

Sleep Apnea

Sleep Apnea: (aap nee ya) [Latin in = not, plus somnus = sleep] a cessation of breathing during sleep that lasts for 10 or more seconds, followed by snoring or gasping for air. Because lapses in breathing only occur during sleep, people with this disorder are usually not aware of their problem until a bed partner or other observer points it out.

Features

Those with untreated Sleep Apnea have little chance of sleeping well. Each lapse in breath, called an apneic event, lasts long enough to cause a drop in blood-oxygen levels. Low blood-oxygen disturbs sleep. Such episodes may occur several times per hour throughout the night.

A blockage of the airway, most often involving the soft tissue around the back of the throat, causes Obstructive Sleep Apnea or OSA, the most common type of sleep apnea. The blockage itself may be attributed to a large neck size, enlarged tonsils, or a structural abnormality. Central Sleep Apnea or CSA occurs when the brain fails to signal respiratory muscles to breathe, sometimes as a result of brain damage or neurological disease. CSA is far less common than OSA. Mixed Sleep Apnea, a combination of the first two, tends to develop in those with a long history of obstructive sleep apnea.

Diagnosis

All types of sleep apnea may be clearly identified by a test called a Polysomnography or Sleep Study, which records several bodily functions, including: respiratory and heart rates, the electrical activity of the brain, muscular activity, eye

movement, and even blood-oxygen levels. Although polysomnographies are usually performed in an accredited sleep laboratory, portable equipment allows some studies to be conducted in the patient's home.

Treatment

Treatment, of course, depends on the type, degree, and quality of sleep apnea. Surgery to repair certain structural abnormalities such as enlarged tonsils/adenoids or a recessed jaw may reduce or eliminate OSA, in some cases. By far the most common and effective treatment involves mechanical therapy through the nightly use of a Continuous Positive Airway Pressure (CPAP) machine to aid with breathing during sleep. The CPAP machine or a variation of it blows air through a mask worn over the nose, forcing the airway open.

Behavioral Therapy such as weight loss and Good Sleep Habits accompanies CPAP therapy, or may be all that is needed to treat mild OSA. Finally, dental devices and other small appliances may be enough to open the airway, in some cases.



Do I have Sleep Apnea?

I snore loudly.

Others complain about my snoring.

Others complain that I gasp or choke during sleep

I feel tired, even after sleeping

I am overweight.

I have high blood pressure.

My mouth is dry when I awaken.

I wake up with a headache or sore throat.

Sleep Apnea Mechanics

A structural or mechanical problem blocks the flow of air in those with OSA. Airway tissues relax during sleep, making them vulnerable to weight or pressure from blockages. In overweight people, excess tissue around the neck narrows the airway. Enlarged tonsils, adenoids, or throat muscles may sag enough in some people to block the airway.

Whether the airway is physically blocked as in OSA or the brain fails to signal breathing as in CSA, the result is the same: a pause in breathing, which reduces oxygen. Less oxygen equals more carbon dioxide and a signal from the brain to initiate breathing.



Need more information?

Visit the SleepMedicine Education web site at: sleepmedicineeducation.com for additional publications. See also:

SleepIssues: "Breathing & Sleep"

SleepGuides: "Treating Sleep Disorders"

To schedule an appointment at any Sleep Medicine Centers location, visit www.sleepmedicinecenters.com or call:

(716)92-DREAM

(877)53-SNORE

Did You Know?

According to the American Sleep Apnea Association, Sleep Apnea is as common as Diabetes.

Of the estimated 18 million Americans with sleep apnea, the

largest incidence occurs among middle-aged, overweight men.

Snoring related to sleep apnea can exceed 80 decibals, which is as loud as a lawn mower

A recent study by the University of Pennsylvania revealed that 28% of truck drivers have mild to severe sleep apnea.

According to a 1997 study published in Chest, snoring drives many bed partners from the bedroom.

SleepCaptions

Risks for Sleep Apnea

- ✓ Smoking
- ✓ Obesity
- ✓ Neck size greater than 17 inches
- ✓ Male gender
- ✓ African American
- ✓ Upper airway obstructions
- ✓ Neuromuscular disorders
- ✓ Connective tissue disorders
- ✓ Renal (kidney) failure
- ✓ Endocrine disorders
- ✓ Frequent use of alcohol, analgesics, and sedatives

Effects of Sleep Apnea

- ✓ Chronic daytime tiredness
- ✓ Nocturia (increased urination)
- ✓ Hypertension (high blood pressure)
- ✓ Gastroesophageal Reflux Disease (GERD)
- ✓ Poor job or school performance

