Snoring Can Be Fatal

by Dr. Eugene Kulaga

The important thing to consider is that snoring, which is considered a nuisance, can also be a sign of a life threatening disorder, Obstructive Sleep Apnea. Also known as OSA, Obstructive Sleep Apnea is a complete cessation of breathing for 10 seconds or longer. This is caused by the accumulation of fatty tissue in the oropharyngeal airway and loss of muscle tonus in the same airway. Other causes could be a falling back of the tongue, an elongated soft palate and uvula or enlarged tonsils. Enlarged adenoidal tonsils in the nasal airway and pharyngeal tonsils in the oral airway (the back of the mouth or throat area) are the primary cause of OSA in children. These are children that have frequent throat infections and nasal problems and their performance in school is affected and they have behavioral problems. Some are diagnosed with Attention Deficit Disorder. Adults usually have the most issues with the falling back of the tongue and loss of muscle tone in the airway and replacement with fat. This becomes more evident with weight gain and age particularly beyond the age of 40. Another prevalent group is post menopausal women with the changes in estrogen. During an apneic event the brain senses low oxygen levels and high carbon dioxide levels the body goes into the "fight or flight response" to the lack of oxygen. This stimulates the sympathetic nervous system causing an increase in the level of adrenaline and its effects on the cardiovascular system. Patients frequently have high blood pressure, irregular heart beat, and coronary artery disease among other problems. Patients also become insulin resistant and can develop diabetes. Other signs and symptoms of OSA are daytime tiredness, inability to concentrate, depression, frequent night waking, irritability. More than 40 million Americans have obstructive Sleep Apnea but only 10% have been diagnosed and treated.

The diagnosis of OSA is preceded by an attended sleep study after which the diagnosis is made. The number of apneic events during the study will determine whether the patient has mild, moderate or severe obstructive sleep apnea. The study also shows the amount of time the patient spends in each of the stages of sleep (Stage 1-4 non REM) and how much time spent in REM (rapid eye movement sleep). This is referred to as sleep architecture. Most OSA patients have extremely reduced stage 3 and 4 (Delta Sleep) which is restorative, restful sleep. There is also the possibility the patient may just have snoring but usually snoring is a precursor or accompanies OSA.

Treatment can be one 3 alternatives: Continuous Positive Airway Pressure also known as CPAP. The patient wears a mask and continuous oxygen pressure keeps the airway open delivering the needed oxygen. The mask is rather cumbersome, the patient has to wear hoses, making it hard to change position and the unit is noisy. However, this is the best treatment, especially for the severe obstructive sleep apnea. Another form of treatment is a surgical treatment where some of the soft palate, uvula and tonsils can be removed with laser treatment or radiofrequency surgery. The procedure is done in about 3 visits can be quite uncomfortable and has about a 50% success rate. The last form of treatment is with FDA approved oral appliances. The way these procedures work is by advancing the lower jaw thereby increasing the muscular tonus of the airway. The tongue is advanced into a more protruded position. The oral appliance is the best treatment for mild apnea and snoring. It is also a treatment for moderate apnea. The best treatment for severe apnea is CPAP but the oral appliance can be used if the patient is intolerant of the CPAP machine.

At The TMJ & Sleep Therapy Centre of Monmouth we specialize in the fabrication of these oral appliances. We first screen the patients by sending sound waves down the airways (Rhinometry & haryngometry) which are reflected back and give us a mapping of the airway obstruction. We then reposition the lower jaw by having the patient bite in a more forward and open position into wax. We then send the sound waves back down the airway to see if and how much we can open the area of obstruction, i.e. if we can improve the airway with an oral appliance. Upon determining the patient's candidacy, we can then take records to determine the health of the jaw and teeth which will support the appliance as well as take impressions for the appliance. We use two types of appliances approved by the FDA for the treatment of OSA. Both appliances have a soft durable inner lining to assure patient comfort and are very finely adjustable thereby assuring comfort in the joints and associated musculature. One type has the advantage of not being locked together anteriorly. Upon establishing patient comfort and improvement of symptoms, the patient can have a final adjustment of the appliance positioning during a follow up study for the best result. Snoring and Sleep Apnea affect the sufferer as well as the sleep partner. You deserve a good night sleep!

Dr. Kulaga is a graduate of Georgetown University School of Dentistry. He has practiced in the Spring Lake area for the last 23 years. His practice is limited to the treatment of TMJ/ Orofacial Pain and Obstructive Sleep Apnea. He has a Diplomat Award in the American Academy of Pain Management, Fellowship Awards in the American Academy of Craniofacial Pain, American Academy of Functional Orthodontics, and Academy of General Dentistry. He has over 1000 hours of Continuing Education and continues to bring state of the art treatment into the practice. He can be reached at 732-449-3778

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