Sleep Apnea

What is obstructive sleep apnea?

Obstructive sleep apnea (OSA) affects over 18 million people. Apnea is a condition in which breathing stops for 10 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 an overnight home sleep test. If needed, a sleep study may be suggested. This study, done in the Sleep Center, is often done at night so that normal sleep patterns can be monitored. During the study:

■ 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 to keep your airway open. This allows for normal breathing and restful sleep. (See Figure 1.)

![Figure 1](image-url)

Figure 1

Nasal CPAP Acting to Open Upper Airway

Collapsed Airway During Sleep

CPAP Maintaining Open Airway

Ongoing care of OSA includes:
- Keeping routine medical exams.
- Contacting your doctor if sleepiness persists or if you have a significant weight gain/loss (such as 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.

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.

Northwestern Medicine—Health Information Resources
For more information, contact Northwestern Memorial Hospital’s Alberto Culver Health Learning Center (HLC) at hlc@nm.org, or by calling 312.926.5465. You may also visit the HLC on the 3rd floor, Galter Pavilion at 251 E. Huron St., Chicago, IL. Health information professionals can help you find the information you need and provide you with personal support at no charge.

For more information about Northwestern Medicine, please visit our website at nm.org.

Para asistencia en español, por favor llamar al Departamento de Representantes para Pacientes al 312.926.3112.

The entities that come together as Northwestern Medicine are committed to representing the communities we serve, fostering a culture of inclusion, delivering culturally competent care, providing access to treatment and programs in a nondiscriminatory manner and eliminating healthcare disparities. For questions, please call either Northwestern Memorial Hospital’s Patient Representatives Department at 312.926.3112, TDD/TTY 312.926.6363 or the Northwestern Medical Group Patient Representatives Department at 312.695.1100, TDD/TTY 312.926.6363.

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