

# Sleep Disorders & Snoring

Do you keep someone awake at night with your snoring? Are you experiencing fatigue, sleeplessness, and even breathlessness? These could be warning signs that abnormal breathing is not taking place during sleep. Of course, lack of sleep affects those around us due to the loud noise snorers make and loved ones endure.

There are many dental and medical conditions that lead to snoring, including being overweight, having a small retruded jaw, sedatives, allergies, alcohol before retiring, or airway obstruction such conditions as enlarged tonsils or adenoids. However, studies show that many times snoring can be a serious disorder called sleep apnea. • Sleep apnea is defined as a cessation of breathing for a period of 10 seconds or more for up to hundreds of times a night or more.

Often, obstructive sleep apnea can be treated very successfully by a dentist who has acquired the special education necessary, with a conservative, airway oral appliance therapy approach. The American Sleep Disorders Society took a major step forward by including dental therapy in their treatment protocol. Using oral repositioning airway appliances for sleep apnea as an accepted part of conservative treatment can be very effective!

Your health is your most priceless possession. So if you suspect you suffer from a snoring problem or sleep apnea, discuss it with a trained dentist like Dr. Freydberg to determine what course of diagnosis and treatment is best. As a qualified sleep dentist in snoring and sleep apnea, Dr. Freydberg works with a sleep

specialist to rehabilitate patients with sleep deprivation. Together they determine the seriousness of the condition, and the treatment that will improve the patient's quality of life. Proper medical and dental team management is essential!

Obstructive Sleep Apnea (OSA) affects more than 20 million Americans and can lead to hypertension, heart attack, stroke, depression, muscle pain, excessive daytime sleepiness, and other destructive problems. You may be in danger when operating a vehicle or other heavy equipment, because OSA causes serious concentration problems that lead to "drowsy driving" and other dangerous situations.

OSA is a condition where the tissues of the throat and tongue completely block the airway and cause brief periods of suffocation, which can dangerously reduce the body's oxygen levels. The brain alerts the muscles of the airway to open the blocked airway which disrupts the quality of our much needed sleep and we wake up tired and unrested. The most common symptoms of obstructive sleep are:

- Loud snoring
- Intermittent breathing stoppages during sleep
- Excessive daytime sleepiness
- Restless sleep
- Difficulty concentrating
- Poor memory
- Irritability or moodiness
- Impotence

Benign snoring is easily treated with an oral appliance without a physician's diagnosis. But if you have symptoms of sleep apnea, Dr. Freyberg will have you see a board-certified sleep specialist for a diagnosis, usually an ENT or pulmonologist, prior to evaluating you for a sleep apnea oral appliance. Remember, if you already have been diagnosed with mild or moderate sleep apnea, your first-line therapy, according to the top experts in the field of sleep medicine, is a dental sleep apnea appliance.

If you have already been diagnosed with sleep apnea and are currently on CPAP therapy, you may be a candidate for the dental appliance. Some patients who are diagnosed with snoring, or mild or moderate sleep apnea, may be able to be treated with the dental appliance therapy. For those who have severe sleep apnea or hypopnea, patient's co-therapy may be an option to decrease the air pressure on the CPAP machine and make it easier to wear and sleep.

## *Oral Appliances*

### **Snoring and Obstructive Sleep Apnea**

Snoring is the sound of partially obstructed breathing during sleep. While snoring can be harmless, it can also be the sign of a

more serious medical condition known as Obstructive Sleep Apnea (OSA). When Obstructive Sleep Apnea occurs, the tongue and soft palate collapse onto the back of the throat and completely block the airway, which restricts the flow of oxygen.

The condition known as Upper Airway Resistance Syndrome (UARS), is midway between primary snoring and true obstructive sleep apnea. People with UARS suffer many of the symptoms of OSA but require special sleep testing techniques.

