

GUIDED **BIOFILM** THERAPY

A GAME CHANGER FOR BETTER ORAL HEALTH



EMS 
MAKE ME SMILE.

SCIENTIFIC CONSENSUS GUIDED BIOFILM THERAPY PROTOCOL

A NEW CONCEPT TO PRIMARY AND SECONDARY PREVENTION

Guided Biofilm Therapy (GBT) is based on treatment steps that are individually proven by multiple Randomized Control Trials (RCTs). The main differences in the GBT protocol compared to conventional professional tooth cleaning are:

1. Disclosing: Biofilm becomes visible.

Disclosing biofilm for targeted removal and patient motivation leads to significantly better results than professional tooth cleaning without disclosing^{1,2,3}.

2. AIRFLOW®: Biofilm is the main cause of oral disease and calculus therefore we start with the removal of the cause.

AIRFLOW® with PLUS powder (Erythritol) is superior to hand instrumentation and PIEZON® technology in supra- and subgingival biofilm management^{5,8,9}.

AIRFLOW® is faster, gentler to tissues, easier to learn and painless. AIRFLOW® with PLUS powder (Erythritol) therefore is the method of choice for maintenance^{4,6,7,10,11,15,20,23}.

In the non-surgical treatment of periodontitis and peri-implantitis, the application of AIRFLOW® with PERIOFLOW® Nozzle also achieves very good outcomes^{12,13,14,16,17,18,24}.

3. PIEZON® PS: Targeted removal of calculus - protecting the teeth.

The use of PIEZON® with the PS Instrument leads to the same clinical results as the use of manual instruments^{19,22}.

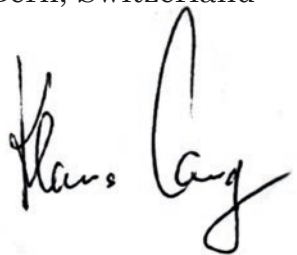
PIEZON® PS is faster, less invasive^{21,22}, more pleasant for patients and practitioners and the technique is easier to learn. Removing biofilm before, increases the visibility of calculus, minimizing overinstrumentation, hence dental tissues are preserved.

4. No polishing.

A polish with polishing paste, rotating brushes and rubber cups are no longer necessary after a treatment with AIRFLOW® PLUS powder (Erythritol). The tooth surfaces are perfectly cleaned and the natural tissues are preserved²⁵.

Nyon/Switzerland, May 14th, 2019, Consensus

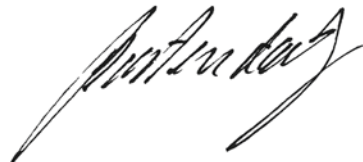
Prof. Dr. N. Lang
Periodontology
Bern, Switzerland



Prof. Dr. A. Lussi
Cariology
Bern, Switzerland



Dr. K-D. Bastendorf
Dental Practitioner specialized
in Prevention, Germany



LINK TO
LITERATURE LIST

E.M.S. Electro Medical Systems S.A. Ch. de la Vuarpillière 31 - 1260 Nyon - Switzerland - www.ems-dental.com

PATIENTS LOVE GBT



GUIDED BIOFILM THERAPY - **GBT** - IS AN EVIDENCE-BASED, INDICATION-ORIENTED, MODULAR, PREVENTIVE AND THERAPEUTIC PROTOCOL FOR ALL ORAL APPLICATIONS.



"I FEEL
GOOD"

► ONLY THE **VERY** BEST FOR MY PATIENTS
► ONLY THE **SWISS** ORIGINALS

THE **GBT** COMPASS AND ITS 8-STEP 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 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

01 ASSESSMENT AND INFECTION CONTROL

ASSESS EVERY CLINICAL CASE AND IMPLEMENT HYGIENE MEASURES

- Start by rinsing with an antimicrobial mouth rinse
- 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 a two-tone disclosing agent
- The color will guide biofilm removal
- Once biofilm is removed, calculus is easier to detect

03 MOTIVATE

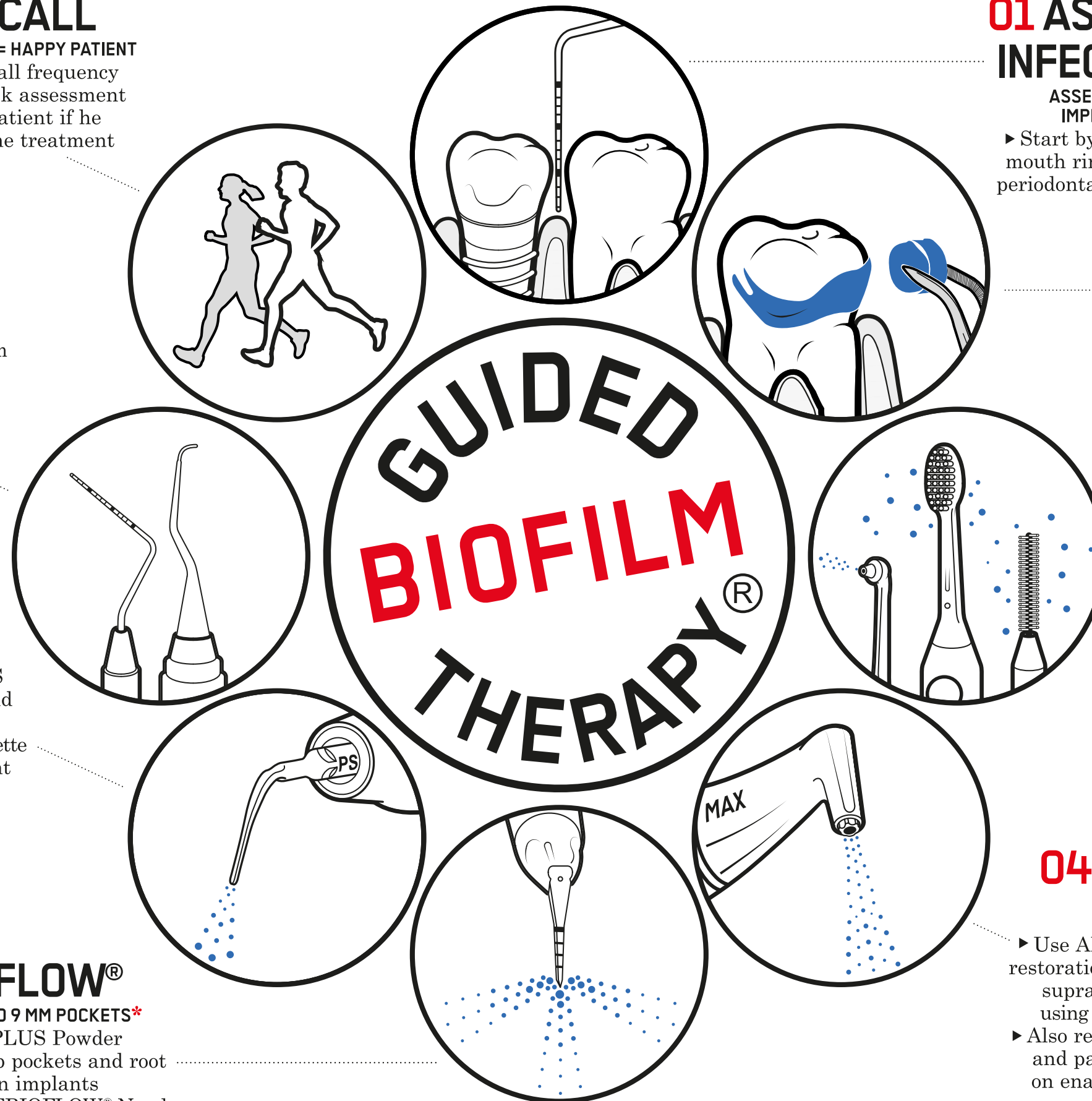
RAISE AWARENESS AND TEACH

- 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 14µm Powder
- Also remove biofilm from gingiva, tongue and palate
- Remove remaining stains on enamel using AIRFLOW® CLASSIC Comfort Powder



* Approved for 5 mm in the U.S. - 9 mm in Canada

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.
“An efficient treatment can only be obtained after complete biofilm removal.”
Nicole Einemann and Manuela Cordes, Dental Hygienists, Dr. Arendt Dental, Bremerhaven, Germany
- 4 **PATIENTS WANT GBT. NOTHING ELSE.**
NO MORE FEAR OF PAIN. NO MORE DISCOMFORT.
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.



