More ‘Live Dentistry’ on stage today
The Live Dentistry stage in the Exhibit Hall remains active today, with three more sessions on the schedule.

Remove pain from your job description
Today and Saturday: Bethany Valachi shows you how to avoid or overcome work-related discomfort or injury.

Scenes from the PDC
Thursday’s Exhibit Hall and education sessions generated nonstop traffic throughout the day. Here are a few highlights captured on camera.

Get a ‘closer’ look
And runs to 10 p.m., in Ballroom D in the Vancouver Convention Centre.

Tonight: Fun with Dr. Strangelove
Tonight’s “Friday Night Social” features the return of a Pacific Dental Conference favorite: the Dr. Strangelove dance-party band. Mention the words “party band” in Vancouver and more than likely “Dr. Strangelove” will come up.

Vancouver’s overcast skies could not dampen the enthusiasm among those within the more than 570 booths at the Pacific Dental Conference Exhibit Hall. The hall is open from 8:30 a.m. to 5:30 p.m. today, so there’s still time to check out the highlights mentioned below.

The group has performed before thousands of music lovers in the Vancouver area over the years and is known for the fun, energetic atmosphere it creates. If you didn’t buy a $15 ticket when you registered, you should still be able to buy tickets at the registration desks. The entertainments starts at 6:45 p.m.

The group is known for its stage antics, theme-based costumes and ability to sound exactly like the artists it covers. That’s why it’s been able to enjoy so much success and become one of Vancouver’s most sought-after musical attractions.

Also at the registration desk, tickets should still be available ($15) for tomorrow’s breakfast with stand-up comedian Brent Butt, from 8:30–9:30 a.m. in Ballroom A, Vancouver Convention Centre.

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Expect standing-room only at the Exhibit Hall’s Live Dentistry Stage

The sessions on the Exhibit Hall’s Live Dentistry Stage yesterday attracted standing-room crowds. And that will likely be the case today, with three more clinicians scheduled. Get there early to get a seat close to the stage for that “big screen movie theatre” experience. Microphones are scattered throughout the aisles so lecturers can answer questions after the session.

Ron Zokol, DMD, is the clinician on stage at 8:30 a.m. with the “Guided Full Arch Implant Placement,” co-sponsored by Pacific Implant Institute and Nobel Biocare Canada.

Vancouver dentist Ernst ‘Ernie’ Schmidt follows Zokol at 11:30 a.m. with “CAD/CAM Ceramic Restoration,” co-sponsored by Patterson Dental.

Closing the Live Dentistry program, is Haneef Alibhai, BSc, MD, CM, CCFP, FCFP, with “Botox Demonstration” at 3 p.m., co-sponsored by “md cosmetic & laser training.”

Dr. Mark Kwon performs an ‘Implant with Sinus Surgery’ as Dr. Bernard Jin (standing at left) provides commentary during the procedure, on stage at the Live Dentistry Arena in the Exhibit Hall on Thursday.

Need a website? Online appointment system? Nadeem Kassam, from left, Nasheel Kassam and Charlie Bern have show specials at ‘connect the doc,’ of Vancouver (booth No. 1243). (Photos/Robin Goodman, ‘today’ staff)

Barbara Bancroft lectures to a full house about ‘Pharmacology: Simplify, Don’t Mystify.’

Rob Precious of ‘quickmobile’ displays the PDC Program app the company created for smartphones and iPad.

Adele Fussi and Frank Loggia hold an implant prop at the MIS Implants booth (No. 201).

PDC mobile app
Scan this QR code to access the app, or download from your app store by searching “Pacific Dental Conference.”
Don’t let pain end your career

One-third of dentists who retire early were forced to because of musculoskeletal injury

- Are your aches and pains progressing to a point that you’re wondering if your days as a dentist, hygienist or assistant might be ending sooner than you had planned? Or maybe you’re just getting hints, especially at the end of the day, that with a few more years of this, things might start getting tricky?

It doesn’t have to be that way, according to Bethany Valachi, a physical therapist, dental ergonomic consultant and author of Practice Dentistry Pain-Free. Valachi speaks today and Saturday on two ergonomics related topics, with the goal of making sure you’re not slowly destroying your ability to work.

