# **Snoring and Sleep Apnoea** - The 3 Essential Things You Must Know Before Choosing a Treatment



## No.1 Receive a proper diagnosis before proceeding with treatment

Up to 70% of people who regularly snore have the medical condition sleep apnoea.

Over 85% of people who have sleep apnoea are unaware that they have it. If the snoring is treated but not the sleep apnoea, then you can have an underlying silent medical condition that could lead to, or worsen blood pressure, heart disease and stroke.



People who have already been diagnosed with sleep apnoea are only the 'tip of the iceberg'

If you snore regularly it is important that you have an assessment by a trained sleep health professional for the possible presence of sleep apnoea. You can then have treatment which is scientifically proven and "tailor made", with every chance of success.

## Diagnosing sleep apnoea

An overnight sleep test is the only way of diagnosing sleep apnoea. The sleep test is important not just to determine whether you have sleep apnoea, but also the severity. The severity of sleep apnoea is an important factor in establishing what the optimal treatment is for a successful outcome.



## Home Sleep Test - Diagnosis in the comfort of your own home

Traditionally a sleep test was done by an overnight stay in a hospital. With the development of technology, an accurate test can be done in the comfort of your home. This replicates your usual sleep far better than sleeping in a hospital setting.

A sleep monitoring device is taken home and is simple to connect and sleep with. The device is returned the next day and the parameters of sleep are measured. The results are evaluated by a sleep physician, with a diagnosis made for both the presence and severity of sleep apnoea.

Sleep tests are inexpensive with most of the costs covered by a Medicare rebate.

## No.2 Only use treatments which are scientifically proven

## Proven treatments

In the medical field treatments undergo rigorous scientific testing that must prove effectiveness and safety. These tests need to be scrutinized and validated by experts in the field, and then published in peer reviewed medical journals. While there are many claims made by manufacturers, most over the counter treatments have no real scientific evidence and are ineffectual. Not only can it be a waste of time and money using these products it can delay access to proven treatments.

Scientifically established treatments for snoring and sleep apnoea which are prescribed by respiratory and sleep physicians and other experts in the field include the following:

## **Dental Sleep Appliances**

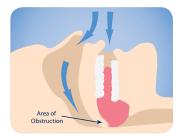
Custom made, adjustable dental sleep appliances are widely regarded by sleep physicians as the best available treatment for snoring and a frontline treatment for mild to moderate sleep apposea.

## How does a dental sleep appliance work?

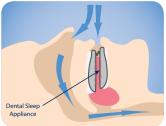
Dental sleep appliances work by comfortably holding the lower jaw slightly forward, which prevents the tongue and tissues at the back of the throat from collapsing into the airway. This keeps the airway open.

Dental sleep appliances are comfortable and easy to use with studies demonstrating 95% effectiveness in overcoming snoring.

Recent guidelines from the American Academy of Sleep Medicine, the peak body in the field, recognise dental sleep appliances as a frontline treatment for snoring and mild-to-moderate sleep apnoea, as well as for severe sleep apnoea where the patient cannot use a CPAP machine.



Sleep apnoea - the lower jaw, palate and tongue drop back causing airway obstruction



Normal airway. The dental sleep appliance holds the jaw forward keeping the airway open

## **Continuous Positive Airway Pressure (CPAP) machine**

This is a mask and machine that delivers air under pressure to keep the airway open during sleep. It is proven by multiple studies over many years as the gold standard treatment for severe sleep apnoea.

CPAP is particularly indicated for the severe forms of sleep apnoea in which people have blood pressure and heart problems as well as significant symptoms such as excessive daytime sleepiness and problems with memory and concentration. State of the art CPAP machines are quiet and comfortable with increased compliance rates.



Many people still find it difficult to use CPAP. Dental sleep appliances are an excellent alternative therapy for people with severe sleep apnoea when CPAP is not tolerated, or when travelling, camping, or in any situation with no access to electricity.

## Surgery

Surgery is not a common treatment for sleep apnoea. Occasionally patients may benefit from one of several procedures. The basic goal of sleep apnoea surgery is to increase the size of the airway. Listed below are the procedures that have been used to treat sleep apnoea.

## Uvulopalatopharyngoplasty (UPPP)

During the UPPP procedure, a surgeon removes a certain amount of soft tissue from the back of the throat and palate in order to minimize the risk of the airway collapsing during sleep. UPPP is rarely done today because of poor results in treating sleep apnoea and the possibility of severe pain and significant side effects.

#### Laser Assisted UP - LAUP

The laser assisted UP procedure, or LAUP, uses the same principles as the UPPP, but uses a laser to remove uvula, throat and palate tissue. This procedure is often quite painful though less pain than UPPP. It is also rarely successful in treating sleep apnoea.

## Tongue reduction surgery

A tongue reduction procedure can be helpful for reducing sleep apnoea but long term results are only fair and surgery is radical.

## Tonsillectomy and adenoidectomy

A small proportion of people who have sleep apnoea have very enlarged tonsils or adenoids that are contributing significantly to the obstruction. In this select group of people surgery can result in a decrease, or even an elimination of the sleep apnoea and snoring.

### **Conclusion**

While there are surgical treatments that are used, surgery is rarely chosen in the first instance. This is mostly because the results are less predictable than the usual treatments and far more invasive.

## Combining lifestyle changes with other methods of treatment

Making the following changes can greatly enhance treatment outcomes for many people.

#### Weight loss

If you are overweight, weight reduction may improve your snoring or sleep apnoea. Weight gain deposits fat into and around the soft palate, tongue and neck structures thereby increasing the severity of obstruction to breathing during sleep. Weight loss is an important factor for reducing the occurrence or severity of snoring and sleep apnoea. There is some evidence that demonstrates that a 10% loss of weight can result in a 40% reduction of sleep apnoea.

