

GUIDED BIOFILM THERAPY

A GAME CHANGER FOR BETTER ORAL PROPHYLAXIS



EMS
MAKE ME SMILE.

SCIENTIFIC CONSENSUS GUIDED BIOFILM THERAPY PROTOCOL

A NEW CONCEPT FOR PRIMARY AND SECONDARY PREVENTION

Guided Biofilm Therapy (GBT) is an evidence-based, indication-oriented, systematic and modular protocol for managing oral biofilm and calculus in prevention, therapy and maintenance of oral health. In addition to prophylaxis, this eight-step protocol forms the foundation for all non-surgical periodontal and peri-implant treatments.

By utilizing state-of-the-art technologies such as AIRFLOW® MAX, PERIOFLOW® with AIRFLOW® PLUS Powder and PIEZON® PS, GBT ensures minimally invasive, highly preventive treatments with strong patient and clinician compliance. GBT supports long-term oral health by integrating personalized home care instructions, empowering patients to maintain their oral hygiene between professional treatments.

Beyond high patient satisfaction^{1,2}, GBT is associated with an increase in recall adherence. Peer-reviewed studies confirm that GBT is ergonomically optimized³, significantly more effective⁴, saves time⁴ and more economical.^{5,6} It can therefore be implemented particularly efficiently and successfully by the dental prophylaxis teams.⁷

Nyon/Switzerland, March 6th, 2025, Consensus

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LINK TO
LITERATURE LIST

PATIENTS LOVE GBT!

GUIDED BIOFILM THERAPY - GBT - IS AN EVIDENCE-BASED, INDICATION-ORIENTED, SYSTEMATIC AND MODULAR PROTOCOL FOR PREVENTION, THERAPY AND MAINTENANCE.



THE GBT COMPASS AND ITS 8-STEPS PROTOCOL

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

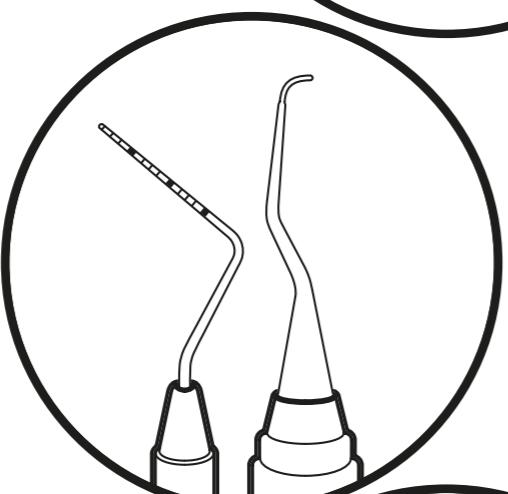
MAKE YOUR PATIENT SMILE

- Do a final check for remaining biofilm
- Ensure calculus is fully removed
 - Accurately diagnose caries
 - Protect with fluoride
 - No polishing anymore

06 PIEZON® PS

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 MAX Instrument around implants up to 3 mm subgingivally and on restorations



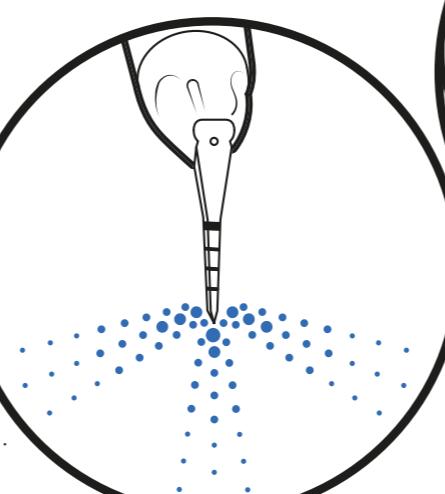
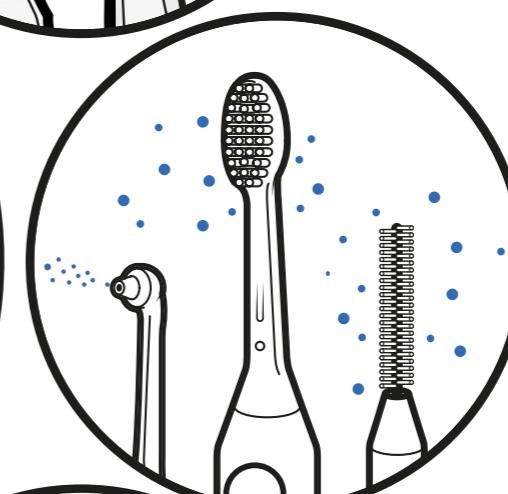
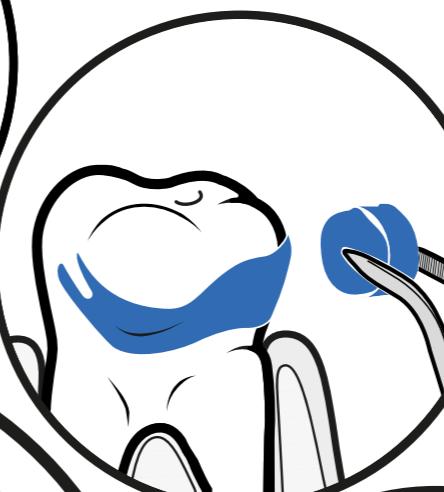
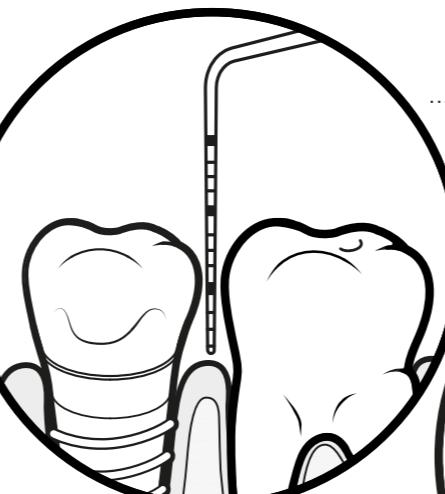
05 PERIOFLOW®

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



GUIDED BIOFILM THERAPY®



01 ASSESSMENT AND INFECTION CONTROL

ASSESS EVERY CLINICAL CASE AND IMPLEMENT HYGIENE MEASURES

- Start by rinsing with BacterX® Pro mouthwash
- Assess teeth, gingiva and periodontal tissues
- Assess implants and peri-implant tissues

02 DISCLOSE

MAKE BIOFILM VISIBLE

- Highlight to patients the disclosed biofilm and their problematic areas with EMS Biofilm Discloser
- The color will guide biofilm removal
 - Once biofilm is removed, calculus is easier to detect

03 MOTIVATE

RAISE AWARENESS AND TEACH

- Emphasize the importance of prevention
- Instruct your patients in oral hygiene
- EMS recommends interdental brushes or dental floss as well as electric or manual toothbrushes and AIRFLOW® erythritol toothpaste for daily home care

04 AIRFLOW® MAX

REMOVE BIOFILM, STAINS AND EARLY CALCULUS

- Use AIRFLOW® MAX for natural teeth, restorations and implants
- Remove biofilm supra- and subgingivally up to 4 mm using AIRFLOW® PLUS 14 µm Powder
- Also remove biofilm from gingiva, tongue and palate

WHY GBT?

- 1 A GAME CHANGER FOR BETTER ORAL PROPHYLAXIS
- 2 GOOD ORAL HEALTH = **HEALTHY PATIENT**
- 3 **BEST CLINICAL PROTOCOL = BEST CLINICAL RESULTS.**
GBT REDUCES THE RISK OF CARIES, GINGIVITIS AND PERIODONTAL DISEASE.
"We can be sure only when biofilm has been completely removed."
Nicole Einemann and Manuela Cordes, Dental Hygienists, Dr. Arendt Dental, Bremerhaven, Germany
- 4 **PATIENTS WANT GBT. NOTHING ELSE.**
NO MORE FEAR OF PAIN. HIGH PATIENT COMFORT.
ONCE EXPERIENCED, PATIENTS LOVE GBT,
ESPECIALLY CHILDREN.
- 5 **SATISFIED CLINICIANS,**
RELAXED PATIENTS. EFFICIENT, SYSTEMATIC
WORKFLOW WITH ERGONOMIC INSTRUMENTS.
BYE-BYE STRESS, BYE-BYE CARPAL TUNNEL S., BYE-BYE BIOFILM.
- 6 **SUCCESSFUL DENTAL PRACTICES -**
GOOD MONEY FOR GOOD WORK. ENTHUSIASTIC PATIENTS WILL
RECOMMEND THE **GBT-CERTIFIED PRACTICE**.
- 7 **ORAL MEDICINE & PREVENTION ARE THE FUTURE OF DENTISTRY.** GBT IS THE FUTURE OF PREVENTION.
- 8 **GBT IS A SURPRISING "I FEEL GOOD EXPERIENCE".**
STATE-OF-THE-ART IS FAVORED BY PATIENTS.
AND BY CLINICIANS.



HOW TO DO GBT?

- 01 **ASSESSMENT AND INFECTION CONTROL**
Protect your patients and your practice team from infections. Start GBT by rinsing 40 seconds with BACTERX® Pro. Diagnosis and documentation of the individual supra- and subgingival status for each patient.
- 02 **DISCLOSE**
Make the oral biofilm visible by disclosing and explain the **WHY** to the patient. Scientific evidence confirms that oral biofilm causes 95 % of all dental problems: caries, gingivitis and periodontitis.
- 03 **MOTIVATE**
Emphasize the importance of oral home care and professional prevention. Instruct your patients in oral hygiene.
- 04 **AIRFLOW® MAX**
Eliminate the disclosed biofilm supra- and subgingivally up to 4mm with AIRFLOW® MAX and AIRFLOW® PLUS Powder. The original **AIR-FLOWING®** is minimally invasive and pain-free¹.
- 05 **PERIOFLOW®**
Remove oral biofilm in deep pockets up to 9mm with PERIOFLOW® Nozzle and AIRFLOW® PLUS Powder.*
- 06 **PIEZON® PS / PI MAX**
Gently remove calculus on natural teeth with the original PIEZON® NO PAIN¹ PS (Perio Slim) Instrument and around implants, restorations and orthodontic appliances with the new PIEZON® PI (Peri Implant) MAX Instrument.*
- 07 **CHECK**
Check whether oral biofilm and calculus have been removed completely and whether previously hidden caries is now visible. Conventional professional teeth cleaning removes only 50 % of oral biofilm in areas that are difficult to reach.
Source: Stiftung Warentest 7/2015. **NO MORE POLISHING**. Polishing and grinding with abrasive pastes is truly no longer necessary. Why produce unnecessary smear layers?
- 08 **RECALL**
Would your patient like to answer the GBT questionnaire?
This is helpful for a successful GBT treatment.
Schedule the next prophylaxis appointment.



A REGULAR GBT RECALL GUARANTEES LASTING ORAL HEALTH FOR YOUR PATIENTS.

