GUIDED BIOFILM THERAPY CARIES AND PERIO PREVENTION AND MAINTENANCE



Evidence-based protocols for biofilm management on teeth, soft tissues and implants.

GUIDED BIOFILM HERAP

MINIMALLY INVASIVE MAXIMALLY PREVENTIVE

ΡΔ

AIRFLOW®

PERIOFLOW[®]

PIEZON PS[®]

MAKE BIOFILM VISIBLE
 AIRFLOW[®] FIRST
 PS INSTRUMENT FOR REMAINING CALCULUS
 LESS POWDER AND HAND INSTRUMENTS
 NO MORE RUBBER CUPS, NO MORE PASTE

GBT - THE NEW AND MODERN WAY

"I FEEL GOOD"

ONLY THE VERY BEST FOR MY PATIENTS
 ONLY THE SWISS ORIGINALS

GBT SAVES TEETH, IMPLANTS



AND MUCH MORE





THE GBT COMPASS AND ITS

BI

08 RECALL

HEALTHY PATIENT = HAPPY PATIENT
▶ Schedule recall frequency according to risk assessment
▶ Ask your patient if he or she liked the treatment

07 CHECK

- MAKE YOUR PATIENT SMILE
- ► Do a final check for remaining biofilm
 - Ensure calculus is fully removed
 - Accurately diagnose caries
 Protect with fluoride
 - Frotect with huoride

06 PIEZON®

REMOVE REMAINING CALCULUS

- ► Use the minimally invasive EMS PIEZON[®] PS Instrument supra- and subgingivally up to 10 mm
- Clean > 10 mm pockets with mini curette
 Use EMS PIEZON[®] PI Instrument
 - around implants up to 3 mm subgingivally and on restorations

05 PERIOFLOW®

REMOVE BIOFILM IN >4 TO 9 MM POCKETS
 Use AIRFLOW® PLUS Powder
 on natural teeth in deep pockets and root
 furcations and on implants
 Use new and slimmer PERIOFLOW® Nozzle

8-STEP PROTOCOL





THE AIM OF GBT IS

GINGIVITIS

EMS Biofilm Discloser visibly reveals the presence of early and mature biofilm. The sulcus area (gingival margin) shows mature biofilm due to an inappropriate brushing technique leaving biofilm untouched.

In this case, GBT was limited to AIRFLOW[®] PLUS Powder up to 3mm. Some bleeding from the gingival margin (red line) indicates low-grade gingivitis. GBT fosters the patient's motivation to use correct tooth brushing techniques.

▶ GBT prevents and treats gingivitis







CARIES DETECTION

Accurate caries detection requires clean teeth. Here, the EMS Biofilm Discloser shows the presence of biofilm, interdentally as well as at the gingival margin. Finally, GBT reveals interdental caries at an advanced 2 stage.

- ▶ GBT helps detect caries with precision.
- ▶ No more biofilm: No more caries.





IMPLANTS

In this sequence of peri-implantitis, AIRFLOW[®] removes supra- and subgingival biofilm up to 4mm. The EMS Biofilm Discloser helps to minimize treatment time. PERIOFLOW[®] removes biofilm in periimplant pockets up to 9mm. Finally, the

PIEZON[®] PI Instrument removes the remaining calculus around the implant.

► GBT contributes to the treatment of peri-implantitis in a minimally invasive way.



TO ELIMINATE ALL BIOFILM ON TEETH, IMPLANTS AND SOFT TISSUES.











Photos: Courtesy, Prof. Magda Mensi





Photos: Courtesy, Beverly Watson



Photos: Courtesy, Prof. Magda Mensi

GUIDED BIOFILM THERAPY

CHILDREN

In this case, using a 2-tone disclosing agent visibly reveals cariogenic biofilm and helps motivate the young patient. Children love AIRFLOW[®] – it is "cool" and they lose the fear of the treatment.

► The pain-free GBT method motivates children and helps prevent caries.

ORTHODONTICS

Orthodontic appliances are a challenge for patients and professionals performing biofilm management. Using a 3-tone disclosing agent reveals cariogenic biofilm (pH < 4,5) in areas difficult to access during home care and helps to motivate the young patient. AIRFLOW[®] PLUS Powder during GBT reveals

demineralized white spots which were impossible to identify before.

- ▶ GBT prevents caries during orthodontic treatment.
- ▶ GBT maintains orthodontic appliances.

