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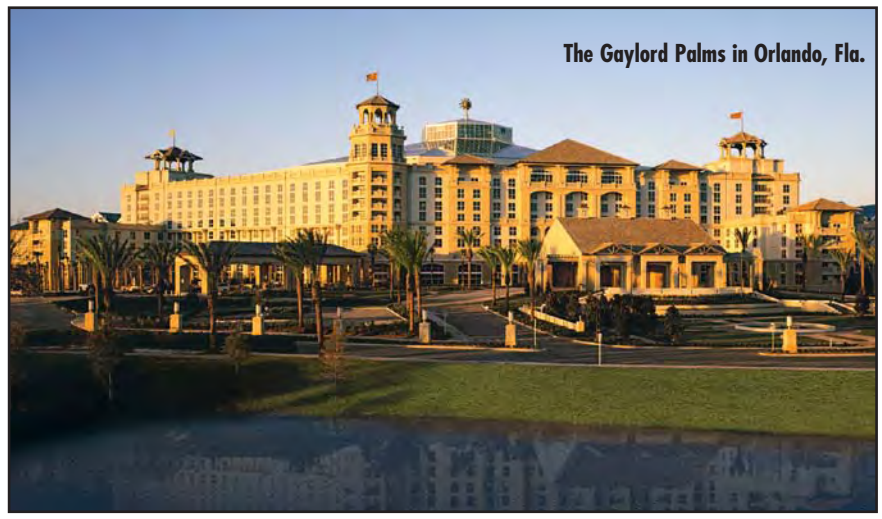
AAE invites specialists and GPs to 'Engage, Energize and Educate'

Annual Session is April 29 – May 2 in Orlando, Fla.



The Gaylord Palms in Orlando, Fla.

Nearly 70 percent of all endodontic treatments are performed by general dentists, according to recent statistics.[1] Because all practitioners owe it to their patients to provide the highest level of quality treatment, the American Association of Endodontists is encouraging both specialists and GPs to attend its 2009 Annual Session, to be held April 29 – May 2 at the Gaylord Palms in Orlando, Fla. According to the AAE, the meeting is a perfect opportunity to enhance professional skills.

Considered by the dental community to be one of the most credible sources for endodontic education worldwide,[2] the AAE will offer more than 100 cutting-edge educational opportunities and more than 197 hours of continuing education credits. The broad educational program and well-known speakers are organized in six programming

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RealSeal carrier-based obturation: blending efficiency, safety and predictability

By Richard E. Mounce, DDS
and Gary Glassman, DDS, FRCD(C)

A segment of the practicing general dentists in North America have adopted warm carrier-based obturation (WCBO) in their endodontic treatment. It is a fair statement that this adoption is not shared to any significant degree by the endodontists in this region. The reasons for this dichotomous philosophy will be discussed. This paper was written to describe a new bonded WCBO technique, RealSeal One Bonded Obturators (RSOne, SybronEndo, Orange, Calif.) and describes how it answers the critics of the previous generations of WCBO materials and techniques and provides improvements in existing carrier-based techniques.

WCBO might be defined as using a "carrier" to apply or insert a thermosoftened obturation material, traditionally gutta-percha (GP) into the narrowing cross-sectional diameters of the prepared root canal system. WCBO predictably allows obturation material to be inserted into the preparation with vectors of force generated apically and laterally. Rather than using a master cone that is compacted into the apical aspect of the root, the core material (in lieu of a master cone) is delivered via a carrier. This thermosoftened obturation, ideally, should thermally replicate the internal anatomy of the prepared root — i.e., fill in all of the intricacies of the root canal system that have been cleansed, cleared and shaped by the chemomechanical preparation of the canal. This is in contrast with a cold lateral condensation method of obturation. These methods rely upon the sealer to be expressed into the anatomical branches of the root canal system between cold adopted GP cones. A single cone technique relies on a single cone of GP to move sealer into all of these same ramifications of the pulp space. WCBO, as it has been marketed with GP in the past, has provided a means to give clinicians, who might otherwise not have used a warm obturation technique, a relatively simple and clinically valid method to fill the prepared canal spaces.

Advocates for WCBO would assert, among other reasons, that the technique is simple, economic, efficient and does not require sophisticated equipment. Critics of WCBO would argue that the challenges in retreatment of WCBO outweigh the afore-

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AAE invites specialists and GPs to 'Engage, Energize and Educate'

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tracks: nonsurgical endodontics, regenerative endodontics, surgical endodontics, submitted presentations, practice management and professional staff.

"Any general dentist with an interest in endodontics should attend this year's Annual Session," said AAE President Louis E. Rossman, DMD, of Philadelphia. "Leading minds in the specialty will be sharing the most reliable research and advanced techniques in preserving the natural dentition, which is what our profession is all about."

For the first time, the AAE will present a Master Clinician Series featuring live, nonsurgical endodontic techniques in a theater-in-the-round setting. Presenters include noted endodontists James K. Bahcall, L. Stephen Buchanan, Giuseppe Cantatore, Richard E. Mounce, Ali A. Nasseh, Clifford J. Ruddle and G. John Schoeffel.