Valachi runs a company that provides research-based dental ergonomic education, and she is an instructor of ergonomics at Oregon Health Sciences University School of Dentistry in Portland, Ore. She lectures internationally and has published more than 50 articles in dental journals worldwide.

She answered questions from Dental Tribune about what attendees can expect from her two PDC presentations, “Neck, Back & Beyond: Preventing Pain for Peak Productivity” and “Fitness 101 for Dental Professionals: Secrets for Comfort & Career Longevity.”

Why is this education important?
Two out of three dental professionals report occupational pain, which if left unaddressed can lead to injury or early retirement. In fact, one-third of dentists who retire early are forced to, due to a musculoskeletal injury.

Unfortunately, most team members think that work-related pain is an unavoidable consequence of their careers. Not so! With current, research-based interventions, most team members can effectively reduce or eliminate their discomfort.

If somebody is able to attend only one of your two decisions, how would you help them decide?

Because most pain and injuries in dentistry originate from poor operator ergonomics, I would recommend “Neck, Back & Beyond: Preventing Pain for Peak Productivity,” which focuses on proper ergonomics in the operator.

I have seen too many dentists and hygienists spend a plethora of money on chiropractors, exercise programs, etc., only to return to the scenario (the dental operator) that created the problem in the first place.

How does this lecture differ from other ergonomic and wellness lectures?

First, it’s research-based ... and fun. You won’t hear hand-me-down education in this lecture. What you will learn are the newest dental ergonomic and wellness interventions based on the latest research in dental ergonomics, kinesiology, seated biomechanics, exercise physiology, neck and back pain and much more.

Team members often comment, “I wish I had learned these techniques 20 years ago” or, “You’ve saved my dental career.” Those are effective, practical and easy-to-apply concepts in the dental operator and at home.

Second, it’s specific. Dentistry is a unique occupation with highly specialized equipment, treatment, positions and room layouts. To develop effective ergonomic interventions, one must understand how the movements in the operator and equipment adjustment impact the operator’s musculoskeletal health.

This involves analyzing countless hours of video including movement in the dental operator and then cross-referencing these with diagrams of self-reported pain. These lectures are the result of 14 years of this type of analysis in dental operators and at the dental school.

Third, I present effective interventions. I believe that the reason for the high prevalence of work-related pain in dentistry is due to dental ergonomic education that does not identify the etiologies of the problem — but instead takes a shotgun approach. In this seminar, I identify the etiologies of work-related pain in dentistry, and every intervention in the seminar is targeted at these micro-trauma. Isn’t that exactly what dentists do with their patients?

Fourth, it’s unbiased. Much of today’s dental ergonomic education is sponsor driven, leading to costly investment in equipment that may not always be the best for your musculoskeletal health. A cornerstone of my education is that it is unbiased and research-based.

Are ergonomic needs of dentists and hygienists different?

Yes! Because of their very different hand movements, tasks, movement in the operator and patient-positioning needs, dentists and hygienists are prone to slightly different musculoskeletal
Scenes from Thursday

- It's a bright shiny day at the Sinclair Dental booth (No. 727) where team members are handing out yellow roses.

- Donny Chan and Esah Yip at the Malaysian Rubber Export Promotion Council booth (No. 345).

- Jim Ball discusses technical details at the Instrumentarium booth (No. 1247).

- Arlene MacKinnon flashes a smile at the Shofu booth (No. 1430) while Dan Christiansen (brown jacket) discusses product details with booth visitors.

- The GSK booth (No. 835) with a lively crowd of visitors on Thursday.

- Barbara Cox at the Hands-On Training Institute booth (No. 552).

- Hygienist Allison Ransier, left, and dental assistant Marianne Beckett stopped to map out their plans for the day.

- PDC staff member Kristie Ritter at registration with daisies chosen to match the colour of this year's PDC theme.

- Jennifer Murphy, Chadi Saade and Sara Jean Louis, at the Dental Savings Club booth (No. 1329).

Photos by Robin Goodman, 'today' staff
PAIN

stressors and require different equipment and recommendations. Certain armrests, delivery systems, operatory layouts, HVE options, patient positioning techniques and exercises are more appropriate for hygienists than dentists and vice-versa.

