

What is sleep apnea?

Medical professionals and insurance carriers recognize sleep apnea as a significant, potentially life-threatening condition requiring prompt diagnosis and treatment. Typically, snoring is no more than an inconvenience and is not life-threatening, however, it can be a prime symptom of sleep apnea. For a person with sleep apnea, breathing stops from 10 seconds to more than a minute at a time, and these attacks can occur from five to more than one hundred times an hour during sleep. As a result, oxygen levels in the bloodstream fall, which may lead to high blood pressure, stroke, heart attack and/or abnormal heart rhythms. This may also impact your memory. Although it is most common in overweight men, both adults and children of either gender can be affected.

There are two types of sleep apnea, Obstructive Sleep Apnea (OSA) and Central Sleep Apnea (CSA)

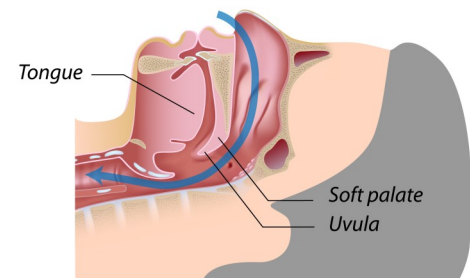
Obstructive Sleep Apnea

Obstructive Sleep Apnea occurs when muscles of the soft palate and throat relax during sleep, obstructing the airway and making breathing difficult and noisy (snoring). Eventually, the airway walls collapse blocking airflow entirely, which results in a breathing pause or apnea. Paused breathing can result in a drop of blood oxygen levels. Since oxygen is the fuel for the cardiovascular system, this stresses the heart and puts the sleeper at a greater risk for heart attack or stroke.

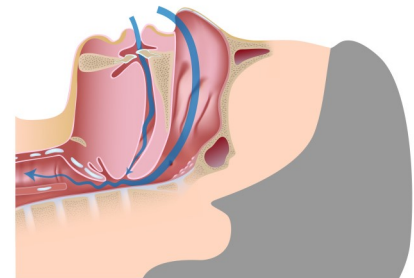
Central Sleep Apnea

Central Sleep Apnea occurs when the brain fails to tell the lungs to breathe during sleep. As this signal is lost, the lungs do not take in the oxygen that your body needs. This condition is less common than OSA. This is associated with heart failure, certain medications, or central nervous system diseases such as stroke.

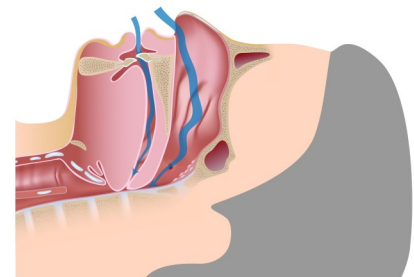
Normal breathing



Snoring - Partial obstruction of the airway



OSA - Complete obstruction of the airway



What are the symptoms of sleep apnea?

- Loud, irregular snoring
- Daytime sleepiness
- Morning headaches
- Weight gain
- Frequent nocturnal urination
- Obesity
- High blood pressure on multiple medications
- Falling asleep while driving
- Loss of energy
- Anxiety or depression
- Insomnia

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Sleep Apnea Testing

What is a sleep study?

A sleep study, or polysomnogram, is similar to an EEG study but collects many different measurements the entire time you are asleep. This test is not invasive; the electrodes are resting on the skin attached by a medical adhesive and tape. These tests begin at night and last through the morning, similar to your sleep at home.

Why is it important to have a sleep study?

Your brain and your body function very differently during sleep than during the day. Even if your heart, breathing, and brain activity are completely normal during the day, they may be different or abnormal during sleep. The gold-standard way to determine the presence of a sleep disorder is to take a variety of measurements and analyze the information from the various electrodes and sensors that are placed on different points on the body.

What is measured or monitored?

- Brain Waves or EEG
- Eye Movements
- Muscle Activity
- Electrocardiogram (ECG)
- Leg Movements
- Breathing
- Oxygen Levels in the blood

All electrodes and sensors are attached so they should not come off during sleep. All electrodes and sensors are "plugged in" to a portable box making it easy to get out of bed to use the restroom. The box is simply unplugged and you are able to move about as needed. This is a simple process and can be completed in a few seconds. You should be able to sleep as you do at home and turn over or change sleeping positions as needed.

What are the consequences of sleep apnea?

Untreated sleep apnea may cause high blood pressure, stroke, heart attack and abnormal heart rhythms. The National Commission on Sleep Disorders attributes 38,000 cardiovascular deaths a year to sleep apnea. Sleep apnea is strongly linked to diabetes and chronic respiratory disease.

Other Sleep Disorders:

Insomnia

Insomnia is a sleep disorder in which people have difficulty falling or staying asleep.

Restless Legs Syndrome

Restless legs syndrome (RLS) is a sleep disorder that causes an intense, often irresistible urge to move the legs.

Narcolepsy

Narcolepsy is a nervous system problem that causes extreme sleepiness and attacks of daytime sleep.

Bruxism

Teeth Grinding. Headaches and/or a sore jaw when waking in the morning. Complaints from annoyed bedmates can be a sign of sleep apnea.

Talk to your physician about your sleep concerns and symptoms.