



SNORING AND OBSTRUCTIVE SLEEP APNOEA – WAYS TO DEAL WITH THESE PROBLEMS

"Laugh and the world laughs with you; snore and you sleep alone."

These words by novelist Anthony Vergess ring true with all too many people.

People with obstructive sleep apnoea make up 2-4% of the population, and are two to seven times as likely to make motor vehicle accidents, according to a driving simulator assessment. This is about the same as those driving with illegal blood alcohol levels or sleep deprivation!

A person who suffers from sleep apnoea syndrome may not know that they nod off while driving.

Snorers are not alone

Statistics show that:

- Males are more likely to snore than females
- Up to 60% of men and 40% of women snore
- 25% snore most nights

Less than 5% of snorers seek medical help.

What is snoring and should you be worried?

Snoring is defined as breathing during sleep with hoarse or harsh sounds as caused by the vibrating of the soft palate. The minimum snoring can do is create so much noise that others around you cannot sleep or avoid you completely, because of the effect it has on their sleep.

But snoring can also be an indication of a more serious condition called sleep apnoea or obstructive sleep apnoea. This condition only affects relatively few snorers, but those affected have serious health risks.

Why does someone snore?

When inhaling during sleep, the soft palate and soft tissues at the back of the throat may vibrate, producing the sound we know as snoring.

The most common causes of snoring are:

- Blockage of the breathing passage due to the size of the tongue or a slightly undershot jaw.
- Blockage of the breathing passage due to temporary conditions, e.g. hay fever or a cold.
- Obesity, especially around the neck. Men get this as they gain weight.
- Mouth breathing.
- Sleeping on your back.
- Smoking.

- Muscle relaxation, especially during dreaming sleep – the most replenishing phase of sleep.
- Alcohol before going to bed. This increases muscle relaxation.
- Drugs that relax the muscles, e.g. sleeping pills.
- Snoring can also be caused by sleep apnoea, though applies in relatively few cases.

What can you do to prevent snoring?

- Lose weight.
- Address the cause that blocks the nasal airway.
- Sleep on your side rather than on your back.
- Avoid alcohol, as it increases muscle relaxation.
- Avoid cigarettes, as smoking can cause nasal congestion.

What is sleep apnoea syndrome?

Simply put, sleep apnoea syndrome is the serious kind of snoring.

In New Zealand, this condition is as common as asthma, which means it affects about one person in every six or seven. 10% of middle aged men have sleep apnoea syndrome.

The cause of this condition is the same as snoring – the upper airway tends to be floppy. With this increased collapsibility of the airway comes increased effort to breathe and increased stimulation of the sympathetic nervous system, which is related to low oxygen in the body. Sufferers wake frequently, even if they're not always aware of it.

The reason is simple: If you don't wake, you die.

What happens during sleep apnoea is typically that the person snores while asleep. Then they continue to try to breathe, but there is no air flowing in or out. The breathing effort becomes more strained. They stop breathing for a while. Then there is a loud gagging or gasping noise as the brain wakes up, increases the muscle tension and they can take a breath. Then they go back to sleep and start snoring again.

How to spot the symptoms of sleep apnoea syndrome

The symptoms of this condition present differently according to who you are.

- If you are the **sufferer**, you will notice: poor sleep, feeling tired, impotence, headache, bedwetting, acid reflux.
- If you are the **wife or partner**, you will notice: snoring, mood changes, impotence, grumpiness. The commonest symptom is apnoea – the sufferer stops breathing.
- If you are the **doctor**, you will notice: the patient sleeps in the waiting room, hypertension is present and difficult to treat, difficult diabetes to treat, congestive heart failure, obesity.

The typical person most commonly seen with heavy snoring and sleep apnoea is a middle aged man who is overweight with a big neck – typically over 48cm.

There are known medical conditions that tend to be associated with sleep apnoea syndrome. This includes an underactive thyroid, acromegaly (overproduction of growth hormone), abnormal facies (abnormal facial appearance) and Ehlers Danlos syndrome (a rare connective tissue disorder).

The effects of sleep apnoea syndrome

- Snoring can cause relationship problems.
- Excessive daytime sleepiness which can lead to increased risk while driving or operating machinery, as well as poor work performance.
- Hypertension.
- Ischaemic heart disease.
- Cardiac arrhythmia.
- Chronic daily headache.
- Poor memory.
- Depression and irritability.
- Acid reflux.
- Heavy night sweats.
- Raspy throat.
- Impotence.
- General fatigue.

How to assess your snoring problem

The Epworth sleepiness scale is a subjective, but validated assessment of snoring used internationally.

The scale below is used to answer each question:

0 = would never doze

1 = slight chance of dozing

2 = moderate chance of dozing

3 = high chance of dozing

Would you doze off while:

1. Sitting and reading
2. Watching TV
3. Sitting inactive in a public place, e.g. theatre or meeting
4. Passenger in vehicle for an hour without break
5. Lying down to rest when circumstances permit
6. Sitting and talking to someone
7. Sitting quietly after lunch without alcohol
8. Driving a car but stopped for a few minutes in traffic

Add up the score. If it's over 10, you should have an overnight sleep study.

How doctors assess snoring and sleep apnoea problems

1. A sleep history is taken.
2. Examinations. This includes the following looking at the face shape, shape and size of neck (there is higher risk of obstructive sleep apnoea if the neck circumference is over 48cm), nasal airway, tongue size and protrusion, teeth, gums and palate. The doctor will want to know if the palate is bruised, if you have tonsils and how big they are, how far can your jaw open? They will look for other health problems such as lung disease, emphysema, heart failure, hypertension, ischaemic heart disease or diabetes.
3. Additional tests such as blood tests including thyroid function and insulin growth factor, oximetry (measuring oxygen in the blood).
4. A sleep study. The patient is examined during sleep. The sleep study can include an EEG, EOG (electro oculogram), EMG (electromyogram) ECG, breathing detection device, pulse oximeter, leg movement detector, microphone to detect snoring, device on chest to detect body position and video.

Potential medical treatments for snoring and sleep apnoea

- Conservative measures such as weight loss, stop smoking and drinking.
- Dental devices.
- Continuous Positive Airway Pressure (CPAP) for obstructive sleep apnoea. The patient is attached to a special machine that prevents the airway from closing by keeping a positive airway pressure. It is delivered via a mask over the nose which is connected to a quiet little pump beside the bed. This delivers air gently blown into the nose and holds open the throat. It usually gives a dramatic improvement in sleep, lower fatigue and the disappearance of daytime sleepiness.
- Surgery to improve the upper airway. This can include nasal surgery or a tonsillectomy. A tracheostomy may be necessary in some cases.
 - Laser assisted uvulopalatoplasty (LAUP) is a new procedure which involves removal of excess tissue from the soft palate with a small handheld laser. It makes the airway larger so vibrations are reduced. This can be performed under a local anaesthetic and takes about 30 minutes. Depending on the severity of the snoring, more than one session may be needed until the snoring is improved. This is not serious surgery and does not involve any down time.
 - Uvulopalatopharyngoplasty (UPPP) is where the surgeon trims and tightens throat tissues under a general anaesthetic. This procedure has only 30-50% success rate and may affect your ability to have CPAP therapy at a later date.
- Novel approaches, including:
 - Injecting sclerosants into the palate.
 - Radiofrequency tissue reduction (unpredictable outcome, but with up to 60% success).
 - Singing as a means of improving the upper airway muscle tone.

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