
The effect of chewing gum containing xylitol on the incidence and progression of dental caries was tested in a sample of 274 children, aged eight and nine years, of low socio-economic status and high caries rate. They were divided into two experimental groups (15% and 65% xylitol chewing gum distributed three times a day at school) and one control group (without chewing gum). The three groups were exposed to the same basic preventive program.

Children who chewed gum had a significantly lower net progression of decay (progressions-reversals) over a 24-month period than did the controls. Results for the two groups chewing gum were similar. Chewing xylitol gum had a beneficial effect on the caries process for all types of tooth surfaces, and especially for buccal-lingual surfaces.

The two experimental groups had a DMF(S) increment of 2.24 surfaces, compared with 6.06 surfaces for the control group. For this indicator, there was no difference between the two experimental groups.

Results for the plaque index were in agreement with those of the DMF(S) increment and the net progression of decay.