

## Sleep Apnea

### What is obstructive sleep apnea?

*OSA occurs  
when the airway  
is blocked  
during sleep.*

Obstructive sleep apnea (OSA) affects over 18 million people. Apnea is a condition in which breathing stops for ten seconds or longer. Obstructive sleep apnea occurs when the airway is blocked during sleep. No air moves in or out of the lungs. The blockage may be caused by the tongue or the soft part of the mouth falling over the airway. During apnea, the oxygen level in the blood falls. This causes the patient to awaken slightly (without knowing it) so that breathing can resume. Apnea can last from just a few seconds to over a minute. It can occur many times during the night. This results in a loss of restful, healthy sleep. The lack of sleep may cause:

- Daytime sleepiness
- Headaches.
- Lack of concentration.
- Irritability.
- Poor memory.
- Accidents.

If OSA is left untreated, the low oxygen level may harm the heart and other organs.

### How is OSA diagnosed?

Testing for OSA may begin with a special screening device used at home. As needed, a sleep study may be suggested. This test, done in the Sleep Center, is often carried out at night so that normal sleep patterns can be monitored. During the exam:

- Brain, heart and muscle activity and eye movement are recorded.
- Your heart rate, blood oxygen level and breathing are monitored.

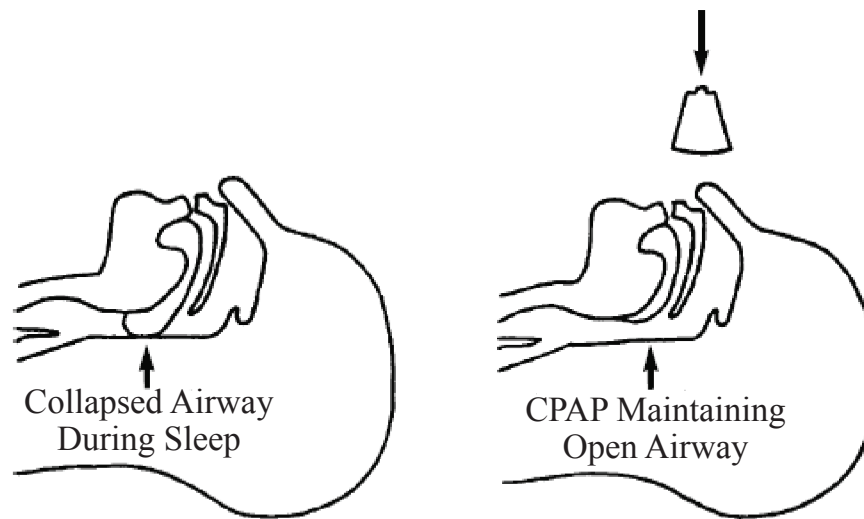
## How is OSA treated?

Most often, OSA patients are treated with Nasal Continuous Positive Airway Pressure (CPAP). Using a mask that fits over your nose, air pressure blows into your nose and holds the airway open. This allows for normal breathing and restful sleep. (See Figure 1.)

Ongoing care of OSA includes:

- Keeping routine medical exams.
- Contacting your doctor if sleepiness persists or if you have a significant weight gain/loss (i.e., 15 lbs.). (Adjustment to your pressure may be needed.)
- Replacing CPAP masks and hoses on a regular schedule. Wear and tear of masks and hoses results in poor seal and high leakage of air.

### Nasal CPAP Acting to Open Upper Airway



**Figure 1**

## What special precautions must be taken by OSA patients having surgery?

Some medicine used during surgery may cause even the normal airway to collapse or make OSA worse. It is important to know if you have an increased risk for airway collapse or have OSA. Special safeguards are put into place for patients who are having surgery.

### *Before Surgery*

All patients are screened for OSA. Based on your health history and the type of surgery planned, this may include a sleep study.

OSA patients are asked to:

- Bring your CPAP unit, masks, power cord, and accessories to the hospital. Please label all your equipment with your name. (Make sure to empty water from the humidifier chamber.)

- Be sure to tell your nurse that you have obstructive sleep apnea.
- Talk with the anesthesiologist about your OSA and prescribed CPAP pressure.

### ***During Surgery***

The doctor will:

- Take specific steps to avoid airway collapse.
- Tailor the type of anesthesia medicine used during surgery to your specific needs.

Your airway will be closely monitored and CPAP may be started right after surgery.

### ***After Surgery***

Continue to use your CPAP machine during sleep.

If you have any questions please talk with your doctor.

## **Health Information Resources**

For more information, visit one of Northwestern Memorial Hospital's Health Learning Centers. These state-of-the-art health libraries are located on the third floor of the Galter Pavilion and on the first floor of the Prentice Women's Hospital. Health information professionals are available to help you find the information you need and provide you with personalized support at no charge. You may contact the Health Learning Centers by calling 312-926-LINK (5465) or by sending an e-mail to [hlc@nmh.org](mailto:hlc@nmh.org).

For additional information about Northwestern Memorial Hospital, please visit our Web site at [www.nmh.org](http://www.nmh.org).

*Para asistencia en español, por favor llamar a el departamento de representantes para pacientes al 312-926-3112.*

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