Designs for Vision is introducing an advanced photonic design that provides uniform light distribution with maximum intensity. The patent-pending headlights optically focus the light from the LED to provide 45 percent more light with uniform distribution. The new LED DayLite® Micro HDi™ combines the new high-definition imaging with a very lightweight headlight in combination with the new Micro power pack, according to the company, which says the Micro power pack is the lightest and smallest available. The complete unit includes two power packs, and each power pack can run up to 10 hours.

Designs for Vision has also added the high-definition imaging to LED DayLite WireLess Mini HDi, providing a lightweight, cordless solution with light intensity comparable to many corded headlights. You can choose high-definition imaging with either a wired or wireless design to meet your preference, and all HDi headlights will illuminate the entire oral cavity.

Prior technology married a cordless light to one pair of loupes via a cumbersome integration of the batteries and electronics into the frame. The compact design of the LED DayLite WireLess headlights are independent of any frame/loupes.

Building on the award-winning design, the newest addition to the Micro Series line is the Micro 4.5EF Scopes. These scopes reduce both the size and weight of the telescopes by 44 percent.

Designs for Vision has expanded into a new 67,500-square-foot location at 4000 Veterans Memorial Highway in Bohemia, N.Y. You can visit www.DesignsForVision.com/move.htm to check out some photos of the new facility.
BIG on small DETAILS

Discover the outstanding MICROTOUCH® DENTA-GLOVE® examination gloves. Your customers are focused on the small details that deliver amazing patient experiences. At Ansell, we’re big on delivering gloves that help with improved dexterity, ergonomics and the health of your hands. Certified for use in oral procedures for patient safety and peace of mind. Your customers won’t want to let go of these gloves!

Visit us at the 2018 Ontario Dental Association Conference Booth #412 to get FREE SAMPLES of all of our Ergonomic products.

Ansell,® and ™ are trademarks owned by Ansell Limited or one of its affiliates. © 2018 All Rights Reserved: 2017.3210
A revolutionary paradigm shift in dynamic surgical navigation

‘It has streamlined and simplified the workflow in both the diagnostic and surgical phases’

By George Mandelaris, DDS

A revolution in surgical guidance is afoot. A new dynamic navigation technology called “Trace and Place” (TaP for short) was developed by ClaroNav and will soon become available with its Navident system. I have had the opportunity to try the technology in a range of cases, and I am very impressed. Here’s a brief description of my experience.

Registration is accomplished using any recent CT scan of the jaw by selecting on-screen and then tracing three of the patient’s teeth or other structures (such as braces or abutments).

The process is done in the chair, immediately before surgery. No stent or guide needs to be prepared, and the entire registration process is typically accomplished in about three minutes.

If needed, the registration can be immediately repeated

In the rare case something goes wrong during registration and an accuracy check fails to demonstrate the accuracy expected, the registration can be immediately repeated by tracing the same or other structures.

Once the jaw is registered with its CT scan, on-screen guidance of the drill position and orientation is provided. The jaw surface is fully exposed, just like with free-hand drilling.

Because the jaw often moves during the operation, the system continuously tracks the position of the jaw and adjusts the registration to keep the jaw and its on-screen image in accurate alignment.

Tracking the upper jaw is accomplished using a special head-tracking frame, which is not affected by movements of the lower jaw or changes in facial expressions.

Tracking the lower jaw is accomplished by connecting a lightweight plastic “jaw tracker” part, marked with optical targets, to a single tooth using a light-cured composite.

The motions of the drill are tracked using another plastic part marked with optical targets.

After only a short experience with Trace and Place technology in my practice, I have come to believe that it is a real tipping point for dynamic navigation guidance.

It has streamlined and simplified the workflow in both the diagnostic and surgical phases to allow state-of-the-art technology to be an everyday component of my surgical implant practice.

