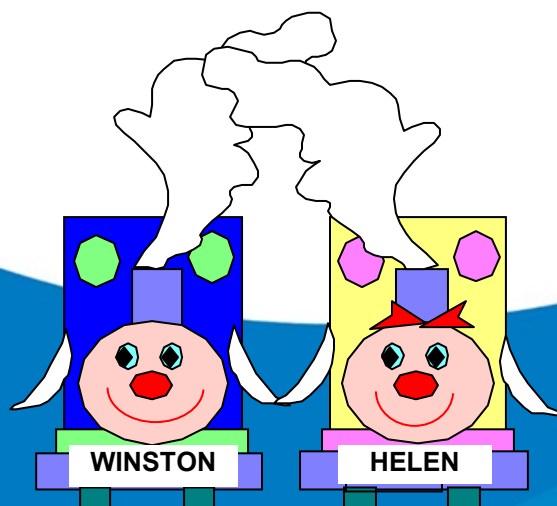


# Overnight Oxygen Saturation Study (sleep study)

This leaflet can be made available  
in alternative languages / formats on request.

*如有需要，本传单可提供其他语言/版式  
此單張的其他語言/格式版本可按要求提供*

Na żądanie ta ulotka może zostać udostępniona  
w innych językach/formatach.



## The nature and reasons for the procedure

- ◆ Your child's Consultant has requested a overnight oxygen (sleep study). The reason for performing the overnight oxygen study is to try and identify a cause for your child's respiratory symptoms.
- ◆ An overnight oxygen study is a simple pain free method of recording the amount of oxygen circulating around your child's body throughout the night while they sleep.
- ◆ A small infrared light probe shines through body tissue usually a fingertip or big toe and the light measures the amount of oxygen in the blood stream.
- ◆ The infrared light probe is attached to a monitor for 8 hours whilst the child is asleep. The monitor then records the continual readings throughout the night.
- ◆ The study is carried out in your own home to avoid the children having time off school and the parents having time off work and also to promote a normal sleep routine.

The Hospital At Home Team (HAH) will ring the family to arrange a suitable date and time for the study.

## The benefits of the procedure

The oxygen study may highlight a problem (blockage) with your child's airways such as large tonsils or adenoids.

It can also inform us that your child's airways are normal and that the oxygen levels are within the normal range expected.

## The Risks of the procedure

An overnight oxygen study is very safe providing certain safety precautions are taken. The infrared light source can occasionally cause a small burn if fastened too tight to the child's skin. Therefore the probe needs to be fixed gently to the finger or toe using the straps provided.

Always fix the probe as you have been shown as demonstrated by the nurse.

It is also beneficial to cover the probe when attached to the child with a sock or light bandage. This will help keep the probe in place while the child is sleeping. Covering the probe in this way will also help the probe to absorb the light and maintain good connection with the skin to aid an accurate reading.

The probe is connected to a wire, which then plugs into the monitor. It is important that the wire is placed in a suitable position to avoid it wrapping around the child whilst asleep. Threading the wire through the leg/arm of the child's pyjama's or night-dress usually works well.

As with all electrical equipment the monitor and probe should be kept dry and in a safe position.

## **What happens when the study is complete?**

Once the monitor has been on for 8 hours you may switch it off and remove the probe carefully. A Nurse from Hospital at Home will call to collect the monitor the following morning, take it back to the hospital where the data will be downloaded onto a computer.

The data has to meet a certain criteria for it to be of any value when making decisions on its suitability. On rare occasions that we get a borderline result, (i.e. the data did not give a suitable result to make a definite decision) the test will be repeated. The other reason for the study to be repeated is if there was not a full 8 hours of data recorded. This usually occurs if the child has had an unusually restless night or the probe has fallen off at any time. Often a poor result is obtained when the child has an infection (e.g. a cough or a cold). If your child is unwell for any reason the test should be postponed until they are back to normal health.

## **What happens to the results?**

When the data from the monitor has been downloaded it will be assessed by the Paediatric Respiratory Nurse Specialist (PRNS) or the Consultant in charge of your child's care. You will receive a copy of the results through the post when they are available; usually you will have the letter within one week. Please feel assured the results are not urgent and any abnormal results will be discussed with you when available.

## **Are there any discomforts of the procedure?**

It is unusual for a child to become distressed during a sleep study. However if your child does become distressed the test may be repeated another evening. If unsuccessful on more than two occasions the test will be abandoned in the interest of your child.

## **Alternatives & consequences of not having the oxygen study carried out**

An overnight oxygen study is a well-known investigation used in the management of many respiratory problems. It is safe and reliable when used correctly. Other tests to assess similar respiratory function may be more invasive and have to be carried out in specialist clinics or at other hospitals.

If your child does not have the overnight oxygen study carried out the consultant in charge of your child's care may not have all the information he requires to make any accurate diagnosis and therefore make suitable decisions on management.

If you have any questions or concerns about the oxygen study you can contact your Consultant, the Paediatric Respiratory Nurse Specialist or the Hospital at Home Team (HAH) to discuss these.

If you have any further questions, please contact your child's consultant via their secretary via the hospital switchboard. The secretaries are available Monday to Friday 9.00am to 5.00pm

If you need to contact the department outside of these hours, please phone either:

Ward 3F            0151 430 1616

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