international imprint 78



# Eklund Foundation for Odontological Research and Education



The Eklund Foundation for Odontological Research and Education was established in 2015 to support research and education in the odontological field. It rests on a donation of MSEK 50 by the Eklund family, founders of the Swedish oral hygiene company TePe Munhygienprodukter AB.

The Eklund Foundation supports international research and education within the dental field. In 2018, the foundation is distributing approximately €160,000 to high-quality projects in odontology. The foundation welcomes applicants from all fields of dentistry and will particularly prioritize projects related to periodontology, implantology and cariology.

“The foundation is a way for us to show our appreciation and create something that will contribute to knowledge and development within the odontological field for many years to come.”

Joel Eklund, CEO, TePe Munhygienprodukter AB

Next application period will be open May, 2019.

Learn more on [www.eklundfoundation.org](http://www.eklundfoundation.org)

European Federation of Periodontology

## European Federation of Periodontology celebrates general assembly in Vienna

Raising awareness of the importance of keeping gingivae healthy throughout a whole lifetime, particularly among people aged over 60, is one of the new priorities of the European Federation of Periodontology (EFP), the leading global organisation on periodontal science and practice. Other aims include strengthening the leadership of the EFP around the world and promoting the status of periodontology among dentists and other health professionals.

More than 75 experts and officers from 30 national scientific societies specialising in periodontal health and implant dentistry

gathered in Vienna in Austria on 17 March to celebrate the EFP's annual general assembly and to discuss future projects. Highlights of the meeting included the appointment of Prof. Anton Sculean as new EFP President, the launch of the EFP mobile app, the international dissemination of the Perio and Caries project, and reports on the final preparations for European Gum Health Day 2018 in May and the EuroPerio9 congress in June.

Sculean, chair of the department of periodontology and executive director of the School of Dental Medicine at the University of Bern in Switzerland, has taken over the helm as EFP President from Prof. Gernot Wimmer, Senior Scientist and Privatdozent at the



Prof. Anton Sculean



Medical University of Graz in Austria. Other major appointments by the assembly included Prof. Lior Shapira (Israel) as new executive committee officer and coordinator of European Gum Health Day 2019, and Prof. Filippo Graziani (Italy) as President-elect. In addition, Prof. Nicola West (UK) and Dr Monique Danser (the Netherlands) will join the EFP's executive committee in 2019 as secretary general and treasurer, respectively.

The EFP's general assembly included the official announcement of European Gum Health Day 2018, to be celebrated on 12 May to raise public awareness across Europe of the importance of keeping gingivae healthy throughout life. "Health begins with healthy gums" is the slogan chosen by the EFP to remind authorities and the public that gingival health is an achievable and cost-effective way to improve general health, public health and quality of life.

By joining European Gum Health Day 2018, more than 25 national societies of periodontology are organising at the national level a wide range of public events, conferences, communication projects, periodontal check-ups and other activities, under the coordination of Dr Xavier Struillou, who is making sure that their messages are aligned.

### EuroPerio9—The world-leading congress

Participants of the Vienna general assembly were informed of the latest preparations for EuroPerio9, which will take place in Amsterdam in the Netherlands between 20 and 23 June and is widely regarded as the world's leading congress in periodontology and implant dentistry. Registration for EuroPerio9 is open and attracting numerous attendees, journalists and companies. The recently finalised scientific programme features innovative session formats, and more than 100 presentations will be deliv-



Prof. Lior Shapira

ered by world-class speakers, supported by a record number of more than 1,700 abstracts, which will be presented via oral presentations, poster discussions and e-posters. Furthermore, the EFP officially launched the phase of international dissemination of its Perio and Caries project, supported by Colgate, which allows all EFP-affiliated societies to take advantage of a wide array of scientific and educational content, including brochures, reports, infographics, videos and other material.

The Perio and Caries awareness project builds on the knowledge extracted from Perio Workshop 2016, the top-level scientific conference organised by the EFP jointly with the European Organisation for Caries Research in November 2016 in La Granja in Spain. EFP-affiliated societies are offered all Perio and Caries publications free and encouraged to disseminate, edit or translate them if they wish. This process has proved successful with a similar initiative previously developed by the EFP, the Oral Health and Pregnancy project, supported by Oral-B, which is now being disseminated by 20 national member societies in their respective languages and countries.

#### EFP Graduate Research Prizes in Periodontology

The first prize of the EFP Graduate Research Prizes in Periodontology, which is given to the best research from EFP-accredited graduate perio programmes, was awarded to the study “At least three phenotypes exist among periodontitis patients”, authored by Dr Chryssa Delatola, Prof. Bruno Loos, Dr Evgeni Levin and Dr Marja Laine from the Netherlands. The second prize was given to research titled “Reduced platelet hyper-reactivity and platelet-leukocyte aggregation after periodontal therapy”, a paper written by Dr Efthymios Arvanitidis, Dr Sergio Bizzarro, Dr Elena Álvarez Rodríguez, Prof. Bruno Loos and Dr Elena Nicu, also from the Netherlands. The third prize went to the study “Oral health in relation to all-cause mortality: The IPC cohort study” by Dr Nicolas Danchin from France, Prof. David Batty from the UK and Prof. Philippe Bouchard from France. Concerning personal recognition, Prof. Jan Wennström received the EFP Distinguished Scientist Award, and Prof. Stefan Renvert the EFP Distinguished Service Award.

