

Sleep Apnea

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Ask Your Patients...

"Do you feel rested after sleeping?"

If Your Patient Asks...

"Is my snoring a problem?"

UNDERSTAND the problem

Sleep is one of the most vital processes of life and serves many important functions, including preservation, restoration, and memory processing. The American Academy of Sleep Medicine (AASM) publication *The International Classification of Sleep Disorders, Third Edition (ICSD-3)* identifies more than 80 official sleep disorders.¹ Among these, obstructive sleep apnea is by far the most common sleep-related breathing disorder.² Using the AASM criteria, it is estimated that 1 in 5 American adults has at least mild obstructive sleep apnea and 1 in 15 has at least moderate obstructive sleep apnea.

In one study of relatively healthy patients, 57% either reported a sleep complaint related to sleep apnea or were found to be at increased risk for the condition.³ However, only 11% of individuals who reported sleep complaints underwent any subsequent diagnostic testing, indicating a gap in factual knowledge and appropriate clinical behaviors.³

WHO is at risk

The incidence of sleep apnea increases with age, and it is 2 to 3 times more common in men than in women.^{2,4} The highest prevalence is among men older than 65 years of age, of whom 70% have the disorder.²

Excess body weight is the strongest risk factor for obstructive sleep apnea in the general population, and most (though not all) patients who present with the disorder are heavier than normal weight.¹ The overweight and obesity epidemic in the United States has caused a concurrent rise in the prevalence of sleep disordered breathing, but the mechanisms involved are still unclear.⁵ Hypotheses for the pathophysiology of overweight and obesity in the disorder include distorted upper airway structure and function (caused by altered neck morphology), an altered relationship between respiratory drive and load compensation, and intensification of apnea/hypopnea events through obesity-related decreases in functional residual capacity and increased whole-body oxygen demand.⁴

Other possible risk factors include alcohol consumption, smoking, and hormonal changes related to pregnancy, menopause, and polycystic ovary syndrome.⁴

WHAT are the signs

Obstructive sleep apnea syndrome is characterized by recurrent upper airway obstruction caused by repetitive narrowing or collapse of the pharyngeal airway during sleep, resulting in reductions (hypopneas) or pauses (apneas) in breathing, in spite of abdominal and chest movements; reduced blood oxygen saturation (less than 50% in some patients); and frequent arousals (potentially hundreds per night).^{1,2} Loud snoring coupled with periods of silence lasting at least 10 seconds, but often 20 to 30 seconds, are features of the syndrome. Gasping may occur instead of snoring, especially in children and adolescents; however, most patients with obstructive sleep apnea begin loud snoring in childhood. Patients may have grown accustomed to the excessive sleepiness, mental dullness, depression, frequent night awakenings, dry mouth, and morning headaches that accompany the disorder.¹ Patients with obstructive sleep apnea often have nasopharyngeal abnormalities.¹ Adult patients typically have a generalized narrowing of the upper airway, and enlarged adenoids and/or tonsils are commonly seen in children.

Patients for whom the disorder is chronic (i.e., 6 months or longer) require careful evaluation and prompt initiation of treatment, as even mild cases of chronic obstructive sleep apnea have been consistently and independently linked to cardiac arrhythmias, cardiovascular disease, hypertension, stroke, motor vehicle accidents, and diminished quality of life.^{4,6}

HOW it is treated

Due to the chronic nature of the disorder, obstructive sleep apnea treatment is typically long term and includes behavioral, medical, and surgical options. Patient education regarding the clinical consequences, natural history, pathophysiology, and risk factors of the disorder, and general information, such as alcohol avoidance, risk factor modification, medication effects, weight loss, sleep position, and drowsy driving, should be given upon diagnosis. The goals of treatment are to improve breathing during sleep, to lessen or prevent the sequelae associated with excessive daytime sleepiness and the disorder itself, and patient and partner satisfaction.⁷

WHERE to find resources

American Academy of Sleep Medicine

<http://www.aasmnet.org>

Centers for Disease Control and Prevention

<http://www.cdc.gov/sleep>

National Center on Sleep Disorders Research

<http://www.nhlbi.nih.gov/about/org/ncsdr>

National Health, Lung, and Blood Institute

<http://www.nhlbi.nih.gov/health/health-topics/topics/sleepapnea>

- 1 American Academy of Sleep Medicine. *The International Classification of Sleep Disorders-3: Diagnostic and Coding Manual*. 3rd ed. Westchester, IL: American Academy of Sleep Medicine; 2014.
- 2 Schröder CM, O'Hara R. Depression and obstructive sleep apnea (OSA). *Ann Gen Psychiatry*. 2005;4:13.
- 3 Grover M, Mookadam M, Armas D, et al. Identifying patients at risk for obstructive sleep apnea in a primary care practice. *J Am Board Fam Med*. 2011;24(2):152-160.
- 4 Young T, Peppard PE, Gottlieb DJ. Epidemiology of obstructive sleep apnea: a population health perspective. *Am J Respir Crit Care Med*. 2002;165(9):1217-1239.
- 5 Peppard PE, Young T, Palta M, Dempsey J, Skatrud J. Longitudinal study of moderate weight change and sleep-disordered breathing. *JAMA*. 2000;284(23):3015-3021.
- 6 Leinum CJ, Dopp JM, Morgan BJ. Sleep-disordered breathing and obesity: pathophysiology, complications, and treatment. *Nutr Clin Pract*. 2009;24(6):675-687.
- 7 Epstein LJ, Kristo D, Strollo PJ Jr, et al. Clinical guideline for the evaluation, management and long-term care of obstructive sleep apnea in adults. *J Clin Sleep Med*. 2009;5(3):263-276.

Released: February 2013

Revised: April 2016

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