

# Is Obstructive Sleep Apnea Lowering Productivity and Costing You Money?



The Reality May Surprise You!



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## The Facts:

- In the US, the economic cost of obstructive sleep apnea (OSA) is approximately \$150 billion per year in higher health care costs, motor vehicle crashes and reduced productivity. These results can be assumed to be similar in Canada.(4)
- 5.4 million Canadians have or are at high risk of experiencing OSA. (10)
- It is estimated that 93% of women and 82% of men with moderate to severe sleep apnea are undiagnosed.(6)
- Studies found that a person who loses two hours of sleep from a normal eight-hour sleep schedule performs similarly to someone who has drunk two to three beers.(5)
- Studies show that the risk of lost work days was increased by 61% in men with OSA; it was increased by 80% in women with sleep apnea.
- Research shows that work performance can be decreased by 30% due to sleep fragmentation and repetitive hypoxia which are characteristics of OSA.

Untreated sleep disorders reduce alertness and increase fatigue which contribute to missed workdays, lower productivity, increased health costs, workplace injuries and motor vehicle accidents. (1)

## Obstructive Sleep Apnea: A Definition

Obstructive sleep apnea is a common but significant sleep-related breathing disorder characterized by interruptions of sleep caused by partial or complete airway obstructions while sleeping.(2) Collapsing of the airway causes breathing to stop.

Apneas can occur 50 to 100 times an hour depending on the severity of the disorder.(3) When apneas occur, air cannot enter the lungs, causing a decrease in oxygen in the blood and requiring the heart to work harder.

The brain detects these disturbances and will arouse the body out of sleep just enough to get for the individual to start breathing again.(2)

With normal sleep patterns interrupted, those affected experience sleepiness or feel tired during the day. The long term health effects are even more serious. Untreated OSA increases the risk of heart attack, stroke, diabetes, heart failure and irregular heartbeat.(2)

# How Undiagnosed OSA Could Be Affecting Your Employees

Symptoms include:

- Loud snoring
- Morning headaches
- Frequently waking to urinate
- Daytime sleepiness
- Apneas or breathing pauses during sleep
- Increased blood pressure
- Mood changes
- Depression

Every day, many of your employees may be coming to work dramatically impaired by undiagnosed OSA.

## Which Employees are most likely to Experience OSA?

5.4 million Canadians have or are at high risk of experiencing OSA. Obesity is considered the leading risk factor for OSA. With obesity and weight problems rising in North America, OSA has become more prevalent. Men are more susceptible to sleep apnea than women and out of those men, most are middle-aged. Genetic factors can also be related to OSA risk.

A typical employer with 1,000 employees can expect to lose more than \$1 million each year to fatigue (1)

## How Can You Diagnose Obstructive Sleep Apnea in Your Employees? How Can You Help Them – and Your Business's Productivity?

Employee Screening from HorizonAire is an easy and effective way to address OSA.

### Our Employee Screening Methodology

- The industry standard 'Stop Bang Scoring' questionnaire will be used as a tool to help uncover employees who are at risk for sleep apnea. See STOP BANG formula attached.
- Employees who test high on the questionnaires will get tested for OSA.

## OSA Sleep Study Testing

- Testing for OSA is completed through an overnight sleep study.
- Sleep studies are performed for free and only require a 20 minute appointment for usage instructions of testing equipment.
- Appointments can also take place on site for easy convenience.
- The patient will take the sleep device home and will wear overnight for one night and return it the next day. Pickup services are available.

## Treatment

- If test results come back positive, a Continuous Positive Airway Pressure (CPAP) machine may be required to treat obstructive sleep apnea. A doctor's prescription is mandatory for CPAP treatment.
- Insurance will provide assistance for the rental and purchase of the CPAP machine.

## An Industry Example: The Benefits of Employee Testing

Schneider's, a US transportation company, decided to treat drivers diagnosed with OSA. The trucking company saved \$400 a month on health plan costs per driver, increased retention, reduced crash risk and decreased DOT-reportable crashes. (7)

The Canadian Council of Motor Transport Administrators estimates that 20% of fatal collisions involved a fatigued driver. The majority of studies show that people suffering from OSA are 2 to 4 times more likely to get into an accident when not treated. (8,9)

## The Next Step

**Contact HorizonAire to get started.**

**We are available to answer all your questions.**

HorizonAire is a leading Service Provider in OSA treatment.

We are proudly Newfoundland & Labrador owned and operated since 1996.



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# STOP-BANG Scoring Model

## Screening for Obstructive Sleep Apnea

Answer the following questions to find out if you are at risk for Obstructive Sleep Apnea.

**S (Snoring)** Do you snore loudly (louder than talking or loud enough to be heard through closed doors)?  YES  NO

**T (Tired)** Do you often feel tired, fatigued, or sleepy during daytime?  YES  NO

**O (Observed)** Has anyone observed you stop breathing during your sleep?  YES  NO

**P (Blood Pressure)** Do you have or are you being treated for high blood pressure?  YES  NO

**B (BMI)** BMI more than 35 kg/m<sup>2</sup>?  YES  NO

**A (Age)** Age over 50 yr old?  YES  NO

**N (Neck Circumference)** Neck circumference greater than 40 cm (16 in)?  YES  NO

**G (Gender)** Gender male?  YES  NO

\* For imperial conversion use lb/in<sup>2</sup> x 705<sup>1</sup>

<sup>1</sup>Stensland SH and Margolis S. J Am Diet Assoc 1990; 90(6): 856.

**High risk of OSA:** answering **YES** to three or more items

**Low risk of OSA:** answering **YES** to less than three items

Adapted from Chung F et al. Anesthesiology 2008; 108(5): 812-21.

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