

OBSTRUCTIVE SLEEP APNEA: WHAT IS IT AND WHY IS IT IMPORTANT TO ME?

What is it?

Obstructive sleep apnea (OSA) is a common sleep-related breathing disorder, with a prevalence of up to 25% of the population. People with obstructive sleep apnea repeatedly stop and start breathing while they sleep. This occurs when the throat muscles relax and block the airway.

When these throat muscles relax, the airway narrows (or closes). This can lower the level of oxygen in the blood and cause a buildup of carbon dioxide. Your brain senses this impaired breathing, and briefly rouses you from sleep so that you can reopen your airway. This awakening is usually so brief that you don't remember it. This pattern can repeat itself multiple times each hour (between 5 - 30) and can occur all night long. These disruptions impair your ability to reach deep, restful phases of sleep, and you'll probably feel sleepy during your waking hours.

What Are Risk Factors?

- Obesity
- Male Gender
- Older Age
- High Blood Pressure
- Narrowed Airway
- Chronic Nasal Congestion
- Smoking
- Diabetes

What are common symptoms?

- Loud snoring
- Excessive daytime drowsiness
- Observed episodes of stopped breathing during sleep
- Waking during the night, with gasping or choking
- Awakening in the morning with a dry mouth or sore throat
- Morning headaches
- Trouble focusing during the day

Why does this matter to me?

Sedation and anesthesia have been shown to increase the upper airway collapsibility, and therefore increasing the risk of having postoperative complications.

Surgical patients receive sedation, anesthesia, and opioids during the perioperative period. These medicines have been shown to increase pharyngeal (airway) collapse, decrease

Barnes/Corby
11782 SW Barnes Rd.
Suite 300
Portland, OR 97225

Murray/Scholls
14795 SW Murray Scholls Dr.
Suite 109
Beaverton, OR 97007

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ventilatory response, and impair the arousal response, leading to worsening of sleep apnea in the perioperative period.

Numerous studies have demonstrated that surgical patients with sleep apnea are at increased risk of having perioperative complications, including low oxygen levels, pneumonia, difficult intubation, myocardial infarction, pulmonary embolism, atelectasis, cardiac arrhythmias, unanticipated admission to the hospital, and even death. The highest risk is the first week after surgery.

What can I do about it?

If you feel you have risk factors, you can get a referral to see a sleep apnea specialist to initiate for a home sleep study. This can diagnose 1) if you have sleep apnea and/or 2) the level of severity. Treatments for sleep apnea can vary from modifying risk factors (weight loss, smoking cessation, etc.), use of a CPAP machine, or a medically approved oral appliance.

- CPAP (continuous positive airway pressure) machine - provides higher pressure to help keep upper airway passages open
- Oral appliance - needs to be OSA approved mouthguard that acts to keep airway open.
- Surgery as last resort

Use of a CPAP machine or other medically approved/prescribed oral appliances (not over the counter) has been shown to improve breathing and oxygen saturation after surgery, and thus reduce the risk of post-operative complications. If you have a current diagnosis of obstructive sleep apnea, you must be compliant with CPAP or other medically approved oral appliance for **minimum of 2 weeks** prior to surgery for best effect in minimizing complications. This is what is required to open up and normalize your airways prior to surgery to minimize any post-operative risk.

Our physicians and anesthesiologists want you to have the best outcome from your surgery with the lowest rate of any unforeseen surgical or medical complication. If you have a current or previous diagnosis of sleep apnea, or feel you may be at risk of this, please discuss with your surgical team as soon as possible to initiate this referral process. The use of a medically approved and prescribed device must be used for **two weeks prior to surgery, or you are at risk of having your surgery cancelled.** This must be a medically approved and prescribed device, not over the counter or self-prescribed. This is for your own safety.

Listed below are several sleep apnea clinics we work with, or you can discuss with your primary care doctor for a referral:

Please don't hesitate to ask your surgical team for more information.

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Resources:

1. Oregon Sleep Associates - Daniel Root MD
2228 NW Pettygrove St, Suite 150
Portland, OR 97210
(503)288-5203
2. Pacific Sleep Program - Jennifer Kim MD
11790 SW Barnes Rd, Suite 330
Portland, OR 97225
(503)228-4414