

Home Oxygen weaning and Oxygen Saturation monitoring guidance for parents and carers

An information guide



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Introduction

After discharge from hospital, your baby will require an oxygen saturation study at home in order to wean down their oxygen therapy. This leaflet gives you more information about this.

If you are discharged to an area other than that covered by the Northern Care Alliance, local study arrangements may be slightly different.

What is an oxygen saturation study?

An oxygen saturation study (sometimes called a sleep study) is an study of your baby's heart rate and oxygen levels (SATS).

It provides information to support changes to the amount of oxygen your baby needs at home, and can be performed during the day or overnight depending on the stage of weaning.

Why does my baby need an oxygen saturation study?

Your baby will need a saturation study to determine how well they can cope with having their oxygen weaned down. It will also help us understand when your baby no longer needs the oxygen at home.

How an oxygen saturation study is done?

We use a machine to record your baby's SATS and pulse either during the day or night. This is done using a soft sensor which is usually wrapped around your baby's foot/hand/wrist or toe depending upon the age and size of baby. This is similar to the one your baby will have used on the neonatal unit.

The information taken from the sleep study is downloaded and a report is sent to your baby's consultant. This will help them determine how your baby is coping with weaning and make a plan.

Who provides the oxygen saturation study service?

The community nurse will provide the SATS monitor and explain how to use it. They will show you how to make sure the sensor is correctly positioned on your baby and how to start the study.

They will also explain how to record your baby's activity during the study such as when your baby is feeding. The children's community team will discuss with you a suitable date for your baby's study.

You will be asked to sign a loan form for the machine. This is done so that the community team can record the use of monitors and ensure that they have enough for other babies.

How to start the study

Plug the monitor into the mains socket and switch the machine on to check it is working.

Place the sensor on your baby's foot/hand/wrist or toe (see below image). The sensor has two circular discs. When the monitor is switched on, one disc glows red (LED) and the other doesn't (detector).

They should be placed approximately opposite to each other. Do not place additional tape around the sensor, however, tape can be

used to secure the lead to the foot. It can be useful to place a sock over the foot to keep the sensor in place.



Switch on the machine and wait while it runs through the self-check. This can take up to 1 minute.

If your baby is moving, the signal may be lost but the monitor will find the signal again once the movement stops.

A good signal shows a wavy line and numbers for heart rate and oxygen level, similar to when your baby was on the neonatal unit. Your community nurse will explain this. If the alarm sounds and the bell symbol is illuminated, **do not** panic:

- Check your baby.
- Check that the sensor is still in place.
- If the monitor still has a poor/red signal, reposition the sensor e.g. to the other foot.

General advice during the study

If carrying out a night time study, you **do not** need to watch the monitor overnight but we do advise you to check on your baby a few times during the night to make sure the sensor is in place.

If your baby needs to be briefly disconnected from the monitor, unplug the sensor from the cable, and reconnect it when possible. The alarm will sound but will stop when the sensor is reconnected and the signal has been found. Please document this on the activity log.

If carrying out a night time study and your baby is active or unsettled for a long period, you can switch off the monitor until your baby is asleep again, then switch it back on again as before. Please document this on the activity log.

If you are concerned the oxygen saturation is continuously below 92% with a good trace, try repositioning the probe on the other hand or foot. Document this on the activity log and contact the Children's community nursing team for advice or if it is out of hours contact your GP or NHS 111.

If this does not work please check your baby. If they are snuffly or unwell, or very restless, postpone the study until your baby has recovered. If your baby is not feeding or has a temperature or you are otherwise concerned please seek advice from your community team or GP or NHS 111.

Home oxygen weaning plan

There are a few ways in which weaning of oxygen can be done. Some babies need reduction in oxygen flow to very low levels before they can be tried off oxygen, while others can be tried off oxygen at relatively higher flow of oxygen.

We often increase oxygen free intervals gradually in blocks of 4 hours until your baby is oxygen free for 12 hours, after which they can be tried completely off oxygen.

Every time we make a change in oxygen flow or time period, a sleep study is carried out which is checked by the consultant of your baby. The purpose of this study is to ensure that your baby is coping up well at the current support provided.

We also consider baby's growth at every step as this is a good sign as to how they are coping in lower oxygen levels.

As a general rule the stages of weaning are:

- Stage 1 Hours in air 0
- Stage 2 Hours in air 4
- Stage 3 Hours in air 8
- Stage 4 Hours in air 12
- Stage 5 Hours in air 24

The interval between stages may be 1 to 2 weeks or more.

Weaning oxygen depends on various factors including degree of prematurity, associated complications, growth and nutrition, under-lying lung conditions and maturity.

