

# Chill Factor

*Evolve Dental Technologies, Inc., is changing the way dentists whiten teeth through its Deep Bleaching™ process and products that stay refrigerated all the way to your practice*

**by Thomas Giacobbi, DDS, FAGD**  
Editorial Director, *Dentaltown Magazine*

*Dr. Rod Kurthy certainly has the gift of gab. His posts on Dentaltown.com are legendary, and his contributions to our forum have been instrumental in the growth of Dentaltown. Dr. Kurthy is an international lecturer and developer of many techniques including his Deep Bleaching™ protocol. Evolve Dental Technologies, Inc., is the company he founded with his wife Sharon, who managed his dental practice for more than 26 years. They provide bleaching products that are refrigerated every second from the moment of manufacture until you receive them at your practice. Dentaltown Magazine recently interviewed Dr. Kurthy about this revolutionary approach.*

*From left: Evolve Dental Technologies Co-founder and President Sharon Kurthy and Co-founder Dr. Rod Kurthy.*



**Rod, are you an inventor or an innovator?**

**Kurthy:** I guess I'd say I'm an innovator. I think most dentists are. We like to tweak things. First I'm presented with a patient with a particular problem – or I'm dissatisfied with the results of something. When that happens, I can't rest until I figure out why and how to correct the shortcoming. It's about figuring out how to help a patient.

**What were the biggest obstacles to getting your company started?**

**Kurthy:** I never wanted to start my own company. My plate was already full, and I refuse to give up full-time practice. Dentists kept urging me to figure out the solution to bleaching sensitivity. I worked on it for more than three years before I figured it all out. I tried working with a few bleaching product companies, but found that I had little control over their decisions.

At one point it became clear that I needed to open my own company. But who would run the company? The obvious answer was Sharon, who'd run my dental practice for more than 26 years and has an amazing business ability, deep caring and a full knowledge of all fields of dentistry and how I approach virtually everything, including Deep Bleaching.

As the president of Evolve, Sharon has been truly amazing. I constantly receive e-mails from dentists telling me how excited they were to speak with Sharon and how helpful she was – and not just about Deep Bleaching, but about virtually anything regarding dental practice.

The big reward has been all those dentists who called or e-mailed me wishing me well and telling me that they were going to wait until we were up and running so that they could use our products.

**You have described teeth bleached in the past as “conditioned.” This allows them to better respond to a second round of bleaching. What has really changed about the teeth?**

**Kurthy:** When you bleach someone for two weeks with at-home trays, their teeth slowly get whiter. But when they come back a year and a half later saying that their teeth have darkened, you only need to have them wear their bleaching trays once or twice,

and BAM!, the color is right back to where it was! Why did the teeth lighten so fast the second time? The answer is that the original two weeks of bleaching “conditioned” the teeth to uptake the oxygen much more rapidly, just like the teeth of a 14-year-old would. As you get older, this perme-

*Evolve Deep Bleaching Trays are precision-fabricated using magnification under the direct supervision of Dr. Rod Kurthy.*

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ability to oxygen decreases, and with Deep Bleaching, I've figured out how to rejuvenate teeth to respond better to bleaching.

**Your Deep Bleaching manual is in its sixth edition. What has been the most significant change to your technique during that time?**

**Kurthy:** The basic approach of Deep Bleaching has never changed. The ability to bleach with far lower sensitivity has been a huge change. You'll notice that ever since I took on the sensitivity issue, most of the bleaching product companies have tried to jump on the bandwagon, but looking at their systems, I just don't think they "get it." Strangely enough, the new impression technique and products specifically for that technique might be the biggest enhancement to the actual results of Deep Bleaching. After all, the Deep Bleaching Trays™ are the cornerstone of the technique, upon which all the other steps are built around. Also, you cannot make a perfect Deep Bleaching Tray without a perfect impression.

