

[sleep](#)

Sleep Apnea: Symptoms, Causes, Treatments, and Natural Remedies

Loud snoring—especially when accompanied by daytime sleepiness or fatigue—may be a sign of sleep apnea, a common but serious disorder that impacts breathing. Here's what you need to know.



What is sleep apnea?

Sleep apnea is a sleep disorder in which your breathing is repeatedly interrupted during sleep. These breathing pauses typically last between 10 to 20 seconds and can happen from 5 to over 100 times per hour.

The lack of oxygen during a sleep apnea episode jolts you awake—usually so briefly that you don't remember it. But these disruptions to your natural sleep rhythm mean that you spend more time in light sleep and less in the deep, restorative sleep you need to be energetic, mentally sharp, and productive the next day.

Sleep apnea can also cause many health problems—in some cases deadly. So it's important to take seriously. If you or your bed partner suspect sleep apnea, talk to your doctor without delay.

Types of sleep apnea

Obstructive sleep apnea is the most common type of sleep apnea (and is the primary focus of this article). It occurs when the muscles that support the soft tissues in the upper airway relax during sleep and block the normal flow of air in and out of the nose and mouth. This usually causes loud snoring and interrupted breathing.

Central sleep apnea is a much less common type of sleep apnea that involves the central nervous system. It occurs when the brain temporarily stops sending signals to the muscles that control breathing. It is often caused by an underlying health condition. People with central sleep apnea seldom snore.

Complex or mixed sleep apnea is a rare combination of obstructive sleep apnea and central sleep apnea.

Anatomy of a sleep apnea episode

As airflow stops during a sleep apnea episode, the oxygen level in your blood drops. Your brain responds by briefly disturbing your sleep enough to kick start breathing—which often resumes with a gasp or a choking sound. If you have obstructive sleep apnea, you probably won't remember these awakenings. Most of the time, you'll stir just enough to tighten your throat muscles and open your windpipe. In central sleep apnea, you may be conscious of your awakenings.

Signs and symptoms of sleep apnea

It can be tough to identify sleep apnea on your own, since the most prominent symptoms only occur when you're asleep.

But you can get around this difficulty by asking a bed partner to observe your sleep habits, or by recording yourself during sleep. If pauses occur while you snore, and if choking or gasping follows the pauses, these are major sleep apnea warning signs.

Main symptoms of sleep apnea

- Frequent, loud snoring
- Choking, snorting, or gasping during sleep
- Daytime sleepiness and fatigue, no matter how much time you spend in bed

Other symptoms

- Waking up with a dry mouth or sore throat
- Morning headache
- Restless sleep, nighttime awakenings, or [insomnia](#)
- Waking up at night feeling short of breath
- Going to the bathroom frequently during the night

Is it sleep apnea or just snoring?

Not everyone who snores has sleep apnea, and not everyone who has sleep apnea snores. So how do you tell the difference between normal snoring and a more serious case of sleep apnea?

The biggest telltale sign is how you feel during the day. Normal snoring doesn't interfere with the quality of your sleep as much as sleep apnea does, so you're less likely to suffer from extreme fatigue and sleepiness during the day. The way you sound when you're snoring also provides clues. As mentioned above, if you're gasping, choking, or making other unusual sounds, you should suspect sleep apnea.

Keep in mind that even if you don't have sleep apnea, a snoring problem can get in the way of your bed partner's rest and affect your own sleep quality. But there are tips and treatments that can help you stop snoring.

[\[Read: How to Stop Snoring\]](#)

Sleep apnea causes and risk factors

While anyone can have sleep apnea, certain factors increase the risk:

- **Sex** - Men are much more likely to have sleep apnea than women, although after menopause, frequency in women increases.
- **Older age** - While sleep apnea can occur at any age, it is more common as you get older. According to the Wisconsin Sleep Cohort study, its prevalence peaks when people are in their 50s and 60s and then plateaus.
- **Weight** - The risk of sleep apnea is much higher in those who are overweight, and higher still in those who are obese.
- **Anatomical differences** - Physical attributes that can contribute to sleep apnea include a small upper airway, a small or receding jaw, a long soft palate, a high tongue position, a deviated septum, and enlarged tonsils and adenoids.
- **Smoking** - According to a study conducted by Center for Tobacco Research and Intervention, University of Wisconsin, Madison, smokers are three times more likely to have sleep apnea than those who have never smoked.
- **Neck circumference** greater than 17 inches (43.2 cm) in men or 16 inches (40.6 cm) in women.

