

Electroencephalograph (EEG)

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An EEG is a diagnostic test which records the natural electrical activity of the brain. Our brain cells communicate by producing tiny electrical impulses. The EEG recording is used to look for changes in this normal activity which can help with diagnosis and treatment of many disorders which involve the brain.

How do I prepare for the test?

- Please ensure you have clean, dry hair and do not apply any hair spray, oil, mousse or creams. This is because hair products and even the hair's natural oils, can make it difficult for us to get a good recording.
- Medicines should be taken as usual, and eat meals as normal.
- Please bring a list of any medicines that you are currently taking.

What happens during the test?

The EEG is performed by a qualified or trainee Healthcare Scientist and takes approximately 1 hour. Trainees are supervised by a qualified member of staff, the amount of supervision varies, depending on the amount of experience the trainee has. We will ask your permission if a trainee is performing the test.

In an EEG, about 23 small discs (electrodes) are placed on the scalp using a special sticky paste. This can feel a little scratchy.

The electrodes are connected by wires to a computer which records the changes in the electrical signals.

Once the electrodes have been attached you will usually be asked to lie down on a bed while the recording takes place.

You will be asked to open and close your eyes.

The recording causes no discomfort as the electrodes only monitor the signals and do not produce any sensation (very much like an ECG).

During the recording you may be asked to breathe deeply for around 3 minutes (hyperventilation). During this time it is normal to feel a little light-headed or experience a tingling sensation in the hands, feet, and around the mouth. Verbal consent for this procedure will be gained.

At the end of the recording you may be asked to look at a flashing light (photic stimulation). The light flashes for about 10 seconds at a time and you will be asked to open or close your eyes while the light is on. Verbal consent for this procedure will be gained.

Video recording

Where possible we like to record a video of your test alongside the EEG. The video helps us report your test more accurately as we can see any movements you made and if you have one of your typical episodes, we can see what happens.

You will be asked to sign a consent form for video recording. Often the video will be erased from our system after your test is reported; if there are useful sections of video we will keep them with your EEG for future reference.

Side-effects

If you are allergic or sensitive to cosmetics, lotions or sticky tape, please tell the Healthcare Scientist before the test starts.

The procedure is very safe, but, very rarely, flashing lights or hyperventilation can cause a seizure (the words 'fit' and 'seizure' mean the same thing). This part of the test will be fully explained to you and your verbal permission sought.

There are no lasting effects and you may resume your normal activities immediately after these tests.

It is safe for you to have an EEG recording if you are pregnant, however please let the Healthcare Scientist know, as they may alter the test slightly.

We welcome feedback about our service. Please tell a member of staff if you felt this service is good or otherwise

When will I get the results?

After completing the examination, the results will be analysed and a report will be sent to the doctor who referred you. This may take up to 3 weeks.

What are the consequences of not having the EEG?

An EEG is a well-established method of helping doctors to diagnose and treat a wide range of medical conditions. Your doctor would not have as complete a picture as required and hence your diagnosis may take longer and/or your treatment may not be the most appropriate.

Contacting Us

Staff in the department will be happy to answer any query you may have and will do their best to ensure your comfort.

Please let us know if you are unable to attend your appointment by ringing the telephone number below.

If you have any questions or concerns about the test please ring the **Neurophysiology Department** on **01392 402458**.

The Trust cannot accept any responsibility for the accuracy of the information given if the leaflet is not used by RD&E staff undertaking procedures at the RD&E hospitals.

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