



I Brush My Teeth with Sugar!

by Chris Kammer, DDS

Second opinions are common in health care; whether a doctor is sorting out a difficult case or a patient is not sure what to do next. In the context of our magazine, the first opinion will always belong to the reader. This feature will allow fellow dental professionals to share their opinions on various topics, providing you with a "Second Opinion." Perhaps some of these observations will change your mind; while others will solidify your position. In the end, our goal is to create discussion and debate to enrich our profession. — Thomas Giacobbi, DDS, FAGD, Editorial Director, *Dentaltown Magazine*

Yes, I really do brush my teeth with sugar! That might sound like the craziest thing you have ever heard. In much the same way that there are good fats like flax seed oil, and bad fats like trans fats, not all sugars are bad for your teeth. In fact the sugar that I brush my teeth with is a secret weapon to wipe out oral disease-causing bacteria. This sugar is xylitol and it is poised to replace fluoride as the greatest scientific discovery for healthier mouths. Furthermore, xylitol is safe and has been used by diabetics for decades. Xylitol has none of the controversy that surrounds fluoride and it comes in a variety of usable forms that make it very easy, delicious and economical to use.

There's a battle going on in our mouths and xylitol can help us all win and easily give us healthier mouths. While oral disease continues its rampage against teeth and gums, as a profession we should be doing much more on the front end of this problem to prevent it.

The "Miracle Drug" is Here Now

For many populations worldwide, the levels of dental caries have reached epidemic proportions. Even in the U.S., childhood tooth decay is on the rise. I have heard some patients of mine claim that they are victims to this disease that caused their mouthful of cavities because they were born with the misfortune of having "soft teeth." Many people believe that cavities and gum disease are inevitable. Sadly these people are probably waiting for a future miracle drug that will kill the bugs that are behind all of these problems. However the closest thing we have to a "miracle drug" is already here and it's not a drug – it's xylitol, a naturally occurring substance that is as sweet as candy and disarms the bad cavity-causing bacteria in your mouth. With consistent use of xylitol, the nasty oral bacteria are rendered virtually harmless. Studies have shown that five to 10 grams of xylitol a day can reduce the acid-producing bacteria by as much as

95 percent after six months. Pure xylitol looks and tastes like regular white table sugar and it is used to sweeten a variety of candies and chewing gum, in addition to toothpastes and mouth rinses.

We all know that sucrose (white table sugar) serves as food for the harmful bacteria in our mouths, resulting in acid production that destroys tooth structure. Xylitol is a different kind of sugar known as a polyol. It occurs naturally in many fruits and vegetables and is produced in the human body as well. Side by side in a sugar bowl you can't really tell them apart and they both taste deliciously sweet, however, xylitol has a much different effect on the bad bacteria in our mouths, preventing it from adhering to the tooth surfaces. Also, since the bacteria can't metabolize xylitol, they can't create the acid byproduct that is created when bacteria eats up regular sugar. The xylitol-fed bacteria starve and die off! Regular use of xylitol has been shown to not only reduce tooth decay but also facilitate the remineralization of teeth.

We Need Xylitol Now

Dental caries affects the populations in every country. The National Center for Health Statistics reports that in the U.S. by the time kids are age 17, almost 80 percent have experienced tooth decay. In Finland it is practically the opposite where 80 percent of high school graduates have no caries. What is the difference? Finland schools regularly distribute xylitol to the students. Need more proof? Dr. Peter Allen, head of the Ministry of Health in Belize, reports that in his country's landmark study, xylitol reduced caries by more than 50 percent with results continuing to show that same reduction even five years after the study (and xylitol usage) was completed. It appears that xylitol usage has a very long-lasting effect.

Knowing that a child's major oral infection source is his or her mother, studies in Finland showed that maternal

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use of xylitol can prevent the colonization of the *Strep Mutans* in the dentition of the child. This leads to caries prevention in the child. Additionally, Professor Brian A. Burt, editor-in-chief of *Community Dentistry & Oral Epidemiology*, stated that “the evidence is strong enough to support the regular use of xylitol-sweetened gum as a way to prevent caries, and it can be promoted as a public-health preventive measure.”

