

Testing of the visual system in children, VEP

Purpose of the test

The purpose of the VEP (Visual evoked potentials) test is to study the function of visual pathways. The electrical change in brain activity caused by visual stimuli is measured, which provides information about the activity of the optic nerve and visual tract. An ERG (electroretinography) test can be performed simultaneously, providing information about the function of the retina.

Preparing for the test

It is important that the child is alert and stays as calm as possible during the test. It is recommended to feed the child before the test, so that he/she will stay relaxed for the duration of the recording. You should also bring additional food supplies and a pacifier/dummy with you.

Test procedure

At first, a nurse cleans the head and facial skin of the child with room temperature cleanser. Small measurement sensors called electrodes are attached on the scalp with water-soluble conductor paste and the sensors are wired to a recording device. Older children can wear a cap with pre-attached wires. Small babies may have self-adhesive sensors attached on the skin. Some loose fabric might be wrapped around the baby's head to ensure that the sensors stay in place.

The test is carried out in a dimly lit room. The child will remain in a sitting or lying position during the test. The child's eyes are tested separately and covered with an eyepatch one at a time, and a flashing light is displayed in front of his/her face. The test is painless, however, the child might find the sensor attachment unpleasant. The test takes about an hour to complete.

After the test

After the test the sensors will be removed and the paste will be cleaned off. Sometimes small amounts of paste remain in the hair, but this is easily removed when you wash the hair. A clinical neurophysiologist will analyse the test results and a report will be sent to the clinic that asked for the test. They will inform you of the test results and any possible follow-up appointments.