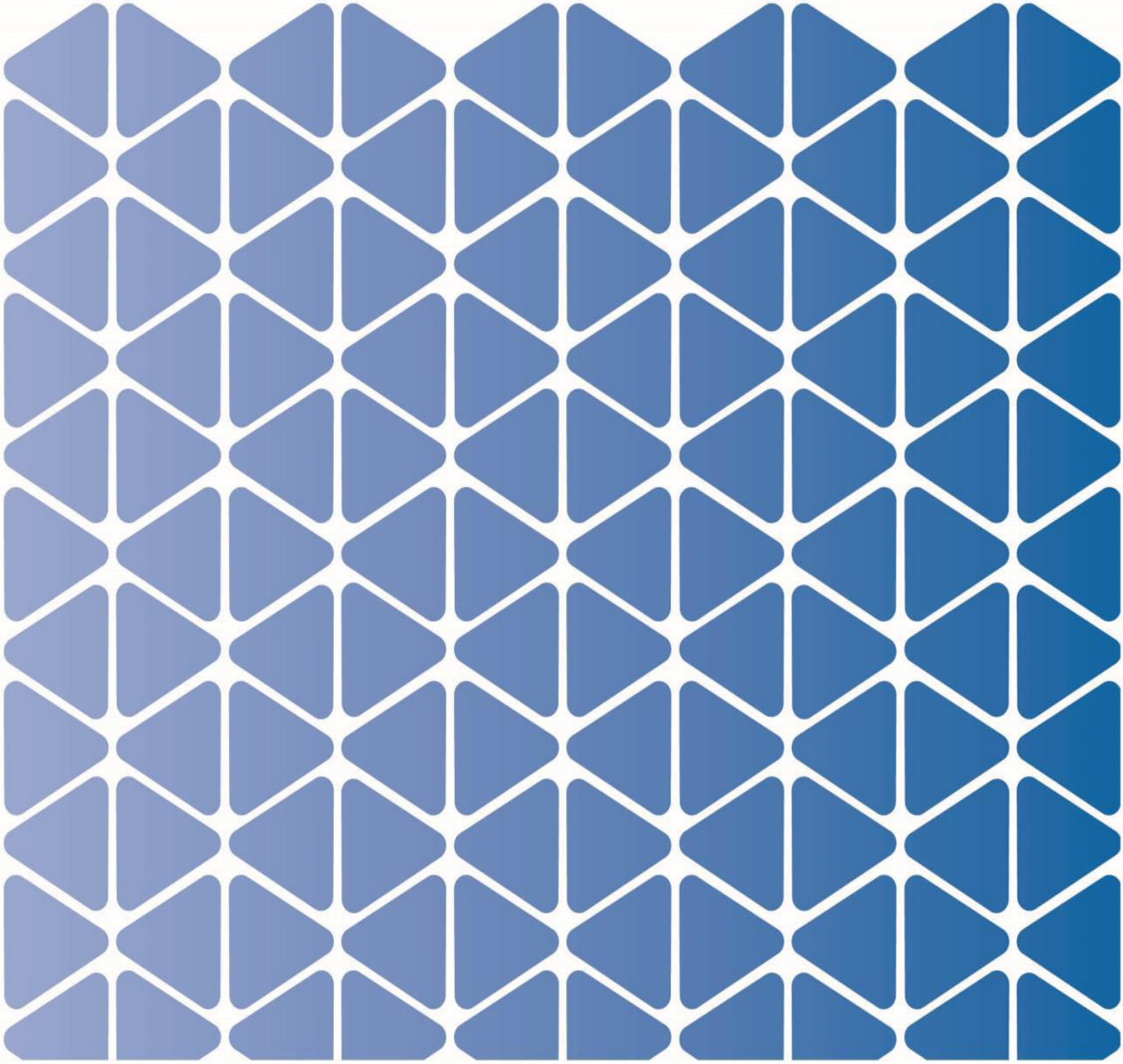
Worcestershire Acute Hospitals NHS Trust

PATIENT INFORMATION

TREATMENT OF AMBLYOPIA (LAZY EYE)



Introduction
This leaflet is for parents whose child has a 'lazy eye'. Some things in this leaflet may not apply to your child. Please ask us about anything you do not fully understand, or you want explained in more detail.

What is Amblyopia ('lazy eye')?
In the first few years of childhood the brain is learning to see. To learn to see clearly, the brain needs to receive messages of good vision from the eyes. If one eye does not send a good message to the brain, the brain may ignore the vision from that eye and fail to learn to see properly with that eye. That eye then has 'amblyopia' (say 'am-blee-oh-pee-uh') and that eye is called 'lazy' (amblyopic).