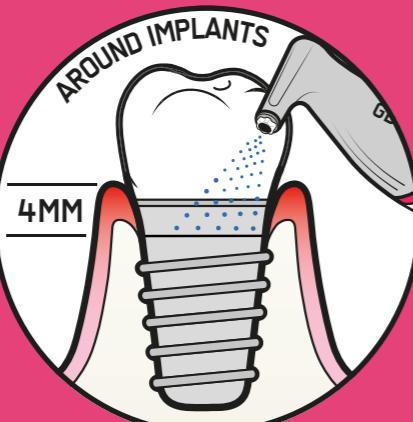
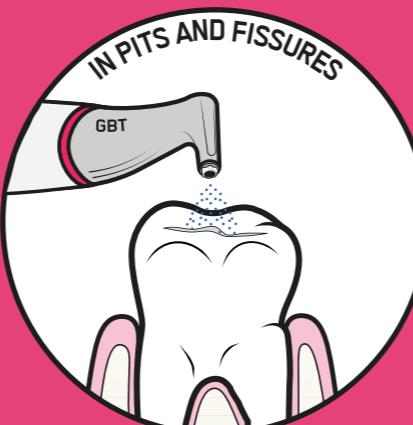
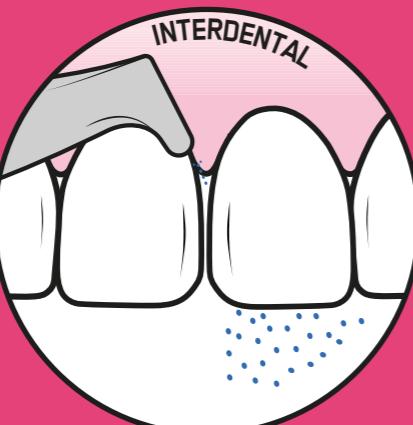
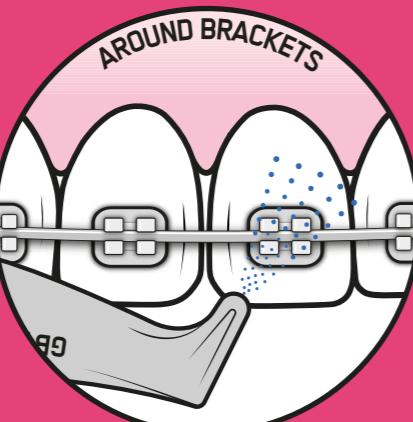
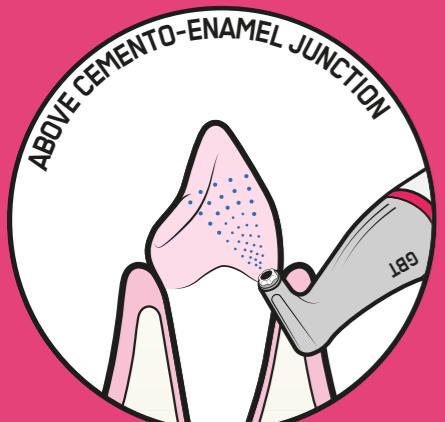
A REGULAR GBT RECALL GUARANTEES LASTING ORAL HEALTH FOR YOUR PATIENTS.

GUIDED BIOFILM THERAPY

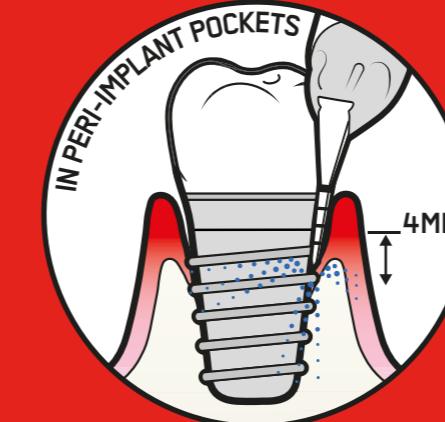
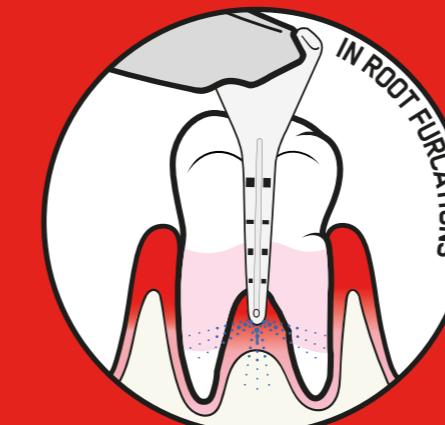
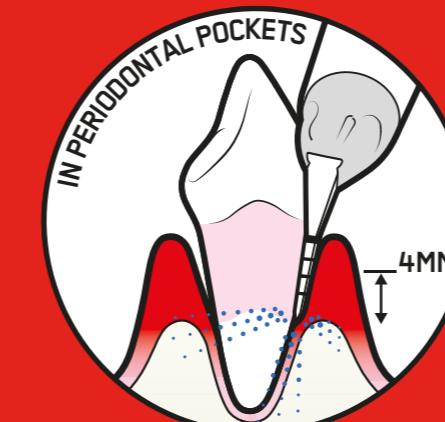
THE MULTITALENT



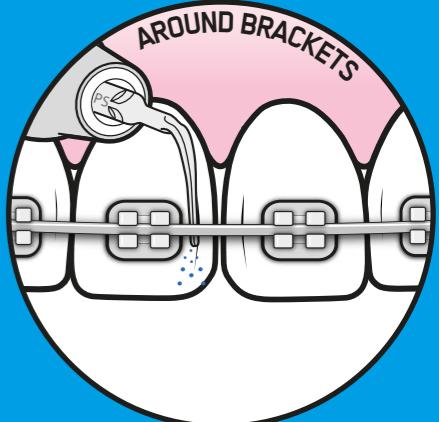
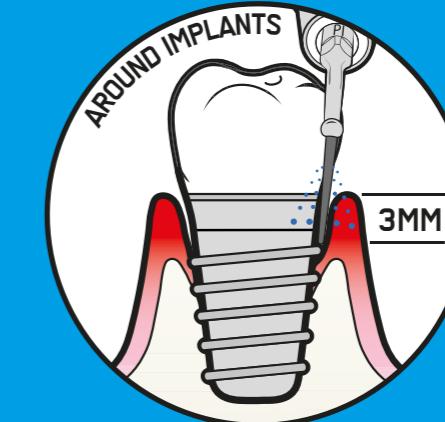
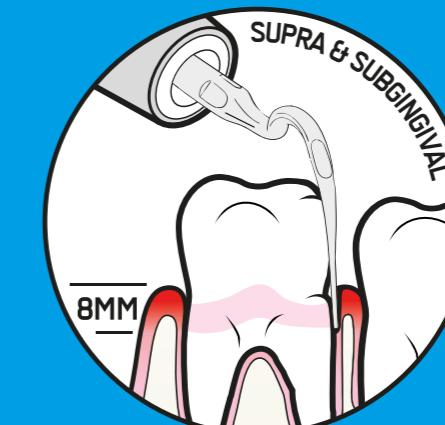
AIRFLOW® MAX



PERIOFLOW®



PIEZON® PS



22
APPLICATIONS
OF GBT

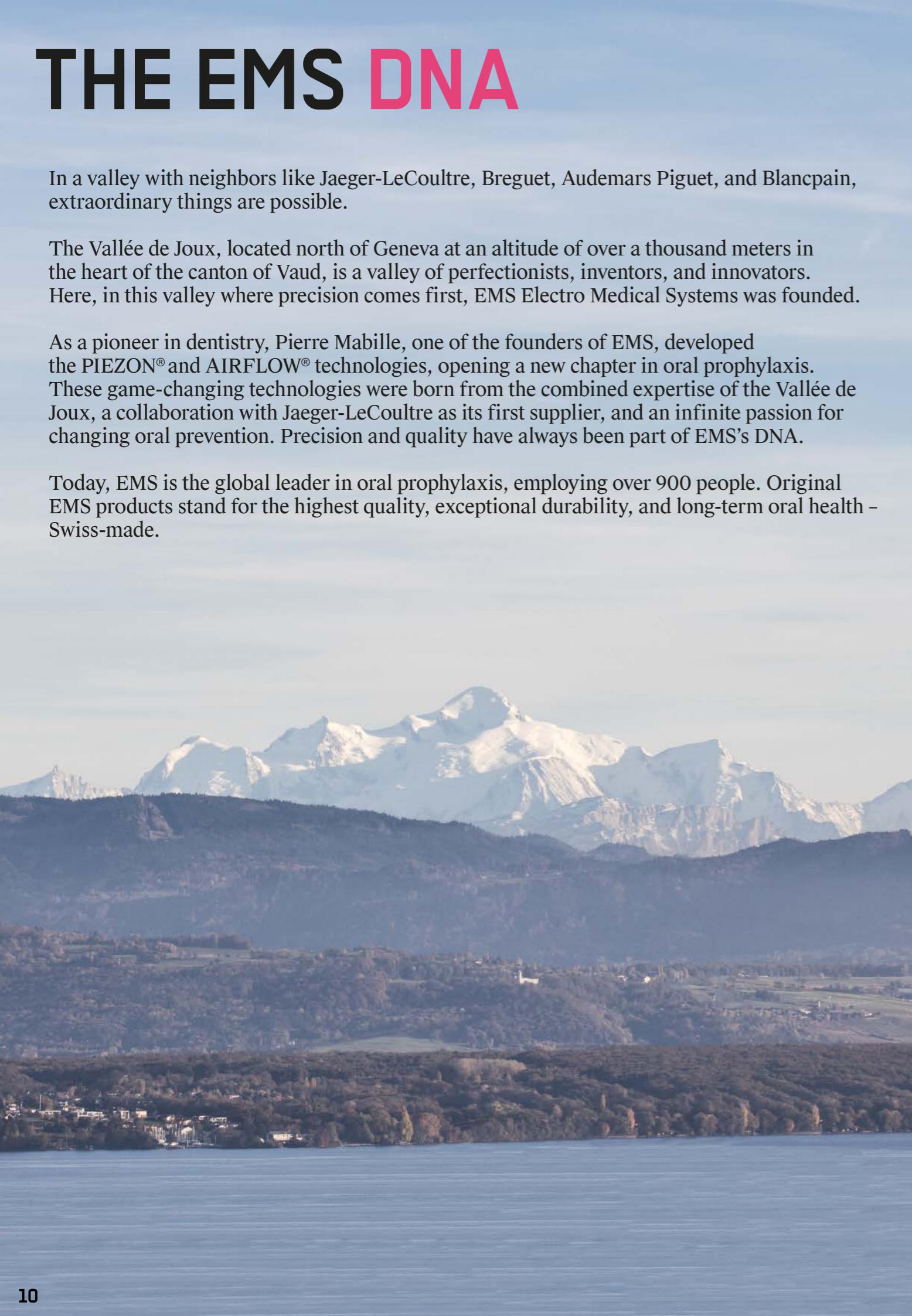
THE EMS DNA

In a valley with neighbors like Jaeger-LeCoultre, Breguet, Audemars Piguet, and Blancpain, extraordinary things are possible.

The Vallée de Joux, located north of Geneva at an altitude of over a thousand meters in the heart of the canton of Vaud, is a valley of perfectionists, inventors, and innovators. Here, in this valley where precision comes first, EMS Electro Medical Systems was founded.

As a pioneer in dentistry, Pierre Mabille, one of the founders of EMS, developed the PIEZON® and AIRFLOW® technologies, opening a new chapter in oral prophylaxis. These game-changing technologies were born from the combined expertise of the Vallée de Joux, a collaboration with Jaeger-LeCoultre as its first supplier, and an infinite passion for changing oral prevention. Precision and quality have always been part of EMS's DNA.

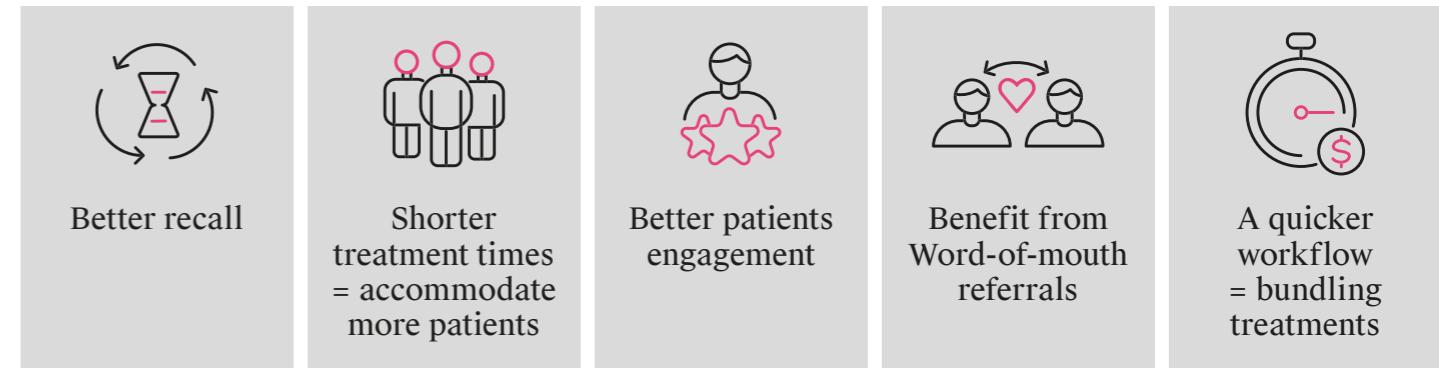
Today, EMS is the global leader in oral prophylaxis, employing over 900 people. Original EMS products stand for the highest quality, exceptional durability, and long-term oral health – Swiss-made.



