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Carl Demadema, BOHSc

Dear Readers,

As we embark on the unveiling of the third issue of DENTE. Magazine, I find myself humbled by the remarkable journey we've undertaken together. As the year draws to a close, it's with heartfelt gratitude that I extend my sincerest appreciation to each one of you who has been part of this incredible odyssey. Your unwavering support, enthusiasm, and engagement have been the driving force behind our quest to explore the captivating world of dental health and innovation.

Throughout this year, we have delved into the depths of dental science, unraveling its intricate nuances and celebrating the passion that unites us all—the pursuit of healthier smiles and enhanced well-being. The unspoken camaraderie within the global dental community has been an inspiration, fostering an environment where knowledge-sharing knows no boundaries.

In this final issue of the year, our commitment to bringing you the most comprehensive and insightful content remains steadfast. I have curated a plethora of compelling articles and features that delve into the latest advancements in dental technology. We peer into the horizon of innovation, exploring the exciting developments that are poised to revolutionize the dental landscape.

One such exploration takes us into the intriguing realm of oil pulling-an ancient technique that has garnered renewed interest in recent times. We uncover the mysteries of this age-old practice, shedding light on its place in modern dental care.

As we bid adieu to this year, we embrace the promise of what lies ahead. The new year beckons with infinite possibilities, and we stand poised to embark on yet another thrilling expedition into the realms of dental innovation and knowledge.

I extend my deepest gratitude to our contributors, whose dedication and expertise have enriched every page of this publication. Their unwavering commitment to excellence is the cornerstone of our success.

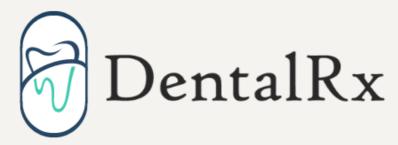
To our cherished readers, thank you for your unwavering support. Your feedback, engagement, and passion for dental wellness fuel our drive to continue delivering enriching content that resonates with you.

As we turn the page to a new chapter, I invite you to immerse yourselves in the fascinating discoveries awaiting you within the pages of this issue. Together, let us embrace the journey of exploration and discovery.

With heartfelt appreciation and anticipation for the future,

Warm regards,

Carl Demadema, BOHSc Editor-in-Chief, Dente Magazine





Nickolas Steel Founder & CEO

An Easy Solution to Swallow: The Evolution of DentalRx - A Great Solution for Modern Dental Practices.

In the world of oral healthcare, the landscape is constantly evolving with advancements in technology playing a pivotal role in reshaping traditional practices. Among these innovations stands DentalRx, a cutting-edge prescription management platform designed explicitly for dental healthcare professionals. The brainchild of Nickolas Steel, the founder of DentalRx, this platform addresses a distinct gap in the industry, revolutionizing the way dental practitioners manage prescriptions and patient care.

Inception and Evolution

The idea behind DentalRx was not conceived overnight. Nick embarked on his entrepreneurial journey with a consulting service for dental clinics, offering medication review services in Vancouver. His firsthand experience in the field shed light on the unique needs of dental healthcare professionals and the dearth of reliable resources specifically tailored to dentistry within the pharmacology space.

"As I continued to provide service, I quickly realized the unique needs of dental healthcare professionals and noticed a distinct lack of resources available within the pharmacology space. The resources I found were either outdated, incorrect, or not specific towards dentistry," shared Steel. He envisioned a comprehensive and intuitive pharmacology platform that would fill this void.

Education, Expertise, and Technology Integration

Steel's formal education in pharmacy laid the groundwork for DentalRx's knowledge base, yet the field of dental pharmacology demanded a dedicated immersion. Collaborating with clinical dentistry professionals across Canada proved instrumental in developing the holistic platform that DentalRx embodies today.

His foray into the technology sector, despite lacking formal training, exemplifies the potential of self-learning in the digital age. Harnessing the power of the internet, Steel acquired programming skills crucial for DentalRx's development. "From my combined experience in both pharmacy and technology, I have actually changed positions at the hospital into 'Clinical Pharmacy Informatics," shared Steel.





