

The EndoSequence Technique

Making Endodontics Profitable

by Drs. Kenneth Koch and Dennis Brave

One of the best aspects of using the EndoSequence technique (and possibly the least discussed) is the dramatic increase in office profitability seen as the result of its efficiency. This increase in productivity applies to both endodontic practices as well as the general practice. But what is it about EndoSequence that can lead to such a dramatic increase in productivity? Let's begin by examining the technique itself.

It all begins with the file. To be more specific, it all begins with the preparation created by the file... a constant taper preparation. When using the EndoSequence technique, we can create either a .04 constant taper preparation or a .06 taper one. The real key is the constant taper preparation because when accomplished, it gives us the ability to create predictable, reproducible shapes. A variable taper preparation is not recommended because of its lack of shaping predictability (and its corresponding lack of reproducibility) which will lead to a less than ideal master cone fit. This lack of endodontic synchronicity is why all variable taper preparations are associated with the overly expensive and more time consuming thermoplastic techniques.

Knowing in advance what the final shape (constant taper preparation) will be is a great timesaver. Add in the feature of laser verified paper points and gutta percha cones, and we now start to develop true endodontic synchronicity (everything matches). Because of the constant taper preparation, we can even extend this capability of synchronicity to match posts to prepared

canal shapes. The EndoSequence post is, in fact, similar to a prefabricated custom post technique (Fig. 1). In addition to the ease and benefits of a constant taper preparation, the other huge advantage achieved with the EndoSequence System is its bioceramic sealer. As discussed in a previous article, ("A New Day has Dawned," *Dentaltown Magazine*, April 2009) the BC sealer allows us to use a hydraulic condensation technique. Furthermore, when used in conjunction with the EndoSequence filing system, this becomes a "*synchronized hydraulic condensation*" technique. For those unfamiliar with the technique, it is as follows:

The technique with this material is straightforward. Simply remove the syringe cap from the EndoSequence BC Sealer syringe (Fig. 2). Then attach an Intra Canal Tip of your choice to the hub of the syringe. The Intra Canal Tip is flexible and can be bent to facilitate access to the root canal. Also, because the particle size has been milled to such a fine size (less than 2µm), a capillary tip (such as a .012) can be used to place the sealer.

Following this procedure, insert the tip of the syringe into the canal, no deeper than the coronal one-third. Gently and smoothly dispense a small amount of BC Sealer into the root canal by compressing the plunger of the syringe. Remove the disposable tip from the syringe and proceed to coat the master gutta percha cone with a thin layer of sealer. After the cone has been lightly coated, slowly insert it into the canal all the way to the final working length. The synchro-

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Fig. 1: The EndoSequence System creates "endodontic synchronicity" from start to finish.



Fig. 2: BC Sealer comes premixed in a syringe (Brasseler USA).



Fig. 3: Bioceramic-coated cones are now available in an organizer.

nized master gutta percha cone will carry sufficient material to seal the apex.

The precise fit of the EndoSequence gutta percha master cone (in combination with a constant taper preparation) creates excellent hydraulics and, for that reason, it is recommended that the practitioner use only a small amount of sealer. Furthermore, as with all obturation techniques, it is important to insert the master cone slowly to its final working length.

The System is now available with bioceramic-coated gutta percha cones (Fig. 3). In essence, what we achieve is a chemical bond to the canal wall as a result of the hydroxyapatite that is created during the setting reaction of the bioceramic material. We also have a chemical bond between the ceramic particles in the sealer and the ceramic particles in the bioceramic-coated cone.

We are now doing root canals in a manner that is truly easier and faster. Not just marketing hype, but actuality. So where does this dramatic increase in productivity actually come from? Let's first examine endodontic practices.

We have observed that many of the endodontic practices that are using the complete EndoSequence technique are doing two or more additional cases a day. But where does this time savings come from? Two areas in particular. The first is the increased cutting efficiency that is associated with the EndoSequence file (less time required for the preparation) and the second reason is a dramatic reduction in obturation time because of the "killer" master cone fit. The reduction in obturation time applies for whatever gutta percha technique is employed. The following is very typical of e-mails we receive from endodontists.

