

# Evaluation of a new Tray Based At-Home Whitening Product

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**Objective:** to evaluate the whitening efficacy and patients' preferences/perceptions of a new whitening system (*Cavex Bite&White PVP, Cavex Holland BV, Haarlem, Netherlands*)

**Methods:** Ten healthy voluntary participants (1 male, 9 female and  $21\pm 0.7$  years old) having a desire to lighten their teeth and in shade A3 (VITAPAN Classical) participated to the study. All participants prepared their own trays by placing the Cavex Boil&Bite (manufactured from a food grade PE copolymer compound) in boiled water and put it in their mouth immediately and adjusted the shape of the tray by pressing it firmly against the teeth with their fingers. The participants then told to apply a small drop of Cavex Bite & White (PVP-peroxide/5-6% hydrogen peroxide-Potassium nitrate desensitizer) for each teeth and keep the tray in the mouth for 60 minutes /day for 15 days. The volunteers filled out a questionnaire aimed to give their opinion about the adopted treatment regimen.

Tooth color determination was made using the Vita Classic shade guide at baseline and 1,2 weeks and 6 months. Results were analyzed using Friedman and Cochran's Q tests ( $p < 0,05$ ).

**Results:** A significant difference was found with regard to color change from baseline to 14 days and from baseline to six months ( $p < 0.001$ ). There was also a significant difference between 14 days and 6 months in color ( $p=0.008$ ). Only 3 patients maintained their tooth color reached at 14 days at the end of 6 months. Three participants reported mild sensitivity in the first week. All participants were satisfied by the whitening results at the end of 14 days. None of them reported tooth and gingival sensitivity at the 6 months control.

**Conclusion:** The whitening system tested was effective and safe for a two-week treatment showing a transient mild sensitivity during the first days of treatment.