Are you seeing any new trends in ergonomic problems in dentistry? Yes. Recently I have seen an increase in two problems. First, in both my in-office consultations and at the dental school, I have seen an increase in the percentage of dental professionals and students with neck/back pain that is likely related to the use of non-ergonomic dental loupes. Most dentists and hygienists do not realize that loupes with poor declination angles can actually create or worsen pain. In Friday’s (Neck, Back & Beyond) seminar, I will discuss the three criteria for selecting loupes that will improve your health, not make it worse.

Second, dental professionals are prone to unique muscle imbalances and require specific exercise guidelines to prevent worsening of these imbalances and being thrown into the ‘vicious pain cycle’. Recently, I have seen more and more team members seek the advice of personal trainers [with little experience] who give them the same routine they give everyone else; or they buy exercise DVDs designed for the general public. This can worsen their unique imbalances and create more pain. In Saturday’s (Fitness 101) seminar, I will be teaching an exercise program that I developed specifically to correct the painful muscle imbalances of dental professionals, based on current research.

What are dental professionals doing wrong when trying to manage their pain? From a show of hands at my seminars, I calculate that at least 40 percent of team members have been to, or currently go to, the chiropractor. In the Fitness 101 seminar, we will review the etiologies of work-related pain in dentistry and take a careful look at which health-care professionals may be best suited to treat specific pain syndromes (i.e. trigger points, shoulder/arm pain, hand pain, postural asymmetries, trapezius myalgia, back pain, etc.).

Many attendees have not heard of some of these specialists. Guess what? It’s usually not a chiropractor. Therapies aimed at immediate relief usually provide temporary results.

What’s a typical ergonomics problem an average practice can easily address? In consultations, I consistently see one primary ergonomic problem that doesn’t cost a penny to resolve—Access in the 12:00 position. Obtaining easy access in the 12:00 position is critical to the long-term health of dentists and hygienists. Dental chairs often are installed with only 14-inch or so clearance between the end of the headrest (when reclined) and a fixed counter, forcing the operator to work in the 10:00 position, which is extremely hard on the body. The industry standard is 20–22 inches of clearance in the 12:00 position. To resolve this, a choice of two strategies may be used:

1) Move the patient chair toward the foot of the patient. This might be limited by an electrical box or plug. (You’ll need two or three strong helpers) If you are unable to gain the desired 12:00 clearance, you may combine this with Strategy No. 2:

2) Rotate the patient chair 20 degrees or so to gain access in the 12:00 position. There is usually a kick lever at the bottom of the chair that allows rotation of the chair.

How important are ergonomic/fitness habits away from the practice in supporting optimum health at work? Extremely important. A combination of aerobic, flexibility and strengthening should be addressed. While most dental professionals realize that they should target the “stabilizing” or “postural” muscles in an exercise routine, most don’t realize that how they strengthen them is just as critical. In the Fitness 101 program, I will introduce the supportive research for the technique of muscular endurance training for dental professionals, as well as an exercise routine.

Also, because of their predisposition to unique muscle imbalances, certain exercises that dental professionals think are targeting the “correct” muscles simultaneously engage the tight, short and ischemic muscles that should not be strengthened.

Generic exercise routines, such as Pilates, need to be modified specifically for dental professionals to prevent the possibility of worsening of imbalances in the neck/shoulder.

We will also discuss which exercises and gym machines can actually worsen your health.

What’s the main thing you want attendees take away from your sessions? Pain is not a necessary by-product of dentistry. With current, accurate research-based interventions, most team members can learn to prevent, manage and reduce work-related discomfort or injury.

Dozens of dental professionals have emailed me after these lectures and informed me that they are either pain-free or significantly improved!
Handpiece manufacturer NSK aiming for global leadership

80 percent of revenues are generated outside of Japan

By Dental Tribune Asia Pacific

It is no secret that the years since the global financial crisis have not been kind to companies in Japan. First, the recession slowed business investments significantly; then the effects of the 2011 tsunami and the massive destruction it wrought, which almost brought the world's third largest economy to a halt.

For NSK, one of the country's largest dental manufacturers, troubles in the home market are its least concern because the company conducts most of its business elsewhere. According to president and CEO Eiichi Nakanishi, with whom Dental Tribune International recently had the opportunity to speak at the company's headquarters in Tochigi, more than 80 percent of the company's revenues are now generated by its operations outside of Japan.

