Piezosurgery® "Touch" is the latest generation of the original piezoelectric technology for bone surgery, developed by Mectron Medical Technologies and Dr. Tomaso Vercellotti.

The patented Piezosurgery technology was designed to be precise, powerful and safe. The company reports that it is the only piezoelectric technology for bone surgery that is supported by more than 100 published studies. There has been a proliferation of low-cost imitations, but according to the company, the Piezosurgery technology has no rivals in performance, safety and precision.

Piezosurgery Touch micrometric cutting action provides surgical precision and intra-operative sensitivity. And the selective cutting action enables practitioners to cut bone tissue while minimizing trauma to the soft tissue. All of this is possible while operating with high intra-operative visibility and a blood-free surgical site. Furthermore, research shows that Piezosurgery is not only less invasive, but also promotes faster tissue healing. According to the company, Piezosurgery by Mectron is the standard for osseous surgery. And the company says that is why virtually every quality training institution has chosen to utilize Piezosurgery by Mectron.

What users are saying

Here's what individuals at institutions using the instrument are saying:

"The incorporation of Piezosurgery into both my private practice and institute over the past four years has indeed resulted in a distinct paradigm shift with all of my bone grafting protocols. This exciting technology has afforded me the ability to fine tune and finesse all bone related surgery including donor and recipient site preparation for bone grafting and implant placement, as well as extraction site management and implant removal." — Dr. Michael A. Pikos, Pikos Implant Institute

"A friend’s daughter recently came to me to have an impacted super numeral tooth removed. Upon taking a panorex radiograph, I discovered it was below the apex of the pre-molar and below the mandibular inferior alveolar canal. To my surprise, the CT showed it was against the lingual plate. I had to reflect the lingual tissue and mylohyoid muscle to gain access to the site. Without my Piezosurgery machine, the uncovering and extraction of this bony impaction could have been potentially life threatening. It gave me great peace of mind that I could work in the floor of the mouth without risk of cutting the lingual artery or inferior alveolar nerve. The Piezosurgery unit paid for itself 100 times over that day. It’s also great for osteotomies when preparing bone blocks. No longer do I have to green stick fracture a thick cortical plate to harvest the bone. Instead, a very predictable volume of bone and a moreatraumatic procedure for the patient is found when using this device." — Dr. Carl E. Misch, Misch International Implant Institute

"The Piezosurgery unit has allowed me to perform very precise and minimally invasive procedures for my patients and it outperforms any of the other Piezo units. This is the standard and original with substantial documentation and research behind it.” — Dr. Sarasa A. Jovanovic, gIDE Global Institute for Dental Education

"I have used four different brands of piezo surgical units. Piezosurgery by Mectron offers the highest quality in terms of cutting efficiency, minimal trauma to the bone (especially in deep cutting), and I use it every day for my bone augmentation/ridge splitting techniques!" — Dr. Samuel Lee, International Academy of Dental Implantology

"I have been using Piezosurgery in my OMS practice for five years. Piezosurgery provides a new level of precision, efficiency and safety in surgical treatment. Complicated procedures including sinus grafting, ridge expansion and nerve repositioning can be performed with less stress and have an expanded role in my practice. The speed of the unit is impressive, reducing operative time and patient discomfort." — Dr. Daniel Cullum, Implants Northwest Live

Built on proven platform

Piezosurgery Touch has again raised the bar in piezoelectric osseous surgery, according to the company. Piezosurgery Touch is based on the proven Piezosurgery 3 platform—with enhancements:

1) Sleek new look and style befitting of its Italian heritage.
2) State-of-the-art glass touch-screen, making buttons obsolete.
3) Bright LED light that swivels to shine clearly on every surgery.
4) Sophisticated computerized feedback system to automatically adjust to the individual surgeon’s touch.

The company describes the new Piezosurgery Touch by Mectron as being simple to use: Touch the application, then touch the desired irrigation level and then touch your preferred setting for the light. Touch the foot pedal to start your surgery. That’s it. As the company puts it: “You’ve got the touch.”

The Piezosurgery Touch and the Piezosurgery 3 are available exclusively from Piezosurgery Inc., based in Columbus, Ohio. To order or learn more, call Piezosurgery at (614) 459-4922 or (888) 877-4396 (PIEZO), or visit www.piezosurgery.com. The company encourages you to call or click right now to learn more.

(Source: Piezosurgery Inc.)
HAWK Loupes and lights

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HAWK LED Light features a lightweight unit (5gr) that can produce up to 40,000 lux of light. Each of lights comes standard with a filter that can prevent composite materials from curing and with mounting clips for various brands included. The battery has a life expectancy of 11 hours on max capacity and recharges fully in 3 hours.

“TTL1”

“I love these loupes! Better than the $3x pair I was using. With money I’m saving, I’m buying my grandson a pair!”

Gary Radz, DDS USA

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Three cool things to do in Vancouver

Don’t think Vancouver has it all? Well here’s a combination of sights that cover the broadest extremes you can imagine. Start with a dramatic perspective on the unique environment of a temperate rainforest, then visit the ocean’s depths and the far reaches of space.

Capilano Cliffwalk
Billed, as “not for the faint of heart,” the high, narrow Cliffwalk at the Capilano Suspension Bridge park is a cantilevered, suspended series of walkways jutting out from a granite-faced cliff above the Capilano River. Some spots on the walkway, have nothing but glass between you and the canyon floor below. Also at the park, he Treetops Adventure suspended walkways present another remarkable way to explore a temperate rainforest. Contact at (604) 985-7474.