Orlando, Fla., is site of the 2009 AAE Annual Session.

"Sometimes seeing is as important as hearing when learning new skills," Rossman said. "The Master Clinician Series provides a unique opportunity for all dental professionals to take their endodontic abilities to new levels by learning from some of the most prestigious endodontic thought leaders."

The Annual Session will be preceded by an all-day Pre-Session Symposium, Integration of Advanced Surgical Procedures in Your Endodontic Practice. Presentations will be given by leading lecturers, including Harold S. Baumgarten, Ali Fakhry, James L. Gutmann, Gabriele Pecora, Frank C. Setzer and Peter Velvart. This panel of experts will help attendees achieve the confidence and skill to include surgical treatment options into their scope of practice and evaluate when alternatives to endodontic treatment are appropriate.

The AAE, headquartered in Chicago, represents more than 7,000 members worldwide, including approximately 95 percent of all eligible endodontists in the United States. The association, founded in 1943, is dedicated to excellence in the art and science of endodontics and to the highest standard of patient care.

For more information and to view the full Annual Session program, visit the AAE Web site, *www.aae.org*. To receive the member discount for session registration, general dentists are encouraged to join the AAE as Associate members.

(Source: AAE)

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1. American Dental Association, Survey Center: 2005–06 Survey of Dental Services Rendered, 2007.
2. L.C. Williams and Associates: Survey of General Dentists, 2007.

Letter to the Editor

Description of root canal procedure is lacking

To the editor:

I have just received my Endo Tribune issue containing the article "Root canal performed on national TV" *(see January 2009, page 1)*.

As a retired endodontist, I feel the description of the root canal procedure as described in the article was poor. I am not sure if this was a public service, or just an ad for Biolase. I am unfamiliar with the product, but the explanation apparently given on the TV show of root canal therapy is lacking.

The doctor's statement "when that occurs, we need to remove the nerve, otherwise your face blows up" sounds amateurish. There is no mention of the necessity of thorough cleaning and shaping before obturation, just remove the "nerve" and fill.

This does not do justice to the profession of endodontics.

Sincerely,

Dr. Howard Wolfsohn
Buffalo, N.Y.

ET Corrections

Endo Tribune strives to maintain the utmost accuracy in its news and clinical reports. If you find a factual error or content that requires clarification, please report the details to Fred Michmershuizen, managing editor, at f.michmershuizen@dtamerica.com.

Tell us what you think!

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Publisher
Torsten R. Oemus
t.oemus@dtamerica.com

President
Peter Witteczek
p.witteczek@dental-tribune.com

Chief Operations Officer
Eric Seid
e.seid@dtamerica.com

Group Editor
Robin Goodman
r.goodman@dtamerica.com

Editor-in-Chief Endo Tribune
Frederic Barnett, DMD
BarnettF@einstein.edu

International Editor Endo Tribune
Prof. Dr. Arnaldo Castellucci

Managing Editor Endo Tribune
Mr. Fred Michmershuizen
f.michmershuizen@dtamerica.com

