NHS
Oxford University Hospitals
NHS Foundation Trust

Amblyopia (Lazy vision)

Information for parents and carers

Orthoptic Department
Oxford Eye Hospital

This leaflet explains what amblyopia is, what causes it and how it can be treated.

What is amblyopia?

Amblyopia occurs when the vision in one eye does not develop fully during early childhood. Amblyopia can usually be corrected if it is treated early. If amblyopia is not diagnosed early enough or if it is left and not treated it can become permanent.

Treatment involves making the amblyopic (lazy) eye work harder by covering the good eye with a patch. This means that the lazy eye is doing all the 'seeing'.

Understanding the development of vision

Newborn babies can see, but their vision is of a very low level. The nerve connections between the eye and the brain undergo rapid development during the early months and years of life.

Vision is a learnt process and is dependent on both eyes working together and receiving a clear image. The image received at the back of each eye passes along nerves leading to the part of the brain responsible for vision (visual cortex). The cells in this area of the brain need stimulation and interaction between both eyes to develop normally and ensure good vision. If, for any reason, a young child cannot use one eye normally, then these cells won't develop, resulting in poor vision in that eye (amblyopia).

What can cause amblyopia?

Various eye disorders can cause amblyopia.
The three main causes are:

1. Squint (strabismus)

A squint is a condition where the eyes do not look in the same direction. As the eyes are not straight (aligned), they focus on different things. This results in the brain ignoring the signal from one eye, to avoid seeing double. This means that only one eye is used to focus on objects. Most cases of squint occur in early childhood, which is the critical time when the brain is learning to see.

2. Anisometropia

This means that the eyes do not have equal focusing ability. This can be due to the amount of long sight, short sight or astigmatism (refractive error) being different in each eye (for full explanation please see leaflet *'Children's Glasses'*). The brain will favour the eye receiving the clearer image and ignore the input from the eye with poor focusing ability. This results in vision not developing normally and the eye becoming 'lazy'.

3. Other disorders that prevent clear vision

Any disorder in a young child that prevents good vision can lead to amblyopia. This could be:

- a cataract (cloudy lens)
- a droopy eyelid (ptosis)
- a swelling on the eyelid or skin around the eye socket (such as a birthmark).

How is amblyopia diagnosed?

Amblyopia can be diagnosed by examining your child's eyes and testing their vision. Different techniques are used to test vision, depending on the age of your child. If your child already has a squint they will be monitored carefully to see if amblyopia develops.

Children in Oxfordshire are offered a vision test during their first year at school. This is carried out by a school nurse trained by an Orthoptist. One of the main reasons for this test is to detect amblyopia whilst it is still treatable.

How will having amblyopia affect my child?

If your child has permanent amblyopia, they will not be able to see normally out of one eye. How badly their sight might be affected can vary. Although your child may be able to see well enough out of one eye to get by, it is always best to have two fully functioning eyes.

Even with mild amblyopia your child may not have a good sense of depth when looking at objects. This could make some tasks more difficult such as confidence with going down steps, threading beads, ball catching. There are also some jobs which require you to have two good eyes (for example, pilot, lorry driver, firefighter).

If your child only has good vision in one eye, they are at risk of severe sight problems if they have an injury or disease in their good eye later in life. This is why we always recommend treatment if it is likely to help improve the vision in their 'lazy' eye.

What is the treatment for amblyopia?

Treatment includes:

- Correction of the refractive error (long or short sight or astigmatism) with glasses. Your child will normally need to wear these for at least 16 weeks to allow their vision to adjust and continue to wear them as much as possible until aged 8 years of age, at least.
- Using a patch to train the amblyopic eye to work properly. This stops your child being able to use their good eye and forces their affected eye to work. This allows the visual development to 'catch up'.

Making the affected eye work with patching

This is done by patching of the good eye (occlusion). This may be with a sticky patch over your child's eye, with glasses worn over the top of the patch (if usually worn), or with a patch over the glasses. The patch used may be sticky or made of fabric which both come in a range of designs, or, less commonly tape may be given and covers the lens of the glasses. The Orthoptist will advise on the best type for your child, but it is also important for your child to be involved with choosing their eye patch.

The Orthoptist will advise you on the number of hours the patch needs to be worn for each day. We have a separate leaflet for advice and suggestions on how to get your child to wear their patch. Please ask for our *'Success with patching'* leaflet.

Will the lazy eye achieve normal vision?

The aim of treatment is to achieve the best possible vision in your child's amblyopic eye, but it is unlikely that the level of vision in both eyes will be equal after treatment.

However, any improvement is beneficial and significant. The aim is to improve your child's vision in their amblyopic eye to the level required for driving. This will help them if their good eye was to lose sight later in life. The level of vision required to drive is 6/12 on the letter chart. This is approximately one and a half lines below 6/6, which is considered 'normal' vision. However, it is sometimes not possible to achieve this level. This can be for a number of reasons:

1. How well your child copes with the treatment

This is one of the main factors that can affect the outcome of your child's treatment. If your child doesn't want to wear their patch or glasses it will mean their total treatment time will be extended, as it will take longer to see any improvement. Using star charts, rewards and perhaps a special treat if the patch or glasses are worn every day until their next visit can all help.

2. The age your child is when they start treatment

The older a child is when they need treatment for amblyopia, the slower the improvement. This is because, as a child nears the end of their visual development at 7-8 years of age, it becomes much harder to re-activate the cells in the brain which are used for vision. As a rule, the younger a child starts treatment, the better the outcome.

3. The type of amblyopia your child has

There are different types of amblyopia. These depend on what has caused the amblyopia to develop.

If your child has a combination of types (for example, due to a squint and anisometropia) their response to patching or glasses may be slower or less effective.

If your child has anisometropic amblyopia and no squint they are likely to respond quicker to treatment.

4. **Starting level of vision in the amblyopic eye**

   The lower the vision in the eye with amblyopia, the more 'catching up' has to be done. This can take longer and can be much harder for a child to cope with.

Very occasionally and for reasons that are not known, there is very little or no improvement in vision with patching or glasses, despite the parent's effort and the child's hard work. This is rare, but understandably disappointing.

Will patching correct my child's squint?

Some people may think eye patching is a treatment to correct the appearance of a squint. Eye patching and other treatments for amblyopia aim to improve vision, but don't generally help correct the appearance of a squint. However, it is sometimes found that by making the vision stronger, the 'lazy' eye is used more and the size of the squint becomes less.

Additional information about squint can be found on the following websites:

NHS website:

www.nhs.uk/conditions/squint/

Squint Clinic:

www.squintclinic.com

How to contact us

If you have any further questions, please contact the Eye hospital

Phone: **01865 234 567**
and listen for the option for the **Orthoptic Department**

Monday–Friday, 8.30am–4.30pm

Further information

If you would like an interpreter, please speak to the department where you are being seen.

Please also tell them if you would like this information in another format, such as:

- Easy Read
- large print
- braille
- audio
- electronic
- another language.

We have tried to make the information in this leaflet meet your needs. If it does not meet your individual needs or situation, please speak to your healthcare team. They are happy to help.

Author: Claire MacIntosh
Head of Orthoptics: Jacqui Greenhalghl
October 2025
Review: October 2028
Oxford University Hospitals NHS Foundation Trust
www.ouh.nhs.uk/information

Leaflet reference number: OMI 113211