Pediatric restorations can be beautiful

Today:
Dr. Carla Cohn presents sessions on ‘restorative’ (in the a.m.) and ‘preventive’ (in the p.m.) pediatric dentistry.

A Canadian first?
Dental C.E. in 3-D

Friday:
Dr. Samson Ng has been refining his clinical 3-D photography skills for five years. See the stunning results.

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Show your badge next door, then soar across Canada experiencing the grandeur of the landscape and exhilaration of flight.

Drop in for C.E.

More than 150 speakers, 190 sessions await you

By Robert Selleck, Managing Editor

With more educational sessions (190-plus) than Vancouver averages in annual rainy days (162), the Pacific Dental Conference has something for every member of the dental team.

Better still, the meeting’s commitment to keeping lectures and presentations “open” means such sessions are available to all attendees on a first-come, first-seated basis.

The only thing attendees need to do is decide what to head to next. But that’s no small task, with the speaker roster at

Two days of live dentistry, 300 exhibitors

The Pacific Dental Conference Exhibit Hall is at capacity this year, with more than 300 companies represented. And the Live Dentistry Stage returns to the exhibit floor with procedures today and Friday. Each session is eligible for C.E. credits. Here is the schedule.

Thursday, March 6
11 a.m.–12:30 p.m., Glenn van As, DMD, BSc, “Laser Dentistry: Removing Porcelain Veneers, Crown Lengthening, Tissue Management,” co-sponsored by BIOLASE.
1–2 p.m., Shannon Pace Brinker, CDA, CDD, “Complete Records Visit.”
2:30–4 p.m., Peter Walford, DDS, FCARDF, with “Restoring Incisal Attrition with Composite Resins,” co-sponsored by 3M ESPE Dental Products.

Friday, March 7
8:30–10:30 a.m., Mark Kwon, DMD, FICOI, and Mark Lin, BSc, DDS, MSc (Prosthodontics), FRCD (C) “Teeth in a Day: Implant Dentistry,” co-sponsored by Hiossen Implant Canada Inc.
11:30 a.m.–1:30 p.m., Elliot Mechanic, BSc, DDS, “Anterior Tooth Wear — Restoration,” co-sponsored by Canadian Academy for Esthetic Dentistry.
2:30–4 p.m., Alex Touchstone, DDS, “CAD/CAM,” co-sponsored by Henry Schein Dental.

Check for schedule updates
Pacific Dental Conference organizers ask attendees to note that demonstration times on the Live Dentistry Stage may be subject to change. You can consult the PDC app or “Conference at a Glance” for the most up-to-date scheduling.

The Live Dentistry Stage is sponsored by A-dec and Sinclair Dental.

Two-day exhibit hall
The more than 600 exhibit hall booths are at capacity, with more than 300 companies occupying them. Hours are 8:30 a.m. to 5:30 p.m. both today and Friday.

(By Robert Selleck, Managing Editor)

* The Drop, by Inges Idee, a group of four German artists, is one of many pieces of public art in and around the Vancouver Convention Centre. Learn more about The Drop at ingesidee.de. (Photo/Robert Selleck, today managing editor)
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**A.C.E.**

*3-0 3.0*  

A.C.E. from page 1 of the 2014 conference representing some of the top names in the industry.


The choice of sessions comprises a diverse mix of open C.E. lectures, hands-on courses – and the “LIVE DENTISTRY STAGE” (in the exhibit hall). The variety of topics covered means the entire dental team can access the latest information on dental technology, techniques and materials.

With the University of British Columbia Faculty of Dentistry celebrating its 50th anniversary, the PDC will present the “UBC Speakers Series,” with UBC alumni addressing a variety of topics. On Saturday, the “So You Think You Can Speak?” program will feature 50-minute presentations by speakers who responded to a call for presenta- tions and were accepted by the meeting’s scientific committee. A number of timely dentistry topics will be covered. Combined with the Pacific Dental Conference this year is the 32nd annual meeting of the Dental Research Association of British Columbia. The bulk of sessions that are oriented toward dental technicians will be concentrated on dental technology, techniques and materials.

The Pacific Dental Conference typically attracts around 12,000 attendees, seeing consistent growth in recent years – and reaching a new record of 12,200 participants in attendance at the 2013 meeting.

For the majority of attendees, C.E. credit is given for general attendance (maximum of five hours) and hour-for-hour credit for individually attended courses.

The Pacific Dental Conference typically attracts around 12,000 attendees, seeing consistent growth in recent years – and reaching a new record of 12,200 participants in attendance at the 2013 meeting.

For the majority of attendees, C.E. credit is given for general attendance (maximum of five hours) and hour-for-hour credit for individually attended courses.

It is the responsibility of each individual to submit his or her own C.E. to the applicable provincial authority. Be sure you are scanned in and out of every session.

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**Today**

“Avatar”-inspired session shows clinical images on big screen

By Robert Selleck, Managing Editor

- When Samson Ng, DMD, went to see the 2009 blockbuster 3-D film “Avatar,” his response was a bit different than that of most other theatre goers: He started thinking about oral lesions. Or, more accurately, Ng found himself considering how he could use similar theatre-quality 3-D imagery to improve the level of care he was providing to the patients he sees as a certified specialist in oral medicine and pathology in Vancouver.

From the clinical perspective, Ng said, “it’s easier for me to keep track of changes in the lesion with 3-D. It actually helps me to see things better than with only a 2-D view. It’s a much better way to capture the morphology or the topographic appearance of the lesion. When I look at the lesion in 3-D, I’m able to appreciate the fissure much better.”

Five years ago, before his “aha moment” while watching “Avatar” through his movie-house 3-D glasses, Ng had already developed strong photographic techniques that enabled him to maintain the many hundreds of cases that have been referred to him over the years. After “Avatar,” Ng started researching 3-D photography. Information was bountiful, until it came to his specific challenge: applying the technology to clinically capturing 3-D images of lesions in often-difficult to access areas of the mouth.