EXPOSED DENTINE

Biofilm and calculus removal on exposed dentine surfaces is usually critical in terms of patient comfort (dentine hypersensitivity) and risk of over instrumentation. The disclosed biofilm helps to minimize AIRFLOW[®] treatment and 2 to save time. No more color (of the disclosing

agent) - no more biofilm. AIRFLOW[®] PLUS Powder and PIEZON[®] NO PAIN with PS Instrument are the best assurance for high quality and painfree treatments.

▶ GBT preserves exposed dentine preventing sensitivity.

STAINS AND CALCULUS

AIRFLOW[®] removes stains and facilitates further calculus removal with PIEZON[®] PS Instrument, minimizing power instrumentation.

▶ GBT will make your patient smile again.











identify before. atment.





MORE CASES







Photos: Courtesy, Dr. Gleb Aseev





Photos: Courtesy, Dr. Gleb Aseev





Photos: Courtesy, Prof. Magda Mensi





WHY GBT IS THE...

▶ Dental biofilm is the main etiological factor for caries, periodontitis and peri-implant infections. Periodontitis may increase the risk of systemic diseases, such as cardiovascular and respiratory disorders, arthritis or diabetes.

▶ Regular oral hygiene, combined with professional measures, keeps biofilm under control – for a better oral and systemic health. Axelsson and Lindhe pioneered preventive dentistry in the 1970's with studies and clinical protocols based on prophylaxis in "recall hours".^{1–2}

▶ GBT follows the recommendations on Professional Mechanical Plaque Removal (PMPR) and Oral Hygiene Instructions (OHI) for Home Care issued by the European Federation of Periodontology (EFP).^{3–5}.

• "Periodontal Health for a Better Life!"

PROFESSIONAL TOOTH CLEANING CAN BE A PAINFUL EXPERIENCE



PATIENTS DO NOT LIKE IT AND OFTEN STAY AWAY FROM RECALLS



This shows that dental biofilm is not always visible.

Removing calculus with hand instruments can often be painful for the patients. Dental surfaces and implants often will be scratched.

2 Polishing with rotary rubber cups and brushes is time-consuming and often messy. With many areas not reachable, the gingiva will be affected mechanically. Dental hygienists and assistants know that traditional cleaning may be a painful experience. For this reason, patient compliance is not often very high. Now, almost fifty years later, it is time for change.

1. Axelsson P. Preventive Materials, Methods and Programs: Quintessence Publishing, 2004. | 2. Axelsson P, Nystrom B, Lindhe J. The long-term effect of a plaque control program on tooth mortality, caries and periodontal disease in adults. Results after 30 years of maintenance. Journal of Clinical Periodontology 2004;31:749-757. | 3. Tonetti MS, Chapple ILC, Jepsen S, Sanz M. Primary and secondary prevention of periodontal and peri-implant diseases. Journal of Clinical Periodontology 2015;42:S1-S4. | 4. Tonetti MS, Eickholz P, Loos BG, Papapanou P, van der Velden U, Armitage G, et al. Principles in prevention of periodontal diseases. Journal of Clinical Periodontology 2015;42:S1-S4. | 4. Tonetti N, Dommisch H, Farina R, Kononen E, et al. Effect of professional mechanical plaque removal on secondary prevention of periodontitis and the complications of gingival and periodontal preventive measures. Journal of Clinical Periodontology 2015;42:S214-S220.

GAME CHANGER



GBT IS THE NEW AND PATIENT ORIENTED CONCEPT

L Before removal, biofilm is always disclosed with a dye solution. Biofilm and early calculus are easily removed with AIRFLOW[®] and PERIOFLOW[®] – supra- and subgingivally.

2 If needed, this is followed by debridement with PIEZON[®] PS NO PAIN piezoceramic instruments.

3 Guided Biofilm Therapy means that the clinician is guided by the disclosed biofilm during tooth cleaning procedures.

4 Guided Biofilm Therapy is truly minimally invasive and reduces the need for hand and sonic/ultrasonic instrumentation. It is safe, effective and gentle to teeth and soft tissues, implants and restorations.¹⁻⁴

5 GBT is very comfortable for patients and practitioners.⁵ It is efficient and timesaving.⁶ This also valid for primary caries and perio prevention in children and teenagers.



6 GBT is part of a comprehensive preventive concept – to preserve your patients' oral health – and to make the patients feel good.

