

used for the treatment of snoring that works by stiffening and shrinking the tissues of the soft palate.

### Some Useful Suggestions for Snorers

- Reduce weight if you are obese.
- Avoid taking sleeping pills. Certain sleeping pills may cause the upper airway to relax, which leads to snoring.
- Avoid consuming alcohol after 6pm. Alcohol causes relaxation of muscles and swelling of the tissues of the airway.
- Sleep on your side and avoid sleeping on the back. Some people snore, or snore heavily only when sleeping on their back.
- Quit smoking. Smoking causes swelling of the tissues of the airway, which results in snoring.
- Allow your bed partner to fall asleep before retiring to bed.
- Provide ear plugs for your bed partner.



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SLEEP DISORDERS UNIT

# Snoring



Snoring may be a symptom of a spectrum of problems, including simple snoring without sleep disordered breathing, and snoring associated with obstructive sleep apnoea. Studies have shown that approximately 24 percent of the local population are loud habitual snorers.

Obstructive sleep apnoea is a potentially serious disorder associated with snoring, in which one's breathing is interrupted during sleep, causing the individual to awaken many times during the night and experience excessive daytime sleepiness.

### What causes Snoring?

The sounds of snoring are caused by the vibration or flapping of the tissues lining the upper air passages. Snoring in most people is due to multiple factors, each playing some part in the snoring process.

Relaxation of muscles causes the walls of the upper airway to fall together, causing them to vibrate. Swelling of the tissue in the walls (e.g. from anatomical or injury reasons) causes narrowing. The tongue may fall back into the throat when sleeping on the back and contribute to the snoring. Nasal blockage such as nasal allergy or deformities of the nasal septum (the cartilage partition between the two sides of the nose) can cause poor nasal airflow and set the soft tissues of the palate (roof of the mouth) and throat vibrating.

Whereas large tonsils are the most common cause of snoring and sleep apnoea in infants, they can also be the occasional cause of problems in adult, where nasal and soft palate problems are the more common causes of snoring.

Other factors which can influence the snoring condition are obesity; aging and associated loss of general muscle tone, congestion of the throat due to reflux of stomach acid (heartburn); and the effects of alcohol or smoking.

### Where can I get help?

Consult your physician if you have loud snoring. Your physician may then refer you to a Sleep Disorders Centre for a thorough evaluation of your problem.

### What can be done to treat snoring?

Effective treatment is available for almost all patients. The treatment of snoring is divided into medical and surgical options. The therapeutic choice is individualised. A "Staged" approach is often used, which involves medical therapy first, followed by consideration of surgery.

#### • Medical Treatment

As nasal obstruction increases the frequency of snoring and sleep disordered breathing, oral medications prescribed or recommended by

your physician are available to help you breathe through your nose during sleep.

Nasal CPAP (Continuous Positive Airway Pressure) can supply pressurised air into the upper airway via a nasal mask, keeping the upper airway open. CPAP is not usually prescribed for snoring unless there is associated apnoea.

Dental appliances that hold the jaw in a forward protrusive position during sleep have also been used to treat snoring.

#### • Surgical Treatment

Surgical procedures for the treatment of snoring may include nasal, palatal, jaw, tongue and neck surgery. The surgical procedure will depend on the location of the tissues contributing to the snoring.

Certain nasal conditions such as deviated nasal septum and very large tonsils can cause snoring and may require assessment by the Ear, Nose and Throat (ENT) surgeon. Some patients have extra tissue in the throat, which when removed may help to alleviate snoring. This surgical procedure is called uvulopalatopharyngoplasty (UPPP). Excess tissues may also be removed using laser surgery. Radiofrequency thermal ablation of the soft palate (somnoplasty) is a procedure