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## **The effect of hypertrophic adenoids and tonsils on the development of posterior crossbite and oral habits.**

**[Oulis CJ](#), [Vadiakas GP](#), [Ekonomides J](#), [Dratsa J](#).**

Department of Pediatric Dentistry, University of Athens, Greece.

There are a number of studies in the literature, that associate nasopharyngeal airway obstruction, as a result of adenoid enlargement, to the development of skeletal and dental abnormalities. However, the etiologic role of hypertrophied adenoids and tonsils in developing an aberrant dentofacial growth is not clear, yet. The present investigation attempted to study the incidence of maxillary posterior crossbite and oral habits, in a sample of 120 children, that displayed hypertrophied adenoids with or without enlarged tonsils, and underwent adenoidectomy. An attempt was also made to relate the presence of crossbite to the severity of upper respiratory airway obstruction. The severity of airway obstruction was assessed using radiographic and surgical criteria. A lateral cephalometric radiograph was obtained and studied for each patient. Results indicated, that 47% of the children examined, had developed a posterior crossbite. The presence of crossbite was high in children with severe airway obstruction, particularly in those with hypertrophied adenoids and tonsils. On the contrary, most of the children with a posterior crossbite did not have a history of pacifier or finger sucking. It was also concluded, that the study of a lateral cephalometric radiograph can be a valuable diagnostic method in the evaluation of children with upper airway obstruction.

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