



## Surgical treatment

Surgical procedures for the treatment of snoring may include nasal, palate, jaw, tongue or neck surgery depending on the location of the tissues contributing to the snoring.

Certain nasal conditions can cause snoring and require assessment by a ear, nose and throat (ENT) surgeon. Some snorers have excessive tissue such as large tonsils, long palate and bulky tongue. Removal of such excessive tissues will help alleviate snoring. Radiofrequency thermal ablation of the soft palate and tongue (somnoplasty) is also used to treat snoring. It stiffens and shrinks the tissues of the soft palate and tongue base.

## Some Useful Suggestions for Snorers

- ✔ Try to lose 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 your 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



### Clinical Sites:



**Sleep Centre**  
Outram Community Hospital  
SingHealth Tower, Level 3

- 📍 10 Hospital Boulevard, Singapore 168582
- ☎ 6321 4377
- 🌐 [www.sgh.com.sg](http://www.sgh.com.sg)



**Clinical Measurement Centre- Sleep Diagnostics**  
Medical Centre, Level 6

- 📍 110 Sengkang East Way, Singapore 544886
- ☎ 6930 6000
- 🌐 [www.skh.com.sg](http://www.skh.com.sg)



**Changi Sleep & Assisted Ventilation Centre**  
Medical Centre, Level 2

- Sleep Laboratory**  
Integrated Building, Level 8, Ward 58
- 📍 2 Simei Street 3, Singapore 529889
  - ☎ 6850 3333
  - 🌐 [www.cgh.com.sg](http://www.cgh.com.sg)



**Sleep Disorders Centre**  
Children's Tower, Level 8, Ward 86

- 📍 Bukit Timah Road, 100, Singapore 229899
- ☎ 6294 4050
- 🌐 [www.kkh.com.sg](http://www.kkh.com.sg)



PATIENTS. AT THE HEART OF ALL WE DO.®



Reg. No. 200002698Z | Copyright 2020 Singapore Health Services | Information correct as at April 2020.

**Disclaimer:** The information provided does not replace information from your healthcare professional. Please consult your healthcare professional for more information.



# Snoring

### Clinical Sites:





## Snoring

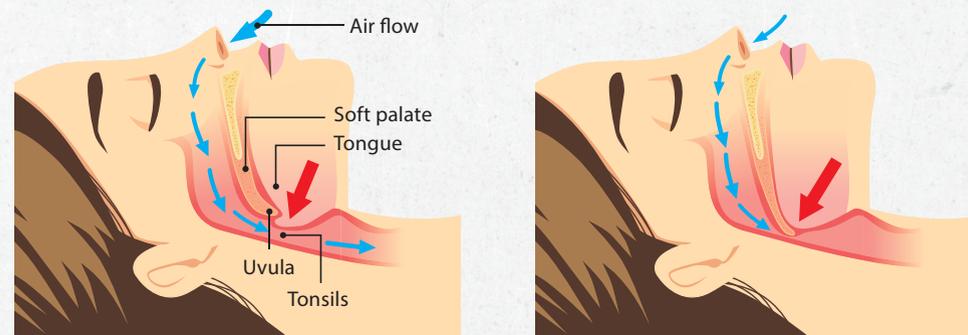
Many people snore but only some snorers have obstructive sleep apnoea (OSA). Studies have shown that approximately 24% of the local population are loud habitual snorers.

OSA is a potentially serious disorder associated with snoring, in which one's breathing is interrupted during sleep resulting in a drop in oxygen levels in the body. This causes the individual to awaken many times during the night and experience excessive daytime sleepiness (EDS).

## What Causes Snoring?

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

### Snoring Diagram



Open Upper Airways

Closed Upper Airways

Relaxation of muscles causes the walls of the upper airway to fall together and narrow, causing them to vibrate. The tongue may fall back into the throat when sleeping on the back and contribute to snoring. Nasal blockages due to conditions such as nasal allergies or deformities of the nasal septum (the cartilage partition between the two sides of the nose) can cause poor nasal airflow and mouth breathing, making the situation worse.

A deviated nasal septum, turbinate hypertrophy, large adenoids and tonsils, nasal polyps, long soft palate and a bulky tongue can narrow the airway.

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