In the beginning, there was a lot of trial and error, especially with the visual-effect projection, mathematical equations and biomedical engineering needed to get the “right-eye” and “left-eye” images to correctly capture and then merge into perfectly clear, perfectly focused real-world depictions of lesions. Another big challenge was figuring out exactly how the lighting needed to be set up — and setting it up quickly in the clinic.

But Ng got better fast, always ensuring the process was virtually invisible to his patient in terms of never requiring any greater time or inconvenience than his standard 2-D photos.

Amateur to pro in five years

To capture the 3-D images, Ng uses two cameras or, depending on location of the lesion, a special 3-D lens. He uses 3-D instead of 2-D on about half of his cases — whenever he thinks an outcome will benefit from having a 3-D perspective as part of the diagnostic record.

Today, five years later, his amateurish beginnings have evolved into a sophisticated process of 3-D documentation, and he has amassed a stunning archive of super-high-definition 3-D images depicting a vast array of lesions at multiple stages of development.

Ng will share a small fraction of his collection in a presentation here at the Pacific Dental Conference on Friday, with “How Much Do I Know About Lumps and Bumps in the Mouth?” The session runs from 8:30 to 11 a.m. and repeats from 1:30–4 p.m., with both sessions in Room 1 in the Vancouver Convention Centre East Building.

Be sure to head that direction early to see the 3-D photos.
Pediatric restorations can be beautiful

By Robert Selleck, Managing Editor

Dr. Carla Cohn delivers practical guidance for dental teams that want the best for their youngest patients

**Attend today’s sessions!**

"Restorative Pediatric Dentistry for the General Practitioner" today from 8:30–11 a.m. in Waterfront Hotel, Ballroom B.

"Preventive Pediatric Dentistry for the General Practitioner" is from 1:30–4 p.m., in the same location.

**Before and after photos of a restorative case using NuSmile ZR aesthetic paediatric crowns on a first primary molar. (Photos/Provided by Dr. Carla Cohn)**

Are advances in tools, materials and procedures in pediatric dentistry keeping pace with dentistry overall? I feel as though we are just catching up now to where our adult counterparts are. It took a long time for aesthetics to reach us and our children, and we still have a very long way to go in educating our dental teams. The attitude that these are temporary teeth and we need only have function but not form is one that is still a challenge. We have the ability to deliver strong and beautiful restorations with the advances in the last few years.

Your sessions have five corporate sponsors. What is your relationship with them? In dentistry, manufacturers are a large part of what we do every day. We cannot deliver any restorative and very little preventative treatments without dental products. Any course or lecture that is clinically oriented has a significant product component to them.

As a speaker and key opinion leader, I am approached by manufacturers to evaluate and give my opinions on new and exciting technology. This is both a privilege and an honour. I am introduced to many exciting new ideas, and some that also fall flat. Beyond that initial introduction and evaluation, I will continue to use materials and products that I like and believe in. In my day-to-day practice, I pay for all of my supplies and materials just like every other dental professional. In myy courses I speak only of what I use in my practice on a daily basis, which is evident in my photos and videos.

All courses that receive corporate sponsorship are obligated and regulated to follow continuing education standards and bylaws to deliver a well-rounded course content.

When I receive an invitation to speak, I develop a course first and then approach the manufacturers to be involved in supporting the lecture. They are given an opportunity to provide educational hormones support. This enables the meeting organizers to receive financial support to bring education to attendees.

In your “restorative” session, how do you demonstrate aesthetic anterior and posterior restorations? I will be discussing specifically prefabricated paediatric pre-veneered stainless-steel crowns and prefabricated paediatric zirconia crowns. I will share several procedural demonstrations in the form of clinical videotaped footage.

If an attendee leaves with just one or two specific procedures, what would you hope those are? I would hope that the attendees will leave knowing that there are many options available to allow for effective prevention of decay, and also for easier, faster, more aesthetic options for their kids and that they can implement them into their practices to improve the dental care that they provide.

**3-D**

get a seat. Even without the intriguing concept of 3-D photography, Ng’s reputation is such that his lectures typically fill up quickly. The room’s capacity is 300, which is the exact number of 3-D glasses that will be available to attendees at the door.

Ng realized he was ready to take his images on the road after demonstrating his project to a few colleagues — showing them a sampling of images on his 3-D televisual at home in his basement. The colleagues were thoroughly impressed and immediately confirmed Ng’s thoughts about the potential of the images training value.

"In a conventional presentation, we show some lesions in the mouth using normal photos," Ng said. "But because of the 2-D representation, it’s very difficult for the audience to appreciate the texture or the morphology of the lesion. ... As a matter of fact, there is no lesion in the mouth that is flat; they have texture — or there is some other detail of the lesion that is sticking out or that is sunken into the mucosal surface. These are details that can be important for the clinician to be able to recognize and understand the lesion."

**Two-part presentation**

The presentation, which is part of the "UBC Speakers Series" recognizing the 50th anniversary of the University of British Columbia Faculty of Dentistry, will be divided into two parts. Dr. Charles Shuler, dean and professor at the UBC Faculty of Dentistry, will open the session with an overview on how to approach clinical differential diagnosis of oral lesions.

In part two, Ng will show and describe about 40 3-D images from some of his clinical cases to demonstrate the application of differential diagnosis. "We are not talking about any particular type of dental disease or mouth disease," Ng said. "The presentation will focus more on the concept of how to make the proper differential diagnosis of the mouth, from basic examination to specific details on interpretation of the lesions."

The room Ng is presenting in will be equipped with a high-definition 3-D projector and a screen that’s about five-by-six metres. Because it’s the first time that Ng’s images will be projected onto a large screen, he tested the set-up a few weeks before the meeting. “It was quite stunning,” Ng said of the experience. “The tongue sticks right out to lick you … I believe this will be the first dental education in Canada to be presented in 3-D.”