Allergies or other medical conditions that cause nasal congestion and blockage can also contribute to sleep apnea.

Central sleep apnea causes and risk factors

Like obstructive sleep apnea, central sleep apnea is more common in men and people over the age of 65. But unlike obstructive sleep apnea, central sleep apnea is often associated with serious illness, such as heart disease, stroke, neurological disease, or spinal or brainstem injury. Some people with obstructive sleep apnea can also develop central sleep apnea when they're being treated with positive airway pressure (PAP) devices.

Health consequences of sleep apnea

The chronic sleep deprivation caused by sleep apnea can result in daytime sleepiness,

fatigue, difficulty concentrating, forgetfulness, and an increased risk of accidents and errors in your daily activities.

Sleep apnea also has a mental impact. It can trigger moodiness and irritability and cause anxiety and depression. It also increases your risk of other serious health problems like high blood pressure, heart disease, diabetes, atrial fibrillation, and stroke.

[\[Read: Blood Pressure and Your Brain\]](#)

Getting a sleep apnea diagnosis

In order to find out if you have sleep apnea, you'll need to see a doctor—preferably a sleep medicine specialist. They will evaluate your symptoms, take your medical history, and perform a sleep study.

Sleep study options

A sleep study known as a polysomnogram is still the gold standard for diagnosing sleep apnea. It's conducted in a hospital or sleep lab, where you'll be hooked up to sensors and monitored overnight (or sometimes for two partial nights). However, many people are now able to be tested in the comfort of their own home using portable monitors that measure heart rate, breathing, and oxygen in the blood while you sleep.

Diagnosis

A sleep apnea diagnosis is made based on the number of breathing episodes you experience per hour of sleep, as shown by your sleep study, as well as symptoms such as snoring and daytime sleepiness.

According to the American Academy of Sleep Medicine, sleep apnea is classified from mild to severe based on how many times you stop breathing:

- Mild: 5-15 breathing episodes per hour
- Moderate: 15-30 breathing episodes per hour
- Severe: More than 30 breathing episodes per hour

It can be scary to receive a sleep apnea diagnosis. But the good news is that it's treatable. And for most, treatment makes an enormous difference in the way they feel, both mentally

and physically.\

Lifestyle treatments for sleep apnea

For mild cases of sleep apnea, lifestyle changes may be enough to treat the issue. Your doctor will let you know if that's the right starting point. But even if you are prescribed a medical treatment, the following changes can help reduce your sleep apnea episodes and improve your sleep.

Lose weight. If you are overweight, losing weight can have an enormous impact. While it is usually not a total cure, it can reduce the number of breathing episodes you experience, reduce your blood pressure, and decrease daytime sleepiness. Even a small amount of weight loss can open up your throat and improve sleep apnea symptoms.

[\[Read: How to Lose Weight and Keep it Off\]](#)

Exercise. Even when exercise does not lead to weight loss, it can decrease your sleep apnea breathing episodes and improve your alertness and energy during the day. Aerobic exercise, resistance training, and yoga are all good choices for strengthening the muscles in your airways and improving breathing.

[\[Read: How to Start Exercising and Stick to It\]](#)

Sleep on your side. Lying on your back is the worst position for sleep apnea, as it causes the jaw, tongue, and other soft tissues to drop back toward the throat, narrowing your airway. Sleeping on your stomach isn't much better, since lying face down or twisting your head to the side both obstruct breathing. Lying on your side, on the other hand, helps keep your airway open. If you find side sleeping uncomfortable or you tend to roll on to your back after you're asleep, counteracted side pillows or body pillows may help.

