

## Obstructive Sleep Apnoea & CPAP Therapy

### What is Obstructive Sleep Apnoea?

Obstructive Sleep Apnoea (OSA) is a condition which affects your quality of sleep. During sleep, the body cycles through several 'layers' of sleep, from light dozing to very deep sleep. Deep sleep is needed by the brain to allow it to refresh and let you feel alert in the morning.

In deep sleep, all your body's muscles relax, including those behind the tongue and at the back of your throat. When this happens, your airway may become narrowed. This can cause snoring and make it harder to breathe.

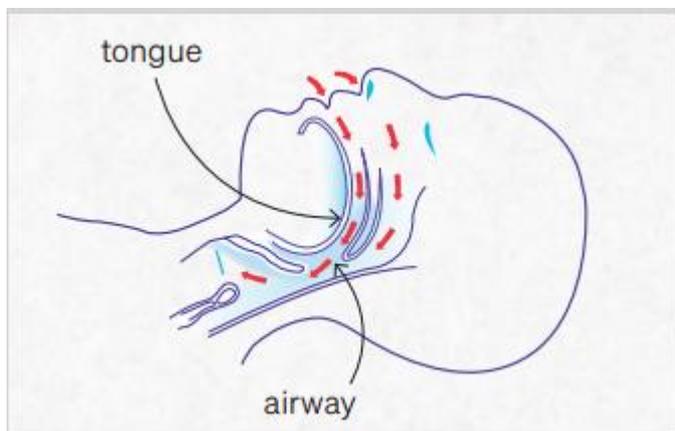
Most of the time, this is not a problem, but in some people the airway can narrow too much—or even become blocked. This is called an 'apnoea'. When an apnoea happens the brain senses that your breathing has stopped and rouses into a lighter stage of sleep. The muscles in your throat tighten and you take a few deep breaths. You do not wake up fully, so it is common not to remember these episodes.

This apnoea/waking cycle can repeat up to hundreds of times each night and prevents your body from settling into deep refreshing sleep. This means that the next day you may feel very tired and sleepy with lowered concentration and mood, as if you've not slept at all.

#### What Does OSA Mean?

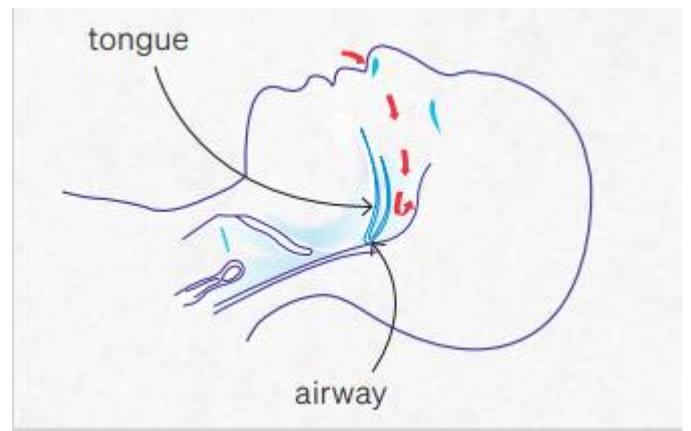
<b>Obstructive</b>	your airway is blocked
<b>Sleep</b>	it happens when you sleep
<b>Apnoea</b>	it makes you stop breathing

#### Normal breathing during sleep



In normal breathing, air can travel freely to and from your lungs through your airways during sleep

#### Obstructive apnoea during sleep



In OSA, your airway collapses, stopping air from travelling to and from your lungs, stopping your breathing for a short time and disturbing your sleep.

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## Symptoms

- Excessive snoring and sudden snorts when asleep
- Pauses in breathing when asleep
- Waking up gasping for breath or choking
- Very restless sleep; tossing and turning all night
- Sudden jerky body movements at night
- Frequent night-time toilet trips
- Waking up unrefreshed and/or with a headache
- Struggling to stay awake or often dozing off
- Irritability, bad mood, or depression
- Loss of concentration and poor memory
- Poor coordination and slow reaction times
- Impaired work performance

## Causes

You're more likely to have OSA if:

- You're over 50 years old
- You're a man or you're a woman past menopause
- You're overweight
- You have a large neck (over 16in collar size)
- You have a large tongue and/or tonsils
- You have a small upper airway or nasal blockage
- You have a set-back lower jaw (retrognathia)
- You're in the later stages of pregnancy
- You have high blood pressure
- You have type-2 diabetes
- You have chronic heart disease
- You have Down's syndrome
- You smoke or regularly drink alcohol before bed
- You take sleeping pill or sedative medicines

## Risks

OSA forces your heart to work harder when it should be resting, which can increase the risk of high blood pressure, diabetes, heart disease or stroke if it isn't kept under control.

Being overly tired all the time can impair your performance at work and put strain on your relationships, as well as increase the risk of developing mental health problems and cognitive issues such as dementia.

Care should be taken when driving or operating machinery as your tiredness could be fatal. If you have significant daytime sleepiness and you are a driver, you **must** report your OSA to the DVLA.

