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Should a history of nasal symptoms be considered when estimating nasal patency?

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ABSTRACT

The purpose of this study was to determine if a history of certain nasal symptoms and ear, nose, throat, or lung disease should be taken into consideration when measuring patency of the nasal airway. The pressure-flow technique was used to measure nasal cross-sectional area and resistance in 249 healthy and nasally asymptomatic 16- to 82-year-old individuals. The subjects were also asked to complete a questionnaire of possible airway problems. The results showed that there were statistically significant differences in minimum nasal cross-sectional area and upper airway resistance between males and females, between individuals with and without allergic rhinitis, and between smokers and nonsmokers. However, these differences were too small to be of physiological or clinical importance. Therefore, when determining nasal cross-sectional area and resistance in individuals with a history of upper or lower airway problems, measurements can be assumed to be accurate, irrespective of other factors, as long as they are made during an asymptomatic period.

KEY WORDS: Dentofacial development, Nasal cross-sectional area, Nasal patency Nasal resistance, Nasal symptoms, Pressure-flow technique.

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