Since 1982 EMS has provided dental practices all over the world with AIRFLOW[®] air polishing and PIEZON[®] PS NO PAIN piezoceramic scaling technology.

b In 2012 EMS added the high-tech erythritol-based AIRFLOW[®] PLUS Powder with a particle size of only 14 μ m.

Y Guided Biofilm Therapy is based on clinically proven technologies invented by EMS. It was developed in cooperation with highly respected and experienced periodontologists, caries specialists and dental hygienists.

10 GBT is a systematic, predictable, risk-oriented and user-friendly treatment for all age groups and each individual patient.

1. Wennstrom JL, Dahlen G, Ramberg P. Subgingival debridement of periodontal pockets by air polishing in comparison with ultrasonic instrumentation during maintenance therapy. Journal of Clinical Periodontology 2011;38:820-827. | 2. Ronay V, Merlini A, Attin T, et al. In vitro cleaning potential of three implant debridement methods. Simulation of the non-surgical approach. Clinical Oral Implants Research 2017;28:151-155. | 3. Bühler J, Amato M, Weiger R, Walter C. A systematic review on the effects of air polishing devices on oral tissues. International Journal of Dental Hygiene 2016;14:15-28. | 4. Barnes CM, Covey D, Watanabe H, et al. An in vitro comparison of the effects of various air polishing powders on enamel and selected esthetic restorative materials. The Journal of Clinical Dentistry 2014;25:76-87. | 5. Aslund M, Suvan J, Moles DR, et al. Effects of two different methods of non-surgical periodontal therapy on patient perception of pain and quality of life: a randomized controlled clinical trial. Journal of Periodontology 2008;79:1031-1040. | 6. O'Hehir TE. How subgingival air polishing will turn dental hygiene upside down. Interview with Prof. Dr. Thomas Flemmig. dentaltown.com 2014:94-96. | 7. Flemmig TF, Arushanov D, Daubert D, et al. Randomized controlled trial assessing efficacy and safety of glycine powder air polishing in moderate-to-deep periodontal pockets. Journal of Periodontology 2012;83:444-452.

PROBABLY THE BEST PROFESSIONAL

1. WHY MAKE BIOFILM VISIBLE?

▶ With GBT we intend to eliminate all the biofilm, including areas which are difficult to access.

- ▶ If biofilm is made visible, it is removed much faster with GBT.
- ▶ What you see is what you remove.

Color removal = Biofilm removal. Also on soft tissues.

► The users of hand instruments, rubber cups and "polishing" paste do not like to disclose biofilm as they would need much more time to finish the treatment.

▶ The German Stiftung Warentest reported that the conventional prophylaxis only removes 50% of Biofilm in the difficult to access areas.

• Colored teeth and gums will also help motivate the patient to improve their homecare – OHI.





Courtesy, Dr. Gleb Aseev

2. WHY AIRFLOW® FIRST?

▶ AIRFLOW[®] removes biofilm, stains and colorations first as well as the thin layers of early forming calculus. Now you will see the remaining calculus better and it will be easier to eliminate it with the PIEZON[®] NO PAIN PS Instrument.

▶ With GBT the removal of calculus in supra- and subgingival areas is easier, faster and truly minimal invasive.

▶ This pain free and comfortable GBT treatment method, if done correctly by trained GBT dental professionals will help create happy and loyal patients for your recall practice.

▶ AIRFLOW[®] = CASH FLOW.

TOOTH CLEANING EVER...



3. WHY ONLY THE PS INSTRUMENT?

▶ The PIEZON[®] PS (Perio Slim) Instrument is slim and smooth like a probe. It is gum-friendly, minimally invasive, maximally preventive and preserves the epithelium due to its absolute linear movements.

▶ By using only one instrument to do 95% of the work, things will be easier. For the 5% that remain we recommend our new curved PIEZON® PSL and PSR (Perio Slim Left and Right) Instruments. The PIEZON® PS Instrument gives the clinician a good haptic and secure feeling when working subgingival.



THE GLASS PLATE TEST:

Touch the glass plate with the PS instrument on its side as shown on the left, set the Piezon to medium power, apply gentle pressure, turn on the spray and you won't hear anything - acoustic proof that you have the right instrument in your hand. Now allow a small lump of dental cement to harden on the glass plate. Then lay the instrument to one side on the glass plate as in the previous test and guide it towards the "tartar". You will notice that it disappears instantly. That is precisely what makes it so different from other instruments which do not move in such a controlled and consistent fashion.