To minimize the possibility of viewers experiencing eye strain or dizziness, Ng had to adjust the images slightly for the projection system — compared with how they’re set up for a 3-D monitor.

To date, all of Ng’s photos have been taken using normal white light. But he has been looking into methods of capturing 3-D images using tissue fluorescence technology, lighting the lesion with his VelScope (LED Technologies, Canada).

Until then, the white-light 3-D images appear to be more than adequate for treatment planning, monitoring and training.
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Your Infection Control Specialist™
Need a COO?

Successful practices have a chief operations officer. Does yours?

By Roxanne Moulden
Founder and Executive Director,
DOMACAN

In today’s world, dentists have to be savvy businesspeople as well as excellent clinicians. Organizing a successful dental practice has become more time consuming and definitely more complex as each year passes.

The list seems endless: ever-changing human resource issues, complex government/provincial/dental regulations, the need to train new team members, promoting the practice in a highly competitive marketplace, meeting patient needs and expectations, mastering new technology—all while keeping the schedule full. This is just a sampling of what a 21st century office manager (or, as the position is now called, “practice administrator”) deals with on a weekly basis.

Why the name change from “office manager” to “practice administrator”? It’s because most people do not like to be “managed,” which is something we learned a long time ago.

The question is: Should you have an “office manager” or hire a “chief operations officer”? By definition, a COO is responsible for the corporation’s operations. This individual looks after issues related to marketing, sales, production and personnel.

More hands-on than the CEO, the COO looks after day-to-day activities while providing feedback to the CEO (the dentist/owner). Doesn’t this sound like what every modern dental office needs today?

‘I just want to do dentistry’

I hear over and over again from dentists across the country: “I just want to do dentistry and let someone else handle the rest.” Easier said than done!

A dentist in the 21st century office is working harder than ever before trying to balance office hours and family life. He or she is often working evening hours and Saturdays, bringing charts home to treatment plan—and staying on call 24/7 for emergencies—to provide exceptional care to patients and remain competitive.

A COO may be just what your office needs to relieve you of the many tasks that could be delegated to someone else.

Most effective practice administrators or COOs are not born that way. You may have a very skilled team member with many years of experience, but that person most likely doesn’t possess the necessary leadership skills and abilities to be your COO.

What makes a good COO?

Let’s examine the qualities of a good COO. An effective COO must:

• Possess an attitude of gratitude.
• Have a high dental IQ and be emotionally intelligent.
• Demonstrate strong communication skills.
• Excel at motivating and leading.
• Lead by example so others will follow.
• Take initiative and think “outside of the box.”
• Think quickly and solve problems.
• Understand all software reports.
• Be the most positive person you know.
• Be the liaison between the office and accountant, bank, sales reps, marketing companies, etc.
• Share your practice vision.

In a nutshell: Your COO must be everything you are not!

If you already have this person on your team, remember to thank them daily.

If you need someone like this to join your team, where do you start to look? Whether you promote someone from within your office or hire someone from outside, the key to success is in the training of this individual.

Did you know there is a new organization to help you train and continually guide your future COO: The Dental Office Managers and Administrators of Canada (DOMACAN), created to bridge the gap between the clinical and business sides of dentistry. (Photo/Provided by DOMACAN)
Oral Science presents the photon series dental diode laser by Zolar Technology

**By Oral Science Staff**

- Furthering its goal to “make state-of-the-art innovations available to Canadian dental offices,” Oral Science is now the exclusive Canadian distributor of the Photon series soft-tissue dental diode lasers, manufactured in Canada by Zolar Technology and Manufacturing Company (Mississauga, Ontario).
- The new Photon series consists of two innovative devices: the Photon (3 watts/810 nm) is designed for minor and major surgeries, laser-assisted periodontal therapy and hygiene procedures, while the Photon Plus (10 watts/980 nm) offers more power, making it effective for in-office tooth whitening and bleaching.

According to Oral Science, the Photon series offers all the benefits of the most advanced generation of soft-tissue diode lasers:
- Complete portability with long-life battery pack (up to four hours and can be recharged while in use).
- Large 3.5” LCD touch screen display with a unique built-in navigation technology.
- More than 50 presets for procedures including periop pocket therapy, gingivectomy, crown trimming, fibroma removal, frenectomies, suture debridement and removal of highly inflamed edematous tissue.
- Built-in tutorial.
- Available with all accessories, including disposable tips or stripable fiber, protective glasses and bleaching handpiece.
- Password security.
- Three-year warranty (the longest in the industry, according to the company).
- Rigid metal transportation case.

With the Photon series, dental professionals benefit from a technology that provides patients with optimal clinical results and wellness for surgical, periodontal and hygiene procedures.

The advantages of laser therapy include:
- Almost no blood, little to no tissue recession, gentle and comfortable procedure for patients and improved post-operative healing.
- The increased workflow and unique range of clinical treatment applications will give the dentists and registered dental hygienists a quality tool with speed, convenience and flexibility.
- As dental health care continues to evolve, Oral Science is in a unique position to deliver the value of a quality product in a personalized manner.

**Awarded a rating of five out of five pluses by the DENTAL ADVISOR:** After conducting a rigorous and independent evaluation, the DENTAL ADVISOR awarded the Photon and Photon Plus products five out of five pluses—supporting testimony to the quality and performance of both the Photon and Photon Plus.

A **complete educational program by Oral Science and Dr. Glenn A. van As** to help dental professionals quickly integrate the Photon into their practices and use it with confidence and efficiency.

Oral Science collaborates with Dr. Glenn A. van As (Vancouver, British Columbia) to provide a lecture and hands-on session for dentists and hygienists. In the lecture, dental professionals learn the foundations of laser physics and tissue interaction along with how laser dentistry becomes an added value to the services they provide to their patients.

