

XYLITOL – REDUCING CAVITIES

Tooth decay is a common, yet preventable childhood problem. Left untreated, cavities in primary (baby) and permanent (adult) teeth become painful and negatively impact the esthetics and functionality of the teeth.

Some children are particularly susceptible to tooth decay, even after receiving regular dental examinations and oral care at home. The American Academy of Pediatric Dentistry (AAPD) has recently recognized the benefits of a substance called xylitol for reducing childhood tooth decay.

What is xylitol?

Xylitol is a natural substance that can be found in a variety of fruits and vegetables. Some of the most common xylitol- rich foods include: berries, mushrooms, corns, and lettuces. Study results indicate that 4-20 grams of xylitol each day, divided into three or more helpings, can reduce tooth decay and cavities by as much as 70%. As a point of reference, a single cup of berries contains a little less than one gram of xylitol.

It can be difficult to encourage children (especially toddlers) to consistently eat four or more cups of fruit or vegetables each day. For this reason, xylitol is also available as a sugar substitute, a gum, and as a concentrate in numerous health foods. No other sugar substitute has been shown to benefit young teeth in the same way.

It should be noted that excessive xylitol consumption does not provide “more” tooth protection. Sticking to the recommended daily amount is enough to enhance other cavity-reduction efforts, and the effects will last well into the future.

How does xylitol work?

The combination of many factors increases susceptibility to childhood tooth decay and cavities. These factors include: oral care habits, diet, carbohydrate consumption, sucrose consumption, salivary flow rate, and tooth resistance to plaque.

More specifically, harmful oral bacteria feed on sugars and carbohydrates, producing acids. When sugary foods are consumed, these acids attack and destroy vulnerable tooth enamel. Xylitol works to neutralize the acids, reducing enamel destruction, and minimizing the threat of cavities in the process. Xylitol also stimulates saliva production, meaning that food particles, plaque and bacteria are continually removed from the teeth. When used in combination with fluoride, xylitol works to remineralize teeth, protecting tooth enamel and minimizing new cavity formation.

When should my child start using xylitol?

Although xylitol gum is not suitable for very young children, infants actually benefit from maternal chewing! Mothers of children between three months and two years old who used xylitol gum several times each day, protected their child from tooth decay until the age of five years old. In this case, xylitol reduced the number of microorganisms transmitted from mother to child.

Once the child reaches toddlerhood, xylitol can be consumed as a sugar substitute, or as a natural byproduct of eating fruit and vegetables. Older children can reduce the threat of new cavities by chewing xylitol gum.

If you have questions or concerns about xylitol or tooth decay, please contact your pediatric dentist.