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## **Upper airway obstruction and craniofacial morphology.**

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Otolaryngologists are being asked with increasing frequency to assess adequacy of the upper airway and to treat upper airway obstructive problems in orthodontic patients. The incentive has been provided by recent studies that purport to relate upper airway obstruction to dental and craniomorphologic changes. It is hypothesized that prolonged oral respiration during critical growth periods in children initiates a sequence of events that commonly results in dental and skeletal changes. In the chronic mouth-breather excessive molar tooth eruption is almost a constant feature, causing a clockwise rotation of the growing mandible, with a disproportional increase in anterior lower vertical face height. Such increases in anterior lower vertical face height are often associated with retrognathia and open bites. Low tongue posture seen with oral respiration impedes the lateral expansion and anterior development of the maxilla. Otolaryngologists have the ability to objectively and accurately assess upper airway patency. Rhinometric assessment before and after application of topical nasal decongestant, in conjunction with clinical examination, provides valuable information regarding upper airway patency and the cause of any existing obstructive pathologic condition. Studies should be designed carefully to control the numerous variables that have an impact on the growing face of a young child so that meaningful data can be obtained in our own field regarding this challenging topic.

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