



Uveitis Information Group Factsheet

ELECTRORETINOGRAPHY (ERG)

What is Electroretinography (ERG)?

Electroretinography (ERG) is a type of eye test used to detect any abnormal function of your retina. Your retina is the part of the eye that contains your rods and cones. Your rods and cones are the light sensitive cells (photoreceptors) of your eye.

Electroretinography works by using patterns and flashes of light which induce responses from the photoreceptors and the retina in your eyes. The tests are carried out under both light and dark conditions.

The readings/findings from these tests are called an electroretinogram.

How is an ERG done?

You are usually seated in a comfortable chair. You will then have dilating drops placed in your eyes. On some occasions, you might also be given anaesthetic drops.

An electro sensor (electrode) is placed in your eye. This sensor may be a thin wire or a small disc. It is not a painful procedure, but it may feel as though you have an eyelash in your eye.

Small disc Electrodes are then placed on your head, sometimes on your face or ears, sometimes at the back of your head. These electrodes capture the electrical signals produced by your retina and your optic nerve in response to the series of light and pattern tests.

There are a range of tests that may or may not be given to you. The tests involve looking at a screen and/or a small machine (called a dome) with various patterns, shapes and/or flashing lights. You will be required to take these tests in both light and dark conditions, and you may have to sit in the dark for up to 20 minutes and in bright light for a further 10 minutes to allow your eyes to become adapted to the dark and to the light.

The information that comes from each electrode is transmitted to a computer where it is displayed and analysed.

The testing will take anywhere from 40 minutes to two hours, depending on the range of tests you are having.

Why is an ERG done?

The ERG can show any damage to the retina and monitor any changes in the function of the retina since your last ERG. This can be useful in determining the course of your disease and whether your medication regime is effective.

How do I prepare for an ERG?

There is no special preparation, but, because electrodes are placed on your head, your hair should be clean and free from oils and gels, to ensure good contact. You should wear no make-up for the same reason.

You should bring a list of medications so the tester is aware of your medication regime.

Are there any side effects?

Dilating drops will cause blurred vision and increased sensitivity to bright sunlight. Therefore, you should not drive for several hours after these tests. Dark glasses may help on a sunny day.

What happens next?

A report of your results is sent to your consultant. You should discuss your results with your consultant.

How often should I have ERGs?

The frequency of ERGs will depend on how 'active' your uveitis is and what type of uveitis you have. It will also depend on whether you and your consultant need these tests in order to consider your medication regime or determine the course of your uveitis. Some people may have ERGs every 6 months, whilst others may only need one ERG.

This fact sheet has been written by Rea Mattocks and Annie Folkard (patients) and has been checked and verified for accuracy by Dr Fatima Shawkat PhD SRCS (State Registered Clinical Scientist) Consultant Clinical Vision Scientist, Southampton Hospital, November 2009.

Uveitis Information Group, South House, Vidling, Sweening, Shetland Isles
ZE2 9QE Tel: 0845 604 5660 email info@uveitis.net
website: www.uveitis.net