



**Physician Fact Sheet** Courtesy of: David Binder, DDS

## Sleep apnea more than quadruples risk of death

### Quick Facts:

1. Adults age 30 to 60 with sleep disordered breathing (SDB) were 2 to 3 times more likely to die from any cause than those without sleep disordered breathing
2. Untreated SDB has been linked to increased risk of cardiovascular disease, high blood pressure, stroke, diabetes and increased daytime sleepiness.

### Sleep Disordered Breathing and Mortality: Eighteen-Year Follow-up of the Wisconsin Sleep Cohort

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Terry Young, PhD<sup>1</sup>; Laurel Finn, MS<sup>1</sup>; Paul E. Peppard, PhD<sup>1</sup>; Mariana Szklo-Coxe, PhD<sup>1</sup>; Diane Austin, MS<sup>1</sup>; F. Javier Nieto, PhD<sup>1</sup>; Robin Stubbs<sup>1</sup>, BS; K. Mae Hla, MD<sup>2</sup>

(1) Department of Population Health Sciences and (2) Department of Medicine, University of Wisconsin-Madison, Madison, WI Background:

Sleep-disordered breathing (SDB) is a treatable but markedly under-diagnosed condition of frequent breathing pauses during sleep. SDB is linked to incident cardiovascular disease, stroke, and other morbidity. However, the risk of mortality with untreated SDB, determined by polysomnography screening, in the general population has not been established.

### Methods:

An 18-year mortality follow-up was conducted on the population-

based Wisconsin Sleep Cohort sample (n = 1522), assessed at baseline for SDB with polysomnography, the clinical diagnostic standard. SDB was described by the number of apnea and hypopnea episodes/hour of sleep; cutpoints at 5, 15 and 30 identified mild, moderate, and severe SDB, respectively. Cox proportional hazards regression was used to estimate all-cause and cardiovascular mortality risks, adjusted for potential confounding factors, associated with SDB severity levels.

### Results:

All-cause mortality risk, adjusted for age, sex, BMI, and other factors was significantly increased with SDB severity. The adjusted hazard ratio (HR, 95% CI) for all-cause mortality with severe versus no SDB was 3.0 (1.4,6.3). After excluding persons who had used CPAP treatment (n = 126), the adjusted HR (95% CI) for all-cause mortality with severe versus no SDB was 3.8 (1.6,9.0); the adjusted HR (95% CI) for cardiovascular



DENTAL SLEEP APNEA NY

Phone: **(212) 867-4140**

Fax: **(212) 751-2073**

Sleep Apnea and Snoring Treatment Center  
551 5th Ave., RM 1114, New York, NY

Web Site: [www.DentalSleepApneaNY.com](http://www.DentalSleepApneaNY.com)

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mortality was 5.2 (1.4,19.2). Results were unchanged after accounting for daytime sleepiness.

**Conclusions:**

Our findings of a significant, high mortality risk with untreated SDB, independent of age, sex, and BMI underscore the need for heightened clinical recognition and treatment of SDB, indicated by frequent episodes of apnea and hypopnea, irrespective of symptoms