

Visual evoked potential (VEP) test, children

Purpose of the test

The purpose of the test is to assess the function of the visual pathway. A visual evoked potential (VEP) test measures the electrical signal that visual cortex (a region of your brain) generates in response to visual stimulation, 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's important that your child is alert and as calm as possible during the test. We recommend feeding your child before the test to help them stay relaxed throughout the recording. Be sure to bring extra food and a pacifier or dummy with you, if needed.

Test procedure

First, a nurse will clean your child's face and scalp with a room-temperature cleanser. Small sensors, called electrodes, will be attached to the scalp using a water-soluble paste, and these sensors will be connected to a recording device. For older children, a cap with pre-attached wires may be used. For younger babies, self-adhesive sensors will be placed on the skin, and a soft fabric may be wrapped around the baby's head to help keep the sensors in place.

The test will take place in a dimly lit room. Your child will either sit or lie down during the test. Each eye will be tested separately, with an eyepatch placed over one eye at a time, while a flashing light is shown in front of them. The test is painless, though your child may find the sensor attachment a little uncomfortable. The test will take about an hour to complete.

After the test

Once the test is complete, the sensors will be removed, and the paste will be cleaned off. Sometimes, small amounts of paste may remain in the hair, but this can be easily washed out at home. A clinical neurophysiologist will review the test results, and a report will be sent to the clinic that requested the test. They will contact you with the results and let you know if any follow-up appointments are needed.