

Your child's electrophysiology eye tests

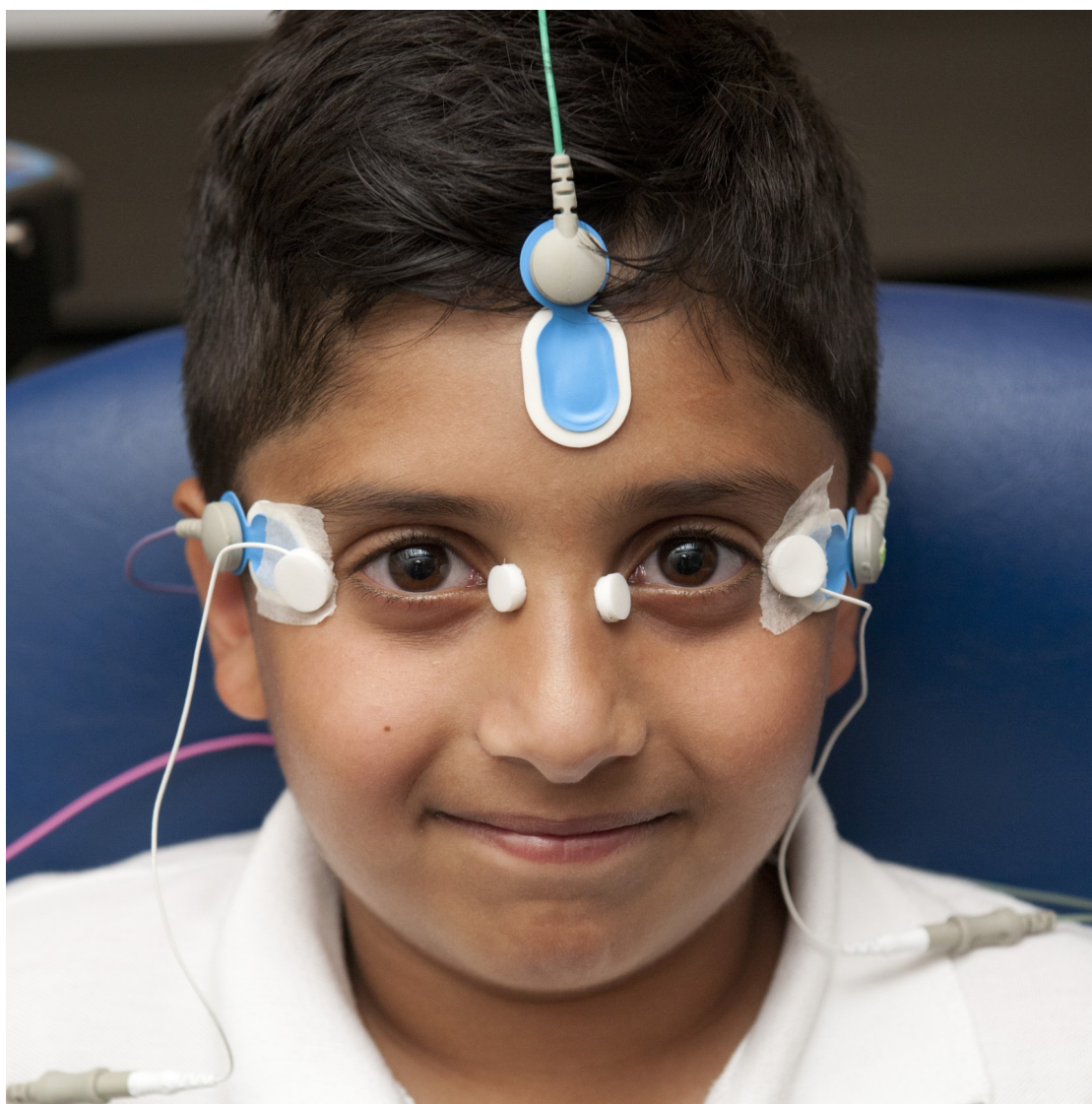
Department of Medical Physics

Information for Patients & Carers

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Introduction

Welcome to the Visual Electrophysiology Service at the Leicester Royal Infirmary. Your child has been referred to us for some eye tests. We understand it can be worrying when you have to come to hospital, and would like to take this opportunity to explain what will happen during your visit. You know your child best so please choose the information you share with them.