- ▶ The treatment with the PS instrument is Pain Free if used the correct way.
- ▶ A Pain Free and pleasant treatment is the dream of every patient.

This is the key for patient loyalty and satisfaction.

▶ The cost of a PS instrument is only 5 cents per treatment and per patient!

It is absolute nonsense to buy copy or "compatible" tips.

▶ If EMS handpieces get damaged (e.g. the thread) with a "compatible" tip you will lose your EMS warranty.

▶ The PIEZON[®] PS Instrument, the PIEZON[®] Handpiece and the PIEZON[®] NO PAIN electronic module were made/matched for each other. This Trilogy works in harmony.

4. WHY NO MORE "POLISHING" PASTE?



BEFORE CLEANING, **RESIDUAL BIOFILM**

► The enamel prisms of the natural tooth enamel are easily recognizable. Thephotoshowstheremnants of the bacteria killed off with sodium hypochlorite.¹

AFTER "POLISHING" WITH AFTER CLEANING WITH LOW-ABRASIVE PASTE RDA 27 AIRFLOW® PLUS POWDER

been "polished" away. Pastes have caused scratches. Biofilm has spread into natural crevices. • Overall abrasive pastes cause a loss of valuable enamel. No of the dental improvement surface.¹

▶ The vital enamel prisms have ▶ The biofilm has been removed with AIRFLOW[®]. The surface is clean down to the pores. No abrasion. The enamel prisms remain intact and the surface is

perfectly smooth. The tongue no longer feels any roughness - no need to "polish" with abrasive paste. Save enamel and treatment time.¹

ONE POWDER ONLY FOR 90% OF ALL CASES



OPTIMAL COMFORT MINIMALLY INVASIVE MAXIMALLY PREVENTIVE

TEETH

- Primary and permanent teethInterdental spaces

- Crowded teeth Exposed dentine Pits and fissures
- Demineralized enamel

CARIES MANAGEMENT

- Before caries detection
- Before sealing
 Before fluoridation

SOFT TISSUES

- ► Sulcus
- Shallow pockets up to 4mm
 Deep pockets >4 to 9mm
- ► Tongue and palate

ORTHODONTICS

- Orthodontic brackets
 Patients with Invisalign

AESTHETIC DENTISTRY

- Crowns and veneers
- Before placing restorationsBefore bleaching

IMPLANTS

- Peri-implant sulcus
- Deep peri-implant pockets.



ONE INSTRUMENT ONLY FOR 95% OF ALL CASES

OPTIMAL COMFORT MINIMALLY INVASIVE MAXIMALLY PREVENTIVE

SUPRAGINGIVAL

Primary and permanent teeth
 Best interproximal access¹

ezon

- Crowded teeth
- ► Exposed dentine

SUBGINGIVAL

- Sulcular deposits
 Preserves the epithelium
 Pockets up to 10mm

ORTHODONTICS

Around orthodontic brackets

THE SWISS ORIGINAL.

THE AIRFLOW® PROPHYLAXIS MASTER



superb design. Highest performance, reliability and know-how. Experts in prophylaxis since 1981.

1 GOOD DESIGN[®], one of the most important design awards in the world from the Chicago Athenaeum Museum of Architecture and Design.

THE SWISS MASTER.

THE PROPHYLAXIS STATION



The Swiss-Made AIRFLOW[®] Prophylaxis Master was developed at the EMS Research Centre with more than 100 000 hours of technical and clinical testing in collaboration with leading dental professionals worldwide.

04 AIRFLOW®

AIRFLOW® REMOVES BIOFILM, STAINS & EARLY CALCULUS. CLEANS AND POLISHES AT THE SAME TIME.

► After the use of AIRFLOW[®] no extra polishing with rubber cups/paste is necessary any more.

- ▶ Dental practices using AIRFLOW[®] and GBT have more and happier recall patients.
- ▶ Professional prophylaxis is becoming an important economic factor.¹



 AIRFLOW[®] removes biofilm and early calculus in all these situations. It also cleans the gingival or peri-implant sulcus to a depth of 4mm.²⁻⁴ At the same time AIRFLOW[®] is fast, efficient and comfortable for the patient.
 Fine tune the air pressure/power for all clinical situations.

