

〈教育セミナー〉

アクセサリーオーガンとオーラルケアの香粧品学～エチケットのサイエンス～

口腔審美のための最適なセルフケア製品の実現を目指して

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**To Provide Oral Care Products that Empower Women to Look
and Feel Their Best Everyday**

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Abstract

White and regular teeth are much important for us to make a good first impression. However, the approaches to remove extrinsic stain and prevent crowded teeth still remain unclear. This review summarizes the present state of research on their causes and preventive methods. Extrinsic stains are localized mainly in the acquired pellicle and are generated by the reaction between sugars and amino acids, non-enzymatic browning reactions, or acquired from the retention of exogenous chromophores on the pellicle. The control of pellicle is a key to inhibition of stain formation, but pellicle can't be fully removed by abrasive. Besides, it's also difficult to control the very complicated reactions in the pellicle. Therefore, the relatively simple interaction between pellicle and enamel is of interest. As a result of the study focused on this interaction, pellicle is chemically detached from the enamel surface by condensed phosphoric acid. It is shown that condensed phosphoric acid was highly effective in preventing the formation of extrinsic stain. On the other hand, it seems that the causative factor of crowded teeth is the size of tooth and dental arch width or eruption space when deciduous tooth are replaced by permanent tooth. The recent studies have revealed that there are relationships between inclination of mandibular molars and crowded teeth. Furthermore, it is showed that the masticatory path is improved by chewing the hard gum for 1 month and the mandibular molars stand more vertically. The results suggest that the masticatory training may prevent mandibular crowded teeth. Additionally, it is reported that there is another effect that this training promotes lateral accretion of bony palate.

Key words: stain, pellicle, crowded teeth, gum.