Managing Editor Implant Tribune
Sierra Rendon
s.rendon@dtamerica.com

Managing Editor Ortho Tribune
Kristine Colker
k.colker@dtamerica.com

Product & Account Manager
Humberto Estrada
h.estrada@dtamerica.com

Marketing Manager
Anna Wlodarczyk-Kataoka
a.wlodarczyk@dtamerica.com

Marketing & Sales Assistant
Lorrie Young
l.young@dtamerica.com

C.E. Manager
Julia Wehkamp
j.wehkamp@dtamerica.com

Design Support
Yodit Tesfaye
y.tesfaye@dtamerica.com

Dental Tribune America, LLC
213 West 35th Street, Suite #801
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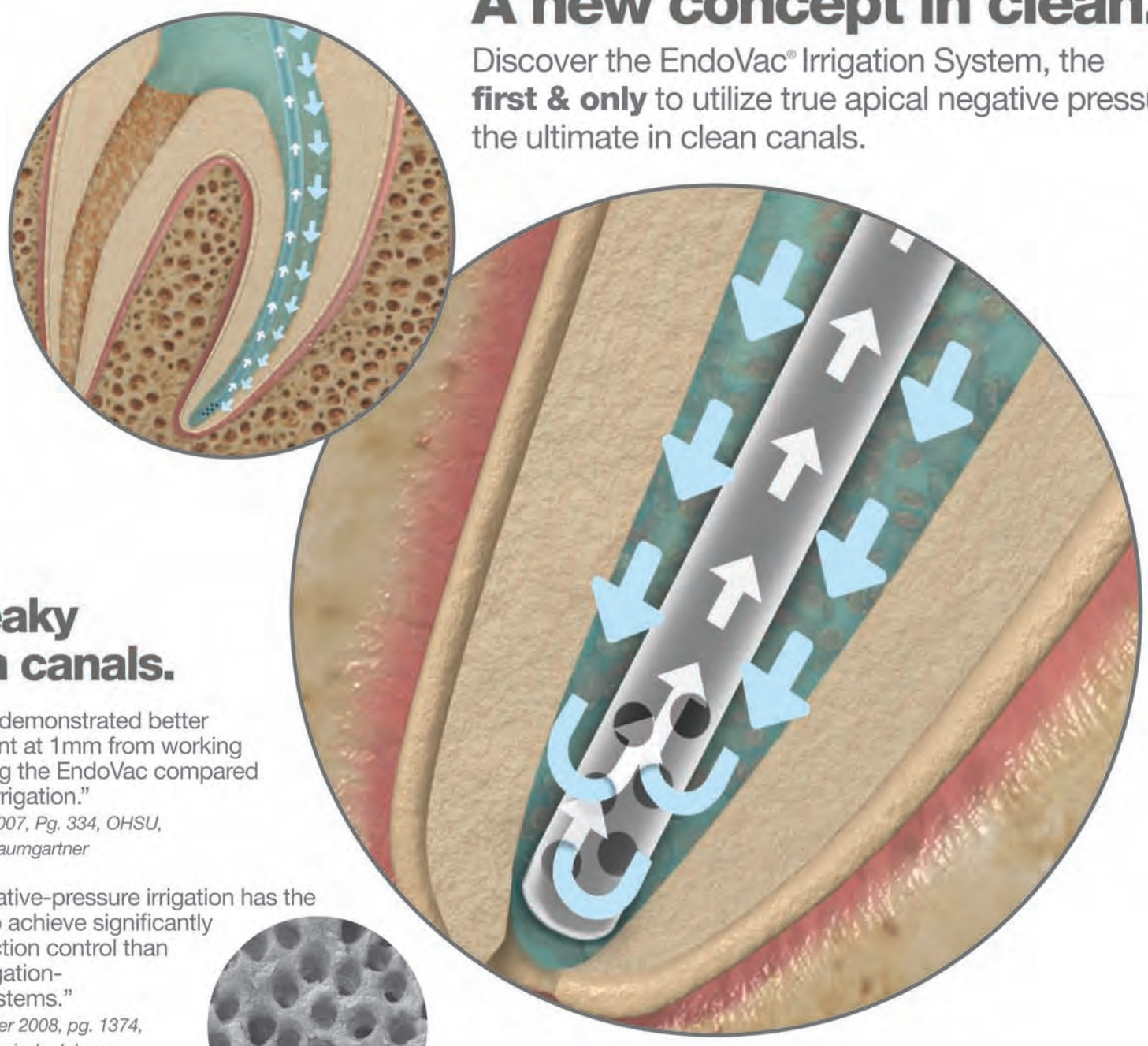

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JOE, March 2007, Pg. 334, OHSU, Neilsen and Baumgartner

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JOE, November 2008, pg. 1374, Hockett, Dommisch, Johnson and Cohenca

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RealSeal carrier-based obturation

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mentioned benefits. Additional concerns include the cost per carrier device as well as the fact that, up until this time, WCBO could not be bonded with a material such as RealSeal (Figs. 1–3).

While much could be written of each of these somewhat polarized positions, several axiomatic considerations can help frame the conversation about the advisability of WCBO. These considerations will be discussed in the context of a description of the RSOne that overcomes several of the considerations listed above, which were objections to the previous versions of WCBO.

As will be described in more detail later in this paper, RealSeal, in either a bonded obturator or as a master cone based technique, creates an obturation that is contiguous from the resin tags into the dentinal tubules (created by removal of the smear layer) with the core material in the principal root canals. As mentioned, before the advent of the RSOne, all previous versions of WCBO utilized GP. RSOne makes it possible to not only bond the obturating material into the dentinal tubules, but to do so with a warm technique for those clinicians who choose to apply the material in this manner. There are numerous studies in the endodontic literature that have shown that bonded obturation provides a better seal across the totality of the canal space relative to GP. One such study is examined in detail below.

Clinical considerations in obturation: master cone or obturator based

1) There are many methods with which to create an excellent canal preparation. The end result of canal preparation should be the same, whether these methods involve more antiquated methods, such as using Gates-Glidden drills and hand files, or the new, state-of-the-art Twisted File (TF, SybronEndo, Orange, Calif.)

The canal that is prepared for obturation should:

a) be a tapering funnel that has narrowing cross sectional diameters.

b) remain patent throughout the length of the canal.

c) leave the canal in its original position.

d) leave the minor constriction (MC) at its original position and size wherever practical.

e) make the final prepared taper proportional to the original width of the root.

f) make the final prepared taper and apical diameter large enough to facilitate optimal irrigation and obturation.