THE MULTITASKER





AIRFLOW[®] POWDERS

STUDY FROM BARNES, ET AL J CLIN DENT 2014, 25-76-87 ON POWDER ABRASITIVITY.

▶ Objective: The purpose of this study¹ was to investigate the effects of each of the commercially available air polishing powders on the surface characterization of human enamel, hybrid composite, and glass ionomer using a highly standardized protocol. The air polishing powders utilized in the study included aluminum trihydroxide, calcium carbonate, calcium sodium phosphosilicate, glycine, and sodium bicarbonate.

THERE ARE DAMAGING POWDERS IN THE MARKET

▶ Based on the results of this study, the air polishing powders that are compatible with use on hybrid composite and glass ionomer cements are EMS glycine and EMS sodium bicarbonate. The air polishing powders that are compatible for use on enamel include EMS glycine, Dentsply sodium bicarbonate, and EMS sodium bicarbonate. In the study a particle size of 65µm of the EMS powder was used. Since 2013, EMS has reduced the particle size of its Comfort sodium bicarbonate Powder to only 40µm.

"The results of this research indicate that there are air polishing powders that are significantly less abrasive than others, even with similar ingredients,

specifically sodium bicarbonate."

▶ Please read the full study, just download the QR code below.

ERYTHRITOL 14µm PLUS POWDER

► Today, EMS offers an even better erythritol based prophylaxis powder, which enables supra- and subgingival treatment with superior comfort and efficiency than glycine powder.





OSSPRAY CALCIUM SODIUM PHOSPHOSILICATE¹



EMS AIRFLOW[®] PLUS POWDER ERYTHRITOL²





EMS SODIUM



EFFECT OF 5 SEC AIR POLISHING ON HUMAN ENAMEL



EFFECT OF 5 SEC AIR POLISHING ON GLASS IONOMER

1. Barnes CM, et al. J Clin Dent 2014;25:76-87. \mid 2. For AIRFLOW* PLUS Powder, complimentary tests have been submitted to the J Clin Dent (Barnes CM, et al.). \mid 3. Barnes CM, et al. J Clin Dent 2014;25:76-87. The EMS sodium bicarbonate had a particle size of 65 µm. New Powder AIRFLOW* CLASSIC Comfort has 40 µm particle size, for more smoothness and patient comfort. Download full study

EMS POWDER GUIDE

▶ With 2 chemical laboratories in Germany and Switzerland, EMS is the only company producing its own powder. With 35 years of clinical research and testing, many scientific studies and millions of patients treated, EMS recommends the following 2 powders for all clinical cases.

RECOMMENDED

OTHER EMS POWDERS

| Name | •••••••••••••••••••••• | PLUS | CLASSIC COMFORT | CLASSIC | SOFT | PERIO | •• |
|---------------|---------------------------|------------|------------------------------------|-----------------------|------------|------------|-----|
| Ref | •••••••••• | DV-082 | DV-048 | DV-048/ LEM/65 | DV-071 | DV-070 | •• |
| Flavor | | NEUTRAL | LEMON MINT CHERRY NEUTRAL | LEMON | NEUTRAL | NEUTRAL | •• |
| Composition | | ERYTHRITOL | SODIUM BICARBONATE | SODIUM BICARBONATE | GLYCINE | GLYCINE | |
| Particle size | | ~14µm | ~40µm | ~65µm | ~65µm | ~25µm | |
| pН | | ~7 | ~8.1 | ~8.1 | ~6 | ~6 | |
| Teeth | Stains and early calculus | / | / | / | ~ | \bigcirc | |
| | Enamel | / | / | / | / | / | |
| | Enamel white spots | / | \bigcirc | \oslash | \oslash | / | |
| | Pits and fissures | / | \bigcirc | \bigcirc | \oslash | \oslash | |
| | Dentine | / | \bigcirc | \bigcirc | \bigcirc | / | |
| Soft tissues | Gingiva | V | \oslash | \oslash | \bigcirc | V | |
| | Tongue and palate | / | \bigcirc | \bigcirc | \bigcirc | / | •• |
| Restorations | Hybrid composite | V | \oslash | \oslash | ~ | ~ | |
| | Glass ionomer | / | \bigcirc | \oslash | \bigcirc | / | ••• |
| Implants | and peri-implant tissues | / | \bigcirc | \bigcirc | \bigcirc | / | |
| Orthodontics | Brackets and appliances | / | \bigcirc | \bigcirc | \bigcirc | / | |

Beware of so-called "EMS compatible" powders in the market, which can damage oral tissues and the device. See here a nozzle completely damaged by such aggressive powders.