Challenges and Transformations

The journey from a consulting service to a software-centric solution was rife with challenges. Steel navigated through numerous hurdles, evolving DentalRx from electronic processes aiding consulting to a standalone software service. Building software, as he described, can be a daunting task, but the journey also presents rewarding solutions.

"One unexpected discovery actually during the development process was surrounding the Prescription Templates Module. I can't release too much information at this time, but there are some very exciting progressions happening within the government healthcare sector in Canada," hinted Steel, showcasing the platform's adaptability and growth.

Innovative Features and Differentiators

At its core, DentalRx aims to provide actionable insights rather than mere resources. The Patient Med History module stands as a hallmark feature, offering dental healthcare professionals the means to access patient medication details specific to dental interactions, providing invaluable insights for patient care.

Another standout element is direct access to a clinical pharmacist within the app—a feature currently limited to British Columbia, Canada. Steel envisions its potential expansion and its transformative impact on global dental practices.

User Interface, Experience, and Integration

The user-centric design of DentalRx underscores Steel's dedication to simplicity and usability. Available on both mobile and web platforms, the app's design emphasizes core usability, eliminating unnecessary complexity. "There is simply no room for fluff or needless complexity," Steel highlighted. The platform's accolades, including a design recognition from FlutterFlow, validate its intuitive design and functionality.

Integration with Dental Practice Workflow

The seamless integration of DentalRx into dental practice workflows was a priority during its design phase. Steel envisioned it as both a point-of-care and administrative tool, drawing inspiration from closed loop medication management processes in hospital settings. He is collaborating with a teaching hospital on a study to explore this workflow from a dental perspective, a testament to DentalRx's potential impact on clinic operations.

Continuous Development and User Feedback

DentalRx operates as a living software product, regularly rolling out updates and features based on user feedback. The platform continually evolves to meet the dynamic needs of dental professionals. Steel's innovative approach involves expanding the Patient Med History module to include comprehensive medical history documentation, aimed at enhancing patient-provider relationships and case acceptance rates.

Compliance, Expansion, and Business Model

Ensuring compliance with regulatory standards and safeguarding patient data remains a paramount concern for DentalRx. Steel is exploring avenues to achieve HIPAA compliance, emphasizing patient safety and privacy.

The platform's future includes tiered access, catering to diverse user segments, including dental professionals, healthcare businesses, and student beneficiaries. While Steel hinted at potential collaborations, the focus remains on expanding DentalRx beyond the Canadian and US markets while respecting regional regulations and jurisdictions.



Steel's emphasis on interprofessional collaboration with dental professionals from renowned institutions like UBC and UoT underscores the platform's commitment to meeting the specific needs of dental pharmacology. Collaboration with the dental anesthesiology department and other specialties aims to enrich the platform's functionalities further.

DentalRx's journey from concept to a transformative dental prescription management platform embodies innovation, user-centricity, and adaptability. Under Steel's stewardship, DentalRx stands at the forefront of revolutionizing dental practice workflows, ensuring efficient patient care, and empowering dental healthcare professionals globally.

Disclaimer: After thorough testing and collaboration with founder Nickolas Steel, we highly recommend DentalRx to dental practices seeking an innovative prescription management solution.

SCAN HERE TO CHECK OUT: DentalRx





A Tasteful Way to a Polished & Healthy Smile Introducing Guided Biofilm Therapy® by Esda Scheepers

Oral hygienist Esda Scheepers, the area specialist for EMS in Africa, tells us why Guided Biofilm Therapy® is taking the world of dental health by storm.

Unlike a manicure, massage or trip to the hair salon, traditional oral hygiene treatment is rarely a treat. For many of us, it's a self-care activity we endure rather than enjoy. Thankfully, this is changing, due to a groundbreaking innovation in dental hygiene called Guided Biofilm Therapy®.

The good news is that Guided Biofilm Therapy® (GBT), a revolutionary step forward in professional oral hygiene developed by Swiss-based Electro Medical Systems (EMS), is now available in South Africa.

What's the big deal about biofilm?

Biofilm is the main cause of dental decay, gum disease (including periodontitis), and tooth loss. It's also associated with implantitis, oral cancer, and chronic infections.

What is it?