SUCCESS WITH GBT

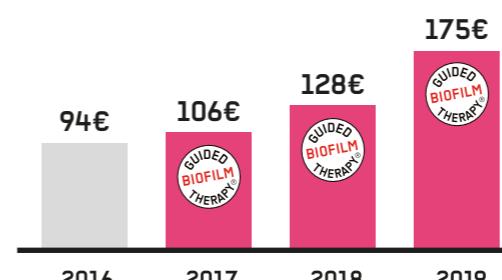
Preventive care should be the cornerstone of every patient's journey. Tens of thousands of dental clinics worldwide have used GBT to help build prevention-led, profitable practices.

MAKE YOUR PRACTICE GROW WITH GBT



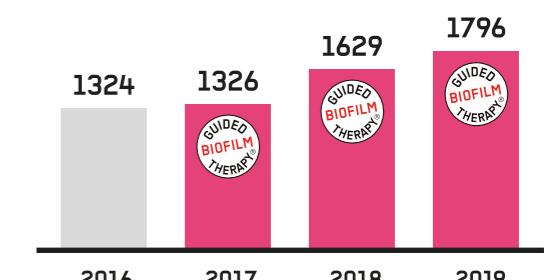
EXAMPLE OF GBT IMPACT IN A SWISS CHAIN OF DENTAL PRACTICES

AVERAGE REVENUE PER HOUR



Revenue/hour increased by 86% over this period

AVERAGE NUMBER OF CONSULTATIONS PER YEAR



We see the rewards of a continuing care model, with a 36% increase in the average number of consultations per dental hygienist

The feedback has been fantastic and has definitely exceeded our expectations! Patients love the comfortable cleans that they are getting and the feeling they get after they've had GBT. Patients are happy to attend frequently for their hygiene appointments and value these appointments much more!

“

DISCOVER THE FINANCIAL POTENTIAL OF YOUR HYGIENE DEPARTMENT



ORTHODONTICS

GBT PREVENTS DEMINERALIZATION, WHITE SPOTS, CAVITIES, GINGIVITIS, CALCULUS FORMATION AND BAD BREATH FOR ORTHODONTIC PATIENTS

- Patients who wear orthodontic appliances are more likely to be subject to biofilm-related oral pathologies, such as caries or periodontal disease, as some areas in the mouth are more difficult to reach when brushing at home.
- Professional oral hygiene on a regular basis is therefore highly recommended to avoid complications.
- Not only does regular professional oral hygiene reduce the buildup of debris on and around brackets and attachments, but it also helps minimize wire friction.

MINIMALLY INVASIVE PROPHYLAXIS ON ORTHODONTIC PATIENTS

METAL BRACKETS



BEFORE DISCLOSING



AFTER DISCLOSING



AFTER GBT

CLEAR ALIGNERS



BEFORE DISCLOSING



AFTER DISCLOSING



AFTER GBT

IMPLANTOLOGY

GBT CAN PREVENT PERI-MUCOSITIS FROM BECOMING PERI-IMPLANTITIS. IN ADDITION, AIR-FLOWING PRESERVES THE NATURAL INTEGRITY OF SOFT TISSUES AROUND IMPLANTS AND IS SAFE ON PROSTHESES.

- GBT was performed using AIRFLOW® MAX and PERIOFLOW® NOZZLE to remove all biofilm supra- and subgingivally. All remaining calculus was removed using the PIEZON® PI MAX Instrument.
- GBT is one of the most minimally invasive treatments for oral biofilm management.

IMPLANT



BEFORE GBT



AFTER DISCLOSING



AFTER GBT

PROSTHESES



BEFORE GBT



AFTER DISCLOSING



AFTER GBT

From EMS GBT Clinical cases book

CAN BE USED ON ALL ORTHODONTIC APPLIANCES

CAN BE USED ON ALL IMPLANTS

THE LAWS OF GBT

A GAME CHANGER

§ 1 MAKE BIOFILM VISIBLE!

- The goal of GBT is to remove all oral biofilm - even in hard-to-reach areas.
- With conventional professional teeth cleaning, only 50% of oral biofilm is removed in hard-to-reach areas.*
- When biofilm is made visible, it can be removed much faster and more precisely.
- Disclosed biofilm on teeth and soft tissues motivates the patient to improve home prevention (home care) in the context of Oral Hygiene Instructions (OHI).



REMOVAL OF COLOR = REMOVAL OF BIOFILM

§ 2 USE AIRFLOW® FIRST!

- Use AIRFLOW® first to remove biofilm, discolorations and thin layers of early calculus.
- The remaining calculus is now easier to identify and easier to remove with the PIEZON® NO PAIN¹ PS Instrument.
- This painless¹ and pleasant GBT treatment method, taught by the Swiss Dental Academy (SDA), brings satisfied patients into the practice and improves the recall rate.



AIRFLOW® = "I FEEL GOOD"

* 07/2015 Stiftung Warentest (German consumer advocacy foundation)

§ 3 USE THE PS INSTRUMENT ONLY!

- The original PIEZON® NO PAIN¹ PS Instrument oscillates linearly and can be used in 95% of all cases to remove mineralized plaque.
- Hand instruments lead to increased loss of substance and carry the risk of over-instrumentation.
- Higher efficiency compared to hand instruments leads to shorter treatment time.
- The PIEZON® PS Instrument, the PIEZON® handpiece and the PIEZON® NO PAIN MAX¹ electronic module were designed to work together. This trilogy works in harmony.



LESS PAIN¹ = SATISFIED PATIENTS = LOYAL PATIENTS

§ 4 NO MORE POLISHING AND LESS HAND INSTRUMENTS!

- Use of abrasive polishing pastes with rubber cups and/or brushes leads to loss of dentine and erosion, as well as flattening of the enamel prisms over a period of time.^{a,b}
- Use of hand instruments results in irreversible loss of cementum and dentine, as well as soft tissue injury, recession, exposed root surfaces with hypersensitivity and enamel injury (scratches).^c

AIR-FLOWING® with PLUS Powder preserves the integrity of composite, ceramic and gold restorations when compared to rubber cups.^d

After GBT treatment, the biofilm and calculus are completely removed, the tooth surfaces are perfectly clean, and the natural structure of the tooth substances is preserved.^{a,b,e,f} Polishing with rubber cups creates smear layers and has no additional value, and is therefore unnecessary!^{e,f}

a. Arefnia B, et al.: Oral Health Prev Dent 2021; 19(1): 85-92 | b. Camboni S, Donnet M: The Journal of Clinical Dentistry; 2016; 27(1): 13-18 | c. Badersten A, et al.: J Clin Periodontol 1981; 8: 57-72 | d. Reinhart D, et al.: PLOS ONE 2022; 17(7): e0270938. doi: 10.1371/journal.pone.0270938 | e. Burkhardt A, et al.: Effect of air-polishing using erythritol on surface roughness of enamel and dentine compared to conventional methods, Poster EuroPerio, Copenhagen 15-18 June 2022 | f. Fortmeier S, et al: Effect of professional cleaning procedures on tissue loss in dentine and enamel - an ex-vivo study, Poster EuroPerio, Copenhagen 15-18 June 2022

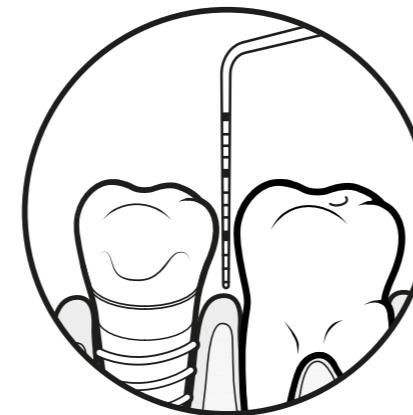
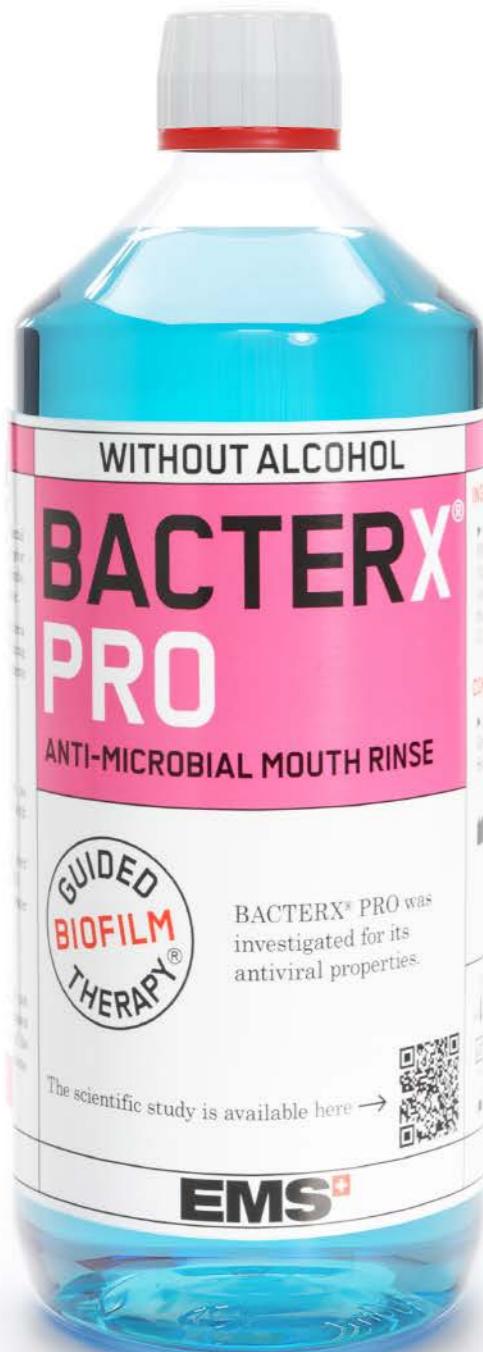
01 HOW TO START GBT

02 DISCLOSE



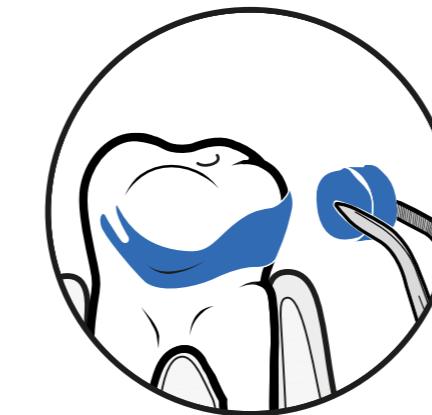
ASSESSMENT AND INFECTION CONTROL

- BACTERX® Pro is the first step in modern professional teeth cleaning known as Guided Biofilm Therapy Protocol.
- Start GBT treatments and other procedures by rinsing with BACTERX® Pro mouth rinse.
- Assess teeth and periodontal tissues.
- Assess implants and peri-implant tissues.



MAKE BIOFILM VISIBLE

- Biofilm becomes visible only by disclosing with the original EMS Biofilm Discloser (dual tone). This visualization prevents over-instrumentation.
- The disclosed biofilm guides the practitioner through the treatment. Targeted biofilm removal leads to significantly better results.



LEARN ABOUT
BACTERX® PRO



LEARN ABOUT
BIOFILM DISCLOSER



03 MOTIVATE

The clinician shows and explains to the patient which areas are not reached during oral hygiene at home. Thanks to the collaborative analysis of the patient's oral home care habits, patients feel they are taken seriously and are motivated to improve potential deficits. Disclosing strengthens patient communication on equal terms.



GBT TOOTHPASTE

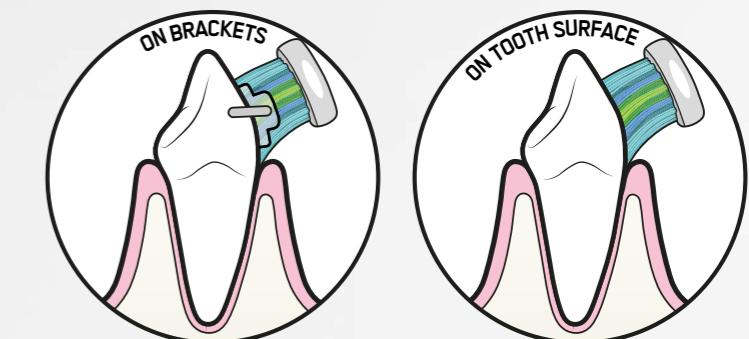
GUIDED
BIOFILM
THERAPY®

THE FIRST ERYTHRITOL-BASED TOOTHPASTE

Compared to sorbitol and xylitol, erythritol is known to inhibit the growth of biofilm and to reduce caries and plaque. The high amount of free fluoride contained in AIRFLOW® toothpaste reinforces its anti-cariogenic effect*.