**How is Deep Bleaching considered "permanent?"**

**Kurthy:** First, Deep Bleaching is the most effective bleaching technique ever developed. Not just deep within the tooth, but deep within the individual crystals of enamel. Every time I state that Deep Bleaching is permanent, I always say that it's permanent as long as the patient follows the easy periodic at-home maintenance. I do not look at it as a "touch-up." I prefer "maintenance" – keeping the color at the same level always. With Deep Bleaching, the teeth are so thoroughly conditioned, that periodic maintenance permanently keeps them exactly where they were two weeks after Deep Bleaching.

**What is a fair fee range for Deep Bleaching?**

**Kurthy:** In my practice I charge \$1,750. Charges range typically from \$800 to \$3,500. I'd say that the average is about \$1,250.

**If a patient objects and says, "That's a lot more than I paid for in-office bleaching," how do you rationalize the fee for Deep Bleaching?**

**Kurthy:** The key to case presentation and to external marketing is to *listen* to your patients and remember what they say. How often do you have a patient come in and say, "Hey doc, I'm thinking about bleaching my teeth, but I drink a lot of coffee/tea/red wine – so it probably wouldn't be worth it for me, huh?" What has this patient *really* told you? He's said that he'd like whiter teeth, but he's not willing to give up his red wine, etc. They also ask how long bleaching will last. They ask if it's safe. When they realize that Deep Bleaching is different – that it is permanent; that they can continue drinking their red wine, etc.; that there is low to no sensitivity; that it's safe, well, now they look at it as an *investment* instead of a frivolous expense. But they need to genuinely *believe* all these things, and the newest edition of the book goes into great detail about effective case presentation and marketing.

**If permeability improves results, what causes teeth to be sensitive?**

**Kurthy:** I believe, just like with the TV commercial that talks about "scrubbing bubbles," that it is the oxygen cleaning out the microstructure of the teeth that causes "conditioning." I also believe that the oxygen removes smear plugs from the dental tubules, causing sensitivity. I now utilize a combination of an organic method and an inorganic method of occluding the tubules to reduce or eliminate sensitivity.

**When did you discover that cold transport of your materials was so important?**

**Kurthy:** Like so many other dentists, I used to find that some of the shipments of bleaching gels that I'd receive were much less effective than others, and it drove me crazy trying to figure out why. We were hearing this from many dentists on Dentaltown.com, so I knew I wasn't alone.

Bleaching gels are very unstable chemicals. They're supposed to be. That is why they can so quickly release their oxygen when applied in the mouth. But the downside of this instability is that they will start to degrade as soon as they're manufactured.

Bleaching gels are manufactured and typically stored in a warehouse, which can be quite warm or even hot. Then the



*Left photo: All orders with cold packs are boxed at the last possible moment to conserve the coldness during shipping.*

*Right photo: Boxed orders are kept in Evolve's walk-in refrigerator until they are picked up at the end of each day, reducing the effective number of hours necessary for shipping.*

products are shipped to the bleaching product company via freight truck, which can take five days or more. We spoke with one shipping company that told us that they expect that their trucks will reach at least 125 degrees! Then the products are typically stored at the bleaching product company in a non-refrigerated warehouse before they are finally shipped to the dentist.

I knew that my overhead would be quite high to refrigerate, but I was bound and determined to do it the right way. I insisted that the factories refrigerate immediately after manufacture. All shipping to Evolve is via refrigerated trucks and planes. We refrigerate immediately at Evolve, and we ship to dentists refrigerated.

I strongly believed that using bleaching gels that are still at 100 percent effectiveness because of refrigeration would make a big difference, but when I actually started using the products in my own practice, I now see that it was even more important than I originally believed.

### What are the additional costs associated with cold temperature? Which step is most difficult to control?

**Kurthy:** Shipping refrigerated costs a lot more, and the fact that our huge walk-in refrigerator at Evolve takes up so much room is expensive. But the biggest cost is shipping refrigerated internationally (we get some of our gels from Germany), even on the planes. They also ding us for refrigerated storage when waiting to clear U.S. Customs and FDA for a couple weeks. The Styrofoam insulated containers and cold packs get expensive as well. It lowers our profit because it costs us a lot more, but I don't want to charge more for our gels. I just feel it's something that needs to be done, so we just do it.