In the last three years, NSK has been performing particularly well in mature markets such as Europe and North America, where it boosted its presence with the opening of its new headquarters in Chicago in 2011, despite unfavorable conditions such as high market saturation and the ongoing decline of the yen against the dollar.

The production of dental handpieces has grown extensively and now employs more than 700 people in its Japanese offices in Tochigi and Tokyo.

In the last three years, NSK has been aging its dedication to innovation and quality, one of the main reasons that dentists now identify the company with high-quality products. “We employ many good engineers and marketing people who help us to constantly improve our brand and make it more attractive to dentists,” he says.

Another significant contributor has been NSK's European office in Germany, which accounted for almost one third of the 22.2 billion yen ($276 million) in sales the company reported in 2011. “That's why economic conditions in our home market have little or no impact on our overall business. We really think globally,” Nakanishi explains.

Founded in the 1930s, the company had a rough start, and operations were completely halted during World War II. The production of dental handpieces resumed in 1951, however, the company has grown extensively and now employs more than 700 people in its Japanese offices in Tochigi and Tokyo.

Since 2009, Nakanishi has seen his company regaining market share in Asia through centralized distribution and after the sale support offered through its new subsidiary in Singapore.

NSK continues to produce the vast majority of its products' precision parts in-house, which, according to Nakanishi, is one of the main reasons that dentists now identify the company with high-quality products. “We employ many good engineers and marketing people who help us to constantly improve our brand and make it more attractive to dentists,” he says.

One of NSK's recent innovations, launched at the 2011 IDS in Cologne, Germany, for example, is the TiMax Z series, a durable premium handpiece that is claimed to have the smallest heads and necks in the sector, as well as an exceptionally low noise level and virtually no vibration. The Surgic Pro surgical micro-motor has also received much interest, particularly by dental implant surgeons, and is now distributed alongside systems by major implant manufacturers.

NSK asserts it pays close attention to the needs of its customers, a philosophy that has resulted in products such as the S-max pico, which was developed solely for the treatment of patients with smaller mouths, such as children.

Moving into other markets is conceivable but unlikely to happen anytime soon, Nakanishi says. Even though his company has begun to enter new areas in the past decade with the launch of instruments such as ultrasonic scalers and polishers, its core business will remain dental handpieces and other small-motor equipment.

“When it comes to handpieces, we have produced more innovations than our competitors,” he remarks. “Our goal is to become the No. 1 company worldwide in this segment.”

‘Barrier protection’ critical in dental professionals’ gloves

While caring for their patients, dental and health care professionals are constantly exposed to bodily fluids that may carry viruses and other infectious agents. It is therefore critical that the gloves these professionals use provide the best possible barrier protection.

Many types of gloves are available today, but it is important to know that not all gloves have the same barrier capability, depending on the type of material used. For example, natural rubber latex gloves have long been acknowledged for their very effective barrier properties, while non-latex gloves, such as vinyl (PVC), have inferior barrier capability as shown by numerous studies.

Other synthetic gloves, such as nitrile and polyisoprene, perform much better than vinyl but are more costly, especially polyisoprene gloves. Using gloves with inferior barrier capability could expose both the patients and users to undesirable/harmful infections.

Malaysia is the world’s largest medical gloves exporter (latex and nitrile). Both quality and user’s safety are of top priority to the nation’s glove industry. To this end, a quality certification program (the Standard Malaysian Gloves or the SMG) has currently been formulated for latex examination gloves.

All SMG-certified gloves must comply with stringent technical specifications to ensure the gloves are high in barrier effectiveness and low in protein/low allergy risks. In addition to providing excellent comfort, fit and durability—qualities that manufacturers of many such gloves are attempting to replicate.

Furthermore, latex gloves are green products, derived from a natural and sustainable resource, and are environmentally friendly. (Learn more at www.smg.gloves.com and www.latexglove.info).

The use of low-protein powder-free gloves has been demonstrated by many independent hospital studies to vastly reduce the incidence of latex sensitization and allergic reactions in workplaces.

More important, latex allergic individuals donning non-latex gloves can now work alongside their co-workers wearing the improved low protein gloves without any heightened allergy concern. However, for latex-allergic individuals, it is still important they use appropriate non-latex gloves that provide them with effective barrier protection, such as quality nitrile and polyisoprene gloves.

