

SNORING & OBSTRUCTIVE SLEEP APNEA (OSA)

Do you snore loudly? Are you the target of bad jokes or middle-of-the-night elbow thrusts? Snoring is no laughing matter. Loud snoring can be a sign that something is seriously wrong with your breathing during sleep. Snoring indicates that the breathing passage (airway) is not fully open, and the distinctive efforts to force air through the narrowed passageway.

An estimated 10% to 30% of adults snore. In some of them, snoring may have no serious medical consequences. However, for others, loud nightly snoring may be the first indication of a potentially life-threatening disorder called obstructive sleep apnea syndrome (OSAS) or simply Obstructive Sleep Apnea.

The sleep of normal children and adults is accompanied by relaxation of the muscles that stiffen and open the air passage. This muscles relaxation leads to slight sleep-related narrowing of the throat (air passage) that is of no importance for most people. In people with OSAS, the sleep-related that narrowing is so great that breathing becomes difficult, as if they were breathing through a floppy, wet straw. The brain senses that breathing is difficult and increases the effort to breathe. Increased effort to breathe briefly awakens the brain. Once awake with a fully open throat the effort to breathe decrease. As breathing effort returns to normal, the person resumes sleep and the cycle of falling asleep, throat narrowing, raised effort to breathe and then arousal from sleep repeats itself. This cycle can disturb sleep dozens to hundreds of times each night. Most of the obstructive breathing episodes and awakenings are so brief that they are not remembered. The person with this pattern of obstructive breathing, awakening from sleep, and daytime symptoms of fatigue and sleepiness suffers from OSAS.

There is more than one pattern of abnormal breathing of OSAS. Narrowing of the throat can be complete (apnea) or partial (hypopneas and respiratory effort related arousals) but lead to the same consequence: repetitive disruption of sleep. Obstructive apnea and hypopnea may be accompanied by lack of oxygen. Most people will have a combination of the different types of abnormal breathing.

If you have OSAS, you may not get enough oxygen during sleep and probably don't sleep soundly. You may suffer daytime sleepiness that affects your work and/or social activities, and may even lead to car accidents. OSAS can also put you at risk for high blood pressure, heart failure, heart attack, or stroke. Snoring loudly every night, in all positions, calls for a visit to a sleep specialist. He or she may suggest some tests including a sleep study. Fortunately, sleep specialists are now able to detect and diagnose breathing disorders in their earlier, more treatable stages. Proper treatment can prevent or reverse the potentially life-threatening results of OSAS.

What are the Warning Signs of OSAS?

In Adults:

- Snoring may be so loud that it rivals a jackhammer and can be heard rooms away.
- A particular pattern of snoring interrupted by pauses, then gasps, reveals that the sleeper's breathing stops and restarts.
- Adults with OSAS may fall asleep at inappropriate times, such as at work or while driving.
- Adults with OSAS may have trouble concentrating, and can become unusually forgetful, irritable, anxious, or depressed.

- In some cases, a person knows they have a sleep problem and seeks help. Adults with OSAS may complain about morning headaches, frequent nighttime urination, and lack of interest in sex. Men may complain of impotence and women may have menstrual irregularities.

These problems usually appear slowly over many years. Sometimes OSAS symptoms go unnoticed, or their significance is downplayed. Family members, employers, or coworkers may be the first to recognize a pattern of excessive daytime sleepiness and / or changes in mood or behavior. If they do, they should encourage a visit to a healthcare professional.

In Children:

- OSAS has been linked to some cases of sudden infant death syndrome (SIDS), although the exact relationship is still uncertain. Ongoing research is evaluating the role of OSAS as a possible factor in SIDS.
- OSAS may be present in children who are over-weight and those who have enlarged tonsils and adenoids.
- Children with OSAS may:
 - Snore or squeak
 - Have difficulty breathing
 - Sleep fitfully
 - Have daytime hyperactivity
- Older children who have OSAS may seem sluggish and may perform poorly in school. Sometimes they are labeled "slow" or "lazy". Recent research has found an association between sleep apnea and Attention Deficit disorder.

Since it is not normal for a child to snore loudly every night, parents should report their child's snoring to a healthcare professional.

What Causes OSAS?

When you sleep all of your body's muscles relax more than they do during waking hours. This may not cause problems for most people, but in some people with small throats this relaxation lets the airway narrow and interferes with breathing. Sleep then becomes a time of increased health risk. A smaller-than-normal jaw, large tongue, enlarged tonsils, or tissues that partially block the entrance to the airway can be factors. Sometimes several of these conditions are present in the same person.

Alcohol, sleeping pills, and tranquilizers taken at bedtime also reduce muscle tone and can make the throat more likely to collapse. Some people with OSAS may actually sleep worse when they take a sleeping pill. While most people with OSAS have no apparent physical flaw that interferes with their breathing during sleep, some physical conditions can play a role. OSAS most often strikes overweight men. A different throat structure may protect women. In later years, the gap between the sexes narrows, although it never disappears completely.

What happens if I am not treated for OSAS?

The most common complaint of people with OSAS is excessive daytime sleepiness. The

sleepiness is most often felt when the person with OSAS is still or "bored". Under these circumstances he or she may be unable to remain awake or to concentrate. Reading and driving an automobile can often be difficult because of irresistible sleep (dozing). The sleepiness produced by OSAS leads to an increased number of work related and automobile accidents in patients with the disorder.

Untreated OSAS has other consequences for health and well-being. A list of some of the known consequences of untreated OSAS can be found in the following table.

Some Consequences of Untreated OSAS
Hypertension
Excessive daytime sleepiness
Myocardial Infarction (Heart attack)
Stroke
Symptoms of depression
Menstrual irregularities in women
Frequent nighttime urination

Treatment of OSAS often alleviates or eliminates most of the adverse consequences of the disorders. In many cases, the benefits of treatment are felt quickly after treatment is started.