I can’t imagine going back!
PRESENTING THE
LED WireLess™ Mini HDi™

NEW HIGH DEFINITION IMAGING – HDi
Advanced photonic design provides uniform light distribution with 45% more light

 Totally WireLess Headlight -
No wires, no battery pack
 Lightweight Modular Design -
Weighs only 1 oz. and can be worn on your choice of eyewear
27,000 lux intensity
Now available with HDi

& NEW LED Micro HDi™

High Definition Imaging – HDi
Simple One-Touch operation:
60,000 lux high intensity
34,000 lux medium intensity
Lightest weight: power pack (2.5 oz.)
with up to 10 hr run time per pack
and Robust USB

SAVE $200 when you order both
Loupes and LED DayLite®
Award-winning bioactive restorative material achieves functional, life-like aesthetics and simplifies procedures

By Shofu Dental Staff

A bioactive, direct restorative composite indicated for all cavity classes, I–V, Beautifil II LS provides general practitioners with the means to reduce volumetric shrinkage and shrinkage stress while creating predictable and functional aesthetics.

This novel material incorporates Shofu’s proprietary biomimetic Giomer technology, clinically proven in 8- and 13-year recall studies to release and recharge fluoride to help inhibit plaque formation and establish a stable pH in the oral environment.

According to the company, Beautifil II LS, 83 percent filled by weight, demonstrates excellent compressive (364 MPa) and flexural strength (117 MPa), maintains ideal color stability, and polishes in less than 15 seconds, producing a durable, life-like sheen (78 gloss units).

Other distinct features of Beautifil II LS include the material’s low-shrink attributes, volumetric shrinkage of 0.8 percent and polymerization shrinkage stress of 2.7 MPa, which present the lowest values among all universal composites in dentistry today, according to the company.

Independently rated ‘excellent’

Featured in a new edition of the Clinician’s Report, Beautifil II LS was rated “excellent” and placed among the top five universal composites, leaving behind 16 competitors. Also recently, Beautifil II LS received from the Dental Advisor a 95 percent clinical approval rate and the coveted Editor’s Choice Award for the best direct universal restorative of the year.

Available in syringes, tips and two value kits, in 14 dentin and enamel shades, Beautifil II LS offers clinicians predictable and functional aesthetics with greater strength, higher wear resistance and unmatched polishability and luster, the company reports.

Here in Toronto

You can visit Shofu in booth No. 419 to learn more about how Beautifil II LS (Low Shrink) reduces polymerization shrinkage and shrinkage stress while creating predictable and functional esthetics.
Introducing Navident 2.0 for Dynamic Navigation with Trace and Place (TaP)

"Trace and Place is one of the most astounding pieces of technology I have ever seen. It is a revolution in guided surgery. Much faster to use than static guides and you have the ability to easily make changes during surgery if needed.

The workflow for static guided surgery involves dental scans, intraoral scans and STL files, merging them, designing the case, printing, curing, washing and sterilizing the guide. With trace and place the workflow is much simpler: take a scan, plan the case, trace the teeth to align the scan with the patient’s anatomy and place the implant. It gives the best of both worlds. The minimal time of an unguided case and the accuracy of a guided case. It’s a game changer."

David R. Scharf, DMD

Visit BOOTH 1647 at the ODA Annual Spring Meeting 2018
ACCURACY ON TaP
Solvent for root canal sealers reduces risks tied to use of power-driven instruments during mechanical desobturation

By Septodont Staff

- Septodont recently announced the availability of its Endosolv solvent for root canal sealers.
- Endosolv aids in removal of zinc-oxide eugenol-based and phenolic resin based root canal sealers.
- The solvent aids in removal of zinc-oxide eugenol based and phenolic resin based root canal sealers.
- According to the company, the solvent reduces risks associated with the use of power driven instruments during mechanical desobturation. Endosolv replaces Endosolv E and Endosolv R — one product for both eugenol and resin based root canal sealer removal.
- Endosolv solvent comes packaged in a 13 ml bottle, and it has a 36-month shelf life.
- When ordering, you can refer to item No. 01E0400. The wholesale price is $27. The suggested retail price is $45.
- Septodont is based in Cambridge, Ontario and can be reached at (519) 623-4800, (800) 647-0643 or online at www.septodont.ca.

