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SLEEP STUDIES: HAVING A POLYSOMNOGRAM

What is a sleep study?

A sleep study is a test that records your child's sleeping patterns. The medical name for a sleep study is a polysomnogram (say: paul-ee-SOM-no-gram). Each study is slightly different. Your child's study will depend on what your child needs and what the doctor asks for. Your child will stay at the hospital overnight for the test with one parent or caregiver.

What a sleep study records

Sleep studies record the following things:

- **Brain waves**
- **Heartbeat**
- **Eye movement**
- **Leg movement**
- **Breathing patterns**
- **Oxygen levels**
- **Carbon dioxide levels**

A sleep technologist will perform the test

Sleep technologists are people who are trained to perform tests on the machines in the hospital.

How to help your child get ready for the sleep study

On the day of the sleep study, try to keep your child's routine as normal as possible. Changing your child's routines will not help the test. For example, if your child usually takes a nap in the day, he or she should take a nap on the day of the study.

What to bring to the sleep study

Please bring the following things to the sleep study: your child's sleep diary (if you have been keeping one), oxygen or CPAP/ventilator if your child is on a breathing machine at night. Please bring all equipment including the machine, tubing and masks if your child is on oxygen. Let your child wear button-up or 2-piece pyjamas to let the sleep technologist easily place the sensors on your child. Medications that your child uses or may need during sleep study and the next morning formula or infant milk and bottles to last over- night and into the morning, snacks to last overnight and into the morning and personal toiletries. Fresh, clean bedding will be provided, but please bring any familiar items your child uses, such as a special pillow, blanket, toy, or books. These items may provide comfort and help your child sleep.

Arriving at the hospital

You will be asked to come to the hospital at around 6pm. Go to reception on the 8th floor to open a file. They will direct you to the ward. It is okay if your child arrives asleep. The sleep technologists are very skilled at placing all of the sensors on children who are asleep or awake. When you arrive in the ward the sleep technologists will explain what will happen and answer your questions.

Arriving at the hospital

The sleep technologists will place the sensors on your child. The sensors are not needles. The sensors do not hurt and they are easy to remove. Your child will have the following sensors:

- **Sensors on the head to record brain waves and eye movement.**
- **Sensors on the chest and legs.**

- **Sensors under the nose and mouth.**
- **Belts around your child's chest and tummy. These record your child's breathing patterns. The belts do not restrict your child's breathing and are comfortable for most children.**
- **A sticker attached to your child's finger or toe to monitor oxygen levels.**

Most children sleep as usual even with all the sensors

All of the sensors let your child move freely while he is asleep. Surprisingly, most children sleep well. The sleep lab technologists try to make the sleep area and study as comfortable as possible.

Monitoring your child overnight

A sleep technologist and a nurse will always be nearby. The technologist can help your child at any time. Sometimes the sleep technologist/nurse may enter your child's room to make adjustments. He or she will try not to disturb your child's sleep. A doctor is on call at all times in case your child needs medical help.

One parent or caregiver must stay overnight with the child during the test

This parent or caregiver will have a small bed or cot. Bed linens will be provided for you and your child. If your child is still breastfeeding, you can breastfeed him or her as you normally do at home. Often, a TV is in the room. You will be able to watch this before lights out and before your child goes to sleep. The room includes a private bathroom for you and your child.

The morning after the sleep study

We hope to monitor your child sleeping for 7 to 8 hours overnight. A technologist will wake you and your child after 6 in the morning. The technologist will take the sensors off your child. Usually, you will be able to leave the ward with your child within 1 hour of the sleep study ending.

Getting the results of the sleep study

The information from the sleep study is processed by a computer, scored by a technologist, and then reviewed by a sleep doctor. When the results are ready, they will be sent to your child's paediatrician or the doctor who referred your child for the test. Your child may also be asked to return to the office to meet the sleep doctor to discuss the results. You will be notified about this after the sleep study report has been completed.

Reasons to cancel the sleep study

Reasons to cancel the sleep study. If your child has a fever, is ill, or has a cold, please call the receptionist at 021 422 1354 to cancel.

Key points

- **Your child will wear sensors to record many different body functions such as heart rate, breathing rate, brain activity, and oxygen level. The sensors do not hurt.**
- **Your child will need to stay at the hospital overnight. One parent must stay with the child overnight.**
- **The day of a sleep study, do not change your child's normal routine.**