

Your child's melatonin sleep electroencephalogram (EEG)

Information for children, families and carers

We have given you this factsheet because your child has been referred for a melatonin sleep electroencephalogram (EEG). It explains what a melatonin sleep EEG is and what will happen at your child's appointment, so you know what to expect and can help prepare your child. We hope it will help to answer some of the questions you may have. If you have any further questions or concerns, please contact us using the details at the end of this factsheet.

What is an EEG?

An EEG is a painless test that records brain activity. It can be used to help diagnose and manage a number of different conditions (sometimes called events), including seizures or epilepsy, sleep problems, movement disorders, or changes in development and behaviour.

During this test, electrodes (small sensors) will be attached to your child's scalp to pick up the electrical signals produced by their brain. These signals are recorded by a machine. A video recording of the test will also be made at the same time.

The test will be carried out by specially trained healthcare professionals called physiologists in the clinical neurophysiology department.

You will be able to stay with your child at all times.

What is melatonin?

Melatonin is a hormone produced in the body that encourages relaxation and natural sleep.

We will give your child some medicine containing melatonin. It comes as a liquid which can be given to your child through an oral syringe, or it can be mixed with a small amount of drink or yoghurt to make it easier to take. If you feel this would be beneficial, please bring a non-caffeinated drink or yoghurt your child enjoys. You can administer it yourself if you and your child prefer.

If liquid melatonin is not available, we may need to give your child the medicine as a crushed tablet that can be mixed in a drink or yoghurt. These tablets may contain lactose (a sugar that is naturally found in milk and milk products). If your child is intolerant or allergic to lactose, please contact us for advice before your test.

What are the benefits of an EEG with melatonin?

Using melatonin to make your child feel sleepy or fall asleep during the EEG can give the doctor more information and help with making a clearer diagnosis.

How should I prepare for my child's test?

- Before your child's EEG, your child can eat and drink as normal (but they should not consume anything containing caffeine, such as cola, chocolate or tea).
- They should take any medications as normal.
- Make sure their hair is clean, dry and free from head lice. If required, please treat the hair at least 48 hours before the test.
- It is important for your child to be relaxed, but, if possible, try to avoid them falling asleep on the way to the hospital, as this may make it harder to fall asleep during the test.

Please note that only you and your child are allowed in the test room. If you have other children, please make arrangements for someone else to care for them. If you need to bring other children with you, another adult will need to supervise them during the test.

What to bring with you

- A drink and a snack for your child to eat (this cannot be eaten during the recording part of the test).
- If you are breastfeeding your child, you can do this before or during the test if you wish.
- A favourite toy or special comforter to help your child feel more relaxed.
- A brush or comb to tidy your child's hair after the test, if required.

It is important that you arrive on time for your child's test. Please be aware that if you arrive late, we may have to rebook your child's test for another day.

What happens during the test?

When you arrive at the department, we will explain the test to you and your child, ask you some questions and answer any questions you may have.

We will give your child melatonin and prepare your child for the test by:

- measuring their head using a tape measure
- using a wax crayon to mark where we need to place the electrodes
- attaching up to 30 electrodes to your child's scalp using a sticky paste.

During this preparation, your child can sit on your lap and play with toys. We have lots in the department, or you may wish to bring your child's favourite book, toy or comforter with you. Your child needs to be relaxed for the test, so toys that are not too stimulating or loud are best.

We will make your child comfortable on the bed, covered with a blanket and encouraged to close their eyes. You will be able to sit beside them. A video recording of the EEG test will be made at the same time.

At some point during the test, we may ask your child to watch a flashing light. We may also ask them to blow on a windmill toy to get them to hyperventilate (to breathe fast and deeply). These exercises are 'activation procedures', meaning they can change your child's brainwaves and help give us more

information. Before these exercises, we will ask you to sign a consent form on behalf of your child. Signing this form confirms that you understand that there is a very small risk (less than 1%) that these exercises may cause your child to have a seizure. You may decline this part of the test if you wish.

How long will the test take?

The test will take approximately one and a half hours to complete.

What will happen after the test?

After the test, we will gently remove the electrodes and sticky paste using warm water. Please note that you will need to wash your child's hair at home to fully remove the paste.

Your child will then be able to leave hospital and resume their normal daily activities, but they may be drowsy for some time after.

When will I receive my child's results?

We will not be able to give you any results on the day of your child's test. This is because the results need to be analysed by one of our consultants before being sent to the doctor who referred your child for the test. Your child's doctor will then contact you to discuss your child's results.

Further information

Please note that we see both children and adults in the neurophysiology department, and there is a shared waiting room.

Useful links

www.nhs.uk/conditions/electroencephalogram

Contact us

If you have any further questions or concerns, or if your child's appointment is not convenient, please contact us.

Clinical neurophysiology department

Telephone: **023 8120 6785** (Monday to Friday, 8am to 4pm)

If we're unable to answer your call, please leave a message on the answer machine with your name, hospital number and a brief reason for your call. We will return your call as soon as possible.

If you are a patient at one of our hospitals and need this document translated, or in another format such as easy read, large print, Braille or audio, please telephone 0800 484 0135 or email PFSH@uhs.nhs.uk

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