

SLEEP WELL

News on sleep apnea for the commercial trucking industry

WORK BETTERSM

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Driver edition

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Sleeping Together A FINE ART

Is tossing and turning an issue? What about snoring? Find the solution to a good night's sleep.

Sleeping in a bed with another person can be trickier than the movies make it out to be. While you may hold healthy sleep intentions, your partner's patterns can disturb and down-right destroy your attempts at a good night's sleep. Consider the following questions: Do you sleep well with another person in bed with you? Do you toss or turn? Do you snore? Does going to bed late or getting up early affect your quality of sleep?

If you answered yes to any of these questions, it may not be your fault. If your partner displays any of the above concerns, it may in fact be him/her who is keeping you from enjoying a restful, uninterrupted 8 hours. To alleviate the problem, you first need to evaluate the situation.

Bed-Rocker

If your partner tosses and turns, the issue may be purely physical. Your partner may be experiencing frequent back problems, arthritis, or stress-related tension which causes the body, especially the limbs, to jerk in spasms. This can cause, not only you, but your partner to wake up groggy and stiff.

Solution: Ask your partner to take an over-the-counter pain medicine before bed to ease discomfort.

Snorer

If your partner snores, consider the possibility he/she might have sleep apnea. If he/she wakes you from the noise, spend a few minutes and listen to his/her breathing. Do



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Sleep Well Work Better is a production of Precision Pulmonary Diagnostics, specializing in premium news and analysis on sleep apnea for the commercial trucking industry, and is published 4 times a year.

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Precision Pulmonary Diagnostics (PPD), provides professional screening for drivers who are at risk for sleep apnea. This is a HIPAA-compliant, online tool customized to a company's requirements.

Once a driver has PPD will provide local diagnostic services with the ease of Web-based scheduling and quick, reliable turn-around — from diagnosis to treatment.

Drivers who require treatment will be fitted for and provided with a CPAP mask, flow generator, and heated humidifier for nightly use.

In order to ensure drivers are using their masks correctly, PPD has partnered with a leading manufacturer of CPAP equipment, masks, and the only provider of a patented wireless compliance monitoring system.

The wireless compliance monitoring system provides daily information of CPAP use, efficacy, and allows real-time troubleshooting of any problems your drivers may be experiencing. With this data, we can enhance your drivers' CPAP acceptance and long-term compliance. In short, our protocols can maximize your results and your return on investment.

Dear Readers,

Recently Swift Transportation, Inc., headquartered in Phoenix, AZ, has decided to join the "PPD family" of commercial carriers offering a comprehensive sleep apnea management solution for its employed drivers. We are honored that Swift has chosen PPD and we welcome their drivers who will be participating in the program.

Unrecognized sleep apnea is very common in commercial drivers – approaching a prevalence of 28% in a 2002 study commissioned by the FMCSA. Symptoms may include daytime fatigue or sleepiness, inattentiveness while driving, loud snoring, and even irritability. Sleep apnea occurs when your tongue and soft palate collapse onto the back of your throat during sleep. This blocks your airway and, when your oxygen level drops low enough, it forces your brain to move out of deep sleep to partially awaken you. You awaken repeatedly with a loud gasp and return to sleep.

Obstructive sleep apnea can lead to other health problems, including cardiovascular disease and high blood pressure. Additionally, sleep apnea and diabetes are "linked" in several ways. Central obesity - excess weight around the middle - is a risk for diabetes as well as sleep apnea. Insulin resistance syndrome - a condition common in people with diabetes - is also commonly found in people with sleep apnea. When we don't breathe deeply enough, it increases hormones in the body that raise blood sugar levels and impair the body's ability to process excess blood sugar.

How do you know you have sleep apnea? Spend the night in a sleep lab hooked up to electrodes to measure how you breathe (or not). Lots of physiological things happen while sleep disordered people snore. Oxygen and blood flow are reduced, blood pressures rises and heart irregularities occur. All in all, it's not a very restful sleep.

The good news is the condition is successfully treated nearly 100 percent of the time. The most effective and successful treatment is called CPAP, which stands for Continuous Positive Airway Pressure. This mask delivers air pressure and keeps your airway open while sleeping, resulting in longer periods of uninterrupted sleep.

Even better news is that successful treatment of sleep apnea improves other medical conditions if present, and/or reduces the chances of those conditions developing in the future. For example, CPAP helps control blood sugar levels by helping get more oxygen to the body. Risk factors for heart disease are also improved. For example, a recent study of sleep apnea patients who used CPAP showed significant reductions in blood pressure, total blood cholesterol levels and insulin resistance, a precursor to diabetes.