▶ Use only EMS powders with your EMS devices.

▶ The use of not authorized powders by EMS will result in a loss of warranty.

05 PERIOFLOW[®]

NEW PERIOFLOW® NOZZLE

► Subgingival biofilm removal (debridement) in >4 to 9 mm periodontal¹ and peri-implant² pockets

- ▶ Initial and follow-up (SPT) periodontal therapy³
- ▶ Prevention of mucositis / peri-implantitis⁴
- ▶ Initial and follow-up treatment of mucositis / peri-implantitis⁵

1. Sculean A, et al. Quintessence Int 2013;44:475-477. | 2. Schwarz F, et al. Quintessence Int 2016;47:293-296. | 3. Flemmig TF, et al. J Periodontol 2012;83:444-452. | 4. Muller N, et al. J Clin Periodontol 2014;41:883-889. | 5. Riben-Grundstrom C, et al. J Clin Periodontol 2015;42:462-469

FIRST TO GO SUBGINGIVAL

NEW PERIOFLOW® NOZZLE

EMS invested in research on safety matters before it decided to offer the subgingival $\rm PERIOFLOW^{\tiny (8)}$ application.

EMS' main concern was to limit risks of emphysema.

In 2019 at IDS, EMS will offer for sale the third generation new PERIOFLOW[®] exchangeable nozzle - slimmer, safer and easier to use.

The new PERIOFLOW[®] Nozzles are thinner and more flexible and able to adapt to the topography of periodontal/peri-implant pockets. A pressure release groove limits pressure in periodontal/peri-implant pockets.

PERIOFLOW[®] APPLICATIONS

PERIODONTAL POCKETS

PERI-IMPLANT POCKETS

ROOT FURCATION

06 PS INSTRUMENT

AFTER USING AIRFLOW®, REMOVE REMAINING SUPRA- AND SUBGINGIVAL CALCULUS WITH THE PIEZON® NO PAIN¹ PS INSTRUMENT.

Linear movement of the PS Instrument
 = no damage to tooth surfaces and soft tissues.
 Minimally invasive with regard to root cementum.
 Dynamic power setting.

▶ "EMS PS (Perio Slim) Instrument delivers the best interproximal and subgingival access."²

▶ Patients will be surprised as the treatment with the PIEZON® PS Instrument will be entirely Pain Free when used in the correct way by Dental Professionals.

1. NO PAIN: when used in accordance with EMS instructions and/or the training by the Swiss Dental Academy.

2. CRA, Clinical Research Associates, USA. Newsletter June 1998.

95% OF ALL CASES

PHOTOS: COURTESY, PROF. MAGDA MENSI

CALCULUS REMOVAL WITH EMS PIEZON® PS INSTRUMENT

PS - THE ONE AND ONLY

O7 CARIES CHECK

CARIES DETECTION REQUIRES CLEAN TEETH

The following dental surfaces are most at risk for caries^{1,2}:

- 1 Occlusal.
- 2 Approximal.
- 3 Cervical areas.

In these areas:

► GBT helps effectively remove the biofilm and prevent caries in a minimally invasive way.

At an early stage of demineralization, caries is often hard to detect even with X-rays. Biofilm and calculus may conceal them. The International Caries Detection and Assessment System - ICDAS (2011) underscores the importance of "clean and dry" surfaces for accurate detection.

1 OCCLUSAL

COURTESY, PROF. DENT. HERVÉ TASSERY , MARSEILLE/FRANCE

2 APPROXIMAL

COURTESY, DR. WOLFGANG GUTWERK ASCHAFFENBURG/GERMANY

3 CERVICAL

COURTESY, PROF. DENT. ADRIAN LUSSI, BERN/SWITZERLAND

AND EARLY TREATMENT

14µm PLUS POWDER AND EARLY TREATMENT

COURTESY, PROF. DENT. HERVÉ TASSERY , MARSEILLE/FRANCE

The width of occlusal fissures of cavities is often less than 100 μ m. This is less than toothbrush bristles and any hand instrument.