The length of time that your baby will be on oxygen completely depends on them. Some babies are on oxygen for a matter of weeks, some are on oxygen for a significant amount of time. Some babies come off of their low-flow oxygen quicker than other babies.

Your baby is an individual so there is no comparison to other babies as their condition will differ slightly to your baby's condition.

This period can be quite stressful for parents who may feel that the process is going too quickly or too slowly or are finding it a daunting prospect being without oxygen.

Your baby's consultant will discuss with you how you think your baby is managing and they will also discuss your baby with their community nursing team.

Please remember, the oxygen is not going to be taken away immediately. Sometimes babies manage well, while others need to have the oxygen back again for a few more weeks.

Your baby's community nurse will be happy to talk you through this information

When your baby is in air all the time, your baby's weight will now be monitored for 6 weeks.

If your baby remains well and is continuing to gain weight the community nurses will stop weekly saturation monitoring.

If there are no further concerns and your baby remains well for the next 3 months, the oxygen cylinders will be removed from your home. This may be delayed during the winter months or if your baby has frequent admissions to hospital.

Once the oxygen has been removed from your home the community nursing team will discharge you.

Please note this is a standard weaning plan and is used as a guide. Your baby's plan will be tailored to meet their needs and their consultant.

Activity Log

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Oxygen saturation study activity log

Patient Name: DOB:

NHS number: Date of Study:

Child's Weight: Child's centile:

Monitor Number:

During your infants study please can you record a period of 10-12 hours. During this time please can you ensure your child has a period of sleep, feeding and being awake.

Child's current oxygen regime:L/min.....hours in air

Start time study: End time study:.....

Start time off oxygen: Time placed back on oxygen:.....

During your infants study please can you record a period of 10-12 hours. During this time please can you ensure your child has a period of sleep, feeding and being awake.

In these boxes please tick the times of each event:

Time	Sleep	Active	Feeding	Comments
8 am				
9am				
10am				
11am				
12pm				
1pm				
2pm				
3pm				
4pm				

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Time	Sleep	Active	Feeding	Comments
5pm				
6pm				
7pm				
8pm				
9pm				
10pm				
11pm				
12am				
1 am				
2am				
3am				
4am				
5am				
6am				
7am				

For professionals only

Any other comments:

You will need to document the time the study starts and ends and the time the oxygen is turned off and on.

The activity log is broken down into 24 hour slots where you can document any periods of activity, feeding, nappy changes and episodes of being unsettled.

What happens when the oxygen saturation study is over?

- Switch the monitor off and disconnect the machine.
- Return the machine and activity log back to the children's community nursing team.
- The information will be downloaded and sent to your baby's consultant to review. ***You should receive the results within 3 working days.***
- Return your baby back to the usual flow of oxygen until the results of the study have been received.

If you have any questions or if there is anything you do not understand about this leaflet, please contact:

Oldham Children's Community Nursing Team on: 0161 357 5115

Rochdale Children's Community Nursing Team on: 01706 676 777

Bury Children's Community Nursing Team on: 0161 351 2137

Notes:

If English is not your first language and you need help, please contact the Interpretation and Translation Service

Jeśli angielski nie jest twoim pierwszym językiem i potrzebujesz pomocy, skontaktuj się z działem tłumaczeń ustnych i pisemnych

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Dacă engleza nu este prima ta limbă și ai nevoie de ajutor, te rugăm să contactezi Serviciul de interpretare și traducere

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إذا لم تكن الإنجليزية هي لغتك الأولى وتحتاج إلى مساعدة ، فيرجى الاتصال بخدمة الترجمة الشفوية والتحريرية

☎ : 0161 627 8770

@ : interpretation@pat.nhs.uk

To improve our care environment for Patients, Visitors and Staff, **Northern Care Alliance NHS Group** is Smoke Free including buildings, grounds & car parks.

For advice on stopping smoking contact the Specialist Stop Smoking Service on 01706 517 522

For general enquiries please contact the Patient Advice and Liaison Service (PALS) on 0161 604 5897

For enquiries regarding clinic appointments, clinical care and treatment please contact 0161 624 0420 and the Switchboard Operator will put you through to the correct department / service

The Northern Care Alliance NHS Group (NCA) is one of the largest NHS organisations in the country, employing 17,000 staff and providing a range of hospital and community healthcare services to around 1 million people across Salford, Oldham, Bury, Rochdale and surrounding areas. Our Care Organisations are responsible for providing our services, delivering safe, high quality and reliable care to the local communities they serve.

The NCA brings together Salford Royal NHS Foundation Trust and the hospitals and community services of The Royal Oldham Hospital, Fairfield General Hospital in Bury, and Rochdale Infirmary (currently part of The Pennine Acute Hospitals NHS Trust).

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