Health-centered orthodontics treatment proving popular

By Myofunctional Research Staff

- Change is inevitable in all industries, and the orthodontic profession is no exception. The American Association of Orthodontists (AAO) website recognizes “the right time for an orthodontic check-up is no later than age 7,” while also identifying that early orthodontic treatment “can correct harmful oral habits.”
- Far from the traditional orthodontic mentality where success of treatment was adjudicated by mechanical excellence, increased awareness of the health benefits associated with early treatment and the impact neuromuscular dysfunction can have on craniofacial growth is revitalizing the industry.

Growing interest in therapeutic treatment modalities

This liberal approach is propelling therapeutic treatment modalities to the fore of the profession, while traditional orthodontic parochialism continues to diminish as a result. It is therefore incumbent upon educational institutions that specialize in health-focused treatments to facilitate professional development opportunities for forward-thinking practitioners and play an important role in the modernization of orthodontic practices.

Surge in international interest

Myofunctional Research Co. (MRC), the world’s leading health centered orthodontic education provider, has experienced a recent surge in international interest and officials believe the practical delivery of information has driven the dental community to investigate opportunities to diversify their treatment options.

Interest in myofunctional orthodontics is growing at a fast rate in North America and momentum has continued in the early months of 2018. MRC Americas Training and Support Manager Tiffinie Martin said the increase in interest over the last 12 months had been significant in her region, and she believes the highly successful schedule of myofunctional orthodontic seminars relates to the groundswell of practitioners prioritiz-
COMBINING TMJ, OSA & MYOFUNCTIONAL ORTHODONTICS
TRAINING SEMINARS

TMJ Disorder
Airway Dysfunction
Malocclusion

Integrating diagnosis and treatment of Airway Dysfunction, TMJ Disorder and Malocclusion.

Airway correction for children and adults.
Immediate diagnosis and treatment of TMJ Disorder.
Myofunctional Orthodontic treatment for ages 3-15.

ATTEND A SEMINAR TO LEARN MORE 1866-550-4696 | usa.courses@myoresearch.com
Better dry-field isolation

By SYNCA Staff

EZ DAM® is a tongue retractor, cheek retractor, throat pack, bite block and hi-volume suction – all in one.

This is what it does, but what can it do for you?

EZ DAM can cut procedure time by as much as 30 percent, according to the company behind it.

Once you start, you can work uninterrupted until you’re done. Your assistant is freed from suction and retraction to work on more important tasks.

Rubber-dam level of isolation

EZ DAM enables you to obtain a rubber-dam level of isolation without the hassles that can come with using a rubber dam.

The EZ DAM isolates the work area and offers a completely dry field, with the addition of a bite block for patient comfort – as well as continual suction, according to the company.

With the EZ DAM, you can provide a calm, relaxing environment for your patients. Patients just lie back and relax, without worrying about the need to swallow, feeling debris, risking closing their mouths or interfering with their tongues while you work.

EZ DAM is made in Canada and was designed to be economical for regular use. The overall benefits for dentists, hygienists and their patients make EZ DAM a virtual no-brainer, the company asserts.

Here in Toronto

As an ASM18 show special you can buy one, EZ DAM and get one free in the SYNCA booth, Nos. 807-811, on the ASM18 exhibit floor.

References

INTRODUCING

TPH Spectra® ST
Universal Composite Restorative

When it comes to successful restorations, you know what truly matters. Isn’t it time for a composite that does too?

Experience the SphereTEC difference at Booth #1103 and check out the DIAC coupon book for an exclusive 2+1 ODA offer!

IntroducingSphereTEC.com | 1-877-393-3687

Efficiency Matters
Non-sticky, high and low viscosity options with improved sculptability and slump resistance.

