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# Mouth breathing in allergic children: its relationship to dentofacial development.

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While there are many claims that abnormal breathing patterns alter facial growth, there are limited controlled data to confirm this. We evaluated forty-five North American Caucasians of both sexes, ranging in age from 6 to 12 years. Thirty chronically allergic mouth-breathing subjects were selected from a pediatric allergy practice, and fifteen nonallergic nose breathers were selected from a general pediatric practice. Each subject underwent an intraoral clinical examination and a cephalometric radiograph analysis. Various skeletal and dental relationships were evaluated for statistical differences related to mode of breathing and age. The upper anterior facial height and the total anterior facial height were significantly larger in the mouth breathers. Angular relationships of the sella-nasion, palatal, and occlusal planes to the mandibular plane were greater in the mouth breathers, and their gonial angles were larger. The mouth breathers' maxillae and mandibles were more retrognathic. Palatal height was higher, and overjet was greater in the mouth breathers. Maxillary intermolar width was narrower in the mouth breathers and was associated with a higher prevalence of posterior cross-bite. Over all, mouth breathers had longer faces with narrower maxillae and retrognathic jaws. This supports previous claims that nasal airway obstruction is associated with aberrant facial growth. Longitudinal studies are needed to evaluate the effectiveness of early intervention in preventing these growth alterations.

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