Obstructive Sleep Apnoea Syndrome

What is Obstructive Sleep Apnoea Syndrome?

Obstructive Sleep Apnoea Syndrome (OSAS) is a condition which interrupts breathing during sleep. OSAS causes breathing to become abnormally slow and shallow (hypopnoea) and then to stop (apnoea) because the muscles at the top of the throat collapse. This causes snoring at first, followed by a drop in blood oxygen levels. The brain detects this, tells you to wake up and you make an extra effort to breathe. After a few deep breaths you will go back to sleep again, often not aware that you have woken up.

What causes Obstructive Sleep Apnoea?

Obstructive Sleep Apnoea Syndrome (OSAS) can occur at any age, but is most common in middle aged men who are overweight. It is thought that as many as 4 in 100 middle aged men and 2 in 100 middle aged women develop OSAS.

Factors that increase the risk of developing OSAS are those which can lead to narrowing of the throat during sleep. These are:-

- Being overweight or obese – particularly if you have a thick neck as the extra fat puts pressure on the airway
- Drinking alcohol in the evening – this relaxes muscles more and dulls the brain’s response to an apnoea.
- Enlarged tonsils.
- Sedative drugs, eg sleeping tablets or tranquilisers.
- Sleeping on your back
- Having a small jaw that is set back further than normal
- Smoking
- Having a family history of OSAS
OSAS can be prevented by avoiding putting on weight, reducing alcohol intake (particularly in the evening) and stopping smoking. It is also advisable to avoid sedative drugs when possible.

What are the symptoms?

People with OSAS often do not remember waking at night. It is usually a sleeping partner or parent that mentions the loud snoring and episodes of apnoea that they have seen. However, other symptoms may include:-

- Daytime sleepiness – this is different to tiredness or fatigue. You should not drive or operate machinery if you feel sleepy.
- Poor concentration.
- Not feeling refreshed on waking.
- Morning headaches.
- Depression.
- Being irritable.

How is it diagnosed?

A questionnaire is sometimes used to measure the level of sleepiness you feel during the day - The Epworth Sleepiness Scale. A high score may be a sign that you have OSAS.

If your GP thinks you are likely to have OSAS, you may be referred to a specialist for a sleep test. At North Devon District Hospital, the sleep tests offered are done in your home. You will be lent a machine that measures your oxygen level and heart rate whilst you are asleep. If there are still doubts about the diagnosis, a more detailed study can be done at home. The information gained from the tests can help the specialist to confirm or exclude the diagnosis of OSAS.

Your blood pressure will usually be checked as OSAS is linked with high blood pressure. You may also have a blood test to exclude other causes of daytime sleepiness.

Driving and operating machinery

If you are a driver and have OSAS, you must not drive until your symptoms of daytime sleepiness are controlled. You must inform the DVLA (Driver and Vehicle Licensing Agency) if you are diagnosed as having moderate or severe OSAS and have daytime sleepiness. Normal car drivers will usually be allowed to continue driving after starting treatment which has stopped any symptoms of daytime sleepiness. Medical confirmation of this is required for those with moderate or severe OSAS. However, special rules apply if you have an HGV, PSV or similar license.

How is it treated?

The recommended treatment for people who have a moderate to severe level of OSAS is **CPAP therapy (Continuous Positive Airway Pressure)**. This involves the wearing of a mask when you sleep - see separate Patient Information Leaflet about CPAP Therapy.
Other actions that can help are:-

- Weight loss
- No alcohol for 4-6 hours before bedtime
- Not using sedative drugs.
- Stopping smoking.
- Sleeping on your side or in a semi-propped position.

**Mandibular Advancement devices** can be worn during sleep to treat milder levels of OSAS. These are devices that look like the gum shields that sports-people wear. They are worn inside the mouth, pulling the mandible forward a little to prevent narrowing of the airway during sleep. These can be bought without a prescription, but it is recommended to get one fitted properly by a dentist.

**Surgery** can be helpful if you have large tonsils or adenoids that need removing. This is more common in children. Surgery can help to clear problems with nasal blockage.

**Possible effects of treatment**

CPAP therapy can provide an immediate improvement in sleep quality. Snoring and daytime sleepiness are either reduced or abolished completely.

**What is the prognosis or expected outcome of treatment?**

The use of CPAP therapy is likely to be life-long unless the cause of the condition is dealt with. Significant weight loss can improve OSAS and lead to a reduction in pressure levels on the airways which is needed to control the condition, weight loss can even result in treatment no longer being necessary.

**Are there any possible complications?**

The air from the CPAP machine may have a ‘drying effect’. This can be reduced with use of a humidifier.

The masks worn over the nose, or mouth and nose, can cause pressure points on the bridge of the nose to become sore. This can be avoided by correct fitting of the mask.

**Follow up**

There is a telephone helpline for people undergoing tests and treatment for OSAS. This is available Monday - Friday, 8.00 am - 4.00pm on 01271 311600.

If you are diagnosed with OSAS you will be followed up by one of the Respiratory Consultants and Clinical Nurse Specialist (CNS) in Respiratory Care. You will be offered treatment to control your symptoms and be seen again within a month to check on your progress. If you remain on long-term treatment you will have at least an annual outpatient clinic follow up. This is to check on symptom control and effectiveness of the treatment you are receiving.
Further information

Respiratory care clinical nurse specialist: Lynn Greenfield
Sharon Newcombe
Tel: 01271 311600.

Sleep Apnoea Trust: PO Box 60, Chinnor, OX39 4XE
Tel: 0800 025 3500
www.sleep-apnoea-trust.org

References

Tiredness Can Kill: advice for drivers (DVLA, 2017)
Assessing fitness to drive: a guide for medical professionals (DVLA, 2017)

PALS

The Patient Advice and Liaison Service (PALS) ensures that the NHS listens to patients, relatives, carers and friends, answers questions and resolves concerns as quickly as possible. If you have a query or concern call 01271 314090 or e-mail ndht.pals@nhs.net. You can also visit the PALS and Information Centre in person at North Devon District Hospital, Barnstaple.

Have your say

Northern Devon Healthcare NHS Trust aims to provide high quality services. However, please tell us when something could be improved. If you have a comment or compliment about a service or treatment, please raise your comments with a member of staff or the PALS team in the first instance.

‘Care Opinion’ comments forms are on all wards or online at www.careopinion.org.uk.