

Association of Sleep Apnea and Type II Diabetes:
a Population-based Study

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Online Supplement

Wisconsin Sleep Cohort. Full details can be found elsewhere¹, but in brief, employees, ages 30-60 years, of 5 state agencies in south-central Wisconsin were initially surveyed in 1988 to create a defined sampling frame to undergo an extensive laboratory protocol. A weighted sampling scheme, with over sampling of habitual snorers was used to increase the variability in sleep-disordered breathing. When appropriate, the weighted sampling is accounted for in the analyses.

Polysomnography measurements. Polysomnographically-measured parameters included: electroencephalography, electrocardiography, electrooculography, and tibial electromyography. Noninvasive sensors measured oral airflow (end-tidal CO₂ gauge), nasal airflow (thermocouples), continuous pulse oximetry (Ohmeda 3740 Englewood, CO), and inductance plethysmography for thoracic and abdominal respiratory effort (Respirace, Ardsley, NY). Calculated parameters included the apnea-hypopnea index (AHI). Apnea was defined as cessation of airflow for at least 10 seconds and hypopnea was defined as a decrease in airflow with at least a 4% desaturation. Total sleep time (TST) was defined using the sleep staging criteria of Rechtschaffen and Kales².

References

- E1. Young, T., M. Palta, J. Dempsey, J. Skatrud, S. Weber, and S. Badr. The occurrence of sleep-disordered breathing among middle-aged adults. *N.Engl.J Med* 1993; 328:1230-1235

- E2. Rechtschaffen A and Kales A.A. A manual of standardized terminology techniques, and scoring system for sleep stages of human subjects. 1968. Public Health Service, Los Angeles, CA, U.S. Government Printing Office.