

Brazilian Oral Research

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Abstract

[BIJELLA, Maria Francisca Thereza Borro](#); [BRIGHENTI, Fernanda Lourenção](#); [BIJELLA, Maria Fernanda Borro](#) and [BUZALAF, Marília Afonso Rabelo](#). Fluoride kinetics in saliva after the use of a fluoride-containing chewing gum. *Braz. oral res.* [online]. 2005, vol.19, n.4, pp. 256-260. ISSN 1806-8324. doi: 10.1590/S1806-83242005000400004.

There is a relationship between the use of fluoride, the reduction of dental caries and the increase of dental fluorosis. The purpose of this study was to analyze the fluoride kinetics in saliva after using the Happydent™ chewing gum, which contains 3.38 mg of fluoride as monofluorophosphate. Fifteen 7-9-year-old volunteers were instructed to chew the gum Trident™ (control) and Happydent™ on different days. Total saliva was collected for 3 minutes, at 0, 3, 6, 9, 15, 30 and 45 minutes after starting chewing. Salivary fluoride was analyzed with a fluoride-specific electrode (Orion 96-09) after acid hydrolysis. The data were analyzed by two-way analysis of variance and by Tukeys *post hoc* test ($p < 0.05$). The mean amounts \pm sd (mg) of fluoride released in saliva were 0.276 ± 0.126 and 0.024 ± 0.014 for Happydent™ and Trident™ respectively. The fluoride amount in the saliva samples after the use of Happydent was significantly higher than after the use of Trident™ in all experimental periods, except after 30 and 45 minutes. The high fluoride presence in saliva after the use of Happydent may be significant to prevent dental caries and this should be evaluated in clinical researches. On the other hand, children at an age of risk for dental fluorosis should avoid the use of Happydent™.

Keywords : Chewing gum; Dental caries; Fluorides; Fluorosis, dental.

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