



## Cavity Fighting with XYLITOL Gum

### **What Is Xylitol**

- Xylitol, a sugar alcohol, is a sugar substitute with a sweetness equal to sugar
- Xylitol is not metabolized by bacteria into acid, yet still stimulates saliva flow, protecting teeth
- Xylitol has been shown to prevent bacteria transmission from mother to child
- Xylitol has been shown to reduce or prevent cavities in children

### **Basic Dental Facts**

- Dental Caries (cavities) is an infectious and transmissible disease
- There are many "good" and "bad" bacteria in mouths
- The "bad" bacteria (primarily Mutans Streptococci) feed on sugars and carbohydrates in your diet, producing acid by-products, which erode away teeth causing cavities
- The major source from which infants acquire S. mutans is their mother
- Early colonization by strep mutans is a major risk factor for future cavities
- The best way to reduce or eliminate cavities is to have fewer "bad" bacteria
- To get fewer bacteria, prevent the original infection (transmission), feed the bacteria less (diet), brush and floss them away faster than they can multiply (hygiene)

### **What the research says about Xylitol**

- Finnish Mother-Child Study (2000)
  - Established that routine consumption of Xylitol gum reduced the transmission of S. mutans from mother to child, which had a long term protective effect
  - Mothers with high S. mutans levels were recruited to chew Xylitol gum 2-3 times a day from 3-24 months after the child was born. Control group received Fluoride every 6 months
  - Only 9 % of the children had detectable S. mutans levels in the gum chewing group
  - 48% of the control group had detectable S. mutans levels at 24 months
  - 3 years later (at 5 yrs old), these children had a 70% cavity reduction over control group
    - NONE OF THESE CHILDREN RECEIVED ANY XYLITOL
    - The moms had not used Xylitol gum for 3 years!!!
- Washington State University Study (1999)
  - Children, average 6 years old, chewed Xylitol gum 3x/day for 2 years
  - 5 years later (13 yr olds) these children had 59% reduced cavity risk
  - Permanent teeth that erupted after 1 year of gum chewing or after the two year chewing period ended showed a risk reduction of 93%
  - Teeth that erupted before the gum chewing started had NO risk reduction
  - Xylitol gum reduces plaque adhesion to teeth, making it easily removed by brushing and saliva
  - Xylitol even reduces ear infections by 40% when used 4-5 times/day

### **What we recommend when using Xylitol**

- Expectant and new mothers begin chewing Xylitol gum as early as the 2<sup>nd</sup> trimester
- Toddlers and young children begin chewing Xylitol gum by age 4 or 5
- Chew Xylitol gum for 5 min, 3 times/day for at least 2 years for max benefit