The Vancouver Aquarium
More than 900,000 visitors wander through the Vancouver Aquarium every year, attracted by the more than 70,000 fascinating residents, including jelly fish, octopuses, sea turtles, crocodiles, frogs, dolphins, seals, sea lions, sharks, beluga whales and some of the most exotic and colorful coral you can imagine.

Located in Stanley Park the facility is surrounded by 1,000 acres of woodlands, lakes, gardens, beaches and wildlife, much of it accessible by an 8.8 kilometre stretch of the 22 kilometre seawall walking/cycling trail that runs along the city’s waterfront. Contact at (604) 659-3400.

The Gordon MacMillan Southam Observatory
True, the H.R. MacMillan Space Centre next door is the big draw, but on Saturday nights, the observatory opens to the public. It boasts a half-metre f/16 classical Cassegrain reflector telescope on a fork-style equatorial mount, equipped with a 15 cm f/15 refractor guidescope (achromatic lens).

The telescope’s drive system is “go-to” (fully computer controlled), based on an Astrometrics Instruments servomotor package. Knowledgeable staff and volunteers guide your exploration and answer your questions. Contact at (604) 738-2855.
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Laser dentistry: solution for faster treatments, better outcomes

Many dentists are considering how they can increase practice revenues. Differentiating yourself from your competitors through advanced technology and treating more patients per day is an effective strategy. The latest in dental laser systems may well be the answer for many practices. Most often offering superior treatment speed, increased clinical quality and a positive experience for patients, many dental lasers have evolved dramatically from the days when they were slower to use than a high-speed handpiece.

It may be true that some laser systems, which deliver laser energy through an optical fibre, have limitations because of the relatively low speed at which the treatment can be carried out. Why? To protect the expensive fibre, laser energy levels must be kept low, often at the expense of treatment speed and efficiency. However, today’s "next generation" laser systems, utilizing an articulated arm with reflecting mirrors and further supported by advanced digital technology, can deliver laser energy much more efficiently, without compromising treatment speed. Such lasers achieve optical drilling speeds of up to 1.6 times faster than conventional high-speed burs.

Which laser source
When considering enhancing a dental practice with an investment in a dental laser system, the right choice for the best treatment outcomes is essential. Erbium lasers have long been known as the optimal dental lasers for effective, precise and minimally invasive hard dental tissue treatments. Of all infrared lasers, they exhibit the highest absorption in water and hydroxyapatite, and are ideally suited for cold optical drilling in enamel, dentine and composite fillings.

A recent study published in the Journal of Oral Laser Applications states that an Er:YAG (LightWalker™) laser delivered through an articulated arm cuts three times faster through dentine and 4.2 times faster through enamel than an Er:Cr:YSGG laser delivered through an optical fibre.

According to the authors of the study, the measured differences in treatment speed result from the differences in the laser wavelengths, pulse duration and shape of the laser pulses. Laser physics is an exact science. The Er:YAG wavelength is absorbed three times better in hard dental tissue than Er:Cr:YSGG. This means that the Er:YAG removes more hard tissue at the same laser power settings, enabling faster procedures. To best ensure the comfort of the patient experience during hard-tissue laser treatments, it’s essential that as little heat as possible created by the laser energy is diffused into the surrounding tissue. The determining factor for this is the laser pulse duration. If the laser energy can be delivered to the target tissue in a very short time span, then the energy cannot escape from the ablated tissue and cold optical drilling is achieved. This is not only required to maintain patient comfort, but also determines maximum optical drilling speed. In this respect Er:YAG lasers with advanced digital pulse control VSP are at a distinct advantage because they can generate very short, 50-microsecond pulse durations.

A final consideration that contributes to faster optical drilling speeds is the shape of the laser pulse. Ideally, laser pulses should be square-shaped, without a slow rise and prolonged decrease in laser pulse power. This ensures that laser power remains constant within the pulse, eliminating inefficiency and unwanted thermal effects to surrounding tissues.

Optical laser drilling leaves no smear layer around the opening of the lateral canal, shown after PIPS endo.

Here at the PDC
To learn more about the LightWalker laser system and other products available through National Dental Inc., visit booth No. 1419 (National Dental Inc.) in the Exhibit Hall.

Advantages for patients
In 90 percent of the cases, patients feel no discomfort at all during Er:YAG laser treatments. Procedures can frequently be performed without anesthesia, eliminating considerable waiting time for patient numbness. With improved patient comfort and reduced anxiety (no needles, no noise, no vibration, no numbness), the stress for both dentist and supporting personnel is also minimized.

Reduced need for anesthesia allows greater opportunity to treat patients in all four quadrants during the same appointment. Fewer follow-up appointments and faster treatments enable increased free chair time and much happier patients. A satisfied patient is more likely to spread the word about comfortable and quick treatments, providing for organic practice referral growth. Furthermore, optical laser drilling does not leave a smear layer on the prepared tooth surface in the way mechanical burs do.

There are dental laser systems on the market, such as the LightWalker from NDI, that combine two laser sources to provide a comprehensive dental treatment platform. These laser systems allow the dentist to perform both hard and soft dental tissue procedures, often in one session. They also allow dentists to perform procedures that would otherwise have been referred elsewhere. After relevant clinical training, these systems will allow dentists to expand their services to include treatment options for periodontal disease, osseous surgery and many other procedures. The provision of additional procedures allows practices to populate the patient schedule with new, high revenue-generating procedures.

By optimizing treatment speed and comfort, building patient referrals and marketing exposure, the new advanced dual frequency Nd:YAG and Er:YAG digital pulsed lasers are indispensable for the modern, expanding practice.

References

(Source: National Dental Inc.)