**“I FEEL
GOOD”**

Reserve a free GBT Demo: gbt-dental.com/GBT-DEMO-ENG

HOW TO DO GBT?



01 ASSESSMENT AND INFECTION CONTROL

Protect your patients and your practice team from infections. Start GBT by rinsing for 40 seconds with a antimicrobial mouth rinse. 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-free.*

05 PERIOFLOW®

Remove oral biofilm in deep pockets up to 9mm¹ with PERIOFLOW® Nozzle and AIRFLOW® PLUS Powder.*

06 PIEZON® PS

Gently remove calculus with the original PIEZON® NO PAIN PS 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.

*Learn more about how GBT works in practice, how to avoid dust when AIR-FLOWING®, how to use PERIOFLOW® correctly or how to minimize the risk of emphysema at the Swiss Dental Academy (SDA): sda.dental/Contact-GBT-Expert

¹Approved for 5 mm in the U.S. - 9 mm in Canada



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

We recommend a free GBT Demo: gbt-dental.com/GBT-DEMO-ENG

GUIDED **BIOFILM** THERAPY

AIRFLOW® MAX

ABOVE CEMENTO-ENAMEL JUNCTION

AROUND BRACKETS

SUBGINGIVAL
4MM

TONGUE AND PALATE

INTERDENTAL

IN PITS AND FISSURES

ON RESTORATIONS

EXPOSED DENTINE

ON PRIMARY TEETH

BEFORE COMPOSITE RESTORATIONS

AROUND IMPLANTS
4MM

BEFORE BLEACHING

THE MULTITALENT

PERIOFLOW®

SUBGINGIVAL
9MM*

IN ROOT FURCATIONS

AROUND IMPLANTS
9MM*

PIEZON® PS

SUPRAGINGIVAL

SUPRA & SUBGINGIVAL
8MM

AROUND IMPLANTS
3MM

ON RESTORATIONS

PIEZON® PS
NO PAIN

SUPRA & SUBGINGIVAL
10MM

AROUND BRACKETS

ON PRIMARY TEETH

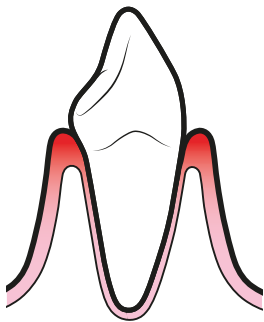
22 APPLICATIONS OF GBT

* Approved for 5 mm in the U.S. - 9 mm in Canada

GINGIVITIS

One of the main causes of gingivitis is the presence of biofilm. In this case, the gingivitis is clearly visible in the interdental areas. The EMS Biofilm Discloser* reveals the presence of biofilm indicating incorrect oral hygiene. GBT was performed using the AIRFLOW® PLUS Powder. GBT motivated the patient on the correct use of interdental aids and tooth brushing.

- GBT prevents and treats gingivitis.

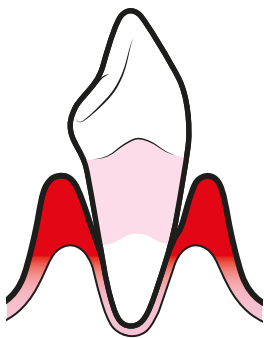


Photos: Courtesy, Prof. Magda Mensi

PERIODONTITIS

In this case, the patient had periodontitis with generalized bleeding, recession and exposed root surfaces. GBT was performed using the AIRFLOW® MAX, PERIOFLOW® and PIEZON® PS Instrument to remove all biofilm supra- and subgingivally. GBT is very comfortable, especially on exposed root surfaces.

- GBT prevents periodontal disease and helps maintain good oral health.

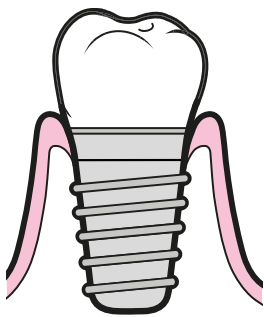


Photos: Courtesy, Celso da Costa

PERI-IMPLANTITIS

In this patient with peri-implantitis, 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 Instrument.

- In patients with peri-implantitis, GBT is one of the most minimally invasive treatments for oral biofilm management.

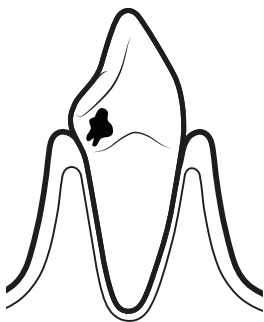


Photos: Courtesy, Prof. Magda Mensi

CARIES DETECTION

Accurate caries detection and diagnosis requires the presence of clean teeth. In this patient, use of the EMS Biofilm Discloser* showed the presence of mature biofilm interdentally as well as along the gingival margin. After performing GBT, interdental caries was revealed.

- GBT helps detect caries with precision.
- No more biofilm = No more caries.



Photos: Courtesy, Beverly Watson

* Unavailable in North America

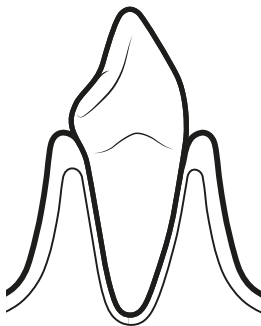
*N. Einemann, M. Cordes, Dental Hygienists - Dr. Arendt Dental, Bremerhaven, Germany



PEDODONTICS

In this case, using EMS Biofilm Discloser* visibly reveals cariogenic biofilm and helps motivate the young patient. Children love AIRFLOW® MAX, it is “cool” and they have no fear of the treatment.

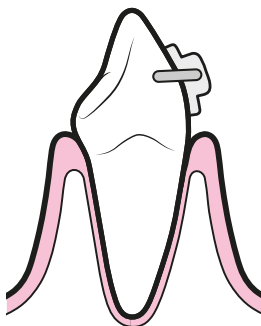
- The pain-free GBT method motivates children and helps prevent caries.



ORTHODONTICS

Children, teenagers and adults often face the challenge to keep their orthodontic appliances clean. Clinicians are unable to remove all biofilm and calculus with traditional technologies. GBT overcomes these difficulties by not only motivating and re-instructing patients on oral hygiene, but also by removing supragingival biofilm with ease and precision. In this case, post GBT, all demineralized white spot lesions have been revealed, which prevented aggressive treatments.

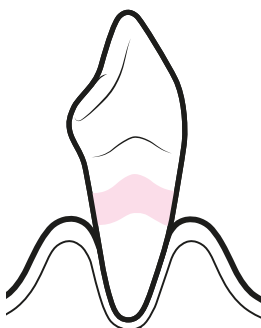
- When done routinely in orthodontic patients, GBT prevents caries and maintains orthodontic appliances.



EXPOSED DENTINE

Removing biofilm and calculus from exposed dentine surfaces is a huge challenge. Patients often suffer from hypersensitivity due to over-instrumentation. In this patient, GBT was performed with AIRFLOW® PLUS Powder and PIEZON® PS Instrument to remove all biofilm and calculus from the root surfaces preserving the natural integrity of the root surface.

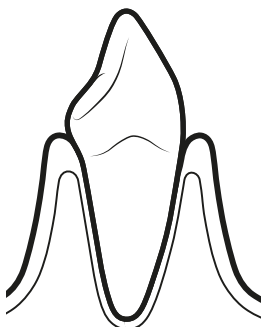
- GBT delivers the highest quality treatment with comfort.



STAINS AND CALCULUS

AIRFLOW® MAX removes stains and early calculus, minimizing the use of power instrumentation to remove hard calculus.

- GBT makes your patient smile again.



