

Neurophysiology Department

Your Sleep Deprived EEG test

Information for patients, relatives, and carers

What is a sleep-deprived EEG test?

An EEG (electroencephalogram) is a test that records the electrical activity of the brain. The nerve cells in the brain produce tiny electrical signals and these signals (also called brain waves) can be recorded via electrodes (small disks) placed on the scalp.

A sleep-deprived EEG is the recording of the brain activity following a period of no sleep. The night before your appointment you'll limit your sleep (more details below), and then come to the Neurophysiology Department in the morning.

During the appointment, your brain activity will be recorded for around one hour while you are drowsy and/or asleep.

Why do I need a sleep-deprived EEG test?

In most cases, your doctor will have requested you to have a sleep-deprived EEG if you have had a routine EEG that was either normal or revealed some suspicious non-specific electrical activity. A sleep-deprived EEG can provide doctors with additional information on the EEG whilst you are tired or if you enter sleep during the recording. When you are asleep, your brainwave patterns change and may show more unusual electrical activity.

How can I prepare for the test?

- **Sleep only three hours on the night before the test: preferably go to bed at 12am; wake up at 3am and remain awake until you attend the hospital appointment.**

It is hoped that by doing this you will fall asleep in our department while the EEG is being recorded.

- You should not drive to and from your appointment as this lack of sleep would make it unsafe for you and others around you. Please ensure that a responsible adult accompanies you.
- Please come with clean and dry hair. Do not use any hair products such as gel or hairspray and remove any hair extensions/weave/wig.
- Please wear loose clothing for the test as we may need to place additional electrodes on your shoulders or arms.
- Continue to take your medication unless otherwise directed by your doctor. It would be helpful if you could bring a list of any medication you may be taking.
- Please eat and drink as normal.
- If you need to bring your child/children, please bring someone with you to take care of them during the test.

What happens during the EEG?

- A sleep-deprived EEG can last for about 1½ - 2 hours.
- The physiologist will explain the test. We usually do a video recording during the test. This will provide additional information for the reporting doctor in the event that you have a seizure or episode during the test. This will be explained to you, and they will ask for your consent to record the video.
- You will be asked to provide your medical history and a list of your current medication.
- The physiologist will make measurements of your head and some marks will be made on your scalp using a washable pencil. The physiologist will gently rub your scalp in the 21 positions where the electrodes are going to be placed. The electrodes (small metal discs) are applied using a sticky paste.
- During the test we will want you to be as comfortable as possible. Most people find that they are comfortable lying down on a couch.
- The physiologist will ask you to follow some instructions, such as open or close your eyes.
- You may be asked to do a deep breathing exercise (for about three minutes, but the length of time will depend on your medical history). This may cause a light-headed feeling and/or tingling of the lips or fingers – this is normal and will pass when you return to breathing normally.
- After this you will be left undisturbed for a while so you can try to go to sleep naturally for a short period.

What happens after the test?

- After the test, the discs are removed, and your hair lightly cleaned to remove the paste. You may wish to bring a brush or comb with you to tidy your hair. Any residue of paste can be removed by shampooing the hair. You will be able to return home or to work/school.
- The results will not be available to you on the same day. The results of the investigation need to be analysed afterwards and a full report will be sent to your referring consultant within a week. If you are not aware of a follow-up appointment with your referring consultant, you will need to contact them to arrange this. You will be given your results at the follow-up appointment.

Any risk or complications following the test?

There are no common side effects. We cannot read your mind, during the test and will not know any thoughts, or emotions you may have. No electricity or needles are used – we only record brain signals produced naturally. This is an investigation, not a treatment.

There is a small risk that you may have a seizure due to sleep deprivation and hyperventilation. If you do have a seizure during the recording, the exercise will be stopped immediately. You will be checked by a doctor to make sure you are well enough to go home.

Contact us

If you are unable to attend your test or have any questions or concerns about your appointment, please contact us on:

Neurophysiology Department St Marys Hospital: 020 331 26628

Neurophysiology Department Charing Cross Hospital: 020 331 11329 / 17515

We are open Monday-Friday 8-4 pm

How to find us:

Please refer to your letter to see which site you will be having your test.

Charing Cross Hospital: Main Tower Block > South wing > 3rd floor

St. Marys Hospital: Mary Stanford Wing B > 1st floor

*Please arrive on time for your appointment. If you are running late please contact us otherwise, we may have to cancel or rebook you for another time.

How do I comment on my visit?

We aim to provide the best possible service and staff will be happy to answer any of the questions you may have. If you have any **suggestions** or **comments** about your visit, please either speak to a member of staff or contact the patient advice and liaison service (**PALS**) on **020 3313 0088** (Charing Cross, Hammersmith and Queen Charlotte's & Chelsea hospitals), or **020 3312 7777** (St Mary's and Western Eye hospitals). You can also email PALS at imperial.pals@nhs.net The PALS team will listen to your concerns, suggestions or queries and is often able to help solve problems on your behalf.

Alternatively, you may wish to complain by contacting our complaints department:

Complaints Department, fourth floor, Salton House, St Mary's Hospital, Praed Street
London W2 1NY

Email: ICHC-tr.Complaints@nhs.net

Telephone: **020 3312 1337 / 1349**

Alternative formats

This leaflet can be provided on request in large print or easy read, as a sound recording, in Braille or alternative languages. Please email the communications team:

imperial.communications@nhs.net

Wi-fi

Wi-fi is available at our Trust. For more information visit our website: www.imperial.nhs.uk

Department name
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