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TREATMENTS FOR SNORING AND SLEEP APNEA

If you have bothersome snoring or have been diagnosed with obstructive sleep apnea then you should be aware of the various treatment options that are available. Obstructive sleep apnea is a condition that is characterized by collapse of the airway during sleep so that your body makes an effort to breathe but you still do not get a good breath. Oxygen levels in your blood will drop until the brain senses the problem and is partially aroused. This prevents your brain from passing through the various stages of sleep that we need to feel rested. As a result, you may feel tired all the time. Importantly, sleep apnea is associated with high blood pressure, diabetes, obesity, heart disease, strokes, and accidents due to falling asleep while driving or operating machinery. Therefore, it is very important to diagnose and treat sleep apnea. The diagnosis is made with a sleep study in which you stay overnight in a sleep laboratory that can monitor you while you sleep. Some people have loud, bothersome snoring but do not have sleep apnea. There are treatment options for snoring as well.

ASSESSMENT OF YOUR AIRWAY

There can be several different anatomic areas of obstruction in patients with sleep apnea or snoring. By performing a careful examination of your airway, the important area(s) of obstruction can be determined. Typically, this is done with a careful physical exam of the nose, mouth, and throat. Following this, a fiberoptic endoscope is used to further assess the areas that are not easily visible during the initial physical exam. Once the area(s) of obstruction are identified, then treatment options should be considered.

CPAP

The most common initial treatment for obstructive sleep apnea is Continuous Positive Airway Pressure, or CPAP. This is a device that delivers positive air pressure through your nose via a nasal mask that is worn during sleep. The extra air pressure prevents the collapse of the airway and allows you to get good, full breaths. CPAP is a good non-invasive treatment that will help many people. However, many people will not tolerate CPAP for various reasons. If you have been prescribed CPAP but are not able to use it, then you should consider other treatment options.

INSPIRE IMPLANT

The Inspire implant is a new technology that treats sleep apnea very effectively. The device is surgically implanted using an incision just under the jawline and another incision just below the clavicle. The device is activated using a remote control at bedtime. It stimulates a nerve called the hypoglossal nerve that causes the muscles under the chin to gently contract during sleep. This muscle contraction pulls the tongue slightly forward and is timed with breathing inwards using a pressure sensor in the chest wall.

NASAL BREATHING TREATMENTS



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Many people with snoring or sleep apnea do not breathe well through the nose. The nose is our primary breathing pathway so nasal obstruction is important to treat in anyone with snoring or sleep apnea. Nasal obstruction can have many causes, including allergies, sinus problems, nasal polyps, deviation of the septum, or collapse of the cartilages of the lower nose. All of these problems can be significantly improved and should be addressed with the proper medical or surgical treatment.

UPPP AND TONSIL SURGERY

The soft palate is the back part of the roof of your mouth. Sometimes the palate causes obstruction because it is long and floppy and it falls back and collapses against the back part of your throat. The uvula is the part of your palate that hangs down in the middle. The uvula can also be long and floppy and can contribute to the obstruction. Many patients with snoring or sleep apnea will have a uvula that is chronically swollen because it is repeatedly traumatized with the vibrations of snoring each night.

For the last two decades, a surgical procedure called the *UPPP* has been popular for treatment of palate obstruction. This procedure involves trimming the back edge of the palate and uvula so that it is shortened and the airway is more open at this level. If the tonsils are present, they are removed at the same time. The procedure works well in patients who have palate obstruction. The risks with the procedure include a sore throat and a small chance of bleeding after surgery. Patients may need to stay overnight in the hospital for one night. Pain medicine is given for the sore throat and antibiotics are given to prevent infection. Initially, the palate will be swollen so the sleep apnea will not improve immediately. Patients will typically notice improvement in about 2-4 weeks. The UPPP procedure is covered by insurance plans for the treatment of sleep apnea.

TONGUE BASE TREATMENT

The back of the tongue (also called the tongue base) can be treated with a procedure called tongue base ablation. The bulky tissue on the back of the tongue is reduced in size using a technique called radiofrequency tongue base ablation. This is an office procedure that utilizes topical and local anesthesia. Then a small curved probe is placed in the soft tissue of the back of the tongue. The device delivers energy which destroys some of the excess soft tissue. This is done in a series of 3-4 treatments spaced about 3 weeks apart. After each treatment there is a sore spot at the back of the tongue for 3-4 days. The natural scar tissue contraction will then cause decreased bulk in that area which helps to correct sleep apnea.

ORAL APPLIANCE

Another way to address sleep apnea is with an oral device, also known as an oral appliance. This is a mouthpiece that is molded to the upper and lower teeth. The device is set so that the lower jaw protrudes slightly forward, thereby opening up the air passage at the back of the tongue. Patients must be free from any active dental disease and must have adequate, strong teeth in order for this treatment to be possible. An oral device is a



Timothy Thomason, M.D.Metroplex ENT & AllergyConstance Zhou, M.D.(972)253-4280good alternative to CPAP for patients with mild to moderate sleep apnea, but may not be
effective by itself for severe sleep apnea.

WEIGHT LOSS

Sleep apnea is often, but not always, associated with being overweight. In many people losing weight will effectively treat sleep apnea. Generally speaking, weight loss programs should be tried in all patients who are overweight and who have sleep apnea.

EFFECTS OF SLEEP HYGIENE, MEDICATIONS, AND POSITIONAL THERAPY

All patients with sleep apnea should exercise good sleep hygiene. This involves setting up good sleeping habits such as going to bed at the same time every night and waking up at the same time every morning. Other measures include avoiding caffeine in the evening and avoiding screen time in the evening.

All sedating medications can have an adverse effect on sleep apnea and actually make sleep apnea worse. Sedating medications cause a deeper relaxation of the throat muscles during sleep and therefore worsening of airway obstruction. If you are prescribed any sedating medications you should make sure that your prescribing physician is aware of your diagnosis of sleep apnea. Alcohol in the evening can also cause a worsening of sleep apnea and should be avoided.

Some patients have supine sleep apnea--which is apnea that is predominantly present while the patient is sleeping on their back. A positional therapy shirt has padding on the back that discourages patients from sleeping on their back.