- ERYTHRITOL- BASED AIRFLOW® TOOTHPASTE
- LOW ABRASIVITY FOR SMOOTH AND EFFICIENT DAILY HOME CARE
- NO SLS** OR PARABENS
- IDEAL FOR SENSITIVE PATIENTS



* Barbara Cvikel and Adrian Lussi - Healthcare 2021, 9, 935
** Sodium Lauryl Sulfate

A NEW SWISS ORIGINAL

The all-new GBT MACHINE is a game-changer, designed specifically for GBT with cutting-edge features! Built on over 40 years of groundbreaking research and development in AIRFLOW® and PIEZON® technologies, it represents EMS's 5th generation of innovative combination tabletop devices.



THE GBT MACHINE STATION

The Swiss-made GBT Machine was developed at the EMS Research Center with more than 100.000 hours of technical and clinical testing in collaboration with leading dental professionals worldwide.



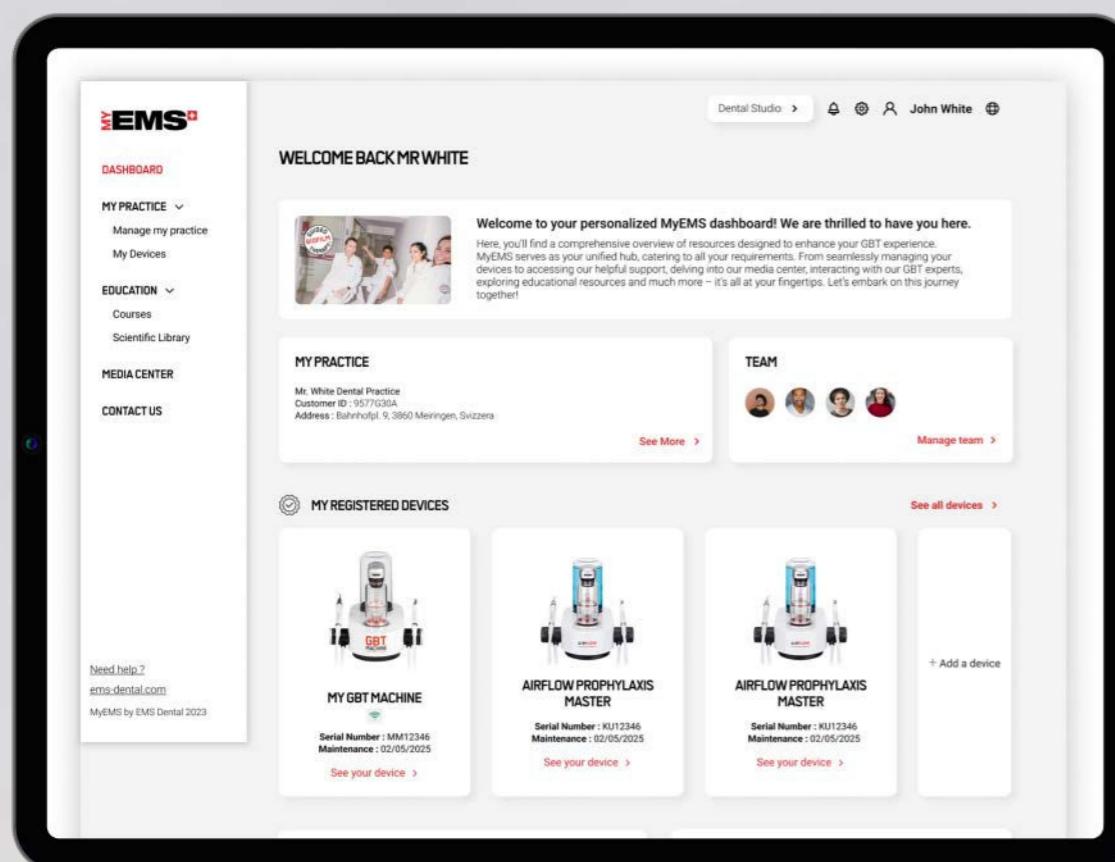
CONNECTIVITY FOR YOU

The GBT Machine is a fully connected device designed to help clinicians optimize their GBT treatments, reduce costs, and maximize the value of their investment through data-driven insights, all while prioritizing patient comfort.

MYGBT INSIGHTS

Accessible through your MyEMS account, the 'MyGBT Insights' dashboard offers a comprehensive overview of your clinic's devices, allowing you to explore detailed treatment data and monitor device health easily.

- ▶ IMPROVE YOUR GBT TREATMENTS
- ▶ OPTIMIZE TREATMENT TIME AND PATIENT COMFORT
- ▶ REDUCE EXPENSES BY OPTIMIZING POWDER CONSUMPTION
- ▶ ENHANCE THE PATIENT EXPERIENCE
- ▶ TROUBLESHOOTING SUPPORT THANKS TO INTUITIVE SYMBOLS



CREATE
A MYEMS
ACCOUNT

Receive insights into optimal device settings to improve efficiency, enhance the patient experience and reduce powder consumption.

Ability to **track and detect** accurately when your GBT Machine will require maintenance.

30% less plastic.

PIEZON®
NO PAIN¹
MAX
Module.



Ability to **export detailed treatment** data to add to patient records.

Connected handpieces to monitor their lifespan and much more.



Optimizing powder consumption.

Simplified GBT settings to optimize your GBT treatments.



- ▶ BETTER VISIBILITY
- ▶ HIGH PRECISION WORK
- ▶ HIGH REDUCTION OF AEROSOL SPLATTER
- ▶ HIGH PATIENT COMFORT
- ▶ HIGH USER COMFORT

BETTER VISIBILITY, BETTER EFFICIENCY AND AEROSOL CONTROL

▶ The main benefit of the new AIRFLOW® MAX handpiece is LAT - Laminar AIRFLOW® Technology - patented Swiss Precision imbedded in its nozzle.

LAT offers a much better visibility of the treated area, offers a higher efficiency and significantly reduces aerosol.

MORE ABOUT
AIRFLOW® MAX



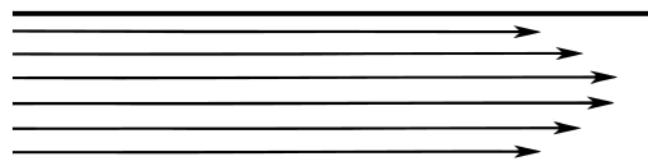
04 AIRFLOW® MAX

GUIDED
BIOFILM
THERAPY®

THE BRILLIANT NEW AIR-FLOWING® FROM THE INVENTOR OF THE ORIGINAL

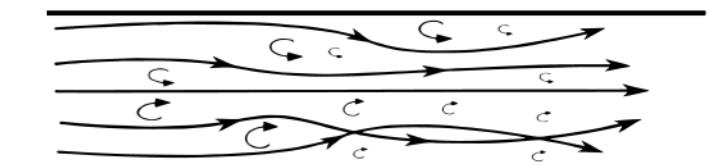
▶ The new AIRFLOW® MAX handpiece with its patented Laminar AIRFLOW® Technology is another brilliant innovation from the EMS Research Center. AIR-FLOWING® is now even more gentle, more comfortable, more efficient and aerosols are considerably reduced. There is a big difference between Air-Polishing and AIR-FLOWING®.

LAMINAR FLOW



AIRFLOW® MAX with the new Laminar Flow for perfect control.

TURBULENT FLOW



The traditional AIRFLOW® behavior.



Precise and focused air and AIRFLOW® PLUS Powder jet, shielded by water spray.

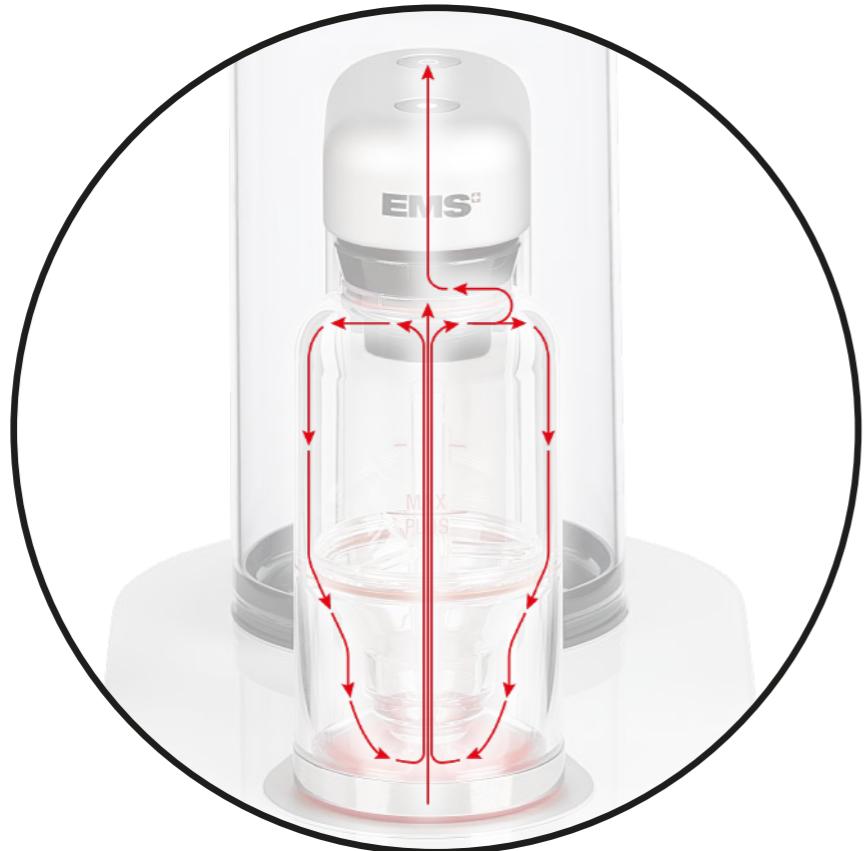


Six hexagonal water channels for more precision and substantial aerosol reduction.

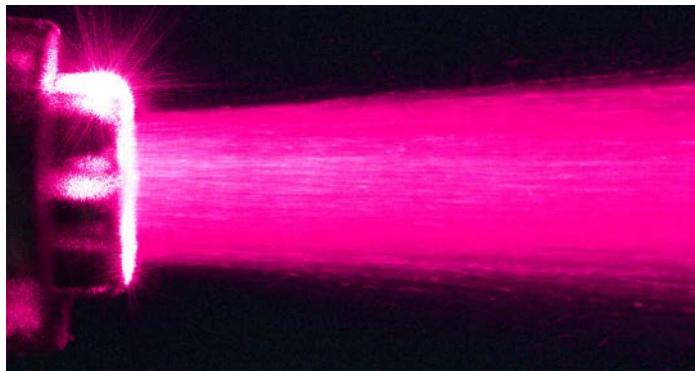
HIGH-TECH FROM SWITZERLAND SINCE MORE THAN 40 YEARS

▶ The re-engineered handpiece enables an optimal circulation and acceleration of the AIRFLOW® PLUS powder before it exits the nozzle. The compressed air now reaches the speed of sound within the nozzle, which leads to strong noise reduction, much less recoil force in the hands of the clinician and much higher patient comfort. The much lighter and slimmer handpiece makes GBT treatments even more comfortable for clinicians in their daily work.

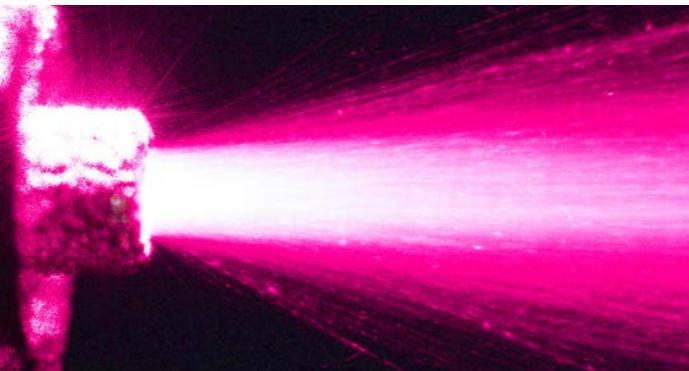
HEART OF AIR-FLOWING®



EMS HIGH TECH - THE WINNER IS GBT!



AIRFLOW® MAX delivers precise and well-directed AIRFLOW® PLUS Powder jet with high efficiency. Every single PLUS Powder particle is well-guided for high splatter reduction.



