GUIDED BIOFILM THERAPY

PRESS ARTICLES AND CLINICAL EVIDENCE 2025 - VOL. 2

GBT IN THE PRESS

The second edition of this year's collection of press articles and studies, spanning April to June, focuses on the Guided Biofilm Therapy (GBT) protocol, showcasing its systematic approach, strong evidence, and high patient and clinician acceptance. Discover valuable insights to elevate your prophylaxis practice with GBT.

1. ORAL DYSBIOSIS AND GENERAL DISEASES - ETIOLOGY AND THERAPEUTIC SIGNIFICANCE, PART 1/2

- Koch JH, Prophylaxe Impuls: 29th year, 16-25, 2025

https://gbt-dental.com/Vol22025-01

2. PREVENTION AND THERAPY OF ORAL DYSBIOSIS - METHODS AND CONCEPTS, PART 2/2

- Koch JH, Prophylaxe Impuls: 29th year, 70-77, 2025

https://gbt-dental.com/Vol22025-02

3. PERIODONTAL DISEASE AND INFERTILITY – CASE REPORT

- Dr. Nadine Strafela-Bastendorf, Dr. Klaus-Dieter Bastendorf, DH Julia Fähnrich. May 2025, Der Freie Zahnarzt

https://gbt-dental.com/Vol22025-03

4. A CONCEPT FOR CLEAN TEETH

- Dr. Ulrike Webersberger uses EMS GBT in her practice near Salzburg, Austria. She was interviewed by dental JOURNAL, Austria. April 2025, dental JOURNAL 2/25

https://gbt-dental.com/Vol22025-04

5. GBT CERTIFIED PRACTICE B-KÖ SMILES: FROM DREAMING OF A PRACTICE TO A DREAM PRACTICE

- March 2025, dzw, Issue 5/2025

https://gbt-dental.com/Vol22025-05

6. FIRST GBT CLINIC OPENS IN PORTUGAL

- March 2025, ZWP 3.25

https://gbt-dental.com/Vol22025-06

GUIDED BIOFILM THERAPY

1. PLAQUE DISCLOSING AGENT AS A PLAQUE CONTROL GUIDE FOR ORAL HYGIENE IN CHRONIC PERIODONTITIS BASED ON GUIDED BIOFILM THERAPY: A RETROSPECTIVE COHORT STUDY

Lei B, Liu J, Zhao S, Chen C, Cheng Z, Yao T, Zhang L, Zhao X - Medicine. 2025 Jun 6;104(23): e42782
https://pubmed.ncbi.nlm.nih.gov/40489849/

CLINICAL RELEVANCE

- Following a 3-month intervention, the Observational Group (OG) demonstrated greater reductions in Plaque Index (PI), Bleeding on Probing (BOP), and Pocket Depth (PD) compared to the Control Group (CG). Additionally, OG had higher self-care efficacy scores. Incorporating Guided Biofilm Therapy (GBT) in treating and maintaining chronic periodontitis patients effectively lowers PI, BOP and PD, improves patients' oral health management, and ensures lasting treatment outcomes. GBT-based oral hygiene guidance significantly enhances clinical results and boosts patients' oral health awareness, helping to prevent disease progression, protect teeth, and improve quality of life.

2. EFFECTS OF TYPES OF AIR POLISHING POWDERS ON ROUGHNESS, MICROHARDNESS, COLOR AND GLOSS OF GINGIVA-COLORED RESIN-BASED COMPOSITES

Saraç Atagün Ö, Erdoğan MA, Kalyoncuoğlu ÜT - Clin Oral Invest 29, 324 (2025)
https://link.springer.com/article/10.1007/s00784-025-06404-3

CLINICAL RELEVANCE

- Sodium bicarbonate air polishing causes notable material loss in gingiva-colored resin-based composites (GCRBCs). AIR-FLOWING® with erythritol PLUS powder is less abrasive and has minimal effect on the microhardness, hence it is the optimal powder to be used for biofilm management around gingiva-colored resin-based composites.

3. EFFECTIVENESS OF ERYTHRITOL-BASED AIR POLISHING AND ULTRASONIC INSTRUMENTATION WITH PEEK INSERTS IN PERI-IMPLANT MAINTENANCE: A RANDOMIZED CLINICAL TRIAL INCLUDING DIFFERENT PROSTHETIC MATERIALS

Maiorani C, Butera A, Pérez-Albacete Martínez C, Pascadopoli M, Sabatini S, Nardi GM, Scribante A
Dent. J. 2025, 13(6), 235
https://www.mdpi.com/2673-6373/5/1/9

CLINICAL RELEVANCE

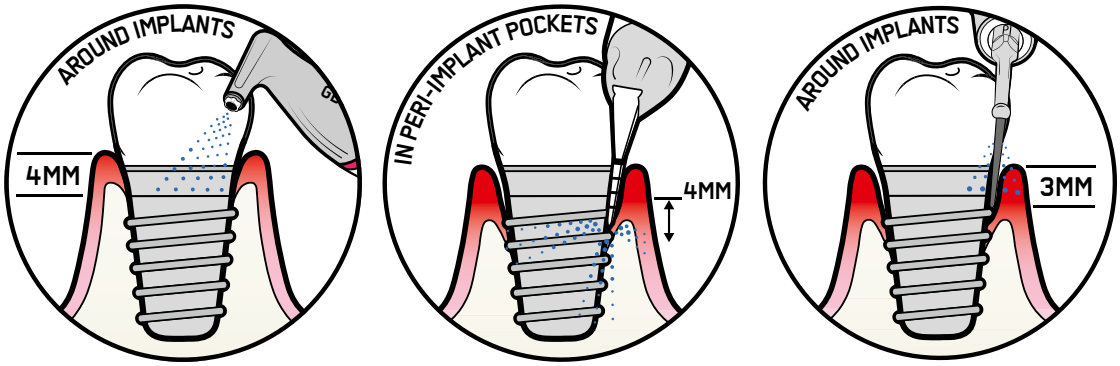
- AIR-FLOWING® with PLUS powder is the most reliable, predictable, effective and safe technology for biofilm management both supra- and subgingivally during routine implant maintenance. For managing calculus, the PIEZON® PI Instrument is an effective and dependable methodology around implants. GBT is the protocol that encompasses not only comfort perception for patients but is also the most cost-effective when tailoring individualized maintenance protocols