There is an interrelated synergism of canal enlargement to obturation. In essence, optimal obturation is built on a platform of an excellent canal shape. Inherent in this list of required principles and objectives of canal preparation is the desire to optimize the shape of canal preparation. It is axiomatic that it is simple to obturate a canal that is properly prepared, whether that is performed with a WCBO technique or a technique like SystemB performed with an Elements Obturation Unit (SybronEndo, Orange, Calif.) The converse is true.

As mentioned above, the TF represents the state of the art in our hands for canal enlargement. The TF is manufactured by twisting heat-treated nickel titanium. Twisting a piece of nickel titanium that has been taken into the rhombohedral phase of crystalline phase configuration (from the resting austenite crystalline phase configuration) creates the cutting flutes of the TF. The TF is never cut across the grain structure of the crystalline lattice configuration of the metal, as are all other ground nickel titanium files. The resulting torsional strength, cyclic fatigue resistance and flexibility are dramatic, relative to ground file alternatives. Clinically, these characteristics are manifest as a file that, for the first time in endodontics, can predictably prepare the canal with one file in about 33 percent of cases, with two files in 33 percent and three

Fig. 1: Master cone based RealSeal (RS, SybronEndo, Orange, Calif.)

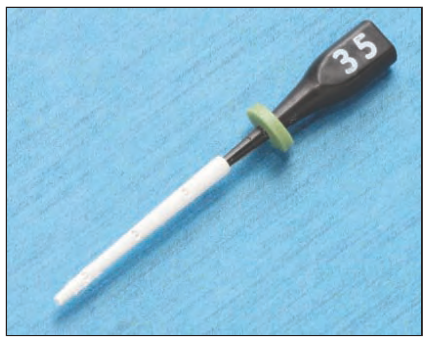

Fig. 2: RealSeal One Bonded Obturator (RSOne, SybronEndo, Orange, Calif.)

files (or more) in the remaining 33 percent. In addition, what is remarkable is that this canal enlargement can take place usually with three insertions of a given TF taper.

This information about the TF is relevant to RSOne. The attributes of the TF allow greater tapers to be taken apically and done so with fewer insertions of the TF relative to other rotary nickel titanium (RNT) brands. Clinically, this is demonstrated, for example, with an 0.08 taper's ability to be taken to the terminus of the mesial roots of many lower molars. The distal root of a lower molar can usually accept a 0.10 taper to the MC with ease. Greater taper, among other benefits, makes obturation of all types more efficient.

The TF is available in five tapers — 0.12, 0.10, 0.08, 0.06 and 0.04, with a fixed 25-tip size and in 23 and 27 mm lengths. Pack configurations at this time include 0.10, 0.08 and 0.06 taper in the "large pack" configuration and 0.04, 0.06 and 0.08 in the "small pack" configuration. The TF instruments used most will be the 0.10 and 0.08 variety. The "large" pack configuration will be more commonly employed than the "small" pack. Both the large and small pack configurations are also available in 23 and 27 mm lengths. The TF is color coded for easy identification, and it is generally used crown down (with few exceptions) from larger taper to smaller after glide path creation.

2) It is noteworthy that GP requires a coronal seal to make it an effective core canal filling material.[1–7] In addition, the endodontic literature is very clear that the creation of larger master apical diameters creates cleaner canals. In other words, to optimize the chances for long-term healing, aside from the primary importance of excellent canal preparation (with a TF or otherwise), it is also necessary to protect the obturation with a coronal seal and ideally to prepare an apical size that is biologically relevant to the root being enlarged. These concepts will be further elaborated upon. One of the authors (RM) has extensive experience with Maxcem Elite, a self-etch/self-adhesive resin cement (Kerr, Orange, Calif.) and utilizes this for efficient and predictable restoration of the access filling, crown build up and/or post cementation.

3) Visualization should be optimized, ideally with a surgical operating microscope (SOM, Global Surgical, St. Louis). No matter what obturation technique is performed, it is of paramount importance to be able to fully visualize the procedure under the SOM at all times. This will make the process significantly more efficient and give the clinician the

Figs. 3a–c: Clinical cases performed with RSOne.

chance to visualize, to the greatest extent possible, all the anatomy within the tooth that needs to be cleansed, shaped and obturated.

4) Apical patency should be valued at all stages in the process of treatment. To leave canal space unexplored and untreated in the execution of endodontic therapy is to diminish the possibilities for clinician success irrespective of which obturation method is used. While a comprehensive discussion of patency is beyond the scope of this paper, it is noteworthy that the achievement and maintenance of apical patency is promoted by:

a) copious irrigation.

b) use of a reciprocating handpiece such as the M4 (SybronEndo, Orange, Calif.) once a small hand file can reach the estimated working length or TWL at the MC. The M4 is a reciprocating handpiece that allows a hand file to move 30 degrees clockwise and 30 degrees counterclockwise (instead of using a full rotary movement). If used with small hand files, the M4 can make initial enlargement of a calcified or curved canal very efficient. Using #6, 8, and 10 hand files, the clinician can rapidly enlarge the canal to a diameter into which RNT files such as the TF can be placed to enlarge the canal. Use of the M4 is predicated on taking the aforementioned small hand files to the MC, and once the file is able to be moved vertically without resistance the next larger hand file is used. After the canal is open and negotiable to the MC to the size of a #15 hand file, the TF is inserted as described above.

c) recapitulation with a small hand file (#6, 8, 10) after every RNT (TF) instrument insertion is important to prevent the accumulation of dentin debris and have it remain in suspension.

