

Patient information factsheet

Ambulatory electroencephalogram (EEG)

An ambulatory electroencephalogram (EEG) recording is a test taken over a period of 24 or 48 hours. It records the natural electrical patterns of the brain, or brainwaves, when you are walking around, freely mobile and not confined to our testing room.

Up to 23 small electrodes are applied to your scalp and the leads are connected to a portable recorder that you carry around in a pouch attached to a waist belt and shoulder strap.

You have been sent an appointment and we have provided the following information so you know how to prepare and what to expect.

Before your appointment

- Continue to take your regular medication.
- Arrive with your hair freshly washed, dried and free from hairspray, mousse or gel to ensure the electrodes stick to your scalp.
- Wear clothes that button or zip at the front or a t-shirt that you can sleep in. You may also bring a loose-fitting hat or jacket with a hood to cover your head after the discs have been applied.
- Do not wear any form of hair weave or extension, as the glue removal chemicals will damage them.

During your appointment

Your head will be measured with a tape measure and marks made with a wax crayon. Your scalp will be prepared with a special cream that ensures good skin contact.

The electrodes are attached using glue that is then dried using a cold air blower. A special sticky contact paste is used under the electrodes.

You will need to give consent for this procedure.

During recording

The recorder is an expensive and delicate piece of equipment so you must avoid getting it wet or damaged. Keep the recorder in the pouch attached to you at all times.

Safety information

The recorder should not be placed under your pillow while you sleep – it's important that the recorder remains in its pouch due to the potential strangulation risk posed should the wires become caught around the neck. Children and other patients at risk should be observed closely throughout the recording period.

A member of the neurophysiology team will be able to explain the safety considerations in more detail.

Do not touch the electrodes on your scalp, chew gum, use an electric blanket or a mobile phone as these will interfere with the quality of the recording.

For recording periods longer than 24 hours the batteries may need to be changed. The physiologist (person performing the test) will show you how to do this if necessary.

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You may also need to visit the hospital on several consecutive days to ensure the equipment is working correctly.

Throughout the recording process you will be required to keep a diary card with details of your activities and to record any episodes that occur. This will help interpret your results. Sometimes it can be useful to have an observer available to record your activities.

Travelling on public transport

The medical device and wires may not be fully concealed, so due to current increased security levels and public vigilance it is advisable to carry your appointment letter with you to avoid any misunderstandings. Local bus companies advise that you show your appointment letter to the bus driver when buying your ticket. Train companies advise that you phone your local station before travelling so they are able to inform station staff.

Removing the recording equipment

You must attend an appointment at an agreed time to return the recording equipment to the hospital and to have the electrodes removed.

If you usually wear contact lenses you will need to remove them and wear your glasses instead. If there are any issues with this, please speak to the physiologist at the beginning of the appointment.

The discs will be removed using acetone (nail varnish remover). Some glue will remain in your hair but can be washed off at home with conditioner, or if required, nail varnish remover. Brushing your hair will also help remove the glue.

The electrodes may leave small pressure marks or sore areas on your scalp which will disappear soon after removal.

After the recording

The person performing the test (physiologist) will not be able to give you the results immediately after the test as the results need to be analysed, which can take several weeks. The results will be sent to your doctor.

Further information

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

You should contact the department if there is any information you do not understand. If your appointment is not convenient please phone as soon as possible to rearrange it.

Clinical neurophysiology department

Telephone: 023 8120 6785, from 8am to 4.30pm, or please leave a message on the answer machine.

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If you need a translation of this document, an interpreter or a version in large print, Braille or on audio tape, please telephone 023 8120 4688 for help.