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## Premature or delayed exfoliation of deciduous teeth and root resorption and formation

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### ABSTRACT

The present cross-sectional study was based on orthopantomograms of 1245 Greek children (590 males and 655 females), whose ages ranged from 6 years 10 months to 14 years. Three orthodontic practices were the source of these orthopantomograms which were taken before the start of orthodontic treatment.

The resorption process of the deciduous mandibular canine and molar roots was divided into five stages and the root formation process of their permanent successors into eight stages. The percentage distribution of the deciduous root resorption stages for each root formation stage of the corresponding permanent teeth was then recorded. Exfoliation of these three deciduous teeth occurred when the root formation of their successors had reached the  $R_{2/3}$ ,  $R_{3/4}$ , or the beginning of the  $R_c$  stage. As far as the effect of local factors on root resorption and formation process our findings indicated that decay, pulp necrosis and pulpotomy hastened the rate of root resorption of the deciduous molars, while they did not influence the rate of root formation of the corresponding permanent teeth.

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