

Wearing Glasses

Advice for children needing glasses

It is possible to measure how a child's eyes are focused and, if necessary, prescribe glasses to correct poor focusing without the need for the child to recognise letters or pictures or answer questions.

If glasses are needed, it is important that the child is able to start wearing them as soon as possible - you are never too young. In fact the younger you get glasses, if you need them, the better. There are two important reasons for this:



Firstly, the glasses will help the child to see clearly in their day to day activities, having a positive impact on all aspects of their development (it has been estimated that 80% of our learning is from visual information).

Secondly, glasses help the eyes to develop to their maximum visual potential. We are born with relatively poor vision and it continues to develop as we grow - the eyes and the brain 'learn' how to see until we reach adult levels of vision by the age of 8-9. If this learning is limited by the eye producing an out of focus image (as is often the case when we need glasses), then the vision will only develop to a level limited by how blurred the eye is. This is known as amblyopia (sometimes 'lazy eye', literally 'blunted vision'). This also often happens when one eye is turning (squinting).

In the case of amblyopia, usually, after a few weeks or months of wearing glasses and having a clear image, the eye will get stronger and 'learn' to see finer levels of detail. If glasses aren't obtained until later in life, however, this improvement in best vision is unlikely to be achieved.

In other words, we have a time window during which we can maximise potential to see detail by wearing glasses if they are needed.

Children may need to wear glasses for different reasons:

To treat myopia (short-sightedness).

Uncorrected myopia makes objects far away appear blurry, such as people's faces, the whiteboard or the television. If you are slightly short sighted you may only need your glasses for these things, if you are more short-sighted, glasses will help for middle and closer distances too. All short sighted people can see clearly at some point close to their eyes (this is called their near point and the distance between it and the eyes decreases with increasing myopia). Having a clearly focused near point means that even very short

sighted children may at times like to take off their glasses to study a close up object by holding it very near to their eyes and this shouldn't be discouraged. Because of the clearly focused near point, a child is less likely to have amblyopia if they are short sighted (unless there is a difference between the eyes and one eye is amblyopic).

To treat hyperopia (long-sightedness).

Uncorrected hyperopia may make objects appear blurry both near and far away but usually has the biggest blurring effect on close objects (hence the term long sighted). However, long sighted children may have good vision most of the time but symptoms of eye



Significant long-sightedness (+4.00D)

Clear vision

strain such as headaches, poor concentration, intermittent blurring or an eye turn, especially when they are tired. This is because children may be able to compensate for their hyperopia by tensing up their eye muscles to keep things in focus. As well as making vision clearer and allowing the eyes to relax, glasses which treat hyperopia will also often improve the way the eyes work together to get a 3D image of the world (binocular vision), treat squints (eye turns) or amblyopia (lazy eye).

To treat astigmatism (distorted focus).

This often exists alongside myopia or hyperopia, although can occur on its own. It causes a blurry image because the eye surfaces are not perfectly regularly curved. Uncorrected astigmatism often causes



How astigmatism can distort vision

Clear vision

amblyopia and getting used to glasses to correct it can take a while because an improvement in vision may not happen immediately.

To treat accommodative weakness (weak focus).

Everybody's focusing (or the eye's 'zoom function') reduces as we get older due to a loss of flexibility of the lens in the eye and we all need reading glasses when we reach our 30s or 40s because of this. For some people, however, this zoom function is weak from childhood - this means they have an inability to shift focus from far objects to near. We know this is especially common for children with Down's Syndrome and autism. Accommodative weakness is treated with glasses to make close objects such as books, looking at pictures or using a tablet or mobile phone, clearer.

Glasses to correct accommodative weakness will make far objects blurry so should just be worn for close work.

Alternatively, bifocal or varifocal glasses can be worn so that the top of the glasses are clear or are a distance prescription (to correct myopia, hyperopia or astigmatism) and the bottom half of the lens corrects close focus. Another way to correct this is



to have two pairs of glasses, one for far and one for close vision (which may need to be clearly labeled to avoid confusion).