PPD is dedicated to improving the health and safety of all commercial drivers. We are proud that our efforts within this community are raising the awareness of, and how worthwhile treatment is for sleep apnea. The initiatives of Schneider National and Swift Transportation are commendable and represent a tangible commitment from these employers towards improving the welfare of their drivers.

Sleep Well and Work Better!

Mark B. Berger, MD FCCP

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Sleep issues could be warning signs

While some of us have lost sleep now and then by dealing with internal stress, outside noise or someone who snores. However, doctors in Austin, Texas, say snoring – which can be an indicator of sleep apnea – can be more than just a nuisance. It can impact your heart, according to an article by New 8 Austin.

Sleep-related disorders dramatically impact the heart, according to cardiologist Dr. Norman Risinger at the Heart Hospital in Austin. He told the news station that, being a part of the heart group, he felt it was his duty to screen patients for such sleeping disorders.

Sleep apnea is really a lack of oxygen flowing through the airway, he told the news station. People who have severe sleep apnea experience episodes every two minutes when they sleep. Such symptoms include fatigue, irritability, falling asleep instantly. Sometimes people say they fall asleep at a red light or wake up and do not feel refreshed. According to the news station, there are two types of sleep apnea – central and obstructive. Central sleep apnea is

where the brain forgets to send a signal to the lungs to breathe. Obstructive sleep apnea is when the soft palate of the tongue blocks and prevents flow of air.

With the help of cameras, the Heart Hospital monitors a patient's every move inside its sleep center. When pa-

CAUTION

tients are diagnosed with the sleep disorder, doctors then measure the patient's quality of sleep and monitor what impact it may have on them.

Larry Nance, a sleep apnea patient, was prompted by his wife to see a doctor after she noticed his disrupted sleep.

According to Nance, he has gone from 200 interruptions in his sleep per night to about six. He said he was also able to sleep at night. He has more energy in the morning when he wakes up and to do activities in the afternoon. He told the news station now he is just not

really to settle down for the night and go to bed.

A few early symptoms of sleep apnea include heavy snoring, pauses in sleep or chronic fatigue, according to the news station. High blood pressure is also a big indicator of a sleep disorder. According to Risinger, not every who has high blood pressure has sleep apnea. However, **if untreated, everyone with sleep apnea will sooner or later develop high blood pressure.**

The sleep disorder actually makes people with heart failure worse. Risinger also said that it is **100 percent chance that everyone who has sleep apnea will develop hypertension if they are not treated.**

A constant airway pressure machine is the most common way to correct sleep apnea. The machine keeps the airway open so the patient does not get into cycles of sudden adrenaline, a cough, loss of oxygen or a stir.

Other lifestyle changes such as such as losing weight, avoiding alcohol close to bedtime or sleeping on your side, can help stop snoring.

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they stop for a short period of time (10 seconds or more)?

Solution: Ask your partner to visit his/her doctor to evaluate the condition at a sleep lab. If diagnosed, your partner will then be given a CPAP machine to wear at night to keep his/her airway open.

Pattern-breaker

While the above sleep issues are

medical, sometimes partners' sleep patterns of going to bed or getting up at different times can be to blame for poor sleep. Some people's clocks are naturally set to rise early or stay up late. It is a lucky couple whose internal biological clocks work in synch.

Solution: Discuss sleep patterns with your partner and decide on procedures as to not wake the other when going to bed or getting up. If you are

an early riser, consider using the bathroom downstairs to get ready. If you are late to bed, keep your activities quiet while your partner is sleeping.

Keep in mind that a good night sleep not only gives you energy and health for the day ahead, but it can also decrease stress, which can bring about a more enjoyable and relaxing relationship.

Study: Diet contributes to severity of sleep apnea

A diet laden with fat and cholesterol may contribute to complications with severe obstructive sleep apnea, said a recent study in the *Journal of Clinical Sleep Medicine*.

According to Stuart F. Quan, M.D., in the Oct. 15 issue of the magazine, patients with severe cases of sleep apnea consumed significantly more fat, saturated fat, cholesterol and protein than others who had less disturbed sleep.

The study concluded the dietary associations were most prevalent in women with a severe case of the disorder and remained significant after controlling for body mass index, age, and daytime sleepiness.

The study

The authors observed diet in disordered sleep and obstructive sleep apnea in a group of 320 participants during an ongoing random study of continuous positive airway pressure for obstructive sleep apnea.

Based on their findings, they called for further study of the role of diet and activity in the development of cardiovascular and metabolic syndrome in patients with sleep apnea. Baseline assessments for this study included questions about exercise and eating habits. All the participants had polysomnographic evaluations of their sleep habits.

The participants were then put into six groups based on the severity of their sleep disordered breathing, ranging from fewer than 10 disruptions per hour (20 patients) to 75 or more disruptions per hour (40 patients).

