

White spot lesions at orthodontic patients: Formations, prevention and treatment

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During fixed orthodontic therapy an undesirable situation may arise, i. e. , white spot lesions (WSLs) on the teeth. The white spot lesions are defined as areas of demineralization of tooth enamel that occur during the treatment with fixed orthodontic appliances, around brackets, tubes or orthodontic rings. Their location is mostly on the labial - gingival part of the tooth crown. The white spots can be seen only after 1 month of setting fixed appliances, and in some patients after 6 or 12 months. This state of demineralization of enamel is a complication of orthodontic therapy and represents a major clinical problem that can compromise the results of successfully treated case. Orthodontics strives to improve not only function but also the aesthetic appearance of patients, because treatment of these complications should be minimized. Orthodontics strives to improve not only function but also esthetic appearance for patients, because these complications during the treatment should be minimized.

The most common reason for this phenomenon is inappropriate and poor oral hygiene. Shown is the contemporary review of risk factors for the formation, prevention and successful treatment of WSLs. In each patient before a setting fixed orthodontic appliances, require training for how to maintain excellent oral hygiene, to be avoided side effects. In literature there are numerous studies for the prevention and treatment of white spot lesions. The use of fluoride (in toothpaste, gels and solutions for the mouth, in bonding materials for orthodontic braces, fluoride varnish), CPP-ACP Casein phosphopeptide-amorphous calcium phosphate in topical creme, microabrasion and the use of argon - laser can greatly contribute to the process of remineralization of enamel and successful treatment of WSLs.

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