For an eye to send a good message to the brain, it must be pointing in the right direction, that is, it should not have a squint (a 'turn' or strabismus). The eye should also be in focus, that is, glasses should be worn if needed, so that a clear picture is formed at the back of the eye (on the retina). A common cause of amblyopia is a squint in one eye. Another common cause is when the focusing strength of one eye is different from that of the other eye (that is, glasses are needed with one lens stronger than the other). There is often a combination of these two causes. Other possible causes include cataract and scarring of the cornea (the window of the eye). Amblyopia affects about 1 in 30 children (3%).

Does Amblyopia Matter?
Young children may not realise that they have weaker vision in one eye. If amblyopia is not treated, a child may grow up having one eye with a permanent and untreatable weakness of vision. People who have a weak eye are prevented from doing some jobs, for example, driving an HGV lorry. (However, it is possible to drive a car with one weak eye.) People who have only one good eye can become visually impaired (blind or partially sighted) if, sometime later in their lives, they lose vision in their good eye from accident or disease. The risk of this happening at some point in a person's lifetime is small but not tiny, being about 1 chance in 50 (2%) for females and 1 chance in 25 (4%) for males. (This only counts the risk of becoming visually impaired due to a problem that only affects the better eye, rather than affecting both eyes.)

Information About Treatment

What is the Best Age to Treat Amblyopia?
Treatment is more successful in younger children than in older children. The younger the child is, the more easily the brain can develop better vision in the amblyopic eye. In general, by the age of 6, treatment begins to be more difficult and, by the age of 8, we do not expect treatment to work. However, every child is different. For your child to have

the best chance of growing up seeing well with each eye it is very important that we try to improve the vision in the weaker eye while your child is still young.

Treatment
The aim of treatment is that the vision in each eye should be as good as possible. If your child needs glasses, the first step in treatment is to get the child to wear them – ideally, almost all the time. Glasses will help each eye to get a clear picture at the back of the eye (on the retina). However, your orthoptist has decided that glasses alone (if needed) are not enough. We want the brain to pay more attention to the amblyopic eye. We want the brain to "catch up" on the development of vision for this eye, so that the vision improves.

We can make the brain pay more attention to the amblyopic eye either by covering the better eye with a patch or by deliberately blurring the vision in the better eye. The vision in the better eye can be made blurred by putting in atropine eye drops. Patches and atropine each have their own advantages and disadvantages. Sometimes, both are used together. Occasionally, we give special glasses that make the vision in the better eye deliberately blurred.

How Long Does Treatment Last?
In general, treatment is continued until there is no further benefit. This may take several months. When this point is reached, if there is a risk of the amblyopia getting worse again, we sometimes keep going, but using a more minor 'maintenance treatment'. Your child's vision will be monitored during further clinic appointments.

If your child has a squint, you may notice the squint begin to alternate (swap between the eyes). This is a good sign. However, if the squint starts to affect the 'better' eye more than the 'lazy eye' you must contact the orthoptist urgently.

How Successful is Treatment for Amblyopia?
Treatment is often less successful when any of the following things are true:

- The child is older, for example, at least 6 or 7 years old.
- The amblyopia is due to a combination of both squint and unequal strength in the focusing of the eyes.
- There is another problem in the eye, such as a scar or cataract.
- The family find it difficult to give the recommended treatment.

We hope that the treatment will improve the vision in the amblyopic eye until it is similar to that in the better eye. However, even a partial improvement can be worthwhile. Sometimes, despite the family following the treatment plan very closely, there is little improvement. In this case, the family should still feel pleased that they did their best.

Information About Patches

Patches are straightforward to use, and many children settle to wearing them after an initial period of difficulty. If your child wears glasses, it is important that he or she continues to wear the glasses, even when the patch is on. If glasses are worn, a different sort of patch is sometimes used (non-sticky fabric). It is important that the child does not use the better eye by 'peeking' around the edge of a patch. Patches are only worn for part of the day, so that the child can have a break from the treatment.

What if I my child refuses to wear a patch?
Patching can be 'hard work'. A positive approach (with lots of praise) usually helps. Sometimes a 'star chart' helps, with a reward given after every few stars. Sometimes a young child must be held on a parent's lap while they both watch children's television, and no television is allowed unless the patch is on. If young children put a patch over one eye of their teddy bears, it may help them accept a patch over their own eyes. Sometimes children will be more obedient at nursery, preschool or school, than they will be at home. Sometimes a child can be persuaded to keep a patch on until they are given a favourite mid-morning snack as a reward. (These can be stopped once the child becomes more accepting of the patch.) Please be honest with the orthoptist if you are having difficulty. The orthoptist may suggest a different plan.

