

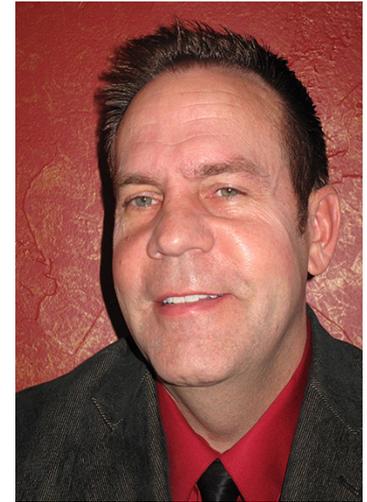
Dentists can Help Change Lives and Relationships

According to a survey taken by couples across America, 27% of couples over the age of 40 no longer sleep in the same bedroom, opting for separate sleeping quarters due to the distracting sounds of their partners' snoring. Snoring can affect the life of the bed partner as much as it does the life of the snorer, because the partner is not getting the amount of sleep they need, resulting in daytime fatigue, irritability, and overall moodiness. Likewise, as the obesity epidemic in America continues to affect many people, the amount of snorers also increases. Snoring can be aggravated by obesity, which is why a correlation between the two is not unimaginable. Snoring increases the risk of cardiovascular disease, as well as overall comorbidity with other disorders. Out of all the patients who suffer from sleep apnea, 34% are at risk for coronary heart disease, 40% are at risk for hypertension, 65% are at risk for diabetes, 80% are at risk for fibromyalgia, and 84% are at risk for nocturnal strokes.

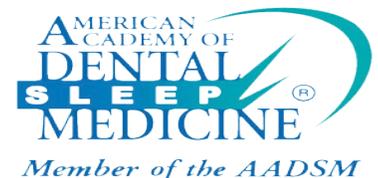
After the initial diagnosis of sleep apnea, doctors give patients different options for treatments, such as oral appliances or CPAP therapy. The American Academy of Sleep Medicine now considers oral appliances the first and foremost treatment option for mild to moderate cases of obstructive sleep apnea. Patients who cannot tolerate continuous positive airway pressure (CPAP) therapy are also good candidates for oral appliances, although many of these patients are never told of this option. On the Internet, patients can also find "boil and bite" mouth guard-like appliances that claim to help snoring, but these are fairly inadequate when compared to the oral appliances that are custom fitted by dentists and sleep physicians.

When considering treating a patient with an oral appliance, many tests must take place to ensure that the patient will be compatible with the appliance. Nasal obstructions, such as a deviated septum, must be identified, as the patient will do a majority of breathing through their nose. Oropharyngeal obstructions, such as enlarged tonsils or adenoids, must also be addressed surgically due to the obstructions they cause in the airway. Patients who have hypopharyngeal obstructions, mainly retrognathic mandibles, are prime candidates for oral appliances, because they alter the position of the jaw to allow for better airflow. If patients choose to use an oral appliance, it is adjusted for a period of two to four months in order for it to reach its fullest potential. The patient's soft palate may be swollen due to snoring or smoking, therefore the period of adjustment is necessary. Patients using oral appliances experience higher levels of overall health and longer lifespans after the initial adjustment period. Oral appliances are the most effective noninvasive methods of treating snoring, and are the preferred treatment by patients.

Rondeau, B. (2010) "How dentists who treat snoring and sleep apnea can save marriages and lives" Dental Tribune International. Web.



Dr. Ronald L. Cook



Interstate 20 @ Ranch House Rd
Weatherford, TX 76087

817.441.2674

Interstate 20 @ Bryant Irvin Road
Fort Worth, TX 76132

817.346.4OSA



Oral Appliances and Their Effects on Sleep Apnea

Oral appliances have been used as early as 1902 to treat disorders of the mandible and upper airway obstruction. Since then, the technology has advanced greatly and an increasing number of oral appliances have been used to treat snoring and sleep apnea. Obstructive sleep apnea is associated with upper airway obstruction during sleep, causing snoring, apneas, and hypopneas. The pathophysiology of obstructive sleep apnea is related to the patient's upper airway anatomy, upper airway resistance, and the function of muscles in the upper airway. Oral appliances modify the upper airway by altering the position of the patient's mandible and tongue, producing consistent effects in a multitude of patients.

Researchers reviewed data from 21 different publications, which included 320 patients treated with oral appliances for either snoring or sleep apnea. Evidence showed that snoring was improved or eliminated in most of the patients treated with an oral appliance. In regards to obstructive sleep apnea, a majority of patients experienced significant progress, and the average AHI was reduced from 47 to 19 apnea events per hour. According to the researchers reviewing the previous studies, the recorded improvement in sleep quality reflects the effect that oral appliances have on the patient's breathing.

Dentists have developed a variety of devices to correct various types of occlusal disorders, and they use traditional dental techniques to modify the position of the patient's mandible and tongue. Oral appliances are designed to change the position of

the upper airway structure to either enlarge it or to reduce the chances of it collapsing. Researchers used cephalometric radiographs to view the increase of upper airway dimensions in patients using mandible advancing oral appliances, as well as the effect that a downward rotation of the mandible. Their data showed that this downward rotation increased the superior airway space, allowing for more oxygen to flow through unobstructed.

Dental devices such as oral appliances produce changes in the shape and function of the patient's upper airway. In some patients, snoring has been connected to other significant sleep disturbances, as well as higher risk of stroke or cardiovascular disease. Obstructive sleep apnea can affect a multitude of the body's other systems, and lead to diseases such as cancer, diabetes, and hypertension. The potential to positively influence the lives of those suffering from sleep disorders lies in the use of oral appliances, because many patients who use them show significant improvement.

Shmid-Nowara, W., Lowe, A., Weigand, L., Cartwright, R., Perez-Guerra, F., Menn, S. (1995) "Oral Appliances for the Treatment of Snoring and Obstructive Sleep Apnea" *Sleep*, Vol. 18, pp. 501-510.

TO REFER TO DR. COOK, SEE ENCLOSED REFERRAL FORM

Interstate 20 @ Ranch House Rd Interstate 20 @ Bryant Irvin Road
Weatherford, TX 76087 Fort Worth, TX 76132

817.441.2674

817.346.4OSA