

# Supplement of the month: Xylitol

## What is xylitol?

Xylitol is the reduced polyol form of wood sugar xylose. It is found in many fruits and vegetables and our bodies make about 10grams of it everyday. Xylitol is as sweet as sugar, two-thirds the calories of sucrose, and does not rely on insulin in the body, making it the ideal natural sweetener for diabetics. Xylitol is also healthier for teeth. A recent study shows a 90% reduction in tooth decay 5 years after a group of children chewed Xylitol gum regularly for two years.

Now that you know a little bit about Xylitol, let's talk about how Dr. Hoffman uses this product to treat his patients. Besides Xylitol being a dietary supplement also comes as a nasal wash used to treat nasal symptoms like rhinitis, nasal congestion, or post nasal drip, caused by exposure to allergens and pathogens.

You are probably wondering what Xylitol has to do with nasal symptoms. Let's first find out what happens to our immune system when we experience an inflammatory response in the nasopharynx, then how we usually treat this response, and why Xylitol is a better alternative to typical medications.

Let me explain what happens to our immune system when we are exposed to an allergen or pathogen. When we are exposed to either one of these irritants in the nasopharynx, the first response is a histamine release that causes an increase in venule permeability and releases plasma that bathes the cells and winds up in the nasal passage. That cellular response to the irritants causes rhinitis, nasal congestion, or postnasal drip. Through this response, our immune system tries to irrigate the nasal passage and to wash away the irritant. The same response applies to symptoms we experience when exposed to viruses, bacteria, and pollen.

After we become symptomatic, our first response is to customarily treat our symptoms with antihistamines and decongestants. When we do that we block the washing by interfering with the histamine or by constricting the capillary bed that has been made more permeable by the inflammatory response. Those kinds of medications may make us feel better but not treat the real problem, causing complications with symptoms such as fever, cough, or pain.

Dr. Hoffman uses Xylitol to treat the symptoms that are associated with exposure to irritants and pathogens by using it to irrigate the nasal passage and wash away irritants just like our natural body response. You can better understand the way Xylitol works when compared to cranberry juice and urinary infections. Cranberry juice is rich in mannose and mannose prevents E Coli from attaching to the bladder wall. Similarly, Xylitol contains Xylose, which keeps S.Pneumo. and H.flu from attaching to the epithelial cells in the nose. Xylitol not only irrigates irritants, but also block bacteria, causing a decrease in the amount of ear infections, sinus infections, allergies and asthma.