BEFORE DISCLOSING



AFTER DISCLOSING



AFTER GBT

Photos: Courtesy, Dr. Gleb Aseev



BEFORE DISCLOSING



AFTER DISCLOSING



AFTER GBT

Photos: Courtesy, Dr. Gleb Aseev



BEFORE DISCLOSING



AFTER DISCLOSING



AFTER GBT

Photos: Courtesy, Prof. Magda Mensi



BEFORE GBT



AFTER GBT

Courtesy of Beverly Watson

* Unavailable in North America

ORTHODONTICS



"I FEEL GOOD"

IN GBT FOCUS



GBT PREVENTS DEMINERALIZATION, WHITE SPOTS, CARIES, 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



CLEAR ALIGNERS



SAFE FOR ALL ORTHODONTIC APPLIANCES

THE LAWS OF GBT

§ 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 PAIN PS Instrument.
- ▶ This painless 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"

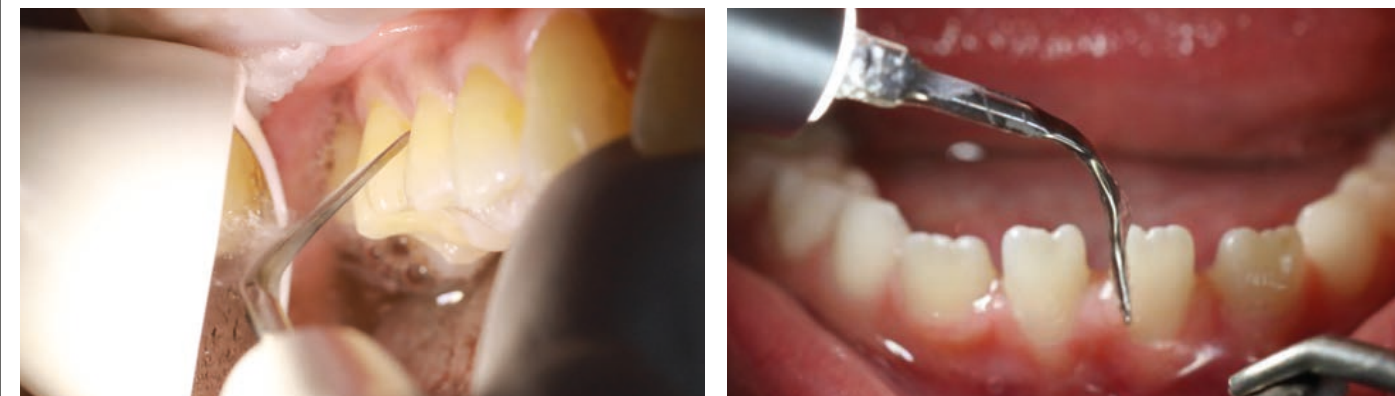
*07/2015 Stiftung Warentest (German consumer advocacy foundation)

A GAME CHANGER



§ 3 USE THE PS INSTRUMENT ONLY!

- ▶ The original PIEZON NO PAIN® 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® NO PAIN PS Instrument, the PIEZON® handpiece and the PIEZON® NO PAIN electronic module were designed to work together. This trilogy works in harmony.



LESS PAIN = SATISFIED PATIENTS = LOYAL PATIENTS

§ 4 NO MORE POLISHING AND NO MORE HAND INSTRUMENTS!

- ▶ The use of abrasive polishing pastes with rubber cups or polishing brushes could abrade dentine and could abrade and flatten the peaks of enamel over a period of time.
- ▶ The use of hand instruments over a period of time scratches the tooth surface particularly, leading to sensitivity in patients with recession and exposed root surfaces. Besides, hand instruments cause more tissue distention leading to pain.
- ▶ After a GBT treatment, the biofilm is completely removed and the tooth surface is pore-deep clean. There is no need to clean the teeth with abrasive polishing paste!*



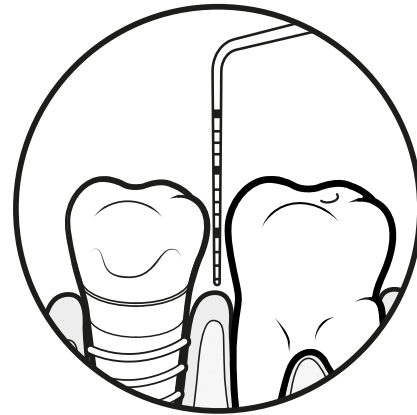
WHY CREATE SMEAR LAYERS?

*In vitro study of surface changes induced to enamel and cementum by different scaling and polishing techniques
Arefniaa B, Kollerb M, Wimmer G, Lussi A, Haas M, Oral Health Prev Dent 2021;19(1):85-92

01 HOW TO START GBT

DISINFECTION AND ASSESSMENT

- ▶ 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.
- ▶ The new BACTERX® Pro offers dental professionals an effective solution for reducing the number of viable bacteria and viruses in aerosols.
- ▶ Assess teeth and periodontal tissues.
- ▶ Assess implants and peri-implant tissues.



BACTERX® PRO

- ▶ REDUCES BACTERIAL & VIRAL COUNT IN AEROSOLS
- ▶ COMBATS ORAL BIOFILM AND PREVENTS CARIES
- ▶ HEALTHY TEETH AND FRESH BREATH
- ▶ PLEASANT TASTE
- ▶ NO ALCOHOL

UNAVAILABLE IN NORTH AMERICA

LEARN ABOUT
BACTERX® PRO

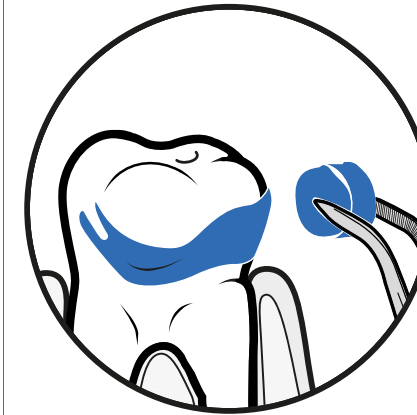


02 DISCLOSE



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.



UNAVAILABLE IN NORTH AMERICA

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.



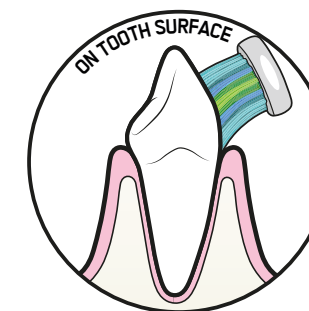
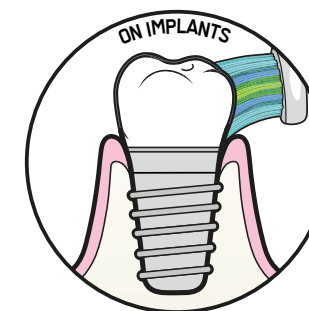
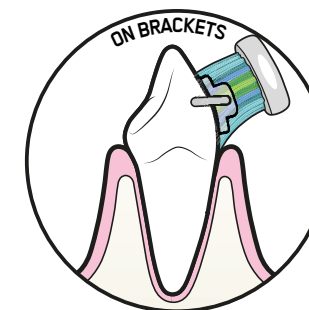
THE GBT TOOTHPASTE

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 effect¹.



- ERYTHRITOL- BASED AIRFLOW® TOOTHPASTE
- HIGH ANTI-CARIOGENIC PROPERTIES
- LOW ABRASIVITY FOR SMOOTH AND EFFICIENT DAILY HOME CARE
- BIOCOMPATIBLE, NO SLS² OR PARABENS
- IDEAL FOR SENSITIVE PATIENTS



¹ Barbara Cvikl and Adrian Lussi - Healthcare 2021, 9, 935
² Sodium Lauryl Sulfate

UNAVAILABLE IN NORTH AMERICA

LEARN ABOUT
TOOTHPASTE



THE SWISS ORIGINAL.

THE SWISS MASTER.



**GOOD
DESIGN**

THE CHICAGO
ATHENAEUM

2018



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

THE AIRFLOW® PROPHYLAXIS MASTER

The original from the Inventor. Guaranteed Swiss precision and superb design. Top performance, reliability and know-how. Experts in prophylaxis since 1981.



