

Amblyopia treatment guide

Orthoptic Department

The prevention of infection is a major priority in all healthcare and everyone has a part to play.

- Wash your hands with soap and warm water and dry thoroughly. Use hand gel, if provided, in care facilities.
- If you have symptoms of diarrhoea and vomiting stay at home and do not visit relatives that are vulnerable in hospital or in residential care. You will spread the illness.
- Keep the environment clean and safe. Let's work together to keep it that way. Prevention is better than cure.

What is Amblyopia?

Amblyopia is also known as having a 'Lazy eye'.

It is reduced vision in one or both eyes that occurs during the critical period of vision development.

What causes Amblyopia?

Amblyopia is caused by the brain not receiving a clear image from one or both eyes meaning the visual connections are unable to develop at the expected rate.

This may be due to:

- **Strabismus** (a squint). A misalignment of the eyes, e.g. one eye tuning inwards, outwards, upwards or downwards. This results in the brain ignoring the image from one eye.
- **Anisometropia**. This means that the two eyes have a different level of refractive error (long-sightedness, short-sightedness or astigmatism) in each eye. The brain will favour the eye with the lower refractive error as it will be receiving the clearest image.
- **Stimulus deprivation**. This is a range of conditions that prevent the eye from receiving a clear image by causing a physical blockage such as ptosis (droopy eyelid) or cataracts. As the brain isn't receiving a clear image, the visual connections cannot form as well. Once the 'block' to vision has been removed / treated, the vision does not fully improve on its own as the visual connections have not had chance to develop.

How do you test for amblyopia?

If, at the first visit your child has reduced vision in one or both eyes, we will arrange for them to have a refraction (glasses check).

At the refraction appointment, we check if they have any refractive error (need for glasses) and check the health of the eye. This allows us to rule out any underlying problems within the eye that may be causing reduced vision.

If they have no need for glasses, we may start treatment at this appointment or bring your child back to reassess their vision. If we find a need for glasses, we will prescribe these and review your child in four months to check their vision. Research shows that this is the time it takes to fully adapt to the effect of the lenses.

If there is still a reduction in vision in one eye, even with their glasses on, we would then start treatment. It is important to have good compliance, wearing the glasses as much as you have been advised, before starting further treatment.

What are the treatment options?

There are two treatment options available, both known as occlusion. These are patching or the use of atropine drops. These are explained in further detail below.

Can I wait for my child to be older, for them to receive treatment?

Most of the visual development happens before age 7. After this point research shows it is harder to get an improvement in vision. This is why it is important to start treatment as young as possible.

Patching (Occlusion)

What is patching?

Patching involves your child wearing a patch on their 'good' eye to encourage the use of the amblyopic (weaker) eye.

How long does my child need to wear the patch?

The number of hours your child needs to wear the patch for each day depends on their level of vision. Your orthoptist will tell you how long your child needs to wear the patch for.

How regular are follow-up's?

Your Orthoptist will advise about this. Follow-ups will be arranged about every two months.

Can the sticky patch go on top of their glasses?

The patch needs to be worn directly on the skin with the narrow part towards the nose. If your child wears glasses they need to wear these over the top of the patch. If the patch is on the glasses they may peek. This would cause the treatment to be unsuccessful.

There are cloth patches that fit onto glasses that you may buy online. We do not provide these as there is a higher risk of children peeking while wearing these.

I've run out of patches what shall I do?

We aim to provide you with enough patches, but if you do ever run out, please contact the department and we may be able to post some out to you.

Atropine Occlusion

What is Atropine?

Atropine is an eye drop that dilates the pupil (makes the black part of the eye bigger) and relaxes the focusing of the eye. This results in temporary blurred vision for near. The drop is instilled into the good eye to blur the vision which will then encourage the use of the weaker eye.

How often do I put a drop into my child's eye?

One drop of atropine should be instilled at the weekends, i.e., one drop on Saturday and one drop on Sunday each week until your next appointment.

How regular are follow-up's?

Your Orthoptist will advise about this. Follow-ups will be arranged around every 4 weeks.

How long do the effects of atropine last?

Your child's vision may remain blurred for several days (sometimes up to 10 days) and the pupil may remain dilated for up to 14 days.

Are there any side-effects of atropine?

Due to having a dilated pupil, your child may be more sensitive to light. They may also hold books closer due to the blurring effect.

