

Your child's ambulatory electroencephalogram (EEG)

Information for children, families and carers

We have given you this factsheet because your child has been referred for an ambulatory electroencephalogram (EEG). It explains what an ambulatory 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 ambulatory EEG?

An ambulatory EEG is a painless test that records brain activity over a period of 24 hours.

During the test, up to 30 electrodes (small sensors) will be applied to your child's scalp with a special glue. The leads from the electrodes are connected to a portable recorder which is carried around in a pouch attached to a waist belt, shoulder strap or, for younger children, a backpack.

Your child will be able to move around freely and leave the hospital during the test.

We will send you an appointment letter with more details, including where you need to go.

How should I prepare for my child's test?

- Before your child's EEG, they can eat and drink and take any medication as normal.
- They should arrive with freshly washed and dried hair, free from hairspray, mousse or gel. This helps to ensure the electrodes stick to their scalp. If your child has head lice, please treat their hair at least 48 hours before the test.
- They will need to wear clothes that button or zip at the front or a t-shirt they can sleep in. You may also bring a loose-fitting hat or jacket with a hood to cover their head after the electrode discs have been applied.
- It's important that they don't wear any form of hair weave or extension.

What will happen during my child's appointment?

The test will be performed by a healthcare professional called a physiologist.

When you arrive for your child's appointment, we will explain the test to you and your child and answer any questions you may have. We will then ask you (or your child if they are aged over 16) to sign a consent form confirming you are happy to have the test.

We will then:

- measure your child's head using a tape measure
- use a wax crayon to mark where we need to place the electrodes (sensors that send electrical patterns to a computer)
- attach up to 30 electrodes to your child's scalp using a special skin-safe glue, which may be dried using a cold air blower.

Looking after the equipment

The recorder is an expensive and delicate piece of equipment, so it's very important that it does not get wet or damaged. Your child will need to keep the recorder in the pouch and attached to them at all times.

Important safety information

You will need to keep a close eye on your child throughout the recording period. The recorder should not be placed under your child's pillow while they are sleeping. It's important that the recorder remains in its pouch to keep the equipment and leads secure.

We will explain this safety information to you in more detail at your child's appointment.

In order not to interfere with the quality of the recording, your child must not do the following while the electrodes are in place:

- use a mobile phone
- chew gum
- use an electric blanket
- touch the electrodes

The batteries may need to be changed for recording periods of more than 24 hours. We will show you how to do this at your appointment if necessary. You may need to visit the hospital on several consecutive days to ensure the equipment is working correctly.

Throughout the recording process, you will need to keep a diary card with details of your child's activities. You will also need to record any episodes that occur. This will help us to interpret the results.

Travelling on public transport

The electrodes and wires may not be fully concealed, so if your child needs to travel by public transport, we advise carrying their appointment letter with them to avoid any misunderstandings related to current increased security levels. Local bus companies advise that you show your appointment letter to the driver when buying your ticket. Train companies recommend that you phone your local station before travelling so they are able to inform staff ahead of time.

Removing the recording equipment

Your child must return to the hospital at the agreed time to return the recording equipment and have the electrodes removed. We will remove the electrodes with acetone (nail varnish remover). Some glue will remain in your child's hair, but this can be washed off at home with conditioner or, if needed, nail varnish remover. Brushing your child's hair will also help to remove the glue. The electrodes may leave small pressure marks or sore areas on the scalp, but these will soon disappear on their own.

If your child usually wears contact lenses, please ensure they remove them for the test and wear their glasses instead. If there are any issues with this, please let us know this at the beginning of the appointment.

When will I receive my child's results?

We will not be able to give you the results immediately after the test as the results need to be analysed by one of our consultants. We will send the results to the doctor who referred your child for the test. Your child's doctor will then contact you to discuss the results.

Further information

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

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 4.30pm)

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.

Useful links

www.nhs.uk/conditions/electroencephalogram

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

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