

# SLEEP APNEA



**Sleep Apnea.** Apnea means absence of breath. Sleep apnea occurs when the airway from the mouth to the lung collapses during sleep. The person with sleep apnea may have hundreds of these episodes throughout the night, disrupting their sleep and reducing oxygen supply to vital organs. Sleep apnea is a common condition affecting about 5% of adults. Fortunately effective treatment is available and once treated the person with sleep apnea leads a normal healthy life.

**The symptoms of sleep apnea.** People with sleep apnea usually snore loudly and have restless sleep. Often these symptoms are not noticed by the person with sleep apnea but by the partner. The partner may also notice pauses in breathing and snoring lasting between 10 seconds and a minute. Each pause ends with a very deep gasping or snoring noise and a brief awakening as the person struggles to breathe. As a result of the problems during sleep, the person with sleep apnea is usually very sleepy in the day and may wake in the morning feeling "hungover". As the day progresses the lack of sleep may take its toll and they struggle to stay awake. In passive situations, such as watching TV, this may not be a problem but it can affect the person's ability to concentrate and function at work. It can be extremely dangerous if it occurs while driving. Other symptoms which can occur in untreated sleep apnea are impotence, personality changes, depression, irritability, loss of memory and concentration and increased frequency of urination at night.

**Sleep apnea affects families.** Snoring and apnea can be extremely irritating and disrupt the sleep of the bed partner. These problems can aggravate, or become a focus for, marital disharmony and family stress. It is made worse by the unexplained sleepiness and lack of interest in family life of the person with apnea.

**Sleep apnea is associated with heart attacks and stroke.** There is strong evidence that people with moderate to severe sleep apnea die prematurely. If you have sleep apnea you are more likely to have cardiovascular disease than someone without sleep apnea. Towards the end of each apnea cycle blood pressure may rise substantially and the heart beat becomes irregular. This may lead to daytime high blood pressure (hypertension). If you are overweight you may also be at risk of diabetes and have high cholesterol. Taken together these risk factors result in an increased chance of the person having a heart attack or a stroke. Treating sleep apnea eliminates one of these risks.

**Sleep apnea causes motor vehicle accidents.** Research has shown that people with sleep apnea are at least 4 times as likely to have a motor vehicle accident. Their performance on driving simulators is noticeably worse as the disrupted night-time sleep leads to a reduced ability to concentrate and increased chance of falling asleep at the wheel. When sleep apnea occurs in people who have occupations involving operating machinery or transport this can be a lethal combination.

**What causes sleep apnea?** There are two types of apnea obstructive apnea and central apnea. Obstructive apnea is the result of obstruction of the airway leading from the nose or mouth to the lungs. The obstruction is usually the result of a narrowed airway which becomes partly or completely blocked when the muscles around the airway relax during sleep. Central apnea is uncommon and results when the signals from the brain to regulate breathing are disrupted in some way.

**Who gets sleep apnea?** Sleep apnea can occur at any age. In childhood apnea is commonly the result of enlarged tonsils or adenoids or of some cranio-facial abnormality. In adulthood apnea becomes more common in middle age and is more common in men than in women, although after menopause women may be at increased risk. Sleep apnea is often associated with being overweight, particularly with excess fatty tissue around the neck. In people who are not overweight, it is likely that they have been born with a narrow airway or facial structure which leads to a narrow airway. Almost everyone who has obstructive sleep apnea snores as snoring is also the result of narrow or floppy upper airways.

**How is sleep apnea diagnosed?** Signs and symptoms such as snoring, obesity, observed apnea and sleepiness in the day may suggest that a person has sleep apnea but the best way to be really sure is with an

overnight sleep study. In the sleep study the patient is wired up and attached to computers which measure their sleep, their breathing and oxygen levels. Everyone experiences a small amount of disruption to breathing during sleep but someone with sleep apnea may have as many as one hundred of these events per hour.

***How is sleep apnea treated?*** The treatment of choice for sleep apnea is called nasal continuous positive airway pressure or CPAP. This consists of a pump that blows air through a mask worn over the nose. CPAP only needs to be used at night and the treatment is almost always effective in controlling the symptoms and the long term consequences of sleep apnea. The noise of the machine is generally much less obtrusive than the snoring that preceded it. Oral appliances that fit in the mouth and hold the bottom jaw forward will reduce the severity of sleep apnea but may not be as effective as CPAP. Surgical treatments are improving but it is important to find a surgeon who specializes in sleep apnea surgery. There is no effective drug for treating sleep apnea although a number have been tried. A number of other treatments have been marketed including devices to avoid sleeping on your back and nasal valves. These may help some people but it is very important that any treatment you undertake is supervised by a sleep physician and that if necessary a repeat sleep study is conducted to check the effectiveness. If your sleep apnea is not effectively treated you will remain at risk of cardiovascular disease and accidents.

***Sleep apnea and obesity.*** In many people sleep apnea results from being overweight. If this is the case, losing weight may help or even cure the apnea but before stopping CPAP treatment you should consult your sleep physician. In any case, losing weight may assist with cardiovascular disease such as high blood pressure and with diabetes management.

***Things to avoid if you have sleep apnea.*** There are some things that make apnea worse and even if you are on CPAP treatment, should be avoided. Alcohol relaxes muscles and may worsen apnea as may sleeping tablets which depress the drive to breathe. It is advisable to try and maintain a regular sleeping pattern. Other things that disrupt sleep such as caffeine and eating late at night should also be avoided.

***Sources of help and information*** - If you are concerned about sleep apnea, you should consult your family doctor. Referral from your family doctor will be necessary before you can consult a sleep physician.

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