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 retroglossal 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.