Dr. Catherine Hayes from the Harvard School of Dental Medicine Department of Oral Health Policy and Epidemiology published a review of the evidence in the *Journal of Dental Education* and she felt so strongly about the positive effects of xylitol's strong caries protective effect, she stated, “it would be unethical to deprive subjects of its potential benefits.” Yet how many dental health professionals are educating their patients about the benefits of xylitol and delivering it to them in the office? Sadly very few.

A Candy Store

Your dental office's front counter should look like a candy store. Your office should display a variety of products that are sweetened with xylitol for all of your patients to see and purchase. This will also create great discussions between your patients and office team about the power of xylitol. You will be amazed at all of the delicious treats that are 100 percent sweetened with xylitol. You will find boxed chocolates, caramels, taffy, lollipops, hard candies, flavored mints and chewing gum. Have a plentiful supply of them on hand in your office and every patient will walk out the door with some. Don't let your patients be fooled by general marketplace products like Trident chewing gum for example, which proclaim on the package that it contains xylitol but actually contains only traces of the ingredient.

Go with products that clearly say how many grams of xylitol are in each serving. Products geared toward the serious “sweetened 100 percent with xylitol” user usually have a total of one gram of xylitol in two individual pieces of gum or mints. Here are three leading Web sites to learn about xylitol's benefits and where to buy products:

www.zellies.com is from Dr. Ellie Phillips. She wrote the book *Kiss Your Dentist Goodbye* about xylitol's benefits.

www.xlear.com is from the makers of Spry xylitol products. They are one of the larger distributors of xylitol products.

www.drjohns.com is a company founded by a dentist and his wife who is a hygienist. They have a huge variety of unique xylitol chocolates and candies.

All of the above companies will also sell you granular xylitol for around \$8 per pound. That might be the most economical way to get your xylitol. A quarter teaspoon of granular xylitol is one gram. The healthy benefits of xylitol are maximized by getting one to two grams of xylitol during five separate exposures throughout the day. “Strive for five!” (exposures) is the xylitol battle cry. I keep a quarter teaspoon measure in the granular xylitol container, scoop it and place it directly in my mouth. The delicious sweetness has a cooling effect and it dissolves almost instantly and stimulates plenty of saliva. I swish it around for a minute or two and then brush my teeth before I spit it out. You don't have to swallow the xylitol, it just needs to be in your oral environment to be effective.

The Xylitol Buzz Is Beginning!

Why isn't xylitol being enthusiastically promoted by every dentist and hygienist? Could it be that we haven't noticed the xylitol message because we are so wrapped up in fixing the disease damage? Hard to imagine most people having teeth without decay, isn't it? A new mindset is springing up among progressively conservative dental professionals to mount a pre-emptive strike that includes using xylitol as a protective agent to seriously disarm the bacteria involved in the destruction of teeth and the disease in gums. These dentists have formed an organization called the American Academy for Oral Systemic Health (www.aaosh.com) and I am honored to be their president. In order for dentists, hygienists and other health professionals to be in this group they must demonstrate their knowledge of how the health of the mouth impacts the health of the body and they must know and understand the role of xylitol among many other important oral-systemic issues. These dentists are currently recommending a daily xylitol regimen to most of their patients. As changes like this begin to occur in our profession, we are on our way to a healthier nation. ■

Author's Bio

Chris Kammer, DDS, was profiled on ABC World News Tonight as its “Person of the Week” in October 2010 for promoting the Halloween Candy Buy Back to all dentists. He was also featured on this year's American Idol singing his song, “Get Out the Brush!” His “stop-at-nothing” passion for creating new ways to communicate the modern dental message has made him a favorite in the media and on the lecture circuit with his “Gums of Steel Hygiene Transformation” seminars. Contact Dr. Kammer personally at drchris@thesmileexperts.com.