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Information for patients and carers

Sleep Deprived EEG (Electroencephalogram)

Neurophysiology

You have been referred for a sleep deprived electroencephalogram (EEG) test at the Royal Preston hospital. This leaflet will give you more information on what to expect from this test.

What is a sleep deprived EEG?

An EEG is a diagnostic test that is used to record the electrical activity of the brain. It is a painless and harmless test that can be carried out on patients of any age.
There are several reasons your doctor may have referred you for an EEG including seizures, learning disorders, dizziness, staring episodes, memory problems or sleep disturbances. An EEG simply measures the brainwaves; it cannot measure intelligence, thoughts, or feelings.
A sleep deprived EEG is very similar to the routine EEG you may already have had. This test takes up to 1 hour 30 minutes and requires you to be sleep deprived the night before the test. During the test you will be given the opportunity to go to sleep.

Do I need to do anything before the test?

Make sure you are sleep deprived the night prior to the EEG by having 4-5 hours less sleep than normal. To achieve this, we recommend you go to bed at your normal time and get up 4-5 hours earlier. For example, if you normally go to bed at 10pm and wake up at 7am we recommend you go to bed at 10pm but wake up at 2-3am and stay awake until your appointment. The main purpose is to maximise the chance of you falling asleep during the EEG recording which may aid in diagnosis.

Make sure that your hair is clean and free from any products such as hairspray or gels.
You can take all medications as usual prior to the test, unless otherwise directed by your doctor. Please bring an up-to-date list of medications with you to your appointment.
You can eat and drink as normal but avoid caffeine or stimulants from the evening before. As you are sleep deprived, please do not drive on the day of the test and ask someone to accompany you to and from the

appointment. It is also advisable that someone stays with you for the rest of the day after the EEG, until you have a chance to sleep properly.

What happens during the sleep deprived EEG?

A clinical physiologist will carry out your EEG; they will fully explain what will happen during the test and ask you questions about what has been happening to you. The test will be video recorded for the purpose of the consultant reviewing the EEG.

They will firstly measure your head and make some small marks with a soft pencil. 21 small electrodes will be placed on your scalp with a sticky paste; this will feel slightly cold and scratchy. One electrode will also be placed on each shoulder to measure your heart rate throughout the test. Once all the electrodes are on you will be asked to lie down on a bed and the recording will begin, which will last between 40 to 60 minutes depending on the amount of sleep which is obtainable. You will not feel anything during the test and will be asked to lie still with your eyes closed for most of the time.

During the test you may be shown some flashing lights and asked to carry out a simple breathing exercise. These parts of the test will be explained in more detail to you on the day, and consent is required for these actions. Once these have been carried out the lights will then be switched off and the blinds pulled down to make the room more comfortable for you to fall asleep.

Are there any side effects or risks?

When you are sleep deprived you may be more likely to have a typical episode, this may have implications for your driving afterwards.
If you have a driving licence, you are required to inform the DVLA if you have a seizure.
In some people, there is a very small chance they may experience one of their typical episodes during the flashing lights or deep breathing exercise. However, this is very rare, and we will fully explain any possible risks beforehand.

There are no risks to pregnant ladies or their unborn children from this test.

What happens after the test?

After the recording is finished the clinical physiologist will remove all the electrodes from your scalp and clean your hair to remove the sticky paste, using warm water and cotton wool. Your hair can feel sticky after the test, so you are advised to wash it with warm water and shampoo when you get home.
It will take approximately 2 weeks for the results to get back to your consultant. They will contact you in due course to discuss the results and any further treatment options if necessary.

How long does the EEG take?

The whole test usually takes approximately 1hour and 30 minutes

Contact details

Should you require further advice or information please contact:

Department of Clinical Neurophysiology
Royal Preston Hospital
Sharoe Green Lane
Fulwood Preston
PR2 9HT

Telephone: **01772 522559**. Email: neurophysiology@lthtr.nhs.uk

Sources of further information

www.lancsteachinghospitals.nhs.uk
www.nhs.uk
www.accessable.co.uk
www.patient.co.uk
www.lancsteachinghospitals.nhs.uk/veteran-aware

https://bepartofresearch.nihr.ac.uk/
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All our patient information leaflets are available on our website for patients to access and download:

www.lancsteachinghospitals.nhs.uk/patient-information-leaflets

Lancashire Teaching Hospitals is a smoke-free site. Smoking is not permitted anywhere on any of our premises, either inside or outside the buildings. Our staff will ask you about your smoking status when you come to hospital and will offer you support and advice about stopping smoking this will include Nicotine Replacement Therapy to help manage your symptoms of withdrawal and the opportunity to speak to a nurse or advisor from the specialist Tobacco and Alcohol Care Team.

If you want to stop smoking, you can also contact Smokefree Lancashire on Freephone **08081962638**

Please ask a member of staff if you would like help in understanding this information.
This information can be made available in large print, audio, Braille and in other languages.

Our patient information group review our leaflets regularly, if you feel you would like to feedback on this information or join our reading group please contact on email address:
patientexperienceandinvolvem@LTHTR.nhs.uk

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