5) If the smear layer is removed with a liquid EDTA solution, such as SmearClear (SybronEndo, Orange, Calif.), the resulting open tubules can provide a matrix onto which to bond the obturation with a material such as RS and now the RSOne. Even if the clinician were to insist on using GP in lieu of RSOne, removing the smear layer is simple, efficient, easily accomplished and removes a layer of smeared debris on the canal wall. It is difficult to envision how leaving a layer of smeared dentinal debris, bacteria, pulp, etc., can be justified clinically. In any event, whether the obturation is bonded or not, it is advisable to clear the smear layer before obturation with a solution such as SmearClear (SybronEndo, Orange, Calif.) after the use of sodium hypochlorite. SmearClear should be used as the final solution in the irrigation protocol to negate the effects of sodium hypochlorite on dentin bonding. Dentinal tubules are most abundant in the coronal and middle thirds of roots (i.e., the tubules are larger, more ordered and numerous in the coronal two thirds of the root). The apical third has fewer tubules; they are less ordered and smaller than those present in the coronal two thirds. As a result, the degree of bonding possible in the root is far greater in the coronal two thirds and this is primarily where bonding occurs. Caution is advised when reading papers that compare the leakage of GP versus RealSeal and in which the authors have only obturated the apical one third and may have left the apical 1–2 mm of the root untouched. This does not measure the clinical reality, where both the entire canal would and should be obturated, nor does it factor in the placement of a coronal seal when discussing a bacterial challenge from leakage.

Chemistry, advantages and clinical application of bonded obturation

Despite the many reasons why GP has been used as the "gold standard" in endodontics, GP has limitations that are not inconsequential.

Gutta-percha:

1) does not bond to dentin.

2) does not bond to sealers.

3) does not have any inherent ability to seal canals. It requires the use of a coronal seal to provide clinical healing. In essence, bacteria in contact with GP will allow apical migration.

4) has a relatively high shrinkage rate of 5 to 7 percent.

5) resorbs in canals over time to a significant degree because it is a natural polymer.[8]

RealSeal's function and value as an obturation material is detailed in the following reference: "The reduction of coronal microleakage occurs as a function of RealSeal's ability to be bonded to the canal wall through the creation of a hybrid layer. In essence, the core material is bonded to the chemically similar sealer and self-etching primer. Said differently, once the smear layer is cleared with a liquid EDTA solution like SmearClear (SybronEndo, Orange, Calif.) in combination with sodium hypochlorite, the open tubules and dentin wall are covered with the self-etching primer. A hybrid layer is created on top of this with the placement of the sealer. This bonding diminishes in a statistically significant manner the amount of bacteria that might otherwise be able to migrate in a coronal to apical direction. The advance that this represents for endodontics and dentistry is hard to overstate given the limitations of gutta-percha detailed above."[9] Since the time this was written, RealSeal

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a self-etching dual cure resin sealer is now available.

"RealSeal is a thermoplastic synthetic resin material based on the polymers of polyester and contains a difunctional methacrylate resin, bioactive glass and radio opaque fillers. RealSeal sealer contains UDMA, PEGDMA, EBPADMA and BisGMA resins, silane treated barium borosilicate glasses, barium sulfate, silica, calcium hydroxide, bismuth oxychloride with amines, peroxide, photo initiator, stabilizers and pigment. RealSeal Primer is an acidic monomer solution in water. RealSeal is non-toxic, FDA approved and non mutagenic. With its radio opaque fillers, RealSeal is a highly radio opaque material. The sealer is resorbable. Aside from its capacity to be thermoplasticized, RealSeal can be dissolved with chloroform and retreated. There are unsubstantiated statements on the Internet that RealSeal shrinks substantially less than gutta-percha, but this fact cannot be verified from the literature at this time."[10]

RSOne provides three advantages over existing WCBO products:

1) The carriers of RSOne can be dissolved with chloroform and drilled out with the TF at enhanced rotational speeds (900 and above), making retreatment much simpler.

2) Reduced coronal microleakage relative to gutta-percha.

3) Reduced apical inflammation as a result of the capability of RealSeal to prevent the aforementioned coronal microleakage. This fact is manifest by abundant research, illustrated by the citation described below.[11] While a comprehensive, literature-based discussion of this issue is beyond the scope of this article, there is one study among many that demonstrates (in vivo, in a clinically relevant model) the powerful and measurable clinical effect of diminishing the ability of microorganisms to migrate down the canal space.

