

Table 2.--Sugar Alcohols and Dental Caries--Continued

Study	Study Design	Subjects	Methods	Results	Comments
Cremonor et al., 1992 (Ref. 17)	Clinical study to evaluate the effect of chewing gum for 20 minutes on <i>in situ</i> enamel lesion remineralization compared to a fluoridated dentifrice: crossover	12 adult Ss	2 7-week crossover tests: 1. SOR gum (n=6), no gum C (n=6) and 2. S gum (n=6) and no gum C (n=6). 10 Ss were common to both studies. Lower numbers were constructed for each S. All Ss used fluoride dentifrice 4 weeks before study and during each test period. Ss brushed twice daily for 2 min with a pea-size amount of toothpaste. Applications were worn each time. A 1 week S diet for each S was decided and followed. The diet was given with a similar diet (sugars and C) by Speck Foods (sugar free). Between meals, Test Ss chewed 5 sticks gum/d for 20 min; one after each meal and snack. Test gum: SOR + some MGS and aspartame; S gum with S and GJU.	<p><b>SOR Gum:</b> The total mineral loss after 7 weeks corresponded to a remineralization value of 18.2% (<math>p&lt;0.001</math>) compared to the baseline average. The control value was 22.1%. Remineralization compared to baseline was significant difference between test and C (<math>p&lt;0.01</math>). No significant difference was between test and C or remaining S at values.</p> <p><b>S gum:</b> Total mineral loss after 7 weeks corresponded to a remineralization value of 18.3% (<math>p&lt;0.001</math>) vs. baseline average. The control value was 10.0% a remineralization vs. baseline (<math>p&lt;0.01</math>). No significant differences between test and control for remineralization values or 5% LB values. For remineralization of the S gum value was significantly higher (<math>p&lt;0.01</math>) than the C.</p>	<p>Results of this study show that chewing gum per se is beneficial to reduce the severity of the sweetener used. Authors report a significant difference in remineralization in favor of the S gum when considering the mineral content of the lesion body.</p> <p>Authors state that chewing gum for 20 min. after meals or snacks should minimize deleterious effects of the S gum.</p> <p>Authors note that other studies have shown no significant difference in the ability to stimulate salivary flow rate and to raise plaque pH after 20 min. of chewing S gum vs. a sugar-free gum. Chewing S gum for less than 20 min. did not neutralize as much acid.</p> <p>Authors conclude that the increased salivary flow that occurred during gum chewing in this study helped to accelerate the removal of plaque pH reduction and to enhance remineralization beyond that for dentifrice alone.</p>