

## Additional Notes

# Treatment for Amblyopia

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## What is Amblyopia?

Amblyopia is reduced vision in an eye that has not developed normally during the developmental stage of childhood. It is often called a 'lazy eye'. Visual development occurs in the early years of life and continues until approximately 7 years of age. If the eye and brain do not receive a clear, focused image during this time of visual development, the child's vision will be reduced, hence the term 'lazy'.

## What causes Amblyopia?

There are a number of causes of amblyopia, but the most common are as follows:

### Squint (Strabismus)

This is when an eye turns. If this occurs in childhood, the eye 'switches off' to avoid double vision. As a result the eye is not stimulated and the vision in that eye does not develop.

### Unequal Focus

When your child requires significantly different prescriptions in each eye, they will use the eye that is easier to focus and the other eye will receive an unfocused (blurred) image.

The unfocused eye will become 'lazy'. This condition is called anisometropia and is one of the most difficult types of amblyopia to detect.

## With atropine treatment:

Many children do not like having drops instilled. As the pupil is dilated, your child may be more sensitive to light, particularly in summer months, so ensure your child has sunglasses or a hat, and that they can sit facing away from the window.

Atropine is not licensed to treat amblyopia specifically, but has been used successfully in this way since the early 1950s.

## How long will my child be having Amblyopia treatment?

The treatment of amblyopia is an individual process. It is important you attend regular appointments at the hospital so the orthoptists can monitor your child's vision and advise you when to stop the treatment.

## Does Amblyopia treatment correct a squint?

No. This will not affect the amount the eye turns; it is done to improve the vision in the squinting eye. Treatment for amblyopia is carried out before treatment for a squint (surgery) is considered.

## More questions?

Your child is an individual and each case is different, please discuss any queries or difficulties with your Orthoptist, who is there to help and advise you.

Orthoptic secretary: **0300 019 4422**

## How should the patch be worn?

The patch should be worn as instructed over the better seeing ('good') eye. If issued, glasses should be worn full time, the patch is in addition to glasses for the time specified by your Orthoptist each day.

There are two types of patch; the most common is a plaster-like patch that should be stuck over the eye, with glasses worn over the top of the patch.

There are specially designed patches that can be fitted over the glasses lens, however children may look around the patch which makes the treatment ineffective as they will continue to look with their better seeing eye. This form of patching will be offered by the Orthoptist if appropriate.

## How is Atropine used?

Atropine is a drop that causes blurring of the better seeing eye by dilating the pupil, and by relaxing the focusing power of the stronger eye, encouraging the weaker eye to work harder. Glasses should be worn all the time if prescribed alongside atropine. You will be given the eye drops in the form of an Atropine Minim - this is an individual dose that is discarded after use. The small plastic bottle can be quite hard to squeeze. You will need to instil atropine eye drops twice per week to achieve the desired effect.

Always wash your hands before instilling any eye drops. You should put one drop into your child's better seeing eye as instructed by your Orthoptist. Pull the eyelids apart and put one drop in the eye being careful not to touch the surface of the eye with the applicator. If the drop misses the eye you can attempt a second drop, but never try more than twice. You may find it easier to put the drops in when your child is asleep.

Atropine should be stored out of the reach of children, in a cool dry place and out of direct sunlight. Throw away each minim after use even if there is some solution left.

The resultant blur from using atropine can last up to 7 days after the last instillation; the pupil may stay dilated for up to 14 days.

Atropine drops are not suitable for everyone. For example they should not be used in children with inflammation of the eye, heart abnormalities or a high temperature (fever). Atropine will only be offered to your child as a treatment if they are suitable.

There are a few rare side effects of atropine that you should look out for, if any of the following are noted please stop the use of atropine immediately and seek medical advice:

- Hot flushed appearance
- Dry mouth
- Sore red eye
- Rash

- Headaches
- Nausea
- **Atropine is poisonous if it is swallowed or eaten.** If you suspect this has occurred take your child immediately to the nearest Accident and Emergency department.

## Will my child be able to do all normal activities whilst undergoing treatment?

Your child may initially find the treatment challenging. It may be difficult for your child to perform visual tasks to the same ability. This is because they will be using their weaker eye in which vision is reduced; however, it is the only way to ensure that your child will have two useful eyes as an adult. As the vision starts to improve, tolerance should improve.

Be patient with your child as they may find some tasks more difficult than usual. They may be less co-ordinated and need extra supervision. It is also important that if your child attends school, that the school is aware of the ongoing treatment and how it affects your child.

## How do you know my child has Amblyopia?

An Orthoptist, who has been specially trained in the visual assessment of children, has seen your child. They will have detected a difference in the vision between the two eyes or found a problem that is known to cause amblyopia.

An Ophthalmologist (eye doctor) will examine your child's eyes to find out if they need glasses and if there is a reason for the reduced vision. If the eye is normal but the vision is reduced, a diagnosis of amblyopia is made.

## How can Amblyopia be treated?

Amblyopia is treated by encouraging the use of the weaker eye and stimulating the vision. This can be done either with the use of a patch over the better seeing eye for a period of time every day (occlusion therapy); or by instilling an eye drop (Atropine) that causes blurring of the sight in the better seeing eye.

## How successful is Amblyopia treatment?

Amblyopia treatment will only work if used as instructed. It may be more effective the earlier it is started after the diagnosis of amblyopia has been made. Treatment of amblyopia becomes significantly less effective after the age of 7 years.