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The relation between nasorespiratory function and dentofacial morphology: a review.

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It is commonly assumed that nasorespiratory function can exert a dramatic effect upon the development of the dentofacial complex. Specifically, it has been stated that chronic nasal obstruction leads to mouth breathing, which causes altered tongue and mandibular positions. If this occurs during a period of active growth, the outcome is development of the "adenoid facies" (dentofacial morphology). Such patients characteristically manifest a vertically long lower third facial height, narrow alar bases, lip incompetence, a long and narrow maxillary arch, and a greater than normal mandibular plane angle. These dentofacial traits have repeatedly been attributed to restricted nasorespiratory function. It is generally believed that environmental factors can exert subtle or dramatic effects upon dentofacial morphology, depending upon their magnitude, duration, and time of occurrence. The purpose of this article is to present a critical review of the literature concerning the effect of one such environmental factor, nasal airway function, upon dentofacial morphogenesis. This review will critically examine the most frequently cited papers reporting a relationship between nasorespiratory function and dentofacial morphology. In summary, this critical review fails to support a consistent relationship between obstructed nasorespiratory function and the adenoid facies or long-face syndrome. Additional objective evaluations of this relation are encouraged.

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