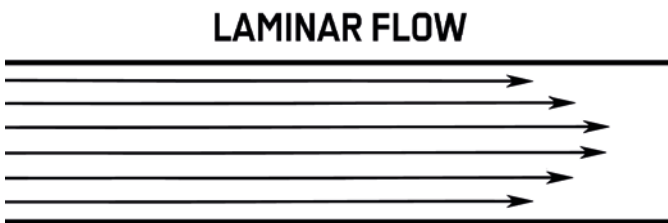
THE GBT PROPHYLAXIS STATION

The Swiss-made AIRFLOW® Prophylaxis Master 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.

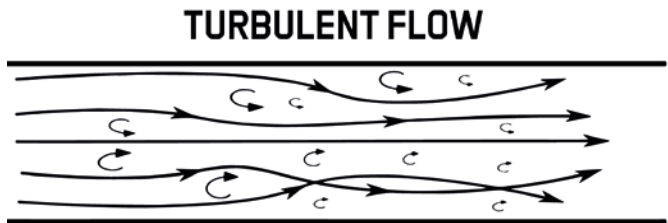
04 AIRFLOW® MAX

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®.



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



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.

- BETTER VISIBILITY
- A LOT LESS NOISE
- HIGH PRECISION WORK
- LESS RECOIL FORCE
- HIGH REDUCTION OF AEROSOL SPLATTER
- HIGH PATIENT COMFORT
- HIGH USER COMFORT
- MUCH SLIMMER AND LIGHTER HANDPIECE



LEARN ABOUT THE OPTIMAL WORKING TECHNIQUE WITH AIRFLOW® MAX

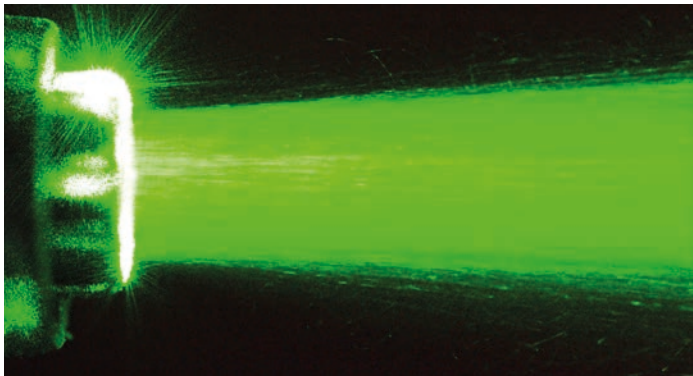


BEST AIR-FLOWING® EVER

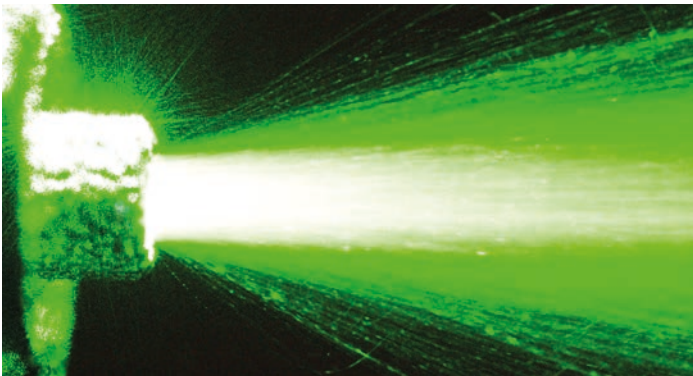
THE HEART OF AIR-FLOWING® THE POWDER CHAMBER



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.



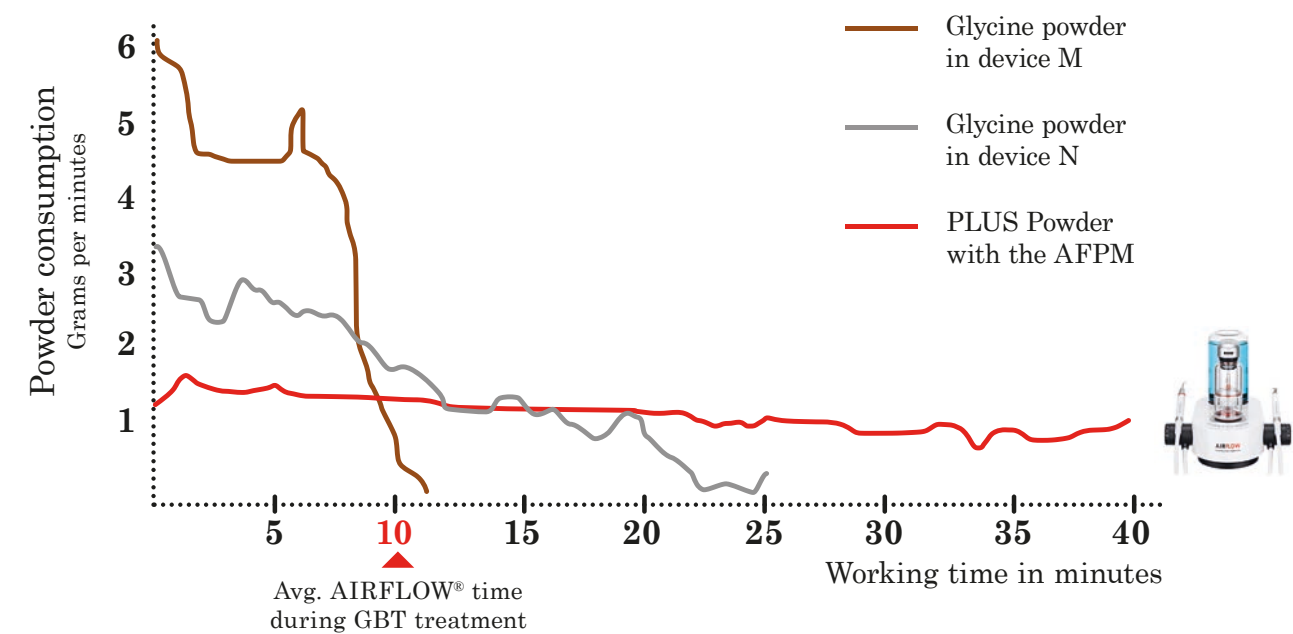
TRY THE NEW AIR-FLOWING® WITH THE AIRFLOW® MAX!

CALL YOUR EMS GBT EXPERT!

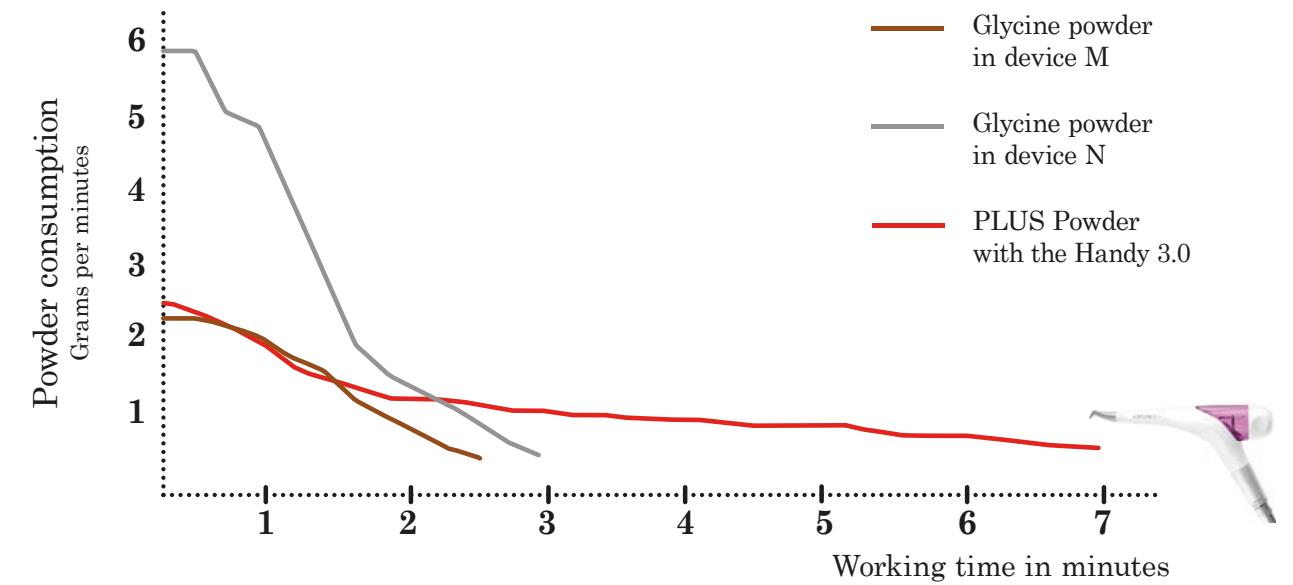
SCIENTIFIC STUDY PROVES

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

- ▶ The scientific study proves that the EMS AIRFLOW® Prophylaxis Master (AFPM) 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



