



Snoring can be a symptom of a bigger health problem than just a partner's loss of sleep.

Dr. Craig Scasta, DDS answers your questions about snoring and how your dentist (yes, your dentist!) can help you and your partner sleep better at night, and feel better in the morning.

ARTICLE | Craig Scasta, DDS

WHEN SHOULD I BE CONCERNED ABOUT SNORING?

Snoring is the sound of partially obstructed breathing during sleep. While snoring can be harmless, it can also be a sign of a more serious medical condition known as **OSA** (*obstructive sleep apnea*), which occurs when the tongue and soft tissues fall back into the throat during sleep, blocking the airway.

People suffering from OSA stop breathing for 10 to 30 seconds, sometimes for one minute or longer, hundreds of times a night. Untreated OSA can contribute to excessive daytime sleepiness as well as an increased risk for high blood pressure, heart attack, stroke, diabetes, depression, memory and concentration problems, obesity and driving accidents.

WHAT CAUSES SLEEP APNEA?

When people are awake (and normally during sleep), the throat muscles keep the throat open and air flows into the lungs. However, with OSA (*obstructive sleep apnea*), the throat briefly collapses, causing pauses in breathing.

This happens when:

- The throat muscles and tongue relax more than is normal
- Tonsils and adenoids are large
- Extra soft tissue in the throat makes it harder to keep the throat area open in people who are overweight or obese
- The shape of the head and neck (bony structure) results in somewhat smaller airway size in the mouth and throat area

WHAT ARE THE SIGNS & SYMPTOMS OF SLEEP APNEA?

The most common signs of sleep apnea are:

- Loud snoring
- Choking or gasping during sleep
- Fighting sleepiness during the day (this occurs even at work or while driving)

Other signs of sleep apnea may include:

- Morning headaches
- Memory or learning problems
- Feeling irritable
- Not being able to concentrate on your work
- Mood swings, personality changes, depression
- Dry throat upon awakening
- Frequent urination at night

HOW IS SLEEP APNEA DIAGNOSED?

Some of the findings that help physicians and dentists assess the risk for sleep apnea include:

- **A medical history** that includes asking you and your family questions about how you sleep and how you function during the day
- **Checking your mouth, nose, and throat for extra or large tissues**, for example tonsils, uvula (the tissue that hangs from the middle of the back of the mouth), and soft palate (roof of your mouth in the back of your throat)
- **A sleep recording** (*polysomnogram*) of your breathing while you sleep
- **A dental evaluation** of the sizes of the dental arches and of the tongue, and whether there is adequate volume within the dental space for the tongue.

continued on the next page



Quick Facts about Snoring and OSA

Habitual snoring affects an estimated **24% of adult women and 40% of adult men.**

Approximately 1/2 of people who snore loudly have OSA (*obstructive sleep apnea*).

An estimated 18 million Americans suffer from OSA.

80-90% of these people remain undiagnosed and untreated which can increase risk of high blood pressure, heart disease, stroke, depression, diabetes, obesity, and TMJ.

25-50% of sleep apnea patients cannot tolerate or comply with a CPAP (Continuous Positive Airway Pressure) mask.

Even after a thorough evaluation by the dentist and the physician, a definitive diagnosis of OSA can only be accomplished by a sleep test called a *polysomnogram*. This test is generally performed while the patient spends the night in a sleep lab. The information recorded on a polysomnogram follows: brain activity; eye movement; muscle activity; breathing and heart rate; how much air moves in and out of the lungs during sleep; and the percent of oxygen in the blood.

HOW IS SLEEP APNEA TREATED? WHY IS A DENTIST INVOLVED?

Once a patient has been diagnosed at a sleep center, obstructive sleep apnea can be treated with Continuous Positive Airway Pressure (CPAP), oral appliances, surgery, behavior therapy, or by a combination of these approaches.

According to the American Academy of Sleep Medicine, twenty-five to fifty percent of sleep apnea patients cannot tolerate or comply with CPAP. Oral appliances are especially effective for those patients who cannot tolerate CPAP. The improved compliance rates provided by dental appliances make the dentist an integral member of the sleep medicine team.

WHAT IS ORAL APPLIANCE THERAPY?

Oral appliance therapy involves the selection, design, fitting, and follow-up care of a specially designed oral appliance (similar to a mouthguard).

This appliance is worn during sleep and maintains an opened and unobstructed airway in the throat. Dental management of patients with oral appliances should be overseen by practitioners who have undertaken special training in sleep medicine and/or sleep-related breathing disorders.

WHAT DENTAL CONDITIONS ARE AFFECTED BY SLEEP APNEA?

Sleep studies have shown that during obstructive apnea episodes, the brain shows signs of increased activity known as *arousals*. These central nervous system arousals often lead to increased respiratory effort in an attempt to breathe. This causes a heightened tone of the sympathetic nervous system (the fight or flight response). The up regulation of the nervous system causes repeated contraction of the jaw muscles during the night. This causes jaw clenching, which in turn loads the TM joints. The clenching occurs during the day as well, and eventually loads the joints beyond their adaptive capacity. Dentists who have studied sleep medicine now know that this is a major contributor to TMJ (jaw joint) pain.

The above mentioned arousals also can lead to fragmented sleep. Patients do not obtain deep sleep, resulting in poor sleep quality. Orofacial pain clinics have documented that poor sleep lowers the body's healing capacity and increases the perception of pain. Sleep disorders compound the pain symptoms seen in many jaw, head and neck pain patients. Dentists with special

training in sleep medicine can help recognize the signs of sleep disorders in patients who present with TMJ pain complaints. This enables the dentist to treat the underlying problem and offer more relief for the patient's pain.



Dr. Craig Scasta practices dentistry in Bryan, Texas. He is an active member of the American Academy of Dental Sleep Medicine, and recently completed a Dental Sleep Medicine Mini-Residency at the U.C.L.A. School of Dentistry in Los Angeles, California. This program

provided comprehensive and serious training in sleep medicine in accordance with guidelines set by the American Academy of Sleep Medicine.

Dr. Scasta has completed over one thousand hours of extensive training in the areas of TMJ disorders, functional jaw orthopedics, and dental sleep medicine.

Dr. Scasta is active member of the Brazos Valley Dental Society and served as President of the society in 2008. He currently serves as President of the Brazos Valley Academy of General Dentistry. He is a Fellow in the Academy of General Dentistry.

He is Texas A&M Class of '92. He has been married to his wife, Tracey, for fifteen years, and they have two children.