

# Sleep Apnea

## What is it?

Sleep apnea occurs when breathing stops during sleep for at least 10 seconds at least five times an hour. Mild sleep apnea causes few symptoms, but the condition may lead to low oxygen levels, which can be life threatening.

Sleep apnea is more common in people who smoke, drink alcohol or are overweight. It may also occur in people at high altitudes.

There are two types of sleep apnea: "obstructive sleep apnea" and "central sleep apnea."

Obstructive sleep apnea is due to a blockage in the airways. Central sleep apnea is caused by a problem with the nerves that control breathing. In some cases a mixture of both types of sleep apnea may occur.

## The two types of sleep apnea

*Obstructive sleep apnea* (OSA) affects primarily men between the ages of 30 and 50. It occurs when air passage in the upper respiratory tract becomes obstructed during sleep (obstruction is caused by soft tissue of the pharynx relaxing and blocking the flow of air). It prevents breathing until low levels of oxygen in the blood cause a person to respond by waking up and taking a deep, snorting breath. Being overweight or having a small tongue or mouth can contribute to the obstruction. In children enlarged tonsils or adenoids are the most common cause of obstruction.

*Central sleep apnea* is a rare type of sleep apnea where the region of the brain and nerves that regulate breathing do not function normally and cause breathing to be impaired. It can be caused by head injury or stroke.

## What are the symptoms?

The symptoms of OSA develop gradually whereas the symptoms of central sleep apnea may develop suddenly. You may not be the first one to notice you have sleep apnea — it may be a partner or family member who informs you.

Symptoms of both types include:

- Restless sleep
- Daytime sleepiness
- Poor memory and concentration
- Headache in the morning
- Loud snoring
- Change in personality
- Frequent urination during the night

## Who Suffers?

- About 4 - 9 percent of middle-aged men
- About 2 - 4 percent of middle-aged women
- About 80 - 90 percent of persons with sleep apnea go undiagnosed

## How is it diagnosed?

Your doctor can examine your nose and throat to look for an obstruction in your breathing. You could also have an endoscopy of the nose and throat done and X-rays or a CT scan of the head and neck. You may also have to undergo sleep studies to confirm a diagnosis as variables such as breathing, oxygen levels in the blood and heart rate need to be measured while you are asleep.

## What are its consequences?

Sleep apnea increases the risk of:

- Cardiovascular disease (leading to heart failure, heart attack and stroke)
- Hypertension (high blood pressure), especially below age 60\*
- Auto accidents: Sufferers of severe sleep apnea are two to three times more likely to be involved in auto accidents than the general population, mainly due to falling asleep while driving

## How is it treated?

With lifestyle changes and/or appliances

Overweight patients should lose weight (even 5 percent can help)

Evening alcohol avoidance

A Continuous Positive Airway Pressure (CPAP) appliance - a nose mask worn during sleep to prevent airway collapse - is generally effective, but many patients dislike it

\*March 16, 1999 editorial in *Annals of Internal Medicine*. Also August 11, 1997 *Archives of Internal Medicine* article states: "If causal, the high prevalence of sleep disordered breathing could account for hypertension in a substantial number of adults in the United States."

Hypertension affects one in four adult American men, most of whom have uncontrolled (untreated) high blood pressure.

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