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ORIGINAL TITLE	An Evaluation of the effects of a fluoride varnish on bacterial counts in dental plaque in children
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ABSTRACT	<p>The results of previous studies using topical fluoride gels and solutions for caries prevention have suggested that these agents may act partly by influencing dental plaque. No previous study has investigated the influence of the newer fluoride containing varnish Duraphat - on plaque bacteria. In the present study of six children, numbers of streptococci, streptococcus mutans and lactobacilli from plaque samples were counted. Samples were taken immediately before and at one and three weeks after single application of Duraphat, from occlusal and smooth tooth surfaces. Bacterial counts were compared with values from control samples from contralateral teeth treated with placebo varnish. There were wide variations in counts between individuals. Trends were observed for counts to be higher one week and lower three weeks after application of either varnish. Three weeks after Duraphat had been applied, there were significantly fewer lactobacilli in occlusal plaque than in both previous samples from the same teeth and than in equivalent control samples. There were fewer Strep. mutans in occlusal control samples taken three weeks after varnish application. There were also fewer Streptococci in smooth surface plaque after three weeks than after one week. The single application of both Duraphat and placebo varnish appears to have influenced plaque bacteria in subjects tested; however further studies with larger numbers of subjects would be required before final conclusions on the effect of these varnishes on plaque could be made.</p>