Information About Atropine

Atropine is an eye drop that blurs the vision in the better eye by weakening the focusing muscle. Atropine also makes the pupil big. Atropine is usually given twice a week, and after 2 or 3 doses, it will be working all the time.

Atropine eye drops may come in an ordinary ('multidose') dropper bottle or in a box of single dose packets (Minims). A drop of atropine going into the eye will feel like a drop of water; it does not sting like the drops we often use in the eye clinic. However, if it is easier, it can be put in the eye when the child is asleep. At the end of treatment, after the last dose, it may keep on working for about two weeks.

Atropine treatment may not be successful if the vision in the amblyopic eye is very poor. Atropine may be more successful than patching when used for children who repeatedly pull their patches off. However, with atropine, the vision in the better eye is constantly blurred, so there is no part of the day when the child can see clearly for schoolwork or television. (This is different from the situation with patches, which are not worn all day.) If your child wears glasses, it is important that he or she continues to wear the glasses

during the atropine treatment. Prescription sunglasses may be needed to stop too much light entering the eye with the big pupil.

Getting More Supplies of Atropine

Treatment may continue for several months. If you are using an ordinary dropper bottle, you need to start a fresh bottle every 28 days. We will ask your GP to put the treatment on 'repeat prescription', so that you can obtain more supplies from a community pharmacy using prescriptions from your GP. Please contact your orthoptist if there are any problems with this.

Atropine Safety

Atropine is poisonous if taken by mouth, so make sure the atropine eye drops are kept in a safe place that children cannot get to. Atropine should only be used as prescribed (only given to the right child, and only used in the correct way). Unused or left-over atropine should be returned to a pharmacy. While the eye has a big pupil, the child should not be outside in the sunshine without wearing sunglasses. Be careful not to get the atropine into your own eye – you could have blurred vision and an enlarged pupil for two weeks.

If your child requires any other medical care, please tell the doctor or health care professional that atropine is being used in one eye. This is particularly important if your child has a head injury.

Are there any Side Effects from Atropine?

Check if your child is becoming constipated. (If you can control any constipation by increasing the amount of fibre in the diet, then this may be all that is needed.) Atropine may rarely cause a widespread ('systemic') reaction in the body, or an allergic reaction around the eye.

Systemic reaction: The child is hot and flushed, with a rapid pulse. The child has dry skin and a dry mouth, and may be thirsty, vomiting, restless or confused. If this happens, stop the atropine and get very urgent medical advice from the Eye Department, or from your GP or NHS 111.

Allergic reaction: This may start with a feeling of 'burning' in the eyelids. Then the eyelids (especially the lower lid) become red and swollen, and the white of the eye becomes red. If this happens, stop the atropine, wash the eyelids and contact the eye department. If it gets worse despite stopping the atropine, there may be another cause for the problem, for you which may need very urgent medical advice from the Eye Department, or from your GP or NHS 111.

More Information about Treatment

Problems and Risks with both Patching and Atropine
It is a big commitment for the family to follow the recommended treatment. The treatment may make your child feel confused or unhappy, especially in the first few weeks. Your child may need extra attention.

Depending on the level of vision during treatment, extra care may be needed with stairs and when your child is running around. Some playground equipment may be risky.

If your child has more treatment than is needed, there is a risk that the better eye could become the lazy eye (‘reverse amblyopia’). This risk is very small if the child has regular checks by the orthoptist.

There will be a temporary reduction in vision during the treatment, which may affect your child’s learning and education. Most children ‘catch-up’ when the treatment is completed. However, we should be aware of this possible negative effect of treatment, particularly if a child has learning or behaviour difficulties. Every child is different and occasionally, parents decide not to try any treatment because of this concern.

Are there any Other Choices besides Patching and Atropine?
Treatments involving optical devices or medication by mouth have been tried but their role is not established in the UK.

You can choose not to treat your child’s amblyopia. However, this would mean that it is very likely that your child would grow up with one eye that is permanently weak.

Points to Remember with Patches and Atropine
During treatment, encourage near vision activities such as reading, writing, colouring and computer games. These may make the treatment more effective.

You should explain the treatment to any childminders, and to staff at nursery, preschool or school, particularly if they are involved with the patching. It is helpful for them to give lots of praise to a child for wearing a patch.

The treatment must only be given while your child is having regular checks by the orthoptist.

Instructions for Use – Patches

Your child has an amblyopic (lazy) ***Right / Left*** **Eye**
You must therefore patch the ***Right / Left*** (better) eye to make the weaker eye work.
Use the patch for …. hours a day, …. days a week, until the next clinic visit.
If your child wears glasses he or she must continue to wear them during this treatment.
Your child uses one of the patches names below. If you run out of patches, please let us know which type you use, and we will send you some more.