4. EFFECTS OF MECHANICAL METHODS USED IN PERI-IMPLANTITIS TREATMENT ON IMPLANT SURFACE DECONTAMINATION AND ROUGHNESS

Ozgu I, Ustun K - J Vis Exp. 2025 Mar 14; (217)
https://pubmed.ncbi.nlm.nih.gov/40163409/

CLINICAL RELEVANCE

- In comparison to curettes or a polyether-ether-ketone (PEEK) instrument, erythritol-based PLUS powder was the most efficient in biofilm removal. Scanning electron microscopy (SEM) analysis showed minimal surface damage with PLUS powder and the PEEK instrument, whereas titanium curettes caused moderate to severe damage. Considering the above, Guided Biofilm Therapy (GBT) is the optimal and safest protocol for peri-implant disease management.



GUIDED BIOFILM THERAPY

5. INFLUENCE OF POWDER TYPE, POWER, ANGULATION AND DURATION IN AIR-POLISHING ON THE SURFACE PROPERTIES OF GINGIVA-COLORED COMPOSITES

Atagün ÖS, Kalyoncuoğlu ÜT - BMC Oral Health 25, 581 (2025)
https://pubmed.ncbi.nlm.nih.gov/40241042/

CLINICAL RELEVANCE

- Erythritol showed the lowest abrasiveness, causing minimal hardness loss and surface roughness on Gingival Colored Composite (GCC) restorations.
- Glycine was also less abrasive than sodium bicarbonate, which caused greater surface damage.
- Using a medium power mode and a 45° angle led to less increase in surface hardness and roughness.
- The study suggests that AIRFLOW® application protocols can be customized based on these findings to optimize care for patients with GCC restorations.
- In line with GBT, AIR-FLOWING® with AIRFLOW® PLUS powder is the safest method to clean all restorations.

PERI-IMPLANTITIS

6. LONG-TERM CHANGES IN GINGIVAL RECESSIONS AND THEIR IMPACT ON ORAL HEALTH-RELATED QUALITY OF LIFE IN PATIENTS UNDER SUPPORTIVE PERIODONTAL THERAPY: A BIDIRECTIONAL COHORT STUDY

Sonnenschein SK, Ziegler P, Kim TS - Quintessence Int. 2025 Mar 18; 56(3): 186-196
https://pubmed.ncbi.nlm.nih.gov/39820294/

CLINICAL RELEVANCE

- Periodontitis patients who undergo regular supportive periodontal therapy (SPT) maintain periodontal stability with minimal progression of gingival recession (GR). Over 10 years, only 25% of sites with deep GRs showed significant progression (>1 mm). The number of deep GRs did not affect oral health-related quality of life (OHRQoL). The study concludes that regular SPT helps stabilize GR, but deep recessions should be closely monitored to catch rapid changes early and allow timely treatment. Having multiple deep GRs does not necessarily reduce OHRQoL, highlighting the need for personalized patient assessments. This bidirectional cohort study re-emphasizes the need for regular recall visits to maintain oral hygiene and health through Guided Biofilm Therapy (GBT).

7. ORAL HYGIENE AND CARDIOVASCULAR HEALTH

Zaman MS, Alam SMG, Razzaque MS - Hygiene 2025, 5, 1
https://www.mdpi.com/2673-947X/5/2/14

CLINICAL RELEVANCE

- The human oral microbiome plays a crucial role in supporting both oral and overall systemic health. Comprising more than 700 bacterial species, this complex microbial ecosystem includes organisms linked to the development of systemic conditions, particularly cardiovascular diseases (CVDs). A growing body of research underscores a strong connection between periodontal disease and an elevated risk of CVD, suggesting that maintaining good oral hygiene may help lower this risk.
- Key periodontal pathogens such as Porphyromonas gingivalis and Fusobacterium nucleatum are known to trigger chronic inflammation in the gums. These bacteria can enter the bloodstream, contributing to systemic inflammatory responses. This process involves the release of inflammatory mediators – such as C-reactive protein (CRP), interleukins (IL-1, IL-6), and tumor necrosis factor-alpha (TNF-α) – which can damage blood vessels, impair endothelial function, and promote atherosclerosis, all of which are critical in the development of CVD.
- Moreover, oral pathogens may enhance the formation of arterial plaque, increasing the likelihood of ischemic heart and brain conditions. Studies have shown that individuals with periodontal disease have a 28% higher risk of developing heart disease. Treating periodontal disease can lead to improvements in endothelial function and a reduction in inflammatory markers, highlighting the importance of oral health in cardiovascular disease prevention.
- Therefore, health strategies that promote oral hygiene and encourage early treatment of periodontal disease through modern technologies and protocols are essential components of comprehensive cardiovascular care. GBT is one of the most modern, minimally invasive protocols for managing oral health, especially in medically compromised patients.

GUIDED BIOFILM THERAPY®

"I FEEL GOOD"

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