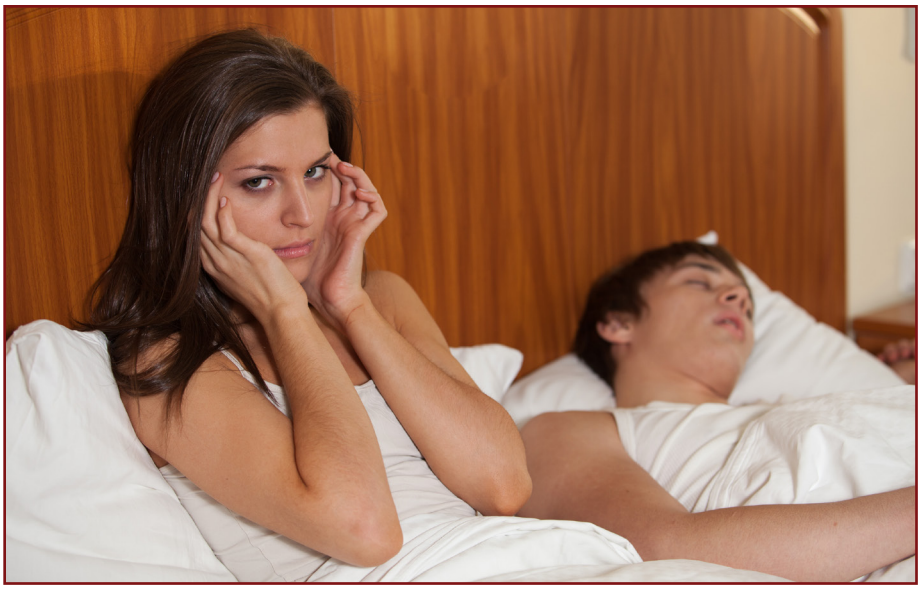
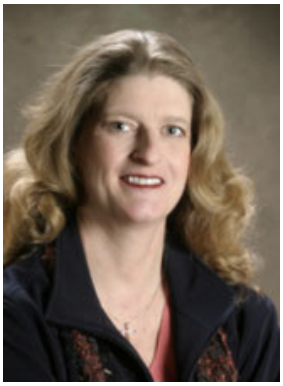
Sleep Apnea Newsletter Introduction

At West Virginia Sleep and TMJ Treatment Center, we are dedicated to the treatment of your snoring and sleep apnea. Sleep Apnea is a sleep disorder in which the patient's airways are almost completely blocked and his or her breathing stops, causing the body to repeatedly wake them up to gasp for air.

Our office also offers some of the most convenient and effective treatment options available today, specifically for patients who are non-CPAP compliant or who have had trouble adjusting to the CPAP machine. Our goal is to treat the sleep apnea epidemic together as a community, and with your help we can make it a reality.





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Many Patients Just Aren't CPAP Compliant

The most common treatment prescribed for patients with obstructive sleep apnea is the use of a CPAP mask and machine, to be worn nightly. Through use of smart cards or web-based methods, researchers can determine how often patients are actually using their CPAP machines. When patients use the CPAP machine nightly during the first week, usually they will continue to use the machine in the long term. People who do not wear the machine each night or who use it for shorter amounts of time are often the people who will cease to use the machine earlier.

Even though using the CPAP machine leads to improved sleep apnea symptoms, lack of daytime sleepiness, better mood, and better overall health, many patients seem to avoid the prescribed usage. CPAP is intrusive, it makes a lot of noise, disturbs the other sleepers in the house, and the facemask is extremely unattractive. While there have been improvements in the design of the machine itself, it still is a loud and uncomfortable device to have in the bedroom. Some patients even experience claustrophobia when wearing the mask, as they feel trapped or constricted under the mass of the mask.

Sometimes, the manner in which the treatment is presented to the patient will affect how likely they are to utilize it. If the patient's perception of CPAP therapy is negative, they will most likely cease to use the mask after a short period of time, but the opposite will occur if their perception is optimistic. Furthermore, if the patient seeks treatment on their own accord, they will probably use CPAP more than if their partner strongly encourages them.

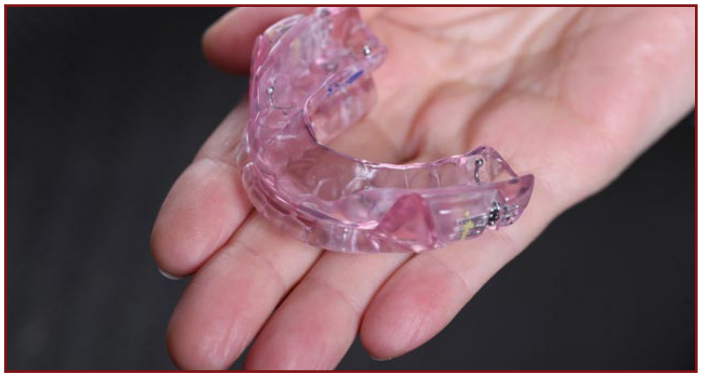
There are many variables such as social support, partner interaction, and partner sleep quality affect how often a patient will use the mask, and how long they use it each night. Even the design of the machine and its mask can dictate how comfortable a patient feels while using it. The truth is, most people who decide to go through with the CPAP therapy usually end up ignoring their doctors' instructions, thus never truly treating the sleep apnea they were diagnosed with.

