

Brazilian Oral Research

Print version ISSN 1806-8324

Abstract


[VIEIRA, Glauco Fioranelli](#); [ARAKAKI, Yuri](#) and [CANEPPELE, Taciana Marco Ferraz](#). Spectrophotometric assessment of the effects of 10% carbamide peroxide on enamel translucency. *Braz. oral res.* [online]. 2008, vol.22, n.1, pp. 90-95. ISSN 1806-8324. doi: 10.1590/S1806-83242008000100016.

Tooth shade results from the interaction between enamel color, enamel translucency and dentine color. A change in any of these parameters will change a tooth's color. The objective of this study was to evaluate the changes occurring in enamel translucency during a tooth whitening process. Fourteen human tooth enamel fragments, with a mean thickness of 0.96 mm (± 0.3 mm), were subjected to a bleaching agent (10% carbamide peroxide) 8 hours per day for 28 days. The enamel fragment translucency was measured by a computer controlled spectrophotometer before and after the bleaching agent applications in accordance with ANSI Z80.3-1986 - American National Standard for Ophthalmics - nonprescription sunglasses and fashion eyewear-requirements. The measurements were statistically compared by the Mann-Whitney non-parametric test. A decrease was observed in the translucency of all specimens and, consequently, there was a decrease in transmittance values for all samples. It was observed that the bleaching procedure significantly changes the enamel translucency, making it more opaque.

Keywords : Tooth bleaching; Dental enamel; Spectrophotometry.

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