

The Sleep Study (also called a "polysomnogram") serves many purposes. It is considered the 'gold standard' for the diagnosis of your child's problem, such as Obstructive Sleep Apnoea (OSA). There are over 100 different classified sleep disorders.



The sleep study is often used to guide treatment, such as adenotonsillectomy.

It is important that a follow-up appointment is made to ensure that the results are communicated and treatment arranged.



Results

Results of the sleep study and treatment must be obtained at a follow-up appointment in the Sleep Clinic two weeks after the study has taken place. It is a good idea to make that appointment once the sleep study date is confirmed rather than wait till the sleep study. If the study was very abnormal you will be contacted before the Follow-up Appointment. Otherwise results are not given over the phone. Staff overnight are not to give results either as the studies are carefully analysed by clinicians after the study.

If you live outside the Sydney metropolitan area (usually more than 2 hours away), the results can be obtained from the referring doctor.



The Department of Sleep Medicine

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Sleep Study Guide



A guide for families who are bringing their child to have a Sleep Study at Sydney Children's Hospital.



Procedure Details

A Sleep Study begins with the painless application of monitoring equipment.

- ★ 7 leads are pasted on to previously measured & marked positions on the scalp. These record brain waves. This is how we measure the quality of your child's sleep.
- ★ 4 stickers are placed on the face to monitor eye movement & chin muscle tone.
- ★ A small plastic tube, with 2 soft prongs, is placed beneath your child's nose. This will measure nasal airflow.
- ★ 7 stickers are placed over the chest & abdomen. These monitor the heart rhythm and muscle activity from the diaphragm & abdomen.
- ★ 2 bands are placed around the chest & abdomen. These monitor chest & abdominal movement.
- ★ A sticker is placed over each calf, to measure leg movement.

We ask you to come in the early afternoon so that you and your child have time to settle into the Sleep Lab. We apply the stickers and leads shortly after your arrival. This helps your child to get used to wearing them so as to minimise disruption to your child's normal sleep routine. Following the application, your child is free to move around the ward, to play or to watch TV.

Bedtime should be close to the usual time for your child, ideally in bed by 8 or 8.30pm to begin the sleep study by 8 or 9pm.

At bedtime further equipment is applied:

- ★ An oxygen saturation probe is applied to the finger or toe. It consists of a simple red light source & a sensor.
- ★ A carbon dioxide monitor is applied to the skin. This might need to be changed during the night.

- ★ A small plastic sensor is placed beneath the nasal prongs, to measure airflow through the mouth.
- ★ Most studies will involve sound and video recording.

At bedtime, everything is connected to the computer for the overnight study.

Your child will be monitored for about 8 hours overnight. During this time, should your child wake, please do whatever you would normally do to resettle your child. Nursing and technical staff will assist you as required. Staff will need to make adjustments overnight but will try to minimise disruption to your child's sleep. Your child should be able to continue the usual feeding pattern if they are taking overnight feeds.

Preparation

The following may assist you in preparing for your visit to the Department of Sleep Medicine:

- ★ Admission time is 2.30pm.
- ★ Discharge time is around 7am.
- ★ Time to set up equipment is 40 minutes to an hour.
- ★ Each room has a phone. A phone card is required for outgoing calls. These may be obtained from the cashier's office between 9 AM & 4 PM. (next to the Admissions Office). We would ask you to minimise phone calls in the evening so as not to disturb sleep.
- ★ Between 5AM – 6 AM the night staff will wake your child and remove the equipment.
- ★ Dinner and breakfast are provided for your child. Please advise us before admission of any dietary requirements. Parent/carers need to provide their own food. There is a cafeteria open until 7pm and several food outlets in the area. You may use the facilities in the kitchen to prepare food.

On the Day

Things to bring on the day of the Sleep Study:

- ★ If your child has long hair, a hairbrush & bands are helpful.
- ★ Any regular medication that your child may take.
- ★ Familiar pillows, toys, blankets, or comforters.
- ★ Favourite books & games.
- ★ A good book for you, some nightwear and toiletries.
- ★ A camera. Some children like to have a memento of their study. Printouts of the actual study are usually available on follow-up.
- ★ Comfortable pyjamas or nightie, preferably button-fronted. For babies a 'sleep-suit' is ideal, but not essential. Mittens may be of assistance in preventing removal of equipment by little fingers.
- ★ Routine overnight toiletries. Please bring shampoo and conditioner.
- ★ Please remove any nail polish, as this may interfere with monitoring of your child.
- ★ Secure car parking is available & can be accessed from the main campus entrance on Barker Street, Randwick. A fee applies (usually around \$18 for 24 hours- phone: 93823400).

One parent or carer must stay with the child overnight. A single sofa bed is provided in the room for one carer. Only 1 parent / carer can be accommodated in the unit. If other family members are travelling with you and require accommodation please call Ronald McDonald house (this is only for families travelling from outside the Sydney metropolitan area) on (02) 93821622.

Please do not hesitate in calling the Sleep Lab if you have any further inquiries regarding a sleep study – (02) 93821210.