What are visual electrophysiology tests?

Electrophysiology tests involve recording tiny electrical responses that are produced by the eyes and the brain when you look at flashing lights or moving patterns. The results can tell us if your child has a problem with their eyes, with the nerves that connect the eyes to the brain, or the part of their brain linked to vision.

What are the benefits of having this test?

Electrophysiology tests can be useful in diagnosing particular conditions, the location of the problem and how bad it is. They can also be used to check your child's level of vision.

How do visual electrophysiology tests work?

When you look at something, your eye sends tiny electrical signals to the back of your brain. The brain makes these into a picture and we understand this as sight or vision. During the tests we put small sensors on your child's head or around their eyes to measure these signals. This gives us information about how well the eyes are working, which we can pass onto the eye doctor who referred you.

A short video is available online which gives a good description of some of the tests we do: <https://youtu.be/l1WxLDTUKW0>

There are various types of visual electrophysiology tests but your child may not need to have them all. This will depend on which tests your doctor has referred you for.

How do we prepare for the appointment?

- If your child normally wears glasses to read or for everyday use please bring them with you.
- If they wear contact lenses they may need to take them out for some of the tests. If we use eye drops for a test, they may not be able to put them back in for a few hours.
- If you have a copy of your child's glasses prescription, please bring it with you.
- Please make sure your child's hair is clean and that greasy/oily styling products are not used.
- Please do not allow your child to wear make-up on their face, or any moisturisers or facial oils on the day of the test.
- If you need to bring other young children with you, please make sure you have another responsible adult with you as there are no child care facilities in the department.
- We do not have a cafe in the Sandringham Building so it's best to bring any drinks or snacks you may need. For longer tests, tea/ coffee and biscuits can be provided if needed.
- For patients who meet eligible criteria, a patient transport service is available if you need transport to and from your appointment. This service is provided by [EMED Patient Care](#). To make a booking contact the service on 0300 777 1800, or arrange this through your GP, at least 3 or 4 days before your appointment.
- **If your child suffers from epilepsy please let staff know before the start of the test and/ or by phone before your appointment.**

Having eye drops during the test

Ticked here if your child will need to have this: ☐

For some tests, eye drops may be needed to make the black part of your child's eye (pupil) larger (dilate) so it can let in lots of light. This can make their eyesight blurred which can last up to 6 to 8 hours. You may wish to bring their sunglasses as it can seem bright for some time after the test.

Please tell us on the day (or by phone before your appointment) if your child may be allergic to any eye drops, if they have ever had a bad reaction to eye drops, or if they could be pregnant.

If your child wears contact lenses, they may not be able to put them back in for a few hours after the test.

Please be aware that if we need to use eye drops we are legally required to ask all girls over the age of 10 if they could possibly be pregnant, so please don't be offended on the day.

How do we get the results?

The results of the tests will be checked after you have left. A report will go to your child's eye doctor, so you will get the results when you return to your eye clinic. We will not be able to give you any results at the time of your appointment with us.

If you do not receive an appointment letter to return to see your eye doctor when expected, please call our booking centre on 0300 303 1563. If you feel that your child's eyes are getting worse before you receive a follow-up appointment, you should contact their GP, your local optometrist, or if urgent you can contact/ attend the Eye Casualty department.

What are the different tests and which ones will my child have?

The tests that we are hoping to do during the appointment are ticked below, with some detail about what each one involves. There is also a picture booklet aimed at children to go with this leaflet.



Visual evoked potential (VEP) test:

We will need to place some sticky sensors on your child's scalp, which we will do by parting their hair and gently cleaning a few spots on their head. Then we will show them some patterns and/ or some flashing lights. How we do the test will depend on the age and personality of your child. Each eye is tested separately by covering the other eye with a patch. You might be able to help your child practice this by playing games like peek-a-boo or pirates. If your child normally wears glasses to read or for everyday use, please bring them with you as they will be needed for this test.

☐ **Pattern electroretinogram (PERG) test:**

For this test we need to place a sticky pad on your child's forehead and near their eyes. The test involves looking at some patterns on a computer screen whilst sitting quite still. If your child normally wears glasses to read or for everyday use, please bring them with you as they will be needed for this test.