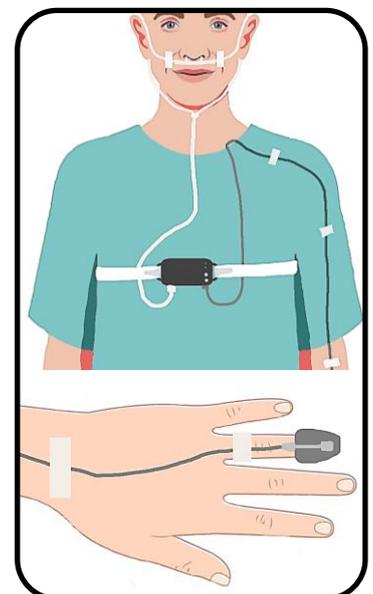
## Diagnosis

Most patients can be diagnosed by a questionnaire about your sleep and daytime symptoms, and a simple sleep study involving:

- An elastic band around the chest to record breathing movement
- A sensor under the nose to record airflow and snoring
- A finger probe which records heart rate and blood oxygen

The equipment is picked up from the hospital, but the test takes place in your own home. The equipment will need to be returned to the department the next working day so we can download and analyse the data.

Occasionally, we may need to perform a more detailed sleep study where we add sensors to monitor limb movements or the electrical activity of your heart or brain. Again, this is done in your own home so that your sleep will be as normal as possible for you.



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## Treatment Options

If you are diagnosed with mild OSA, you may be able to make a few simple changes to improve your breathing at night. For example:

- If you are overweight, losing weight will help a lot
- Try to avoid alcohol after 6.00pm so that your muscles aren't over-relaxed at night
- Try to keep your nose as clear as possible
- Try to sleep on your side, or half propped up on pillows, and keep your chin away from your chest

If your OSA is caused by airway crowding, you may be referred to the Ear, Nose and Throat (ENT) Department who may be able to operate to give your airway more room.

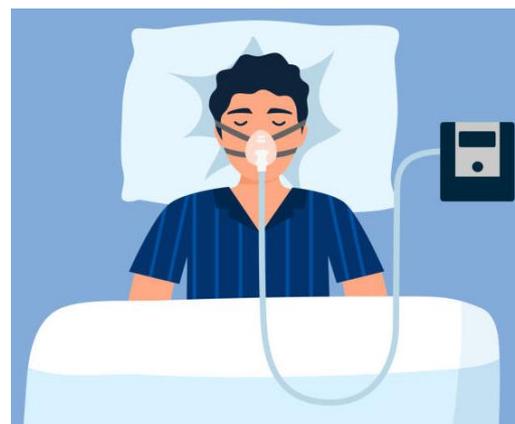
If your OSA is caused by a set-back lower jaw, a simple mouthpiece may help to bring your jaw forward and clear the crowding of your airway. This is called a **Mandibular Advancement Device**.

For moderate and severe OSA, the standard treatment is **Continuous Positive Airway Pressure (CPAP)**.

## CPAP Therapy

CPAP therapy involves wearing a mask at night which is attached to an air pump. This gently blows air into your nose or mouth while you sleep to prevent your airway from closing. This means no matter how relaxed your airway muscles are, your airway is held open so that you can breathe normally.

While CPAP may seem unpleasant or scary at first, it has been proven to be incredibly effective at controlling OSA symptoms and is the most recommended treatment option for people with moderate or severe OSA.



You will be asked to attend an hour-long appointment at the hospital where a sleep practitioner will carefully fit you for a mask and show you how to use the machine. You may be asked to lie quietly with the machine running for about 20 minutes so that you can get used to how it feels.

It is normal to find it difficult to get used to the mask and pump at first, but the benefits of feeling more awake, refreshed, and energetic in the day will soon be apparent. A common problem is the mask leaking air. If this occurs, contact the physiologists who will be able to try a great range of different masks to find one to suit you.

After your initial appointment, the physiologist or sleep specialist will see you for a 1-month follow up to check that all is well and troubleshoot any issues that you may have. If all is well, you will be seen formally by the sleep specialist year, just to check in with you, check the machine is working properly, and update our records.

**CPAP patients can always call the sleep service for help at any time during office hours**

**on 01305 255 126 or email us at [sleep.service@dchft.nhs.uk](mailto:sleep.service@dchft.nhs.uk)**

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## Driving



Falling asleep whilst driving is treated very seriously by the law. If you have tiredness or sleepiness which affects your driving for more than three months, the law says that you **must** report this to the DVLA. You can do this online at [www.gov.uk/excessive-sleepiness-and-driving](http://www.gov.uk/excessive-sleepiness-and-driving).

You will be asked to tell them the date of your diagnosis and when you started treatment, and to inform them whether your OSA and sleepiness is under control. The DVLA may then contact your hospital consultant or GP for more details.

As long as the DVLA is satisfied that your OSA is under control and will not hinder your driving, your licence will be unaffected. If you are unable to comply with treatments and your OSA remains uncontrolled, you may have to surrender your driving licence.

You can be fined up to £1,000 if you don't tell the DVLA about a medical condition that affects your driving. If you're involved in an accident, you may be prosecuted. You might also be required to inform your insurance company of your OSA. It's best to check your policy or you may find that you won't be covered in the event of an accident.

## More Information

You may find these websites and resources useful to learn more about OSA and CPAP therapy.



[www.hope2sleep.co.uk](http://www.hope2sleep.co.uk)



[www.sleep-apnoea-trust.org](http://www.sleep-apnoea-trust.org)



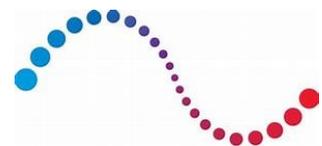
[www.thesleepcharity.org.uk](http://www.thesleepcharity.org.uk)



[www.cpap.co.uk](http://www.cpap.co.uk)



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