While weight loss doesn't usually eradicate all of the sleep apnoea it does enhance the effectiveness of CPAP and dental sleep appliances.

## Sleep position

For many people their sleep test demonstrates that they have positional sleep apnoea. This is where the sleep apnoea is far worse when sleeping on the back as against sleeping on the side. Elevating the head of your bed and avoiding sleeping on your back can be helpful.

A common way to train yourself not to sleep on the back is to place a tennis ball in the middle of your back during sleep. A ball can be put in a "bum bag" which is positioned so that the pouch with the ball is placed in the middle of the back. For some people sleeping for 4 weeks with a ball in the back can retrain the body to maintain this position when the ball is no longer used.

## Avoid drugs and habits that cause airway narrowing

Alcohol and most sleeping pills relax the muscles of the throat and can worsen snoring and sleep apnoea. You should avoid alcohol for at least 3 hours prior to bedtime. Smoking can also worsen snoring and sleep apnoea, as can excessive caffeine use.

## Improve amount and regularity of sleep

It is helpful to go to sleep and wake up at approximately the same time every day. Ideally you should try to get at least 7 hours of sleep a night. Snoring and sleep apnoea is often worse if you are overtired.

## Beware of unproven treatments

Sleep physicians and experts in the field are extremely concerned about "over the counter treatments" for snoring. These products, which include sprays, medications, pillows, rings and breathing techniques, are lacking in any standard scientific evidence and have been demonstrated to be ineffective.

While weight loss, avoiding caffeine, nicotine and alcohol prior to sleep can be very helpful, custom-made, adjustable dental sleep appliances remain the gold standard for the immediate elimination of snoring and mild to moderate sleep apnoea and CPAP the gold standard for severe sleep apnoea.

# Unproven or ineffective treatments for snoring and sleep apnoea

## **Breathing programs**

A technique which involves breathing retraining from breathing through the mouth to breathing through the nose. There is no available scientific evidence demonstrating that this method is effective in treating either snoring or sleep apnoea. This treatment is not being recommended by sleep physicians. There is a general concern that this treatment is being advocated for potentially serious conditions such as sleep apnoea and snoring as an alternative to safe, proven treatments.

## Non prescription, "boil and bite" dental devices

While custom made dental sleep appliances are proven to be effective, safe and comfortable, "over the counter", non prescription, dental devices have now been banned throughout the US.

The US FDA has banned these devices because they are far less effective than custom made adjustable sleep appliances and because of the potential for side effects such as teeth movement and jaw joint damage. These devices are non adjustable and one size fits all. Studies demonstrate that such devices are far less effective than custom made adjustable sleep appliances. These devices are available for sale mostly over the internet and have the potential to cause side-effects. They are difficult for people to wear - even in the short term.

#### Other treatments

The Queen Victoria Sleep Studies Unit (QVSSU) in England conducted trials and published a report on the effectiveness of anti snoring aids such as nasal strips, pillows and sprays.

## Nasal strips

The QVSSU verdict is that they give a subjective feeling that the nose is clearer and may help if the nostrils are small, but overall their efficacy is not impressive and they are of limited value.

## **Pillows**

QVSSU reports that the theory underlying their use is good however in practice the pillows are not really effective.

# According to the American Academy of Sleep Medicine:

"Continuous Positive Airway Pressure therapy and dental sleep appliances have extensive scientific evidence that details their safety and effectiveness. Weight loss and lifestyle changes are useful adjuncts. Other treatments are at this point unproven and unlikely to result in successful outcomes."

## No.3 Only seek treatment from trained sleep health professionals

## For diagnosis

It is important that an assessment and diagnosis is made only by a respiratory and sleep physician who is a medical practitioner with speciality training and qualifications in sleep and respiratory medicine.

## For dental sleep appliances

Dental sleep appliances can only be made by a qualified dentist. It is strongly recommended that you seek out a dentist who has had training in dental sleep medicine and is a member of the Australian Sleep Association.

Most dentists do not make dental sleep appliances and others have had limited experience, often with only one type of appliance. The dentist you choose should be utilizing a range different types of latest generation appliances so that an appropriate appliance, tailor made to your specific needs, can be selected.

## For CPAP therapy

While CPAP is an extremely effective therapy patient compliance can be quite poor with studies showing around 50% of patients are unable to use it. The success rates with CPAP can vary greatly amongst the companies that provide it.

A CPAP company should have experienced, trained sleep technicians and have a full range of equipment, including masks, to select from. Such companies will have very high patient success rates in CPAP use. Companies that have all their products available from one manufacturer should be avoided.

## Important note

If you are being treated for significant sleep apnoea, even if you are feeling better and not snoring, make sure you have a follow up assessment to ensure there is objective evidence that the treatment is working. Based on results of a follow up sleep study, dental sleep appliances or the CPAP machine can be adjusted to further improve effectiveness.

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# 3 important questions to ask your sleep health professional

There are 3 important questions you should have answered before undertaking a treatment for snoring and sleep apnoea. Knowing, and taking into account the answers to these questions will give you the best opportunity for a successful outcome.

## Question 1: What are my treatment options?

The options should only be from treatments that have published scientific studies demonstrating effectiveness and safety.

## Question 2: What are the possible outcomes of those options?

This means knowing what the impact of each treatment is on areas such as snoring, apnoea, tiredness, memory, concentration and health. It also means knowing what the potential side effects are and the possible impact of those side effects.

## Question 3: How likely is each of the outcomes to occur?

This involves knowing what the effectiveness is of each treatment. In other words what is the probability of overcoming your snoring and sleep apnoea as well as symptoms such as tiredness. It also means knowing the likelihood of side effects occurring.