Also known as plaque, biofilm is the sticky layer of bacteria and other microbes that naturally forms inside the mouth. The furry feeling on your teeth in the morning or at night before brushing – that's biofilm.

Biofilm constantly forms in the mouth. This is why dental professionals recommend cleaning your teeth at least twice a day. Brushing and cleaning inbetween your teeth with floss or an interdental tool are the most effective ways you can remove biofilm at home.

If you don't remove biofilm regularly, it hardens into tartar, a yellowish substance also known as calculus. Once it's hardened, you can't brush it away; tartar can only be safely removed by a dental professional.

This is where GBT® comes in – it's a pioneering professional oral hygiene treatment that removes biofilm, stains and tartar. Clinical studies have shown it to be more effective than traditional scaling and polishing, even though it is gentler.

How does Guided Biofilm Therapy® work?

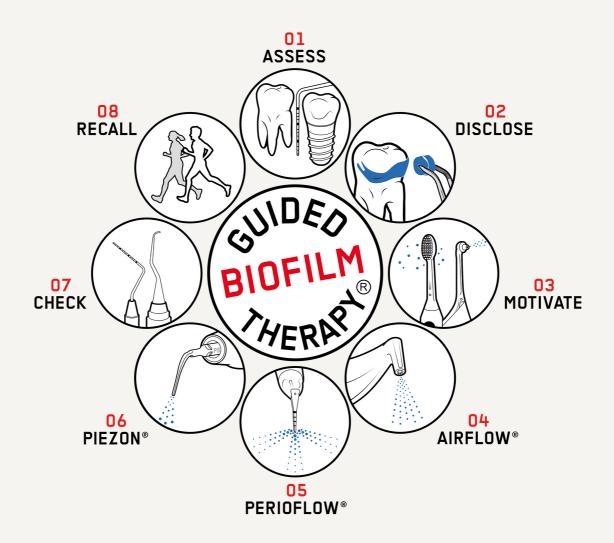
GBT® was invented by Electro Medical Systems(EMS) in Nyon, Switzerland in 1982, in collaboration with medical and dental professionals. It has become the gold standard in preventative oral care, backed by a wealth of scientific evidence.

The specialised GBT® equipment combines air, state-of-the-art powders and warm water to AIRFLOW® the teeth and gums, removing biofilm and stains. Harder deposits are removed using PIEZON ® PS NO PAIN technology. The treatment allows minimally invasive cleaning below the gumline, in periodontal pockets, around implants and restorations. It safely accesses areas that were traditionally out of reach.

8 steps to healthier smiles

The innovative technology combined with the proven Guided Biofilm Therapy® 8-step protocol makes it all work so brilliantly. Instead of scraping and polishing, this treatment involves assessment, biofilm disclosing, personalised oral care guidance and treatment using the award-winning technology.

The treatment is provided exclusively by dental professionals, who have been trained and certified by the international Swiss Dental Academy (SDA), to follow these 8 steps:



1.	Initial assessment.
2.	Disclosing to reveal biofilm. At this point, the hygienist will hand you a mirror to see for yourself. Prepare to be surprised!
3.	Personalised patient education. You'll be told exactly how you can improve your daily oral care routine at home.
4.	Treatment with AIRFLOW®. This removes biofilm, stains and early tartar from natural teeth, restorations and implants. It also removes biofilm below the gums, on the tongue and palate.
5.	For patients with periodontal pockets, additional treatment using PERIOFLOW®.
6.	Scaling with the PIEZON® PS, a minimally invasive instrument to remove remaining tartar. If you have implants, the latest PI MAX® instrument will be used.
7.	Final check to ensure a thorough clean.
8.	Recall - you'll be asked for feedback on the treatment and advised when to book your next appointment, according to your personal oral care needs.

What makes GBT® different?

- 1. Disclosing: every GBT® treatment involves using a discloser to highlight plaque on the teeth and gums.
- 2. The Airflow Technology is superior to conventional Hand instrumentation and polishing techniques. It is safe and gentle on tissues, removing biofilm and stain effectively in all areas of the mouth.
- 3. The PIEZON® PS instrument is quicker, less invasive, more pleasant for patients and practitioners.
- 4. No polishing. A traditional polish with paste, rotating brushes and rubber cups is no longer necessary. A GBT® treatment leaves your teeth surfaces perfectly cleaned, with natural tissues preserved.