"I spent a whole day with Sequence. I don't think I can go back to my previous system. I did the attached case in 35 minutes, start to finish, and there was so much less physical stress. Tell Dennis... I'm sold."

Endodontic practices see a significant increase in production when using the EndoSequence technique, but what about general practitioners, the non-specialists? The keys to making endodontics a profit center for the general practice are: 1) proper case selection 2) quality of the endodontics performed and 3) getting to the crown and bridge in a predictable and expeditious manner. Let's examine these three keys.

The first key is critical because to have endodontics work for you as a general practitioner, you need to know what cases to do and which to refer. With

some of these difficult cases, such as bifurcated lower premolars and retreatment cases, don't even start the case. Instead, send it out to your local endodontist who has a lot more experience in treating such difficult cases. Don't get tied up with cases that are beyond your experience and comfort level. They will only result in increased stress and decreased productivity. Work smart.

Furthermore, the American Association of Endodontists (AAE) has also addressed the problem of case selection through its publication of a case difficulty assessment form. Using a numbering system, this form can help you determine the difficulty of a potential case. This document can be obtained by contacting the AAE at 800-872-3636 or through its Web site at www.aae.org.

The second key is to perform endodontics in such a manner that you are producing results that can only be described as good to excellent. Anything less will not do. EndoSequence is a technique that has been developed for all dentists, not just specialists. The goal has been to create a technique that will allow the greatest percentage of all dentists to get superior results. Not only are the results exceptional, the entire system has been created with simplicity in mind – "so sophisticated, it's simple." This is one of the most common comments we hear about EndoSequence:

"Thank you for your invaluable advice. Endo is not my favorite part of dentistry, but I really like EndoSequence. My assistants like it too because it makes sense to them and it is beautifully simplified."

Another key, and perhaps the most important from a management perspective, is getting to the crown and bridge as quickly as possible. This is especially important for large group practices. The more likely that you can accomplish your endodontics in a predictable and expeditious way, the quicker you can get to the crown and bridge. Even if the tooth requires a post, the EndoSequence technique saves you time and effort because everything is synchronized and matches. Furthermore, you don't have to cut out any plastic obturators which we see in all carrier-based techniques.

There is even more good news concerning the use of the EndoSequence technique. Because it is faster and more simplified, EndoSequence allows you to complete more cases in a single visit. This is not only very profitable but it is also a huge practice builder. The timesaving translates into greater production and increased net profit. We also need to mention that

there is, as well, a significant savings in consumables such as patient set-up supplies (napkins, anesthetic solution, suction tips, temporary material, etc.).

The EndoSequence System, with its inherent simplicity and ability to create endodontic synchronicity, can result in increased production in your office.

Whether a specialty practice or a general practitioner's office, endodontics can become a profit center if done in a predictable, expeditious manner. The EndoSequence technique meets all these requirements (and more) and results in great endodontics, ecstatic patients, and happy doctors. ■

Authors' Bios

Dr. Dennis Brave is a diplomate of the American Board of Endodontics, and a member of the College of Diplomates. Dr. Brave received his DDS degree from the Baltimore College of Dental Surgery, University of Maryland and his certificate in endodontics from the University of Pennsylvania. He is an Omicron Kappa Upsilon Scholastic Award Winner and a Gorgas Odontologic Honor Society Member. In endodontic practice for more than 25 years, he has lectured extensively throughout the world and holds multiple patents, including the VisiFrame. Formerly an associate clinical professor at the University of Pennsylvania, Dr. Brave currently holds a staff position at The Johns Hopkins Hospital. Along with having authored numerous articles on endodontics, Dr. Brave is a co-founder of Real World Endo.



Dr. Kenneth Koch received both his DMD and certificate in endodontics from the University of Pennsylvania School of Dental Medicine. He is the founder and past director of the new program in postdoctoral endodontics at the Harvard School of Dental Medicine. Prior to his endodontic career, Dr. Koch spent 10 years in the Air Force and held, among various positions, that of Chief of Prosthodontics at Osan AFB and Chief of Prosthodontics at McGuire AFB. In addition to having maintained a private practice, limited to endodontics, Dr. Koch has lectured extensively in both the United States and abroad. He is also the author of numerous articles on endodontics. Dr. Koch is a co-founder of Real World Endo.