

Laser Assisted Uvulo-Palatoplasty (LAUP)

Snoring is an obnoxious noise, often the subject of ridicule. This problem affects nearly 30 million adults in the United States alone. It is portrayed as a nuisance, more to those whose ears are assaulted than to the snorer. But snoring is not trivial. Indeed its implications can be quite ominous. Snoring indicates that something is disturbing the breathing during sleep. It makes the sleep less restful and may also subtly undermine the quality of waking by inducing consistent sleepiness, difficulty with concentration, headaches, or impotence. Loud snoring can even be an early warning sign of sleep apnea syndrome. This is a disorder that may eventually lead to high blood pressure, heart attack or stroke.

Why Do We Snore? The sound of snoring comes from the vibration of the soft palate and the uvula at the back of the throat. The vibration is prompted by a narrowing of the passages through which we breathe. The narrowing may be due to a cold or allergy that caused temporary swelling of the nasal passages, enlarged tonsils obstruction the airway, redundant soft palate and pharyngeal tissue or abnormal closure of the muscles in the upper airway during sleep. The last problem is among the most worrisome, because there is no sign of it when a person is awake.

Attempts to quiet snorers have spawned countless gadgets: nose clips, chin straps, pillows and electric shock devices are among the more than 300 anti-snoring devices registered at the U.S. Patent Office. Two surgical procedures have been proven effective in improving or eliminating snoring: uvulopalatopharyngoplasty and laser assisted uvulopalatoplasty.

Laser Assisted Uvulo-Palatoplasty (LAUP) is a new technique, safe and effective for the treatment of snoring and in some cases of mild obstructive sleep apnea. The operation is performed under local anesthesia in an ambulatory setting. The LAUP is based on the progressive enlargement of the airspace in the oropharynx to eliminate or reduce obstruction that occurs during sleep. A CO₂ laser is used to resect the vibrating soft palate, wide posterior tonsillar pillars, and redundant posterior pharyngeal mucosa. This operation has a reported 85% success rate in eliminating snoring. There is a moderate improvement of the severity of the snoring, but there is still a little occasional noise in an additional 12% of patients. The results are usually accomplished in 3-7 sessions of 10-15 minutes each. The sessions are spaced at 4 weeks between each, according to the thickness of the arch and soft palate, or indeed, in accordance to the clinical signs pointed out by the patient.

This operation is not suited for every snorer. It is most effective in patients that are habitual snorers or have mild sleep apnea and are in good general health. The careful preoperative examination and investigations give us a good clue about the possibility of success. Patients with severe sleep apnea syndrome, large lingual tonsils, uncontrolled hypertension, cleft palate, trismus or preexisting velopharyngeal incompetence are not candidates for this procedure. Patients with very large tonsils or nasal obstruction problems may also require correction of these problems to give them the best possible change for improvement in their snoring.

Side Effects and Complications

1. *Postoperative Pain*

Most patients simply complain of pain on swallowing, like a sore throat, for about 10 days which can be quickly soothed by analgesics and anti-inflammatory drugs taken in the preoperative and postoperative period. It does not discomfort the patients in eating (food or drinks), speaking or working after the sessions.

2. *Bleeding*

Simple bleeding appears either in the first 48 hours or in 8 days after the session. It is usually very minor and in most cases it stops after several minutes.

3. *Infections*

There is little risk for infection following this procedure. The patient is usually prescribed a course of antibiotics which are started the day of the surgery for a total of seven days.

4. *Others*

Voice changes and nasal regurgitation or velopharyngeal incompetence are possible, but infrequent complications. Nasal regurgitation is escape of fluid through the nose during swallowing. These changes are usually temporary and the patient generally has spontaneous improvement. However, should this persist, surgical correction of this complication can be accomplished.