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## **[Malocclusion and upper airway obstruction]**

[Article in Lithuanian]

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After more than a century of conjecture and heated argument, the orthodontic relevance of nasal obstruction and its assumed effect on facial growth continues to be debated. Oral respiration disrupts those muscle forces exerted by tongue, cheeks and lips upon the maxillary arch. The main characteristics of the respiratory obstruction syndrome are presence of hypertrophied tonsils or adenoids, mouth breathing, open-bite, cross-bite, excessive anterior face height, incompetent lip posture, excessive appearance of maxillary anterior teeth, narrow external nares, "V" shaped maxillary arch. The purpose of this study is to evaluate relationship between nasal obstruction and severity of malocclusion. The sample analyzed in this article consisted of 49 children aged from 7 to 15 years, who pronounced difficulty in breathing through the nose. Patients and their parents were interviewed, clinical examination was performed, and measurements from dental casts and panoramic radiograph were obtained. All patients were examined by otorhinolaryngologist, and the nasal obstruction was confirmed by posterior rhinomanometry test. This study showed the significant association between nasal resistance and increased overjet ( $p = 0.042$ ), open bite ( $p = 0.033$ ) and maxillary crowding ( $p = 0.037$ ). The tendency of greater nasal resistance was observed for the patients with the first permanent molars relationship Angle II and posterior cross-bite.

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