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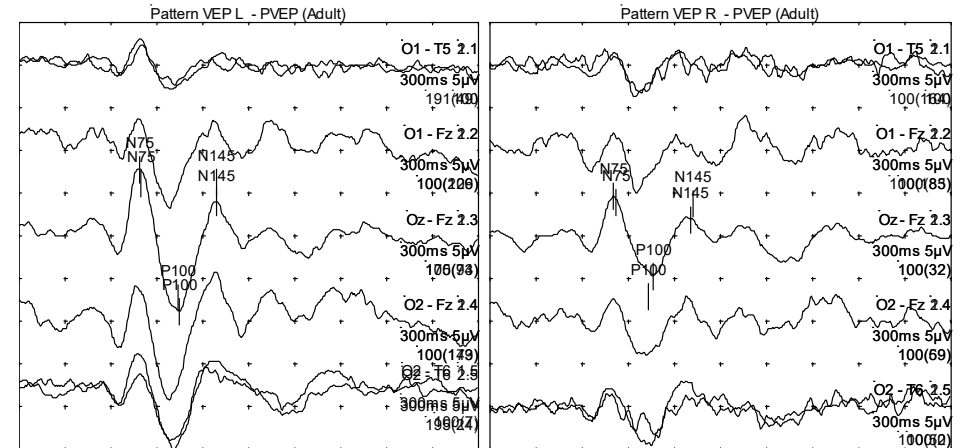
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# Evoked Potentials

## At St Peter's Hospital, Chertsey



# Having an Evoked Potential Test

## An introduction for all Patients aged 16 and above

### What are Evoked Potentials?

These are a group of diagnostic tests which record the electrical signals produced naturally by the brain following repeated stimulation.

- Visual Evoked Potentials (Eyes)
- Electroretinogram (Eyes)
- Auditory Evoked Potentials (Ears)
- Somato-sensory Evoked Potentials (Arms and Legs)

Your doctor may ask us to test one or more of these.

### About our Department

West Surrey Clinical Neurophysiology is a specialist department, one of only a few in the country. We are based at **St Peter's Hospital in Chertsey** but we provide our services to patients from several other hospitals too.

**Please make sure you come to the right hospital!**

measuring all the different waveforms recorded, and the medical consultant who gives a clinical report.

This report is sent to your hospital consultant and he or she will give you the result of the test at a later date.

A copy may be sent to your GP.

We aim to prepare these reports in good time.

### Contacting us

If you have any questions before your appointment please contact us and we will try our best to answer them.

You can phone us on **01932 722543**. We are open from 9am to 5 pm. There is an answering machine outside these hours or if we are unable to take your call. Our postal address is:

West Surrey Clinical Neurophysiology  
St Peter's Hospital, Guildford Road, Chertsey, KT16 0PZ

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### Further Information

We aim to provide an excellent service at all times, but should you have any concerns please, in the first instance, raise these with our staff or the Manager on duty. If they cannot resolve your concern, please contact our Patient Experience Team (PALS) on 01932 723553 or email [asp-tr.patient.advice@nhs.net](mailto:asp-tr.patient.advice@nhs.net).

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For the ERG test it is important that you tell the clinical physiologist if you suffer from **epilepsy**.

### **Auditory Evoked Potentials (AEP)**

This is a test of the pathway between the ears and the brain. It is given several names and your doctor may call it Brainstem Evoked Potential (BEP or BAEP). You will be asked to lie on a couch listening to clicking sounds through a headphone.

### **Somato-Sensory Evoked Potentials (SSEP)**

These are tests of the pathways from the arm or leg through the spinal cord to the brain. We stimulate the nerves, usually with small electric pulses. Some of these tests make your muscles twitch. The sensation is strange and some people find it a bit uncomfortable.

## **What happens after the recording**

After the recording the small discs will be painlessly removed and the paste dissolved by rubbing the area with clean warm water. Your hair will still feel sticky afterwards.

There are no after effects from the recording, which will take half to one and half hours and you can leave immediately afterwards.

## **What happens next**

Your recording is reported at a later time by both the clinical physiologist, who gives a technical report which involves

## **Preparing for Evoked Potentials**

Unless we ask you to change, please carry on taking all your usual medication as recommended by your doctor. Please bring a list of your medications with you.

It is also important to tell us if you have a pacemaker implanted. Ordinary pacemakers do not usually cause problems. If you have an **implantable cardiac defibrillator (ICD)**, please ring us before the test., so that we can make arrangements with our cardiology department to carry out the test with their help.

You can eat as normal, including meals on the day of the test. We can only do the test if your hair is clean, dry and accessible. Please do not use any hair styling products. Please call us for advice if you have a wig, hair extensions, braids or weaves.

Bring any spectacles or hearing aids with you for the tests.

Please wear loose, comfortable clothing – we may need to examine both arms and legs, even for simple problems. You should avoid putting skin creams on before the test.

## Arriving at St Peter's Hospital

If you are unable to attend on the day of the test, please do let us know, using the contact details at the end of this booklet.

Our department is in the main outpatient block at St Peter's Hospital. Please make your way to level two. Ours is the first clinical area on the right in the main outpatient corridor with green dots on the corridor walls. If you know St Peter's, this area is just behind the W H Smith Shop and to the right of the Pharmacy. The signs say 'EEG/ EMG' and 'West Surrey Clinical Neurophysiology'. It may be helpful to bring this booklet with you to show people if asking directions.

The nearest car park is the main outpatient car park at the front of the hospital. Please note St. Peters Hospital operates payment parking systems. Further details are available online at <http://www.ashfordstpeters.nhs.uk/travelling-to-st-peter-s>. It is helpful if you can arrive about 10 – 15 mins before the appointment time shown on the accompanying letter. We have only limited space in our waiting room, if you arrive earlier at the hospital you will be asked to wait elsewhere. There is a café at the main outpatient entrance nearby. We aim to keep to our appointment times, but if we are running late we shall let you know and we ask for your patience.

## What happens during the tests

Your test will be carried out by a clinical physiologist, who will meet you in our waiting room and take you to the recording room.

We shall explain the test to you and this is a good time to ask any questions you still have. The clinical physiologist will also ask you about your particular problem and about your health in general. The clinical physiologist will measure your head and make marks with a skin pen. At each mark, he or she will rub the skin and then attach a small metal disc through which the recording is made. It is held in place with a sticky paste.

The different types of test are described in the next sections.

### Visual Evoked Potentials (VEP)

These are tests of the pathway between the eyes and the brain. You will be asked to look at the centre of a television screen that has a moving black and white chequerboard pattern. Each eye is tested separately with a patch covering the other eye. In very young children and sometimes in adults we may use flashing lights instead of the chequerboard.

### Electroretinograms (ERG)

This is a test that focuses on the retina, the layer at the back of the eye. The recording is usually made by placing a very fine thread between the lower eyelid and the eyeball. This feels unusual and may make your eye water a little during the test. In a small number of patients, usually young children, we use a sticky pad on the skin beneath the eye instead of the thread. There are two parts to this test. In the first we use a chequerboard as described above. The second involves looking at flashing lights. You will need to sit in the dark for 15- 20 minutes before this part of the test. The physiologist will sit in the room with you throughout this time.