Who is Guided Biofilm Therapy® for?

GBT® is suitable for adults and children (3 years and older). It is perfect for people who find traditional oral hygiene treatments uncomfortable or unpleasant because it is so gentle and comfortable.

Extensive research demonstrates that all over the world people love it. According to the 2022 study published in ZMK, 92% of patients say they will recommend GBT® treatment to family and friends*.

There is no better alternative for people with orthodontic braces or implants. It can also prevent periodontitis from progressing and is one of the best options for the non-surgical treatment of this serious gum disease.

Do you have any of these oral health issues?

- Plaque or tartar build-up
- · Yellow or stained teeth
- · Bleeding gums, gingivitis or periodontitis
- · Sensitive teeth or gums
- · Veneers, crowns, bridges
- · Orthodontic braces, brackets or clear aligners
- · Anxiety or fear of invasive dental treatments

If you do, a GBT® treatment can help.





What do South Africans say about GBT®?

Patient feedback confirms that GBT® is the gentlest, most comfortable and pleasant oral hygiene treatment you'll ever experience. We wanted the South African perspective, so we asked local dental professionals and patients to share their experiences:



"We were always uneasy about how patients responded to the conventional prophylaxis. What I like best about working with the EMS GBT® machine is it's so easy to use. It enables you to reach otherwise inaccessible areas. And our patients absolutely love this machine. When they have had their GBT® treatment they immediately book their next appointment."

Dr Saijal Harisparsad Tuluram, BDS

Redefine Dental in Durban

(https://www.redefinedental.co.za/about-dr-saijal-hariparsad-tularam)

"I love the fact that it was warm water. My teeth are normally sensitive but not today. It feels amazing. Compared to the old treatment I definitely recommend it. It feels amazing. The texture, nice and smooth. My teeth definitely look whiter than normal."

Carol Fontein - Patient

Redefine Dental



"I would really recommend EMS treatment. It was non-invasive, I felt really comfortable right from the start and my teeth feel a lot cleaner than ever before. I think it looks whiter because it's much cleaner."

Bianca Odendaal, Patient

I Love My Smile, Lynnwood, Pretoria

(https://www.ilovemysmile.co.za/)



"Once Noeleen used the EMS on me I thought wow. It's faster, it's less abrasive than polishing, it feels smooth and amazing, it's whiter, it's cleaner, it's really a remarkable product."

Cherie Whatt, Patient

Oral Hygienist Noeleen White

(https://noeleenwhite.business.site/)



"Patients love it. The results you see are exceptional. Once a patient has had a clean with an EMS machine they don't want to go back."

Dr. Janel Welgemoed

Longbeach Dental, Cape Town

(https://www.longbeachdental.co.za/)

The future of oral hygiene is here

With over 10 million mouths treated globally, it's indisputable that EMS Guided Biofilm Therapy® has transformed traditional oral hygiene. In South Africa, the consensus is clear: GBT® is not just a treatment; it's a preference.

The future of oral hygiene? It's already here.

There are 70 accredited EMS GBT® dental practices around South Africa. To find your nearest Swiss Dental Academy certified practice visit:

https://www.ivohealth.co.za/new-advanced-oral-hygiene-treatment/



JEAN PIERRE JABO

RDH, BSDH

How often should one ideally visit the dentist for routine check-ups, and what should they expect during these visits?

Ideally, visiting the dentist for routine check-ups every six months is recommended. During these visits, expect a thorough examination, teeth cleaning, and discussions about oral health habits. The frequency may vary based on individual needs and dentist and dental hygienist recommendations.



Oil pulling, a revered practice rooted in ancient Ayurvedic tradition, beckons from a time when oral health held profound significance in holistic well-being. Steeped in history and honored for its purported ability to cleanse and fortify, this ritualistic technique has transcended centuries, gaining attention in modern times for its potential oral health benefits.

Exploring the Historical Tapestry of Oil Pulling

The origins of oil pulling can be traced back thousands of years, nestled within the scrolls of Ayurveda, the ancient Indian system of medicine.

