

Snoring

Snoring: The vibration of respiratory structures and the sound it makes, due to obstructed air movement while breathing during sleep. It is common. Snoring can indicate a life-threatening sleep disorder, or have no impact on health.

Features

Snoring refers to the sound some people make when they breathe during sleep. It may be loud or soft and sometimes sounds more like grunting or choking. It is a sign that the airway is at least partially blocked. Snoring becomes a problem when it interferes with breathing or sleep. When not associated with a sleep-breathing disorder, it is called simple or primary snoring.

Secondary snoring develops as the result of a sleep-breathing disorder, such as Obstructive Sleep Apnea (OSA). Snoring associated with OSA tends to be loud and abrupt. Airway tissues relax during sleep, completely blocking airflow. The loss of oxygen arouses a person until they breathe. A loud snore, gasp, or choking sound is made while fighting for air. The lack of air reduces blood-oxygen levels enough to cause permanent health problems or death, if left untreated.

Upper Airway Resistance Syndrome (UARS) may also precipitate snoring, although not everyone with UARS snores. There is less blockage, resulting in less sound.

Snoring may disrupt the sleep of bed partners and other household members. Some sleep-breathing disorders have been discovered after a bed partner sought a sleep evaluation.

Diagnosis

Since snoring occurs during sleep, it is difficult to recognize without input from others. Whether or not snoring should be evaluated

depends on the frequency and degree of the sound. Snoring that arises from a cold or respiratory infection will resolve on its own. Snoring that does not disrupt sleep may not be a problem, if it is not loud. Loud snoring should be evaluated for a sleep-breathing disorder. Conversely, not everyone with OSA snores.

An overnight sleep study is required to evaluate snoring. Polysomnography records several bodily functions, including respiratory rate, heart rate, and blood-oxygen levels. Sleep studies may be performed at accredited sleep laboratories. Home evaluations using portable polysomnography equipment may also be used to screen patients, depending on their symptoms.

Treatment

If a sleep-breathing disorder is present, then treatment will depend on the underlying airway obstruction. By far, the most effective treatment for OSA involves mechanical therapy through the nightly use of a Continuous Positive Airway (CPAP) machine to aid with breathing during sleep. CPAP or related Bi-PAP therapy may also help with UARS. In some instances, snoring related to sleep-breathing disorders may be cured by surgically removing severe blockages.

Oral and Dental Appliances may be an option for minor airway blockages. Nasal strips slightly increase the size of nasal passages. A change in sleep position may be enough to eliminate minor snoring. Losing excess weight will minimize pressure around the neck. Good Sleep Habits always increase the likelihood of getting a good night's rest, even if it does not resolve snoring.



Do I Snore?

It takes at least one half hour for me to fall asleep at night.

I have headaches.

I have Irritable Bowel Syndrome.

I snore or make noises in my sleep.

I feel tired, even after sleeping.

I have high blood pressure or borderline high blood pressure.

Snoring Mechanics

What happens when we snore? As with other sounds, the snoring sound is made when vibrations cause particles in the air to form sound waves. Airway tissues in the back of the throat vibrate when airflow pushes past them during sleep.

All snoring involves a certain amount of airway blockage. When the blockage becomes severe, sleep-breathing disorders such as Upper Airway Resistance Syndrome or even Obstructive Sleep Apnea develop. The quality of the sound depends on the blockage.

How much sound can the soft tissues of the throat produce? The average snore ranges between 60 and 90 decibals. Normal conversation produces under 40 decibals. The best of earplugs will only eliminate 30-40 decibals of sound. Snoring can be loud!



SleepCaptions

Risks for Snoring

- ✓ 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 Snoring

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

Need more information?

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

SleepIssues: "Breathing & Sleep"
"Home Sleep Test"

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?

Noted sleep researchers Guilleminault et al. report that up to 75% of adult patients with sleepwalking have UARS.

A 2000 study by the Walter Reed Army Medical Center (in which 44 of 527 patients were found to have UARS) found that UARS may occur in the absence of snoring and may be a cause of excessive daytime sleepiness.

A study by the Stanford University Sleep Disorders Center found that some patients with UARS and borderline high blood pressure can control their high blood pressure by treating UARS.