

Your baby's pulse oximetry sleep study

Information for children, families and carers

We have given you this factsheet because your baby has been sent home from hospital on oxygen. Part of your baby's care plan for going home on oxygen involves having a test called a pulse oximetry sleep study on a monthly basis. This factsheet explains what a pulse oximetry sleep study is and what the test involves, so that you know what to expect. We hope it will help to answer some of the questions you may have. If you have any further questions or concerns, please speak to a member of our team.

What is a pulse oximetry sleep study?

A pulse oximetry sleep study is a non-invasive test that monitors the level of oxygen in your baby's body while they sleep.

Why does my baby need to have this test?

This test will help us to determine when it is safe for us to reduce your baby's oxygen.

How does the test work?

The test needs to be done over two consecutive nights while your baby sleeps (usually at home).

- **First test (first night):** Your baby will be tested while on their current oxygen requirement.
- **Second test (second night):** You will need to reduce your baby's oxygen requirement to 0.1L/minute less than their current requirement for the duration of the test. After the test, it is important that you return to your baby's current oxygen requirement until you receive their test results.

If your baby's current oxygen requirement is 0.1L/minute, their second test will be without any oxygen, just normal air.

We will provide you with a protocol to follow if your baby becomes unwell or if you are worried about them during the test.

How long will I need to keep doing this test?

Your baby will need to have a monthly pulse oximetry sleep study until it is safe for their oxygen to be stopped.

If your baby still needs oxygen at one year corrected gestational age (a premature baby's age minus the number of weeks or months early they were born), we will usually recommend performing a more in-depth study. If this is the case, we will explain this study to you in more detail.

How should I prepare for my baby's test?

We will send you an appointment email containing details of your baby's pulse oximetry sleep study each month. Please check your 'junk' folder on a regular basis to make sure the appointment emails aren't delivered there by mistake.

The appointment email will let you know when to come to one of our contactless sleep study clinics to collect the equipment needed for your baby's test, including:

- a small recording monitor (called an oximeter)
- a soft probe
- a 'how to use the pulse oximeter' leaflet
- an 'instructions for overnight sleep study for patients on home oxygen' form

On the days of your baby's test, you should:

- keep to your baby's normal routine
- not apply moisturiser or oils to your baby's skin
- watch the instruction videos we sent to the email address you provided
- read the 'how to use the pulse oximeter' leaflet we have given you along with the 'instructions for overnight sleep study for patients on home oxygen' form (these can be found in the equipment box)

What will happen during the test?

How to do the test

Please watch the instruction videos we sent to your email address. We have also included some basic written instructions below for you to follow:

1. Make sure your baby is settled before beginning the test.
2. Attach the soft probe to your baby's foot.
3. Turn the monitor on when they fall asleep. This will start the recording.
4. When your baby wakes up, turn the monitor off. This will end the recording.

5. Remove the soft probe from your baby's foot.
6. Complete the form we have given you. This form asks you to write down details about your baby's sleep pattern, wake periods and feeds overnight. Your answers will help us to accurately analyse your baby's test results.
7. Repeat steps 1 to 6 the next night for the second test.
8. Return to your baby's current oxygen requirement until you receive their test results.
9. Wipe down the equipment after you have completed the second test.
10. Return the equipment to us at the agreed date, time and location.

If you have any concerns about doing the test at home, please contact us. If necessary, we can do the test in hospital.

Please be aware that an alarm will sound if your baby's oxygen levels drop to a certain level. This is to make sure that your baby is receiving a safe amount of oxygen during the test. If the alarm sounds, please follow the instructions in the equipment box on what to do. You will usually need to increase the amount of oxygen your baby is receiving to the previously prescribed level.

Are there any risks?

There are no known risks associated with this test. This test should not cause your baby any discomfort.

What will happen after the test?

Once you have returned the equipment to us, one of our trained sleep physiologists will review and analyse the recordings from your baby's tests. We will then decide whether your baby's oxygen flow rate can be reduced.

When will I receive my baby's results?

We will send the results of your baby's test to either the neonatal home team or your baby's community nurse (depending on which team is leading on your baby's care). They will then contact you to discuss your baby's results and explain if your baby's care plan needs to be changed in any way.

Please note that if your baby's recording needs to be reviewed by one of our sleep consultants, there might be a slight delay to you receiving their results. If this is the case, we will let you know.

Contact us

If you have any questions or concerns, please contact us.

Children's respiratory sleep team

Telephone: **023 8120 8368** (Monday to Friday, 8am to 5pm)

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For help preparing for your visit, arranging an interpreter or accessing the hospital, please visit **www.uhs.nhs.uk/additionalsupport**

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