The optometrist will explain what your child's glasses are for and when they need to be wearing them when they are prescribed. The dispensing optician is also able to help you with questions about your child's glasses.

It's important to choose glasses that fit well and best meet your child's needs. A dispensing optician is the best person to help and advise on the type of glasses. For example there are glasses which can be adjusted for unusually shaped faces, glasses especially designed for children who have Down's Syndrome who often have a very low nose bridge and glasses which come with curl sides or head straps.

There are also ranges of very flexible/strong glasses frames for children who may take them off and throw them regularly. Often larger frames are good as they don't restrict vision but in the case of some higher prescriptions this might make glasses uncomfortably heavy.

Special consideration also needs to be made when choosing glasses for children with unusual posture (to ensure they are looking through the centre of their glasses lens), children who wear hearing aids or sometimes wear a helmet or have head rests on their wheelchair.



Unless your child only needs their glasses for near activities such as reading or drawing they shouldn't find themselves looking over the top of their glasses!

Some children and young people may see their glasses as a fashion accessory and there are many to choose from in different colours, styles and brands especially designed to appeal to children.

All children under 16 or under 19 and in full time education are entitled to an NHS voucher to cover all or some of the cost of their glasses. If your child is very young or has unusual facial characteristics then you may be entitled to extra help towards the cost of specialist glasses - ask the dispensing optician who is fitting the glasses.

It is important to make sure the eyes are protected from the sun. All glasses absorb harmful UV light, and a peaked sunhat also helps a lot with this. Prescription sunglasses may be even more comfortable in bright sunlight but are not usually available on the NHS.

Getting used to glasses

Depending on the strength of the glasses prescription, the environment may look very different to the child, taking time to get used to.

The brain needs time to make sense of the new clear image that the eye is sending, this may take much longer for children who have learning disabilities so be patient and don't give up!

Some children may take to their glasses straight away and be happy to wear them. Other children may need a carefully considered programme to build up the amount of time they wear their glasses and help get used to them.

Tips for supporting a child to wear glasses:

Make sure everyone knows what the glasses are for (all the time or just for near/far activities)

Make sure everyone knows what the plan is for helping the child to wear their glasses

Make sure they are clean

Make sure they are comfortably fitted on their face – taking into account hearing aids, helmets, the position of head rests on wheelchairs etc.

Start using them during an activity the child enjoys and where there they are more likely to see a visual improvement – for example, going for a walk if a child is short sighted, so that they can see objects further away or for a liked near task (perhaps looking at a book together, eating or using a tablet) if the child is long sighted or has accommodative weakness

Use distraction when first trying the glasses, present something the child likes or enjoys to encourage them to use their vision to explore it- again taking into consideration the type of glasses prescription and what type of vision it is most likely to improve the most

Start for small regular amounts of time for example just for 10 minutes 3 times a day to start with then extend it to 30 minutes over the weeks

Ask the dispensing optician about using a strap to keep the glasses in place

Never force or restrain a child to wear their glasses

Don't give up!

It's really important that everyone is aware how poor the child's vision is without glasses during this time so adaptations can be made to help with this such as: sitting at the front of the classroom to see the whiteboard, enlarging pictures or text, knowing how near or far away objects need to be for the child to see them.



Patching Therapy

Sometimes, especially if one eye needs much stronger glasses correction than the other, or if one eye has been turning, one eye may have become weaker, or more amblyopic (lazy) than the other, so that the vision is weaker even when the glasses have been worn for a few weeks. In this case your child may be prescribed some periods of patching of the good eye to strengthen the other eye. If this is necessary, it will be clearly explained and clear instructions given.

Limits to what glasses can do to improve vision

It is also important to understand that sometimes glasses may only make a limited improvement to a child's vision, even when they wear them most of the time. This may be because of other problems with the eyes and/or the brain which cannot be corrected by changing the way the eye is focused.



For more information and advice on eye health please look at our other factsheets on our website: seeability.org/looking-after-your-eyes