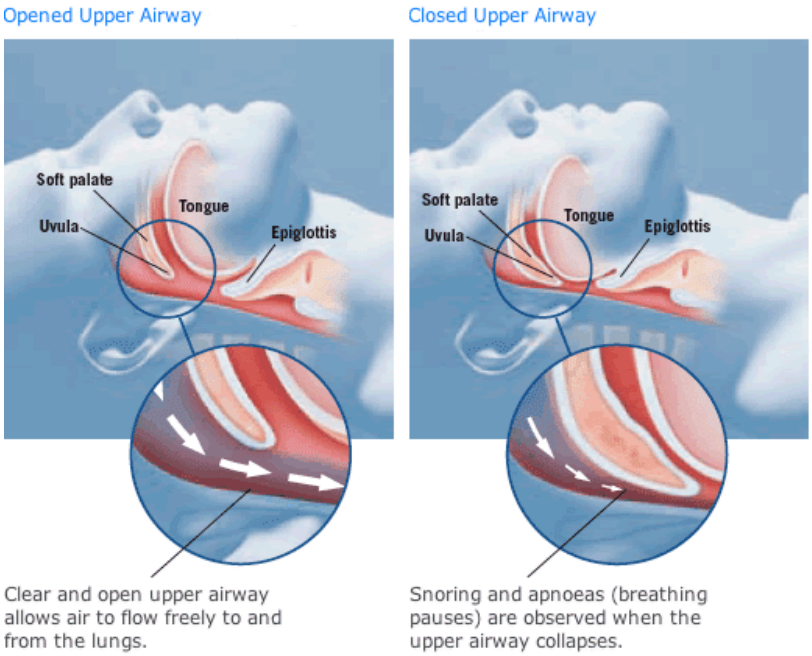
OBSTRUCTIVE SLEEP APNEA

What is obstructive sleep apnea?

Obstructive sleep apnea (OSA) is a common condition effecting millions of people within the United States, especially those who are overweight. It is characterized by repetitive episodes of breathing cessation, known as apneas or recurring incidences of shallow breathing, known as hypopneas throughout the stages of sleep. It is associated with a reduction in blood oxygen levels.

What causes obstructive sleep apnea?

A narrowing of the upper airway due to relaxation of muscles within the neck and collapse of tissue within the oropharynx during sleep results in OSA.



The oropharynx contains the soft palate, uvula, tonsils, base of the tongue and epiglottis.

What are common signs and symptoms of obstructive sleep apnea?

Individuals with OSA will typically awaken feeling unrefreshed, regardless of the number of hours in bed. Naps also tend to be unrefreshing. They often complain of excessive daytime sleepiness, difficulty concentrating, and may fall asleep at inappropriate times, such as at work or while driving. Snoring is very common. They may also be told that they gasp for air or stop breathing while sleeping. They may awaken with feelings of choking or suffocation. Patients may also complain of headaches upon awakening, frequent nighttime urination, nocturnal sweating, nocturnal heartburn and irritability. On occasion, an individual may be asymptomatic, but have an elevated blood pressure.

What are risk factors of obstructive sleep apnea?

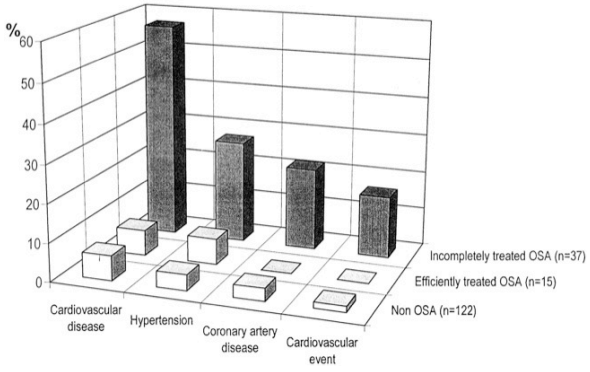
Obesity is the most common risk factor for obstructive sleep apnea. Men are more likely to have OSA than women. Sleep apnea becomes more common as you get older. At least 1 out of 10 people older than 65 has sleep apnea. Women are much more likely to develop sleep apnea after menopause. African Americans, Hispanics and Pacific Islanders are more likely to develop sleep apnea than Caucasians. If someone in your family has sleep apnea, you're more likely to develop it. Other risk factors for sleep apnea include smoking, alcohol consumption and use of sedative medications.

What is the physiologic response to untreated obstructive sleep apnea?

The stress of abnormal breathing during episodes of apneas and hypopneas leads to activation of the sympathetic nervous system and the "fight or flight response". Heart rate and blood pressure will increase. Untreated OSA also results in increased levels of catecholamines and of cortisol, hormones that are released in response to stress. Prolonged exposure to elevated levels of cortisol leads to hyperglycemia, or elevated blood sugar levels.

What are the implications of untreated obstructive sleep apnea?

Recent studies have shown that long-term effects of OSA are potentially life threatening if left untreated. OSA can result in high blood pressure, coronary artery disease, cardiac arrhythmias, heart attack, congestive heart failure, and possibly stroke due to the strain placed on the heart and body by decreased oxygen levels while sleeping.



Peker, et al. American Journal of Respiratory Critical Care Medicine. 2002; 166:159-165

Statistics have also shown that individuals with untreated obstructive sleep apnea are also 8 times more likely to be in a motor vehicle accident.

How is obstructive sleep apnea treated?

Various methods are used in the treatment of OSA, including CPAP therapy, use of a mandibular advancement oral appliance, ENT surgery, as well as conservative approaches including positional therapy and weight loss.

http://www.maumellesleepsolutions.com/sleep_apnea.html