Findings

Comparison of individuals with 50 or more sleep disruptions per hour and those with fewer disruptions showed that individuals with more severely disturbed sleep consumed 88.16 mg more of cholesterol.



Among women, those who had severe sleep apnea consumed:

- 21.96 g more of protein
- 27.75 g more of fat
- 9.24 g more of saturated fat

The authors stated that participants who suffered from severe sleep-disordered breathing ate fewer calories from carbohydrates and more calories from fat and saturated fat than recommended in U.S. dietary guidelines.

According to the authors, those with significant sleep apnea expend more energy during sleep as a result of a greater energy cost of repetitive breathing efforts at night against an obstructed upper airway.

The study also discovered the following:

- Almost 60% of the participants were obese, defined by a body mass index of 30 or greater.
- The severity of sleep disordered breathing increased in near-linear fashion with BMI.
- Older age also predicted increased severity of sleep-disordered breathing.
- Total sleep time, daytime sleepiness, and education did not correlate with the severity of sleep-disordered breathing.

The authors said the study provides new information on eating habits of those with obstructive sleep apnea, which may be another way sleep disordered breathing can lead to these diseases.

How to pass your DOT exam

How often have you been stopped by a DOT examiner and given a 3-month card due to your high blood pressure? Did you know that untreated sleep apnea raises your blood pressure and, at times, even medication cannot keep it under control?

Treating sleep apnea with a CPAP machine will not only help your blood pressure, but medical research has shown treatment with CPAP helps:

- * Gastric Reflux Disorder
- * Diabetes
- * Anxiety and Depression
- * Heart conditions and strokes
- * Erectile dysfunction
- * Obesity
- * Fatigue

It is amazing what happens when your body gets its daily dose of the necessary oxygen while you sleep. To no longer have the back of your throat or nasal passages close up delivers that critical air flow.

If your DOT examiner needs additional information, feel free to ask PPD for assistance. Our goal is to help get you certified by a DOT examiner by diagnosing and treating your sleep apnea and improving other medical conditions that may co-exist with your sleep apnea.



Is your sleep tank on empty?

If you aren't getting enough quality sleep, you could be putting yourself and other drivers at risk.

Studies have shown that driving while sleep deprived can slow reaction time as much as driving while intoxicated.

According to the National Sleep Foundation's Web site, the National Highway Traffic Safety Administration has estimated that 100,000 police-reported crashes resulting in more than 1,500 fatalities and 71,000 injuries are caused by drowsy drivers each year.

Not sure if you getting enough sleep before you drive? Ask yourself the following questions:

Do I have an inability to remember driving the last few miles?

Do I drift from the lane of travel or driving over rumble strips?

Do I have a weakened ability to concentrate?

Do I yawn frequently?

Do I have an inability to keep eyes open?

Do I miss traffic signs?

If you answered yes to any of these questions, take the time to reconsider your sleep habits or talk to your doctor.

Link between diabetes and OSA, IDF claims

The International Diabetes Foundation urging diabetes screening in sleep apnea patients, vice versa

The American Diabetes Association unveiled a new report issued by the International Diabetes Federation at its June 2008 annual Scientific Sessions. The report, titled "Sleep-Disordered Breathing and Type 2 Diabetes," called for a "global, multidisciplinary approach to raise awareness, improve clinical practice and coordinate research efforts to better understand the links between sleep-disordered breathing and type 2 diabetes."

According to an article in *Endocrine Today*, while type 2 diabetes has been acknowledged extensively by the health care industry, the scope of the issue of obstructive sleep apnea (OSA) has not been as well recognized. OSA has been associated with hypertension, metabolic syndrome, type 2 diabetes, cardiovascular disease and obesity. And, while the evidence is staggering, 80 percent of people with sleep apnea remain undiagnosed and untreated.

The International Diabetes Federation is urging all healthcare professionals who treat those with type 2 diabetes to also screen these pa-

tients for OSA. Likewise, any patient who has OSA should be screened for type 2 diabetes.

To screen patients for type 2 diabetes, IDF suggests testing for markers of metabolic disturbance and CV risk: waist circumference, blood pressure, fasting lipid profile, and fasting blood glucose. To screen patients with OSA, IDF suggests assessing the patient for symptoms and asking the following questions: Do you snore? Do you wake up tired after a full night's sleep? Are you being treated for high BP?

The IDF recommends that given the scope of the problem, all health care professionals who treat patients with diabetes or obstructive sleep apnea be educated on the connection between type 2 diabetes and sleep apnea, and appropriate treatment for obstructive sleep apnea.

Likewise health care policy decision makers should be made aware of the considerable financial burden that undiagnosed and untreated obstructive sleep apnea places on individuals and the population at large.

