

[Am J Orthod.](#) 1981 Mar;79(3):263-72. [Links](#)

Quantitative evaluation of nasal airflow in relation to facial morphology.

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This study examines the relationship between facial morphology and nasal respiration. Nasal resistance to expiratory airflow, average volume flow rate, and temporal characteristics of the respiratory cycle were measured for twenty-eight adults. Subjects were categorized as having (1) normal facial proportions with competent lips (n = 10), (2) normal facial proportions with incompetent lips (n = 9), and (3) long vertical face height (n = 9). Results indicate that the three groups do not differ significantly in terms of nasal airflow. Lip incompetence is not synonymous with mouth breathing. Although long-faced subjects as a group had a higher mean value of nasal resistance, the range of variation was so great as to preclude the diagnosis of nasal obstruction from an assessment of facial morphology.

PMID: 6938136 [PubMed - indexed for MEDLINE]