Disclosing + AIRFLOW sequence supporting early caries treatment:

- ► After an initial biofilm disclosure, the fissure is cleaned with AIRFLOW[®] PLUS 14µm Powder.
- ► If needed, enlarge the fissure with 40µm CLASSIC Comfort Powder and polish with PLUS Powder.
- ▶ Burs can be used selectively \Rightarrow^2 in addition to AIRFLOW[®] if the lesion is still present.
- ► Clean with AIRFLOW[®] erythritol prior to sealing enables optimal adhesion.

AIRFLOW[®] BEFORE COMPOSITE RESTORATIONS

COURTESY, PROF. DENT. HERVÉ TASSERY , MARSEILLE/FRANCE

EMS AND PHILIPS COOPERATE

▶ Philips and EMS have decided to combine forces to improve the oral health of patients as any successful Prophylaxis is based on two pillars: Homecare and Professional Oral Care.

▶ Many years ago both companies envisioned the future importance of Prevention and Prophylaxis and consequently focused their efforts to continue offering better oral healthcare – Philips for Dental Care at Home and EMS for Dental Professionals.

TO IMPROVE ORAL HEALTH

- ► GBT is a modern clinical protocol for Professional Tooth Cleaning. Philips joins GBT with its Homecare Oral Hygiene Consultation.
- ▶ For many years Philips and EMS have been leaders in oral healthcare, so today's cooperation was predictable and logical.
- ▶ This will help Patients and Dental Professionals to maintain and to improve oral health daily in a modern, efficient, gentle and pain-free way. In the spirit of: "Healthy Mouth - Healthy Body"

GBT IS COOL...*

"I do not want to do without Airflow technology or airpolishing in my everyday work. Gentle on substance, clean, pleasant for patients and quicker, particularly in the interdental spaces. The results are accordingly good. Less inflammation, and the tooth necks are no longer sensitive after treatment." **PETRA NATTER**,

DENTAL HYGIENIST

"The devices of the company EMS helped us very much to simplify the procedure protocol of our "prophylaxis sessions", to make it more gentle on substance and more patientfriendly (less pain). After more than 3 years, prophylaxis has become a technically and economically very important part of our dental practice thanks also to the scientific and technical competence (e.g. NO PAIN with PS tip, PLUS Powder) of EMS." DR. NADINE STRAFELA-BASTENDORF, DENTIST

"Tm so happy with GBT, I could not accept any other tooth cleaning method anymore. Due to GBT I see my dentist regularly and gladly for my prophylaxis. And each time I leave the office I'm happy with my clean and brilliant white smile! To me prophylaxis with GBT has become a great experience and I dearly recommend it!" SABINE PAVICIC, PATIENT "Due to the small particle size of the product, especially the Plus powder, there is practically no traumatic gingivitis anymore...We were able to increase turnover in the area of prophylaxis by approx. 50 percent from 2015 to 2016, which is surely also due to the now much more pleasant treatment. The reactions were positive without exception." **DIRK PALME. DENTIST**

"Patients started to book in particularly with me. They thought I was more gentle than the other hygienists and their mouths were feeling better than ever.

The bosses had also noticed a seemingly higher standard of treatment being delivered with lower bleeding scores and cleaner mouths coming from my surgery.

They thought it was me. They thought I was more skilled. A better motivator. An exceptional communicator.

It wasn't me. It was the AIRFLOW[®]." FAYE DONALD, BEST UK DENTAL HYGIENIST 2014 AND 2017 "With the EMS devices, we can motivate our patients in terms of prophylaxis. Through a pleasant feeling in the mouth – WELLNESS factor. Removal of stains – BEAUTY factor. 100% plaque removal – HEALTH factor." MICHAELA GRUL

BIOFILM PATIENTS AND USERS ARE FANS

THERA

CLINICAL EVIDENCE

01 ASSESS

Anamnesis: review the case history¹ of your patient and raise awareness of caries promoting and reducing factors². Pre-rinse with BacterX[®] Pro³. After patient and clinician preparation⁴, perform the periodontal probing and screening⁵.

02 DISCLOSE

Apply disclosing solution^{6,7}, then rinse with water.

03 MOTIVATE

Show your patients the disclosed biofilm^{6,7} and provide appropriate oral hygiene instruction⁶. EMS recommends Philips Sonicare^{8,9}.

