

# A Sweet Love Affair

We Americans love sugar, and it seems like we just can't get enough of it. Per capita, the average US Citizen ingests ½ cup of the sweet stuff per day. This increased sugar consumption has created a myriad of health problems, many of which are putting an enormous strain on our health care system. Weight gain, insulin resistance, gum disease and tooth caries are just a few of the many problems resulting from our passionate affair with sugar.

During WW II, sugar shortages forced researchers to look for alternative sweeteners and they discovered xylitol. By the 60's, xylitol had been purified and was being used in Germany, Switzerland, the Soviet Union and Japan, mainly in infusion therapy for patients with insulin resistance and impaired glucose tolerance. Xylitol is a natural substance found in fibrous vegetables and fruit, as well as corncobs and various hardwoods. It is a natural intermediate product, which regularly occurs in the glucose metabolism of man and other animals. Our own bodies actually produce Xylitol everyday.

Although it tastes and looks like sugar, xylitol is really sugar's mirror image. While sugar wreaks havoc on the body, xylitol heals and repairs. It builds immunity, protects against chronic degenerative disease and has anti-aging benefits. It is antimicrobial, and prevents the growth of bacteria. While sugar is acid forming, xylitol is alkaline enhancing. Xylitol has 40% fewer calories and 75% fewer carbohydrates, is slowly metabolized and causes negligible changes in insulin levels. It was approved by the Food and Drug Administration in 1963 and has no known toxic levels.

Eating sugar causes tooth decay by creating a highly acidic condition in the mouth. The acidity strips tooth enamel of minerals, causing it to weaken and making it more vulnerable to bacteria, leading to demineralization and tooth decay. Xylitol reverses all these destructive effects of sugar on oral health. It is non-fermentable and therefore cannot be converted to acids by oral bacteria, so it helps to restore a proper alkaline/acid balance in the mouth. This alkaline environment is especially inhospitable to all the destructive bacteria, including streptococcus. Streptococcus bacteria love Xylitol and will even bypass sugar for it. Fortunately, the bacteria's inability to metabolize it causes them to die.

Xylitol is available in many forms and is showing up in more and more products all the time. In crystalline form it can replace table sugar and be used in cooking and baking. It is also becoming more available in toothpastes and mouthwashes as well as candy, mints and gum. The most widely available source is chewing gum. Some varieties of Orbit and Trident contain it. Local health food stores stock pure xylitol as a sugar replacement, as well as Spry gum and mints and various xylitol-sweetened mouth care products. The recommended amount of Xylitol is 4 grams a day. Xylitol needs to be in

the first three listed ingredients to be in a concentration that is therapeutic and effective against decay. Chewing gum has the benefit of increasing salivary flow, which dilutes the sugar and lessens the chance of decay.

Using xylitol right before bedtime, after brushing and flossing, protects and heals the teeth and gums. Long-term use suppresses the most harmful strains of oral bacteria. Xylitol has even been shown to enhance the mineralization of the enamel. Consistent use of small amounts of xylitol tends to increase protective factors in saliva. Research has shown xylitol has a positive impact on bone density and is even able to inhibit the growth of the bacteria that cause middle-ear infections in children and sinus infections in adults.

Dr Edwards and his staff at Smile Design Center are in the forefront of new research and ideas to help their patients maintain oral health. For more info on Xylitol check the website [www.xylitolinfo.com](http://www.xylitolinfo.com)

Dr. Chris Edwards practices general and cosmetic dentistry. His practice is Smile Design Center in Viera Fl. He can be reached for questions or consultations by calling 321-751-7775, or by e-mail through his web-site [www.smiledesigncenter.us](http://www.smiledesigncenter.us).

*Dr. Edwards is the owner of Smile Design Center in Viera, Florida*