

## **XYLITOL THE HEALTHY SWEETENER**

Also known as birch sugar, Xylitol, is a naturally occurring sweet compound found in fruits and vegetables. Xylitol is not only devoid of the downside of typical sugars, but also boasts a range of health benefits. Unlike table sugar or fruit sugar, both of which should only be consumed in minimal amounts, xylitol actually promotes our health, and is something we can consume every day. Because xylitol is completely natural, it is devoid of the undesirable side effects seen with artificial sweeteners. Xylitol may well be the ideal sweet compound for those with intestinal yeast overgrowths, because xylitol does not feed yeast as sugar does.

Xylitol is a five carbon sugar alcohol. Sugar alcohols naturally occur in foods such as berries, and have no relation to regular alcohol. Xylitol is a natural substance found in fibrous vegetables and fruit, as well as in corn cobs and various hardwood trees like birch. It is a natural, intermediate product which regularly occurs in the glucose metabolism of man and other animals, as well as in the metabolism of several plants and micro-organisms. Xylitol is produced naturally in our bodies; in fact, we make up to 15 grams daily during normal metabolism.

Xylitol is really sugar's mirror image, although xylitol tastes and looks exactly like sugar, which is where the similarities end. While sugar wreaks havoc on the body, xylitol heals and repairs. It also builds immunity, protects against chronic degenerative disease, and has anti-aging benefits. Xylitol as a five carbon sugar has an antimicrobial action, preventing the growth of bacteria. While sugar is acid-forming, xylitol is alkaline enhancing. All other forms of sugar, including sorbitol, are six-carbon sugars, which feed dangerous bacteria and fungi.

Approved by the FDA in 1963, xylitol has no known toxic levels. The discomfort that some sensitive people may notice initially when taking large amounts is increased bowel movements, mild diarrhea or slight cramping, which usually disappears within a few days as the body's enzymatic activity adjusts to a higher intake.

Xylitol has 40% fewer calories and 75% fewer carbohydrates than sugar and is slowly absorbed and metabolized, resulting in very negligible changes in insulin. Xylitol has a rating of 7 on the Glycemic index. Xylitol looks, feels, and tastes exactly like sugar, and leaves no unpleasant aftertaste. It is available in many forms. In its crystalline form, it can replace sugar in cooking, baking, or as a sweetener for beverages. It is also included as an ingredient in chewing gum, mints, toothpaste, mouthwash and nasal spray.

## **XYLITOL AND ORAL HEALTH**

Tooth decay and gum disease are serious problems. According to the American Dental Association, 75% of American adults over the age of 35 suffer from some form of periodontal disease. Needless to say lifestyle plays a major role in dental health. An excess of sugar consumption weakens the immune system and creates an acidic environment; thus oral health suffers. The mouth is home to over 400 strains of bacteria, most of these are benign, but when sugar enters the scene it feeds the destructive strains, allowing them to grow.

Periodontal disease is basically caused by bacteria and takes two forms. Simple gum inflammation is called gingivitis while a more severe gum infection, called periodontitis, may lead to tooth loss and receding gums. The problem begins with plaque. This invisible, sticky film of saliva and food residue constantly forms on the teeth. These deposits permit the growth of bacteria that cause inflammation of the gums. Bacteria help to create plaque and they also thrive within it. By releasing minute amounts of toxins that break down tissue, they help the infection to progress. Unless removed, plaque formed along the gum line can lead to gum disease. When left untreated, plaque at or below the gum line hardens into tartar. This ongoing low-grade bacterial infection also burdens the immune system.

Eating sugar causes tooth decay by creating a highly acidic condition in the mouth. Acidity strips tooth enamel of minerals, causing it to weaken and making it more vulnerable to attack by bacteria, leading to tooth decay or demineralization. Ordinarily, saliva bathes the mouth with an alkaline solution that neutralizes all acidity and actually remineralizes the teeth. Saliva also washes away leftover bits of food and helps the digestion process. But when saliva turns acidic because of too many sweets, bacteria in the mouth have a feeding frenzy. These bacteria along with carbohydrate waste, stick to the teeth and tongue and hold the acid close to the teeth where it eats away enamel. Using xylitol helps to raise plaque pH, thereby reducing the time that teeth are exposed to damaging acids.

Using xylitol reverses all the destructive effects of sugar on oral health. Xylitol is non-fermentable and therefore cannot be converted to acids by oral bacteria; thus it helps to restore a proper alkaline/acid balance in the mouth. Using xylitol right before bedtime, after brushing and flossing, protects and heals the teeth and gums. Unlike sugar, it can even be left on the teeth overnight.

## **XYLITOL AND EAR HEALTH**

Recurring middle-ear infections pose a problem with children. To reduce the fluid that is attempting to wash the infection out of the middle ear, tubes are often inserted into the eardrums of these young sufferers. One of xylitol's versatile benefits is its ability to inhibit the growth of bacteria that cause middle-ear infections in young children. In two recent studies involving over 1,000 children, xylitol flavored chewing gum was found to reduce the incidence of middle-ear infections by 40%, significantly decreasing ongoing middle-ear complications and the need for antibiotics.

## **XYLITOL AND BONE HEALTH**

Another exciting benefit from xylitol is its role in reversing bone loss. Studies in Finland found that xylitol maintained bone density in rats that had their ovaries removed. Without ovaries, estrogen levels plummeted and so did the bone density in rats that were not given xylitol. However, in the rats that had ovaries removed and were given xylitol, bone density actually increased. Another study showed that xylitol was effective in decreasing age-related bone loss in older male rats by 10%.

*NOTE: Sugar replacements may be lower in fat, carbs, or glycemic index, but are made of chemicals. Artificial sweeteners of all kinds feed disease in one way or another.*