#### Strengthening the message

“As the EFP reinforces its leadership and its role as the world benchmark in gingival health and periodontal disease, it is time for us to strengthen the message that gingival health brings not only oral health but also overall health, well-being and quality of life throughout a whole lifetime, and particularly among the population aged over 60,” highlighted Sculean. “I am deeply happy and honoured to lead this exciting time for the EFP and for periodontology in Europe, as we’ll keep working on promoting its acknowledgement as a recognised dental specialty in all EFP countries, and on turning it into an area of interest for dentists, dental students and patients across Europe.”

Wimmer said, “I am proud that this 2018 general assembly has brought together here in Vienna many of the most brilliant periodontal scientists, clinicians and teachers in the world, to review progress made over the last year and to prepare future action with



the aim of tackling the hidden epidemic of periodontal disease. Now I’m ready to continue to contribute to the success of exciting forthcoming EFP projects, starting with EuroPerio9 next June.”

Other major outcomes of the Vienna general assembly were the launch of the EFP app for accessing key EFP content via smartphones and tablets, recognition of the Lithuanian periodontology society as a full-member society and the decision to hold Perio Master Clinic 2019 in Hong Kong next year.

#### EFP—The global benchmark in periodontology

The EFP is the driving force behind EuroPerio—the world’s leading congress in periodontology and implant dentistry—and Perio Workshop, a globally leading meeting on periodontal science. It is an umbrella non-profit organisation that brings together 30 national scientific societies of periodontology in Europe, northern Africa and the Middle East, which together comprise about 14,000 specialist dentists, researchers and other members of the dental team focused on improving periodontal science and practice. The EFP also edits the *Journal of Clinical Periodontology*, one of the most authoritative scientific publications in this field.

More information can be obtained at [www.efp.org](http://www.efp.org).



European Federation of Periodontology

## Interview with Prof. Søren Jepsen, Scientific Chair of EuroPerio9

This year's EuroPerio, the world's leading congress in periodontology and implant dentistry, is expected to attract up to 10,000 periodontists and members of the dental team to learn about the latest in periodontal research and clinical practice, in June in Amsterdam in the Netherlands. In this interview, Prof. Søren Jepsen, past President of the European Federation of Periodontology (EFP) and Scientific Chair of EuroPerio9, outlines the event's scientific programme, which features more than 100 top-level speakers and many innovations. The detailed programme is available at [www.efp.org/europerio9/programme/scientific/index.html](http://www.efp.org/europerio9/programme/scientific/index.html).



**Why should a dentist or a hygienist consider attending EuroPerio9?**  
Because EuroPerio9 is their opportunity to obtain the best insight on periodontology and implant dentistry available in the world until 2021—when EuroPerio10 takes place. EuroPerio9 has gathered the best pool of talented speakers from Europe and around the world for an audience that is increasingly global too. We'll enjoy a great venue in a city as attractive and well-connected as Amsterdam. And then there are the events of the networking programme, the fact that all happens in only four days and the choice between four parallel tracks of presentations according to the attendee's interests. All in all, attending EuroPerio9 is the most enjoyable and cost-effective way to be fully updated on the best in periodontology and implant dentistry available today.

**Will EuroPerio9 be similar to EuroPerio8 (London, UK, 2015) and EuroPerio7 (Vienna, Austria, 2012)?**

It will be definitely unique! We have created the Team Session track, which is more inclusive than the previous separate track for dental hygienists. We have added more sessions on the afternoon of Wednesday, 20 June, to take better advantage of the time before the official opening ceremony. We have arranged sessions in such

a way that many more dental professionals will be able to present their short oral presentations and posters for discussion. We have included the well-established stars in the specialty and have more women speakers and young speakers than ever before. We have built on the best of our successful experiences and we have added a number of new formats.

**What are those new formats?**

We have designed eight new formats. First, on the opening day, we will have a special double session with the Japanese Society of Periodontology, one on biofilm and anti-infective therapy, the other on regenerative periodontal and implant therapy. Second,



the Perio Talks will offer fresh, TED Talk-style presentations given at the first EFP Alumni Symposium. Third is a lively debate about the use of antibiotics, led by Profs. Andrea Mombelli and David Herrera, in which attendees will be able to use their smartphones as voting devices. Fourth, for the first time, a live surgery session will take place at a EuroPerio congress. A new, rarely performed procedure with implants will be carried out by Prof. Giovanni Zucchelli and Dr Martina Stefanini at the Academisch Centrum Tandheelkunde Amsterdam dental school and broadcast in real time.

