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### Evaluation of risk factors for dental caries from 6 to 8 years old children

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**Abstract** The aim of this study is to evaluate the risk factors for dental caries in young children in Japan. We studied 645 children attending 13 of 30 elementary schools in two areas in Japan. Total salivary level of mutans streptococci and lactobacilli were evaluated at pre-school medical check-ups. Other factors we evaluated included use of fluoride containing dentifrices, administration of fluoride varnish in a private dental office, having regular check-ups, use of mouthwash with fluoride, and daily intake of sweet juice or snacks. Oral examinations were carried out at annual medical check-ups with 2.5 years follow-up and finally 585 children were analyzed. By multivariate logistic regression analysis, only three factors; gender, salivary levels of mutans streptococci and the presence or absence of dental caries in deciduous teeth had a statistically significant correlation with the incidence of dental caries after 2.5 years of follow-up. At age 8, odds ratios were 1.821 for female gender, 1.259 for mutans streptococci ( $\log_{10}$  cfu/ml) and 2.262 for dental caries in deciduous teeth. Although the prevalence of dental caries has declined in Japan, mutans streptococci remain a risk factor.

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