In the hands-on portion, dentists and hygienists work in separate group on procedures specific to their daily treatments.

Upcoming sessions are scheduled for March 21 and June 13 in Richmond, British Columbia.

**Learn more about the Photon and Photon Plus today at the Pacific Dental Conference Exhibit Hall in the Oral Science booth, No. 335:** Oral Science welcomes all conference attendees to visit its booth to discover all the innovative features and capabilities of the Photon and Photon Plus. This also presents the opportunity to acquire a laser system while also receiving an exclusive PDC promotion: a $100 Visa gift card plus 25 free disposable tips.

**About Oral Science**

Since its foundation 10 years ago, Oral Science has been fully committed to helping dental professionals reach optimal clinical results for their patients and providing focused expertise in the following oral health conditions:
- Chronic inflammatory periodontal disease
- Tooth sensitivity
- Implants maintenance
- Xerostomia
- High-risk caries
- Patient support and education

The company has established a team of “Optimal Oral Health Coaches” (RDHs and DDSs) specifically trained to support dental offices to ensure success and differentiation by providing a complete support program that includes:
- Protocols and products based on patients’ needs and evidence-based science
- Clinical tips
- Patients education tools
- Team support and education

Other innovative solutions from Oral Science include the X PUR line of “purely effective” oral hygiene products, Curaprox Swiss premium tooth and interdental brushes, Cetacaine topical anesthetic liquid and PerioStat doxycycline hyclate (sub-antimicrobial dose). Many of the X PUR and Curaprox products are available to patients at Shoppers Drug Mart and London Drugs pharmacies.

To schedule an in-office training with an Optimal Oral Health Coach, visit Oral Science in the PDC Exhibit Hall, call (888) 442-7070 or send an email to info@oralscience.com.

**Isolite Systems delivers dental-isolation technology**

**By Isolite Systems Staff**

**Dental isolation is one of the bedrock challenges in dentistry. The mouth is a difficult environment in which to work. It is wet, dark, the tongue is in the way, and there is the added humidity of breath, which all make dentistry more difficult. Proper dental isolation and moisture control are two often overlooked factors that can affect the longevity of dental work—especially with today’s advanced techniques and materials.**

Leading dental isolation methods have long been the rubber dam—or manual suction and retraction with the aid of cotton rolls and dry angles. Both of these methods are time and labor intensive—and not particularly pleasant for the patient.

Enter Isolite Systems: Its dental isolation technology delivers an isolated, humid and moisture-free working field as dry as the rubber dam, but with significant advantages, including better visibility, greater access, improved patient safety and a leap forward in comfort. Plus, it can do it all two quadrants at a time.

The key to the technology are the “Isolation Mouthpieces.” Compatible with Isolite’s full line of products, the mouthpiece is the heart of the system. It is specifically designed and engineered around the anatomy and morphology of the mouth to accommodate every patient, from children to the elderly.

The single-use Isolation Mouthpieces are available in five sizes and position in seconds to provide complete, comfortable tongue and cheek retraction while also shielding the airway to prevent inadvertently foreign body aspiration. Constructed out of a polymeric material that is softer than gingival tis-

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Isolite Systems delivers dental-isolation technology

**Isolite mouthpieces are available in five sizes. (Photos/Provided by Isolite Systems)**

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*See ISOLITE, page 8*

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Pacific Dental Conference — March 6, 2014
SciCan handpieces withstand high sterilization temperatures and produce low friction coefficient

By SciCan Staff

For four years in a row, THE DENTAL ADVISOR awarded SciCan’s STATIS® ML air-driven high-speed handpiece the Top Air-driven Handpiece. Upon completion of the clinical evaluation in 2011, the STATIS received a 5+ and a 96 percent clinical rating.

Among the observations and comments made by consultants:

“Routine procedures, including crown preparation, were performed efficiently without the handpieces slowing or stalling.”

“The STATIS ML is the handpiece of choice for crown preparation, as it produces high torque with four-port water spray.”

“I liked the weight, balance and small head size.”

“Great all-around handpieces.”


Consistent, quiet, powerful

State-of-the-art, STATIS high-speed handpieces combine consistent power, superb handling and quiet performance. The result is ergonomic handpieces that equip you with everything you need to deliver the highest level of dental care.

Powerful and durable, STATIS high-speed handpieces not only look good, according to the company, they also provide the highest level of precision handling. The smaller head size provides greater freedom of movement and improved accessibility. The pre-stressed ceramic ball bearings offer low vibration performance to improve the tactile feel of the instrument and the high-quality material and innovative design delivers extremely quiet performance and increased lateral cutting efficiency.

SciCan offers two high-speed air-driven handpieces to cover all clinical situations.

The ML 201.1 with standard head provides the power and durability you need for precise restorative and crown and bridge procedures.

The SL 10.1 offers a smaller head size that provides improved intraoral access, making it ideal for working on children and difficult-to-reach areas of the mouth.

According to the company, both high-speed model handpieces offer many features that enhance their performance and reliability. The advanced design offers better handling while the high-quality stainless-steel materials and PVD coating offer improved grip and less scratching. The unique patented push button chuck mechanism provides greater precision, improved centric running, reduced operating noise and less chattering.

The innovative spray system creates efficient cooling of the entire area and the enhanced head design eliminates suck-back — preventing contaminated particles and dirt from entering the head housing. Plus the Connex™ L quick connect system, SciCan’s alternative to MULTItex® couplers, fits most modern treatment units.

High-tech ceramic bearings

One of the most important features of STATIS high-speed handpieces is the advanced turbine system. High-tech ceramic bearings and a new cage, composed of synthetic fiber and a reinforced composite post, are designed to better withstand high sterilization temperatures and produce a lower friction coefficient — key factors in preserving the bearings and maintaining high performance and longevity of the handpiece.

