



Birdshot Uveitis Society Factsheet

Electroretinography (ERG) testing

Please use this factsheet as background information to help discussion with your doctors. Individual cases may vary enormously and so the best information will always come from your doctors. The information in this sheet has been checked for accuracy by leading uveitis specialists.

What is electroretinography (ERG)?

Electroretinography (ERG) is a type of eye test used to examine the function of the retina. The retina is the part of the eye that contains your rods and cones, which 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 and findings from these tests are called an electroretinogram.

How is an ERG done?

You will be seated in a chair. You will then have dilating drops placed in your eyes. Sometimes, you may also be given anaesthetic eye 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. The information that comes from each electrode is transmitted to a computer, where it is displayed and analysed.

There is a range of ERG tests, and some of them 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 fully adapted to the dark or to the light before the next part of the test.

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 or not 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 electrode contact. You should wear no make-up for the same reason. You should bring a list of your 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, so 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 monitor your medication regime or to determine the course of your uveitis. Some people may have ERGs every six months, whilst others may need only one ERG.

BUS (the Birdshot Uveitis Society) provides information and support to anyone with Birdshot. We are setting up a Birdshot patient database and Biobank to help Birdshot scientists and researchers.

Membership of BUS is free of charge. It allows you access to Birdshot Days held in the UK, where professionals and patients come together to exchange information.

Useful Birdshot Uveitis Society links

Email address: <mailto:info@birdshot.org.uk>

Website: <https://birdshot.org.uk>

Address: Birdshot Uveitis Society, PO Box 64996,
London SW20 8PT

Facebook support group: <https://facebook.com/groups/Birdshot/>

Twitter: <https://twitter.com/birdshotcharity>

YouTube channel: <https://www.youtube.com/user/Birdshot100/videos>

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

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