

Kids with cavities? Try some “sugar”!

By Dr. Eric Gustavsen, Published in the Walla Walla Union Bulletin 2/24/12



Did you know that dentists are seeing an increase in tooth decay in children? In an effort to reverse this trend consider the following advice.

Don't send infants and toddlers to bed with anything in their bottle but water. Apple juice, milk or any other liquid WILL cause cavities as baby falls asleep and saliva stops cleansing their teeth. Saliva: the original scrubbing bubbles.

Don't lick a spoon and put it into baby's mouth. Your bacteria WILL be transferred to the child and if you carry decay causing bacteria, your child will be infected.

Brush and floss your child's teeth for them until around the age of 8 when their dexterity will be good enough to do the task themselves.

Do feed your child “sugar”.

Do I have your attention now?

There are 3 main causes of tooth decay:

- *Bad bacteria*, which digest sugar left on teeth in the form of sticky sweet foods. This tacky mixture of bacteria and food is called plaque. It clings to teeth and oozes mineral leaching acid. Hello cavities. A low simple carbohydrate diet (a.k.a. low sugar diet) is very important for healthy teeth!
- *Acid* from beverages or food that directly attack enamel bypassing the plaque stage. Dentists sometimes refer to this destruction as Mountain Dew mouth.
- *Dry mouth* problems, which commonly effect older individuals on medication. This condition compounds the effect of bacteria on the teeth or acidic drinks as there isn't enough saliva to rinse the acid off the teeth and keep the mouth ph elevated.

Some surprising research shows that a certain type of “sugar” extracted from birch trees called xylitol can actually reduce the incidence of tooth decay. Not to be confused with the sugar extracted from maple trees and commonly extruded on pancakes.

With over 1500 studies now done on xylitol the results are very favorable. This sweetener can reduce cavities! A study done with school kids in Belize showed students given chewing gum containing xylitol developed almost no new cavities! Their classmates who received gum containing the sweetener sorbitol only had a slight reduction in cavities.

Another fascinating study was done on kids below the age of three. Small amounts of xylitol were given by medicine dropper to one group of kids, while the other group recieved drops of the sweetener sorbitol. No gum chewing for these young study participants. The results clearly showed a reduction in cavities of about 70% for the group receiving xylitol.

Research on mothers who chewed xylitol gum while their children were infants showed that these mothers didn't infect their babies with decay causing bacteria. There was a 70% reduction in cavities of these kids versus mothers who had a cavity reducing varnish applied to their teeth.

Interestingly, research on xylitol also shows that kids prone to middle ear infections who chew gum containing xylitol have a significant reduction in new infections. One study put the figure at 40% fewer ear infections in kids who chewed xylitol gum for 5 minutes after each meal (researchers recommend 3 to 5 pieces per day).

How does xylitol work? Of the more than 500 bacteria living in a persons mouth only a very few cause cavities. Xylitol makes it hard for the worst offender, Streptococcus Mutans, to latch on to the teeth. No latching, no acid, no cavity. (The bacterial name Streptococcus Mutans, incidentally, sounds like a political convention gone awry. Perhaps they end up choosing a candidate called Mutt Gangrene, but I digress.)

How much daily xylitol is recommended?

6 -8 grams a day is the recommended dose and can be enjoyed in a variety of ways.

- Chewing gum- average of 1 gram per stick in Epic gum (found at Epicdental.com) Vs. .17 grams per stick in Trident gum.
- Mints sweetened with xylitol- average of .5 grams per mint
- Mouthwashes- amount of xylitol varies but my favorite is a product called Carifree that gives about 2 grams per swish along with a ph increasing formula. This is an excellent product for people with dry mouth as well. Only available by prescription.
- Tooth Paste- Some toothpastes contain xylitol but typically not in significant amounts.
- Granular xylitol- you can buy a bag of xylitol sweetener at a grocery store, and after brushing your teeth take a ¼ tsp. and swish it around for a minute, then spit out. It doesn't need to be swallowed to be effective. Unlike other sweeteners, xylitol has no bitter after taste. In fact some people even use it in their coffee and for baking.

Your dentist or hygienist can help you select the product that is right for your child or yourself.

Some cautions: don't eat it like candy. It has a liberating effect on ones bowels in very large doses. Keep away from small dogs as there are reports of dogs being poisoned by it. Store it beside your chocolate...

Do feed your child "sugar"? Only if it's xylitol. (Technically speaking xylitol is not a sugar, but acts more as sugars' responsible twin). The real reason for increasing tooth decay in children is Americas' insatiable appetite for sugar. Be very careful to limit sticky snacks with real sugar (sucrose, fructose etc.) but encourage gum or other products containing xylitol "sugar".

For more information on xylitol products a helpful website is epicdental.com. Their gum will give you something to chew on.

