



# Glasses and testing for glasses (Hospital Refraction)

## Information for patients from the Orthoptics Department

You have been given this leaflet by your orthoptist, as they have decided that your child needs to be tested for glasses. This leaflet aims to answer any questions you may have, but if you still have concerns please discuss these with your orthoptist.

### Why do people need glasses?

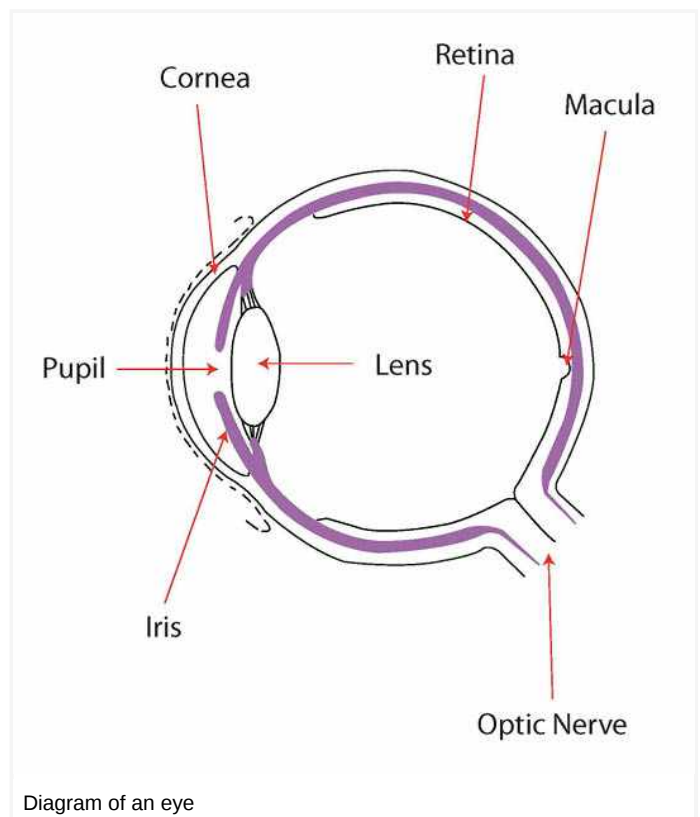
Glasses are needed when light rays do not come to a common focus on the retina (back of the eye), for example the image of the object is not sharply defined.

The ability to see starts when light rays pass through the eye, and it passes both the cornea (clear surface on the eye front) and the lens inside the eye that help bend and focus the light rays.

Any irregularities in corneal or eye shape results in a visual defect known as a refractive error. This includes hypermetropia, myopia, and astigmatism.

### What are the differences between hypermetropia, myopia, and astigmatism?

- **Hypermetropia** is also known as long sightedness, and means that you are more likely to see better at long distance than short distance.
- **Myopia** is also known as short sightedness, and means that you are more likely to see better at short distance than long distance.



- **Astigmatism** is the term given to an eye that has an irregular curvature of the cornea. Rather than the uniform curving such as a football, the eye is more curved in one direction than the other, like a rugby ball. Light rays passing through the eye will not have a common focus, and will cause blurred vision at all distances.

### Who will arrange our refraction appointment?

A refraction appointment is generally arranged by the orthoptist as a routine assessment.

### What will happen when we arrive for my child's appointment?

Report to the Outpatient reception and you will be directed to the Eye Department.

All children will see / have seen the orthoptist first, for the usual orthoptic tests. You will stay with your child for each part of their assessments.

### What will happen at the refraction appointment?

- Cycloptolate drops will be needed to dilate your child's pupil and relax their focussing. This will enable the optometrist or ophthalmologist to gain an accurate test for glasses and assessment of the eye's health.  
The drops will be put in by the orthoptist or optometrist, and will take at least 30 minutes to work. During this 30 minutes you are free to have a drink or something to eat, or for your child to play in the waiting area.  
If your child has dark eyes, we may need to instill two sets of drops.
- When your child's pupil is enlarged, the optometrist or the ophthalmologist will have a clear view of the back of your child's eye. By moving a line of light across their retina, they will be able to judge what strength of glasses are needed.
- If glasses are needed, a prescription will be given to you to take to your local optician for the glasses to be made up. For more information, please ask a member of staff for a copy of the Trust leaflet How to get your child's glasses (<https://www.ekhft.nhs.uk/information-for-patients/patient-information/?i=leaflets>).