Selecting the right gloves should be an educated consideration to enhance safety of both patients and users. For decades, gloves made in Malaysia have been synonymous with quality and excellence, and they are widely available in an extensive array of brands, features and prices.

They can be sourced either factory direct (www.mrepc.com/trade and click “medical devices”) or from established dental product distributors in the U.S.

(Source: Malaysian Rubber Export Promotion Council)
STOP BY BOOTH #221 FOR A FREE SAMPLE!

**HURRICaine®**
Topical Anesthetic
20% Benzocaine Oral Anesthetic

**NEW**
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20% Benzocaine for fast, temporary relief of occasional minor irritation and pain associated with:
- Sore mouth and throat
- Canker sores
- Minor dental procedures
- Minor injury of the mouth and gums
- Minor irritation of the mouth and gums caused by dentures or orthodontic appliances

**Snap-n-Go™ Swabs**
- Individually wrapped
- Unit dose convenience
- Eliminates cross-contamination
- Fast onset – 20 seconds
- Available over the counter
- In-office application or dispense for home use

**HURRICaine®**
Topical Anesthetic
20% Benzocaine Oral Anesthetic

**EFFECTIVE**
- Trusted by dental professionals for over 40 years
- Eliminates pain and discomfort

**FAST-ACTING**
- Relief in 20 seconds

**SAFE**
- Virtually no systemic absorption
- Available over the counter

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Plaque Indicating Snap-n-Go Swabs

HurriCaine®, HurriView and HurriView II® will help you show patients where they have plaque build-up & help motivate them to improve their oral hygiene routines.
- HurriView highlights where improved oral hygiene is needed
- HurriView II highlights old plaque in blue and new plaque in reddish pink
- Individually wrapped
- In-office evaluation or dispense for home use
- Available in boxes of 72
- No messy rinses or tablets!

Call Beutlich® Pharmaceuticals, LLC at 1-800-238-8542 or 1-847-473-1100, M-F: 8:00 a.m.- 4:30 p.m. CST for more information or contact your preferred dealer. www.beutlich.com

HurriCaine, HurriView and HurriView II are registered trademarks of Beutlich Pharmaceuticals, LLC. Snap-n-Go is a trademark of Beutlich Pharmaceuticals, LLC. 0916 0113
Online, automated ordering system used to control costs

Dental Savings Club says its dental-instruments prices are influenced by unique automated, ordering system

Dental Savings Club has a wide variety of dental instruments and other products at great savings, thanks to a unique web-based automated ordering system that minimizes expenses and passes savings to customers.

Hawk loupes and lights
Evaluating dental loupes can be difficult. But asking these basic questions can help:
• Are the loupes available in different magnifications?
• Are the loupes available in both flip-up and thru-the-lens models?
• Can the loupes be used with a light source (of the same brand or from other manufacturers)?
• And, finally, are the loupes light weight?

The answer to all of these questions is “yes,” when evaluating Hawk loupes and lights. Among all the criteria to consider, perhaps most important is weight and balance. Weight is important because the clinician will wear them for many hours during the course of the day. Many dental professionals describe the Hawk loupe/ lights as quite comfortable.

Magnification strengths are available from 2.5x to 4.5x to satisfy most needs. The light source is light in weight and extremely bright, projecting a pure white light. Accurate light is critical when selecting a shade for restorative material.

If you are already set with loupes, but perhaps need a light, the company reports that the Hawk light source is known for compatibility with nearly every loupe in the marketplace. According to the company, many buyers report cost benefits with Hawk loupes because the loupe and light source can be bought separately.

Wolf handpieces
Despite the fear it might invoke in patients, the conventional drill remains one of the most important instruments in a dental practice. Although maintaining and repairing these vital instruments can be pricey, such preservation is necessary because of frequent usage and the need for steam autoclaving after each use.

Dental Savings Club reports that it is already known for savings available on KUT carbide and diamond rotary instruments, Kopy impression material and Hugs and Kisses hygiene instruments and whitening products.

