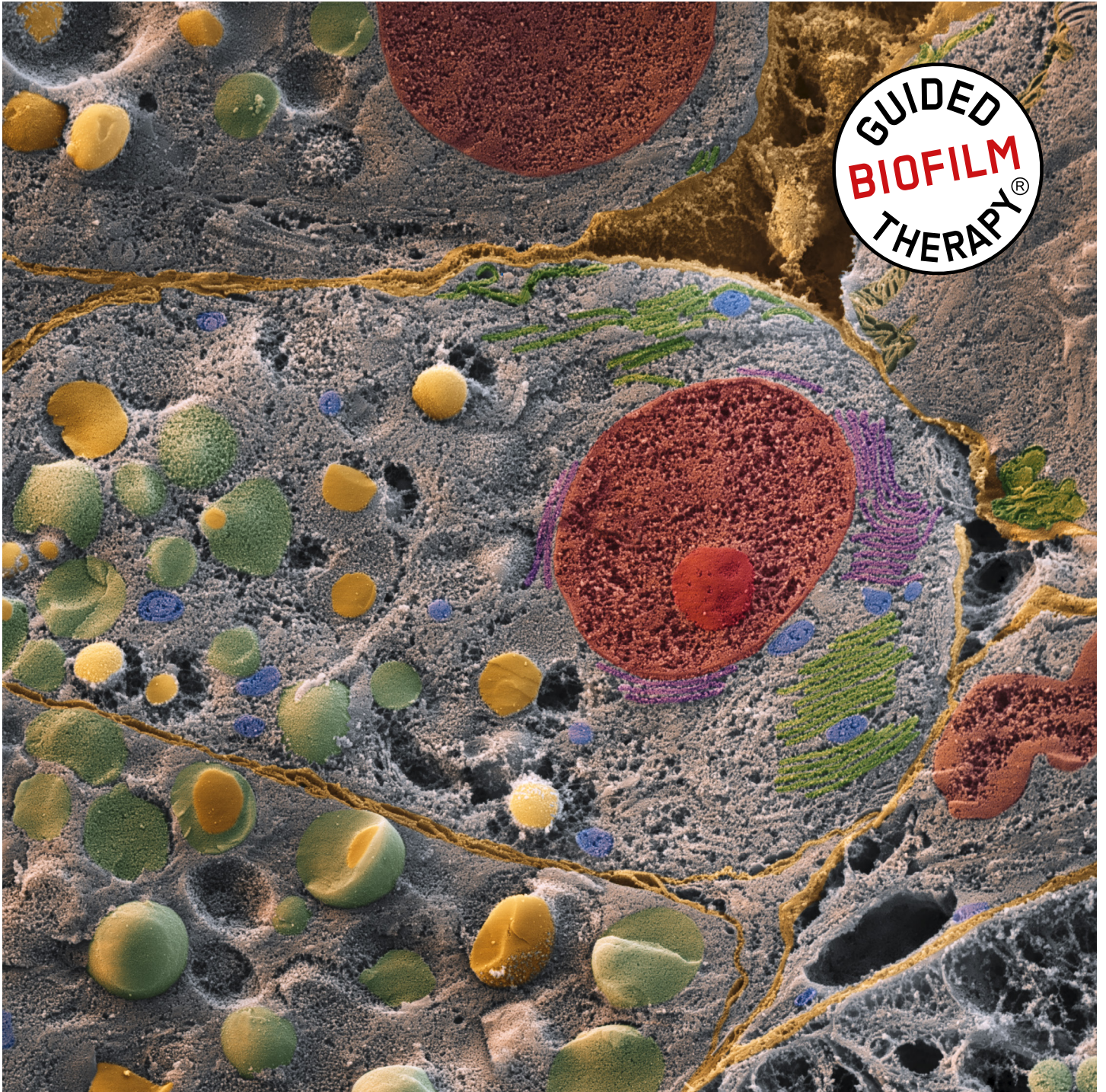


# GUIDED **BIOFILM** THERAPY

PRESS ARTICLES AND CLINICAL EVIDENCE 2024 - VOL. 3



Scanning electron micrograph (SEM) of a freeze-fractured parotid acinar cell showing protein storage granules (original magnification  $\times 8000$ ).

Gruber R, Stadlinger B, Terheyden H. Cell-to-Cell Communication: Cell Atlas  
Visual Biology in Oral Medicine, 1<sup>st</sup> Edition, Quintessence Publishing, Berlin, ©2022  
EMS Private Label edition; SEM images: eye of science.

