



A High-Tech SuperHero is Helping Dentists

GUARD TEETH AROUND THE CLOCK

by Tina Cauller

Dentists all know the frustration of discovering the damage done by less-than-ideal dental hygiene. And, while everyone likes a challenge, it isn't always easy to motivate someone to replace bad habits with helpful ones. If only an invisible, around-the-clock guardian could protect a patient's teeth and oral health between visits.

There may be a new, high-tech dental superhero on the scene, answering the call of dentists everywhere. The FDA recently approved a new product called SeLECT Defense™ (*Element 34 Technology, Lubbock, TX*), a filled sealant that combines selenium with a bonding resin. SeLECT Defense creates a powerful antioxidant and forms superoxide radicals that provide a toxic environment for bacteria. This gives dentists and their patients a powerful and durable remedy for the harmful effects of dental plaque.

Dentists find it appealing that SeLECT Defense does not require them to change their routine bonding protocol. Instead of using unfilled sealants or those without antimicrobial effects, they can simply incorporate this new sealant with their usual bonding techniques and have confidence that it will minimize the gingival inflammation and demineralization caused by plaque.

Dr. Mary Robb has a general dental practice in North Richland Hills, Texas and has a passion for helping her patients establish good oral hygiene, particularly when it's a difficult challenge.

"I like working with patients to help them develop their dental I.Q.s. I find great satisfaction in treating patients with neglected mouths and cultivating them into appreciative patients with a lot of dental knowledge and good oral hygiene."

She adds, "A dentist friend gave me some good advice years ago: 'When you are giving someone a drink from the fountain of knowledge, don't turn on a fire hose.' I try to educate patients thoroughly, but at an effective pace. That same dentist taught me that there is rarely a single path to your desired destination – you can achieve most goals with a variety of different methods. I try to find the best approach for each individual patient."

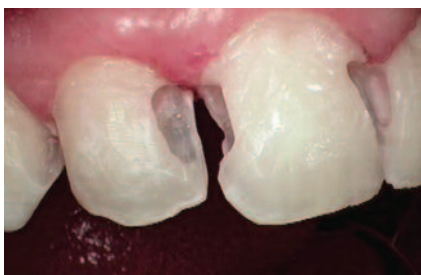
A lifelong learner and passionate observer, Dr. Robb took to heart another bit of wisdom: 'You don't see what you aren't looking for.' Always on the lookout for new advances in dentistry, she and her staff recently came across an ad that caught their eye. "My hygienist noticed an advertisement for SeLECT Defense with some microscope slide photos of teeth treated with the sealant compared to others that were not treated. I tend to be skeptical of advertise-

ments and the slides contrasted so dramatically that I thought the photos must have been retouched. Shortly after I saw the ad, one of the company's sales reps hosted a lunch-and-learn seminar and presented our team with more evidence of its effectiveness, and I decided to try out the product and see for myself."

Dr. Robb immediately found some perfect candidates for the new sealant. "I had two young teenage patients who were undergoing orthodontic treatment. These kids did not have good oral hygiene habits and their hygiene had deteriorated even further during their orthodontic treatment. They returned to my office at mid-treatment to have some restorations done along with prophylaxis. I thought, these patients desperately needed some hygiene support and would be a real challenge for the new sealant. When they returned for their next check up, I could hardly believe what I saw. Around the first and second molars, where I had not applied SeLECT Defense, the plaque was thick. But on the surfaces I had coated with the sealant, the teeth were pretty much plaque-free, and the gums looked healthy."

The test was an eye opener for Dr. Robb, who started using SeLECT Defense with other patients, particularly older patients who had infirmities that prevented them from exercising good oral hygiene. She found the same response – less plaque accumulation and healthier gingiva.

Since then, Dr. Robb has identified other important opportunities for using SeLECT Defense. "Many of my older patients suffer from xerostomia, which makes them susceptible to all kinds of dental disease since they no longer have the natural cleansing that saliva provides. They develop caries easily and their gingiva stays chronically inflamed. I have used this sealant on some of these patients and seen remarkable results."



With no sealant. 13-year old female patient, did not brush for 90 days while under orthodontic treatment. Note multiple caries and gingival inflammation.



SeLECT DEFENSE surface sealant. Same patient 90 days after restorations and addition of SeLECT DEFENSE. Note the absence of inflammation.

Dr. Robb has shared her experiences with this product with the specialists she works with. "The periodontist I refer patients to has expressed interest, and we plan to help him implement it with his patients. Periodontal disease is an infectious disease, and I believe the antimicrobial feature of the sealant could offer a lot of protection to those patients."

A comparative cost analysis of SeLECT Defense underscores the impressive potential of this product to provide dentists with an effective new tool to protect their patients' teeth. Dr. Robb explains, "We don't waste the material and, in fact, use it sparingly. Each small bottle contains enough liquid to treat 400 teeth. However, rather than concentrating on the cost of SeLECT Defense, I urge other dentists to

consider the cost of not using it. What are the costs for stroke patients who can no longer care for their oral hygiene? What are the costs for orthodontic patients who, despite encouragement, instruction and cajoling, still neglect brushing and end up with decalcified teeth and swollen gums? What costs do periodontal patients have when they have a reinfection? What are the costs for xerostomia patients who, through no fault of their own, have a new susceptibility to dental problems? For me, it is a no brainer. When I find a way to protect my patients from oral disease, I want to take advantage of it."

During *in vitro* laboratory tests, SeLECT Defense has shown to retain its anti-bacterial properties over time. Dr. Robb is informally evaluating the product's long-term performance and durability in her own practice. "While our trial is not a controlled experiment, we are noting on patient charts when we apply it so we can monitor its ability to withstand oral stress."

Dentistry has established a reputation for placing the public good above its own economic interests. Dentists supported the fluoridation of water supplies, toothpastes, and vitamins, a solution that has proven to be the most effective preventive remedy ever given to the American public.

Like a guardian on constant duty, SeLECT Defense stands between teeth and their bacterial enemies, even when oral hygiene isn't at its best. As Dr. Robb points out, "The applications for SeLECT Defense are wide. It is so effective that I believe it could signal a new era of improved dental health for patients." ■

Dr. Mary Robb is a native of Houston, TX and graduated from the University of Texas Health Science Center in San Antonio, TX in 1988.