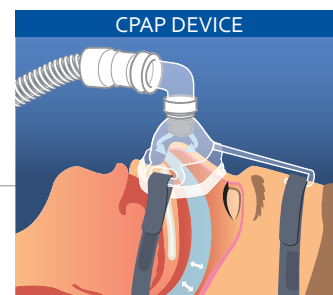
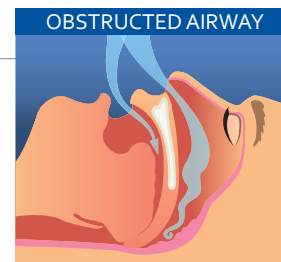
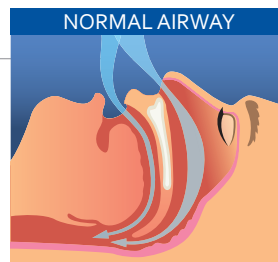


PATIENT EDUCATION | **INFORMATION SERIES**

What Is Obstructive Sleep Apnea in Adults?

Obstructive sleep apnea (OSA) is a common problem that affects a person's breathing during sleep. A person with OSA has times during sleep in which air cannot flow normally into the lungs. The block in airflow (obstruction) is usually caused by the collapse of the soft tissues in the back of the throat (upper airway) and tongue during sleep.



Apnea means not breathing. In OSA, you may stop breathing for short periods of time. Even when you are trying to breathe, there may be little or no airflow into the lungs. These pauses in airflow (obstructive apneas) can occur off and on during sleep, and cause you to wake up from a sound sleep. Frequent apneas can cause many problems. With time, if not treated, serious health problems may develop.

OSA is more common in men, women after menopause and people who are over the age of 65. OSA can also occur in children. Also see ATS Patient Information Series fact sheet on OSA in Children. People who are at higher risk of developing sleep apnea include those with:

- enlarged tonsils and/or adenoids
- a family history of OSA
- excessive weight—obesity
- jaw problems such as micrognathia (small jaw) or retrognathia (a pulled back jaw)

What are the symptoms of obstructive sleep apnea?

There are many clues that can make one suspect that you may have OSA. You may not be aware that you have OSA, but these symptoms may be more obvious to a spouse, other family member, or close friend.

Common symptoms you may have during sleep:

- Snoring that is usually loud and bothers other people trying to sleep near you. Snoring can come and go through the night.

- Gasping or choking sounds.
- Breathing pauses observed by someone watching you sleep.
- Sudden or jerky body movements.
- Restless tossing and turning.
- Frequent awakenings from sleep.

Common symptoms you may have while awake:

- Wake up feeling like you have not had enough sleep, even after sleeping many hours.
- Morning headache.
- Dry or sore throat in the morning from breathing through your mouth during sleep.
- Sleepiness during the day.
- Fatigue or tiredness through the day.
- Personality changes, such as mood swings and difficulty getting along with others.
- Problems with poor memory or inability to concentrate.

Can OSA be dangerous?

Lack of sleep can cause you to fall asleep while driving and result in car accidents. OSA can, with time, cause high blood pressure (hypertension), heart disease, stroke, diabetes mellitus, or early death.

How do I know I have OSA?

If you have symptoms of OSA, you need to talk with your healthcare provider. Your healthcare provider can help

you decide if you need a sleep study and whether you should be evaluated further at a sleep center.

OSA is diagnosed by a sleep study (polysomnogram). A sleep study is often done at a sleep center where you will be scheduled to test sleep overnight. Alternatively, a home sleep apnea test may also be used to diagnose OSA. During a sleep study, your breathing, heart rate, and oxygen levels will be monitored. Also see ATS Patient Information Series fact sheet on Sleep Studies.

How is obstructive sleep apnea treated?

Sleep apnea can be effectively treated, and there are a number of ways to do so. The choice of treatment will depend on the reason for and severity of the sleep apnea. If your OSA is from being overweight, weight loss may cause the apnea to go away completely. Additional information about weight loss and OSA will be available soon at www.thoracic.org/patients. As alcohol can suppress breathing and make OSA worse, avoid alcohol for at least 4 hours before going to bed. Sleep apnea is often worse when a person sleeps on his or her back. If you sleep on your back, you can use a pillow or some other strategy to force yourself to sleep on your side. Some people sew a tennis ball into their pajama bottoms to remind them not to turn on their back.

Continuous Positive Airway Pressure (CPAP) is a device commonly ordered to treat OSA. CPAP is a machine that works like a compressor to blow air into a mask that is worn snugly over the nose and/or mouth or in the nostrils (nasal pillows) during sleep. The flow of air acts like a splint to keep the upper airway from collapsing. This helps prevent obstruction and the apnea from occurring. The air pressure is adjusted to a setting that best controls the apnea. Often a person will also notice much less snoring when wearing CPAP. Also see ATS Patient Information Series fact sheet on CPAP in OSA.

There are other devices that can work for some people. For some, a surgery can be done to treat OSA. The type of device or surgery will depend on what has caused the apnea. Some oral appliances or devices that are worn in the mouth during sleep may keep your airway open. Most oral devices work by either bringing the jaw forward or keeping the tongue from blocking the throat. Oral appliances are most likely to help a person who has mild sleep apnea and who is not overweight. These devices are usually custom-made and fitted under the supervision of a specialized dentist or oral surgeon who works with these problems. Also see ATS Patient Information Series fact sheet on Oral Appliances for OSA.

When the tonsils or adenoids are causing the throat to be blocked, surgery can be done to take out the tonsils (tonsillectomy) and/or adenoids (adenoidectomy). Surgery may also be helpful for people with jaw problems. Other surgeries for OSA either clear out tissue from the back of the throat, reposition the tongue forward, or implant a nerve stimulator to cause the tongue to move forward during sleep. These surgeries are not, however, as effective as CPAP to control OSA and are usually reserved for people who fail CPAP.

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Rx Action Steps

- ✓ Talk with your healthcare provider if you have symptoms of obstructive sleep apnea
- ✓ Ask people who are around you when you sleep if they have heard loud snoring or have seen you have apnea spells
- ✓ Ask your healthcare provider if you need a sleep study
- ✓ Exercise regularly and work to lose weight if you are overweight
- ✓ Avoid alcohol, particularly just prior to sleep

Doctor's Office Telephone:

For More Information:

American Thoracic Society

- www.thoracic.org/patients/
 - OSA in Children
 - Sleep Studies
 - CPAP in OSA
 - Oral Appliances
 - PAP Troubleshooting

American Academy of Sleep Medicine

<https://sleepfoundation.org/sleep-disorders-problems/sleep-apnea>

American Sleep Apnea Association

<https://www.sleepapnea.org/learn/sleep-apnea/obstructive-sleep-apnea/>

National Heart Lung and Blood Institute

<http://www.nhlbi.nih.gov/health/health-topics/topics/sleepapnea/>

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