The Wolf handpieces line builds on this reputation for cost efficiency. These lightweight handpieces are available for most systems (Kavo, NSK, W&H, Midwest, Star and four-hole systems). They are well-balanced and include swivel capability (although couplers are not included), push-but ton chucks, fiber optics with LED beams (for shadow-free visibility) and a triple-port water spray.

Wolf handpieces are known for low maintenance-and-repair costs. Their power output is 18 watts, and the hand-piece spins at 400,000 rpm.

According to Dental Savings Club, you can purchase a new Wolf handpiece for far less than it costs to repair many name-brand handpieces.

Here at the PDC
To learn more about the Dental Savings Club, visit booth No. 1339. To place an order, call (888) 768-1230, or visit online at www.dentalsavingsclub.com.

Topical anaesthetic now offered in Canada

Switching to unit dose just got easier: HurriCaine® topical anaesthetic is now even easier to apply with new Snap-n-Go® Swabs. The disposable swab applicator helps eliminate risk of cross contamination. Just snap the tip and HurriCaine liquid fills the swab at the other end.

Individually wrapped
Each swab is individually wrapped, making it convenient for presetting procedure trays or for dispensing to patients for post-procedure comfort.

These 20 percent Benzocaine filled swabs offer fast, temporary relief of occasional minor irritation and pain associated with: sore mouth and throat; canker sores; minor dental procedures; minor injury of the mouth and gums, and minor irritation of the mouth and gums caused by dentures or orthodontic appliances.

HurriView II® plaque disclosing swabs for preventive care. HurriView and HurriView II will help you show patients where they have plaque build-up and help motivate them to improve oral hygiene routines.

Free sample
Visit booth No. 221 to learn more about HurriCaine Snap-n-Go Swabs and receive a free sample.

HurriCaine, HurriView and HurriView II Snap-n-Go Swabs are exclusively available through Henry Schein Canada.

Here at the PDC
To learn more about HurriCaine plaque disclosing swabs for preventive care, HurriView and HurriView II will help you show patients where they have plaque build-up and help motivate them to improve oral hygiene routines.

Free sample
Visit booth No. 221 to learn more about HurriCaine Snap-n-Go Swabs and receive a free sample.

HurriCaine free samples can be found at booth No. 221. (Photo/Provided by Beutlich Pharmaceuticals)
New, from the inventors of Piezosurgery®

www.piezosurgery.us
www.odontotrade.com
(614) 459-4922
Piezosurgery Touch by Mectron cuts bone, minimizes soft-tissue trauma

Users of piezoelectric osseous surgery system praise its precision, performance and safety

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 refine 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 panoramic 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. Saasha A. Jovanovic, gDE 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 irritation 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.us. The company encourages you to call or click right now to learn more.

(Source: Piezosurgery Inc.)
HAWK Loupes and lights

- **THROUGH THE LENS**
  - $499/ea

- **HAWK LED PORTABLE LIGHT**
  - $399/ea

- **FLIP UP SYNCHRONOUS STYLE**
  - $299/ea

HAWK LED Light features a lightweight unit (5g) that can generate up to 40,000 lux of light. Each of the 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 recharge fully in 3 hours.

**I love these loupes! Better than the $20 pair I was using. With money I'm saving, I'm buying my Hygienist a pair!**

Gary Radz, DDS USA

WOLF HIGH SPEED HANDPIECES

- Extremely low noise level reduces stress for patients
- Optimum balanced turbine Ceramic bearing technology

**$359/light**
**$285/no light**

- Patented push button chuck for reliability and security
- Precise triple spray ports avoid overheating and ceramic turbines
- LED beam fiberoptics for shadow free visibility
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- Handpieces available for: NSK, STAR, Midwest, W&H (RA-24 & 25), KAVO Couplers and 5 hole
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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.

Three cool things to do in Vancouver

![Cliffwalk at Capilano Suspension Bridge](Photo/Robert Selleck, ‘today’ staff)

![Vancouver Aquarium coral](Photo/Provided by Vancouver Aquarium)
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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 recognized 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. By optimizing treatment speed and comfort, building patient referrals and marketing exposure, the new advanced dual frequency Nd:YAG and Er:YAG systems offer new clinical opportunities.

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 numbing. 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 anaesthesia 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 National Dental Inc. (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 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 systems offer new clinical opportunities.

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(Source: National Dental Inc.)
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