# What is Xylitol

Pure xylitol is a white crystalline substance that looks and tastes like sugar. On food labels, xylitol is classified broadly as a carbohydrate and more narrowly as a polyol. Because xylitol is slowly absorbed and partially utilized, a reduced calorie claim is allowed: 2.4 calories per gram or 40% less than other carbohydrates.

Xylitol has been used in foods since 1960's. It is a popular sweetener for the diabetic diet in some countries. In the U.S. xylitol is approved as a food additive in unlimited quantities for foods with special dietary purposes.

Over 25 years of testing in widely different conditions confirm that xylitol is the best sweetener for teeth. Xylitol use reduces tooth decay rates both in high-risk groups and in low risk groups. Sugar free chewing gums and candies made with xylitol as the principal sweetener have already received official endorsements from six national dental associations.

#### Natural

Xylitol is right here, inside, already. Our bodies produce up to 15 grams of xylitol from other food sources using established energy pathways. Xylitol is not a strange or artificial substance, but a normal part of everyday metabolism.

Xylitol is widely distributed throughout nature in small amounts. Some of the best sources are fruits berries, mushrooms, lettuce, hardwoods, and corncobs. One cup of raspberries contains less than one gram of xylitol.

Chewing is a natural process and chewing gums provide some exercise lacking in a refined diet. If chewing is uncomfortable, xylitol mints or candies can also stimulate saliva, the natural tooth protector.

# Safe

In the amounts needed to prevent tooth decay (less than 15 grams per day), xylitol is safe for everyone.

#### Convenient

Xylitol can be conveniently delivered to your teeth via chewing gum, tablets, or even candy. You can implement your xylitol program anywhere, anytime. It fits right in with the most frantic schedules. You don't need to change your normal routine to make room for xylitol.

# **Enjoyable**

Some health regimens require iron willpower, discipline, and commitment. But xylitol tastes so good that it becomes automatic. Children love it! Nagging is minimized.

# How to use xylitol

It is not necessary to replace all sweeteners to get the dental benefits of xylitol. Look for xylitol-sweetened products that encourage chewing or sucking to keep the xylitol in contact with your teeth. The best items use xylitol as the principal sweetener.

# **How Much?**

Studies show that 4 to 12 grams of xylitol per day are very effective. It's easy to keep track of your xylitol intake. The "all xylitol" mints and gums contain about one gram of xylitol in each piece. You could begin with as little as one-piece 4x a day for a total of four grams. It is not necessary to use more than 15 grams per day as higher intakes yield diminishing dental benefits. If used only occasionally or even as often as once a day, xylitol may NOT be effective, regardless of the amount.

### Timing

Use immediately after eating and clearing the mouth by swishing water. Between meals, replace ordinary chewing gum, breath mints, or breath spray with comparable xylitol products.

### **XYLITOL FACTS**

- 1. XYLITOL is a healthy, natural sweetener.
- 2. **XYLITOL** is clinically proven to:

FIGHT PLAQUE
FIGHT CAVITIES
FIGHT BAD BREATH
NEUTRALIZE PLAQUE ACIDS
REMINERALIZE TOOTH ENAMEL
FIGHT & PREVENT EAR INFECTIONS
FIGHT DIABETES & HYPOGLYCEMIA

- **3. XYLITOL** is recommended and used by DENTISTS, PERIODONTISTS, PEDIADONTISTS, and nearly all other medical and dental professionals.
- **4. XYLITOL** is given to EXPECTING MOTHERS in PRENATAL CLINICS in order to help them NOT to pass STREP BACTERIA to their BABIES. This has REDUCED EAR INFECTIONS in Finland by over 40% (study published in British Medical journal).
- **5. XYLITOL** is recommended as a SWEETENER for DIABETICS and people with HYPOGLYCEMIA because it has a LOW GLYCEMIC INDEX (7) and has LITTLE EFFECT on BLOOD SUGAR LEVELS.
- 6. **XYLITOL** is a NATURAL REDUCE CAVITIES up to 80% (Ylevieska Clinical Study).
- 7. **XYLITOL** has SAVED the FINNISH GOVERNMENT MILLIONS of dollars in DENTAL BILLS. Xylitol is given to kids at school in Finland

XYLITOL		
	WHAT IT DOES	WHAT IT MEANS
Mouth	Xylitol dissolves rapidly with a pleasant sweet taste and a cooling effect	Preference for a sweet flavor increases acceptance and compliance
Teeth	Non-fermentable by cariogenic bacteria/no acid production	Decreased plaque-promotes re-mineralization
Salivary Glands	Increased salivation inhibits mineral precipitation	Soothes dry mouth-promotes remineralization
Stomach	Not broken down by acid. Slows gastric emptying	Increases satiety
Small Intestine	Passive transport via portal vein to liver. Slowly and completely absorbed	A portion continues unchanged and on to the large intestine
Liver	Principal site of xylitol metabolism. Stepwise conversion to metabolites including glucose	Increases glycogen. Slow release of energy. Anticatabolic and antioxidant effects

Pancreas	Releases insulin very slowly in response to a trickle of glucose derived from xylitol	Minimal insulin of blood sugar fluctuations
Blood	Xylitol in bloodstream can be metabolized by red blood cells	Xylitol can also be administered parenterally
Large Intestine	Unabsorbed xylitol behaves like dietary fiber. Friendly bacteria ferment xylitol to volatile short-chain fatty acids	Laxative effect in unadapted individuals. A healthier colon. Additional energy source independent of insulin