With STATIS high speeds, not only do you get a quieter, more powerful handpiece, you also get fewer failures and lower repair costs for a lower cost of ownership over the lifetime of the instrument. For state-of-the-art handpieces that are built without compromise, choose STATIS high speeds from SciCan.

As a result of extensive product development, field testing and research, the SANAO™ series of electric handpieces have been designed with ergonomics in mind. The SANAO electric handpieces have been ergonomically designed with a narrow, non-cylindrical shaped neck that ensures a solid, comfortable grip that delivers enhanced precision and control, and they are perfectly balanced for less hand fatigue.

Reduced tension, fatigue

Partnered with SciCan’s ISOS™ Advan
tage and SLM motor, the centre of gravity is shifted to the fulcrum of the hand, producing optimal balance and reducing wrist tension and fatigue.

The flat surface on the SANAO’s shoulder provides enhanced stability and access when working on the upper areas of the mouth.

Marvel of miniaturization

A marvel of miniaturization, with a head height as tiny as 13 mm, the SANAO line is recommended for procedures where access is shifted to the fulcrum of the hand, producing optimal balance and reducing wrist tension and fatigue.

The SANAO™ series of electric handpieces provide the highest level of precision and the highest level of dental care.

COO — from page 6

Guide your future COO

This organization is the Dental Office Managers and Administrators of Canada (DOMACAN), which was created to bridge the gap between the clinical and business sides of dentistry.

It is the official Canadian education and networking association for all dental professionals: office managers, administrators, treatment coordinators, patient coordinators, hygienists, assistants, spouses and dentists.

The organization’s goal is to be the trusted daily, weekly and monthly news and information resource with tools, tips and inspiration for dental practice success and profitability.

DOMACAN strives to bring the best and most relevant speakers to our annual conference and provide members with networking opportunities year-round through forums, articles, webinars and our “Ask the Expert” resources.

DOMACAN has something for everyone on the dental team. I invite you to become a member today by visiting www.domacan.org. For a limited time, you will be able to enjoy a complimentary membership courtesy of Henry Schein.

If you want to take your practice to the next level, you need to understand that you need to take your team to the next level. To take a first step, join DOMACAN and start training the right person to be your COO to maximize the potential in your team and your office today.

About the author

Roxanne Moulden is the founder and executive director of DOMACAN, the Dental Office Managers and Administrators of Canada. She can be contacted at info@domacan.org or through the DOMACAN website, www.domacan.org.
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Barrier protection is critical in dental professionals’ gloves

Main purpose is enhanced safety of both patients and users

- 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 (polyvinyl chloride), 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 patient and user to harmful infections.

Quality, safety top priorities

Malaysia is the world’s largest medical gloves exporter (latex and nitrile). Both quality and users’ 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, low in protein and low in allergy risks, in addition to having excellent comfort, fit and durability—qualities that manufacturers of many synthetic gloves are trying to replicate.

Natural, sustainable resource

Latex gloves are green products, derived from a natural and sustainable resource, and are environmentally friendly. (You can learn more online by visiting www.smg-gloves.com or 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 importantly, latex allergic individuals donning non-latex gloves can now work alongside their coworkers 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, such as quality nitrile and polyisoprene gloves, that provide them with effective barrier protection.

Extensive array of brand, prices

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) or from established dental product distributors in the United States.

(Source: Malaysian Rubber Export Promotion Council)
A Legacy of Innovation

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Digital radiography system takes clarity, ease to new level

By Dr. Neal Patel

I have a passion for technology, because it bridges the gap of communication between clinician and patient. This year, I decided to give myself something that would make my experience as a dentist more enjoyable — appropriately, on my 33rd birthday. I write this article to express my enthusiasm for that “gift” to myself, a product that has honestly blown me away: the Schick 33 intraoral digital sensor.

I had thought 2-D imaging had plateaued. Schick 33 by Sirona has completely changed my opinion; it’s a huge step forward in providing clarity and significant improvement in diagnostic imaging. The images provided by Schick 33 are unlike any 2-D images that I have seen.

As a general dentist, it is my responsibility to be the best diagnostician for every patient. Schick 33 opens the door for comprehensive dental care. It improves diagnostic acumen for general dentistry, endodontics, periodontics, and restorative dentistry.

Quality images

As a beta tester for Sirona, I realize the complexity in design and engineering that is overcome in product development.

Sirona spared no expense with R&D on the Schick 33, and it continues to make giant leaps in technology — the theoretical resolution limit of 33 line pairs per millimeter, updated imaging software with expanded capabilities for enhancement and customization — and it meshes seamlessly with existing Schick Elite platforms.

Ease of use

I particularly like — and so does my staff — the replaceable cable, which lets us quickly and easily change cables with a simple one-step procedure. I also like Schick 33’s presets. Sirona calls it clinical-task-specific mapping. I can click on a preset and images automatically default to the setting I need — general dentistry, endodontics, periodontics or restorative dentistry. Immediately after the image is captured, I can instantly adjust the image’s sharpness by moving my cursor left or right over the graphical slider.

Versatility

We use all three sensor sizes (0, 1 and 2) in my practice. If we have a patient with special positioning needs, we also can take advantage of the different cable lengths (3, 6 and 9 feet) and switch them out quickly.

Schick 33 has opened my eyes to new found pathology and restorative needs for all of my patients. My experience has been enlightening, and I treat all existing patients as new patients during their routine exam and cleaning. Perhaps most importantly, support and training are essential, and both Patterson Dental and Sirona rolled out the red carpet with support.

You owe it to yourself

If you want to be a progressive dentist, you owe it to yourself and your patients to look into Schick 33. In the daily grind of wanting to grow our practices through new patients, we often forget about our most valued customers — our current, active patients. I am finding that I am more confident in my interpretation of 2-D images from Schick 33, and this is directly affecting my patients’ acceptance of treatment needs. My staff is blown away by our ability to see consistently crisp and detailed digital images.

