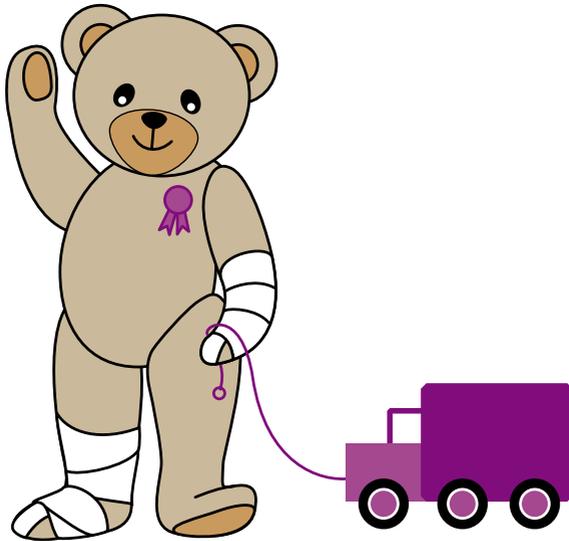


Sleep Deprived EEG (Electroencephalogram) for a Child



Neurophysiology Department

This leaflet aims to provide information for parents or carers who are asked to bring a child to the Royal Surrey County Hospital for a sleep deprived EEG test. It describes what happens before, during and after the test, together with an explanation of any risks. You may wish to discuss the details with your child or let them read the leaflet themselves, as appropriate.

What is a Sleep Deprived EEG?

If you receive an appointment for your child to have a sleep deprived EEG he/she will have probably already had a routine EEG. The test will be carried out in a similar manner.

A video recording will be taken at the same time as the EEG. This is done so that any movements and/or behaviour noted during the recording can be linked to the brain activity seen on the computer. For more information, please refer to the attached video consent form.

Why is my child having this test?

Your child has been referred for a sleep deprived EEG to aid your doctor in reaching a diagnosis. Useful information can show up during drowsiness or if your child falls asleep during the recording.

What should I do before the test?

For a sleep recording you will be asked to deprive your child of sleep prior to the EEG test. This means that your child will be tired and will hopefully fall asleep during the recording. The amount of sleep deprivation tolerated will vary from child to child. As a guide we suggest:-

Children aged 12 years and over	A full night without sleep is preferable. The appointment time will be 9.00am.
Children aged between 6-12 years	Should have at least 6 hours less sleep than usual and should be woken very early on the morning of the appointment. The appointment time will be 9.00am.
Children aged between 4-6 years	Should be kept up for 1-2 hours past bedtime and woken 1-2 hours earlier than usual, with a busy morning and lunch as usual. The appointment will be in the afternoon.
Babies and children under 4 years	It may be enough to cut out their daytime nap if they have one. We will usually speak to you to discuss your child's usual sleeping patterns and requirements for sleep deprivation when arranging the timing of the appointment.

If you receive an appointment for your child by post and the time is unsuitable, please telephone the department to discuss alternative options, at your earliest convenience.

In addition please note the following:-

- Please ensure that your child's hair is clean and free from gel/lacquer.
- If your child has head lice, please ensure treatment has been successfully completed before the test.
- Your child should take any medication as normal unless otherwise directed by your doctor. It would be helpful if you could bring a list of any medication your child is taking.
- Your child should eat as normal, but should not be given caffeine-containing drinks after midnight.

If you feel your child is likely to fall asleep in the car on the way to hospital it can be helpful to have another adult to travel next to them and keep them alert. Alternatively you could come to the hospital earlier in the day and bring toys/food to keep them busy. The Neurophysiology department opens at 8.30am

What does the test involve?

As with the routine EEG, the test will be carried out by a Clinical Physiologist who will explain the procedure and take some details of your child's medical history. These details will be passed on to the Neurophysiologist (specialist doctor) who interprets and reports on the EEG after you have left the department.

The electrodes will be applied to your child's head as before. He/she will then be asked to lie down and close their eyes to encourage sleep. The room will be darkened and your child will be kept warm by a sheet or blanket. You will be able to stay with your child.

Does the procedure hurt?

EEG is a painless procedure.

How long will the test last?

Your child's appointment will last approximately 1½ hours in total with the EEG recording itself taking approximately 40 minutes.

What else may be involved?

As with the routine EEG, your child may be asked to perform the activation procedures (the deep breathing and the flashing lights). Both these procedures are very useful for obtaining further information that does not show up when your child is simply resting. You may choose for your child not to have these carried out, in which case the rest of the test will be carried out as normal.

Are there any side effects and risks?

Sleep deprivation is also an activation procedure and all activation procedures carry a small risk of producing a fit in people who are prone to fits. It is important to remember that these activation procedures are far more likely to aid the doctor in reaching a diagnosis.

If you are bringing your child by car and have also been sleep deprived we **strongly advise** that you do not drive because of the danger to yourself and the public. In this case please arrange for someone else to drive you or use public transport. Ideally you should be accompanied.

Are there any alternatives?

EEG is a diagnostic test and there is no alternative. If you would prefer that your child did not have the test done you would need to discuss your options with your referring doctor.

What happens next and how do I get my results?

After the electrodes have been removed from your child's scalp, you will then be free to go home. Your child may still feel sleepy so you should plan a restful day for him/her following the test.

You will **not** get the results of the test on the same day. The EEG will be analysed by the Clinical Physiologist, and reported by the Consultant Neurophysiologist. The EEG report will then be sent to the doctor or consultant who referred your child. They should have this within 2 weeks.

Further information about EEG testing is available from many organisations including:

UK Epilepsy Helpline
(Freephone) 0808 800 5050
Website: www.epilepsy.org.uk
Email: helpline@epilepsy.org.uk
Txt msg: 07537 410044
Twitter: @epilepsyadvice

Reference Source(s):

- 1 Cooper R, Binnie C, Billings R (2005)
Techniques in Clinical Neurophysiology. A Practical Manual
Elsevier
- 2 Glick TH (2002)
The Sleep-deprived Electroencephalogram: evidence and practice.
Arch.Neuro1. 2002;59(8):1235

Leaflet compiled by the Neurophysiology Department, Royal Surrey County Hospital.

Notes

Contact details

If you have any further questions, please contact the Neurophysiology department on

01483 464128

PALS and Advocacy contact details

Contact details of independent advocacy services can be provided by our Patient Advice and Liaison Service (PALS) who are located on the right hand side as you enter the main reception area. PALS are also your first point of contact for health related issues, questions or concerns surrounding RSCH patient services.

Telephone: 01483 402757

Email: rsc-tr.pals@nhs.net

Opening hours: 9.00am–4.00pm, Monday to Friday

If you would like information documents in large print, on tape or in another language or form please contact PALS.

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