☐ **Electroretinogram (ERG) test:**

To perform this test, we need to place a sticky pad on your child's forehead and near their eyes. For very young children, getting them used to being stroked around the eyebrows and cheeks before their appointment can help. Eye drops will be needed for this test to dilate the pupils. This can feel cold and may sting for a few seconds.

Probably the strangest part of this test is that we need to wait in the dark for 10 to 20 minutes at the start. This allows time for your child's eyes to adjust to the dark. You can stay with your child all the time to reassure them and we will help pass the time with games.

We often find it helps keep little ones happy if you bring a snack with you. Babies might just want a drink of milk. Bringing a favourite toy along can be a good idea, which is fine as long as it doesn't light up. We do have a small selection of toys available but if your child has a story or music CD they like to listen to please bring it along.

Because of the eye drops your child may find it bright for some time afterwards, so you might want to bring sunglasses or a hat for them to wear outside.

☐ **Dark adaptometry (DA) test:**

Unlike the other tests this one doesn't need any sticky pads. If your child has not also been referred for an ERG test, we will need to use an eye drop to dilate their pupils. This can feel cold and may sting for a few seconds. Your child will first be asked to look towards a bright light for 10 minutes. Then they will need to press a button every time we show them some very dim red and green flashing lights in the dark.

This test is usually only done with children who are a little older and who can concentrate for a long time. Because of the eye drops your child may find it bright for some time afterwards, so you might want to bring sunglasses or a hat for them to wear outside.

☐ **Electrooculogram (EOG) test:**

Sticky pads will be attached to your child's face by the inner and outer corner of their eyes and on their forehead. If your child has not also been referred for an ERG test, we will need to use an eye drop to dilate their pupils. This can feel cold and may sting for a few seconds.

They will then be asked to look from left to right while keeping their head still. Recordings of their eye movements will be made for about 15 seconds, repeated every minute throughout the test. Around half of the test is in the dark and half in bright light. Because of the eye drops your child may find it bright for some time afterwards, so you might want to bring sunglasses or a hat for them to wear outside.

☐ **Multifocal ERG (mfERG) test:**

This test is best suited for more grown-up children and young adults. For this test we need to place sticky pads on your child's forehead and near their eyes. It involves concentrating on a pattern on a screen for quite a while and sitting quite still. If your child has not had an ERG test just before this test, we will use an eye drop to dilate their pupils.

Please bring your child's glasses with you, along with their prescription if possible, as they will be useful for this test.

Because of the eye drops your child may find it bright for some time afterwards, so you might want to bring sunglasses or a hat for them to wear outside.

Contact details

Please let us know immediately on the number below if you are unable to attend your appointment. If you fail to attend without informing us, you will not automatically be given another appointment.

For any queries or further information please do not hesitate to contact us on:

0116 258 5685

Visual Electrophysiology Service, Department of Medical Physics

Sandringham Building, Leicester Royal Infirmary LE1 5WW

**For a copy of this leaflet in
large print call 0116 258 5685**

اگر آپ کو یہ معلومات کسی اور زبان میں درکار ہیں، تو براہ کرم مندرجہ ذیل نمبر پر ٹیلی فون کریں۔
على هذه المعلومات بلغة أخرى، الرجاء الاتصال على رقم الهاتف الذي يظهر في الأسفل

જો તમને અન્ય ભાષામાં આ માહિતી જોઈતી હોય, તો નીચે આપેલ નંબર પર કૃપા કરી ટેલિફોન કરો

ਜੇ ਤੁਸੀਂ ਇਹ ਜਾਣਕਾਰੀ ਕਿਸੇ ਹੋਰ ਭਾਸ਼ਾ ਵਿਚ ਚਾਹੁੰਦੇ ਹੋ, ਤਾਂ ਕਿਰਪਾ ਕਰਕੇ ਹੇਠਾਂ ਦਿੱਤੇ ਗਏ ਨੰਬਰ 'ਤੇ ਟੈਲੀਫੋਨ ਕਰੋ।

Aby uzyskać informacje w innym języku, proszę zadzwonić pod podany niżej numer telefonu

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