04 AIRFLOW®

Remove stains¹⁰, biofilm^{11,12} and early calculus supra- and subgingivally up to 4mm on natural teeth¹³, implants¹⁴, restorations, orthodontic brackets¹³, dentine¹⁵ and soft tissues^{16,17,18}.

05 PERIOFLOW[®]

Remove biofilm in 4-9 mm periodontal and peri-implant pockets^{11,17,18,19}.

06 PIEZON®

Remove calculus^{20,21} on natural teeth up to 10 mm subgingivally^{22,23} with PS Instrument NO PAIN*²⁴ and on implants up to 3 mm subgingivally with PI Instrument.

07 CHECK

Check for any remaining biofilm, stains and calculus. Diagnose caries² and other dental hard-tissue defects, protect with fluoride²⁵ and inform the patient on personal preventive measures²⁶.

08 RECALL

Schedule next recall appointment adapting recall frequency to individual risk^{27,28}.

1. NO PAIN applies when used in accordance with EMS instructions and/or training by the Swiss Dental Academy

1 ADHA - Standards for clinical dental hygiene practice (page 6)

American Dental Hygienists' Association, adopted March 2008, revised 2016 / Stainbach P, Smith M, Burch S. "A health history assessment includes multiple data points that are collected through a written document and an oral interview. The process helps build a rapport with the patient and verifies key elements of the health status. Information is collected and discussed in a location that ensures patient privacy and complies with the Health Insurance Portability and Avertic builty." and Accountability Act (HIPAA)." Link

2 WHITE PAPER ON DENTAL CARIES PREVENTION AND MANAGEMENT: A summary of the current evidence and the key issues in controlling this preventable disease

(pages 23-25) FDI World Deni

FDI World Dental Federation 2016 / Pitts N, Zero D. Risk assessment must be considered as an essential component in the clinical decision-making process in dental practice to determine the appropriate level of patient care. Link

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6 EFFECT OF VISUAL METHOD VS PLAQUE DISCLOSURE IN ENHANCING ORAL HYGIENE

IN ADDLESCENTS AND YOUNG ADULTS: a single-blind randomized controlled trial *American Journal of Orthodontics and Dentofacial Orthopedics 2014, 145(3) / Peng Y, Wu R, Qu W, Wu W, Chen J, Fang J, Chen Y, Farella M, Mei L.* The use of images showing the severe consequences of biofilm accumulation enhanced the

oral hygiene of patients treated with fixed appliances. Link 7 EFFECTIVENESS OF PLAQUE INDICATORS AND AIR POLISHING FOR THE SEALING OF

PITS AND FISSURES European Journal of Paediatric Dentistry 2010, 11(1) / Botti RH, Bossù M, Zallocco N, Vestri A, Polimeni A.

Disclosing agent is a must before cleaning pits and fissures. Air polishers ensure complete removal of plaque from the tooth before placing a sealing material. Link

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The 40 µm sodium bicarbonate powder removed dental stains as efficiently as the 65-µm powder. Powder handling and patient acceptance were comparable between grain sizes of 65 and 40 µm. Link

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parameters for the treatment of peri-implantitis, which were maintained for up to 12 months. Link

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The Journal of Clinical Dentistry 2014, 25(4) / Barnes CM, Covey D, Watanabe H, Simetich B, Schulte JR, Chen H. Air polishing powders compatible with enamel are EMS glycine and EMS sodium bicarbonate powders. Link

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Quintessence International 2013, 44(7) / Sculean A, Bastendorf KD, Becker C, Bush B, Einwag J, Lanoway C, Platzer U, Schmage P, Schoeneich B, Walter C, Wennström JL, Flemmig TF. Subgingival air-polishing with glycine powder is efficient, fast, comfortable and safe. Link

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D, Rothen M, Mueller G, Leroux BG. The results indicate that supragingivally applied glycine powder air polishing is more efficacious in removing subgingival biofilm in moderate-to-deep periodontal pockets than scaling and root planing. Furthermore, full-mouth glycine powder air polishing may result in a beneficial shift of the oral microbiota and appears to be well tolerated. Link

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the pressure-controlled probe and the Gracey curette. Link

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This short-term study revealed no pertinent differences in clinical or microbiological outcomes between subgingival air polishing and ultrasonic debridement of moderate deep pockets in supportive periodontal therapy patients. Link

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Clinical Oral Investigations 2017, 21(5) / Müller S, Huber H, Goebel G, Wimmer G, Kapferer-Seebacher I.

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