Esthetics Matter
Full coverage of the VITA shade range with just 5 shades.

Longevity Matters
Excellent stain resistance with faster finishing, high polish, 60% higher wear resistance.

©2018 Dentsply Sirona. All rights reserved. *VITA is not a registered trademark of Dentsply Sirona International.
New from Dentsply Sirona: TPH Spectra ST universal composite with SphereTEC filler technology

By Dentsply Sirona Staff

When it comes to successful restorations, clinicians know what truly matters. Isn’t it time for a composite that does, too? The newest breakthrough in composite technology began with exactly this question: What matters to today’s clinicians?

New from Dentsply Sirona, TPH Spectra® ST universal composite restorative was made possible by SphereTEC™ filler technology, a proprietary method of manufacturing microscaled, well-defined spherical superstructures, composed of submicron glass.

Although the basic components of resin-based composites (including particular fillers, polymerizable resin, initiators, stabilizers and pigments) have remained mostly the same, improvements in design and placement of components is evident over the years.

Three-step process
Synthesis of these SphereTEC microstructures of a defined size distribution and microstructure is achieved in three steps.

First, a suspension of submicron glass in a mixture of solvent and resin is forced through a nozzle and into a hot air stream (atomization). When entering the gaseous phase, the emerging droplets immediately act to minimize their surface energy and form spherical shapes of a distinct size distribution.

Due to the increased temperature, the solvent is subsequently evaporated and the initial droplets solidify into preformed particles.

Finally, the resin in the particles’ interfaces is thermally cured and the PPF can be collected. Because of the well-controlled processing, fillers from this process can be used as obtained: Additional milling is not required.

The resulting SphereTEC fillers’ morphology, particle size distribution and surface microstructure deliver the benefits that really matter to dentists.

Efficiency matters: Versatile handling, made even easier to work with. Thanks to new SphereTEC filler technology, TPH Spectra ST composite offers optimized handling characteristics in both a high and low viscosity to accommodate the clinician’s preference and technique for placement efficiency.

According to the company, clinicians experience drastically reduced “sticking” of material to hand instruments, easy adaption to cavity surfaces, easy sculptability and excellent slump resistance.

Esthetics matter: Exceptional esthetics, made even easier to create. SphereTEC filler brings an enhanced chameleon blending ability to TPH Spectra ST composite for simplified shade matching. It also enables faster finishing, and it polishes to an excellent luster, according to the company. Just five CLOUD shades cover the full VITA® range, saving money and shelf space by reducing inventory. Clinicians can polish to a high gloss faster with Enhance® finishing and Enhance PoGo® finishing and polishing systems.

Longevity matters: Esthetic results made even more durable. With 24 years and more than 174 million restorations placed, the TPH® DNA has a proven record of long-term clinical success. New SphereTEC filler takes that performance to the next level with excellent stain resistance and 60 percent improved wear resistance, according to the company.

TPH Spectra ST with SphereTEC filler technology is now available in Canada from your local authorized Dentsply Sirona Distributor.

Experience the TPH Spectra ST – SphereTEC difference today at the Dentsply Sirona booth (No. 1103). Check the DIAC coupon book for a 2+1 ASM18 offer.

About Dentsply Sirona
Dentsply Sirona describes itself as being the world’s largest manufacturer of professional dental products and technologies, with more than a century of innovation and service to the dental industry and patients worldwide.

Dentsply Sirona develops, manufactures and markets comprehensive solutions, which include dental and oral health products as well as other consumable medical devices — all under a strong portfolio of world-class brands.

As “The Dental Solutions Company™,” Dentsply Sirona has a portfolio of products that provide innovative, high-quality and effective solutions that improve patient care and deliver better, safer and faster dentistry.

Dentsply Sirona’s global headquarters is in York, Pa., and the international headquarters is in Salzburg, Austria. The company’s shares are listed in the United States on NASDAQ under the symbol XRAY. Visit www.dentsplysirona.com for more information about Dentsply Sirona products.

