

Patient information factsheet

Sleep-deprived electroencephalogram (EEG)

We have given you this factsheet because your doctor has referred you for a sleep-deprived electroencephalogram (EEG). It explains what a sleep-deprived EEG is and what will happen at your appointment, so you know how to prepare and what to expect. 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 a sleep-deprived EEG?

An EEG is a painless test that records brain activity. During this test, electrodes (small sensors) will be attached to your scalp to pick up the electrical signals produced by your brain. These signals will then be recorded by a machine. A video recording of the test will also be made at the same time.

A sleep-deprived EEG is a specific type of EEG that involves you staying awake for the whole night before the test.

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

How should I prepare for my test?

The night before your test, you should:

- stay awake for the whole night to ensure you arrive sleep-deprived for the test
- not drink any tea, coffee or other stimulants which contain caffeine

On the day of your test you should:

- continue to take your regular medication as normal
- eat and drink as normal but do **not** drink any tea, coffee or other stimulants which contain caffeine
- arrive with your hair freshly washed and dried and free from hairspray, mousse or gel (this is to ensure the electrodes stick to your scalp)
- consider bringing a comb or a hairbrush if you think you might need to tidy your hair after the procedure.

Getting to your appointment

We do not advise driving to your appointment after staying up all night. Please arrange for a family member or a friend to take you to and from your appointment. Your family member or friend can then wait in our waiting area while you attend your appointment.

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

What will happen during the test?

When you arrive for the test, we will explain the test to you in detail and answer any questions you may have.

We will then:

- measure your head using a tape measure
- use a wax crayon to mark where we need to place the electrodes
- prepare your scalp with a special cream
- attach up to 30 electrodes to your scalp using a special paste (this paste will wash off with water)
- place an electrode on both of your shoulders or arms to record your heart rhythm

Once we have placed all the equipment correctly, we will then start to record your brainwaves.

At some point during the test, we will ask you to watch a flashing light. We may also ask you to hyperventilate by breathing fast and deeply. These exercises are 'activation procedures' meaning they can change your brainwaves and help give us more information. Before these exercises, we will ask you to sign a consent form. Signing this form confirms that you understand that there is a very small risk (less than 1%) that these exercises may cause you to have a seizure. You may decline this part of the test if you wish.

We will record video images at the same time as the EEG activity to help with your diagnosis.

How long will the test take?

You should allow at least one and a half hours for the test.

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 hair and body at home to fully remove the paste.

When will I receive my results?

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

Clinical neurophysiology department

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

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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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