AIR-FLOWING® IS KING



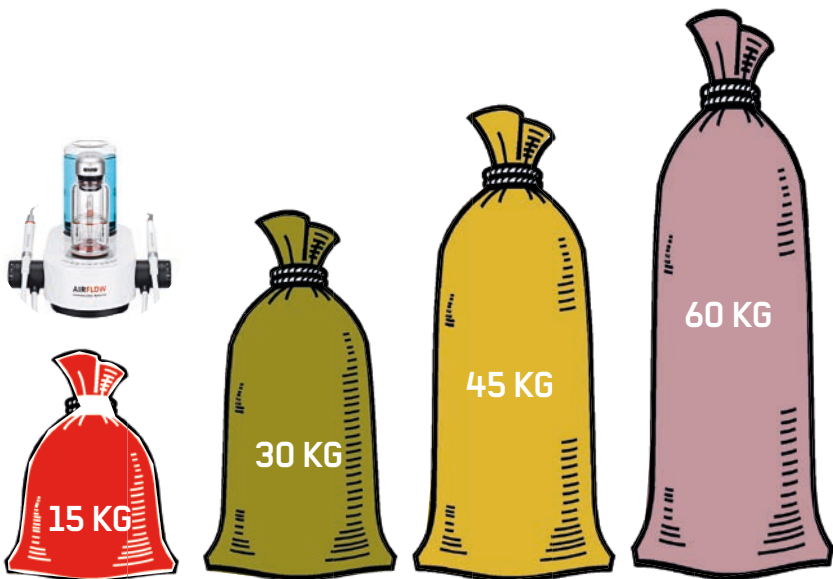
BUYING A CHEAP AIR-POLISHER IS EXTREMELY COSTLY OVER TIME - LOW PERFORMANCE INCLUDED

- ▶ A practice with frequent recall appointments will see 750 patients per year and deliver 1.500 treatments. These numbers can be achieved by one RDH working with an AFPM (Prophylaxis station).
- ▶ A Swiss group practice of 20 clinics had their hygiene-induced production (fillings, bleaching, aligners) increased by 64 percent following the integration of the GBT protocol. RDH's refer over time up to 64% of additional treatments (caries, bleaching, aligner) to the dentist.

NUMBERS TALK

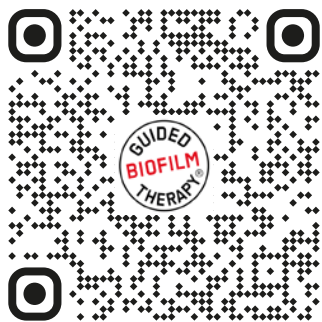
- ▶ Average annual powder consumption (1.500 GBT treatments) of 1 AIR-FLOWING® tabletop unit.

Assumption:
10 minutes treatment
10 grams per treatment



ANNUAL POWDER CONSUMPTION: The AFPM (reference) 2x 3x 4x

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®

NEW PERIOFLOW® NOZZLE

- Subgingival biofilm removal (debridement) in up 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



SLIMMER
= more comfortable



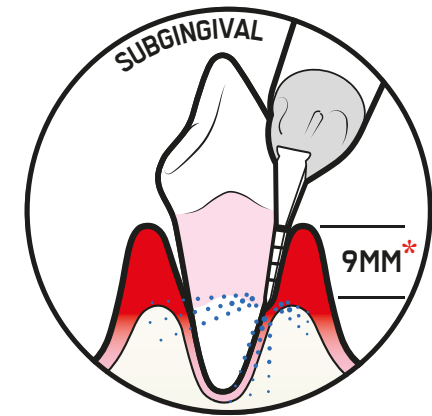
SUBGINGIVAL SAFETY

SLIMMER, SAFER AND EASIER TO USE

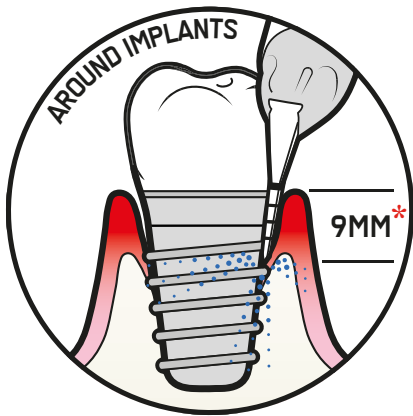
The new PERIOFLOW® Nozzle is more flexible and allows increased accessibility to adapt to the topography of periodontal / peri-implant pockets. There is a groove in the Nozzle for pressure reduction enhancing safety.



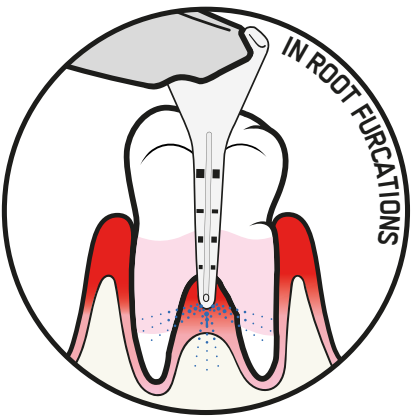
PERIOFLOW® APPLICATIONS



PERIODONTAL POCKETS



PERI-IMPLANT POCKETS



ROOT FURCATIONS



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

* Approved for 5 mm in the U.S. - 9 mm in Canada

AIRFLOW® PLUS POWDER

MINIMALLY INVASIVE
MAXIMALLY PREVENTIVE
OPTIMAL COMFORT

TEETH

- Primary and secondary teeth

DENTAL HARD TISSUES

- Enamel
- Dentine
- Cementum

ORAL SOFT TISSUES

- Gingiva: supragingival and subgingival pockets up to 9mm*
- Tongue
- Palate

RESTORATIONS AND PROSTHETICS

- Restorations
- Prosthetics
- Dentures

IMPLANTS

- Peri-implant sulcus
- Deep peri-implant pockets

ORTHODONTICS

- Orthodontic brackets
- Aligners

PREPARES FOR

- Caries diagnosis
- Fluoride treatment
- Orthodontic treatment
- Restorative and prosthetic treatment
- Bleaching procedures

The original AIRFLOW® PLUS Powder is now available in a high-quality aluminum bottle (400 grams) for greater sustainability. When empty, it can be used as a water bottle.

* Approved for 5 mm in the U.S. - 9 mm in Canada



THE ONE AND ONLY



SUPRA- AND SUBGINGIVAL



AIRFLOW® MAX



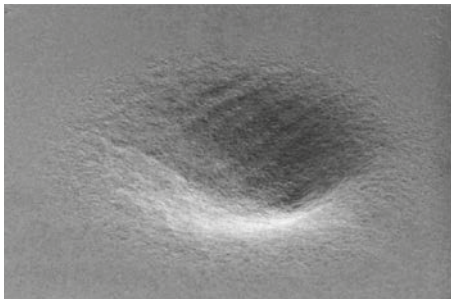
PERIOFLOW® Nozzle



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.*
- Scan the QR code above and read the full study.

