

Headaches: Sleep Apnea and the Oral Connection

ALTERNATIVE ORAL APPLIANCE THERAPY

by Tracey Buckalew

Over the last decade or so, public and professional awareness have played a major part in the increased diagnoses of obstructive sleep apnea (OSA). This condition, characterized by the repeated cessation of breathing during sleep, can occur hundreds of times a night, and can last for a minute or longer. This results in a decrease in blood oxygen, and, in turn, can be attributed to unexplained headaches and tiredness.

Studies show untreated sleep apnea can lead to high blood pressure, cardiovascular disease, diabetes and increased risk for stroke. While medical doctors commonly prescribe a continuous positive airway pressure (CPAP) device to deliver a constant supply of oxygen to the patient, one's family dentist may actually be the unlikely hero in this alarming situation.

ORAL COMPLICATIONS OF SLEEP APNEA: TMD & BRUXISM

The complex systems of bone, muscle, nerves and soft tissue that form the joint of the jaw (temporomandibular joint), the pair of which are located just in front of each ear, are, by far, the most frequently used joints in the body. Involved in over 2,000 swallowing actions per day, they are prone to misalignment which commonly leads to headaches as well as ear, face or neck pain.

The trigeminal nerve, often referred to as "the dentist's nerve," because it is responsible for sensation to the face and for motor functions like biting, chewing and swallowing, innervates approximately 40 percent of the head and face, and is connected to the onset of headaches and other head and neck painful conditions when disrupted. Often these symptoms are misdiagnosed as migraine or tension headaches when the real culprit, TMJ Dysfunction (TMD), can be the cause.

The recognition that sleep apnea aggravates or triggers temporomandibular disorders (TMD) is gain-



ing momentum as more patients look towards dental solutions for relief from their sleep apnea symptoms. Many patients with sleep apnea disorder suffer from severe teeth grinding (bruxism). Sleep apnea is typically associated with loud snoring, and even a "gasp" sound as the individual wakes up and resumes breathing after an apneic episode. Teeth grinding and jaw clenching often occur during this semi-awake, agitated state as the struggle to breathe ensues.

Dr. Phillip Durden of Winterville Dental, PC in Winterville, Ga. is a Master of the Academy of General Dentistry and is a Fellow of the American Academy of Craniofacial Pain. He understands the relationship between TMD, sleep apnea and unexplained headaches and employs a number of technologies in his practice that assist him with TMD diagnoses. With the 2005 opening of his TMJ Therapy and Sleep Disorder Center, Dr. Durden can efficiently narrow down

the cause of pain and begin appropriate treatment.

“The “gold standard” for treatment of obstructive sleep apnea is, unquestionably, the CPAP method,” explains Dr. Durden. “However,” he continues, “there are some people who just can’t tolerate it. For them, an oral appliance may be the answer.” Dr. Durden comments that many of his patients are unaware that oral appliances are available as an alternative to the CPAP machine. Although the benefits of the CPAP therapy are unarguable, the method is somewhat difficult with which to become accustomed. The machine consists of a facemask, worn at night, that connects a hose to a ventilator through which a continuous level of oxygen is pumped. Despite the success in treating sleep apnea with this device, many individuals find that it causes a certain level of discomfort, aggravation and inconvenience. Consequently, some patients find that they are unwilling to continue its usage.

As a welcome alternative, Dr. Durden offers a variety of oral appliances that aim at opening the airway by repositioning the lower jaw. This non-invasive treatment stabilizes the lower jaw, tongue, soft palate and throat muscles, effectively keeping the airway open and unobstructed. These appliances, similar to orthodontic retainers, are usually made from clear acrylics and can have adjustment features.

For the approximately 18 million Americans who suffer from sleep apnea and/or TM Disorders, dentists

like Dr. Durden can provide welcome relief. The utilization of a wide range of diagnostic methods by which to identify the cause of individual problems will continue to result in a reduction of misdiagnoses and an increase in pain relief.

The partnership of dentistry and technology has resulted in an effective, “whole body” approach to healthcare. As the study of the connection between oral-facial structures, breathing and systemic conditions further reveals linked relationships, less invasive and early treatment options will continue to emerge.



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