An Air-Polishing device produces uncontrolled large angle powder exit leading to poor efficiency and more splatter.

NEW HIGH TECH AIR-FLOWING®
WITH THE AIRFLOW® MAX FROM
THE INVENTOR OF THE ORIGINALS!

CALL YOUR GBT EXPERT AT EMS!

ATTENTION
CHANGED ANGLE
OF USE



GBT FLOWCONTROL®

NEW GBT HIGH SPEED SUCTION AGAIN
DESIGNED IN SWITZERLAND, TO CONTROL
AEROSOL AND SPLATTER.



FOR BEST VISIBILITY AND
AEROSOL/SPLATTER
CONTROL, ALWAYS USE
THE GBT FLOWCONTROL®
IN COMBINATION WITH
THE GBT VISIGATE®



WATCH THE
VIDEO ON
FLOWCONTROL®

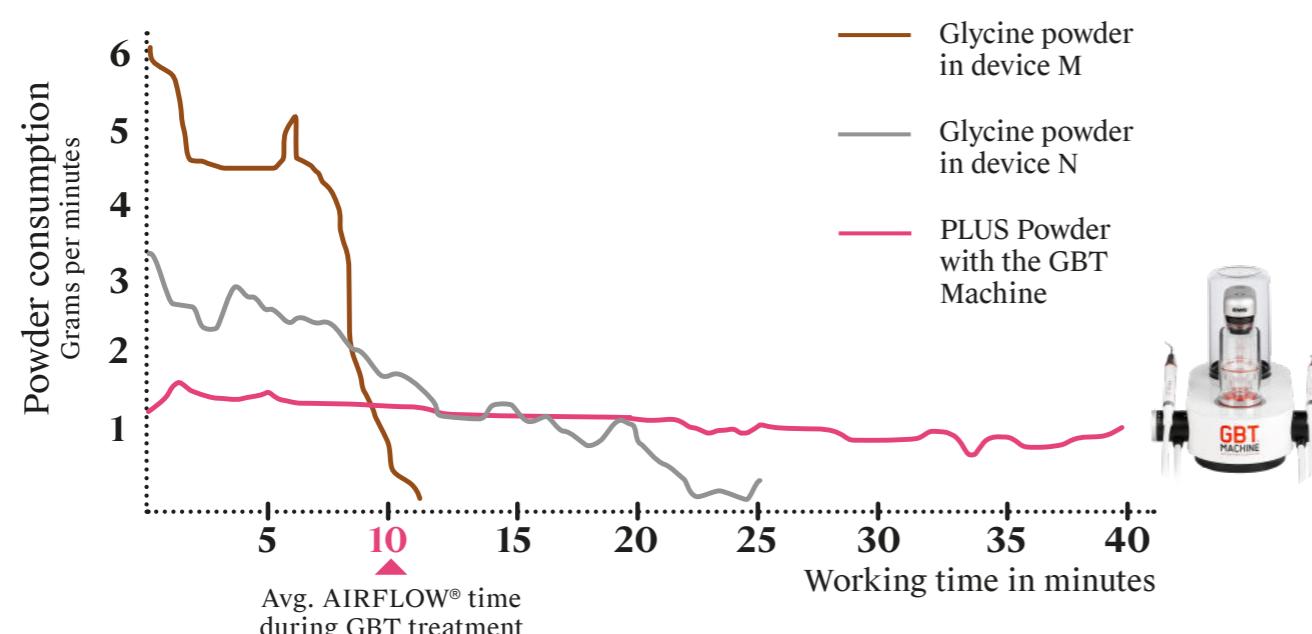
SCIENTIFIC STUDY PROVES

AIR-FLOWING® IS KING

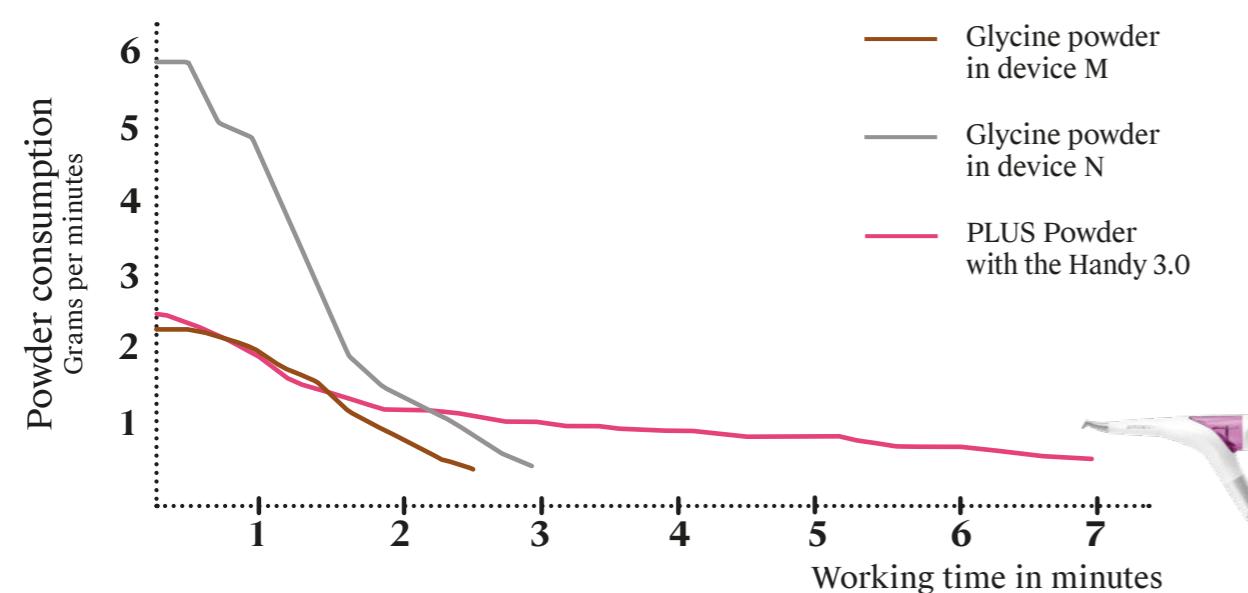


AIR-FLOWING® IS SUPERIOR TO “AIR-POLISHING” THE DIFFERENCE IS HUGE

- The scientific study proves that the EMS GBT Machine offers a very even and efficient powder flow (Laminar Technology) for up to 40 minutes.
- This delivers a very constant treatment quality and high patient and user comfort. The time of an AIRFLOW® treatment is on average 10 minutes.



HANDYS ARE ONLY FOR A QUICK FIX - NOT FOR GBT



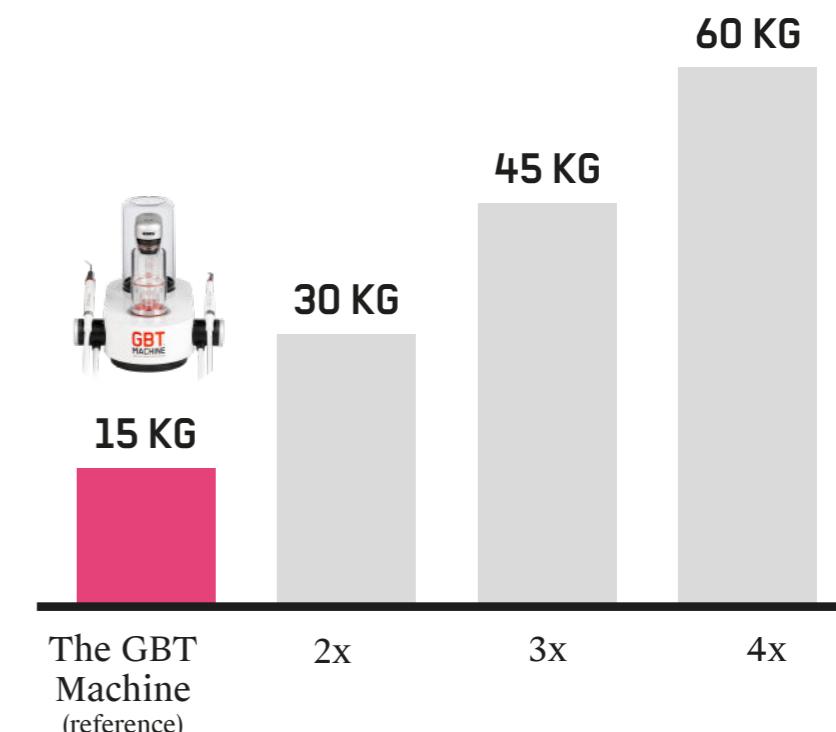
TO BUY A CHEAP AIR-POLISHER IS EXTREMELY COSTLY OVER TIME - LOW PERFORMANCE INCLUDED

- A practice with frequent recall appointments will see 750 patients per year with 1.500 treatments. These numbers can be achieved by one DH and one GBT Machine (station) or GBT Lounge on 9m². This will generate 150.000 to 200.000 Euros of regular income for the practice.
- A chain of 20 dental practices in Switzerland found that the GBT recall DH's refer over time up to 64% of additional treatments (caries, bleaching, aligner) to the dentist.

NUMBERS TALK

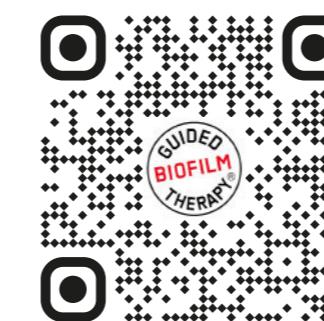
- Average annual powder consumption (1.500 GBT treatments) of 1 AIR-FLOWING® tabletop unit.

Assumption:
10 minutes treatment
10 grams per treatment



OVER CONSUMPTION OF POWDER:

SCAN AND READ THE FULL SCIENTIFIC STUDY



A NOVEL METHOD TO MEASURE THE POWDER CONSUMPTION OF DENTAL AIR-POLISHING DEVICES

Donnet M, Fournier M, Schmidlin PR and Lussi A - Appl. Sci. 2021, 11(3), 1101

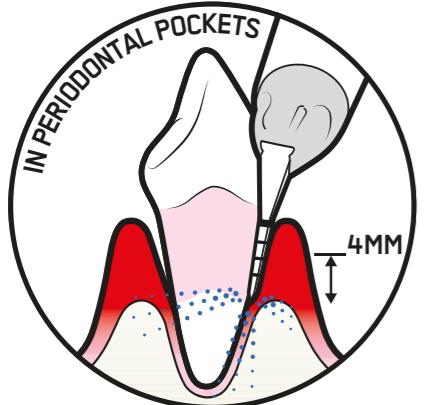
05 PERIOFLOW® MAX

SLIMMER, SAFER AND EASIER TO USE

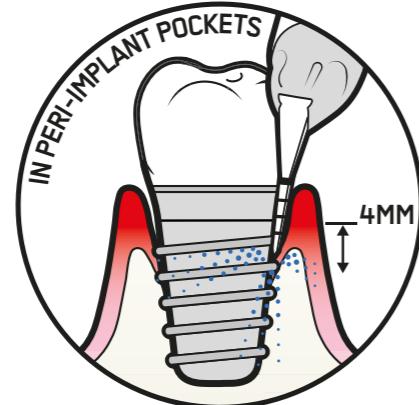
The PERIOFLOW® Nozzle is flexible and allows increased accessibility to adapt to the topography of periodontal / peri-implant pockets. There is a groove in the Nozzle for pressure reduction enhancing safety.