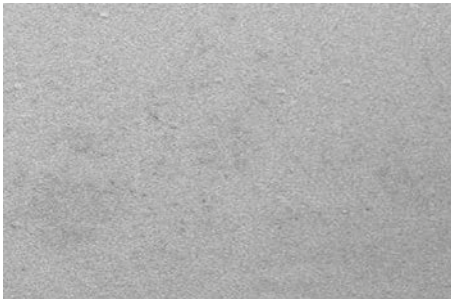
OSSPRAY CALCIUM SODIUM PHOSPHOSILICATE



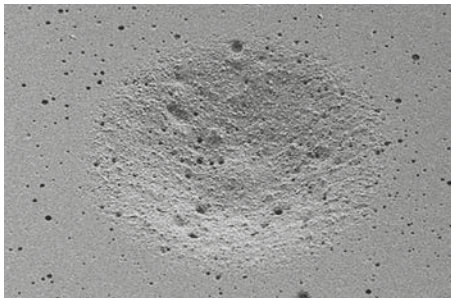
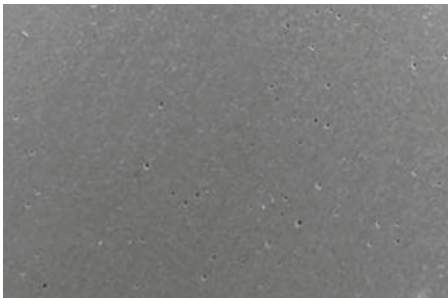
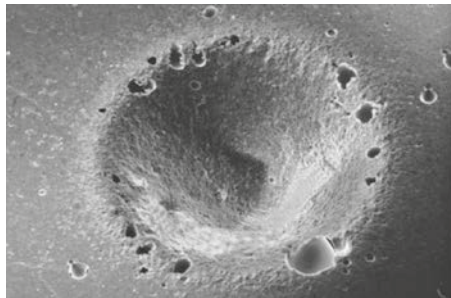
EMS AIRFLOW® PLUS POWDER ERYTHRITOL



EMS COMFORT SODIUM BICARBONATE



EFFECT OF 5 SEC AIR POLISHING ON HUMAN ENAMEL



EFFECT OF 5 SEC AIR POLISHING ON GLASS IONOMER

*An in vitro comparison of the effects of various air polishing powders on enamel and selected esthetic restorative materials
- Barnes CM, Covey D, Watanabe

06 PIEZON® PS

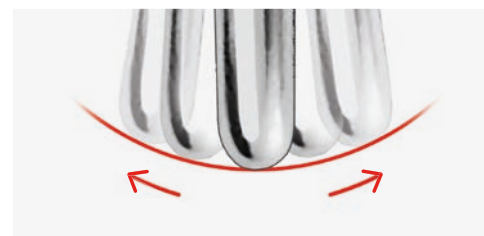
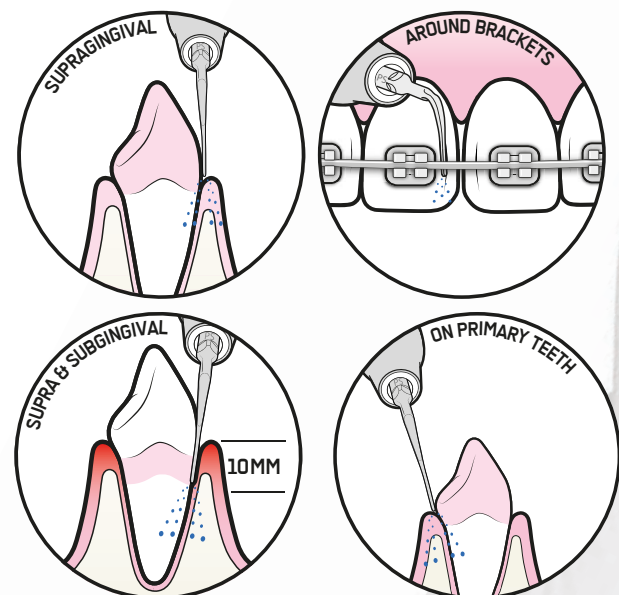
FOR 95% OF ALL CASES

**MINIMALLY INVASIVE
MAXIMALLY PREVENTIVE
PAIN-FREE**

**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

PIEZON® PS INSTRUMENT APPLICATIONS



PIEZON® PS NO PAIN

Precise, linear and controlled movements.



THE ONE AND ONLY



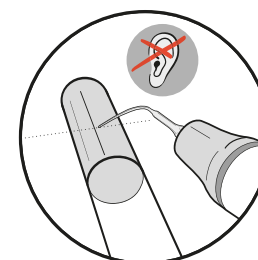
Photos: Courtesy, Prof. Magda Mensi

CALCULUS REMOVAL WITH PIEZON® PS INSTRUMENT

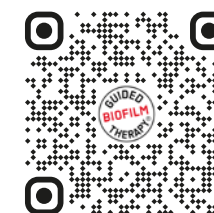


ONLY THE PS INSTRUMENT

- The PIEZON® NO PAIN PS Instrument is slim and smooth like a probe. It is gum-friendly, minimally invasive, maximally preventive and preserves the epithelium thanks to its absolute linear movements.
- By using only one instrument to do 95% of the work, the treatment time is optimized. For the 5% that remain we recommend our new curved PIEZON® PSL and PSR (Perio Slim Left and Right) Instruments.
- The PIEZON® PS NO PAIN Instrument gives the clinician a great sensory and secure feeling when working subgingivally.
- When used the correct way, the PS Instrument enables pain-free treatment.
- Patients demand pain-free and pleasant treatments, which result in loyalty and satisfaction. This is the key to patient loyalty and satisfaction.
- The cost of a PIEZON® NO PAIN PS Instrument is only 10-15 cents per treatment! Buying a copy or "compatible" tips is a nonsense.
- If EMS handpieces are damaged (e.g. the thread) "compatible" tips, EMS warranty will no longer be valid.
- The PIEZON® NO PAIN PS Instrument, the PIEZON® Handpiece and the PIEZON® NO PAIN electronic module form a trilogy that works perfectly in harmony.



**PRACTICE THE CORRECT PIEZON® PS
NO PAIN TREATMENT TECHNIQUE WITH
THE DEDICATED TRAINING TOOL**



07 CONTROL

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



Courtesy, Dr. Wolfgang Gutwerk

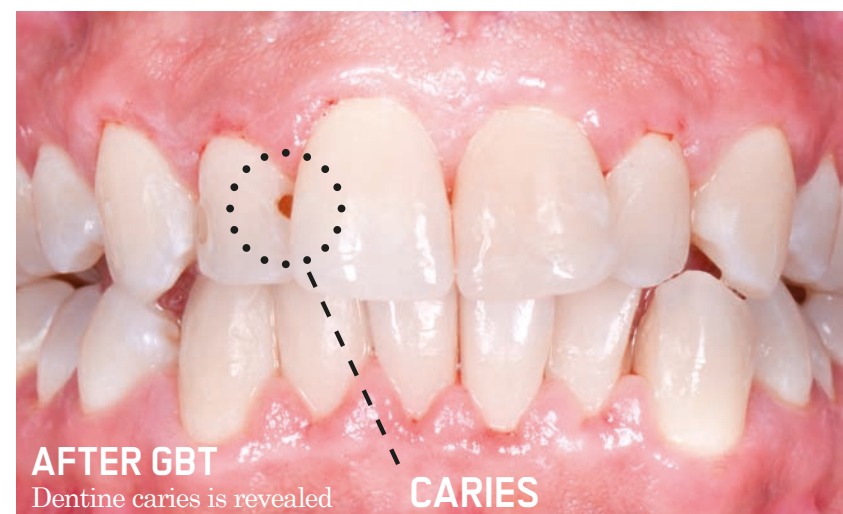
- Oral biofilm is the cause of 95 % of all problems: caries, gingivitis and periodontitis.
- Complete biofilm removal provides great visibility of cleaned surfaces.