If your child has a reaction to the drops contact the department for advice (Refer to the instruction sheet that the orthoptist will give you). Alternatively, contact your G.P. or local healthcare provider outside of clinic hours.

What should I do if I forget a dose?

Use the eye drops as soon as you remember the missed dose. However, if it is almost time for the next dose, skip the missed dose and continue the regular dosing schedule. Do not use a double dose to make up for a missed one.

Which treatment option is best?

Research has shown these are both equally effective, so you will have a choice about which treatment you prefer for your child. Your orthoptist will be able to talk you through the pros and cons of each treatment in relation to your child.

It is important to attend appointments while your child is receiving this treatment so we can monitor their improvement and tailor treatment plans accordingly.

How long does treatment take?

Treatment is expected to be effective, but it's a gradual process that takes many months to work. If treatment is stopped too soon, any improvement may be lost.

There is no set length of treatment. We will closely monitor your child's vision at each visit and once it has reached a stable level, we will wean them off the treatment to ensure their vision remains stable.

Will this treatment improve my child's squint?

No. The aim of this treatment is to improve the vision of the weaker eye.

If your child has a turn in their eye you might notice the turn intermittently swapping to the other eye. Don't worry if this is the case, as the squint swapping from side to side is a sign of the vision improving in the weaker eye. Let your orthoptist know at your next appointment if you have noticed this. If the squint swaps completely over to the other eye, when not wearing the patch, please contact the Orthoptic department by phone for advice.

Will my child's vision drop again once treatment is stopped?

In order to prevent vision dropping down again after treatment we wean your child off treatment. We will keep your child under review immediately after stopping any treatment to ensure their vision remains stable. In some cases, if there is a significant drop, we may need to recommence treatment.

What do I do if I'm struggling to get my child to comply with treatment?

It is important to be honest with how well you are following the treatment. It can be difficult to get children to want to comply with treatment. We have reward posters available to those doing patching to try and help with compliance. You also have the option of swapping which treatment option you have chosen so if you are finding it difficult to get your child to keep a patch on you can swap to atropine and vice versa.

My treatment:

Patching

Atropine

Which eye? Right Left

Which eye? Right Left

How long?

Weekend atropine to be instilled once daily on Saturday and Sunday.

Any further questions please contact our department on 01902 695830 or ask at your next visit.

If you need information in another way like easy read or a different language please let us know.

If you need an interpreter or assistance please let us know.

Lithuanian

Jeigu norėtumėte, kad informacija jums būtų pateikta kitu būdu, pavyzdžiui, supaprastinta forma ar kita kalba, prašome mums apie tai pranešti.

Jeigu jums reikia vertėjo ar kitos pagalbos, prašome mums apie tai pranešti.

Polish

Jeżeli chcieliby Państwo otrzymać te informacje w innej postaci, na przykład w wersji łatwej do czytania lub w innym języku, prosimy powiedzieć nam o tym.

Prosimy poinformować nas również, jeżeli potrzebowaliby Państwo usługi tłumaczenia ustnego lub innej pomocy.

Punjabi

ਜੇ ਤੁਹਾਨੂੰ ਇਹ ਜਾਣਕਾਰੀ ਕਿਸੇ ਹੋਰ ਰੂਪ ਵਿਚ, ਜਿਵੇਂ ਪੜ੍ਹਨ ਵਿਚ ਆਸਾਨ ਰੂਪ ਜਾਂ ਕਿਸੇ ਦੂਜੀ ਭਾਸ਼ਾ ਵਿਚ, ਚਾਹੀਦੀ ਹੈ ਤਾਂ ਕਿਰਪਾ ਕਰਕੇ ਸਾਨੂੰ ਦੱਸੋ।

ਜੇ ਤੁਹਾਨੂੰ ਦੁਭਾਸ਼ੀਏ ਦੀ ਜਾਂ ਸਹਾਇਤਾ ਦੀ ਲੋੜ ਹੈ ਤਾਂ ਕਿਰਪਾ ਕਰਕੇ ਸਾਨੂੰ ਦੱਸੋ।

Romanian

Dacă aveți nevoie de informații în alt format, ca de exemplu caractere ușor de citit sau altă limbă, vă rugăm să ne informați.

Dacă aveți nevoie de un interpret sau de asistență, vă rugăm să ne informați.

Traditional Chinese

如果您需要以其他方式了解信息，如易读或其他语种，请告诉我们。

如果您需要口译人员或帮助，请告诉我们。

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