



Sleep study: information for families

A sleep study is a test to see what happens to your body when it is asleep. When we are asleep, we are not usually aware of what is happening with our basic functions. For example our breathing can become laboured, we can snore or make funny movements. This information sheet from Great Ormond Street Hospital (GOSH) explains what to expect when your child arrives to have a sleep study. An Easy Read information sheet is also included for your child.

You might not even think to talk to your doctor about these issues although your child may be tired during the day as a consequence. The doctor might suggest that your child has a sleep study if they suspect they have a sleep related disorder, like sleep apnoea or hypoventilation.

Why does my child need to have a sleep study?

It is important to diagnose if your child has a sleep related disorder because the consequences of leaving it untreated can be significant in the long term.

Sleep related disorders can impact on the heart, the brain or on mood and behaviour. For example, having disturbed sleep at night might make your child tired the next day and make it difficult for them to concentrate at school.

In addition, there are conditions (ENT, craniofacial, neuromuscular, metabolic and others) which may mean your child is more vulnerable to sleep related breathing disorders and where a sleep study is helpful in guiding management.

If your child is using ventilation, it is also important for us to regularly check that it is

helping with sleep or to adjust the settings if required.



The sleep study team

What do we need to take for the sleep study?

It is essential that one parent or carer can stay overnight with your child for the sleep study. The parent/carers are responsible for the child's care throughout the hospital visit. Due to lack of space, we cannot accommodate more than one parent or carer. You will require the following items with you:

- Your child's ventilator (for example, CPAP or BiPAP) if this is used by your child while at home. Remember to include all equipment (including the machine, masks, tubing and so on) so that we can check and service it during your stay.
- Your appointment letter and associated paperwork.

- Food for your stay – we cannot provide any meals during your stay, so we advise you to have your evening meal before you come to the hospital. The hospital canteen opens at 8am and there are also plenty of local cafes where you can have breakfast.
- A small kitchen is available on the Sleep Unit with water fountain, tea and coffee facilities, microwave and fridge.
- Anything else that your child usually sleeps with, such as a soft toy, special pillows, duvets or blankets.
- Any medication your child usually needs.



What will happen?

We will show you to your child's bedroom where you can get settled and then a member of the sleep team and a doctor will come to talk to you about the sleep study in more detail. You will be required to fill a questionnaire on your child's sleep on your arrival, although you may have already completed this if you have a MyGOSH account.. This is a chance for you to ask any questions you may have, so it might be a good idea to write some of them down before you come in. Please discuss with the overnight Sleep Physiologist if your child has any allergies (for

instance, to tape or latex) or other devices fitted (for example, a pacemaker inserted).

Whenever your child is ready for bed, they will be set up awake which involves:

- A soft probe is wrapped around your child's toe to monitor their oxygen levels while asleep.
- Two sticky ECG pads are placed on your child's chest to measure their heart rate.
- Two stretchy bands are put around your child's chest to record breathing movements.
- A small position sensor is also placed on the chest to record in which position your child is sleeping.
- A small tube will be placed on the edge of the nostrils to monitor breathing rates.
- A small sensor will be stuck either on the thigh or below the collarbone to monitor carbon dioxide levels.
- Video and audio of your child's sleep will also be recorded



Once these sensors have been attached, your child will be able to sleep normally.

How long will the sleep study take?

Most sleep studies require a one night stay at GOSH. You will be informed in advance if it is likely to be any longer (for example, a CPAP or BiPAP trial may be for two nights).

Will it hurt?

Sleep studies are painless and there are no needles involved. The room you will have your sleep study in resembles a hotel room and you will be made to feel as comfortable as possible.

When can we go home?

When your child wakes up after their sleep study, a Sleep Physiologist will remove the sensors.

If the study ends on a weekday, a doctor will review your study, probably between 8:30am and 10am (although this may not always be possible) and talk to you about the preliminary results. If you wish to leave the unit to have breakfast before returning, you may.

If your child's study ends on a weekend then the sensors will be removed at 7am and you may leave once this has been done. The Sleep Unit closes at 8am so please ensure you are ready to leave the Unit before this time.

Are there any risks or side effects?

There are no risks or long term effects, so you will be able to return to your normal routine once you leave.

Further information

If you are unable to attend your booked sleep study, or your child has an illness that is affecting their sleep (such as a cold), please contact the Sleep Bookings Team Monday to Friday between 9am – 5pm on 020 7762 6948.

If you have any questions or concerns and wish to speak to one of the Sleep Physiologists, please contact the Sleep Unit Monday to Friday: 9am – 5pm on 020 7405 9200 ext. 0462.

If you have any questions or concerns in regards to your child's ventilation (CPAP/BiPAP), please contact the NIV Nurse Practitioners Monday to Friday: 8am – 5pm on 020 7405 9200 ext. 1726/8761.

If you require urgent out of hours support in regards to your child's ventilation please phone the Sleep Unit at these times ONLY: Monday to Sunday 7.30pm – 8am, excluding Bank Holidays. Otherwise phone Leopard Ward on 020 7829 8813.

www.gosh.nhs.uk/parents-andvisitors/coming-to-hospital/ward-andadmissions-information/respiratorysleep-unit

Having a sleep study



You are coming to hospital for a sleep study. This shows the doctors what happens when you are asleep. It helps to know whether you breathe noisily, move around in bed or wake up lots of times.



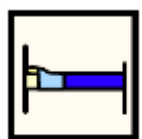
If you are not sleeping well, you might be tired during the day. This can cause problems at school.



Your mum or dad will need to stay with you for the sleep study.



If you already use a machine to help you breathe at night, please bring this with you.



You will have your own bedroom - you will not need to share with anyone else.



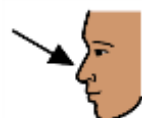
We will put soft band around your toe. This uses a red light to see how much oxygen is in your blood.



You will also have some sticky pads put on your chest to look at your heart beat when you are asleep.



A stretchy band will go around your chest. This measures how much your chest moves when you breathe in and out.



Finally, we will rest a bendy tube under your nose. This checks how often you breathe in and out.



We will also make a video of you when you are asleep. This will show us if you wake up or move around in bed.



You can then fall asleep.



When you wake up the next morning, we will take off all the monitors.



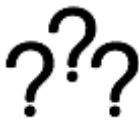
You can go to our canteen for breakfast if you want.



We will discuss the results of the sleep study with you.



We will also send the results to your doctor.



Please ask us if you have any questions.