

# OBSTRUCTIVE SLEEP APNEA & SURGERY

*Obstructive sleep apnea (OSA)  
increases your risk of complications  
during and immediately after surgery.*



## What is obstructive sleep apnea (OSA)?

OSA is a common and serious sleep disorder that causes you to stop breathing during sleep.

In OSA, the airway in the back of the nose, mouth and throat collapses during sleep, narrowing the breathing passage and repeatedly blocking the airway. When your airway collapses, air cannot get to the lungs. Your brain wakes you up to breathe. This leads to a brief awakening that you often do not remember, but it causes sleep fragmentation and poor sleep quality. This cycle can repeat hundreds of times in one night. Your bed partner may notice that you snore loudly or repeatedly stop breathing.

OSA can cause you to feel fatigued during the day, have difficulty concentrating, and even fall asleep unintentionally. The oxygen deprivation you experience at night also makes your heart work harder and can cause long-term health consequences like heart disease, high blood pressure, stroke, diabetes and depression.

## How does obstructive sleep apnea increase my risk for problems when I have surgery?

If your OSA is not recognized and treated, you will have a higher risk of complications during and immediately after surgery. Complications may include a breathing or heart problem.

**There are several reasons for this increased risk:**

**ANESTHESIA:** The anesthesia given during some surgeries will cause you to fall asleep and also prevents you from being able to breathe on your own. As a result, a breathing tube will be placed in your throat right after you are asleep. It can be harder to put the breathing tube in the narrow throat of a person with OSA. Inserting the tube also can cause some swelling in the throat area. This swelling has the potential to make your OSA worse.

**MEDICATIONS:** Many of the medications that may be given to you before, during and after surgery can cause changes in your breathing. They may cause your throat muscles to relax more than usual. They also may cause you to breathe less deeply and less often. As a result, these drugs may make your OSA worse.

During sleep, certain medications may keep your brain from waking you up when your airway collapses throughout the night. This can lead to problems such as dangerously low oxygen levels and high blood pressure, too much fluid in the lungs, heart problems, or a stroke.

**SLEEP DEPRIVATION:** You may not sleep well before surgery, and it may be hard for you to sleep in the hospital room. You also may be anxious or in pain. As a result you may become sleep deprived, which can make OSA worse.

**SLEEP POSITION:** After surgery you may have to sleep on your back. OSA tends to be worse in this position, as gravity can cause the tongue to fall back and block the opening of the airway.

***If you have OSA or suspect that you have OSA, it is very important to discuss OSA with your surgical-care providers before having any type of surgery. This will help your surgical team provide the best care for you before, during, and after your surgery.***

## **How will doctors manage my sleep apnea during and after surgery?**

Having OSA does increase your risk of complications from surgery, but if your healthcare team knows that you have OSA, they can minimize the risks. They will monitor you more closely. They also will make sure that you receive the proper medications before, during and after the operation. Your doctors can select types of anesthesia and pain medications that are less likely to worsen your OSA. You will also be watched closely after surgery.

This may involve extra monitoring equipment to ensure that you maintain safe breathing and oxygen levels.

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## **Does the type of surgery I have make a difference?**

Certain types of surgery are more likely to worsen OSA. In particular, chest or upper abdominal surgery and upper airway surgery are likely to cause breathing problems that worsen OSA.

**Examples of upper-airway surgery include:**

- » Uvulopalatopharyngoplasty (UPPP)
- » Tonsillectomy
- » Adenoidectomy
- » Tongue surgery
- » Surgery on the larynx

Although these types of surgeries are of the most concern, ANY type of surgery can increase your risk for problems when you have OSA. This includes minor procedures that don't require you to spend a night at the hospital, such as a colonoscopy or bronchoscopy. These outpatient procedures still may involve the use of medications to help you relax or to relieve your pain, which can cause the same breathing problems described previously in this brochure.

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## How do I know if I have obstructive sleep apnea?

If you answer yes to one or more of the following questions, you may be at risk for OSA:

### Do you experience any of these symptoms?

	Yes	No
Unintentionally falling asleep during the day	<input type="checkbox"/>	<input type="checkbox"/>
General daytime sleepiness	<input type="checkbox"/>	<input type="checkbox"/>
Unrefreshing sleep	<input type="checkbox"/>	<input type="checkbox"/>
Fatigue	<input type="checkbox"/>	<input type="checkbox"/>
Insomnia (difficulty falling asleep or staying asleep)?	<input type="checkbox"/>	<input type="checkbox"/>
Do you ever wake from sleep with a choking sound or gasping for breath?	<input type="checkbox"/>	<input type="checkbox"/>
Has your bed partner noticed that you snore loudly or stop breathing while you sleep?	<input type="checkbox"/>	<input type="checkbox"/>

Anyone can have OSA, regardless of gender, age, or body type, but the following traits increase your risk for OSA:

- » Being overweight or obese
- » Large neck size (>17 inches for men, >16 inches for women)
- » Older age (>40 for men, >50 for women)
- » Being male
- » Smoking
- » Having high blood pressure
- » A family history of OSA

OSA is a serious sleep disorder that needs to be treated. If you think you have OSA, visit a board-certified sleep medicine physician at an American Academy of Sleep Medicine accredited sleep facility. Your sleep medicine physician will discuss your symptoms and may recommend that you or undergo a sleep study. Your physician will also try to determine if there is something else that is causing your sleep problems or making the symptoms worse, such as another medical condition or medication.

There are numerous treatment options available for OSA. The most common and most effective treatment is called positive airway pressure therapy (PAP). PAP is administered through a machine that uses a steady stream of air to gently keep your airway open through the night.

## What should I do if I am scheduled for surgery?

If you know you have OSA, then be sure to tell your doctors before the surgery. If you already use PAP therapy, then bring your mask and PAP machine to the hospital. You should be able to use it after your surgery.

If you think you may have OSA, then you should discuss this with your doctor as soon as possible. There may be time for you to have a sleep study and begin treatment before the surgery. Even if there is not enough time for a sleep study, you should still talk to your doctors about your concerns. Let your surgical team know about your symptoms. This will help them ensure your safety during and after surgery.

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*If you know that you have OSA, then be sure to tell your doctors before the surgery. Discuss this with your doctor as soon as possible.*

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*For more information on the American  
Academy of Sleep Medicine*

[aasmnet.org](http://aasmnet.org)

## **SleepEducation**

*For more information on  
obstructive sleep apnea*

[sleepeducation.org](http://sleepeducation.org)

**ASK ABOUT  
PERSONALIZATION**

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