

Yonsei First Dental Clinic and Graphy Inc. Pioneer a New Era in Digital Sleep Dentistry

Integrating Shape-Memory Technology with Cognitive-Behavioral Insight for a Patient-Centered Future

MIAMI, FL, UNITED STATES, October 28, 2025 /EINPresswire.com/ -- Yonsei First Orofacial Pain & Sleep Dental Clinic, led by Dr. Keoncheol Woo, and [Graphy Inc.](#) (CEO Un-Seob Sim), a global innovator in 3D-printed dental materials, are shaping a new paradigm in digital sleep and occlusion medicine. Their collaboration demonstrates how shape-memory polymer (SMP) technology, fused with data-driven behavioral therapy, can redefine patient care and clinical efficiency.



Dr. Keoncheol Woo introduces the application of Graphy's Shape Memory Aligner (SMA) for bruxism and snoring therapy during his lecture at World Sleep 2025, held in Singapore.

Dr. Woo, a Ministry-certified specialist in orofacial pain and comprehensive dentistry and a Ph.D.

“

Shape Memory Aligners naturally adapt to body temperature, ensuring precise fit and comfort even during sleep—stabilizing the mandible and reducing stress on joints and muscles.”

Dr. Keoncheol Woo

graduate of Yonsei University College of Dentistry, has completed more than 1,834 clinical cases in temporomandibular disorder (TMD), bruxism, and sleep-related breathing disorders. At his clinic and through his company, DiWAVE Inc., he developed a “One-Day Splint Service”—a fully digital workflow that enables same-day fabrication of occlusal and sleep appliances.

“Our goal is not simply to relieve symptoms,” said Dr. Woo. “We help patients recognize and regulate their own physiological changes—uniting behavior, cognition, and digital data into one clinical language.”

[Shape-Memory Technology Meets Digital Precision]

Graphy's [Shape Memory Aligner](#) (SMA) material, Tera Harz Clear, brings unprecedented adaptability to occlusal and sleep devices. Unlike conventional acrylic resin, SMA softens slightly

at body temperature, conforming naturally to the oral cavity without compromising strength or stability. This thermo-flexible behavior allows for:

- Comfortable adaptation without the rigid discomfort of hard splints
 - Accurate intraoral fit with no need for undercut blockout
 - Enhanced retention and easy removal in warm water
 - Customized flexibility and thickness control through CAD design
- Combined with direct 3D printing, clinicians can reproduce each patient's occlusion, mandibular position, and muscle balance with digital precision—achieving reproducible outcomes and drastically reducing production time.

[Clinical Impact and Patient Feedback]
In just under two years, Dr. Woo's team has fabricated over 1,834 SMA-based devices, averaging more than 100 per month. Patient feedback highlights faster adaptation, greater comfort, and reduced morning fatigue, while clinicians report shorter chairside delivery times and stress-free retention even without metal wires.

The clinic's digitally produced monoblock splints, designed for patients with severe bruxism or lateral occlusal pain, have shown remarkable efficacy in relieving TMJ discomfort and improving sleep quality, all within a same-day system that boosts efficiency and satisfaction.

[Redefining the Future of Sleep Dentistry]

Dr. Woo foresees the convergence of digital analysis, shape-memory materials, and behavioral science as the next frontier of oral medicine.

"Future dentistry will not stop at balancing occlusion," he explained. "It will extend into the realm of human rhythm—integrating behavioral, cognitive, and physiological factors for truly personalized treatment."

His ongoing research combines cognitive-behavioral therapy (CBT) with digital monitoring to help patients visualize and manage their own muscle tension, sleep quality, and occlusal balance. This model of "self-aware therapy through digital innovation" defines the future of patient-centered



Dr. Woo highlights the clinical benefits of Graphy Resin—fast delivery, comfortable fit, and customizable design—for oral appliances treating bruxism and sleep apnea.



Graphy Inc. and DiWAVE formalize an MOU partnership to advance digital workflows for 3D-printed oral and sleep therapy appliances.

dentistry—where technology empowers personal agency in healing.

[About Graphy Inc.]

Graphy Inc. is the world's first company to commercialize 3D-printed Shape Memory Aligners (SMA), pioneering innovation in orthodontics, prosthodontics, and digital sleep medicine. With a portfolio of FDA-cleared materials and validated workflows, Graphy provides clinicians with scalable, evidence-based solutions that enhance treatment precision, efficiency, and patient comfort.

Through strategic collaborations with leading experts such as Dr. Woo, Graphy continues to advance the global standard for digital dentistry—bridging scientific rigor, clinical practicality, and sustainable growth for partners and shareholders alike.

Bob Lee

Graphy inc.

+ +1 888-616-2764

[email us here](#)

Visit us on social media:

[LinkedIn](#)

[Instagram](#)

[Facebook](#)

[YouTube](#)

This press release can be viewed online at: <https://www.einpresswire.com/article/862145812>

EIN Presswire's priority is source transparency. We do not allow opaque clients, and our editors try to be careful about weeding out false and misleading content. As a user, if you see something we have missed, please do bring it to our attention. Your help is welcome. EIN Presswire, Everyone's Internet News Presswire™, tries to define some of the boundaries that are reasonable in today's world. Please see our Editorial Guidelines for more information.

© 1995-2025 Newsmatics Inc. All Right Reserved.