Gunstein, R. R., & Weaver, T. E. (2008). "Adherence to Continuous Positive Airway Pressure Therapy". Proceedings of the American Thoracic Society, Vol 5 pp. 173-176.

How Oral Appliances Can Help Your Patients

Oral Appliance Therapy is a more comfortable and easier way for your non-CPAP compliant patients to get the relief they deserve from Sleep Apnea. Oral appliances hold the lower jaw forward while the patient sleeps, opening up the airways that would normally be blocked due to sleep apnea. To determine whether a patient has sleep apnea, the Apnea/Hypopnea index is examined through sleep monitoring, either in a sleep lab or at the patient's home. The number of apneas or hypopneas the patient experiences per night will depend on the severity of their sleep apnea, and will define the type of treatment is best for them. Oral appliance therapy is often used in the treatment of mild or moderate sleep apnea, and is one of the best options for people who cannot tolerate using the CPAP device. Oral appliances can work for many different patients, but some patients may not benefit from using one.

According to a recent study, the usage of an oral appliance significantly decreases the Apnea/Hypopnea Index, causing the patient to experience less discomfort throughout the night. The study showed that men were more likely to see a change in their AHI numbers, when they slept wearing a device that repositioned their lower jaw. An oral appliance is more comfortable, discrete, and easier to use than the CPAP machine, and is a great option for those who refuse to wear the CPAP mask.



Since they have such a high rate of acceptance by patients, oral appliances are considered the one of the best alternatives to treat sleep apnea for those who do not tolerate CPAP. Oral appliance therapy is increasingly gaining popularity as a first-line treatment option for many persons diagnosed with mild to moderate sleep apnea.

Levendowski, Daniel, Morgan, Todd, Popovic, Djordje, Melzer, Victoria. "Assessing Changes in the Apnea/Hypopnea Index Resulting from Increased Vertical Dimension of Occlusion of Mandibular Positioning Devices". Scripps Memorial Hospital. 2007. Print.

COPD and OSA

The most prevalent chronic respiratory disorders, obstructive sleep apnea (OSA) and chronic obstructive pulmonary disease (COPD), affect a significant number of individuals in the country. A small percentage of the population experience overlap syndrome between the two disorders, which is when a patient has two medical conditions (in this case OSA and COPD) occurring at the same time. Both COPD and OSA are influenced by a persons weight, age, and lifestyle choices (such as smoking). When both disorders present themselves in a patient, the patient experiences more pronounced nocturnal oxygen desaturation, predisposing them to pulmonary hypertension. A patient's lifestyle choices such as smoking cigarettes or drinking at night will affect the degree to which they deal with the disorders.

When a person's blood oxygen level drops by three or more percent from their average baseline, this is called nocturnal oxygen desaturation (NOD). Since the patient cannot get enough air in their lungs, due to sleep apnea or chronic obstructive pulmonary disease, the body cannot provide itself enough oxygen. This drop in blood oxygen levels can lead to an increased chance of pulmonary hypertension in patients who experience overlap between COPD and OSA.

Just as OSA affects a person's sleep, COPD impairs sleep quality with patients experiencing consistent disturbances throughout the night. When coupled with OSA, these nighttime disturbances become worse and worse, and the effect on the patients' health is extremely detrimental. Our bodies' respiratory responses rely on chemical inputs, which are diminished when both OSA and COPD overlap in a patient. Another concern that arises is the fact that some of the medications prescribed for one disorder can negatively affect the other. Long-acting inhalers that help COPD can reduce the oxygen a patient receives while they sleep, and corticosteroids promote obesity and pulmonary fluid retention, further aggravating sleep apnea. Oxidative stress occurs in both sleep apnea and COPD, but can be reduced through use of a CPAP machine or oral appliance. Hypoxia, a deficiency of oxygen in tissue matter, is also greater in those with the overlap of COPD and OSA.

While the data is limited, upper airway narrowing related to COPD may make a patient more likely to develop sleep apnea in their lifetime. Although overlapping between the disorders does occur, there are variations in the severity of the effects on each other.

McNicholas, W. T (2009). "Chronic Obstructive Pulmonary Disease and Obstructive Sleep Apnea". Pulmonary Perspective, Vol 180 pp 692-700.

To Refer to Dr. Bailey
See Enclosed Referral Form

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