

News on sleep apnea for the commercial trucking industry



INDUSTRY THREAT

Untreated OSA a danger to transportation, study says

Truck drivers who fail to adhere to treatment for obstructive sleep apnea are a public safety threat on U.S. roadways, according to results from the largest study of sleep apnea and crash risk among commercial motor vehicle drivers. The study was led by Precision

Pulmonary Diagnostics (PPD), a leader in providing comprehensive, cost-effective, quality management of sleep apnea related issues in the commercial driver and operator population.

The study involved 1,613 truck drivers

with obstructive sleep apnea and an equal number of control drivers who were matched by job experience and tenure with the trucking firm. Diagnosed drivers were prescribed positive airway pressure (PAP) therapy and given an auto-adjusting machine to be used

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PPD: Protecting Professional Drivers is a production of Precision Pulmonary Diagnostics, specializing in premium news and analysis on sleep apnea for the commercial trucking industry, and is published 2-4 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 HIPPA-compliant, online tool customized to a company's requirements.

Once a driver has been diagnosed with sleep apnea, 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,

PPD is composed of a team of 28 professionals who are all involved in the daily operations of our sleep apnea management program. Our success is built on a network of high performing people who are not only great at what they do, but passionate about Sleep Apnea and helping you navigate through what can often times be a complex and confusing system.

For the purpose of this editorial I will focus on our Clinicians who are what I like to call the Green Berets of the company. They begin working with you the moment you test positive for OSA and remain in close contact with you on a weekly or as needed basis until you are ready to graduate and transition to the next step in our OSA care program.

Our clinical team is made up of a group of fabulous caring individuals who come from a variety of professional backgrounds, including: sleep Techs- RSPGT, Respiratory Therapists, LVN's and DME experts who all share the common goal of helping you acclimate and adjust to your new diagnosis. Each clinician brings their own style and unique clinical skills designed to help you achieve a level of confidence as well as tailor the CPAP coaching program to your individual needs. The ultimate goal being your success on CPAP treatment. Our clinical team is a mixture of new and established clinicians, some who have been with PPD for over 6 years and understand the unique needs of the trucking industry with regard to CPAP treatment in the truck.

Clinicians work on a variety of CPAP issues that include anything from: assessing your pressure issues and comfort levels on CPAP to mask leak and mask fit issues to humidification problems as well as a host of other issues that you may encounter during the adjustment phase to CPAP treatment. Our clinicians have a very high success rate in helping drivers become successful on CPAP which they couldn't accomplish without patience and passion for what they do.

What sets us apart from other companies is that our shared passion is making you-our drivers successful on CPAP treatment, and this drives our continued commitment to excellence in the world of OSA. We take pride that through our work and partnership with our trucking companies, we have made driving safer and improved the health of drivers nationwide.

Safe Travels!

Katia LaManna, LCSW
Director of Clinical Operations

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OSA tied to memory loss

While sleep apnea can leave you tired the next day, it also reduces the amount of oxygen in your blood, which results in cognitive decline and dementia, according to a new study.

Published in the journal *Neurology*, the study found that patients with sleep apnea and/or snoring were diagnosed with mild cognitive impairment more than a decade earlier than those without sleep apnea.

On average, those with untreated obstructive sleep apnea started experiencing cognitive impairment at the age of 77, compared to 90 among those without breathing problems.

