

Obstructive Sleep Apnoea or Sleep Apnoea - Sydney Sleep Centre

What causes Obstructive Sleep Apnoea (OSA)?

Obstructive sleep apnoea is a common and serious sleep disorder that causes you to stop breathing during sleep. The airway repeatedly becomes blocked, limiting the amount of air that reaches your lungs. When this happens, you may snore loudly or making choking noises as you try to breathe. Your brain and body becomes oxygen deprived and you may wake up. This may happen a few times a night, or in more severe cases, several hundred times a night.

In many cases, an apnoea, or temporary pause in breathing, is caused by the tissue in the back of the throat collapsing. The muscles of the upper airway relax when you fall asleep. If you sleep on your back, gravity can cause the tongue to fall back. This narrows the airway, which reduces the amount of air that can reach your lungs. The narrowed airway causes snoring by making the tissue in back of the throat vibrate as you breathe.

There are many people with sleep apnoea who have not been diagnosed or received treatment. A Sleep Specialist can diagnose Obstructive sleep apnoea using an in-laboratory sleep study or a home sleep test. Sleep apnoea is treated using continuous positive airway pressure (CPAP) or oral appliance therapy, the front line treatment for sleep apnoea.

Obstructive sleep apnoea in adults is considered a sleep-related breathing disorder. Causes and symptoms differ for obstructive sleep apnoea in Children and Central Sleep apnoea.

What are the Symptoms of Sleep Apnoea?

The symptom most commonly associated with sleep apnoea is snoring. Not everyone who snores has sleep apnoea. If snoring is combined with choking or gasping sounds, it is likely to be sleep apnoea.

Daytime fatigue is another common symptom.

The symptoms of sleep apnoea include:

- Loud or frequent snoring
- Choking or gasping while you sleep
- Pauses in breathing
- Morning headaches
- Excessive daytime sleepiness
- Insomnia due to difficulty staying asleep
- Waking up with dry mouth or a sore throat
- Frequent need to urinate during the night
- Trouble concentrating
- Memory or learning problems
- Moodiness, irritability or depression

What are the Risk Factors for Sleep Apnoea

A common misconception is that sleep apnoea only affects older, overweight men. This widely-held assumption is wrong: anyone can have sleep apnoea, regardless of gender, age or body type. If you have any of the following traits you may be at increased risk:

- **Excess weight** – An adult with a BMI of 25 or higher is considered to be overweight. Your risk of sleep apnoea increases with the amount of excess body weight.
- **Large neck size (>43 cm for men, > 40 cm inches for women)** – A large neck will have more fatty tissue that can block your airway.
- **Older age (40+ for men, 50+ for women)** – sleep apnoea occurs more often in older adults, especially people older than 60.
- **Male** – Men have twice the risk of having sleep apnoea compared to women
- **Smoker** – Smokers have a higher risk of sleep apnoea
- **Hypertensive** – High blood pressure is very common in people with sleep apnoea
- **Family history** – sleep apnoea can appear more often among family members..

What are the effects of OSA?

Sleep apnoea can make you wake up in the morning feeling tired or unrefreshed even though you have had a full night of sleep. During the day, you may feel fatigued, have difficulty concentrating or you may even unintentionally fall asleep. This is because your body is waking up numerous times throughout the night, even though you might not be conscious of each awakening.

The lack of oxygen your body receives can have negative long-term consequences for your health. This includes:

- High blood pressure
- Heart disease
- Stroke
- Pre-diabetes and diabetes
- Depression

Research has shown that people with untreated sleep apnoea are between two to five times more likely to have a motor vehicle accident than someone without sleep apnoea.

Sleepiness is a medical condition and can be very dangerous for people with sleep apnoea who have a markedly increased incidence of car accidents, work accidents, and sick days. If this sleepiness is due to sleep apnoea, it can be effectively treated and a normal sleeping pattern can be re-established. This is why it is extremely important to have sleep apnoea diagnosed and treated.

What tests are available to investigate snoring and OSA?

The first step is for you to discuss your snoring or sleep problem with your own doctor. It is a good idea to take your sleeping partner, if you have one, to the doctor with you, because it is your sleep partner that notices that in addition to snoring, there are periods of apnoea (ie obstructed breathing) during sleep, and a very restless sleep pattern. This can be a cause of great concern to the partner who lies awake fearful that breathing might not start again.

Following a thorough history and examination by your doctor, you may be referred to a specialist in sleep disorders. Here again a detailed history and examination of the chest, heart, blood pressure, nose and throat and nervous system will be performed.