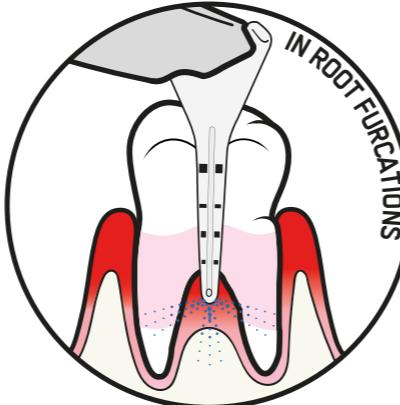
PERIOFLOW® APPLICATIONS



PERIODONTAL POCKETS



PERI-IMPLANT POCKETS



ROOT FURCATION



PERIOFLOW® NOZZLE

- Subgingival biofilm removal (debridement) more than 4mm 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



SLIMMER
= more
comfortable

1. Sculean A, et al. Quintessence Int 2013;44:476-477. | 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

MINIMALLY INVASIVE
MAXIMALLY PREVENTIVE
OPTIMAL COMFORT

The original AIRFLOW® PLUS Powder is now available in a high-quality aluminum bottle (400 grams) for greater sustainability. When empty give it to your patient. Such a water bottle is a precious souvenir in Switzerland.



reddot winner 2021

ONE POWDER ONLY

SUPRA- AND SUBGINGIVAL



AIRFLOW® MAX



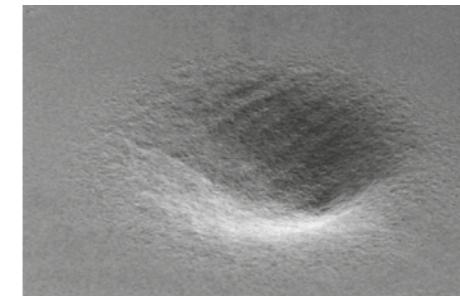
PERIOFLOW® Nozzle



DOWNLOAD
THE STUDY BY
PROF. BARNES ET AL

- The study by Prof. Caren Barnes et al has shown that only powders based on sodium bicarbonate, glycine and erythritol are safe to be used on enamel.*
- The only powders that are safe to be used on hybrid composites are erythritol and glycine-based powders.*
- Please read the full study by scanning the QR code above.

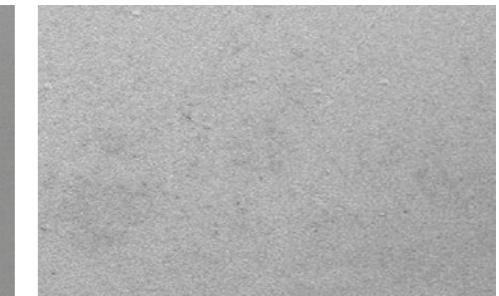
OSSPRAY
CALCIUM SODIUM
PHOSPHOSILICATE



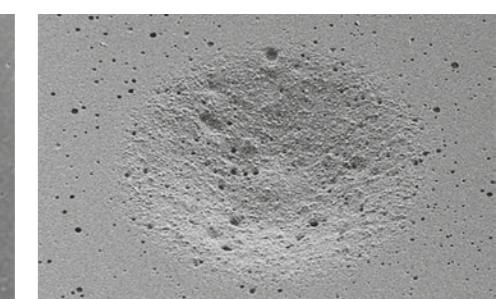
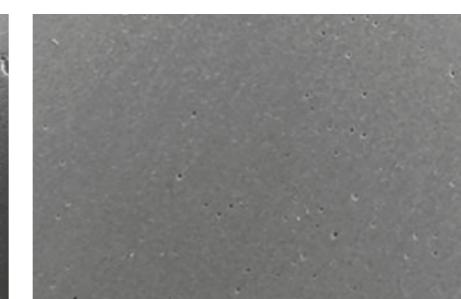
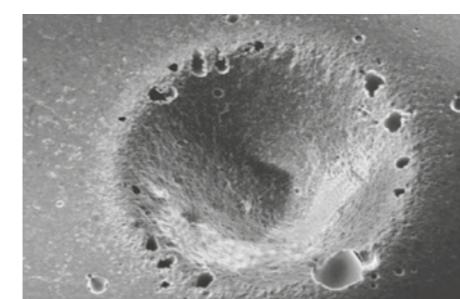
EMS AIRFLOW®
PLUS POWDER
ERYTHRITOL



EMS COMFORT
SODIUM
BICARBONATE



EFFECT OF 5 SEC AIR POLISHING ON HUMAN ENAMEL



EFFECT OF 5 SEC AIR POLISHING ON GLASS IONOMER

*Barnes CM, et al. An in vitro comparison of the effects of various air polishing powders on enamel and selected esthetic restorative materials, J Clin Dent 2014;25:76-87. For AIRFLOW® PLUS Powder, complimentary tests results have been presented at IFDH Basel 2016.

06 PIEZON® PS



Photos: Courtesy, Prof. Magda Mensi

CALCULUS REMOVAL WITH PIEZON® PS INSTRUMENT



ONLY THE PS INSTRUMENT

- The PIEZON® NO PAIN¹ PS Instrument is slim and smooth like a probe. It is gum-friendly, minimally invasive, maximally preventive and gentler with 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 NO PAIN¹ Instrument gives the clinician a great sensory and secure feeling when working subgingivally.
- The treatment with the PS Instrument is pain-free¹ if used the correct way.
- A pain-free¹ and pleasant treatment is the dream of every patient. This is the key to patient loyalty and satisfaction.
- The cost of a PIEZON® NO PAIN¹ PS Instrument is only 10-15 cents per treatment! It is not necessary to buy a copy or “compatible” tips.
- If EMS handpieces are damaged (e.g. the thread) by using a “compatible” tip, your EMS warranty will no longer be valid.
- The PIEZON® NO PAIN¹ PS Instrument, the PIEZON® Handpiece and the PIEZON® NO PAIN MAX¹ electronic module were made for each other. This trilogy works in harmony.

LEARN ABOUT THE OPTIMAL USE OF
THE PIEZON® PS INSTRUMENT TRAINING TOOL

FOR 95% OF ALL CASES



PIEZON® PS NO PAIN¹

This technology knows how to move: precisely linear and controlled.

MINIMALLY INVASIVE
MAXIMALLY PREVENTIVE
PAIN-FREE¹

REMOVES SUPRA- AND SUBGINGIVAL CALCULUS UP TO 10MM

- From primary and secondary teeth
- From hard tissues: enamel, dentine and cementum
- From restorations, prosthetics and dentures
- Around orthodontic appliances





ANOTHER ORIGINAL FROM THE INVENTOR

The new PIEZON® PI MAX Instrument is the latest innovation from the EMS Research Center in Nyon, Switzerland. Developed to maximize patient comfort together with the minimally invasive Guided Biofilm Therapy protocol, its high-tech PEEK material provides 50% more flexibility and accessibility than the previous generation.

WATCH THE
VIDEO ON PI MAX



06 PIEZON® PI MAX

ON IMPLANTS, RESTORATIONS AND ORTHODONTIC APPLIANCES



MATERIALS

- Instrument tip: PEEK with carbon fiber
- Tip holder: Medical grade stainless steel



CLINICAL APPLICATIONS

- Non-surgical treatments around implants, restorations and orthodontic appliances



COMPATIBILITY

- GBT Machine
- EMS Devices equipped with PIEZON® NO PAIN¹ technology



LIFETIME

- Instrument tip: up to 3 mm wear or 20 treatments
- The PIEZON® PI MAX Instrument Tool helps to check the wear of the instrument tip in order to replace it when needed
- Tip holder: 1,000 reprocessing cycles



NEW PIEZON® CHECK TOOL

For PIEZON® Instruments, check length and tip thread using the PIEZON® Instrument check tool. If PIEZON® Instrument extremity reaches or is shorter than the limit indicated by GBT logo, it can have excessive and uncontrolled vibration. Replace the PIEZON® Instrument.



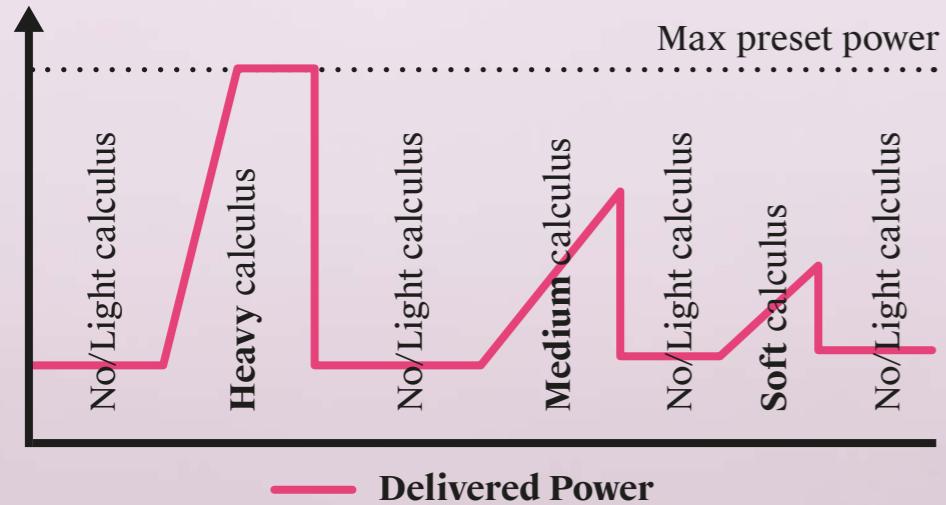
WATCH THE
VIDEO ON THE
CHECK TOOL



PIEZON® NO PAIN¹ MAX

Available only in the new GBT MACHINE.

The PIEZON® NO PAIN¹ MAX module will adapt the power on the device with dynamic regulation, in direct response to the type of calculus, providing intuitive power adjustments for effective and comfortable treatments.



The PIEZON® NO PAIN¹ MAX module automatically adjusts the device's power based on the type of calculus it encounters. Instead of always using the maximum preset power, the system dynamically increases or decreases the power depending on the nature of the calculus, rather than just its presence.

- ▶ GRADUALLY ADAPTIVE SCALING
- ▶ MINIMALLY INVASIVE
- ▶ NO-PAIN¹ TREATMENT



MORE ABOUT
PIEZON®
NO PAIN MAX



07 CONTROL

NO MORE POLISHING

CHECK IF ORAL BIOFILM, STAINS AND CALCULUS HAVE BEEN REMOVED COMPLETELY



BEFORE GBT

Carious lesions may be hidden



AFTER GBT

Lesions are fully visible on clean teeth

Courtesy, Dr. Wolfgang Gutwerk

- Oral biofilm is the cause of 95 % of all problems: caries, gingivitis and periodontitis.
- Complete biofilm removal provides great visibility of cleaned surfaces.

HIDDEN CARIES IS NOW VISIBLE



BEFORE GBT

The caries is not detectable



AFTER GBT

Caries is revealed

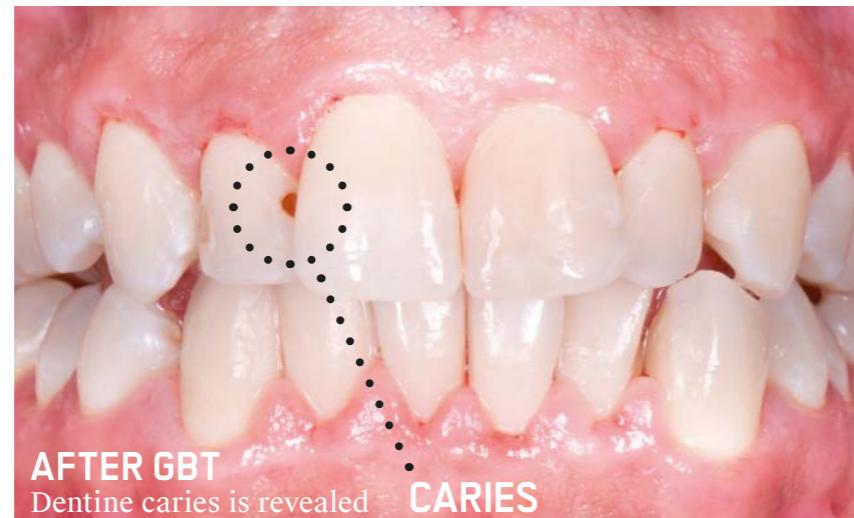
Courtesy, Prof. Hervé Tassery

- Oral biofilm management enables early caries detection and prevention.
- Patients enjoy better oral health and are happy to come for recalls.



BEFORE GBT

The caries is not detectable



AFTER GBT

Dentine caries is revealed

CARIES

Courtesy, Prof. Beverly Watson



**BEFORE CLEANING,
RESIDUAL BIOFILM**

- The enamel prisms of the natural tooth enamel are easily recognizable.
- The photo shows the remnants of the bacteria killed by sodium hypochlorite*.



**AFTER „POLISHING“ WITH
LOW-ABRASIVE PASTE RDA 27**

- The vital enamel prisms have been „polished“ away. Pastes have caused scratches. Biofilm has spread into natural crevices.
- Overall abrasive pastes and hand instruments cause a valuable loss of dentine and enamel. No improvement of the dental surface*.



**AFTER CLEANING WITH
AIRFLOW® PLUS POWDER**

- 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*.