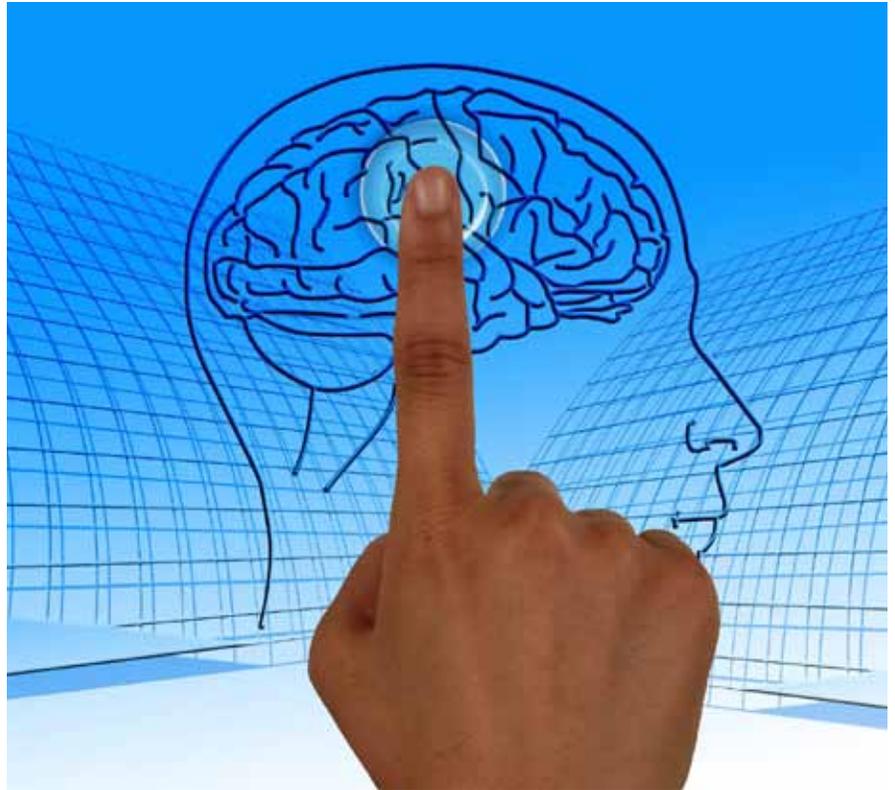
Those who used a CPAP machine to address their sleep apnea started declining mentally at the same age as those who did not have sleep apnea.

Onset of Alzheimer's disease was also more rapid among those with untreated sleep apnea. On average, they were diagnosed about five years earlier than those slept well.

"This study is adding to the emerging story that sleep apnea may be contributing in some way to the acceleration of cognitive decline as you age, and that is potentially another good reason to get evaluated and treated," said coauthor Dr. Andrew Varga.

Reduced oxygen levels isn't the only reason sleep apnea may hasten cognitive decline. Lack of sleep also promotes Alzheimer's by preventing critical detoxification. In a nutshell, your brain's waste removal system, known as the glymphatic system, only operates during deep sleep.

The glymphatic system allows your brain to clear out toxins, including harmful proteins called amyloid-beta, the buildup of which has been linked to Alzheimer's. Without proper sleep, harmful waste begins to accumulate in your brain.



Boost your brain power

Besides adhering to your CPAP therapy, try these activities to prevent cognitive decline:

1. Be intentional about what you eat. Pass on sugars and grains for foods rich in antioxidants and omega-3 fatty acids.
2. Exercise. Improve blood flow to the brain and stimulate your nerves to multiply and strengthen your interconnections.
3. Play brain games or learn a new skill for 20 minutes a day to stimulate the nervous system.
4. Get plenty of Vitamin D. Receptors activated by Vitamin D increase nerve growth in the brain. Make sure to get enough sun exposure each day.

Study: Snoring speeds up cancer

Snoring promotes cancer development, claims new research. The study links poor cancer outcomes to hypoxia, a condition when body tissues and organs don't get their needed oxygen. Hypoxia is a common side effect of obstructive sleep apnea (OSA).

According to researchers in Spain, intermittent hypoxia worsens cancer development by promoting blood vessel growth within tumors.

