

Overnight Oximetry Test

Respiratory

This leaflet has been written to provide information on an Overnight Oximetry test. It is not intended to replace talking to a healthcare professional.

Introduction

This leaflet aims to provide information on an overnight oximetry test. The test has been requested to help guide your medical treatment or to assess whether you are holding your breath during sleep. A breath holding episode is called an Apnoea ('Ap-Knee-A'). The test is designed to assess the level of oxygen in your blood, but also to see if your oxygen levels dip temporarily and frequently during sleep. The healthcare professional who sees you can answer any questions that you may have and also explain how to use it. Written instructions will also be given out with the Oximeter.

How should I prepare for the test?

Please remove any false nails and nail varnish as this can affect the signal we get from the fingertip. Please do not consume any alcohol on the day or night of your test as this can impact on the results. Please be prepared to return the Oximeter the following day or after the weekend as it could be required by another patient. Anyone can return the Oximeter for you as we keep a record of which Oximeter has been issued to each patient. Please also continue to take all your medication as normal.

What happens during the test?

An appointment will be arranged for you (or a family member or friend) to come and collect an overnight Oximeter. The device will be loaned to you overnight (or in some cases over a weekend). The device is to be worn overnight whilst you sleep in your own bed at home and is worn like a wrist watch, but with a small rubber clip which fits onto the end of your fingertip. The device measures the level of oxygen through your nail using an infra-red light.

You will also be required to complete a simple sleep questionnaire. This tells us how sleepy you feel during the daytime. The healthcare professional you see can either help you complete this questionnaire or explain how to complete it.

You will be asked to wear the Oximeter whilst you sleep and this should be for a minimum of 5 hours or more to ensure we collect enough information and obtain accurate results. If not enough information is collected, then the test may need to be repeated.

The prevention of infection is a major priority in all healthcare and everyone has a part to play.

- Please decontaminate your hands frequently for 20 seconds using soap and water or alcohol gel if available
- If you have symptoms of diarrhoea and/or vomiting, cough or other respiratory symptoms, a temperature or any loss of taste or smell please do not visit the hospital or any other care facility and seek advice from 111
- Keep the environment clean and tidy
- Let's work together to keep infections out of our hospitals and care homes.

When you collect the device you will also be given instructions on how to use the Oximeter. You will be required to return the equipment the following day, except if you are issued the Oximeter on a Friday, in which case we will ask you to return the device on the following Monday for example, after the weekend, except in the event of a bank holiday Monday.

It is important that you complete the sleep questionnaire paperwork and make sure that this is returned together with the Oximeter.

What does the Oximeter measure?

The Oximeter will measure oxygen levels in your blood as a percentage (%), normal oxygen levels are typically between 95-98% for patients at rest with no underlying cardio-respiratory disease.

The Oximeter will also record your heart rate. Typically if your oxygen levels dip significantly during sleep then we may also see an increase in your heart rate at the same time.

A significant dip in your oxygen level is defined as a drop of at least 4% and this may be seen with an increase in your heart rate of 6 beats per minute or more. Typically a dip in your oxygen levels of at least 4% or more will indicate a breath holding event of at least 10 seconds. The number of times your oxygen levels dip by 4% or more per hour of sleep will give us an Oxygen Desaturation Index or an ODI. An ODI of 5 or less is considered within normal limits.

What do the results look like?

The results will tell us what your average oxygen levels were throughout the test but also how many times the oxygen levels dipped per hour of sleep. It will also tell us what was the lowest level of oxygen recorded. The number of dips can be used to tell us how many times you held your breath during sleep and whether this was significant to need treatment.

Can Overnight Oximetry be used to monitor treatment?

Yes, in most patients we use overnight oximetry to assess if the treatment is working. This may be a treatment called Continuous Positive Airway Pressure or CPAP ('see-pap') or MAS (Mandibular Advancement Splint).

Overnight oximetry can also be used to monitor general overnight oxygen levels as part of an assessment for oxygen therapy and also when patients are using a ventilator at home (Non-Invasive Ventilation, or NIV).

CPAP – is a treatment for obstructive sleep apnoea. It is a simple machine that blows air through a mask which you wear at night. It is designed to hold your airway open while you are asleep. It sends air at pressure into your upper airway to stop it collapsing or narrowing (preventing apnoea). Wearing an Oximeter whilst using a CPAP can tell us if the CPAP is preventing you from holding your breath during sleep.

