

Amblyopia Treatment

For Patch / Atropine 1% eye drops

Right / Left eye

Frequency

What is amblyopia?

Amblyopia (often called lazy eye) is reduced vision due to something preventing normal visual development in early childhood. A child's visual system develops from birth to at least 8 years of age and any problem that prevents the eye from forming a clear image during this time can cause amblyopia. Usually only one eye is affected but amblyopia can affect both eyes.

What causes amblyopia?

1. A refractive error (need for glasses) can lead to amblyopia in both eyes if glasses are not worn from a young age. This is most likely to happen if a child is highly longsighted or has astigmatism.
2. A difference in the glasses prescription required between the two eyes. The eye needing the stronger prescription will only form a blurred image.

3. A squint (turn in the eye) when the brain will ignore the squinting eye so that it is not used.
4. An obstacle blocking light stimulation to the back of the eye such as a droopy eyelid or cataract (cloudy lens).

How is amblyopia treated?

If a child needs to wear glasses, these will be prescribed and the child advised to wear them full time. Sometimes the vision will improve over time by wearing glasses and this may be the only treatment needed.

If the vision remains reduced after wearing glasses for a while or the child does not need glasses, amblyopia is treated by covering or blurring the eye with the better vision to stimulate the lazy eye.

This is done by wearing a patch over the better eye or using atropine eye drops which blur vision in the better eye for near tasks.

Which treatment is best for my child?

This will depend on the age of your child, your preference and how reduced the vision is in the lazy eye. The Orthoptist will discuss the options with you fully to allow you to choose the treatment that is right for your child.

Patching

An adhesive patch stuck to the skin is a very effective way to treat amblyopia; this will prevent any peeping around the patch. If glasses are needed these are worn over the patch. Most children tolerate an adhesive patch well with encouragement. Patches are available in designs that appeal to children to help encourage wear.

For some children when the level of vision in the lazy eye is only slightly reduced non-adhesive patches worn over glasses are available. However this makes it much easier for the child to peep around the patch and therefore this type of patch is only suitable in some cases.

Sometimes a child will refuse to wear their patch or keep removing it after it has been applied and in this situation treatment with eye drops can be more effective.

Atropine Sulphate (Sulfate) 1% eye drops

Atropine drops are a long acting eye drop that blur near vision in the better eye and also cause dilation (enlargement) of the pupil. Atropine can be a good option for a child who is or is likely to be very resistant to wearing a patch or for a child who is at school and doing a lot of close work.

As atropine also dilates the pupil a child is likely to be more sensitive to sunlight and need to wear a peaked cap or tinted glasses during treatment when playing outside.

Atropine like all medicines will have the potential to cause side effects although these are relatively uncommon and generally mild. Local side effects around the eye include swelling of the eye lids, redness of the conjunctiva (white part of the eye), and local irritation. Side effects in other parts of the body are much less likely but the following can occasionally occur:

- Dry mouth
- Flushing and dryness of the skin
- Increased body temperature
- Constipation or difficulty passing urine
- Fast heart beat
- Nausea and vomiting
- Giddiness

If your child suffers from any side effects that cause you concern or are not mentioned in this leaflet please speak to the pharmacist or your child's doctor.

(Source: British National Formulary November 2016)

Atropine is used with caution in children with Down's Syndrome who are more sensitive to its effect or any child who is at risk of developing raised pressure in the eye when the pupil is dilated.

How can I help my child during treatment?

Some children tolerate treatment very well whilst others find it difficult. Your support is vital in helping your child to accept the treatment.

1. In older children explain the reason for treatment.
2. Consider incentives such as star or reward charts, if appropriate, to the age of your child.
3. Detailed visual tasks help to improve the vision, so encourage them to read, draw, do puzzles or computer games as much as possible.
4. If your child is using a patch they will not be able to see as well when it is on so you will need to take extra care to avoid accidents.
5. If using patches consider wearing them at nursery or school rather than home.
6. Contact the orthoptic department as soon as possible if you have any concerns about your child's treatment and do not wait until their next appointment.

How effective is the treatment?

The earlier amblyopia is diagnosed and treated the more successful treatment will be. For most children the vision in their weaker eye will show an improvement if treatment is carried out as prescribed. If treatment is not carried out amblyopia will not get better and may get worse leaving your child with a life long impairment of their vision. Amblyopia cannot be treated in adulthood. Your child will have regular appointments with the Orthoptist during their treatment to monitor progress and adjust their treatment as necessary.

Will the eye become lazy again when treatment stops?

Treatment is usually tailed off gradually and your child will be monitored regularly to ensure that any improvement is maintained. Your child will not be discharged from our care until treatment is complete and their vision is stable. Most children who have been treated for amblyopia will remain under our care until at least 6 years of age.

The Trust cannot accept any responsibility for the accuracy of the information given if the leaflet is not used by Royal Devon staff undertaking procedures at the Royal Devon hospitals.

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