**SDA**   
SWISS DENTAL ACADEMY

# GBT IN THE PRESS



By definition, GBT is a risk-oriented, evidence-based, systematic, modular, individual, universally applicable prevention and treatment protocol. GBT can be applied in all patients, even with complex oral and general health issues and in all age groups. More than 120 publications on the individual GBT steps form the scientific basis of this protocol. We encourage you to explore the [latest articles published in dental magazines](#) as well as [studies](#) about Guided Biofilm Therapy from July to September 2024.

## GUIDED BIOFILM THERAPY: THE OPTIMAL SOLUTION FOR IMPLANT MAINTENANCE

► EMS Korea news, 09/24

**Guided Biofilm Therapy®: The Optimal Solution for Implant Maintenance**

Implant-related diseases are generally categorized into two main types: peri-implantitis and peri-implant mucositis. There are various reasons for implant loosening, but studies have shown that implants may fall due to gum disease, especially in cases where they were placed after tooth loss due to periodontitis. Peri-implantitis, which involves bone loss, typically follows the stage of peri-implant mucositis. The symptoms of mucositis are similar to those of gingivitis in natural teeth, including gum bleeding without the loss of connective tissue around the implant. Early treatment is crucial to restore the gums to a healthy state. During examinations, patients with mucositis may show significant subgingival plaque or foreign substances like implant cement. In addition to professional cleaning for inflammation by assessing bleeding on probing (BOP) and using an explorer (ODU #112) for subgingival probing, covering no damage is caused to the gingival epithelium and the implant.

Dr. Eunsun Kim, Head of the Implant Center at the Yonsei Medical Center and Director of the GBT Center, explains that the optimal solution for implant maintenance is Guided Biofilm Therapy (GBT). This procedure involves the use of a laser to remove plaque and biofilm from the implant surface, followed by a fluoride treatment to protect the implant. The procedure is performed in a controlled environment to ensure high-quality results.

## PRACTICE PORTRAIT: GUIDED BIOFILM THERAPY AT THE FOTZN'SPANGLEREI DENTAL PRACTICE CORE VALUES: WITHIN THE TEAM AND DURING PREVENTION EFFORTS

► Dental Magazin, 5/24

**Core Values: within the team and during prevention efforts**

When Dr. Petra Jöck and her husband, business manager Alexander Jöck, opened their first FOTZN'spanglerei dental practice in Garndorf-Partschlitz in 2019, it was clear from the outset that they were committed to patient care and quality. This commitment is reflected in their modern staff management and open patient communication. When it comes to prevention – a central component of their range of services – they rely on a consistent procedure concept that is both transparent and high quality. This standard takes the form of Guided Biofilm Therapy (GBT).

Dr. Petra Jöck used to be terrified of the word "prevention" in a dental practice. She was not sure how to integrate it into her practice with her husband and her staff. She was not sure how to integrate it into her practice with her husband and her staff. She was not sure how to integrate it into her practice with her husband and her staff.

## SWISS DENTAL ACADEMY (SDA) HANDS-ON AT THE GBT TRAINING CENTER IN MUNICH BECOME A PREVENTION EXPERT

► Teamwork 4/24

**Become a Prevention Expert**

Over a year ago, the Swiss Dental Academy (SDA) opened a state-of-the-art training center in Munich, offering courses for dentists, dental technicians, dental hygienists, and dental assistants. The courses focus on the practical application of Guided Biofilm Therapy (GBT) with the AirFlow ProphyJet. The courses provide participants with the latest information on the use of GBT in the dental practice, including the use of GBT for implant maintenance.

The SDA Munich training center is equipped with the latest GBT technology, including the AirFlow ProphyJet and the GBT Laser. The courses are designed to provide participants with the knowledge and skills needed to perform GBT safely and effectively in their dental practices.

## ORAL HYGIENE AS PART OF THE PROPHYLAXIS CONCEPT

► Wir in der Zahnarztpraxis 03/2024

**Oral hygiene as part of the prophylaxis concept**

Prevention is a healthy lifestyle. It's good and hygienic that plays an essential role in oral health. If long-term stability is to be ensured, patients need a **comprehensive** package of care covering the full spectrum of professional hygiene and oral care management, including the use of GBT as a preventive and restorative tool.

The most common oral disease is plaque. It is the main cause of periodontal disease and is also the main cause of tooth decay. Plaque is a biofilm of bacteria that adheres to the teeth. It is composed of various types of bacteria, including Streptococcus, Lactobacillus, and Actinomyces. Plaque is a sticky, colorless film that builds up on the teeth over time. It is the main cause of tooth decay and periodontal disease.