HIDDEN CARIES IS NOW VISIBLE



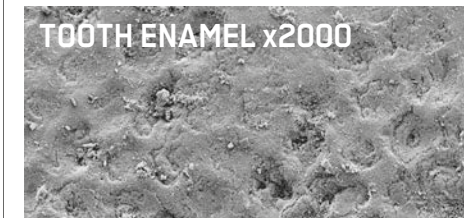
Courtesy, Prof. Hervé Tassery

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



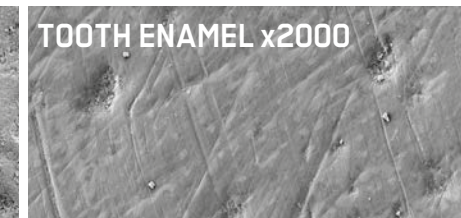
Courtesy, Prof. Beverly Watson

NO MORE POLISHING



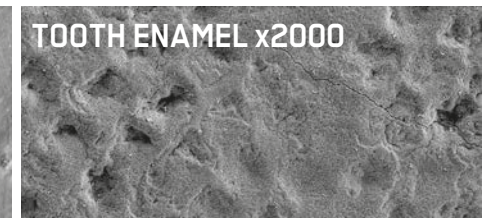
BEFORE CLEANING, RESIDUAL BIOFILM

- The prisms of the natural tooth enamel are easily recognizable.
- The photo shows the remnants of the bacteria killed by sodium hypochlorite¹.



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 surface¹.



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 paste². Save enamel and treatment time¹.

¹Camboni S, Donnet M - The Journal of Clinical Dentistry 2016;27:13-18
²Arefniaa B, Kollerb M, Wimmer G, Lussi A, Haas M, Oral Health Prev Dent 2021;19(1):85-92

PROTECT WITH FLUORIDE

- Better caries prevention through fluoridation on clean teeth.

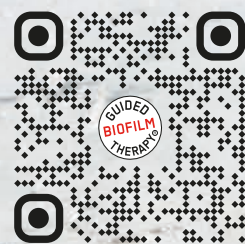


**"I FEEL
GOOD"**

ALL LOVE GBT

**"CHEAP GETS
EXPENSIVE"**

**John Ruskin
(1819-1900)**



REGULAR GBT RECALL GUARANTEES LASTING ORAL HEALTH FOR YOUR PATIENTS

**“AIRFLOW®
IS COOL -
SUPER
COOL.”**

MORRIS MEYER (AGE 9)

“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, FRANCE

“For me as a very sensitive patient, Guided Biofilm Therapy is THE form of modern prophylaxis. My treatment was absolutely painless and comfortable.”

MARKUS E., AUSTRIA

“I did a dental cleaning session with the GBT protocol and I found it amazing! Quick, painless and totally effective procedure. I want to do it every week for the result provided, far superior to a normal prophylaxis.”

ANA P. S., BRAZIL

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

PETER S., GERMANY

“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.

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

JONGEOK GWON, CHEONAN, REPUBLIC OF KOREA

“Amazing, looking forward to coming back.”

BENOIT P., SWITZERLAND

**SHARE YOUR
FEEDBACK
NOW ON GBT**





MOTIVATION LETTER FROM VANESSA B.

Why should I become a GBT trainer?

Dear Sir or Madam,

my passion for dental hygiene has been growing ever since I started using the GBT method and Prophylaxis Master. Now more than ever, I am convinced that GBT is the modern age of preventive dentistry. It holds great opportunities for the improvement of oral health in our society. Your concept is the key to success. (...)

GBT is a very valuable tool for us in our practice because the standardisation of procedures establishes a trustworthy routine for both patient and clinician. Our patients like to come to the recall and are no longer "afraid" of painful treatments. A reliable and measurable quality is given, which stands as a distinction for the practice. (...)

I have been able to achieve outstanding treatment results with the GBT concept. Be it the orthodontic treatment, which was about to be cancelled, which I led to a great result with a frequent recall for biofilm management, a lot of motivation, instruction and much empathy. There is also no better concept for periodontal therapy in our practice. We achieve remarkably more successful results than before, especially with regard to the compliance of the PA patients. In the initial therapy, I use the PERIOFLOW® for deeper pockets to remove the biofilm completely. This and the PS Instrument as well as the PIEZON® with the NO PAIN technology are the best combination for me. Another big field of application is in implantology. Anti-infective therapy is initiated before all treatments, from single implants to extensive work or All-on-4. Our periodontist uses the Prophylaxis Master on a regular basis as well. In therapy supplements, open periodontitis treatments and especially in perioimplantitis treatments. For us, biofilm management is the most important aspect in treating microbial diseases. (...)

I welcome the challenge to join your company as a GBT trainer and to pursue my talents and interests and develop myself personally. The qualification as a GBT trainer would be the ideal opportunity for me to do this.

Yours sincerely,

Vanessa B.

Cologne, 09.08.21

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



KAREN DAVIS,
TEXAS, U.S.

“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, erythrithol, with which we can clean, polish and disinfect at the same time.”



DR. STEPHAN ZIEGLER,
BERLIN, GERMANY



FAYE DONALD, BEST UK DENTAL
HYGIENIST 2014 AND 2017

“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®.”

GIVE US YOUR
FEEDBACK
THANK YOU!





Learn how to perform GBT with the Swiss Dental Academy

Founded in 2005, the Swiss Dental Academy offers more than 2.000 GBT courses a year (2019) to ensure that clinicians apply the GBT protocol in a consistent way. A total of 345 trainers coach dental teams in 35 countries worldwide. The SDA team includes a core of highly experienced hygienists supported by a growing number of young enthusiastic colleagues. Paired with a hands-on approach, all courses of the SDA are arranged around a strong foundation of scientific evidence. Numerous clinical studies involving the GBT protocol and related instruments have been published in high-level journals.

Following the basic GBT qualification, annual ‘train the trainer’ updates ensure a consistent quality of the courses. They include specific core themes, such as communication skills or caries prevention.

All SDA trainers are passionate about the GBT protocol, which makes them authentic messengers and convincing instructors.



Book your practice training!

Thanks to GBT practice training, the entire prophylaxis team is trained in the application of the GBT protocol. This ensures a successful, standardized GBT treatment.

Together with our SDA trainers from the Swiss Dental Academy, clinicians regularly practice the proper use of the GBT protocol based on a scientific background - from professional to professional.

Get in touch with the SDA trainers and book your GBT practice training!



sda.dental/Contact-GBT-Expert



JOIN THE **GBT** MOVEMENT!



„Being GBT certified means being part of community in which providers can share knowledge, where they are continuously trained to make sure that we always follow a standardized protocol for the benefit of our patients. I am absolutely thrilled to lead the first group of GBT certified practices.“

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

Call your GBT Expert from EMS Tel. +001 972 690 8382

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.



GAIN MORE VISIBILITY

- Your practice listed on the GBT Patient Finder,* an interactive map allowing patients to find their nearest GBT practice



ACCESS TO THE GBT CERTIFIED MARKETING KIT

- Welcome kit to give your practice a GBT look
- Customizable GBT brand assets
- Social Media templates
- Patient videos



EXCLUSIVE EDUCATION PROGRAMS AND TRAINING

- Regular e-learning modules and webinars
- Continuing education and accreditation
- Training based on the latest scientific and clinical research
- On-demand training for new team members



PREMIUM CUSTOMER SERVICE

- First-line support for GBT Certified practices
- Preferential GBT service agreement