You may be asked to keep a sleep diary for two weeks. This includes information about what time you went to bed each night, when you woke up in the morning and how many times you woke up each night. This will help the doctor see your sleep patterns, which could contain information about how to diagnose and correct your sleep problem.

If necessary, the advice of a surgeon may be sought regarding any nasal or throat problems.

It is generally accepted by those working in the area that a sleep study or polysomnogram should be performed to make a diagnosis. In addition, breathing tests and blood tests (to test oxygen levels, haemoglobin levels, and thyroid gland function) can be performed.

Sleep studies can be performed in a sleep laboratory or as a home sleep test using simple non-invasive equipment used to monitor brain, heart, lung and other organ activity during sleep.

Some patients with high risk factors for Sleep Apnoea and no other medical disorders may be appropriate for a home sleep test. This type of sleep study lets you sleep in the comfort of your own home while a machine collects information. The testing equipment is similar to what is used in an overnight sleep study. A staff member will show you how to hook up the testing equipment yourself. Once you are finished, you can take the device back to the sleep centre.

An overnight or laboratory based sleep study requires you to stay overnight at hospital in a sleep unit or laboratory usually consisting of a number of private, quiet, single rooms. You will sleep with sensors hooked up to various parts of your body. Physicians usually recommend this test for more complicated or difficult to diagnose cases.

While there are other types of screening that claim to detect sleep apnoea none can accurately detect and diagnose Sleep Apnoea. Beware of devices that have not been recommended by your Sleep Specialist.

Once you have completed your sleep test, your Sleep Specialist will schedule a follow-up appointment to discuss your diagnosis. If you are diagnosed with sleep apnoea, your sleep specialist will discuss your treatment options with you.

What is the treatment for OSA?

Sleep apnoea is a serious sleep disorder that needs to be treated. A sleep specialist can help you select a treatment plan that is right for you. Depending on the treatment, he or she may work in collaboration with other members of the sleep team, including dentists, dieticians, exercise physiologists, psychologists, and technologists. Your plan may include any combination of these treatments:

CPAP (Continuous Positive Airway Pressure)

CPAP is a machine that uses a steady stream of air to gently keep your airway open throughout the night so you are able to breathe. You sleep with a mask with tubing that is attached to a machine kept at the bedside. Masks and machines may vary depending on your treatment and comfort needs.

Oral Appliance Therapy

An oral appliance or mandibular advancement splint (MAS) is a device that fits in your mouth over your teeth while you sleep. It may resemble a sports mouth guard or an orthodontic retainer. The device prevents the airway from collapsing by holding the tongue in position or by sliding your jaw forward so that you can breathe when you are asleep. Some patients prefer sleeping with an oral appliance to a CPAP machine. A dentist trained in dental sleep medicine can fit you with an oral appliance after you are diagnosed with Sleep Apnoea.

Surgery

Surgical therapies are not as effective in treating sleep apnoea as CPAP and oral appliances. There are a variety of surgical options you can elect to have if CPAP or oral appliance therapy does not work for you. The most common options reduce or eliminate the extra tissue in your

throat that collapses and blocks your airway during sleep. More complex procedures can adjust your bone structures including the jaw, nose and facial bones.

Weight Management

Weight loss can help improve or eliminate your sleep apnoea symptoms if you are overweight or obese. Overweight people often have thick necks with extra tissue in the throat that may block the airway.

Positional Therapy

If you have mild sleep apnoea or you only snore when you sleep on your back, you may be able to improve or eliminate your symptoms by changing your sleep position. Your airway may open if you sleep on your side instead of your back. There are a variety of products that you can wear when you go to sleep that prevent you from sleeping on your back. You can also attach a tennis ball to the back of your shirt or night clothes.

Lifestyle Changes

There are a variety of lifestyle changes that you can make to help you reduce your snoring and improve your Sleep Apnoea symptoms. Behavioural changes such as quitting smoking or not drinking alcohol may improve sleep apnoea symptoms.

As patients with sleep apnoea already have disrupted sleep, it is important that it is not made any worse. Therefore, it is important for patients with OSA to have regular bed times and rising times, preferably allowing 8 hours of sleep per night

If you have difficulty staying with your treatment plan or cannot sleep even with treatment, your doctor may recommend cognitive behavioural therapy. A behavioural sleep specialist will help you eliminate the thoughts and behaviours that are preventing you from getting restful sleep or complying with your treatment.

Things to avoid if you have OSA

- Alcohol may worsen sleep apnoea because it relaxes your muscles. Mild sleep apnoea can become severe after a few drinks.
- Smoking – this damages the upper airway and makes it more collapsible
- Sleeping tablets can reduce the drive to breathe
- Sleep deprivation – this can compound the sleepiness already present because of sleep apnoea