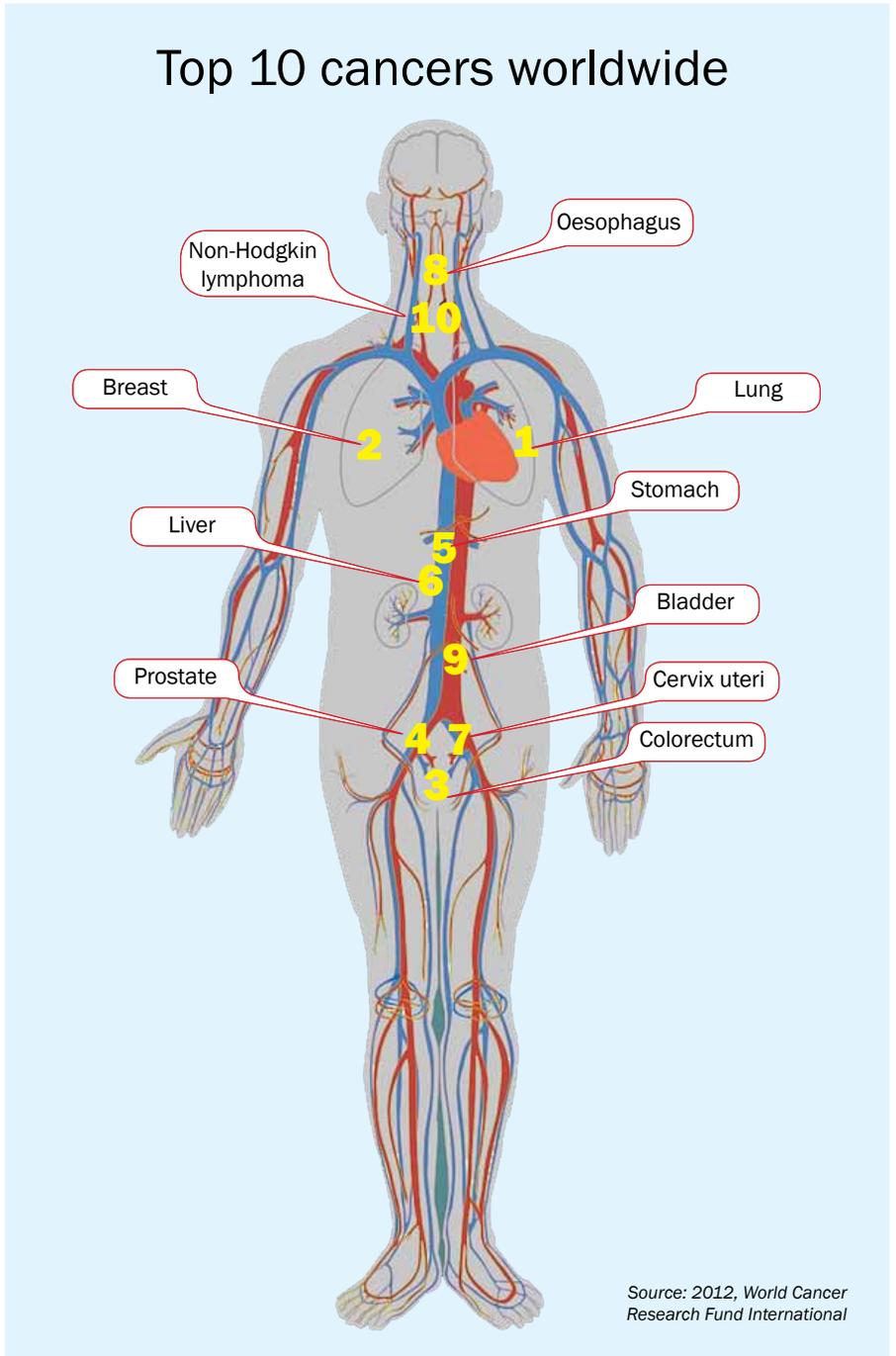
The research team found that mice subjected to intermittent hypoxia had significantly more vascular progenitor cells and endothelial cells in their tumors. Mice exposed to intermittent hypoxia also had higher circulation of vascular endothelial growth factor.

The study involved 24 mice with kidney tumors. Half of the mice were subjected to intermittent hypoxia, and the other half were used as controls.

Researcher Antoni Vilaseca of Hospital Clínic De Barcelona said that the latest findings suggest obstructive sleep apnea promotes cancer development by increasing blood flow in tumors.

"Patients suffering from obstructive sleep apnea usually suffer from intermittent hypoxia at night," said lead researcher Antoni Vilaseca of Hospital Clínic De Barcelona. "This work shows that intermittent hypoxia has the potential to promote the formation of blood vessels within tumors, meaning that the tumors have access to more nutrients."