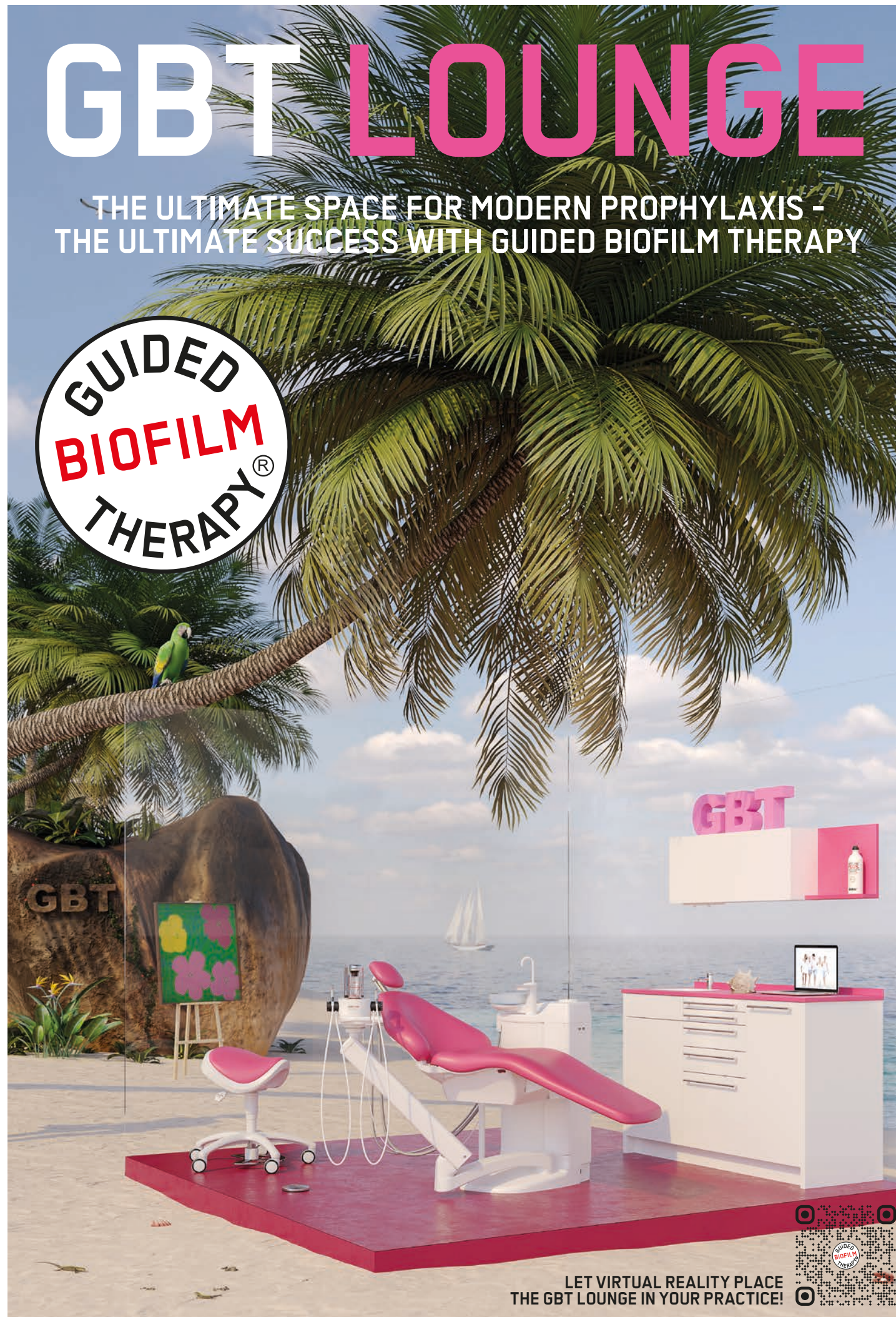


**JOIN THE GBT
MOVEMENT**

*in the authorized countries

GBT LOUNGE

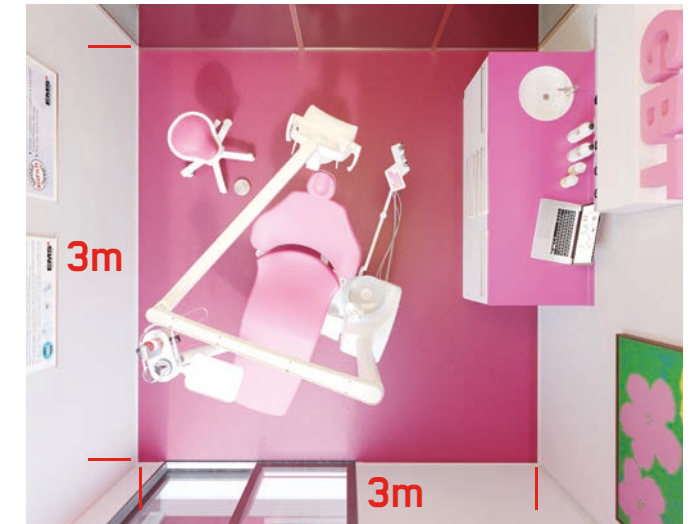
THE ULTIMATE SPACE FOR MODERN PROPHYLAXIS -
THE ULTIMATE SUCCESS WITH GUIDED BIOFILM THERAPY



GUIDED
BIOFILM
THERAPY®

LET VIRTUAL REALITY PLACE
THE GBT LOUNGE IN YOUR PRACTICE!

WELLNESS ON 9m²



WELLNESS MEETS ORAL PROPHYLAXIS

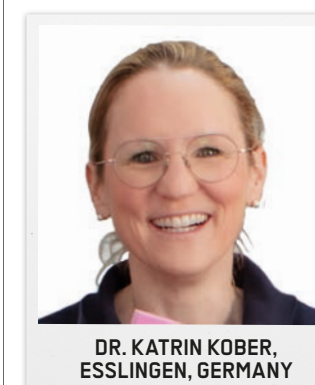
The GBT Lounge Unit has been designed especially for GBT to make everyday work as easy and comfortable as possible. Sized at only 3m x 3m = 9m², the GBT Lounge is probably the most compact dental set-up in the world fitting even in the smallest prophylaxis room.

KEY FEATURES

- Narrow top of the backrest to work more ergonomically
- Small cuspidor 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.

*„The new GBT lounges
were the best decision
I could have made.“*



CLINICAL EVIDENCE



Guided Biofilm Therapy (GBT)¹ 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 rinse². 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^{3,4*}. The color will guide biofilm removal. Once biofilm is removed, calculus is easier to detect.

03 MOTIVATE
RAISE AWARENESS AND TEACH
Emphasize prevention⁵. Instruct your patients in oral hygiene. EMS recommends interdental brushes or dental floss as well as electric or manual toothbrushes⁶ and AIRFLOW® erythritol toothpaste for daily home care.

04 AIRFLOW® MAX
REMOVE BIOFILM, STAINS⁷ AND EARLY CALCULUS
Use AIRFLOW® MAX^{8,9} for natural teeth¹⁰, restorations¹¹ and implants¹⁵. Remove biofilm supra^{12,13,18,20,21} and subgingivally up to 4mm^{14,15,16,17,18} using AIRFLOW® PLUS 14µm Powder^{14,15}. Also remove biofilm from gingiva, tongue¹⁷ and palate. Remove remaining stains⁷ on enamel using AIRFLOW® Classic Comfort Powder.

05 PERIOFLOW®
REMOVE BIOFILM IN >4 TO 9MM POCKETS^{}**
Use AIRFLOW® PLUS Powder, on natural teeth^{24,25,26,27} in deep pockets and root furcations and on implants^{28,29}. Use new and slimmer PERIOFLOW® Nozzle^{18,19,20,21,22,23}.

06 PIEZON® PS
REMOVE REMAINING CALCULUS
Use the minimally invasive EMS PIEZON® NO PAIN^{***} PS^{30,31,32} Instrument supra- and subgingivally up to 10mm. Clean > 10mm pockets with mini curette. Use EMS PIEZON® PI³³ 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 caries³⁴. Protect with fluoride³⁵. No more polishing¹⁰.

08 RECALL
HEALTHY PATIENT = HAPPY PATIENT
Schedule recall³⁶ frequency according to risk assessment. Ask your patients if he or she liked the treatment.

* Unavailable in North America
** Approved for 5 mm in the U.S. - 9 mm in Canada
*** NO PAIN applies when used in accordance with EMS instructions and/or training by the Swiss Dental Academy

1. A NOVEL BIOFILM REMOVAL APPROACH (GUIDED BIOFILM THERAPY) UTILIZING ERYTHRITOL AIR-POLISHING AND ULTRASONIC PIEZO INSTRUMENTATION: A RANDOMIZED CONTROLLED TRIAL
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Mensi M, Scotti E, Sordillo A, Agosti R, Calza S - Int J Dent Hyg. 2020 Aug;18(3):285-294

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9. 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

10. 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.

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