Lazy eye in children

We have given you this factsheet because your child has been diagnosed with a lazy eye. A lazy eye can be treated in several different ways. This factsheet contains information about the two most common treatment options available. We hope that it will help you to make an informed decision regarding your child's treatment.

In addition to this factsheet, you will also have individual discussions with your child's orthoptist and eye doctor. If you have any further questions or concerns, please contact us using the details at the end of this factsheet.

What is a lazy eye?

Amblyopia, or 'lazy eye', is a childhood condition where the vision does not develop properly in one eye.

The term 'lazy eye' is sometimes confusing. You may hear it used to describe a droopy eyelid or an eye that turns. These conditions are not medically known as a lazy eye. We have separate information leaflets on droopy eyelid (ptosis) and eyes that turn (squint).

What causes a lazy eye?

A child's visual system develops from birth until about eight years of age. During this time, the eyes learn to communicate with the brain and the optic nerves need to be stimulated by clear images from the eyes. Any eye problems in this time can lead to a lazy eye.

There are two common causes of a lazy eye:

Long or short sight

If one eye is more long-sighted or more short-sighted than the other, the weaker eye will send a blurred image to the brain. This may affect the connection between the weak eye and the brain, causing a lazy eye.

Squint

A squint is when one eye turns in a different direction to the other eye. The child's brain may ignore the image from the eye with the squint, which will affect the development of the connection between the eye and the brain. Squints and lazy eyes are often found together.

How is a lazy eye treated?

The main ways to treat a lazy eye are glasses and eye patching or glasses and atropine occlusion (eye drops). In some cases, glasses will improve the vision in the lazy eye and your child may not need further treatment.

If glasses do not improve the vision in the lazy eye, or if your child does not need glasses, then eye patching or atropine occlusion may be required. The aim of eye patching and atropine occlusion is to make the lazy eye work harder to try to catch up on the development it has missed. For eye patching, this is done by covering the stronger eye for a period of time each day. For atropine occlusion, this is done by using eye drops to blur the vision in the better eye.

Whichever treatment option you choose, it is important to start treating your child's lazy eye as soon as possible. This is because the vision system matures at about eight years of age, and it is usually not possible to treat a lazy eye after this time. Typically, the younger the child, the quicker their vision will improve.

Patching

The patch is used to cover the better eye so that the weaker eye has to work.

There are several different types of eye patch. Some are like plasters that stick over the eye, and some fit onto the glasses. The orthoptist will discuss the best type of patch for your child with you and show you how to use them. They will also advise how long the patch should be worn for (this is usually for between two and six hours each day).

If your child usually wears glasses, they should continue to wear them while patching. This ensures that the eye can see as clearly as possible and gives the patching the best chance of strengthening the vision.

The orthoptist will monitor your child's vision regularly while they are using the patch, and will advise you when you can stop patching (most children need to continue patching for several months).

What should my child do when they are wearing the patch?

Detailed visual tasks with the patch on help improve the vision. If your child is old enough, encourage them to read, write, draw, use the computer or watch television while wearing the patch. Your child will not be able to see as well as usual when wearing the patch, so you will need to take extra care to avoid accidents. They should avoid running around, particularly outside. It is best to take the patch off for sports.

Many children tolerate the patch better at school and the detailed schoolwork can help improve their vision. However, some children prefer not to wear the patch at school. You can discuss the best options with your child's orthoptist. If you are patching at school, speak to your child's teacher before starting the patching to explain that your child may find schoolwork more difficult with the patch on and to ensure that their progress is carefully monitored. You should also discuss whether the patch could be kept on at break times.

How can I encourage my child to wear the patch?

Your support is vital in helping your child to accept the patching. For older children, explain why they need to wear a patch. For younger children, make the patching into a game. There are a variety of websites with tips to help patching, and games to play with the patch on. A list of these websites is available in the orthoptic department.

Try to keep your child occupied when wearing the patch. Consider patching at nursery or school rather than at home. The orthoptic department has charts for you to take home to record the days when your child wears the patch. We also have sheets for colouring and drawing.

Atropine occlusion (eye drops)

What do atropine eye drops do?

Atropine drops temporarily dilate (widen) the pupil and stop the eye from focusing. You should use the drops to blur the vision in the better eye so that your child is encouraged to use the weaker eye.

