

Title: Sleep and Speech Outcomes of Secondary Speech Surgery for Children with Velopharyngeal Insufficiency

Authors and Institutions:

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Abstract

Background: Velopharyngeal insufficiency (VPI) results in hypernasality because air escapes through the nose during speech. VPI is common in children with craniofacial clefting. Surgical interventions designed to limit airflow through the nose during speech include: Furlow palatoplasty, pharyngeal flap, or sphincter pharyngoplasty. However, narrowing the nasopharyngeal airway can cause sleep apnea.

Hypothesis: Careful attention to preoperative speech evaluation data and sleep disorders can maximize speech outcomes while minimizing sleep disordered breathing.

Objectives: The purpose of this study is to describe the speech and sleep outcomes of patients with craniofacial clefting who have undergone secondary speech surgery.

Methods: This was a retrospective chart review including 484 unique patients who attended craniofacial clinic between January 1, 2016 and May 31, 2018. Of these, 179 underwent polysomnography, and secondary speech surgery occurred in 20. A detailed speech evaluation