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### Abstract

[PAGLIARI, Ana Valéria](#) et al. Analysis of fluoride concentration in mother's milk substitutes. *Braz. oral res.* [online]. 2006, vol.20, n.3, pp. 269-274. ISSN 1806-8324. doi: 10.1590/S1806-83242006000300016.

The aim of the present study was to determine the fluoride concentration in some brands of mother's milk substitutes and evaluate the possibility of developing dental fluorosis by consuming these products. The products, all powdered, were divided into 3 groups: infant formulae (group I, n = 7), milk-based (group M, n = 8) and soy-based (group S, n = 3). Samples from 3 cans of different batches of each brand were reconstituted in deionized water and analyzed using the specific electrode method, after hexamethyldisiloxane (HMDS) facilitated diffusion. The fluoride content (mg F/L) of the products ranged from 0.044 to 0.326 (I), 0.014 to 0.045 (M) and 0.253 to 0.702 (S). There was significant difference in the fluoride content of cans from distinct batches ( $p < 0.05$ ) in most of the brands. The reconstitution of all products in water with optimal fluoride concentration for consumption during the mineralization phase of the primary teeth could result in daily fluoride intake above 0.07 mg F/kg body weight/day. Therefore, the consumption of these products, especially when reconstituted with optimally fluoridated water, could increase the risk of developing dental fluorosis.

Keywords : Fluorides; Dental fluorosis; Milk substitutes; Infant formula; Milk.

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Sociedade Brasileira de Pesquisa Odontológica

Av. Lineu Prestes, 2227  
Caixa Postal 8216  
05508-900 São Paulo SP - Brazil  
Tel./Fax: +55 11 3091-7810

 e-Mail

[bor@sbpgo.org.br](mailto:bor@sbpgo.org.br)