Atropine eye drops may not be suitable for your child if they have:

- an allergy to any medication (including atropine sulphate)
- an existing heart condition
- high blood pressure
- seizures
- a fever (a temperature of 38°C or above)

When should I use the drops?

You should only use the drops on weekends. Put one drop into your child's better eye once on Saturdays and once on Sundays.

Where do I get the drops?

The drops come in small, single-use plastic bottles called minims. We will either give you eight atropine minims bottles for the first four weekends or the eye doctor will write a prescription for the first four weekends' supply of atropine. You can take this to any pharmacy. We will write to your child's general practitioner (GP) and ask them to give you further prescriptions for atropine. Please contact us if you have any problems getting the drops.

How long should my child use the drops for?

It usually takes several months of using the drops at weekends to treat the vision in the lazy eye. The orthoptist will monitor your child's vision carefully, and discuss when you should stop using the drops. Even if the treatment is not complete, we usually stop the drops after six months for a month to give the eye a rest.

How long do the effects last for?

It can take up to two weeks for the effect of the drops to wear off completely. Your child will have blurred vision in one eye while using them.

How often will my child be seen in hospital?

The orthoptist will review your child one month after they start the drops and then every two months after this. You can contact us between appointments if you have any concerns.

Can my child continue normal activities while using the drops?

Yes, but they will have blurred vision. You should inform your child's school or nursery and other carers about these effects. Detailed visual activities (such as reading, writing, using a computer, or watching TV) help stimulate use of the lazy eye.

If your child usually wears glasses, they should continue to wear their glasses while using the atropine drops, so that their weaker eye has the clearest possible vision.

You will need to take extra care to avoid accidents. Each child is different, but it is usually best to avoid sports while the vision is blurred. Your child may find it helpful to wear a hat or sunglasses outside in bright weather.

Side effects

Side effects commonly seen in practice include:

- a stinging sensation when the drops are put in (this usually wears off after a couple of minutes)
- blurred vision (especially for close work such as reading)
- a sensitivity to bright light while the pupil is large (wearing a hat or sunglasses may help)

Please let us know if you are concerned about any of these side effects.

Side effects rarely seen in practice include:

- itchy or swollen eyelids
- red, watering eyes
- fewer tears
- a feeling of pressure inside the eye
- dryness of the skin or mouth
- skin rashes
- difficulty swallowing
- a high temperature (38°C or above)
- flushing of the face
- restlessness, excitement or irritability
- an irregular heartbeat
- difficulty passing urine (weeing)
- gastrointestinal upset (for example, diarrhoea or vomiting)

Please stop the drops and let us know immediately if your child experiences any of the rare side effects.

As with all medicines, there is a very small risk of having a severe, life-threatening allergic reaction (anaphylaxis).

In the very unlikely event that a severe side effect occurs, please seek urgent medical help. Call **999** for an ambulance or take your child to your nearest emergency department.

Some additional extremely rare side effects have been reported. For a full list of the potential side effects, please visit: **www.medicines.org.uk/emc/product/3738/pil#about-medicine**

Please note that atropine is poisonous if swallowed. Make sure that you only use the eye drops as prescribed and keep them out of the reach of children.

Frequently asked questions

Will the patching or atropine drops help my child's squint?

Patching or atropine drops will only treat the reduced sight in the lazy eye. It will not stop the eye from squinting. We can treat some squints with glasses or an operation on the muscles that move the eye. If your child needs an operation for a squint, we will use patching or atropine drops to improve the vision as much as possible first.

Will the lazy eye return after we stop patching or atropine drops?

In many children, the improvement will last, but for some children the lazy eye will return. The orthoptist will monitor your child's vision and advise you if you need to start patching or atropine drops again. Most children will need to continue wearing their glasses after they stop patching or atropine drops.

Contact us

Orthoptic department
Telephone: **023 8120 4789** (Monday to Friday, 8am to 5pm)

Eye emergency department
Telephone: **023 8120 6592** (Monday to Friday, 8am to 7.30pm, weekends and bank holidays, 8am to 6pm)

Useful links

www.squintclinic.com

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For help preparing for your visit, arranging an interpreter or accessing the hospital, please visit **www.uhs.nhs.uk/additionalsupport**

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