

# \*XYLITOL - MORE THAN SWEET

By Mike King

Although it was known to organic chemistry since a German Chemist originally manufactured it in 1891, Xylitol first came into wide use during World War II. Because of an acute sugar shortage in Europe the Scandinavian countries searched for an alternative. It was at this time that the Finnish scientists rediscovered Xylitol (pronounced zie-lit-tall) and began manufacturing it from birch bark. By the 1950's, children in the countries using Xylitol were observed to have fewer cavities than children in countries still using sugar. Today, Finland leads the world in overall dental health as they continue to depend upon the healthful alternative Xylitol instead of sugar.

Clinical studies show that the use of Xylitol in toothpaste, gum, and candy can reduce cavity-causing effects in the mouth by up to 80%! This is due to the molecular difference in Xylitol. Regular sugar has 6 carbon atoms per molecule and Xylitol has only 5 carbon atoms. The molecule difference is the key to the super antibacterial power. When exposed to the 5-carbon sugar bacteria in the mouth lose their ability to adhere to the surface of the teeth. Tooth-destroying acids are reduced and plaque is easily brushed and rinsed out of the mouth. Many people have noticed a great reduction in plaque and plaque build up resulting in a healthier smile fresher breath and fewer cavities. Other studies show that Xylitol can reverse tooth decay by aiding in the remineralization of the tooth and eventually restoring the enamel coating with long-term permanent effectiveness. Dr. Catherine Hayes of the Harvard School of Dental Medicine concluded that the favorable evidence for Xylitol was so strong that "it would be unethical" to deprive people of its dental protective effects.

Amazingly this same principle of the 5-carbon antibacterial power can be applied to sinus irritations and even ear infections. According to Dr. Lon Jones, physician and developer of Xlear brand sinus spray, "90% of all infection-causing bacteria enter the body through the nose. Clearing these breathing passages may be the most effective way to prevent upper respiratory infection." Research demonstrates that when the nose is washed regularly with Xylitol spray there is a 93% reduction in ear and sinus infections. According to Dr. Wright, author of *Xylitol Dental and Upper Respiratory Health*, not only were there fewer cases of sinus and ear infections, but a lessening in some cases of asthma.

Xylitol is a natural sugar alcohol found in fibrous vegetables, fruit, berries, nuts, corncobs and certain hardwood trees like birch. In fact, Xylitol is produced naturally in our bodies, which make 15 grams daily in normal metabolism. In repeated clinical studies ingested Xylitol demonstrated to be very slowly metabolized by our bodies. Xylitol does not promote insulin resistance, a leading factor in type II diabetes. Xylitol is even a natural insulin stabilizer, leveling blood sugar levels and actually stopping sugar and carbohydrate cravings. This makes it a highly recommended sweetener for people with diabetes as well as those wanting to lose weight. On the glycemic index, the scale that measures how quickly foods enter the bloodstream, sugar is rated 100 and Xylitol is only 7.

There is a growing consensus among anti-aging researchers that maintaining low insulin levels is a major key to an anti aging program. According to Dr. Lee, insulin resistance also plays a role in hormonal

imbalances, including those that lead to breast cancer and polycystic ovarian syndrome (PCOS). Sherill Sellman from GetWell International states “using Xylitol instead of sugar, as well as reducing high-glycemic, refined carbohydrate foods, helps to lower the risk of PCOS, ovarian cysts, fibroids, endometriosis, PMS, and hot flashes.

Another exciting benefit form Xylitol is its role in reversing bone loss. Studies in Finland found that Xylitol maintained bone density due to its ability to promote intestinal absorption of calcium. Researchers suggested that an effective human dose would be about 40 grams per day. Large amounts (30 to 40 grams) taken all at once in some individuals may cause intestinal upset. It is suggested that starting with smaller amounts working up to larger amounts will alleviate any problems. Actually, adding 4 to 10 grams daily into your oral hygiene routine gives substantial oral health benefits. According to Dr. Wright children should start chewing Xylitol gum at least 1 year before their permanent teeth begin erupting. Studies show that teeth treated this way will be strong and have long-lasting protection.

Even though Xylitol is a natural intermediate product, which regularly occurs in the glucose metabolism of humans, many animals, several plants and micro-organisms, dogs cannot metabolize Xylitol and it is wise to keep it away from them. Overall, Xylitol is a safe, natural sweetener that is very good for your teeth and oral health, stabilizes insulin and hormone levels, reduces sugar cravings, benefits reversal of bone loss, reduces allergy symptoms, relieves sinus irritations, and diminishes chronic ear infections. Today Xylitol is generally manufactured from corn, and available plain and in gums, toothpaste, mints, mouthwashes, and even nasal sprays.

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