* Camboni S, Donnet M - The Journal of Clinical Dentistry 2016;27:13-18

** Arefniaa B, Kollerb M, Wimmer G, Lussi A, Haas M, Oral Health Prev Dent 2021;19(1):85-92

PROTECT WITH FLUORIDE - USE AIRFOAM



08 RECALL

HAPPY PATIENTS



“Amazing, looking forward coming back.”

BENOIT P., SWITZERLAND

“GBT achieves what I could not achieve myself and gave me confidence in oral hygiene! And it really is pleasant every time!”

JONGEOK G., CHEONAN, REPUBLIC OF KOREA

“The treatment was for my 3 children, 11, 12 and 14 years old. They were all anxious but after GBT they want to come back as it was so smooth and pleasant without any pain. No fear from prophylaxis anymore!”

CHARLOTTE, CASSIEN, MAXINE, FRANCE



GIVE US YOUR FEEDBACK
THANK YOU!



“My teeth and gums are in great shape. I love it!”

PETER S., GERMANY

“AIRFLOW® IS COOL - SUPER COOL.”

MORRIS MEYER (AGE 9)

“I’m so happy with GBT, I could not accept any other teeth cleaning method anymore. Due to GBT I see my dentist regularly and gladly for my prophylaxis. And each time I leave the practice I’m happy with my clean and brilliant white smile! To me, prophylaxis with GBT has become a great experience and I clearly recommend it!”

SABINE P.

HAPPY CLINICIANS HAPPY PRACTICES



GIVE US YOUR
FEEDBACK
THANK YOU!



“Guided Biofilm Therapy – the most comfortable, efficient and gentle protocol for private practices.”

KAREN DAVIS, TEXAS, U.S.



GUIDED
BIOFILM
THERAPY®

“It’s a game changer.”

LIANE TURNER, DENTAL HYGIENIST,
SYDNEY, AUSTRALIA

“I am very much happy to see my hygienists enjoy offering GBT”

MASATOSHI S., JAPAN

“I found the GBT concept of EMS very convincing from the start. It is something that I’ve been waiting for, and I’m probably not the only one. It’s a logical development that there is finally a powder, erythritol, with which we can clean, polish and disinfect at the same time.”

DR. STEPHAN ZIEGLER, BERLIN, GERMANY



“Patients started to book in particularly with me. 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

ON TOP OF OUR IN-PRACTICE TRAINING, WE ALSO ESTABLISHED OUR OWN SWISS DENTAL ACADEMY (SDA) TRAINING CENTERS TO PROVIDE A DEDICATED SPACE FOR EXCELLENCE IN DENTAL EDUCATION, ENSURING THAT DENTAL PROFESSIONALS HAVE ACCESS TO THE HIGHEST STANDARD OF HANDS-ON TRAINING AND EXPERTISE IN GBT AND OTHER ADVANCED DENTAL PRACTICES.

2006

CREATION OF SDA

+70
COUNTRIES

+400
SDA TRAINERS

+8000
COURSES PER YEAR

+60000
PARTICIPANTS PER YEAR



SPECIALIZED SDA TRAINING CENTERS

NYON, MADRID, AMMAN,
STOCKHOLM, TYCHY, MILANO
SYDNEY, CAMBRIDGE, MUNICH
-AND MORE TO COME

SDA 
SWISS DENTAL ACADEMY

SWISS DENTAL ACADEMY

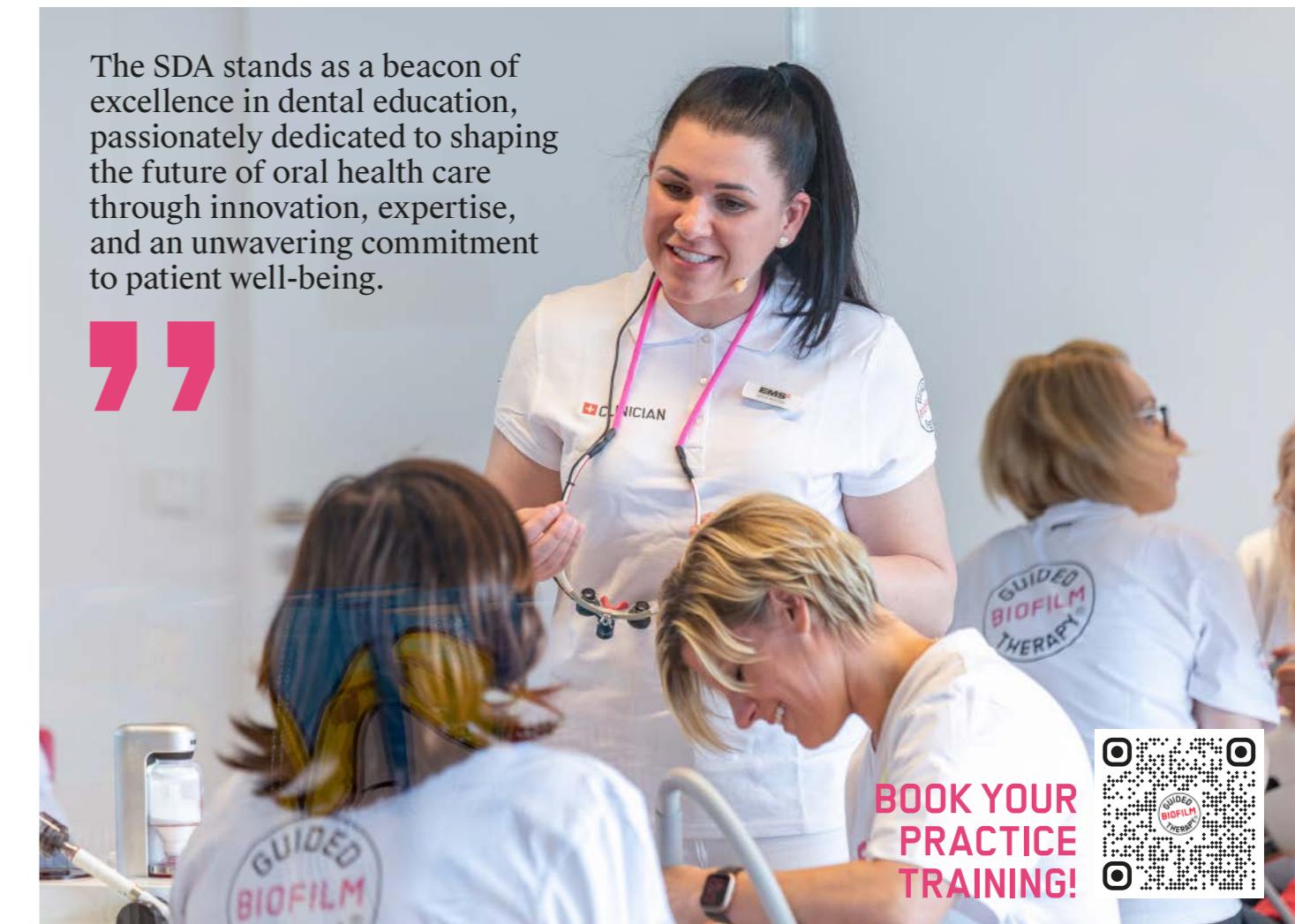
Welcome to the Swiss Dental Academy (SDA) – your path to the future of dental care! At SDA, we're not just about dental education; we're revolutionizing it with Guided Biofilm Therapy (GBT). Here, you'll learn innovative, patient-focused techniques that set you apart in the world of dental prophylaxis and non-surgical periodontal treatment.

Experience the Swiss difference! SDA combines Swiss precision and innovation to offer world-class training. We're more than a learning center; we're a global movement, reshaping dental care with proactive prevention and patient-centered strategies.

Our courses, crafted by top dental experts and taught by renowned trainers, are more than just lessons – they're your stepping stones to becoming a leader in dental care. With SDA, you gain skills, inspire change, and commit to the highest standards of patient care.

Stay ahead in your field with SDA. Our ever-evolving curriculum, expanding course selection, and the latest technology ensure you're at the forefront of dental practices.

Join SDA today – lead the change in oral health, be at the frontier of dental excellence, and be part of a global community that's setting new standards in dental care. Your journey to excellence starts here!



GET GBT CERTIFIED!

CERTIFY YOUR PRACTICE

As a GBT Certified practice, become a part of an exclusive network of passionate dental professionals offering dental prophylaxis at the highest possible standards. Backed by the evidence-based GBT protocol, GBT Certified practices benefit from a wealth of exclusive services.



CERTIFIED PRACTICE



HIGHER VISIBILITY AND REVENUE

► Your practice will be listed on the GBT Patient Finder (www.gbt-finder.com),* an online directory to help patients locate you as their closest GBT Certified practice.



MARKETING TOOLS TO HELP PROMOTE YOUR PRACTICE

► Welcome kit to help incorporate a recognizable GBT appearance.
► GBT branded material.
► Social media templates and 3D patient-friendly videos.



EXCLUSIVE EDUCATION PROGRAM

► Training based on the latest scientific and clinical research.
► Regular e-learning modules and webinars.
► Follow-up training and training for new team members.



3-YEAR EXTENDED WARRANTY

► Enjoy a 3-year warranty, including a 2-year extension on top of the standard 1-year warranty for your premium devices GBT Machine and AIRFLOW® Prophylaxis Master by regularly following EMS maintenance conditions. *

*To view the conditions, please visit: www.gbt-dental.com/extended-warranty



PREMIUM CUSTOMER SERVICE

► Ask your GBT expert which benefits apply in your country.

JOIN THE GBT MOVEMENT!

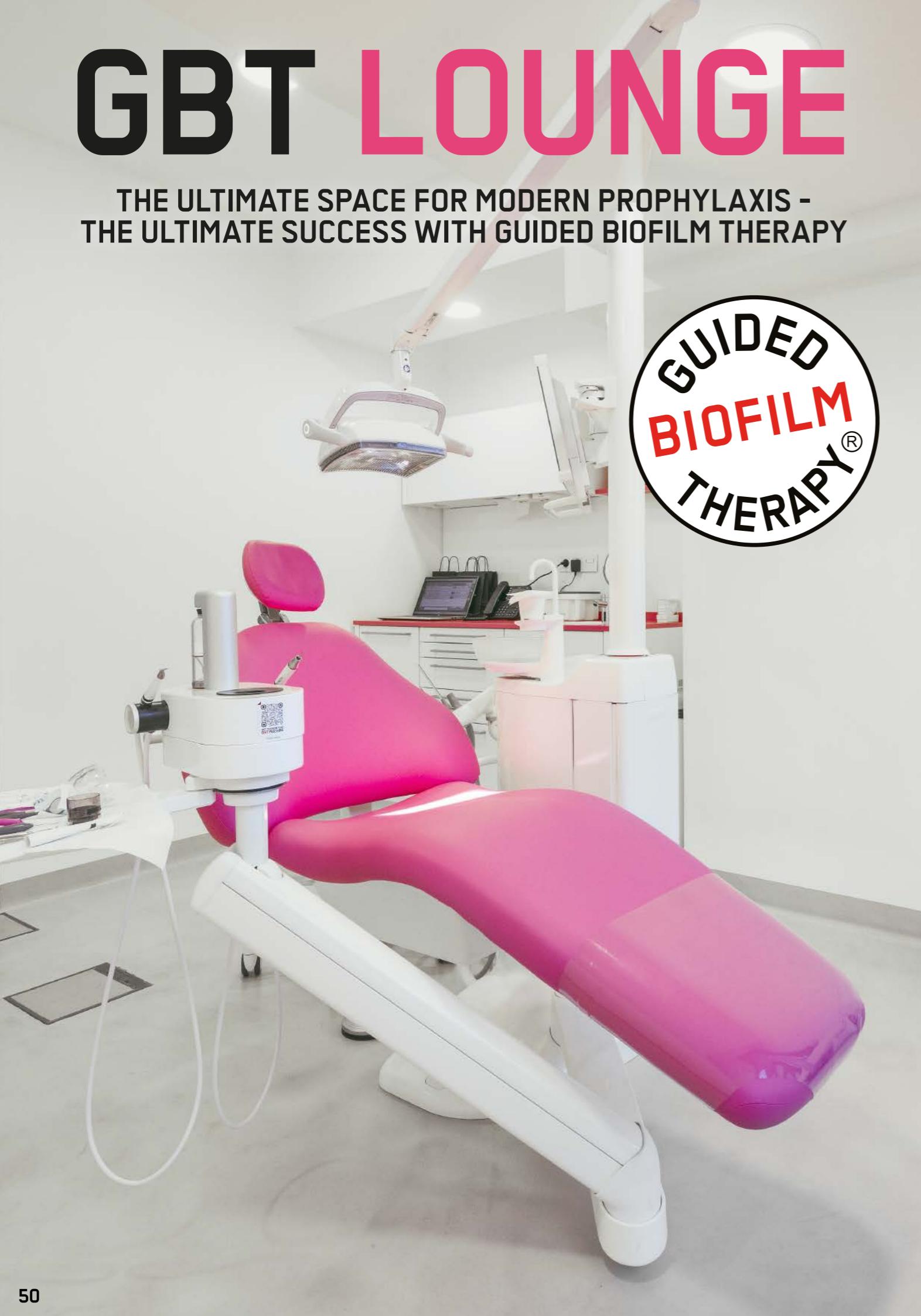
„The GBT Certification to me is a community. It's a community where providers can share knowledge, where they are being continuously trained and making sure that we always follow the standardized protocol for the benefit of our patients. I am absolutely thrilled to be the first group of GBT-certified practices.“

- PATRICK SAASEN, CEO OF ADENT DENTAL CLINICS, FIRST GBT-CERTIFIED DENTAL CLINIC

*in the authorized countries

GBT LOUNGE

THE ULTIMATE SPACE FOR MODERN PROPHYLAXIS -
THE ULTIMATE SUCCESS WITH GUIDED BIOFILM THERAPY



WELLNESS ON 9m²



WELLNESS MEETS ORAL PROPHYLAXIS

The GBT Lounge Unit has been designed especially for GBT to make everyday work as easy and comfortable as possible. Sized at only $3 \times 3m = 9m^2$, the GBT Lounge is probably the most compact dental set-up in the world fitting even in the smallest prophylaxis room.

