

[Am J Orthod Dentofacial Orthop.](#) 1997 Nov;112(5):507-11.  [FULL-TEXT ARTICLE](#) [Links](#)

## **Nasorespiratory function and head posture.**

**Huggare JA, Laine-Alava MT.**

Department of Orthodontics, School of Dentistry, Karolinska Institutet, Huddinge, Sweden.  
Jan.Huggare@Ortped.ki.se

Impaired nasal breathing has been reported to cause changes in human head posture. The aim of this study was to assess whether there was any relationship between nasorespiratory function and variables of head posture in 58 young adults. The pressure flow technique was used to measure airflow rate and oral/nasal pressure and to calculate the smallest cross-sectional area of the nasal airway. A natural head position roentgenocephalogram was used to measure the craniovertical angulation (NSL/VER), craniocervical angulation (NSL/OPT), and cervical spine inclination (OPT/HOR). The results showed a trend toward enlarged craniocervical angulation and forward inclination of the cervical spine in subjects with a relatively large nasal cross-sectional area. Though the general opinion on the effects of reduced upper airway size on head posture is opposite, these results are an experimental confirmation of the theoretically expected mechanism that leads to increased head extension in obstructed subjects.

PMID: 9387837 [PubMed - indexed for MEDLINE]