# GUIDED BIOFILM THERAPY

## 1. GUIDED BIOFILM THERAPY VERSUS CONVENTIONAL PROTOCOL—CLINICAL OUTCOMES IN NON-SURGICAL PERIODONTAL THERAPY

Cyris, M., Festerling, J., Kahl, M. et al.

BMC Oral Health (2024) 24:1105

<https://bmcoralhealth.biomedcentral.com/articles/10.1186/s12903-024-04898-z>

### CLINICAL RELEVANCE

- ▶ This randomized controlled clinical study evaluated the effectiveness between conventional instrumentation and Guided Biofilm Therapy (GBT) with respect to reduction in pathologically increased pocket probing depths (PPD > 3 mm) and time taken during non-surgical periodontal therapy (NSPT) over 2 months in patients with stage III-IV periodontitis. Results demonstrate that both treatments achieved comparable outcomes, however GBT exhibited a significantly shorter time in addition to a greater % pocket closure than the control group.

## 2. EVALUATING THREE APPROACHES TO ENHANCE ORAL HYGIENE IN ADULT ORTHODONTIC PATIENTS

Alshahrani, A., Alshehri, Z.A., Alzahrani, N.M., leslom, A.N., Alasmari, M.M., Abdullah, M., Kamran, Kamran, D.M., Abdulrahman, Z., Alshehri, N.M., Alzahrani, M., hassan asiri, A., Mohammed, M., & Alasmari, F. Annals ASH& KMDC 2024, Vol. 29(3): 248-255

<https://api.semanticscholar.org/CorpusID:272271601>

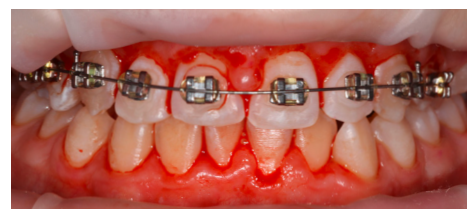
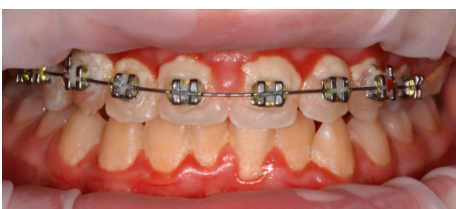
### CLINICAL RELEVANCE

- ▶ Adult patients with fixed orthodontic appliances benefit from improved dental hygiene outcomes when using video graphic methods and plaque-disclosing tablets. GBT follows the same principles and emphasizes the need for disclosing as a step within the protocol.

### CASES 1



### CASES 2



# GUIDED BIOFILM THERAPY

## 3. GUIDED BIOFILM THERAPY FOR MANAGEMENT OF “DESQUAMATIVE GINGIVITIS”—CLINICAL CASES

Yaneva B, Mutafchieva M, Shentov P, Tomov G.

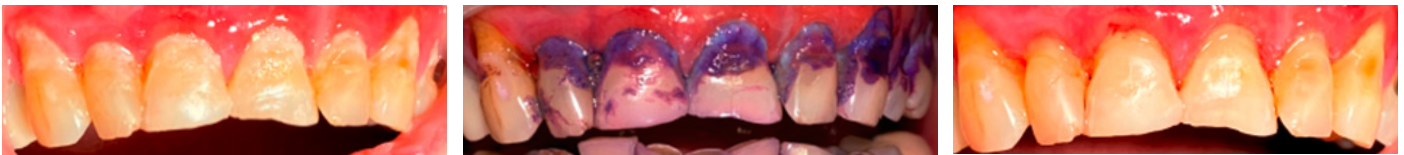
Clinics and Practice. 2024; 14(5):1931-1939.

<https://doi.org/10.3390/clinpract14050153>

### CLINICAL RELEVANCE

- ▶ The clinical cases demonstrated the effectiveness of Guided Biofilm Therapy (GBT) in complex gingival conditions. Specifically, reducing discomfort, improving patient compliance and clinical outcomes in patients with desquamative gingivitis, particularly in those suffering from mucous membrane pemphigoid, pemphigus vulgaris, and oral lichen planus.
- ▶ GBT guided by use of the disclosing agent and AIRFLOW® PLUS Powder significantly improves patients' perception and dentists' treatments and can be used in patients with desquamative gingivitis.

