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Effects of mandibular position and body posture on nasal patency in normal awake subjects.

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The purpose of this study was to examine the changes in nasal patency induced by forward mandibular displacement or changes in body posture. Fifteen healthy adults participated in this study. To examine the influence of mandibular position, nasal resistance was recorded in intercuspal, middle, and maximum forward positions. To evaluate the effect of body posture, nasal resistance was recorded in the four postures of sitting erect, 30 degrees and 60 degrees dorsally reclined, and supine. The nasal patencies recorded in the middle and maximum forward mandibular positions were significantly higher than those recorded in the intercuspal position. Regarding the effect of body posture, the nasal patency showed a progressive decrease from the sitting erect position to the supine position. These results suggest that changes in mandibular position and body posture significantly affect nasal patency and that mandibular position and body posture should be considered basic information in the treatment of obstructive sleep apnea.

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