

When Snoring is More than a Nuisance ... It May be the Audible Alarm of an Overlooked Sleep Problem

Heavy snoring ... pauses in breathing, then gasps for air. Sound familiar? As many as 18 million Americans (including many commercial truck and motorcoach drivers) experience these symptoms while sleeping—signs of a serious, potentially life-threatening disorder called sleep apnea. Yet many people are completely unaware they have this problem.

Unless your spouse has complained about your loud snoring or told you that you stop breathing for several seconds at a time while you sleep, you may recognize only one other symptom of sleep apnea: excessive daytime sleepiness. People with sleep apnea often find they are so tired during the day that they can't concentrate or stay alert for extended periods of time. They are frequently fighting the urge to fall asleep at work, in front of the television, or behind the wheel of a motor vehicle.

Are You At Risk for Sleep Apnea?

Sleep apnea occurs in all age groups and both sexes, but there are certain factors that put you at higher risk:

- A family history of sleep apnea
- Being overweight
- A large neck size (17 inches or greater for men, 16 inches or greater for women)
- Being age 40 or older
- Having a small upper airway
- Having a recessed chin, small jaw or a large overbite
- Smoking and alcohol use
- Ethnicity

For the want of breath...

There are two types of sleep apnea: central and obstructive. Central sleep apnea, which is less common, occurs when the brain fails to send the appropriate signals to the muscles responsible for initiating breathing. Obstructive sleep apnea is far more widespread, affecting nearly 2 percent of women and 4 percent of men. This disorder, named for the Greek word apnea, meaning "want of breath," occurs when air cannot flow into or out of the nose or mouth, although the sleeper continues to try to breathe.

It is estimated that as many as 18 million Americans have sleep apnea and commercial truck and motorcoach drivers might be at higher risk of having this disorder. A study conducted by the University of Pennsylvania and sponsored by the Federal Motor Carrier Safety Administration

(FMCSA) and the American Transportation Research Institute of the American Trucking Associations found that almost one-third (28 percent) of commercial truck drivers had some degree of sleep apnea.¹ The study found that the risk of having sleep apnea depended on two major factors, age and degree of obesity, with prevalence increasing with both.

In some people, apnea results when the throat muscles and tongue relax during sleep and partially block the airway opening. People who are overweight may have an excess amount of tissue narrowing their airway, blocking the flow of air into or out of their nose or mouth. Someone whose airway is narrowed during sleep will not be aware of it, but will snore heavily and experience periods of no breathing, then will gasp for air, frequently waking from deep sleep to light sleep as these “apneic events” occur. In a given night, a person with the disorder may experience 20–60 or more apneic events per hour—which means his or her sleep is disturbed more than 200 times a night, every night!

Frequent interruptions of deep, restorative sleep leads to excessive daytime sleepiness, which is generally the first complaint sleep apnea patients have. However, left untreated, sleep apnea can lead to other medical problems including irregular heartbeat, high blood pressure, heart disease, and stroke. Studies show that untreated sleep apnea increases a person’s risk for a motor vehicle crash by up to seven times.

How do you know if you have sleep apnea?

If you snore, it doesn’t necessarily mean you have sleep apnea, though loud snoring is a common symptom. So are pauses in breathing during sleep and excessive daytime sleepiness. When your doctor is aware of your symptoms, he or she will probably refer you to a sleep specialist for further evaluation and diagnosis. The sleep specialist will discuss your symptoms and sleep habits, then may have you stay overnight at an accredited sleep clinic or center, where tests are conducted while you sleep.

There are a variety of ways to treat the problem.

Behavioral therapy, in some cases, may be all that is needed to relieve sleep apnea. People who are overweight often find that shedding pounds offers relief, opening the airway for improved airflow. Studies have shown that even a 10 percent reduction in weight can cut the number of apneic events for most patients. For some people with mild sleep apnea, apneic events only occur when they sleep on their backs. Using pillows and other methods to keep them from turning over onto their backs in their sleep may help the symptoms. And avoiding the use of alcohol and tobacco—both of which are likely to make the airway collapse during sleep and prolong apneic periods—may offer much needed relief.

The most common and effective medical treatment for sleep apnea is nasal **continuous positive airway pressure (CPAP)**. With this therapy, the patient sleeps with a small, lightweight mask over the nose, or with padded prongs inserted just into the nostrils. A specifically prescribed amount of air blows through the mask or prongs from an air blower, forcing air through the nasal passages. The constant, continuous air pressure is adjusted so that it is just enough to prevent the throat from collapsing during sleep. Use of CPAP has been shown to be highly effective in treating sleep apnea; however, if a patient stops using this therapy or uses it improperly, the apneic episodes and symptoms will return.

Did You Know?

The average annual medical cost for someone with undiagnosed sleep apnea is estimated to be **\$2,720**, compared with **\$1,384** for someone without sleep-disordered breathing. Overall, untreated sleep apnea is estimated to cost **\$3.4 billion** in additional medical costs in the U.S.

— from “The Medical Cost of Undiagnosed Sleep Apnea”
Kapur et al., *Sleep*, 1999;22(6):749–55.

For some people with mild sleep apnea, or for those who snore but do not have sleep apnea, **dental appliances** that reposition the lower jaw have been helpful in treating symptoms.

Surgical procedures are sometimes used to increase the size of the airway. Some of the more common procedures include the removal of adenoids and tonsils (especially in children), nasal polyps or other growths, or other tissue in the airway and correction of structural deformities.

Reference

1. Pack AI, Dinges DF, & Maislin G. (2002). A study of prevalence of sleep apnea among commercial truck drivers. Federal Motor Carrier Safety Administration (Publication No. DOT-RT-02-030). Washington DC: U.S. Department of Transportation, FMCSA.

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