About the author

Dr. Neal Patel is a graduate of Ohio State University, where he served as the implant prosthodontic fellow from 2006-2007. Before opening his private practice in Powell, Ohio, Patel served as a consultant educating surgeons in 3-D imaging, computer-generated guided implant surgery and the art of stereolithography in dental applications. Patel is known for establishing many of the techniques and protocols for digital implantology and prosthetics. He speaks internationally on advanced digitization in dentistry, CBCT and its applications and practice management. He has published numerous clinical articles on advanced technology and techniques and procedures.
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NSK Dental introduces ‘dentistry’s most powerful air-driven handpiece’

By DiaDent Staff

Dental equipment manufacturer NSK Dental LLC has launched what it describes as the dental industry’s most powerful air-driven handpiece, the 26-watt, standard head Ti-Max® Z900L series. The company is also launching the 23-watt, miniature-head Ti-Max Z800L series.

“This is our biggest new product launch ever, as the Ti-Max Z900L is the first air-driven handpiece in the history of the dental industry that delivers 26 watts of power,” said Rob Gochoel, sales and marketing director for NSK Dental.

“This unprecedented torque reduces treatment time and provides remarkably smooth handling because of the high power output and a unique new turbine design,” Gochoel said. “Equally impressive, the unprecedented 23 watts of power delivered by our new Ti-Max Z800L miniature head series exceeds the power delivered by most standard head handpieces on the market today.”

According to the company, both the Ti-Max Z900L and Z800L series feature a new cartridge design to dramatically improve durability — and have smaller head sizes to enhance operational visibility. They also feature cartridges that can be replaced chairside to save time and maintain practice productivity.

Both series feature ergonomic, solid titanium bodies and NSK’s new DURAGRIP® coating, which makes the handpieces easy to hold even when wet. To further enhance ergonomics, the handpiece body has a notch for resting the thumb and index finger for maximum leverage. A Quattro (four-port) water spray and 2.5-year warranty — NSK’s longest ever — complete the offering. Multiple back-end types are available to fit most competitor couplers, including Kavo and W&H.

As with NSK’s other air-driven and electric handpieces, 100 percent of the Ti-Max Z900L and Z800L series’ components are engineered, manufactured and assembled in house at NSK’s factory in Kanuma, Japan, to ensure quality and reliability.

NSK Dental is the North American subsidiary of Kanuma, Japan-based Nakanishi Inc., and is located in Hoffman Estates, Ill. Additional information about the Ti-Max Z900L and Z800L series, as well as other NSK Dental products, can be found at www.nskdental.com.

DiaDent Dia-Pen, Dia-Gun deliver root-canal success

The purpose of obturating a root canal is to fill the space three-dimensionally to eliminate any pathways through which bacteria might enter. Thanks to DiaDent, dentists can now have a bulletproof way to seal root canals to help ensure treatment success. Studies indicate that using the warm compaction technique increases the chance that no voids will be left behind in the obturation process.

Together, the Dia-Pen cordless warm vertical compaction device and Dia-Gun cordless backfill system enable you to obturate with confidence and precision. While countless methods and techniques are available for root canal surgery, perhaps none is as easy and time-saving as DiaDent’s complete obturation system, according to the company.

Dia-Pen is a cordless warm vertical compaction device. It effectively and tightly compacts and seals all canals, including lateral canals. After a canal has been shaped and cleaned, a master cone is selected for a snug fit and tug back. Dia-Pen is then used to soften, spread, cut and compact root canal filling material. Color-coded pen tips are available in five different sizes, including XF, F, FM, M and ML. Dia-Pen is ergonomic and one of the lightest compaction devices on the market, weighing only 65 grams. Its quick heating tip reaches its highest level of temperature of 220°C within one second to save treatment time. Three temperature settings of low, medium and high give you full control of any procedure.

Dia-Gun is then followed. Dia-Gun is a cordless obturation system that extrudes warm gutta-percha to backfill the yet unfilled portion of the canal. Dia-Gun comes with two types of disposable tips (23 G or 25 G). The tips can be bent to the desired shape and angle using the multipurpose wrench provided. Using the gutta-percha pellet included in the kit, load one into the loading slot and push it into the heat chamber with the hand plunger. Dia-Gun has three variable temperature settings (160°C, 180°C and 200°C) to enable precise control of obturation flow. Temperature reaches 200°C in just 25 seconds. The ergonomically designed 360-degree swivel tip provides improved access, while the thin tip eases narrow canal filling. Another benefit is a lid for the heat chamber that offers protection from dirt and debris. Dia-Gun is designed to provide reliability and precision while delivering a fast, continuous flow of canal sealing gutta-percha.

Both Dia-Pen and Dia-Gun are easy to clean and easy to use, according to the company. Ergonomically designed features reduce hand fatigue while offering tactile feedback. Instructional and introductory videos can be viewed at www.diadent.com.

Purchase Dia-Gun and Dia-Pen from your trusted dental dealers such as Henry Schein, Patterson and Bisco Dental. For more product information, you can call (877) 342-3368.
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STUCK IN THE PAST WITH YOUR FILM DEVELOPER?
TIME TO TURN IT IN AND STEP INTO THE DIGITAL WORLD.
Adjunctive devices serve critical role in comprehensive oral cancer exams

By LED Dental staff

- You work hard to make your practice warm, inviting and professional for your patients, so choosing to introduce an adjunctive device for oral mucosal disease examinations raises some immediate concerns. How do you balance ease of implementation against patient needs when you introduce a new service within your practice?

  When it comes to selecting an adjunctive device to help you perform examinations for oral diseases, you no doubt want to deliver the same level of patient experience. This generally means you will look for a system that is not only well tolerated, non-invasive, and easy to perform, but one which is also clinically proven to help you discover oral mucosal diseases, including oral cancer, which might otherwise be missed.