KEY FEATURES

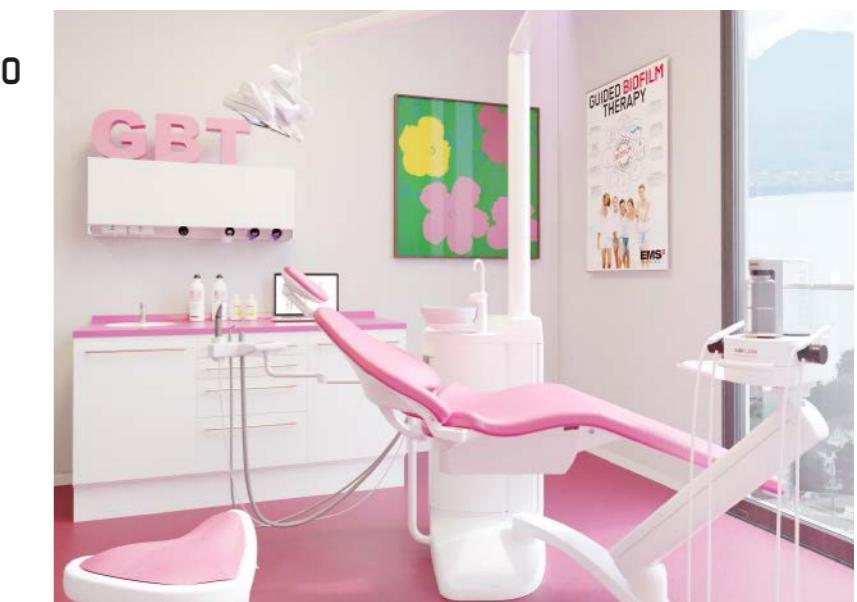
- Narrow top of the backrest to work more ergonomically
- Small cupid base to get as close to the workplace area as possible
- Easily adapts to all working positions, whether you're sitting or standing
- The floating chair provides large legroom for unrestricted operator access

Inspired by clinicians for clinicians, the GBT Lounge allows clinicians to maintain an ergonomic working position throughout the day without unnecessary movement or strain. The GBT Lounge is ideal for both two-handed and four-handed GBT treatments.

300,000€ TURNOVER/YEAR IS
GENERATED ADDITIONALLY BY THE TWO
GBT LOUNGES. THIS IS ONE OF MANY
REASONS WHY THE GBT LOUNGES
HAVE PAID OFF FOR MY PRACTICE.



DR. KATHRIN
BAJRAMI-KOBER,
ESSLINGEN,
GERMANY



CLINICAL EVIDENCE



Guided Biofilm Therapy (GBT)² is an evidence-based, clinical, indication-oriented, systematic, modular preventive and therapeutic protocol for all oral applications.

01 ASSESSMENT AND INFECTION CONTROL

ASSESS EVERY CLINICAL CASE AND IMPLEMENT HYGIENE MEASURES

Start by rinsing with BACTERX® Pro mouth rinse³. Assess teeth, gingiva and periodontal tissues. Assess implants and peri-implant tissues.

02 DISCLOSE

MAKE BIOFILM VISIBLE

Highlight to patients the disclosed biofilm and their problematic areas with the EMS Biofilm Discloser^{4,5}. The color will guide biofilm removal. Once biofilm is removed, calculus is easier to detect.

03 MOTIVATE

RAISE AWARENESS AND TEACH

Emphasize prevention⁶. Instruct your patients in oral hygiene. EMS recommends interdental brushes or dental floss as well as electric or manual toothbrushes⁷ and AIRFLOW® erythritol toothpaste for daily home care.

04 AIRFLOW® MAX

REMOVE BIOFILM, STAINS⁷ AND EARLY CALCULUS

Use AIRFLOW® MAX^{9,10} for natural teeth¹¹, restorations¹² and implants¹⁶. Remove biofilm supra^{13,14,19,21,22} and subgingivally up to 4mm^{15,16,17,18,19} using AIRFLOW® PLUS 14µm Powder^{15,16}. Also remove biofilm from gingiva, tongue¹⁸ and palate.

05 PERIOFLOW®

REMOVE BIOFILM IN >4 TO 9MM POCKETS

Use AIRFLOW® PLUS Powder, on natural teeth^{25,26,27,28} in deep pockets and root furcations and on implants^{29,30}. Use new and slimmer PERIOFLOW® Nozzle^{19,20,21,22,23,24}.

06 PIEZON® PS

REMOVE REMAINING CALCULUS

Use the minimally invasive EMS PIEZON® NO PAIN1 PS^{31,32,33} Instrument supra- and subgingivally up to 10mm. Clean > 10mm pockets with mini curette. Use EMS PIEZON® PI³⁴ Instrument around implants up to 3mm subgingivally and on restorations.

07 CHECK

MAKE YOUR PATIENT SMILE

Check whether oral biofilm, stains and calculus have been removed completely. Accurately diagnose caries³⁵. Protect with fluoride³⁶. No more polishing¹¹.

08 RECALL

HEALTHY PATIENT = HAPPY PATIENT

Schedule recall³⁷ frequency according to risk assessment. Ask your patients if he or she liked the treatment.

1. The NO PAIN treatment requires all four of the following:

- The PIEZON® NO PAIN MAX module integrated into the GBT Machine, providing dynamic power regulation that detects and adjusts for calculus
- The original PIEZON® handpiece
- The original PIEZON® PS Instrument
- A clinician trained by the Swiss Dental Academy

2. A NOVEL BIOFILM REMOVAL APPROACH (GUIDED BIOFILM THERAPY) UTILIZING ERYTHRITOL AIR-POLISHING AND ULTRASONIC PIEZO INSTRUMENTATION: A RANDOMIZED CONTROLLED TRIAL

Vourou I, Antonoglou GN, Anoixiadiou S, Kalfas S - *Int J Dent Hygiene*. 2021;00:1-10

3. INACTIVATION OF SARS-COV-2 THROUGH TREATMENT WITH THE MOUTH RINSING SOLUTIONS VIRUPROX® AND BACTERX® PRO

Koch-Heier J, Hoffmann H, Schindler M, Lussi A, Planz O - *Microorganisms* 2021 Mar;9(3):521.

4. CONVENTIONAL VERSUS COMPREHENSIVE DENTAL PROPHYLAXIS: COMPARING THE CLINICAL OUTCOMES BETWEEN RUBBER CUP AND AIR POLISHING AND THE IMPORTANCE OF PLAQUE DISCLOSURE

Fu JH, Wong LB, Tong HJ, Sim YF - *Quintessence Int* 2021;52:264-274

5. PLAQUE DISCLOSING AGENT AS A GUIDE FOR PROFESSIONAL BIOFILM REMOVAL: A RANDOMIZED CONTROLLED CLINICAL TRIAL

Mensi M, Scotti E, Sordillo A, Agosti R, Calza S - *Int J Dent Hyg*. 2020 Aug;18(3):285-294

6. EFFECT OF PROFESSIONAL MECHANICAL PLAQUE REMOVAL ON SECONDARY PREVENTION OF PERIODONTITIS AND THE COMPLICATIONS OF GINGIVAL AND PERIODONTAL PREVENTIVE MEASURES. CONSENSUS REPORT OF GROUP 4 OF THE 1TH EUROPEAN WORKSHOP ON PERIODONTONLOGY ON EFFECTIVE PREVENTION OF PERIODONTAL AND PERI-IMPLANT DISEASES

Sanz M, Bäumer A, Buduneli N, Dommisch H, Farina R, Kononen E, Linden G, Meyle J, Preshaw PM, Quirynen M, Roldan S, Sanchez N, Sculean A, Slot DE, Trombelli L, West N, Winkel E - *J Clin Periodontol*. 2015 Apr;42 Suppl 16:S214-20

7. EFFICACY OF SONIC VERSUS MANUAL TOOTHBRUSHING AFTER PROFESSIONAL MECHANICAL PLAQUE REMOVAL: A 6-MONTH RANDOMIZED CLINICAL TRIAL

Magda Mensi, Eleonora Scotti, Annamaria Sordillo, Valentina Brognoli, Maria Paola Dominici, Stefano Calza - *Int J Dent Hygiene*. 2021;00:1-10.

8. CLINICAL COMPARISON OF THE STAIN REMOVAL EFFICACY OF TWO AIR POLISHING POWDERS

Hongsathavij R, Kuphasuk Y, Rattanasuwan K - *Eur J Dent*. 2017 Jul-Sep; 11(3): 370-375.

9. AEROSOLS IN DENTISTRY: THE BACTERIAL CONTAMINATION OF THE ROOM AIR DURING AN AIRFLOW® TREATMENT

Donnet M, Bastendorf KD, Mensi M, Lussi A - *ZM Special edition* 12/20 - Page 24-26

10. A NOVEL METHOD TO MEASURE THE POWDER CONSUMPTION OF DENTAL AIRPOLISHING DEVICES

Donnet M, Fournier M, Schmidlin PR, Lussi A - *Appl. Sci.* 2021, 11(3), 1101

11. IN VITRO STUDY OF SURFACE CHANGES INDUCED TO ENAMEL AND CEMENTUM BY DIFFERENT SCALING AND POLISHING TECHNIQUES

Arefnia B, Koller M, Wimmer G, Lussi A, Haas M - *Oral Health Prev Dent* 2021;19(1):85-92.

12. AN IN VITRO COMPARISON OF THE EFFECTS OF VARIOUS AIR POLISHING POWDERS ON ENAMEL AND SELECTED ESTHETIC RESTORATIVE MATERIALS

Barnes CM, Covey D, Watanabe H, Simetich B, Schulte JR, Chen H - *J Clin Dent*. 2014;25(4):76-87

13. RESEARCH ON DENTAL PLAQUE REMOVAL METHODS FOR EFFICIENT ORAL PROPHYLAXIS: WITH A FOCUS ON AIR POLISHING AND RUBBER CUP POLISHING

Park BY, Kim M, Park J, Jeong JH, Noh H - *Int J Dent Hyg*. 2020 Nov 20

14. USE OF AIR POLISHING FOR SUPRA- AND SUBGINGIVAL BIOFILM REMOVAL FOR TREATMENT OF RESIDUAL PERIODONTAL POCKETS AND SUPPORTIVE PERIODONTAL CARE: A SYSTEMATIC REVIEW

NASCIMENTO GG, LEITE, FRM, PENNISI PRC et al *Clin Oral Invest* 25, 779-795 (2021)

15. RETROSPECTIVE ANALYSIS OF THE LONG-TERM EFFECT OF SUBGINGIVAL AIR POLISHING IN SUPPORTIVE PERIODONTAL THERAPY

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