

# The Future Of Dental Care Is Here

## The LightWalker laser system treats all sorts of dental problems faster—with no anesthesia



Doctors Jerry Dizon and Jason Pang

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As the new standard in dental care, lasers are removing the fear of visiting the dentist. The LightWalker dental laser system not only minimizes the complexity and the ordeal associated with dental procedures but also offers a wide scope of applications—ranging from tongue-tie divisions for newborns to snoring reduction for adults.

It can treat tooth sensitivity, cold sores, shingles, mucocele (soft swelling inside the mouth), and lighten dark gums.

Some of the advantages of the LightWalker are that the hitch-pitched whir, vibration, and heat of the dental drill are a thing of the past. Visits for a root canal are cut down to one from three sessions.

The laser is an alternative to the traditional scalpel/suture flap surgery or procedures using conventional handpieces. Hence, the dental procedure is faster, more comfortable and has a shorter healing time. It also reduces the number of dental visits.

“We’re harnessing the power of light to create healing on the inside of the tooth and the mouth and on the face,” said Singaporean-Australian lecturer and aesthetic laser dentist Jason Pang, who visited the Philippines to launch LightWalker last May 4 at Solaire Resort and Casino.

He likened the technology to a handheld device used in the sci-fi TV series “Star Trek: The Next Generation.” Onboard the International Space Station, Dr. Beverly Crusher heals the cut of Commander Riker’s face with a laser that renews his cells.

“You put the device over the affected area and there’s healing. That’s what we’re trying to do,” said Pang. “Using light stimulates the body’s capabilities to enhance the healing and does it more quickly. We can remove cells if needed, disrupt and change the cell type just by the light.”

Dr. Pang was already using laser when he acquired the LightWalker. On comparing it with other machines, he said: “The LightWalker’s capabilities, the power, the pulse modulations or what you can do with it are much more than what we used to do with the same wavelength.”

### Two types of lasers

Manufactured by medical laser company Fotona, the LightWalker utilizes two types of lasers: the absorption powers of the Erbium YAG (a solid-state laser that emits infrared light), and the deep-penetration of the Nd:YAG laser (a crystal that is used as a lasing medium for solid-state lasers).

Moreover, Fotona developed a patented method called QSP (Quantum Square Pulse) which enables the laser to remove a surface with heat more effectively and accurately.

Explained Dr. Pang: “The LightWalker is different because it has two laser wavelengths instead of one. One is the all-tissue laser which treats the tooth and the soft tissue, and the gums as well. The other is the soft tissue laser which performs deep healing like gum disease. In periodontal disease, research has shown that the Nd:YAG is the best wave-length to treat it.”

Different types of bacteria thrive in the mouth. There are lasers that are good in killing one type of bacteria but not with another. “The Nd:YAG treats all of them,” said Dr. Pang. “It penetrates deeper into the tissues.”

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Dr. Jerry Dizon, the first adopter of the LightWalker in the Philippines, said using the LightWalker for common procedures such as dental fillings is easier for both patient and dentist. In the past, the drilling was enough to scare patients.

“The main advantage is that with the laser, most cases don’t need for anesthesia,” Dizon pointed out. “In the conventional method, the anesthesia was applied before the drilling to prevent sensitivity or pangingilo. With lasers, the beam cleans all the debris in the cavity without the anesthesia. For working on one tooth, the time is cut down from an hour to 30 minutes.”

[Moreover, the quality and longevity of the bond to the tooth is also improved.

The laser ablates or vaporizes the tissues but very finely, a thin layer at a time. Maintaining the integrity of the tooth without affecting the surrounding tooth structure]

## For complicated procedures

He has also used LightWalker on complicated procedures such as bone repair, surgery on gum diseases, root canal and frenectomy, a procedure that removes a tissue connected to the lip that gets attached to the front teeth or gum.

“Surgery with a scalpel entails suturing (closing a wound),” said Dizon. “The patient returns after a week and we take off the sutures. With the laser, anesthesia is still used for soft tissue procedures. However, there’s minimal bleeding, so no need for sutures,” he says. Hence, it also reduces the chance of post-surgical infections.

In Sydney, Dr. Pang treats newborns with tongue ties, using the dental laser: “If a baby can’t be fed well, it’s because the tongue can’t move properly. You relieve the tongue tie so it can be fed from the mother’s breast.”

The traditional method used the scalpel and sutured the infant’s tongue. The dental laser cuts down the tongue-tie division down to five minutes with no bleeding.

With the dental laser, Dr. Pang’s young patients are comfortable in dental restoration (filling the cavities) since the procedure eliminates the drill and multiple anesthesia injections.

Still, patient management is the key, noted Pang. “Once the child trusts you, it’s important that you don’t break that trust. If they think that you’re there to help and not to hurt them, then you can do the filling. Using the LightWalker or the laser is more comfortable for them.”

Dr. Pang was impressed with the LightWalker because of its

extensive capabilities that include the Nightlase laser which addresses snoring and sleep apnea. He says that the Erbium laser sets off heat which generates new collagen in the mucosal tissue in the soft palate, the uvula (the dangling projection at the back of the throat), up to the middle part of the throat. This raises the soft palate and tightens the tissues on the throat to improve the airways. Patients sleep better and quietly.

“There’s usually no anesthetic, no pain,” he noted. “Patients can eat afterward. Sometimes, after one treatment they can get a 50-percent reduction in their snoring. Still, we normally recommend three treatments (within 15-day intervals) so that they have long-lasting results.”

Depending on the patient, the results can last from nine to 18 months. A yearly maintenance is recommended.

Although it’s his wife, Dr. Editha Reyes-Dizon, who performs the Nightlase, Dr. Jerry Dizon has also tried it with positive results.

“It’s comfortable for both the doctor and the patient. For me, it’s like using a brush with measured strokes. The patient just feels a little heat. Some of their partners say the snoring problem has improved. But after a while, it tends to come back. We can’t completely stop snoring, but we can reduce it. The number of sessions will depend on the patient history.”

Dr. Pang cited that the LightWalker is ideal for root canal cases: “It’s all about removing the endotoxins (toxins inside a bacterial cell) and the debris from the inside. The problem is that the inside of the tooth is very complex. It’s not just like a little tube. It has [accessory canals] coming off everywhere. Getting to those extra canals is the difficult part. And the endodontists (specialized dentists) really don’t have a good way of doing that right now. The laser cleans [and disinfects the bacteria] inside the canal.”

The Nd:YAG also heals patients with [orthodontic] braces to ease up their pain. It speeds up the healing after dental implants so that the [bone] grows faster. It likewise relieves trigeminal neuralgia, a condition in which a mild stimulus on the face triggers pain.

“This is the future. Every dentist will have at least one laser. Otherwise, one is not really a modern dentist,” said Dr. Pang. ●