References
2. VITA is not a registered trademark of Dentsply Sirona.
Don’t get stuck in the steri-center
HYDRIM® Automated Instrument Washers get you back chairside, quickly and safely.

**HYDRIM® C61W**
Instrument Washer

HYDRIM® C61W G4: 6 full-size cassette capacity allows for 120 instruments turnover, in as little as 44 minutes, start to dry.*

**HYDRIM® L110W**
Instrument Washer

HYDRIM® L110W G4: 10 full size cassette capacity allows for 200 instrument turnover, in as little as 44 minutes, start to dry.*

---

**Fast and Efficient**

The time saved by automated washing compared to manual cleaning is approximately 1 hour of labor for every nine procedural set-ups.* HYDRIM® G4 cycle times are as fast as 44 minutes from start to dry.* HYDRIM® ensures that every set of instruments receives the same validated cleaning process.

**Safer Instrument Handling**

Automated instrument washing reduces physical handling of contaminated instruments. Steps such as pre-soaking, scrubbing and drying instruments before sterilization increase the exposure to blood and body fluids and the risk of sharps injuries.

Learn more at  [www.scicanusa.com/dontgetstuck](http://www.scicanusa.com/dontgetstuck)

---

*Reduces dwell time to increase production and decrease expenses in sterilization. (www.dentalconseav.com/articles/articles-by-title-convolutionelle-12-hours-increase-production-and-decrease-expenses-in-sterilization.html)

*Actual cycle times are dependent on the temperature and pressure of the incoming water. HYDRIM is a registered trademark and Your Infection Control Specialist is a trademark of Scican USA, Manufactured by Scican USA, 1440 Deur Miler Rd., Toronto, ON M9B 5T8, Canada.
Laser has next-generation ‘ASP Pulse Control’

By Harvey S. Shiffman, DDS

The LightWalker’s "gold standard" laser wavelengths Nd:YAG and Er:YAG feature micro-processor current control, with next-generation photon amplification chambers that dramatically enhance performance and results. The new LightWalker procedure presets deliver the peak power, pulse shapes and pulse durations that can take your dentistry to a new level, for both you and your patients. Adaptive Structured Pulse (ASP) is a fundamental change at the core of laser technology, and Fotona's 50 years of laser innovation makes this possible. By changing the engine that drives the laser, not only are new procedures possible, but traditional restorative procedures can truly be done more efficiently and with little need for anesthesia.

Having two lasers in one machine means there’s no compromise with procedure that use both lasers – and complex treatments become simple and easy to perform.

**TwinLight periodontal treatment**

With the LightWalker, Er:YAG and Nd:YAG wavelengths join forces for TwinLight™ periodontal treatment, which leverages the dramatic differences in selective absorption, specific target chromophores and tissue interaction of two very different lasers, all in one advanced system. TwinLight represents a breakthrough in laser assisted periodontal therapy, providing the ability to comprehensively treat the different facets of periodontal disease.

**PIPS endodontics**

PIPS is an advanced endodontic treatment with the LightWalker Er:YAG laser, which enables 3-D debridement of the entire canal system. PIPS® harnesses the power of the Fotona ASP powered Er:YAG laser to create photoacoustic shock waves within the cleaning and debriding solutions introduced in the canal. The containment of the shockwaves thoroughly stream these solutions through the entire canal system, enhancing their effectiveness. The canals and sub-canals are left clean, and the dentinal tubules are free of smear layer. PIPS is equally effective for final water rinsing prior to obturation.

**Nightlase snoring therapy**

NIGHTLASE uses the photothermal capabilities of the LightWalker laser to convert and initiate the formation of new and more elastic collagen. The target mucosal tissues are the oropharynx, soft palate and uvula. The LightWalker’s proprietary “Smooth Mode” pulse characteristics create a non-ablative heat generation or “Heat Shock” that initiates the conversion of existing collagen to more elastic and organized forms and also initiates “neo-collagenesis,” the creation of new collagen. Nightlase tightens these tissues and has been shown in studies using cone-beam imaging to increase the airways by as much as 30 percent in the most restricted part. The NIGHTLASE treatment is non-surgical and does not require any anesthetic and can also be used as an adjunctive therapy for OSA patients.

