

- Gum with xylitol as the first ingredient is the most beneficial for preventing cavities
- Using a xylitol gum daily stimulates saliva flow and attacks cavity-causing bacteria
- Neutralise the mouth and fight decay and dry mouth the easy way with CariFree Xylitol Gum



### **Chew on this.**

Sugar-free chewing gum has been recommended by dentists as an alternative to sugar-containing chewing gum for years, and an exciting new advancement has been made in sugar substitution. Xylitol is now used as a sugar substitute, which not only doesn't contribute to decay, but actually:

- Helps reduce the development of cavities (dental caries)
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Resists fermentation by oral bacteria

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Reduces plaque formation

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Increases salivary flow to aid in the repair of damaged tooth enamel (remineralisation)

- Complements fluoride in oral hygiene products

With xylitol in chewing gum, you should look for gum with at least .7 gm of xylitol per piece. If the gramme dosage is not listed, look at the ingredients and make sure xylitol is one of the first 2, or else it probably isn't in a high enough concentration to be therapeutic. The other consideration is the amount and frequency per day. See the study below which outlines these recommendations.

Until recently, no prospective studies to determine the dose-response or frequency-response of xylitol use had been conducted. However, researchers from the University of Washington in the USA have undertaken a series of studies in order to potentially substantiate these responses on *mutans streptococci* (MC) prevalence and possible reductions with xylitol.

In one study the efficacious dosage of xylitol was researched, and this study concluded that MS levels were reduced with increasing doses of xylitol<sup>1</sup>. The effect levelled off between 6.88g and 10.32g/day and although the smallest dose (2.44g/day) showed a reduction this was not statistically significant. In the second study the participants consumed 10.32g/day (the higher levelling off amount from the previous study) of xylitol divided into 2, 3 or 4 administrations/day.

After five weeks' consumption of xylitol there were no significant differences in SM levels in either plaque or unstimulated saliva in groups consuming xylitol twice per day. However, significant differences were displayed in the groups consuming 10.32g xylitol over three and four administrations /day<sup>2</sup>.

These results confirm previous suggestions regarding xylitol dosage and frequency of consumption. A dose range of 6 to 10g divided into at least 3 consumption periods / day is necessary for xylitol to be effective with chewing gum as the delivery system.

1 Milgrom P, Ly K, Roberts M, Rothen M and Mueller G. Mutans streptococci dose response to xylitol chewing gum. J Dent Res 2006;85:177-181

2 Ly k, Milgrom P, Roberts M, Yamaguchi D, Rothen M and Mueller G. Linear response of mutans streptococci to increasing frequency of xylitol chewing gum use: a randomised controlled trial. BMC Oral Health 2006, 6:6