Avoid alcohol, anti-anxiety medication, and other sedatives, especially before bedtime, because they relax the muscles in the throat and interfere with breathing. This includes [benzodiazepines](#) (e.g. Xanax, Valium, Klonopin, Ativan), antihistamines (e.g. Benadryl, Claritin), [opiates](#) (e.g. morphine, codeine, Vicodin, Percocet), and [sleeping pills](#).

Other tips

Prop your head up. Elevate the head of your bed by four to six inches, or elevate your body

from the waist up by using a foam wedge or special cervical pillow.

Open your nasal passages at night by using a nasal dilator, saline spray, breathing strips, or a nasal irrigation system (neti pot).

Quit smoking. [Smoking](#) contributes to sleep apnea by increasing inflammation and fluid retention in your throat and upper airway.

Avoid caffeine and heavy meals within two hours of going to bed.

Continuous positive airflow pressure (CPAP) therapy

In addition to lifestyle changes, most people with sleep apnea will need to seek treatment that helps keep the airway open during sleep. Currently, the most effective treatment for mild to severe sleep apnea is continuous positive airflow pressure — or CPAP — therapy.

What is a CPAP device and how does it work?

A CPAP device is a machine that uses a hose and airtight nosepiece or mask to deliver a steady stream of air as you sleep. The air pressure helps keep your airway open, preventing pauses in breathing.



Some people have trouble sleeping with a CPAP device. But after an adjustment period, most people learn to sleep comfortably. In many cases, you'll experience immediate symptom relief and a huge boost in your mental and physical energy, so it's worth giving CPAP therapy a true shot.

CPAP technology is constantly being updated and improved, and the new CPAP devices are lighter, quieter, and more comfortable than they used to be. So even if you've given up on them in the past, you owe it to yourself to give them a second look.

CPAP tips and troubleshooting

It can take some time to get accustomed to sleeping while wearing a CPAP device. It's natural to miss sleeping the "old way," but there are things you can do to make the adjustment easier and to ensure you're getting the most benefit out of treatment.

Make sure your mask fits correctly

When it comes to CPAP therapy, one size does not fit all. It's very important to get a mask that fits correctly and is comfortable for you.

There are many different types of masks available, including ones that cover the full face and ones that cover only the nose. Masks also come in a range of sizes, to accommodate different face shapes. There are also options that allow you to sleep in any position, accommodate glasses, and stay on if you toss and turn.

Be sure to discuss your options with your doctor and schedule follow-up appointments to check the fit, evaluate your treatment progress, and adjust or switch your mask if necessary.

Getting used to your CPAP device

Ease into it. Start by using your CPAP device for short periods. Try wearing it for a half hour or an hour while sitting up in bed watching TV or reading a book. Once you've gotten used to that, try using it lying down or when napping.

Use the "ramp" setting. Most devices can be programmed to start slowly and gradually increase air pressure. The goal is to be asleep before the machine reaches your prescribed pressure setting. Most people find this makes falling asleep much easier and more comfortable.

Reset the machine if air flow wakes you. If a high-pressure stream of air wakes you up, turn the CPAP device on and off to restart the ramp setting.

Tips to improve health and comfort

Choose a CPAP device with a built-in humidifier. Most devices now include a built-in humidifier, which helps prevent the dryness and skin irritation that can sometimes occur.

If you're experiencing nasal congestion, you may prefer a full-face mask over a nasal or nasal pillow mask. Also be sure to keep your humidifier tank full, keep your tubing and mask clean, and make sure your filter is clean. Nasal sprays and antihistamines also help.

Keep your device clean. It's very important to clean your CPAP hose, nosepiece or mask, and humidifier tub regularly, as a dirty CPAP device can cause infections and even pneumonia. Your sleep doctor and device manufacturer will give you detailed cleaning

instructions.

To ensure maximum comfort, ask your doctor about soft pads to reduce skin irritation, nasal pillows for nose discomfort, and chinstraps to keep your mouth closed and reduce throat irritation and dry mouth.