**Precise tissue surgery with simultaneous disinfection**

The selective absorption of LightWalker’s Nd:YAG laser in soft tissue results in precise tissue vaporization with simultaneous coagulation. Additionally, up to 1,000× higher peak power compared to diode lasers and engineered pulse shapes provide superior disinfection.

**Faster than diamond: Efficient cutting and patient comfort**

The new LightWalker’s Er:YAG laser produces the speed you need for both hard and soft tissue. Now you can have patient comfort, better results and speed. The new generation of Fotona lasers can exceed the speed of conventional diamond drills. Fast and comfortable laser cavity preps can dramatically change your practice.

Faster and efficient for more procedures per appointment

LightWalker procedures are typically faster, easier to perform and more effective than traditional methods. Laser treatments are by nature minimally invasive, and LightWalker takes this concept to a new level. This allows you the opportunity to raise your production and ROI by doing more procedures in the same amount of time or offering new procedures that may have been too complex or time consuming using traditional methods. It is a win-win for dentists, patients and staff members.

The LightWalker’s Er:YAG wavelength is 300 percent more highly absorbed in water than other Erbium wavelengths, increasing cutting speed. In addition, the ASP technology enables the Physics of QSP™. Studies and clinical experience have documented that the LightWalker ATS’s exclusive QSP mode improves ablation efficacy and precision. QSP’s fast, precise cutting and ability to cut oral tissues comfortably is a result of the “quantized” characteristic of the QSP mode pulse, which reduces the undesirable effects experienced with other hard-tissue lasers.

Fast, less-invasive preps provide superior surfaces for optimal bonding with no smear layer

Laser dentists are excited to present these modern, minimally invasive and more natural treatment modalities to the dental community. Using the LightWalker laser, we can now have another tool in our dental toolbox and offer our patients health improvements that reach beyond restorative and rehabilitative dentistry.

Financial disclosure: The author has no financial interest in the products mentioned in this article.

**About the author**

Harvey Shiffman, DDS, is in general practice at the Laser Dental Center in Boynton Beach, Fla. He is a graduate of Georgetown University School of Dentistry and completed a general practice residency at Georgetown University Medical Center, with an emphasis on treating medically compromised patients. Shiffman completed certification with the Academy of Laser Dentistry (ALD) in three laser systems and recently earned ALD fellowship. He uses and helps develop cutting-edge technology and has performed thousands of laser dental procedures.

Shiffman is an instructor for the Laser Dental Meeting. He is an adjunct professor in the prosthodontics department of Nova Southeastern College of Dental Medicine and is responsible for the development of a dental laser educational program for undergrads and dental grad students.

---

**Fig. 1** PIPS endodontics in four steps: Gain access to the canal; instrument the canal to ISO #20; perform PIPS with the Fotona handpiece for seven cycles of 30 seconds each; obturate the canal. (Images/Provided by NDI and Dr. Harvey Shiffman)

**Fig. 2** Complex cases are simplified because filing is minimal and the laser tip does not need to enter the canals.

**Fig. 3** Cleared tooth shows a complicated canal system, five portals of exit, thoroughly cleaned using PIPS.

**Figs. 4a, b** NIGHTLASE snoring and sleep apnea reduction therapy elevates the soft palate and uvula and tightens oropharyngeal tissues to improve upper airway volume.

**Figs. 5a–c** Before, during, after: Fast, less-invasive preps create surfaces for optimal bonding with no smear layer.

**Fig. 6** SEM image (x5000) shows clean, flat dentin surface with wide-open dentinal tubules after treatment with QSP Er:YAG laser irradiation (200 mJ per pulse).