

Results

All signals for these tests are recorded and stored on a computer. They are later analysed by a consultant and the results sent to the doctor who requested the test, usually within 7-10 days.

Transport

If you require hospital transport, please contact the transport department on Tel. 020 7288 3052

Understanding English

If you would like an interpreter to be with you for the test, you must contact the department at least ten working days before your test. This is so that we can book an interpreter for you.

Further information

If you have any questions, please telephone:

Clinical neurophysiology
Tel: 020 7288 5379 / 020 7288 5317

Monday to Friday, 9am - 3pm
At any other times please leave a voicemail message.

Patient advice and liaison service (PALS)

If you have a compliment, complaint or concern please contact our PALS team on 020 7288 5551 or whh-tr.whitthealthPALS@nhs.net

If you need a large print, audio or translated copy of this leaflet please contact us on 020 7288 3182. We will try our best to meet your needs.

Whittington Health NHS Trust
Magdala Avenue
London
N19 5NF
Phone: 020 7272 3070
www.whittington.nhs.uk

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Tests of the brain and nervous system function

A patient's guide



Introduction

In the clinical neurophysiology department we do various tests which record the electrical activity of the brain and nervous system. These tests are usually done at the request of a doctor to assist them in the diagnosis of your problem.

What are the tests?

1. The EEG (electroencephalogram) test

This is a test to record the electrical activity in the brain. Small discs attached to wires are placed on the scalp to record and monitor your brain activity on a computer screen. The test is painless and there are no after effects. On average the test takes between 45 minutes and one hour (up to 1½ hours for sleep EEG's).

You may be asked to do some deep breathing, and/or look at a flashing light, as part of the test. Many patients are asked to arrive tired so that they are more likely to fall asleep for a short while as part of the test.

Preparation for EEG test

- Please ensure your hair is clean.
- You can take medicines, and eat and drink as normal. Please bring a list of the medicine you take when you come for the test.
- It is a good idea for a child to bring along a favourite toy and a drink.

2. The evoked potentials (EPs) test

These tests record the brain's responses to particular stimuli. They are painless and there are no after effects. They take about an hour, at most, for adults but may take longer for babies.

- The visual EPs involve a person looking at a screen with either a checkerboard pattern (or sometimes a flashing light) and are used to test the speed and shape of responses in the nerves from the eyes.
- Please note: if you wear glasses please bring them in for this test.
- The auditory EPs involve a person resting with a pair of earphones on. A rapid clicking noise produces tiny signals in the nerve from the ear.
- The somato-sensory EPs involve applying small pulses to the wrist (just enough to make the thumb twitch slightly). You can feel it but it does not hurt. The signals travelling along the nerves of the arm to the brain are measured by contacts on the collarbone, neck and scalp.

This test can also be performed on the legs.

Please note: we advise you to wear loose open-necked clothing for this test.

Preparation for EP tests

This is the same as for the EEG.

3. The nerve conduction study (NCS) and electromyography (EMG) tests

These tests examine the working of nerves and muscles.

The NCS involves nerve stimulation with small electrical impulses, which can produce slight tingling sensations. The EMG is an examination of the muscles, using a very fine needle. There are no after effects. These tests may feel a little uncomfortable.

Preparation for NCS and EMG tests

- Please do not use any oils or creams on the skin before the test.
- Please wear loose clothing.

Important medical information

If you are booked for an EMG test, please phone the department on 020 7288 5317 or 020 7288 5379 if you

- are on Heparin or Warfarin,
- are a haemophiliac, or
- have a pacemaker fitted.