## ***Standards of Care***

### **Oral appliance therapy is indicated for:**

- Patients with primary snoring or mild OSA who do not respond to, or are not appropriate candidates for, treatment with behavioral measures such as weight loss or sleep-position change
- Patients with moderate to severe OSA should have an initial trial of nasal CPAP, due to greater effectiveness with the use of oral appliances.
- Patients with moderate to severe OSA who are intolerant toward, or refuse treatment with, nasal CPAP. Oral appliances are also indicated for patients who refuse treatment, or are not

candidates for tonsillectomy and adenoidectomy, cranofacial operations, or tracheostomy.

## **Oral Appliances**

Oral appliances that treat snoring and obstructive sleep apnea are small plastic devices that are worn in the mouth, similar to orthodontic retainers or sports mouthguards. These appliances help prevent the collapse of the tongue and soft tissues in the back of the throat, and keep the airway open during sleep and promote adequate air intake. Currently, there are approximately 70 different oral appliances available. Oral appliances may be used alone or in combination with other means of treating OSA, including general health and weight management, surgery, or CPAP.

## **Types of Oral Appliances**

With so many different oral appliances available, selection of a specific appliance may appear somewhat overwhelming. Nearly all appliances fall into one of two categories. The diverse selection simply represents a variation on a few major themes. Oral appliances can be classified by mode of action or design variation.

## **Tongue-Retaining Appliances**

Tongue-retaining appliances function by holding the tongue in a

forward position by means of a suction bulb. When the tongue is in a forward position, it serves to keep the back of the tongue from collapsing during sleep and obstructing the airway in the throat.

## **Mandibular-Repositioning Appliances**

Mandibular-repositioning appliances function to reposition and maintain the lower jaw (mandible) in a protruded position during sleep. This serves to open the airway by indirectly pulling the tongue forward, stimulating activity of the muscles in the tongue, and making it more rigid. It also holds the lower jaw and other structures in a stable position to prevent opening of the mouth.

## **Oral Appliance Therapy**

Oral appliance therapy involves the selection, fitting, and use of a specially designed oral appliance worn during sleep that maintains an opened, unobstructed airway in the throat.

## **Oral appliances work in several ways**

- Repositioning the lower jaw, tongue, soft palate, and uvula
- Stabilizing the lower jaw and tongue
- Increasing the muscle tone of the tongue

Dentists with training in oral appliance therapy are familiar with the various designs of appliances. They can determine which one

is best suited for your specific needs. The dentist will work with your physician as part of the medical team in your diagnosis, treatment, and ongoing care. Determination of effective treatment can only be made by joint consultation of your dentist and physician. The initial evaluation phase of oral appliance therapy can take from several weeks to several months to complete. This includes examination, evaluation to determine the most appropriate oral appliance, fitting, maximizing adaptation of the appliance, and the function.

## **Other Treatment Options**

In addition to lifestyle changes such as good sleep hygiene, exercise, and weight loss, there are three primary ways to treat snoring and sleep apnea. The most common way is with therapy delivered through a Continuous Positive Air Pressure machine. CPAP is usually applied through a tube to a mask that covers the nose. The air pressure that is generated splints the structures in the back of the throat, holding the airway open during sleep. Treatment can also be accomplished with surgery to the soft palate, uvula, and tongue to eliminate the tissue that collapses during sleep. More complex surgery can reposition the anatomic structure of your mouth and facial bones. Many of these procedures can be performed by an AADSM member trained as an oral and maxillofacial surgeon.

## **Ongoing Care**

Ongoing care, including short- and long-term follow-up, is an essential step in the treatment of snoring and Obstructive Sleep Apnea with Oral Appliance Therapy. Follow-up care serves to assess the treatment of your sleep disorder, the condition of your appliance, your physical response to your appliance, and to ensure that it is comfortable and effective.

## **Advantages of Oral Appliance Therapy**

**Oral Appliance Therapy has several advantages over other forms of therapy:**

- Oral appliances are comfortable and easy to wear. Most people find that it only takes a couple of weeks to become accustomed to wearing the appliance.
- Oral appliances are small and convenient, which makes them easy to carry when traveling.
- Treatment with oral appliances is reversible and non-invasive.