### Now that you are taking this radical concept to market, do you expect others to follow suit?

**Kurthy:** Absolutely! Just look at what the other companies have done regarding desensitizing since I started making a big deal about it. When dentists start raving about the difference that refrigeration makes, I don't think the other companies will have any other choice.

### What have you done to protect the packaging from ice and moisture?

**Kurthy:** Most don't even realize this problem. Fancy boxes don't do well under refrigeration. The condensation is absorbed by the paper/cardboard boxes. What I've done is to have all of our bleaching gels packaged in plastic containers so that they're not affected by the condensation during refrigeration.

### Is it possible for the gel to get too cold? How do you prevent this?

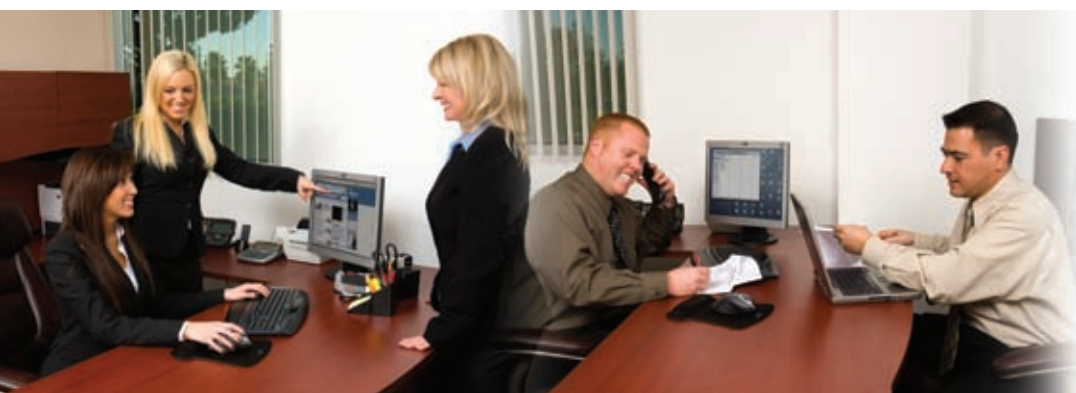
**Kurthy:** Freezing bleaching gel can damage it. At Evolve we keep our refrigerator set at 34-36 degrees Fahrenheit. We direct our cold shippers to keep it at 36 degrees during shipping to us, even during the air flights. For shipping to dentists, we freeze our phase-change cold packs (capable of holding the cold 15 percent longer than any other cold pack) down to a negative 10 degrees Fahrenheit. To make certain that this would not freeze the gels, I did testing by using temperature measuring electronic instruments inside the Styrofoam containers. This confirmed that the coldest the gels would get is 34 degrees Fahrenheit.

### What is next for Evolve?

**Kurthy:** I named the company "Evolve" because I want to be all about anything in dentistry that is new or better. You never know what's around the next corner, and I have dentists contacting me quite often to discuss new things they've developed. When I find things that I think are fantastic, instead of trying to buy the invention, I want to just bring that inventor into Evolve as a partner on that product.

### How would you describe the impact of Dentaltown on your evolution from improving bleaching to CEO of Evolve?

**Kurthy:** Just like I make my staff accountable for everything they do, my friends on Dentaltown do the same for me. They're always watching. That's fun, and it keeps me on my toes. It is because of them that I realized that I had no choice but to create my own company. ■



Left photo: (From left) Evolve Dental Technologies' Operations Manager Vanessa Tantuwanich, International Sales Manager Shannon Kurthy and President Sharon Kurthy.

Right photo: Evolve customer service representatives Jonathan Ryan (left) and Milton Saavedra enjoy a conversation with a dentist.