### CASES 1 : MUCOUS MEMBRANE PEMPHIGOID



### CASE 2: PEMPHIGUS VULGARIS



### CASE 3: LICHEN PLANUS



## 4. THE ROLE OF ERYTHRITOL/GLYCINE AIR POLISHING POWDER IN NON-SURGICAL PERIODONTAL THERAPY

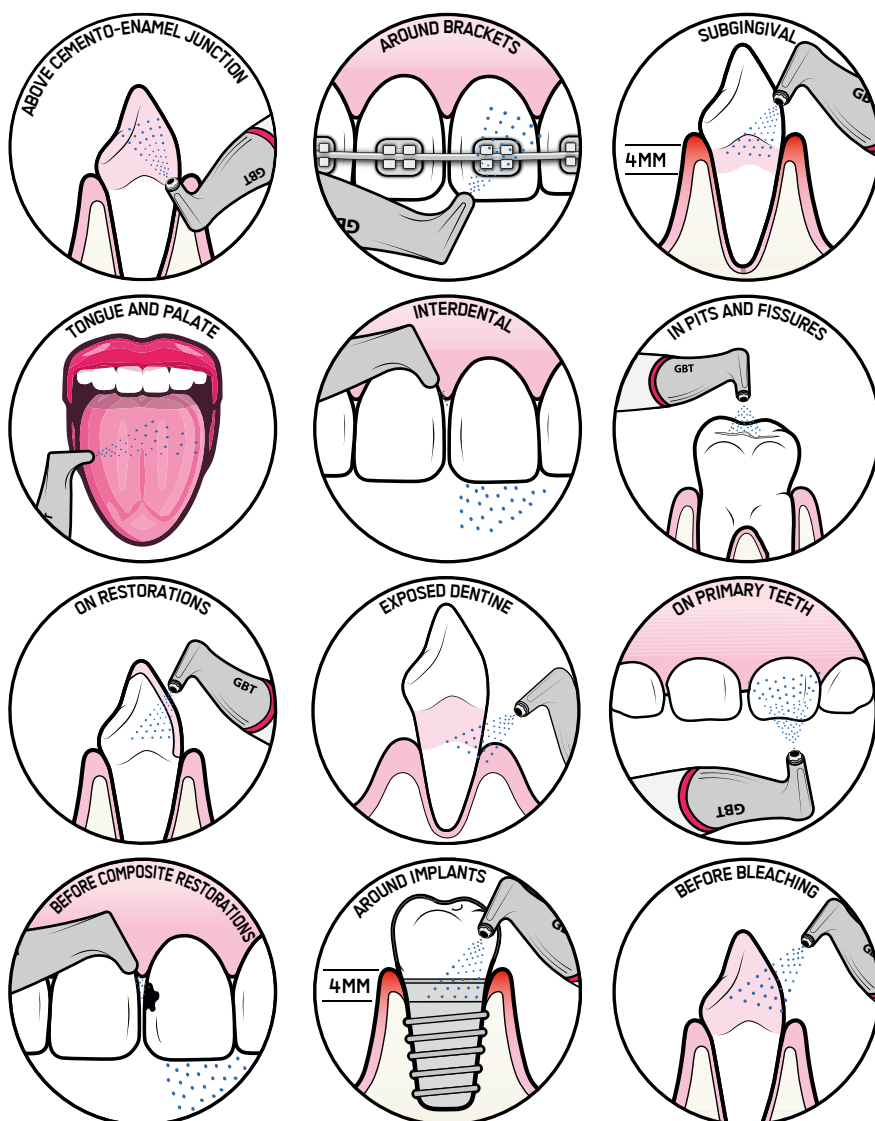
Mohammed Khalid Ayoob , Hayder Raad Abdulbaqi.

Misan Journal for Academic studies. Vol 23, Issue 59, June 2024.

<https://www.misan-jas.com/index>

### CLINICAL RELEVANCE

- This literature review includes 12 months', or longer, data to evaluate the effectiveness of erythritol/glycine powder AIR-FLOWING® (EPAP/GPAP) in non-surgical periodontal treatment (NSPT) with respect to clinical and microbiological parameters. The review concluded that, irrespective of the powder used, AIR-FLOWING® showed a comparable clinical outcome with scaling and root planning (SRP), with superiority of AIR-FLOWING® in terms of antimicrobial effectiveness and efficiency in biofilm removal. AIR-FLOWING® also demonstrated improved patient compliance, reduced pain perception, and an overall enhanced patient experience around natural teeth or implants.