The fifth major innovation is the interdisciplinary treatment planning session, in which cases will be shown and the audience will choose between different options for treatment. Sixth is a 3-D session with Dr Pierpaolo Cortellini and Prof. Stefan Renvert on reconstructive surgery on teeth and implants, in a large auditorium. Seventh is the EFP Perio Contest, for which presentations will be judged not only by an expert panel but also by social media voting before the congress. The three final contestants will be invited to present their work on stage on the last day of the congress. Eighth is the Nightmare Session, in which Drs Mario Rocuzzo, Giulio Rasperini, Jean-Louis Giovannoli and Caroline Fouque will explore treatments that went badly.

**Being Scientific Chair of EuroPerio9 sounds like quite a challenge. How has the experience been?**

It is, indeed, an incredible challenge, but also an opportunity to work with a wonderful team of periodontists and professional organisers. Together, we have worked hard to put together a high-quality programme with the latest research in the field, the best professionals and the new formats I mentioned. I hope that EuroPerio9 will provide attendees with a fruitful and unforgettable experience!

European Federation of Periodontology

## Periodontal disease and caries—The most common human conditions

Periodontal disease and dental caries are the two most widespread oral conditions in the world and in fact the two most prevalent non-communicable human diseases. Both are preventable<sup>1</sup> and share common genetic, aetiological and environmental factors. Given that they follow different trajectories, they have traditionally been studied separately. Not anymore.

For the first time, the European Federation of Periodontology (EFP) has put forward a new, common approach by launching Perio and Caries, an ambitious Europe-wide project aimed at raising awareness among scientists, health practitioners and the public about the associated causes, risk factors, interactions and prevention measures that may affect both periodontal disease and dental caries. The core element of the Perio and Caries project is the newly created dedicated site [perioandcaries.efp.org](http://perioandcaries.efp.org), which contains a wealth of educational materials, which are freely available and downloadable. These publications include a specially written scientific report compiled by Prof. Nicola West, as well as five targeted recommendation brochures, each providing concise advice for oral health professionals, other healthcare professionals, researchers, policymakers and the population at large.

The Perio and Caries initiative, sponsored by Colgate, has been designed to disseminate the outcomes of Perio Workshop 2016, a major scientific meeting held in La Granja in Spain and jointly organised by the EFP and European Organisation for Caries Research (ORCA). It was co-chaired by Prof. Mariano Sanz (EFP) and Prof. Andreas Schulte (ORCA). All Perio and Caries publications are based on the knowledge generated at Perio Workshop 2016.

Based on the contributions from 75 leading global cariologists and periodontologists organised in four working groups, Perio Workshop 2016 pioneered the exploration of the boundaries between dental caries and periodontal disease. It reviewed all available scientific evidence on common links between these oral conditions, including identified similarities—and the distinct characteristics of each—and recommended clear preventative strategies to help tackle them.

The scientific conclusions of Perio Workshop 2016 are publicly available in a special open-access supplement of the EFP-edited *Journal of Clinical Periodontology*.<sup>2</sup> Furthermore, the Perio and Caries site offers a series of related videos, news, additional documentation and all the scientific papers produced by the four working groups at Perio Workshop 2016, which examined the role of microbial biofilms; the interaction of lifestyle, behaviour and systemic disease; prevention and control; and age-related effects, all in relation to dental caries and periodontal disease.

# Perio & Caries

### Available free to everybody

Perio and Caries materials are to be shared with all 30 EFP-affiliated national societies of periodontology in Europe, northern Africa, the Middle East and the Caucasus, and their members—around 14,000 periodontists, other dentists, researchers and other oral healthcare professionals interested in gingival health. Stakeholders can freely take advantage of this Perio and Caries content in their dental practices, schools, laboratories and companies. The same applies to any other people who may be interested. “The project Perio and Caries disseminates for the first time a new approach to dental caries and periodontal disease as connected conditions,” explained Prof. Mariano Sanz. “Building on the outcomes of Perio Workshop 2016, Perio and Caries pays attention to the common risk factors that make people lose their teeth because of caries, periodontitis or both. Emphasis has been put on patients’ quality of life, not only how these widespread oral diseases impact upon their well-being, but also the reverse situation, how socioeconomic factors heavily influence the prevention, development and treatment of these diseases.”

“Sugar intake, smoking and excess weight are the three key factors to be reduced in order to help tackle both periodontal disease and caries,” pointed out Prof. Iain Chapple, Secretary General of the EFP and co-chair of one of Perio Workshop 2016’s working groups. “By bringing down carbohydrate intake to less than 25 gramme per day, by fighting and ideally eliminating the smoking habit, and by avoiding obesity, we are not only improving our general health, but having a meaningful, positive impact against periodontal disease and dental caries.”

“The main message of Perio and Caries is that tooth loss, periodontal disease and caries are nearly always preventable,” concluded West. “Following simple recommendations such as brushing teeth with fluoride toothpaste twice a day, reducing the amount of sugar and starch in the diet, staying away from tobacco, and seeing your dentist twice a year would improve dental and overall health, as well as alleviate the economic burden of periodontal disease and dental caries. We hope that medical professionals will heed our campaign’s motto: ‘Teeth are for a lifetime. Take action!’ and will guide their patients accordingly.”

*Editorial note: A list of references can be obtained from the publisher.*

