

Brazilian Oral Research

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Abstract




[PALTI, Dafna Geller](#) et al. Evaluation of superficial microhardness in dental enamel with different eruptive ages. *Braz. oral res.* [online]. 2008, vol.22, n.4, pp. 311-315. ISSN . doi: 10.1590/S1806-83242008000400005.

This study evaluated the superficial microhardness of enamel in teeth at different posteruptive ages (before eruption in the oral cavity, 2-3 years after eruption, 4-10 years after eruption and more than 10 years after eruption). The study sample was composed of 134 specimens of human enamel. One fragment of each tooth was obtained from the flattest central portion of the crown to produce specimens with 3 x 3 mm. The enamel blocks were minimally flattened out and polished in order to obtain a flat surface parallel to the base, which is fundamental for microhardness testing. Microhardness was measured with a microhardness tester and a Knoop diamond indenter, under a static load of 25 g applied for 5 seconds. Comparison between the superficial microhardness obtained for the different groups was performed by analysis of Student's *t* test. The results demonstrated that superficial microhardness values have a tendency to increase over the years, with statistically significant difference only between unerupted enamel and that with more than 10 years after eruption. According to the present conditions and methodology, it was concluded that there were differences between the superficial micro-hardness of specimens at different eruptive ages, revealing an increasing mineralization. However, this difference was significant only between unerupted specimens and those with more than 10 years after eruption.

Keywords : Dental enamel; Hardness; Tooth eruption; Tooth, unerupted.

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