**Important considerations**

Some other important considerations that will help you select an adjunctive device that fits with your practice philosophy might include the following:

1. Blend in with your workflow and complement your intraoral and extraoral head and neck examination with only nominal time added to the overall appointment.

2. Help you find things that may be hard to see otherwise, i.e. offer an imaging modality that is extremely sensitive to tissue changes.

3. Provide visual information that is bright and easy to observe within normal ambient lighting conditions in a dental operatory.

4. Allow for integrated and streamlined photo documentation — camera solution should be easy to integrate and tissue response should be bright in order to easily acquire digital images and video to be used for patient records or sent to referral partners.

5. Be clinically shown to be of use to specialists such as helping them establish lesion margins for surgical excision.

- Adding an adjunctive device such as the VELscope Vx, above, to your normal head and neck examination protocol helps to differentiate your practice and attract and retain patients. The added benefit of seeing what your unaided eyes cannot means that your exams are more thorough and suspicions can be quickly investigated. According to the company, use of the VELscope Vx enhances the ability to detect premalignant areas not visible under normal lighting, and dental professionals continue to implement the comprehensive clinical oral exam into their routine.

  **Oral exams using adjunctive devices**

  provide dental practitioners with the ability to detect problem areas not visible under normal lighting, and dental professionals continue to implement the comprehensive clinical oral exam into their routine.

  **Patient-dentist relationships**

  thrive on trust. With trust comes an openness to accept new treatments and comfortably refer family and friends to your care. Adopting new technology that clearly puts the health of your patients first is one way to enhance the patient experience and build trust while standing out from the rest.

  Investing in an adjunctive device such as the VELscope Vx makes that discussion easier, especially once the patient understands that there is no discomfort involved. Once patients are introduced to the reasons behind the adjunctive exam, they often become advocates and support your practice by sharing the importance with their friends and family.

**Visual and palpation exam crucial in early detection of oral mucosal diseases**

**Here at the PDC**

LED Dental’s VELscope Vx is available through several distributors at the PDC, including Patterson Dental, DenMat and Sinclair. LED Dental representative Wayne Rees will be at the Sinclair booth, No. 729.

**“My office has been using VELscope for almost a year, and my associate and I have definitely become more thorough in our oral cancer exam. We have discovered and confirmed dysplasias and several benign lesions that would probably have been missed had it not been for our use of the VELscope. We feel strongly that all dental offices should provide this service.”**

- George Moss, DDS, FAGD, Lakewood Park Dental, Lake Conroe, Texas

**“I find the VELscope to be an invaluable tool for the detection of oral cancer. The response from my patients has been overwhelmingly positive. I have yet to have a patient decline the service. In my opinion, this technology will be the standard of care in a short period of time. There is no other adjunctive method available to so accurately help find areas of oral cancer at a stage that is so readily treatable. I am so pleased with the device I am about to purchase another VELscope to make sharing the unit within my office easier.”**

- Tony Hewlett, DDS, Standwood, Wash.
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**Aluminum Body**
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Successful endodontic treatment depends upon maximal debridement and disinfection of the entire root canal system. The root canal system must be shaped to a convenience form that permits adequate cleaning and disinfection by elimination of microbes. The literature is clear that as much as 35 percent or more of the root canal system remains untouched by any instrumentation technique. Essentially no filing technique allows instruments to sculp all canal walls and remove infected dentin. To decrease the bacterial load and achieve better debridement, irrigation protocols are used prior to obturation.

The efficacy of the irrigants to decongest the entire canal system has been surpassed by ultrasonically activated irrigants, photo-activated disinfection and laser-activated irrigants in their ability to improve cleanliness of the canal system. 1-3 The Er:YAG (Lightwalker Er:YAG & M+YAG dental laser, National Dental Inc. 1319 Barrie, Ontario) has shown to be effective at removing debris and infected dentinal tubules post PIPS with no sign of thermal damage. 2,3

Dental Inc. booth, No. 1319.

PIPS with laser activated irrigation

Here at the PDC
Learn more about the Lightwalker combined Er:YAG & M+YAG dental laser in the National Dental Inc. booth, No. 1319.

Irrigation (LAI) has been recently introduced by PIPS technologies in modern endodontics. A case study in modern molar root canal geometry assessed by micro-computed tomography. International Journal


Laser technology used in endodontics during the past 20 years has undergone an important evolution. Research in recent years has been directed toward producing laser technologies (such as impulses of reduced length, radial-ﬁring and stripped tips) and techniques (such as LAI and PIPS) that are able to simplify laser use in endodontics and minimize the undesirable thermal effects on the

dentin walls, using lower energies in the presence of chemical irrigants. EDTA has proved to be the best solution for the LAI technique that activates the liquid and enhances its cleaning of the smear layer. The use of a laser (PIPS) to activate sodium hypochlorite increases its antimicrobial activity.

Finally, using the correct protocol, the PIPS technique reduces the thermal effects and exerts both a stronger cleaning and bactericidal action, because of its streaming of fluids initiated by the photonic energy of the laser. Further studies are currently underway to validate LAI and PIPS technique as innovative technologies in modern endodontics.

References


Editor’s note: See case study on page 20

Photoacoustic shockwave with irrigant debrides areas of root canal files can’t reach

By Enrico Divito, DDS

with laser activated irrigation

Fig. 1: Left, apical third of root treated with PIPS. Note clean surfaces without any thermal damage. Right, SEM of apical third showing extremely clean dentin tubules post PIPS with no sign of thermal dam- age. (Photos/Provided by Enrico Divito DDS)

Fig. 2: Left, close up of tapered and stripped PIPS tip used for laser activated irrigation. Right, position of the laser tip in the PIPS technique: steady in the pulpal chamber and does not enter canal.

