

XYLISMART

Xylitol Low Calorie & Low Glycemic Sweetener



Convenience snacks and excess sugar consumption, which are all too prevalent in our modern society, can result in weight gain, extra trips to the dentist, and sugar imbalances, which may eventually trigger metabolic challenges and long-term health concerns. Specifically, frequent between-meal consumption of foods high in sugars and starches promotes tooth decay. The sugar alcohols in xylitol, however, do not. Xylitol is known as a low glycemic index (GI) sweetener due to its slow absorption into the bloodstream, so it doesn't lead to

the health concerns presented by sugar. And yet, xylitol looks and tastes like sugar, with a lingering cool sensation that is altogether pleasing to the palate. Source Naturals now offers a xylitol supplement called XYLISMART which is a healthy and natural sugar substitute. XYLISMART is available in ready-to-use convenient crystals.

Xylitol is recognized throughout the world for its "tooth-friendly" benefits. Xylitol is a naturally occurring sugar alcohol that can be found in its strongest concentrations in birch trees, and in fruits and vegetables such as raspberries, strawberries, plums and corn. Unlike sugar, which is an energy source for bacteria in the mouth like *Mutans streptococci*, xylitol actually limits the growth of these decay-causing bacteria which can result in dental caries (cavities). Xylitol also boasts 40% less caloric impact than sugar, making it beneficial for those concerned with weight gain. Source Naturals has identified 12 SystemiCare™ deep metabolic systems which are crucial for your health. Source Naturals XYLISMART supports Sugar Regulation, one of the most critical of the SystemiCare™ categories.



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Xylitol's Oral Health Benefits

Foods that contain sugar are energy sources for bacteria like *Mutans streptococci*, which multiply and produce harmful acids in the mouth. Xylitol promotes the flow of saliva, which can buffer the acids produced by bacteria and provide support for remineralization of demineralized teeth. Once pH levels in the mouth drop below a neutral pH of 7, tooth enamel begins to demineralize. Studies suggest that xylitol's oral health benefits may be attributed to its ability to undo the early stages of tooth decay and improve the bacterial environment of the mouth.

A Low-Glycemic Sweetener

Glycemic index (GI) is a measure of the effects of carbohydrates on blood glucose levels. Carbohydrates, which break down rapidly during digestion, release glucose rapidly into the bloodstream and have a high glucose index. Glucose absorbed from sugar is typically assigned a GI value of 100. Xylitol has a much lower GI value of 13. This is attributed to the fact that low-digestible carbohydrates, such as xylitol, break down slowly and release glucose gradually into the bloodstream, resulting in a lower glycemic response.

The Sugar Issue

High glucose levels brought on by consumption of carbohydrates greatly increase the risk of weight gain, metabolic inflammation and glycation - the breakdown of protein by sugars. Accelerated carbohydrate levels signal the body to produce excess insulin, which is a hormone that tells the body to store fat instead of burning it off as energy. The resulting weight gain, which is stored as fat and surrounds the organs of the midsection, is known as VAT (visceral adipose tissue). It secretes pro-inflammatory messenger molecules called cytokines, signaling the immune system to go into a state of metabolic inflammation. This further causes healthy cells to resist insulin's ability to process sugar in order to maintain healthy glucose levels. Once unused sugar builds in the bloodstream, it signals the pancreas to produce more

insulin. Excess insulin results in decreased insulin sensitivity and upsets the delicate balance of healthy blood sugar levels, which fuels a vicious cycle of inflammatory response.

A modern convenience diet high in carbohydrates can throw metabolic systems out of balance and potentially damage healthy nerves and circulatory tissues through a process called glycation. It is vital to develop key strategies which promote health and longevity and maintain blood sugar levels in the normal range. Source Naturals XYLIS^{SMART} is thus the perfect substitute for sugar because it is absorbed slowly, does not promote tooth decay, contains less calories than sugar, and does not alter your energy levels in a manner that sugar potentially can.

Source Naturals also recommends adopting healthy lifestyle choices, getting plenty of exercise and rest, and following a nutritious, organic, whole foods diet that is low in sugars and refined carbohydrates. Unfortunately, the pleasure of sugar may come with a hefty price, resulting in damage to our bodies and our long term health. Fortunately, nature has provided us an ideal alternative in xylitol. For more information or purchase locations, please visit <http://www.sourcenaturals.com>.

References:

- Granström, Tom Birger, et al. "A rare sugar xylitol. Part I: the biochemistry and biosynthesis of xylitol." *Applied Microbiology & Biotechnology*. 74 (2007): 277-281.
- Miyasawa-Hori, H., et al. "Difference in the xylitol sensitivity of acid production among *Streptococcus mutans* strains and the biochemical mechanism." *Oral Microbiology and Immunology*. 21 (2006): 201-205.
- Holgerson, Pernilla Lif. "Xylitol and its effect on oral ecology - clinical studies in children and adolescents." Umeå University Odontological Dissertations. 97 (2007): 1-60.
- Lynch, Heather & Milgrom, Peter. "Xylitol and Dental Caries: An Overview for Clinicians." *Journal of the California Dental Association*. 31.3 (2003): 205-209.



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