MAS – Is similar to a gum shield, it is worn in your mouth while you sleep. Wearing the MAS holds the airway open whilst you sleep, so that breathing becomes easier and oxygen levels in the blood are normalised, this can be checked by wearing an Oximeter. Using a MAS should also control snoring.

Overnight Oximetry and assessing patients for oxygen therapy –

In some patients it is necessary to find out what oxygen levels they have overnight during sleep. If the baseline level of oxygen remains low throughout the night then this might indicate the need for oxygen treatment or nocturnal oxygen therapy.

NIV – Is a treatment to help with breathing. It involves wearing a mask connected to a machine which makes your breathing in and out easier and supports the muscles which make your lungs work. It is generally worn at night during sleep. Using an overnight Oximeter whilst using an NIV can tell us if the treatment is working correctly.

Is there a different test that I can have?

Yes, there are more detailed sleep investigations called sleep polygraphy or polysomnography that can be performed. In some instances the doctor who referred you will be happy to assess your breathing during sleep or treatments using this 'simpler' less complex method.

Commonly overnight oximetry is used more often to monitor treatment rather than to diagnose sleep disorders, such as obstructive sleep apnoea.

When will I get my results?

The results of the test will go to the doctor or healthcare professional that referred you. They will discuss the results with you at your next clinic visit. Please note you will not be given the results on the day when the equipment is returned to us.

How long will the appointment take?

In most cases you will simply be required to collect a plastic box containing the Oximeter as well as written instructions for use. This will take a matter of minutes to complete.

Will I experience any side effects or discomfort?

There are no known side effects associated with this test.

What do I do if I cannot return the oximeter on the required day?

If you are unable to attend, please inform the department as soon as possible so that the appointment time can be offered to another patient.

If you have any concerns or questions or require further information please contact:

The Respiratory Centre (B1)

New Cross Hospital
Wolverhampton Road
Wolverhampton
WV10 0QP

01902 695061

Monday – Friday, 8.30am – 5:00pm

English

If you need information in another way like easy read or a different language please let us know.

If you need an interpreter or assistance please let us know.

Lithuanian

Jeigu norėtumėte, kad informacija jums būtų pateikta kitu būdu, pavyzdžiui, supaprastinta forma ar kita kalba, prašome mums apie tai pranešti.

Jeigu jums reikia vertėjo ar kitos pagalbos, prašome mums apie tai pranešti.

Polish

Jeżeli chcieliby Państwo otrzymać te informacje w innej postaci, na przykład w wersji łatwej do czytania lub w innym języku, prosimy powiedzieć nam o tym.

Prosimy poinformować nas również, jeżeli potrzebowaliby Państwo usługi tłumaczenia ustnego lub innej pomocy.

Punjabi

ਜੇ ਤੁਹਾਨੂੰ ਇਹ ਜਾਣਕਾਰੀ ਕਿਸੇ ਹੋਰ ਰੂਪ ਵਿਚ, ਜਿਵੇਂ ਪੜ੍ਹਨ ਵਿਚ ਆਸਾਨ ਰੂਪ ਜਾਂ ਕਿਸੇ ਦੂਜੀ ਭਾਸ਼ਾ ਵਿਚ, ਚਾਹੀਦੀ ਹੈ ਤਾਂ ਕਿਰਪਾ ਕਰਕੇ ਸਾਨੂੰ ਦੱਸੋ।

ਜੇ ਤੁਹਾਨੂੰ ਦੁਭਾਸ਼ੀਏ ਦੀ ਜਾਂ ਸਹਾਇਤਾ ਦੀ ਲੋੜ ਹੈ ਤਾਂ ਕਿਰਪਾ ਕਰਕੇ ਸਾਨੂੰ ਦੱਸੋ।

Romanian

Dacă aveți nevoie de informații în alt format, ca de exemplu caractere ușor de citit sau altă limbă, vă rugăm să ne informați.

Dacă aveți nevoie de un interpret sau de asistență, vă rugăm să ne informați.

Traditional Chinese

如果您需要以其他方式了解信息，如易读或其他语种，请告诉我们。

如果您需要口译人员或帮助，请告诉我们。