The findings were recently presented at the European Association of Urology Congress in Munich.



Top 7 countries with highest cancer rate per 100,000



Source: 2012, World Cancer Research Fund International

Asthma increases OSA risk

Researchers find link between breathing and sleep disorder

Adults who battle asthma may also be at risk for developing obstructive sleep apnea (OSA), new research suggests.

The Wisconsin Sleep Cohort Study, which launched in 1988, tracked about 550 men and women, between the ages of 30 and 60, of whom a little more than 15 percent had asthma. Every four years since that time, each completed general health questionnaires, while also completing in an overnight in-laboratory sleep test.

At the first follow-up in 1992, researchers found more than a quarter of the asthma patients (27 percent) also had developed OSA. This compared with just 16 percent of the patients without asthma.

Over the full study period, asthma patients faced almost 40 percent greater risk than their non-asthmatic counterparts. Researchers also found, the longer an individual had asthma, the greater their increased risk for developing sleep apnea.

While the study can pinpoint a connection between asthma and sleep apnea, it has yet to determine a cause-and-effect relationship.

The study was led by Dr. Mihaela Teodorescu, of the William S. Middleton Memorial Veteran's Hospital and the University of Wisconsin School of Medicine and Public Health, both in Madison, Wisc.

Asthma 101

What is asthma?

A chronic disease where airways are inflamed, making it difficult for air to move in and out of lungs.

What are the symptoms?

Coughing, wheezing, shortness of breath and/or chest tightness.

What are the 4 types of asthma?

Exercise-induced: Develop symptoms only when exercising.
Allergic: Develop symptoms because of a pre-existing allergy condition.

Occupational: Caused by inhaling fumes, gases and dust at work.

Childhood: Develop symptoms before age 5.

How is asthma diagnosed?

Through spirometry. You take a deep breath and blow into a sensor to measure the amount of air lungs can hold and the speed of the air you inhale or exhale.

How is asthma treated?

There is no cure, however corticosteroids can be inhaled. In some cases, a combination inhaler also includes long-acting beta-agonists to control symptoms. Leukotriene modifiers, as an oral medication, is also an option.

Source: American Academy of Allergy, Asthma and Immunology

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both at home and in the truck. Objective treatment adherence data were downloaded from the PAP machine's internal memory chip.

Results show the rate of serious, preventable crashes was 5 times higher among truck drivers with sleep apnea who failed to adhere to PAP therapy, compared with matched controls. In contrast, the crash rate of drivers with sleep apnea who were fully or partially adherent with treatment was statistically similar to controls.

"This study represents the first ever assessment of excessive crash risk attributable to untreated sleep apnea in a population of commercial drivers," said Dr. Mark Berger, president and chief medical officer at PPD. "All previous studies were in non-commercial drivers. However, the results of our study are consistent with previous studies in non-commercial drivers, showing an approximate five times greater risk for an accident in subjects with untreated sleep apnea."

PPD managed the drivers in this study. The research team included Dr. Steven V. Burks at the University of Minnesota, Morris, Jon Anderson, PhD, and several research students. The team also received interpretative and medical writing assistance from Dr. Stefanos N. Kales of the Harvard T.H. Chan School of Public Health; Jeffrey S. Hickman, PhD, and Erin Mabry, PhD, of the Virginia Tech Transportation Institute; and Dr. Atul Malhotra of the University of San Diego.

Rangers slugger has 'extreme' sleep apnea

Texas Rangers slugger Prince Fielder recently revealed during Spring Training this year he suffered from sleep apnea.

ASC doctors told Fielder, to stop breathing for more than 30 times in an hour is dangerous. According to the Dallas Morning News, he stopped breathing 39 times in an hour during a recent sleep study.

While the condition is considered serious,

Fielder remains positive about the diagnosis.

He told the Dallas Morning News, he felt like he was sleeping long enough but wasn't feeling rested. He was concerned something was wrong but now that he can pinpoint the problem, it's good.

"I just wanted to make sure I was okay," he said.