



TheMKWay



Milton Keynes
University Hospital
NHS Foundation Trust



Patient Information

Obstructive Sleep Apnoea in patients presenting for surgery.





What is Obstructive Sleep Apnoea?

Obstructive Sleep Apnoea (OSA) is one of the most common sleep disorders. It is a condition where your breathing stops and starts during sleep due to blockage in the upper airway.

In deep sleep, the muscles of the throat relax. Normally, this doesn't cause any problems with breathing. However, in OSA this causes blockage of the upper airway at the back of the tongue. Initially, this blockage isn't complete and so produces a snoring sound. As it progresses there is then complete blockage and breathing stops altogether. Such an episode is called an apnoea. During an apnoea, people with OSA make constant efforts to breathe against their blocked airway until the blood oxygen level begins to fall. The brain then needs to arouse the person from deep relaxed sleep so that the muscle tone returns, the upper airway opens and breathing begins again. Unfortunately, when a person with OSA falls back into deep sleep, the muscles relax once more and the cycle repeats itself again and again overnight.

In OSA, the apnoeas can last for several seconds and in severe cases the cycle of apnoeas and broken sleep is repeated hundreds of times per night. Most sufferers are unaware of their disrupted sleep but wake up feeling unrefreshed and in need of further sleep. As well as causing excessive tiredness, this cycle of reduced oxygen levels. This can have negative impacts on health, for example contributing to high blood pressure or increasing the risk of heart attacks, strokes and abnormal heart rhythms. OSA sufferers are also up to 12 times more likely to have road traffic accidents.

Symptoms of OSA during sleep include:

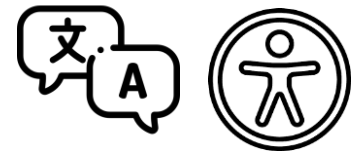
- Loud snoring
- Noisy & laboured breathing
- Repeated short periods where breathing is interrupted by gasping or snorting
- Depression and extreme mood swings when awake

OSA is more common in males, in those over the age of 50 years and in people who are overweight or obese. The use of alcohol, sleeping tablets and other sedatives will also worsen the symptoms and effects of OSA. Therefore, initial treatment of OSA will include advice about lifestyle changes such as diet and exercise, reducing alcohol intake and stopping smoking where appropriate.

How do we detect OSA in the pre-assessment clinic?

We suspect OSA when patients complain of certain symptoms. These include snoring, being witnessed to stop breathing in your sleep, feeling very tired during the day and falling asleep easily. You may also suffer with headaches, high blood pressure and, although rare, other problems with your heart or breathing.

All patients with a Body Mass Index (BMI) over 35kg/m² who come to pre-operative assessment clinic will have a questionnaire taken with the pre-operative assessment nurse. If this indicates that you have a high likelihood of OSA, your case will be highlighted to an anaesthetist for review. If OSA is suspected, you will then be contacted for further investigation and treatment.



What are the investigations for OSA?

If you are suspected of having undiagnosed OSA you will be referred for sleep studies. This involves being given a kit to take home by the lung function service to wear at night to monitor your oxygen levels and breathing patterns. This is worn for 2 nights and the results are then analysed by the respiratory physiology team and a diagnosis is then made or ruled out.

If you are found to have OSA you will then be contacted with this information and a referral will be made to the sleep clinic for further discussion around treatment.

Treatment of OSA

As well as lifestyle advice, if the sleep clinic think you would benefit from treatment, they will offer you a Continuous Positive Airway Pressure (CPAP) machine. This is a small, quiet, pump placed beside the bed which continuously delivers slightly pressurised air through a hose to a mask worn during sleep. The mask can take several forms, based on how you breathe –fitting over the nose (nasal cushion), the nose and mouth (full face mask) or inside the nostrils (nasal pillows). Air is pumped continuously through the nose (or nose and mouth) at a pressure sufficient to keep the airways open. Breathing returns to normal with few apnoeas during sleep. Treatment with CPAP should be for at least 4-6 weeks before an operation and could mean a delay to your surgery.

The sleep clinic will follow up the use of the CPAP machine after 6 weeks of use. If it is helpful for your OSA symptoms then it can be used as a long term treatment and will continue after surgery has taken place.

Why is it important to investigate and treat OSA if you are having an operation?

Studies have shown that people who have anaesthetics with OSA that hasn't been treated carry a higher risk of life-threatening complications after their operation related to their breathing or heart. The risk of this is 4.9% in patients without OSA, 6.4% in patients with untreated OSA and 4.2% in patients with OSA who have it treated. Not only can treatment with CPAP reduce your risk of complications but can also lead to dramatic improvement in your well-being, especially from having improved night-time sleep and feeling less tired during the day.

In cases where surgery is so urgent that waiting for investigations or treatment for OSA might itself pose a risk to your physical health then we may need to proceed with surgery without these. This may mean that we need to plan extra time in hospital or more intense monitoring after the operation to make it as safe as possible for you.

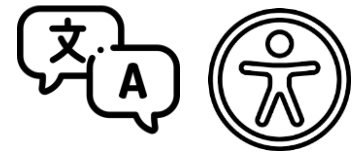
Even if OSA isn't treated, either because your doctor thinks CPAP is not needed or because you decide against treatment, your anaesthetist will at least be able to plan your anaesthetic safely if OSA has been



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diagnosed. This may involve avoiding long-acting, sedative drugs or offering you a type of anaesthetic which avoids you being unconscious, for example, spinal anaesthetic or a nerve block. This may allow you to have your surgery safely and painlessly without needing a general anaesthetic. You can find more information about these alternative anaesthetic techniques in the “You and Your Anaesthetic” leaflet online.

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We encourage patients to be involved in their care by:

1. Being part of the conversation and shared decision making
2. Asking questions if something is not clear
3. Speaking up if you have concerns

The pre-assessment checks are there to protect you and you are encouraged to be part of them. Please behave with respect and kindness towards your healthcare professionals.

We ask for information about you so that you can receive proper care and treatment. This information remains confidential and is stored securely by the Trust in accordance with the provisions of the Data Protection Act 2018/GDPR. Further guidance can be found within our privacy notice found on our Trust website: www.mkuh.nhs.uk

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Milton Keynes University Hospital NHS Foundation Trust
Standing Way, Eaglestone, Milton Keynes, MK6 5LD
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