"... Sixty root canals with vital pulps in three dogs were instrumented and obturated in a single session ... root canals filled with Epiphany/Resilon, with coronal restoration, had significantly less periradicular inflammation than root canals filled with gutta-percha and Sealapex, with coronal restoration ($p = 0.021$). No significant difference was observed in the intensity of inflammation between roots canals filled with Epiphany/Resilon with no restoration and roots filled with gutta-percha and Sealapex with restoration ($p = 0.269$). ... Root canals filled with gutta-percha and Sealapex sealer without coronal restoration showed the greatest degree of periradicular inflammation."[11]

The clinical ramifications to the above findings are that for the first time we have a material, in the form of RealSeal, that can diminish coronal microleakage should the obturation be challenged. While this is not an impervious seal and it could be argued that the bond is not comparable to that attainable by direct composites, the bond is in fact strong enough to diminish leakage to the aforementioned degree of statistical significance relative to GP, and this reduction in coronal leakage is certainly relevant clinically.

RSOne offers a different method for the placement of RealSeal relative to master cone based methods. For the general practitioner, it provides a means to use a bonded obturation technique without adding steps and do so in a manner that is both familiar and presently employed.

Clinically, the clinician would:

1) Complete the canal preparation as per his or her present method with an emphasis on canal preparation that is described above.

2) Make the final rinse of the irrigation a liquid EDTA solution, such as SmearClear (mentioned above), in order to clear the tubules.

3) Before sealer placement, a "verifier" is used to determine the size of the prepared canal as well as to correlate this to the obturator that will be required. The needed verifier will be proportional to the taper and master apical diameter created in the canal. In other words, if a larger taper is used, for example with the TF, to the apical terminus, a larger obturator will be required and this will be determined by the use of the verifier. Specifically, the obturator is a 0.04 taper and with the TF, the clinician can create preparations of 0.10 and 0.08 taper to the MC. As a result, even though the TF has a fixed tip size (at this point in time) of a #25, it is common for a #40 RSOne to match the preparation of these canal taper preparations.

Sealer is placed as per the clinician's protocol. A self-etching sealer is part of the system, and while previously a primer step was required, this can be bypassed by simply using the self-etching dual cure resin sealer. The Skins syringe (Ultradent, South Jordan Utah) fits the bill perfectly for sealer placement. This process is especially precise under the visualization of the SOM. We will fill the canal from the junction of the middle and apical third to the coronal orifice and use a paper point to gently disperse the sealer as well as to remove any excess.

In any event, after sealer placement, the obturator is heated in the oven and placed gently and passively to the TWL. We do not recommend any corrections in the depth to which the RSOne is placed apically. Inherent in this recommendation, it is essential that the clinician knows the exact position of the MC and carefully measures the position of the TWL via a rubber stopper on the obturator. This rubber stopper should be measured against a flat reference point that will not change throughout treatment.

The carrier is cut off at the orifice and the buildup proceeds as part of a final restoration. If post space is desired, the clinician can use the post space drill of his or her choice to remove coronal obturator material to the needed depth for the post space.

A new and novel method of WCBO has been presented that allows, for the first time, an obturation of bonded material into the prepared canal delivered via a carrier (obturator). This obturator, should it be necessary, has several distinct advantages over traditional carriers:

1) It can be bonded.

2) It can be dissolved in chloroform.

3) It can be drilled out of the canal with the Twisted File.

Both #2 and #3 above aid in retreatment efficiency relative to previous WCBO versions and provide a relatively simple method to provide a warm technique into the hands of clinicians who might otherwise not utilize such a method.

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About the authors

Richard E. Mounce, DDS

Dr. Richard E. Mounce lectures globally and is widely published. He is in private practice in endodontics in Vancouver, Wash. He offers intensive customized single-day endodontic training programs in his office for groups of doctors. For information, contact Dennis at (360) 891-9111 or write to him at RichardMounce@MounceEndo.com.

Gary D. Glassman, DDS, FRCD(C)

Dr. Gary D. Glassman graduated from the University of Toronto, Faculty of Dentistry, in 1984 and was awarded the James B. Willmott Scholarship, the Mosby Scholarship and the George Hare Endodontic Scholarship for proficiency in endodontics. A graduate of the Endodontology Program at Temple University in 1987, he received the Louis I. Grossman Study Club Award for academic and clinical proficiency in endodontics. The author of numerous publications, Glassman is on staff at the University of Toronto, Faculty of Dentistry, in the graduate department of endodontics. A renowned international lecturer on endodontics, he has presented at major dental conferences around the world. A Fellow and endodontic examiner for the Royal College of Dentists of Canada, Fellow of the Academy of Dentistry International, Fellow of the Pierre Fauchard Academy, and Fellow of the Academy of Dental-Facial Aesthetics, he is the endodontic editor for Oral Health dental journal. He is past president of the George Hare Endodontic Study Club and the H.M. Worth Radiology Study Club. He maintains a private practice, Endodontic Specialists, in Toronto. He can be reached through his Web site, *www.rootcanals.ca*.

