

Visual Evoked Potentials (VEP): information for families

The brain works by a series of nerve impulses, which cause electrical signals within the brain. When a part of the body is stimulated, for instance, the eyes by a flashing light, or the ears by a clicking sound, the brain responds to this stimulation. This response is called an 'evoked potential'. This information sheet from Great Ormond Street Hospital (GOSH) explains the procedure for VEP test and what to expect when your child has one. An Easy Read information sheet is included for your child.

The electrical signals within the brain (also called brainwaves) can be recorded through the scalp. The brain's responses to those are often very small, but can be recorded using special techniques.

VEP test looks at the optic nerve pathway from the eyes to the visual cortex in the brain.

Getting your appointment letter

If you are unable to keep this appointment, please inform the department as soon as possible beforehand. Sometimes, we can offer the appointment to another child on the waiting list.

As so many children and young people need to use our services, we have had to introduce a policy where if a child cancels or does not attend two appointments in a row, we will inform their GOSH consultant and close their referral.

The person bringing your child to the VEP should have 'Parental Responsibility' for them. Parental Responsibility refers to the individual who has legal rights, responsibilities, duties, power and authority to make decisions for a child. If the

person bringing your child does not have Parental Responsibility, we may have to cancel the test.

Getting ready for the test

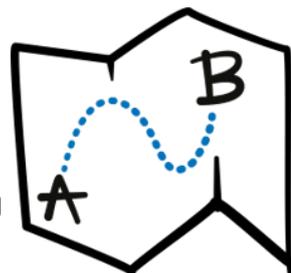
It is helpful if you make sure that your child's hair is clean before the test, with no mousse, gel, oil or hairspray. If your child is taking medicines, you should continue to give them as normal. If your child wears glasses, make sure they bring them.

If you have other children, it is better if they could be looked after at home or by another adult if they come with you. We are unable to supervise them during the test.

The day of the test

Your child will have a VEP in the Department of Clinical Neurophysiology which is on Level 4, Southwood Building.

Once you are in the Department, check in with reception and soon there will be a Clinical Physiologist (CP) present who will confirm your and your child's details and take you to the recording room. They will explain in more detail



how the test will take place, discussing any worries you may have.

Students and trainees

As we are a teaching hospital, on occasion we might ask you if you would agree for a trainee to perform the test under direct or indirect supervision. Sometimes other healthcare professionals or students might ask to observe the test as well. Refusing this will not affect your child's treatment.

What does the test involve?

The CP will attach small silver discs (electrodes) to certain points on your child's head using a soft paste. Sometimes, they will measure your child's head beforehand and mark the points with a soft pencil before attaching the electrodes.

As each electrode is attached, the CP will clean the area of the scalp with a cotton bud and some cream. This does not hurt but some children do not like it. While all the electrodes are being applied, your child can sit on a chair, the bed or your lap, and can play with toys – we have many toys in the department but feel free to bring your child's own favourite book, toy or comforter.

Once all electrodes are in place, your child will need to look at a flashing light. Sometimes, a television screen that is displaying a checkerboard pattern that moves from side to side might be used instead. As light flashes or the pattern on the

television screen moves, the brain responds to the stimulation and this is recorded as brainwaves.

Usually, we repeat each stimulus a number of times so that plenty of responses are recorded and averaged out to show how the nerve pathways are working.

How long does the test last?

The length of the test depends on how much a child cooperates and how much information is needed. We usually allow up to an hour for the whole test to be completed.

Are there any risks?

No, the VEP test is very safe. There is no damage to the eyes from the light.

After the test

The CP will remove the electrodes from your child's head. This will not hurt as the paste stays soft and is easy to remove. They will also clean your child's hair but it may feel a bit sticky to the touch until you wash it. Once all the electrodes have been removed, you will be free to go if no other tests or appointments have been planned.

Getting the results

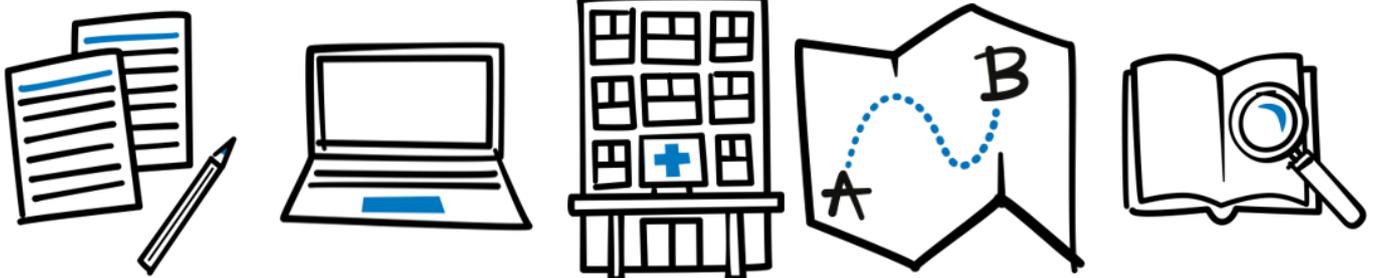
The team will analyse the results and write a detailed report of the test results. We will send this to your child's consultant in time for their next appointment.

Further information and support

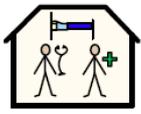
If you require more information about the test or have any questions, please contact the Department of Clinical Neurophysiology on 020 7813 8471, Monday to Friday between 9am and 5pm.

How to find us

Come in through the Main Entrance and walk through Main Reception. At the glass doors, turn right and then first on the left (you are entering *Southwood Building*). Walk through the corridor until you find the stairs and the lifts. Go up to Level 4. Walk through the double doors and then down the corridor until you find another double doors. EEG Reception is on your right.



Having VEP



You are coming to hospital for an Evoked Potential test. This looks at your nerves and brain waves, helping doctors work out how to look after you.



Your brain works using signals. When the brain is made to react to something, the signals change. The EP test records these changes.



First we will clean small areas of your head with a cotton bud. This will not hurt.



Next we will put some silver discs with stickers where we have cleaned on your head. We use sticky paste to hold them in place. This will not hurt.



We will join the stickers to the VEP machine with wires. This will not hurt.



You may have to look at a flashing light. Sometimes, you look at a picture on a television screen.



When the VEP is finished, we will take off the stickers and wipe your head again.



If you are not having any other tests, you can go home.



Please ask us if you have any questions.