## 5. LOW-ABRASIVE AIR-POLISHING POWDERS— CHARACTERISTICS AND APPLICATION IN CLINICAL PRACTICE. A REVIEW

Irena Georgieva, Zlatina Tsoneva

Scripta Scientifi ca Medicinae Dentalis, 10(1):33-39

<https://journals.mu-varna.bg/index.php/ssmd/article/>

### CLINICAL RELEVANCE

- Use of low-abrasive powders like AIRFLOW® PLUS Powder require not only less time but is also associated with higher patient comfort. AIR-FLOWING® during GBT is optimal for subgingival biofilm management.

## 6. THE EFFICACY OF DIODE LASER AND SUBGINGIVAL AIR POLISHING WITH ERYTHRITOL IN TREATMENT OF PERIODONTITIS (CLINICAL AND MICROBIOLOGICAL STUDY)

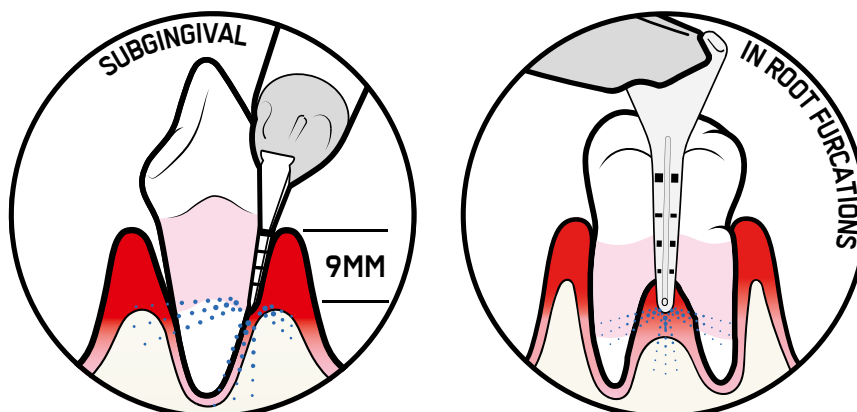
Elmeligy, S.M.A., Saleh, W., Elewa, G.M. et al.

BMC Oral Health 24, 763 (2024)

<https://doi.org/10.1186/s12903-024-04481-6>

### CLINICAL RELEVANCE

- The use of either diode laser or AIR-FLOWING® with PERIOFLOW® Nozzle, in addition to scaling and root planning (SRP), offers an accelerated periodontal treatment method, promoting bacterial reduction and enhancing periodontal health in patients with stage 1 or 2 periodontitis. GBT with AIR-FLOWING® (PERIOFLOW® Nozzle) is a logical approach in patients with periodontal disease.



## 7. LONG-TERM SUCCESS OF DENTAL IMPLANTS: MAINTENANCE PROTOCOLS AND PATIENT CARE

Dr. Major Priyank Sen, Dr. Nikhil Kumar, Dr Preeti Kale

JMDF/Vol 1/Sup. Issue 1/Jan-June/2024

<https://journalofmedicalanddentalfrontiers.com>

### CLINICAL RELEVANCE

- ▶ This review on recent research and expert opinions concluded that implementing comprehensive maintenance strategies, including both professional interventions and patient engagement in home care practices, is the way forward for long term success of dental implants. By highlighting the importance of preventive care, tailored maintenance plans, and ongoing patient support, dental professionals can improve the longevity and functionality of dental implants. Maintenance protocols are needed to improve the quality of life for patients with dental implants.
- ▶ GBT is the clear and simple solution for long-term implant maintenance. GBT not only emphasizes patient motivation and education but, through AIR-FLOWING<sup>®</sup>, it also promises comfortable treatments, encouraging patients to come for maintenance treatment and therefore improving the longevity of their implants.

## 8. EVALUATION OF A SINGLE NON-SURGICAL APPROACH IN THE MANAGEMENT OF PERI-IMPLANTITIS: GLYCINE POWDER AIR-POLISHING VERSUS ULTRASONIC DEVICE

E. Jolla, T. Pizzolante, A. Bianchi, M. Capogreco, S. Mummolo

Oral and Implantology, 15(1), 50-61

### CLINICAL RELEVANCE

- ▶ This short-term clinical study confirmed that while both AIR-FLOWING<sup>®</sup> and ultrasonics as a single approach improve clinical parameters, AIR-FLOWING<sup>®</sup> proved superior in reducing bleeding on probing (BoP) and Plaque Index (PI). In addition, AIR-FLOWING<sup>®</sup> led to a significant improvement in the probing depth over time.
- ▶ AIR-FLOWING<sup>®</sup> during GBT demonstrated a significant improvement in sites affected by moderate peri-implantitis.

