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**Title:** Clinical and polysomnographic determinants of snoring

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**Body:** Snoring is considered one of the hallmarks of sleep-disordered breathing but its determinants remain obscure. We aimed to document positional dependency of snoring along with its association with clinical and polysomnographic variables. 48 apnoeic and 53 nonapnoeic snorers who slept in supine and lateral position in all sleep stages during overnight polysomnography were included. Snoring was quantified by measuring the mean sound intensity, snoring frequency and their product. In apnoeic and nonapnoeic snorers, mean snoring intensity and mean intensity-frequency product were higher in supine than in lateral position and were also usually higher in N3 in comparison to REM and/or N2 stage in a given position.

Positional change in snoring intensity as expressed by the ratio of mean intensity in the supine to lateral position was independently and positively correlated with age and tonsils size in nonapnoeic snorers, and with body mass index, tonsils size, and apnoea-hypopnoea index in apnoeics. Snoring is more prominent in supine position and in N3. Snoring positional dependence is determined by tonsils size and age in nonapnoeic snorers, and body mass and apnoea-hypopnoea indices in apnoeics.