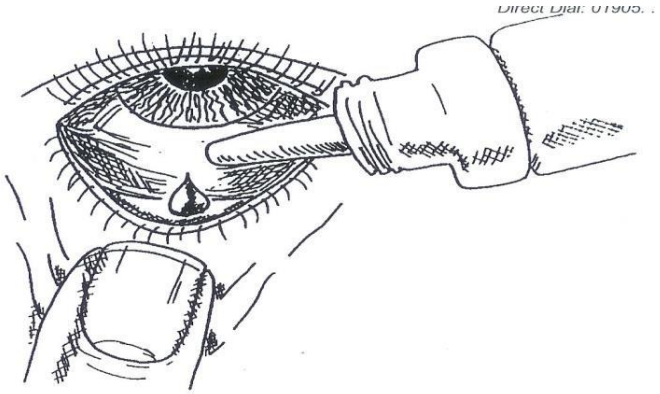
Ortopad Junior	
Ortopad Medium	
Ortopad Regular	
Ezepatch (Fabric patch)	

At the end of treatment, if you have any unused patches, please return them to your orthoptist when you next visit.

Instructions for Use - Atropine

Give the atropine into the ***Right / Left*** eye as instructed, until the next visit to the orthoptist. Atropine may be kept at room temperature (below 25 Celsius). Wash your hands before and after putting the atropine in the eye. The atropine should be put in twice a week (for example on a Wednesday and a Saturday). A routine will soon be established. If the child is frightened, you can try putting in the atropine while he or she is asleep.

You can put in an eye drop with your child lying down and looking up to the ceiling, while you gently pull down the lower lid, as shown in the picture.



Squeeze the upturned dropper bottle (or ‘Minim’) to put one drop into the eye. Try not to let the nozzle touch the eye. If more than one drop goes in by mistake, the extra amount will be squeezed out when the eye closes. You can then wipe the closed eyelids with a tissue. If you can, try and reduce the amount of atropine that passes into the nose and is swallowed, by immediately gently pressing with your fingertip at the inner corner of the closed eye for 1 to 2 minutes.

If you are using the Minims type of atropine drops, use a fresh ‘Minim’ for each dose and immediately put the used ‘Minim’ into a child-proof rubbish bin.

After six months of using atropine we recommend that it is stopped for one month before continuing if necessary.

What Should I do if I Cannot Attend an Appointment or Miss it?
Telephone the orthoptist as soon as you can, using one of the numbers given below. The treatment must only be given while your child is having regular checks by the orthoptist.

Contact Details
Your child’s hospital registration number is …….
Please tell us this number if you contact the department.
If you have any questions regarding your child’s treatment, please contact the Orthoptic Department using one of these telephone numbers:

Worcestershire Royal Hospital: 01905 760430

Kidderminster Treatment Centre: 01562 512388

Princess of Wales Hospital: 01527 488087

If your symptoms or condition worsens, or if you are concerned about anything, please call your GP, 111, or 999.

Patient Experience
We know that being admitted to hospital can be a difficult and unsettling time for you and your loved ones. If you have any questions or concerns, please do speak with a member of staff on the ward or in the relevant department who will do their best to answer your questions and reassure you.

Feedback
Feedback is really important and useful to us – it can tell us where we are working well and where improvements can be made. There are lots of ways you can share your experience with us including completing our Friends and Family Test – cards are available and can be posted on all wards, departments and clinics at our hospitals. We value your comments and feedback and thank you for taking the time to share this with us.

Patient Advice and Liaison Service (PALS)
If you have any concerns or questions about your care, we advise you to talk with the nurse in charge or the department manager in the first instance as they are best placed to answer any questions or resolve concerns quickly. If the relevant member of staff is unable to help resolve your concern, you can contact the PALS Team. We offer informal help, advice or support about any aspect of hospital services & experiences.

Our PALS team will liaise with the various departments in our hospitals on your behalf, if you feel unable to do so, to resolve your problems and where appropriate refer to outside help.

If you are still unhappy you can contact the Complaints Department, who can investigate your concerns. You can make a complaint orally, electronically or in writing and we can advise and guide you through the complaints procedure.

How to contact PALS:

Telephone Patient Services: 0300 123 1732 or via email at: wah-tr.PALS@nhs.net

Opening times:
The PALS telephone lines are open Monday to Friday from 8.30am to 4.00pm. Please be aware that you may need to leave a voicemail message, but we aim to return your call within one working day.

If you are unable to understand this leaflet, please communicate with a member of staff.