Referred to as "kavala" or "gundusha," this practice revered oral hygiene as a cornerstone of overall health, emphasizing a holistic approach to wellness. The ancients held the belief that a balanced oral cavity was intricately linked to the vitality of the entire body. (Naseem et al., 2017)

In its nascent form, oil pulling involved the use of sesame or sunflower oil, revered for its therapeutic properties. The process was simple yet methodical: individuals would swish the oil in their mouths for extended durations, typically at the start of their day, as a means of purifying and cleansing the oral cavity. Over time, this practice evolved, adapting to the changing tides of culture and tradition. (Naseem et al., 2017)

Unveiling the Efficacy of Oil Pulling

Recent scientific inquiry has sought to scrutinize the purported efficacy of oil pulling on oral health through a meticulous meta-analysis. To illuminate the elusive impact of this ancient practice, researchers conducted a comprehensive investigation, employing stringent methodology and analysis techniques.

This study embarked on a quest for clarity by meticulously scouring databases including PubMed, the Cochrane Library, and EMBASE, sifting through a trove of research articles. The pursuit of understanding was refined to include solely randomized controlled trials (RCTs) published before July 31, 2022, delving into the comparative effects of oil pulling on dental health and oral hygiene among human subjects.

The outcomes of this meta-analysis were as multifaceted as the facets of oral health it aimed to uncover. Key parameters such as salivary bacterial colony (BC) counts, plaque index and gingival index were meticulously measured and evaluated across the amalgamated findings of nine RCTs.

The study found that oil-pulling can help reduce the number of bacteria in saliva. This technique can be effective in reducing bacteria in the mouth. However, there was no significant difference between the two groups in terms of plaque index and gingival index score. This means that the results were neutral, and there was no significant difference between the two groups in these outcomes.(Peng et al., 2022)

A Comparative Analysis: Oil Pulling vs. Chlorhexidine

In the pursuit of effective oral hygiene practices, the debate between natural remedies and pharmaceutical solutions has long persisted.

A recent study delving into the realms of oral health compared the efficacy of two popular agents: virgin coconut oil pulling therapy and a 0.2% chlorhexidine (CHX) mouth rinse. Highlighting the significance of combating the inflammatory microbial disease, periodontitis, the study emphasized the pivotal role of complete plaque removal in disease prevention. Thirty periodontally healthy volunteers participated in the research, split into two groups-Group 1 underwent virgin coconut oil mouth rinse, while Group 2 utilized the CHX mouth rinse. Over the trial period, clinical parameters such as Plaque Index (PI), Gingival Index (GI), and Gingival Bleeding Index (GBI) were monitored, alongside assessments of the salivary microbial load.

Results unveiled intriguing findings: while both interventions showcased reductions in key clinical indices, the CHX group exhibited notably higher efficacy in diminishing these parameters compared to the coconut oil group. Despite this discrepancy, both agents displayed effectiveness against oral microorganisms, sparking discussion on their roles as potential alternatives for maintaining oral health. This study adds to the ongoing discourse surrounding natural remedies versus pharmaceutical solutions in the pursuit of optimal oral hygiene practices.(Kapoor et al., 2022)

How to Properly Practice Oil Pulling

- Choose the Oil: Opt for high-quality, organic oil like coconut, sesame, or sunflower oil.
- Time and Frequency: Begin with 5–10 minutes, gradually increasing up to 20 minutes. Practice daily or a few times a week.
- Empty Stomach: Perform oil pulling on an empty stomach, preferably in the morning before brushing.
- Swish, Don't Swallow: Take a tablespoon of oil and swish it around the mouth without swallowing. Move it through teeth and around gums.
- Spit and Rinse: After swishing, spit out the oil into a trash can. Avoid spitting in sinks to prevent clogging. Rinse your mouth thoroughly with water, then brush your teeth as usual. (Bedosky, 2023)

Oil pulling, steeped in ancient tradition, presents a natural approach to oral hygiene. While evidence supporting its effectiveness is preliminary, many individuals find it beneficial as part of their oral care routine. Oil pulling offers a natural alternative with few reported side effects. When practiced correctly, it might contribute positively to oral health. However, consulting with a dental professional remains crucial for a comprehensive oral care regimen. As research continues, the efficacy and mechanisms of oil pulling will hopefully become clearer, shedding more light on its potential benefits

for oral health.