Mask the sound of the CPAP machine. Most new CPAP devices are quiet, but if the sound of your CPAP machine bothers you, try placing it beneath the bed and using a sound machine to muffle the noise.

Other positive airway pressure breathing devices

In addition to CPAP, there are other devices that a sleep specialist may recommend for sleep apnea treatment.

Expiratory positive airway pressure (EPAP) single-use devices fit over the nostrils to help keep the airway open and are smaller, less intrusive than CPAP machines. These may benefit people with mild-to-moderate obstructive sleep apnea.

Bilevel positive airway pressure (BiPAP or BPAP) devices can be used for those who are unable to adapt to using CPAP, or for central sleep apnea sufferers who need assistance for a weak breathing pattern. This device automatically adjusts the pressure while you're sleeping, providing more pressure when you inhale, less when you exhale. Some BiPAP devices also automatically deliver a breath if the mask detects that you haven't taken one for a certain number of seconds.

Adaptive servo-ventilation (ASV) devices can be used for treating central sleep apnea as well as obstructive sleep apnea. The ASV device stores information about your normal breathing pattern and automatically uses airflow pressure to prevent pauses in your breathing while you're asleep.

Oral appliance therapy

Custom-made oral appliances are an increasingly popular means of treatment for sleep apnea. While not as effective as CPAP therapy, they are a good option if you can't tolerate wearing a CPAP device, as most people find them more comfortable.

While there are many different oral appliances approved for sleep apnea treatment, most are either acrylic devices that fit inside your mouth, much like an athletic mouth guard, or fit around your head and chin to adjust the position of your lower jaw.

Two common oral devices are the **mandibular advancement device** and the **tongue retaining device**. These devices open your airway by bringing your lower jaw or your tongue forward during sleep.

Since there are so many different devices available, it may take some experimentation to find the appliance that works best for you. It's also very important to get fitted by a dentist specializing in sleep apnea, and to see the dentist on a regular basis to monitor any problems and periodically adjust the mouthpiece.

There are some potential side effects to oral appliances, including soreness, saliva build-up, and damage or permanent change in position of the jaw, teeth, and mouth. These could be more serious in poorly fitted devices.

Sleep apnea implants

One of the newest treatments for sleep apnea involves the insertion of a pacemaker system that stimulates muscles to keep airways open so you can breathe during sleep. The new treatment has been approved by the FDA in the U.S. for people with moderate to severe obstructive sleep apnea.

Although the technology is relatively new (and expensive), studies suggest it may also benefit people with central sleep apnea.

Upper airway surgery for sleep apnea

If you have exhausted other sleep apnea treatment options, surgery to increase the size of your airway may be a possibility.

The surgeon may remove tonsils, adenoids, or excess tissue at the back of the throat or inside the nose, reconstruct the jaw to enlarge the upper airway, or implant plastic rods into the soft palate. Surgery carries risks of complications and infections, and in some rare cases, symptoms can become worse after surgery.

Sleep apnea in children

While obstructive sleep apnea can be common in children, it's not always easy to recognize. In addition to continuous loud snoring, children with sleep apnea may:

- Pause breathing while sleeping, snort, or gasp.
- Adopt strange sleeping positions.
- Suffer from bedwetting, excessive perspiration at night, or night terrors.
- Exhibit daytime sleepiness.
- Develop behavioral problems or declining grades.

If you suspect sleep apnea in your child, it's important to consult a pediatrician who specializes in sleep disorders. Left untreated, sleep apnea can affect your child's learning, mood, growth, and overall health.

Causes and treatment for sleep apnea in children

The most common causes of obstructive sleep apnea in kids are enlarged tonsils and adenoids. A simple adenotonsillectomy to remove the tonsils and adenoids usually corrects the problem. Your child's doctor may also recommend using a CPAP or other breathing device.

If excess weight is causing your child's obstructive sleep apnea, your support, encouragement, and positive role modeling can [help your child reach and maintain a healthy weight](#) — and get your whole family on a healthier track.

Authors: Melinda Smith, M.A., Lawrence Robinson, and Robert Segal, M.A.

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