Fig. 3: Left, pre-treatment. Right, post-treatment obturation after PIPS. Tooth instrumented to a #06 taper. Note the conservative form/ convenience for maintaining more original anatomy of root canal system and reducing the need to use larger ﬁle sizes, conserving more dentin tooth structure.

Fig. 4: Left, mandibular molar canal system show- ing isthmus before (A, red canal) PIPS laser activated irrigation. Areas of organic tissue and debris from instrumen- tation have been completely eliminated, highlighted by post-PIPS image (B, green canal). Right, mandibular molar with canal preparation to a size 30/04 (A, green canal) obturated with nano-particle BC Sealer (Brasseler USA, Savannah, Ga.) and single cone obturation (B, blue).
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‘Show-Me-State’ dentist has been a fan of Shofu for more than two decades

Jack D. Griffin, DMD, has been using Shofu Dental Corp. products in his St. Louis-area dental practice for more than 20 years, initially using the abrasive polishers that made the company famous—and more recently using Shofu products in restorative work.

He’s always been impressed with the results, but when Beautiful Flow Plus was released, the longtime fan became a super fan. “That changed everything,” Griffin said.

Before that, he said, composite hybrids were fine as a liner and as a base but were not strong enough to be used for restoration buildups. Griffin immediately embraced Shofu’s proprietary giomer technology, which went beyond the other hybrids—as a flowable resin with the strength needed to perform as a restorative.

The material also has the ability to effectively fill voids and help protect teeth from decay through the release of high levels of fluoride.

Griffin was so pleased with the results he was achieving with his patients that he started demonstrating the Shofu materials for fellow practitioners around the country. He will present an open session today at 1:30 p.m. and a limited-attendance workshop on Friday.

Creating regenerative fillings

Describing his use of Beautiful Flow Plus and Beautiful II to create regenerative fillings, Griffin said, “The flowable acts as a liner and seals margins. It covers all of the exposed dentin and margins while also reducing the voids.” He uses the products back-to-back to create a strong, aesthetic filling that also inhibits bacteria and plaque development.

Griffin also is a fan of the Shofu product, Ceramage (available in the U.S.), a zirconium silicate integrated indirect restorative for both anterior and posterior regions. Griffin confirmed the company’s description of the material as having “superior flexural strength, elasticity and unsurpassed polishability.”

Griffin has used Ceramage a number of times, including to cement a CAD/CAM-designed monolithic crown—polishing the material to replicate the natural appearance and light-diffusing properties of dentin and enamel. According to Shofu literature, Ceramage bonds to a variety of substrates, including nonprecious and high noble alloys. It has an extensive shade selection for natural tooth and gum colour reproduction.

The material can be used to create anterior and posterior crowns, veneers, implant-supported restorations and inlays and onlays. A full set of gum colours also enables the material to replicate gingival anatomy.

(‘Source: Shofu Dental Corp.)

Industry case study

Endodontic Photon Induced Photoacoustic Streaming (PIPS)

Treatment uses Lightwalker AT laser with contact H14-C handpiece and PIPS fiber tip

By Prof. Giovanni Olivi, MD, DDS
University of Genoa, Italy

A patient asked for the option to save her teeth that were scheduled for extraction by another dentist. The lower left first and second molars had high mobility (grade 2), were necrotic, with significant probing depths in the buccal aspect.

The teeth were diagnosed for endo/poro treatment. Difficulties with this case included complex radicular anatomy, long anatomical measurements (26 and 27 mm respectively for #36 and 37) and the presence of a deep vertical bone loss in the buccal aspect. After scaling and root planning, the teeth were scheduled for root-canal therapy.

Before treatment: PIPS

Before each treatment the PIPS™ technique was applied into the periodontal pockets of each tooth for refining the debridement, removal of biofilm from the root surfaces and pocket disinfection. The root canal treatments were performed using PIPS-specific irrigation protocols with 5 percent NaOCl and 17 percent EDTA.

Obturation with resin sealer

The canals were obturated with a flowable resin sealer (EndoRez Ultradent, South Jordan, Utah) and gutta-percha points. A final treatment of the pockets using PIPS for disinfection was performed after completing each root canal therapy to remove any extruded sealer or residual biofilm.

No post-op symptoms were reported and the mobility of the teeth progressively disappeared up to grade 0.

The follow up X-rays performed after one and four months showed healing in progress for both the teeth. Lightwalker AT laser device with contact H14-C handpiece and PIPS fiber tip was used for the treatment.

Lightwalker parameters:

- Laser source: Er:TAG;
- Wavelength: 2940 nm;
- Pulse duration: SSP;
- Energy: 15 mJ; Frequency: 15 Hz.

Disclosure: Dr. Olivi has relationships with several laser companies (including AMD-DENTSPLY, Biolase, and Fotona) but receives no financial compensation for his research or for writing articles.

Editor’s note: See related article on page 18.

About the author

Dr. Giovanni Olivi is an adjunct professor of endodontics at the University of Genoa School of Dentistry and a board member and professor in its master course in laser dentistry. He completed the postgraduate laser course at the University of Firenze, and received laser certification from the International Society for Lasers in Dentistry. He earned advanced proficiency mastership from the Academy of Laser Dentistry and is the 2007 recipient of AIL’s Leon Goldman Award for Clinical Excellence. He has a private practice in endodontics, restorative and pediatric dentistry in Rome. He can be contacted at olivilaser@gmail.com.
FlyOver Canada

More than a movie, FlyOver Canada suspends viewers, feet dangling, enveloped by a giant spherical screen, for an eight-minute journey across Canada, with wind, mist and scent effects. The $16 million, 30-minute attraction has three parts: audio-visual preshow; preboarding safety video; and the ride where you soar across Canada (through four seasons) experiencing the grandeur of the nation and the exhilaration of flight.

(Source: FlyOver Canada)
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