



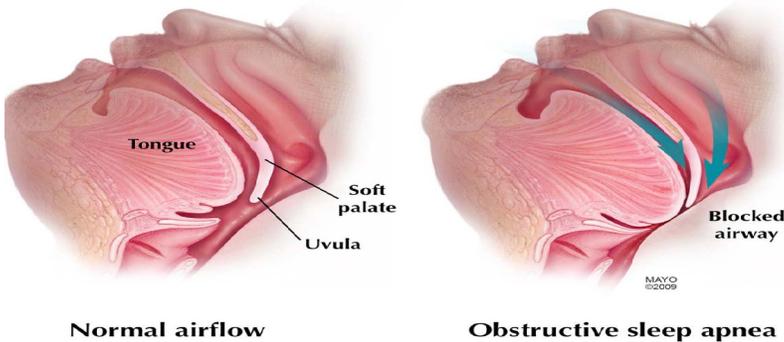
Obstructive Sleep Apnea (OSA)

## Patient Information Brochure

### What is Obstructive Sleep Apnea?

Obstructive sleep apnea (OSA) is a common condition, which involves repeated episodes of partial or complete obstruction of the throat during sleep. These episodes occur in people with narrow throats. While the throat may function normally when awake, during sleep the throat muscles relax causing it to become narrower and more likely to obstruct. When this occurs the oxygen levels drop and sleep is disturbed as the brain arouses to restore breathing. The arousals are usually so brief that many patients are completely unaware of them. However they disturb sleep, often severely, as the obstructions can happen many times a night - even hundreds of times. Waking unrefreshed and experiencing excessive daytime sleepiness are common symptoms. Snoring is also another consequence of a narrow, floppy throat. While often present, not all OSA patients have these symptoms.

Untreated OSA is associated with diabetes, stroke, high blood pressure, heart problems, depression, and increased risk of motor vehicle and other accidents. Patients with OSA are also at increased risk of complications after surgery. OSA requires testing to be correctly diagnosed.



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### Could I Have Obstructive Sleep Apnea?

An estimated 18 million Americans are thought to have OSA, and, even more alarming, approximately 16 million of those people remain undiagnosed. If you are frequently tired upon waking and throughout the day, or if you have trouble staying asleep at night, you may have OSA.

### Am I at risk for Obstructive Sleep Apnea?

- Check each box if it applies to you:
  - Snoring? Do you snore louder than talking or or loud enough to be heard through closed doors?
  - Tired? Do you feel tired during the day, even after a “good” night’s sleep?
  - Observed breathing interruption while sleeping? Has anyone ever seen you stop breathing while you are sleeping?
  - Pressure – high blood pressure? Do you have high blood pressure, or are you being treated for it?

- Body Mass Index (BMI) over 35?** Do you weigh more than you should for your height? more than 15 inches around? (Higher risk is over 16 inches for women, or 17 inches for men.)
  - Age - over 50?** Your risk for OSA increases as you get older.
  - Neck size - large?** Does your neck measure more than 15 inches around? (Higher risk is over 16 inches for women, or 17 inches for men.)
  - Gender - male?** OSA is more common in men than in women.
- *If you checked 3 boxes, you may be at risk for OSA. If you checked 5 or more boxes, your risk is high.*

### **What Do I Do About It?**

In order to diagnose OSA, a sleep study has to be done. The sleep study not only confirms the presence of OSA but also determines how severe it is. If you do have OSA, a wide variety of treatment options are available that can help you. You should discuss this with your doctor.

### **How is OSA treated?**

Management options for OSA include the following:

- **Lifestyle changes** to reduce symptoms. This can include limiting alcohol (especially at bedtime), and stopping smoking. Avoiding medications that make you sleepy can also help. Avoid sleeping on your back, and in some cases raising the head of your bed may help. Losing weight can help if you are overweight, even just 10% of your weight.
- **Continuous Positive Airway Pressure (CPAP)** is the most common and effective treatment. This is a system that creates a positive pressure to keep your airways from collapsing and being blocked.
- **Oral appliances**, such as a mouthpiece fitted by a dentist or orthodontist may help in some instances. These work by advancing the jaw or tongue forward to open space in the back of the throat.
- **Surgery** to remove, shrink, or stiffen throat tissue may also be a treatment option.

### **Why Was This Problem Brought Up at the Time of Surgery?**

General anesthesia can worsen the function of airway muscles, resulting in more frequent episodes of interrupted breathing in sleep. In addition, effects from pain medications and anesthesia may make it harder for you to wake up and take a breath. As the effects of anesthesia may persist even after the surgical procedure is finished, close monitoring of the patient during this time is a good idea. CPAP can be used to ensure that the airway remains open. This can prevent problems that can result from untreated OSA. Many individuals getting surgery do not realize they have OSA, and may be at increased risk for complications following surgery. Discussing your symptoms with your primary care doctor, your surgeon, or during your pre-anesthesia visit can help determine the best course of action, including whether you should see a sleep specialist to undergo further testing.

### **I have been diagnosed with OSA. What should I do about my CPAP therapy?**

If you use CPAP or other treatment for sleep apnea, you must let your anesthesiologist and surgeon know. If you are using CPAP, bring your equipment with you on the day of your admission. You should know your pressure settings and mask type, as some hospitals prefer that you use their CPAP equipment.

Additional information about Obstructive Sleep Apnea can be found at:

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

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