Innovative products help dentists in a 'worthy purpose,' says SybronEndo's Mark Clineff

By Fred Michmershuizen, Managing Editor

Mark Clineff

Mark Clineff has been general manager of SybronEndo since July 2007. Though relatively new to endodontics, he is no stranger to the dental industry. He started his career with Ormco, the orthodontic division of Sybron Dental Specialties, in 1975 as a sales representative calling on orthodontists in the Chicago area. Over the next 30-plus years, Clineff held numerous positions in sales and marketing with Ormco, the last being executive vice president of global sales.

During that time, Clineff says, he developed an appreciation for the positive difference that dentists can make in people's lives.

"For six years I had the opportunity to travel and see how dentistry is done around the world," Clineff said. "For all the diversity from country to country, I noticed a common thread: dentists everywhere have a sincere desire to help their patients."

During a recent interview with Endo Tribune, Clineff discussed the current state of the economy, how these challenging times are affecting dentists, and the important role that SybronEndo products play in helping dentists improve patient care.

Let's start with the topic at the top of everyone's mind these days: the economy. How is the current downturn affecting dentists?

A common challenge for endodontists and general dentists alike is reduced production in a downward economy. Many endodontists I speak with tell me they're seeing fewer referrals from their traditional sources. Patients are putting off procedures as long as they possibly can, and with unemployment at near record levels many patients just don't have the money or the insurance to afford necessary dental procedures. Attracting new business via promotional ideas and offering more services are two ways doctors are tackling this challenge.

General dentists will likely keep more endodontic procedures in-house during this downturn. Root canal therapy requires a high level of continuing education and technical skill. The challenges for the GP will be in diagnosis and when to refer to a specialist. A correct diagnosis, combined with the right choice of endodontic materials and techniques, will raise the probability of a healthy apical periodontium for the patient.

What are some of the other challenges faced today by endodontists and general dentists who perform root canal therapy?

The challenges for the endodontist and the GP are really quite different. The services endodontists offer will have to expand in the coming decade. This is due in large part to the use of implants as well as the improvement in endodontic materials and methods that now allow GPs to do more endo. Endodontists will have to stay on the cutting edge through continuing education and early adoption of new technologies to distinguish themselves from their peers. Those who take courses on sedation, implants, endodontic surgery and retreatment will rise to these new challenges. Those who adjust to this new reality will be the

most desirable referral sources moving into the future.

How is SybronEndo addressing these challenges?

SybronEndo's purpose is to assist the clinician in the preservation of natural dentition while eliminating patient pain. We are fortunate that our products can help the clinician save the natural tooth through endodontic treatment before considering replacement with an implant or extraction. Our tagline as an organization is "Safe files, superior fills." If we can continue to develop breakthrough products, such as the extremely safe Twisted Files (TF) and superior filling methods like the Elements Obturation Unit (EOU), then we are on the right track. Our clinicians have a very worthy purpose, and we are fortunate to help them ensure higher endodontic success rates now and moving into the future. SybronEndo must remain committed to developing technology and products that drive patient and doctor satisfaction, increased efficiency and reduced patient discomfort. And we remain committed to providing hands-on courses around the country to enhance the understanding of endodontic treatment and the proper use of today's new materials.

"Our clinicians have a very worthy purpose, and we are fortunate to help them ensure higher endodontic success rates now and moving into the future."

—Mark Clineff, SybronEndo

SybronEndo introduced its Twisted Files (TF) instruments in April 2008. What are you hearing from your clinician customers who have started using TF?

When clinicians talk, we listen. The message was clear that the customer wanted a rotary NiTi file that separated less than the competition, cut better and was more flexible. And after several years of research and development, our engineers created a file that delivers everything asked for. Pre-market demand for this file was the highest we have seen for any SybronEndo product in history. Once the files were available, demand far outstripped supply. Today Twisted Files are our fastest-growing file system, and the potential for 2009 is even greater. In response to this high demand, we are increasing our production capabilities and will be introducing additional sizes in 2009. We have seen the bulk of these customers switching from competitive file systems. Many have told us that the TF is the strongest file they have ever used and that they are using considerably fewer files in the shaping process. You can't go online to talk about endodontics without hearing some new convert raving about the TF.

The biggest hurdle has been that doctors have to learn a new technique that requires less pressure, fewer files and fewer separations. But once they get the feel of the TF, they become converts. We are proud to have introduced an ultra-premium file system that actually over-delivers on its promises. The Twisted File is an innovation that will help define the future of endodontic shaping for years to come.

With all the excitement surrounding Twisted Files, where does that leave K3 files?

As I indicated earlier, a large number of our TF customers came on board from competitive file systems. That, combined with significant international demand for rotary files this year, was a key driver of double-digit growth for the K3 line. This bodes well for the K3 franchise, as many clinicians feel it is the most durable ground nickel titanium file on the market. K3 is a great alternative for those looking for value and safety.

What can you tell us about Real Seal One Bonded Obturation System featuring Reslion technology? How is this product going to make treatment easier for clinicians and outcomes better for patients?

