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Research
Treatment of Snoring and Sleep Apnea
By
Jun 4, 2010 - 4:43:40 PM

How Sereno, the center for snoring solutions based in San Francisco, is helping patients utilize advancements in sleep medicine

(HealthNewsDigest.com) - Many of us sleep alone because we snore. But we may no longer have to. Over the past several years there have been dramatic improvements in the treatment and medical understanding of the complex issues of snoring and sleep apnea.

Only a few short years ago, only unattractive options existed for patients suffering from these ailments. The most common solutions varied from those difficult to comply with, like a continuous positive airway pressure mask (CPAP), to those aggressive and risky, like removing palatal tissue with surgery (UPPP) which carries with it the promise of a permanently altered anatomy and a low to average efficacy rate. Further, many solutions ignore the effect on the patients' lifestyle and relationships. For example, CPAP masks are embarrassing to wear and discourage intimacy. Ultimately, solutions like these only treat some of the symptoms of snoring and sleep apnea and replace one problem with another.

While the problems of snoring and sleep apnea are complex, technology now exists that supports a minimally invasive approach to achieve effective results. These solutions, which work to alleviate snoring and mild to moderate sleep apnea, are low-risk, virtually painless and designed to be permanent. They do not require the patient to actively comply with the treatment, like a mask or a nose-strip. Further, there is overwhelming evidence that suggests most patients have more than one factor contributing to their snoring or sleep apnea problem. As a result, studies show, and my experience shows, that when used correctly and in combination, these minimally invasive solutions are even more efficacious than when used alone.1

An area of the anatomy which is almost universally a contributing factor to patients' snoring and sleep apnea is the soft tissue on the roof of the mouth, called the soft-palate.

A significant technological advance has been the development of devices which stiffen the palate, like the Pillar Procedure®. Similar to the way battens stiffen a sail, the Pillar Procedure® works to minimize the fluttering or vibration of the soft palate which is often responsible for producing the noxious noise of snoring. The pillars are tiny woven implants made of the same material that has been used in surgery to fix hernias and other medical procedures for over 50 years. Using local anesthesia, these pillars can be inserted into the soft palate in a specialized Ear Nose and Throat (ENT) physician's office, in less than 20 minutes. Using a very sophisticated syringe, the implants are inserted into the palate without any cutting or stitching. While initially only 3 pillars were inserted

into the soft palate, a dosage response to the procedure has been realized. Most patients require more than 3 pillars, but this ultimately depends on each patient's anatomy. This incredible FDA-approved advancement has generated a bed partner satisfaction rate of over 90% at one year, according to bed partners of chronic snorers (however, this study was performed before the dosage response was understood; results may be better today).2 No major complications have been associated with this procedure. The success of the Pillar Procedure® is largely attributed to its tissue sparing approach and ability to capitalize on the body's natural response to the pillar inserts–fibrotic tissue forms around the pillars, which stiffen the palate thus minimizing snoring. Treatments like the Pillar Procedure® offer a significant reduction in the risk of severe complications compared to more aggressive surgeries like UPPP, which have significant risk factors, considerable downtime and failure rates in excess of 50%.3

Another area of the anatomy that often contributes to snoring, sleep apnea and nasal congestion is the nasal airway.

A substantial technological breakthrough to address this area of the anatomy is the use of radiofrequency energy (RF) to shrink nasal tissue. RF energy is an attractive alternative to surgical or laser removal of tissue because it does not substantially alter the anatomy (it is "tissue sparing") or physiology of the nasal turbinates, and can be used with only a local anesthesia. Patients who undergo RF treatment typically have little to no downtime and report minimal to no pain during their procedures.4 RF energy can be used to shrink the soft tissue of the nasal turbinates in the nose, which helps to improve nasal breathing while preserving the functionality of the turbinates (the turbinates are responsible for ensuring proper humidification of inhaled air as well as sensory perception of nasal airflow). This is possible because RF turbinate reduction therapy allows for volumetric reduction (i.e., reduction in size) of the membranous soft tissue of the turbinates, while preserving their surface lining. This approach is in contrast with traditional surgery or laser therapies which remove or cut away the turbinates, permanently altering their function. Turbinate reduction therapy using RF energy takes only minutes to perform in the office using local anesthesia, compared to an hour or more in the operating room to perform less advanced, more invasive procedures. This minimally invasive procedure has been FDA approved since 2002 and has treated tens of thousands of patients. Success rates in improving nasal airflow are over 90% with little to no risk of serious complications.5

While each patient's anatomy is different, we increasingly observe at my center (Sereno), that a heightened and specialized medical understanding of the complex problems of snoring and sleep apnea are giving patients the reprieve they desire. Technological breakthroughs, including as those cited above, coupled with use and development by highly specialized medical practitioners like the medical staff at Sereno are dramatically improving the lives of people who snore. Because of these breakthroughs, Sereno patients are no longer forced to sleep alone.

Dr. Mingrone is a Board Certified Otolaryngologist (Ear, Nose and Throat Physician) who specializes in snoring and sleep apnea issues. He serves as President and Medical Director for Sereno, The Center for Snoring Solutions. Sereno is a custom-built medical center dedicated to offering snoring sufferers and their loved ones long-term solutions to alleviate their snoring and live healthier, happier lives. With a highly trained medical staff utilizing FDA-approved, effective, virtually painless, minimally invasive procedures combined with comprehensive lifestyle and nutrition recommendations, Sereno aims for total patient satisfaction. To learn more about Sereno please visit

http://www.serenocenter.com.

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