

Diabetes & Sleep Disorders

“Proper sleep is as important as diet for people with diabetes.”

-Susan Zafarlotfi, PhD

Sleep Disturbances are common among individuals with diabetes. Patients with diabetes report higher rates of insomnia, excessive daytime sleepiness, and unpleasant sensations in the legs that disturb sleep. Approximately 71% of this population complain of poor sleep quality and high rates of hypnotic use.

Multiple factors contribute to complaints of insomnia. For those with type 2 diabetes, sleep disturbances may be related to sleep disorders such as sleep apnea. Sleep-disordered breathing correlates highly with obesity in the diabetic population. A strong association also exists between obesity, impaired glucose tolerance, insulin resistance, and sleep-disordered breathing. Also, the severity of sleep-disordered

breathing, as measured by the apnea-hypopnea index, correlates with the severity of glucose intolerance, insulin resistance, and diabetes. Although obstructive sleep apnea is the most common type of sleep-disordered breathing, central-type apneas and periodic breathing have been reported in patients with autonomic diabetic neuropathy.

Another common source of disturbed sleep in diabetics is discomfort or pain associated with peripheral neuropathy. Patients with diabetes, particularly those with peripheral neuropathy, can have restless legs syndrome and periodic limb movements that can cause sleep-onset and maintenance insomnia. In addition to sleep-disordered breathing, restless legs syndrome, and periodic limb

movements, hyperglycemia or hypoglycemia during the night and night sweats may also contribute to disturbed sleep in some patients.

Recognition that the etiology of sleep disruption in diabetes is often multifactorial and is essential to the successful evaluation and treatment of sleep disorders in this population. The differential diagnosis should also include sleep disruptions caused by a combination of comorbid conditions, including obesity related issues such as nerve impingement, **polyuria, polydipsia, and chronic pain associated with peripheral neuropathy. It should also include sleep disorders, such as insomnia, sleep-disordered breathing, restless legs syndrome and periodic limb movements.**

<http://www.medscape.org/viewarticle/491026>

Key Questions: Who Is At Risk?

- Do you have difficulty falling or staying asleep?
- Are you excessively sleepy during the day or fall asleep when you don't want to?
- Do you snore or have you been told that you snore loudly?
- Do you gasp for air or have you been told that you stop breathing during sleep?
- Are you a restless sleeper or have you been that you kick during sleep?
- Do you experience uncomfortable sensations in the legs in the evening that are relieved by movement?

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Sleep Apnea: A Hidden Health Crisis

A new report from the American Academy of Sleep Medicine (AASM) indicates that obstructive sleep apnea is a hidden health crisis in the United States. It projects that sleep apnea afflicts 29.4 million men and women in the U.S. It estimates that untreated sleep apnea causes \$87 billion in lost productivity each year. **The report noted that sleep apnea increases the risk of high blood pressure, heart disease, diabetes, and depression.** Total health care and medication costs related to undiagnosed sleep apnea adds up to \$30 billion a year.

The AASM also released a companion report about sleep apnea treatment that was based on a survey of more than 500 patients. Patients reported that treating sleep apnea had a positive impact on their health and quality of life. They slept better and longer. They also were more productive and did not miss as many days of work. About 78 percent of patients said that **sleep apnea treatment was a good investment.**

<http://www.sleepeducation.org/>

Diabetes & Sleep Apnea

The relationship between diabetes and sleep apnea is complicated. Rates of obstructive sleep apnea (OSA) are much higher among people with diabetes. At the same time, rates of diabetes are higher among people with OSA. The two diseases share common risk factors including obesity and advancing age. More than half of obese individuals are considered at high risk for developing OSA. Also, studies have suggested that having OSA increases the risk of developing type 2 diabetes. OSA can worsen glycemic control in existing diabetes. Having diabetes is a risk factor for developing sleep disorders and may worsen pre-existing OSA.

There is a strong correlation between OSA and diabetes— so much so that if you have one, the recommendation is to be screened for the other.

For people with diabetes, getting treated is especially important since research indicates improved insulin sensitivity and A1C levels decreased after a few months of CPAP treatment. In addition to decreasing daytime sleepiness and removing a barrier to effective weight loss and/or management, treating sleep apnea can:

- Improve psychological well-being
- Lower blood pressure levels
- Improve memory, concentration, and other cognitive functioning
- Increase productivity during the day, including fewer sick days from work
- Improve erectile dysfunction
- Decrease the risk of traffic accidents

http://www.dlife.com/diabetes/complications/sleep/sleep_apnea_treatment



You can “Stop the Snore” by talking to a physician about your risk for sleep apnea.

—American Academy of Sleep Medicine

Sleep Tips for Diabetes

- Keep blood glucose under control
- Treat peripheral neuropathy. Leg pain can make it difficult to fall asleep or stay asleep
- Treat polyuria & polydipsia. High blood pressure & high blood glucose can increase the urge to urinate overnight. Limit fluid intake a few hours before sleeping. Urinate before the bedtime routine and again before laying down.
- Screen, identify, & treat sleep disorders

Gestational Diabetes & Sleep Apnea

According to a study published in *Ob.Gyn.News*, **women with gestational diabetes are nearly seven times more likely to have sleep apnea compared to expectant mothers without the condition.** What’s more, study results also reveal that expectant mothers with gestational diabetes also sleep, on average, one hour less per night compared to pregnant women who do not have gestational diabetes.

“It’s common for pregnant women to experience sleep disruptions, but the risk of developing obstructive sleep apnea increases substantially in women who have gestational diabetes,” noted Dr. Sirimon Reutrakul of Rush University Medical Center in Chicago, in a released statement. “Nearly 75% of the participants in our study who had gestational diabetes also suffered from obstructive

sleep apnea.”

According to the study, **CPAP treatment early in pregnancy for women with hypertension and chronic snoring was noted to be associated with better blood pressure control and pregnancy outcomes.** After they adjusted for pre-pregnancy BMI, Reutrakul and his associates found that a diagnosis of gestational diabetes was strongly associated with a diagnosis of sleep apnea.

<http://www.sleepreviewmag.com/>

November: National Diabetes Month

- 1 in 11 Americans has diabetes today.
- 86 million Americans are at risk for diabetes.
- Every 23 seconds, someone in the U.S. is diagnosed with diabetes.

<http://www.diabetes.org/>