

FLUORIDE CONTENT OF COMMERCIALY AVAILABLE RICE MILK PRODUCTS IN BANGKOK, THAILAND

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Abstract. The cow's milk allergy is not uncommon among infants and has led to an interest in non-cow's milk based alternatives, including rice milk. In this study, we aimed to determine the fluoride content of commercially available rice milk in Bangkok, Thailand in order to inform caregivers about how to instruct parents. The fluoride content of each rice milk product was sampled in triplicate using a fluoride (F) ion specific electrode. A total of 20 samples from 6 brands were included in the study. The fluoride content of the studied products ranged from 0.01 $\mu\text{g}/\text{ml}$ in Natur-a original to 5.51 $\mu\text{g}/\text{ml}$ in Pureharvest original enriched. Twelve rice milk products (60%) had fluoride content above the optimal daily fluoride intake for young children (0.7 $\mu\text{g}/\text{ml}$). In summary, the fluoride content of rice milk products in Bangkok, Thailand varied widely but 60% have levels that increase the risk for dental fluorosis. Caregivers need to be aware of which products increase the risk for fluorosis or have insufficient fluoride content to allow parents to choose products appropriate for their children.

Keywords: fluoride, fluorosis, rice milk

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