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Anatomy of oral respiration: morphology of the oral cavity and pharynx.

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The anatomical states of the oral cavity and pharynx during mouth breathing in children with adenoid hypertrophy and in adults confirmed the speculation that mouth breathing is disadvantageous compared with nose breathing. In addition, comparison of the anatomical state between wakefulness and sleep in normal adults showed slight depression of the tongue root and slight narrowing of the oropharynx and hypopharynx during sleep. Obstructive sleep-disordered breathing occurs due to a variety of factors, such as paranasal sinus disease, tonsil and adenoid hypertrophy, hypertrophy and morphological abnormalities of the soft palate and palatine uvula, low-set soft palate, micrognathia, macroglossia, obesity and tongue root depression. Narrowing or obstruction of the middle pharynx and hypopharynx is more marked in patients with obstructive sleep-disordered breathing than in normal people and is especially marked during sleep. Therefore, morphological (i.e. anatomical) changes during mouth breathing may provide useful information for evaluating the pathology of snoring and sleep apnea.

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