ORAL GENOME

In the realm of oral health innovation, Oral Genome has emerged as a pioneering force, offering a revolutionary saliva test designed to transform preventive oral healthcare. I had the opportunity to delve into the depths of this groundbreaking technology and gain insights from the CEO of **Oral Genome, Tina Saw.** Here's an extensive overview that encapsulates our conversation, shedding light on the myriad aspects of Oral Genome's game-changing saliva test.



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Unveiling Oral Genome and Its Innovative Saliva Test

Oral Genome stands at the forefront of dental innovation, boasting an ingenious saliva test that swiftly assesses an individual's susceptibility to caries, periodontal disease, and diabetes. Tina Saw elucidated that the test yields comprehensive results within a mere 15 minutes, either administered chairside or conveniently at home.

Technology & Methodology: Pioneering Adaptive Learning in Oral Health Assessment

Employing cutting-edge AI and computer vision, Oral Genome orchestrates a meticulous analysis of saliva samples. By scrutinizing a set of biomarkers pertinent to caries, periodontal disease, and diabetes, the test's models deftly detect specific biomarker quantities within the oral cavity.

Crafting Customized Preventive Oral Healthcare Plans

Saw highlighted the pivotal role played by the test results in crafting bespoke preventive oral healthcare plans. This meticulous process involves identifying biomarkers indicative of oral health risks. Drawing a parallel with skincare routines, Saw elucidated that tailoring the preventive plan is about achieving balance and precision, honing in on specific risk factors identified through analysis.



Key Components & Significance of Personalized Plans

The personalized plans crafted by Oral Genome encapsulate a multifaceted approach. From dietary and product recommendations to behavioral guidance and risk mitigation strategies, each component is meticulously designed to address individual needs and contribute holistically to maintaining optimal oral health.



Ensuring Accuracy, Reliability, and User-Friendliness

Safeguarding the accuracy and reliability of test results, Oral Genome conducts rigorous evaluations involving both artificial saliva and clinical data correlation studies. Moreover, the user-friendly nature of the saliva test, embedded within a mobile app interface, ensures a seamless experience from sample collection to receiving the personalized healthcare plan.

Data Privacy & Security: Upholding Confidentiality with Vigilance

With a commitment to user privacy, Oral Genome employs encryption protocols, strictly controls access to user data, and complies with stringent data protection regulations like HIPAA. Transparent data practices and proactive educational initiatives further underscore their dedication to safeguarding user information.

Integration with Healthcare Providers: Facilitating Seamless Integration

While integration into mainstream healthcare practices is a work in progress, Oral Genome allows healthcare providers to incorporate test reports directly into Electronic Health Record systems. This bridging step aims to facilitate comprehensive patient care by seamlessly integrating the findings from the saliva test.



Driving Future Research & Development

The company's commitment to ongoing research and development manifests in its continuous efforts to enhance the saliva test's technology. Their focus revolves around measuring a broader spectrum of biomarkers, ensuring the test remains at the forefront of personalized oral healthcare.

Impact on Global Oral Health & Community Engagement

Oral Genome envisions its saliva test as a catalyst for improving global oral health outcomes. By empowering individuals through early detection and personalized preventive measures, the test has the potential. The company actively engages with communities, advocating for oral health awareness through various initiatives and partnerships.

Empowering Users Through Education & Collaboration

A cornerstone of Oral Genome's approach is education. They equip users with a comprehensive understanding of their oral health by offering clear communication of results, personalized recommendations, educational resources, interactive platforms, and collaboration with healthcare providers.

In essence, Oral Genome's innovative saliva test heralds a new era in personalized oral healthcare. Through a harmonious blend of technology, precision, and user-centricity, it aspires to transform oral health management, one tailored plan at a time. With its unwavering dedication to advancement and community engagement, Oral Genome stands poised to redefine the landscape of preventive oral healthcare globally.

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