

# Sleep apnea tied to diabetes in large study

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In the largest study to date of the relationship between sleep apnea and diabetes, a new study of more than 8,500 Canadian patients has demonstrated a link between obstructive sleep apnea (OSA) and the development of diabetes, confirming earlier evidence of such a relationship from smaller studies with shorter follow-up periods.

"Our study, with a larger sample size and a median follow-up of 67 months was able to address some of the limitations of earlier studies on the connection between OSA and diabetes," said lead author Tetyana Kendzerska, MD, PhD, of the University of Toronto. "We found that among [patients](#) with OSA, the initial severity of the disease predicted the subsequent risk for incident diabetes."

The findings were published online ahead of print publication in the American Thoracic Society's *American Journal of Respiratory and Critical Care Medicine*.

The study included 8,678 adults with suspected OSA without diabetes at baseline who underwent a diagnostic sleep study between 1994 and 2010 and were followed through May 2011 using provincial health administrative data to examine the occurrence of diabetes. Sleep apnea severity was assessed with the apnea-hypopnea index (AHI), which indicates severity based on the number of apneas (complete cessation of airflow) and hypopneas (partial cessation of airflow) per hour of sleep. Patients were classified as not having OSA (AHI < 5) or having OSA (AHI ≥ 5).

During follow-up, 1,017 (11.7%) patients developed diabetes. In

analyses adjusting for known risk factors for diabetes, including age, sex, body mass index, neck circumference, smoking, income status and comorbidities at baseline, patients with an AHI>30 had a 30% higher risk of developing diabetes than those with an AHI

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