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

Study	Study Design	Subjects	Methods	Results	Comments
Rundegren et al., 1980 (Ref. 36)	In situ study to evaluate S substitutes for their contribution to demineralization of bovine enamel slabs	Group 1: 4 male students (age 19) Group 2: 4 Ss (ages 56 to 59 years with dentures)	Intraoral devices with bovine enamel mounted on acrylic blocks were used with Group 1. Partial dentures with enamel slabs were used in Group 2. All devices were placed in the buccal region of the first molars. Systems tested (10% w/v) of S, MALT, HSH. Each was tested for 4 weeks. S was used as a positive control for demineralization. A 0.9% sodium chloride (NaCl) soln was a negative control during 2-week test. Ss immersed experimental sites of their appliances 4 times daily, 10 min each, in cups containing soln. After immersion, appliances were returned to the mouth. At end test week, plaque was collected and plated. Samples were examined for S. mutans. Degree of demineralization was also measured before and after each test week.	A comparison of enamel hardness with 10% HSH vs NaCl showed slightly higher values for demineralization with NaCl. Results with HSH vs S and MALT vs S showed greater demineralization of enamel with S. The differences were significant at 1% level (Student's t test). Demineralization in MALT and HSH groups was associated with dietary effects. S showed an effect on demineralization above that of the diet.	Small number of subjects; the mean of the results was not given. Authors state that HSH, in comparison to NaCl, did not contribute to enamel softening and measured changes in microhardness reflected background intake of fermentation of dietary carbohydrates. Authors state that elderly Ss showed a higher degree of demineralization than the adolescents.