

Sleep-disordered breathing in REM linked to insulin resistance

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(HealthDay)—The correlation between sleep-disordered breathing (SDB) and glucose metabolism varies for rapid eye movement (REM) sleep and non-REM sleep, according to a study published in the Nov. 1 issue of the *American Journal of Respiratory and Critical Care Medicine*.

Hassan A. Chami, M.D., from the American University of Beirut, and colleagues characterized the association between REM-related SDB, [glucose intolerance](#), and insulin resistance in a community-based sample of 3,310 participants. The apnea-hypopnea index (AHI) was used to quantify SDB severity during REM (AHI_{REM}) and non-REM (AHI_{NREM}) sleep. A glucose tolerance test assessed fasting and two-hour post-challenge glucose levels in 2,264 participants; the homeostatic model assessment index for insulin resistance (HOMA-IR) was measured for 1,543 participants.

The researchers found that in models that adjusted for age, sex, race, and site, AHI_{REM} and AHI_{NREM} correlated with fasting glycemia, postprandial glucose levels, and HOMA-IR. AHI_{REM} was only associated with HOMA-IR and AHI_{NREM} was only associated with fasting and postprandial glucose levels after further adjustment for body mass index, waist circumference, and sleep duration.

" AHI_{REM} is associated with [insulin resistance](#) but not with fasting glycemia or glucose intolerance," the authors write.

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