## What do I have to do?

- Please be on time for your tests in order to prevent your tests being delayed and out of courtesy to other patients and staff.
- It is VERY important that you bring all current glasses and recent prescriptions to your appointment. If you wear contact lenses, please bring your lens case and any necessary solutions, as we may need you to remove them.
- Your hair should be freshly washed and free from all oils, gels, sprays, etc. Please do not wear eye makeup.
- If there are children accompanying you to the appointment please ensure there is someone responsible for them as there are no childcare facilities in the department.

## Are there any side effects?

- Dilating drops will cause temporary blurring of vision and increased sensitivity to sunlight, but this will wear off after a few hours. You may wish to bring dark glasses to wear afterwards.

**<u>You should NOT drive after having dilating drops.</u>**

## What happens afterwards?

- A report will be sent to the consultant who referred you – the results of the tests will not be given to you at the time of testing.

If you require further information regarding the department or the tests carried out here, please don't hesitate to contact us on 01 6343630.

This leaflet is intended to provide general information for patients. Any patient who is worried about his or her individual circumstances should seek specialist advice relating to their circumstances.

# INFORMATION FOR PATIENTS

Clinical Diagnostic Unit,
*Research Foundation*
*Royal Victoria Eye & Ear Hospital,*
*Adelaide Road, Dublin 2*

## Why am I being referred?

The Clinical Diagnostic Unit at the Research Foundation has equipment to test various aspects of visual function. Your consultant has asked us to perform tests to examine the function of your visual system to help diagnose the cause of your visual problem, also to monitor disease progression or the effects of any treatment you may be receiving.

These tests may be divided into two groups:

1. Electro-physical/Electrodiagnostic
2. Psycho-physical

All tests adhere to international standards.

### What is involved in Electrodiagnostic testing?

Small sensors are fastened to the skin around the eyes or scalp (depending on the test) using tape and a conductive paste. Some tests use a corneal electrode, either a soft gold contact that sits on the lower eyelid, or a contact lens that sits on the cornea. In both cases an anaesthetic drop is used to eliminate discomfort.

**Dilating drops are used for some of the tests.**

Each test takes on average 30 mins, so depending on the number of tests needed testing could take up to 3 hours.

When testing young children and babies, special contacts, and simpler, shorter testing is used.

**What tests can I expect?**

**Pattern Electroretinogram (PERG) (20 mins)**

This measures the function of the central retina, the macula, which you use for detailed vision e.g. reading.

You will be asked to look at a moving checkerboard pattern on a TV whilst we record the small electrical signals generated in the macula.

**Visual-evoked potential (VEP) (30 mins)**

Investigates the pathways carrying signals from the eye to the brain via the optic nerves, and how the brain interprets these signals.

You will be asked to watch a moving checkerboard pattern on a TV or flashes of light while we record the electrical signals.

**Multifocal ERG (50 mins)**

This test maps out the central retinal function. You will be asked to observe black and white hexagons moving while the signals from your eye are being measured.

**Electroretinogram (ERG) (1hr)**

You will have to spend 30 mins sitting in the dark before this test is carried out. This allows us to measure how your eyes work in darkness (you will be asked to turn off your mobile phone).

We record the electrical signals from the retina to flashes of light in both darkness and light. The brightness and rate of flashes are varied to allow the rods (night vision) and cones (daytime vision) to be examined separately.

**Electro-oculogram (EOG) (40 mins)**

Measures the function of the boundary between the retina and the layer under the retina (Retinal Pigment epithelium). You will be asked to make small eye movements between 2 red lights for 40 secs every minute for 15 mins in the dark and 15 mins in the light.

**What is involved in Psychophysical testing?**

Broadly speaking this means presenting a visual signal which you must interpret.

**Perimetry (Field) tests: Goldmann, Humphrey & Octopus (30 mins)**

Measures side or peripheral vision as well as central vision. You will be asked to press a buzzer when you are aware of a light moving into your field of vision or when it reaches an intensity that you are able to detect.

**Colour Vision tests, Farnsworth Munsell 100Hue, Lanthony D15 (30 mins)**

You will be asked to arrange small coloured caps in order of shade.

**Dark Adaptometry (35 mins)**

Measures how well you see in low light.

You will be asked to indicate when you are aware of a progressive diming light at different intervals over a period of time.

**A Scan, Biometry (15 mins)**

Measures the size of the lens within your eye normally required if you are having cataract surgery.