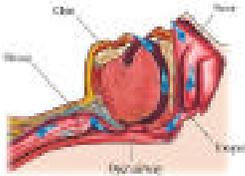


## Mandibular Advancement Devices

By: Whitney Capwell

Sleep Apnea is a debilitating yet common disorder that affects men, women, and children in all age groups. During sleep, the airway becomes blocked and consequently cuts off the air supply. The person suffering from sleep apnea awakens to open the airway and then drifts off to sleep again. This disturbed cycle of sleep/wake can cause damage to a person's ability to function. A person needs a certain amount of "deep sleep" hours in order to fully regenerate the body. Sleep apnea deprives a person of this necessary deep sleep and therefore can cause other problems in everyday life.



The most common type of sleep apnea is called Obstructive Sleep Apnea. The most frequent cause is the relaxed tongue blocking the throat which results in pauses in breathing. Distress impulses from the brain arouse the person enough to restart breathing but not enough so that the person is fully awake. This causes the person to never quite reach the deep sleep stages of slumber. This cycle can repeat hundreds of times during the night and results in sleep deprivation.

There are many different treatments for sleep apnea including positional therapy, positive pressure therapy, surgical options, and oral appliances. Of the oral appliances used to treat sleep apnea, the tongue-retaining device and mandibular advancement device are the most common. The

mandibular advancement device resembles a retainer or athletic mouth guard. It consists of a mold of the upper teeth and a similar mold of the lower teeth. However, the mold of the lower teeth is adjusted forward so that the lower jaw is forced forward. This adjustment is enough to prevent the tongue from falling back and completely covering the airway.



The mandibular advancement device is extremely effective for patients with mild to moderate sleep apnea. It is also very effective for people with position related sleep apnea. In this type of sleep apnea the problems occur from the way the person sleeps (lying on the back instead of the on the side during sleep). In recent studies performed in the UK, there is also evidence that the mandibular advancement device reduced snoring in 84% of the patients studied. This type of treatment is preferred over the positive pressure therapy because it is less constricting and it makes absolutely no noise.

Many patients acquire their mandibular advancement device through their dentist. Since it is an oral appliance that needs to be specifically molded to unique arrangements, the dentist is the best source for the device. Most dentists attend seminars and workshops to learn how to make the devices.