

How Do Oronasal Masks Affect Upper Airway Anatomy and Collapsibility?

STUDY DESIGN

14 patients with OSA underwent a sleep study with both a **nasal and oronasal mask** (each for ½ the night) with **manual titration of CPAP**

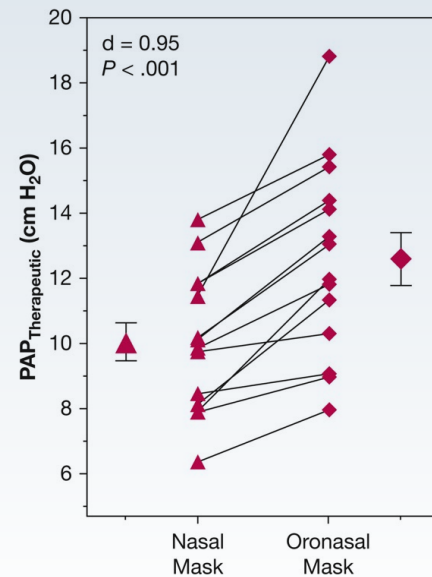
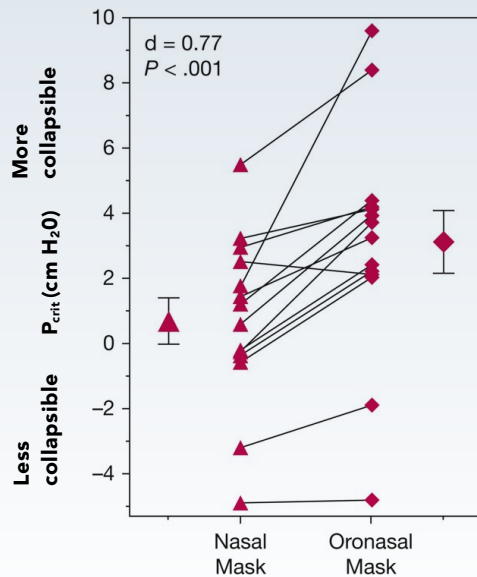


Upper airway collapsibility assessed using **pharyngeal critical closing pressure (P_{crit})**



Dynamic cine MRI to assess cross-sectional area of retroglottal and retropalatal airway with each mask

RESULTS



CPAP delivered via an oronasal mask worsens airway anatomy and collapsibility, resulting in increased CPAP level required to induce stable nonflow limited breathing.