On Aug. 1, 2008, Pentron joined the Sybron Dental Specialties family. One of Pentron's greatest assets is Resilon®, a synthetic alternative to gutta-percha that has proven through clinical review and scientific investigation to be superior to gutta-percha. Since that time, SybronEndo launched Real Seal One Bonded Obturators (RS1), which is the next generation in carrier-based filling for the root canal. All the components of RS1 (made with Resilon) — sealer, filler and core — are resin-based materials and bond with each other to form a superior seal inside the patient's tooth. This seal is important for the patient because it keeps bacteria from reinfecting the tooth. The end result is an RCT that can potentially last a lifetime! Clinicians like RS1 because it's easy to use and increases the likelihood of patient satisfaction by reducing the chances of a failed root canal. Endodontic specialists like it because it's easier to retreat than competitive products, and the dual radiopacity enables them to see the core/material interface on their diagnostic radiograph.

With all the growing excitement surrounding dental implants these days, what does that say about the future of endodontics? Is the market shrinking?

Both procedures have similar success rates over the long term. However, root canal therapy clearly requires less follow-up and gives the patient a result that can last a lifetime. Recent data suggest that implants have a higher percentage of postoperative complications.

While implants have their place and purpose, they cannot improve upon natural dentition. The cost for implants, both long-term and short-term, are significantly higher than traditional endodontic procedures. In today's economic climate and for the near future, I believe that SybronEndo is in a great position for growth.

The aging U.S. population is going to need more root canals as they grow older. So the market is not shrinking. It is healthy and growing.

What is SybronEndo doing to improve demand for endodontics in a world where implants are getting more and more popular?

As long as SybronEndo can create products that drive clinician satisfaction in three key areas — clinical satisfaction, increased efficiency, and reduced patient discomfort — we believe we will be a key player in developing and marketing innovations that improve success rates and increase demand for endodontics.

Is there anything you would like to add?

It is exciting to everyone at SybronEndo that our products help save natural dentition, alleviate pain and manage dental trauma. We believe our clinicians have a worthy purpose, and we feel very fortunate to be able to partner with them to fulfill this worthy endeavor. The culture and environment at SybronEndo is one of a young and growing specialty company dedicated to innovation with a winning attitude.

Mark Clineff can be contacted at mark.clineff@sybrondental.com.

Calendar

Feb. 26–March 1 — Chicago
Midwinter Meeting
Chicago Dental Society
McCormick Place Lakeside Center
Information: (312) 836-7300; www.cds.org.mwm

March 5–7 — Vancouver, British Columbia
Pacific Dental Conference
Canadian Dental Association
Vancouver Convention and Exhibition Centre
Information: (604) 736-3781; www.pdconf.com

March 19–21 — Atlanta
Thomas P. Hinman Dental Meeting
The Hinman Dental Society of Atlanta
Georgia World Congress Center
Information: (404) 231-1663; www.hinman.org

April 1–4 — Miami
General Session
International Association for Dental Research
Information: (703) 548-0066; www.iadr.org

April 23, 7 p.m. EST — WEBINAR with Dr. John T. McSpadden
"Endodontic Instrumentation at the Speed of Thought," Fee: $95.
Information: (416) 907-9836; j.wehkamp@dtamerica.com; www.DTStudyClub.com

April 29–May 2 — Orlando, Fla.
Annual Session
American Association of Endodontists
Gaylord Palms Orlando
Information: (800) 872-3636; (866) 415-9020; www.aae.org; info@aae.org

May 14–17 — Anaheim, Calif.
CDA Presents the Art and Science of Dentistry
California Dental Association
Anaheim Convention Center
Information: (916) 443-3382; www.cda.org

May 23–26 — Montreal
Journées dentaires internationales du Québec (JDIQ)
Ordre des dentistes du Quebec
Palais des congrès de Montréal
Information: (514) 875-8511 ext. 2222; www.odq.qc.ca

July 8–12 — Baltimore
Annual Meeting
Academy of General Dentistry
Information: (888) AGD-DENT; www.agd.org

Aug. 7–9 — Seattle
APICES (Advanced Programs in Clinical Endodontics Symposium)
American Association of Endodontists
Information: (800) 872-3636; (866) 415-9020; www.aae.org; info@aae.org

Aug. 26–30 — Niagara-on-the-Lake, Ontario
Annual General Meeting
Canadian Academy of Endodontics
Queen's Landing Hotel
Information: (204) 942-2511; www.caendo.ca

Sept. 11–13 — San Francisco
CDA Presents the Art and Science of Dentistry
California Dental Association
Information: (312) 440-2500; www.ada.org

Sept. 30–Oct. 4 — Honolulu
Annual Scientific Session and World Marketplace Exhibition
American Dental Association
Information: (312) 440-2500; www.ada.org

Nov. 27–Dec. 2 — New York
Annual Session
Greater New York Dental Meeting
Jacob K. Javits Convention Center
Information: (212) 398-6922; www.gnydm.org