**The drops take at least 30 minutes to take effect, so you must allow at least one hour for your whole appointment.**

### Will the drops hurt?

The drops may sting slightly when they are put in; this is normal and nothing to worry about.

If it is a bright day, a peaked hat or sunglasses may make your child more comfortable following their test, as dilated pupils are more light sensitive.

### Will my child need a follow-up appointment?

Yes. A follow-up orthoptic appointment will be arranged, so we can check your child's vision with their new glasses.

### **How long will my child's eyes be effected by the drops?**

- Your child's vision will be blurred for up to six hours after dilation.
- Your child's pupils will be enlarged for 24 to 48 hours.

This is perfectly normal and nothing to worry about.

### **Will my child "grow out" of their glasses?**

This depends on the general changes with growth of your child's eye shape and size. It also depends on what prescription strength they need. Each case is individual, but most need glasses throughout childhood whilst their visual system is maturing, and on into adult years when contact lenses may then be a possible alternative.

Some children may "grow out" of the need for glasses, and your orthoptist, optometrist, or ophthalmologist will discuss whether this is happening for your child at their regular check-ups.

### **What happens if my child does not wear the glasses?**

We encourage your child to wear the glasses full time, and allow your child to "settle into" the glasses. Most children with a visual weakness will happily wear their glasses. However, some of those who manage to compensate for the weakness may need more time to "settle into" theirs. In the worst-case scenarios, drops may be prescribed to encourage this. This can be discussed with your orthoptist.

### **What are the benefits?**

- If found and corrected early enough, your child will be able to see well and their eyesight will develop normally.
- Any residual weakness in your child's eyesight may then be treated more effectively, for example occlusion (patching) treatment.
- Eyestrain would be avoided.

### **Are there any risks?**

- If your child has a significant refractive error that is not corrected at an early enough age, there is the risk that their eyesight will not develop normally, and their ability to see well will never be achieved. This may mean that they are unable to drive. A child's eyesight is still in its developmental stages up to around eight years of age.
- Problems with eyesight may also affect your child's ability to concentrate, and may affect learning and schoolwork.

- As with all medication, there may be side effects with the eye drops. Although rare, they may cause a slight rise in body temperature and general irritability.

### Further information

We hope that this leaflet has answered your questions. However, if you still have concerns that you would like to discuss with your orthoptist, please telephone 01227 868615.

For further information visit the following web sites

- All About Vision (<https://www.allaboutvision.com>)
- British and Irish Orthoptic Society (<https://www.orthoptics.org.uk>)

### Glossary

- An **ophthalmologist** is a doctor who specialises in the diagnosis and treatment of eye diseases.
- An **orthoptist** is a person who specialises in the detection of and management of eye movement disorders.
- An **optometrist** is a person who specialises in investigating the need for glasses, and in checking the health of the eyes and visual system.
- An **optician** is a person who dispenses glasses.

**This leaflet has been produced with and for patients.**

If you would like this information in **another language, audio, Braille, Easy Read, or large print** please ask a member of staff. You can ask someone to contact us on your behalf.

**Any complaints, comments, concerns, or compliments** please speak to your doctor or nurse, or contact the Patient Advice and Liaison Service (PALS) on 01227 783145 (tel://+441227783145), or email [ekh-tr.pals@nhs.net](mailto:ekh-tr.pals@nhs.net) ([ekh-tr.pals@nhs.net](mailto:ekh-tr.pals@nhs.net))

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**Further patient leaflets** are available via the East Kent Hospitals website (<https://www.ekhuft.nhs.uk/information-for-patients/patient-information/>).

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