



York and Scarborough
Teaching Hospitals
NHS Foundation Trust

Myopia and Myopia Management

Information for patients, relatives and carers

① For more information, please contact:

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What is myopia?

Myopia is the medical name for short-sightedness. If your child has myopia, they will have problems seeing things clearly in the distance, objects in the distance will appear blurred/out of focus.

What causes myopia?

To have clear vision, light entering the eye must be focussed on the retina which is the light sensitive tissue at the back of the eye.

The eye is a bit like a camera; if the camera isn't correctly focussed you end up with a blurred picture.

Myopia affects the eye's ability to focus the 'picture' and can be caused by:

- An eye that is too long in length from front to back.
- Too much focussing power in the cornea (front part of the eye) and/or the lens within the eye.

Eyes continue to grow through childhood, teenage years and into the early twenties, which is why some people 'grow into' short sight and why myopia can get worse over time.

In the UK the number of children with myopia has more than doubled in the last 50 years. Research has demonstrated that genetic and environmental factors can cause people to develop myopia. Factors that may influence the development of myopia are:

- If one or both parents are myopic.
- East Asian or South Asian background.
- Limited times spent outdoors.
- Increased time spent engaging in near activities.

How is myopia treated?

Myopia is corrected with glasses or contact lenses and can be corrected with laser surgery in adults.

Are there any complications associated with myopia?

If a person has a high level of myopia there is a slightly higher risk of them developing a serious eye condition later in life, such as

- Retinal Detachment
- Glaucoma
- Myopic Retinal Degeneration

Will my child's myopia get worse?

It is not possible to predict what will happen to your child's myopia as every child is different. Their lifestyle, family history and age can influence whether their myopia will worsen/progress over time.

If your child developed myopia at a young age, then it is likely that this will continue to get worse over time.

What can we do to stop it getting worse?

Unfortunately, we can't stop the progression of myopia, but studies recommend:

- Encouraging children to spend at least one and half to two hours per day outside in natural daylight.
- Avoiding spending long periods doing near work activities like viewing digital devices, mobile phones etc.

Are there any treatments to stop myopia getting worse?

There are treatments available designed to reduce the amount of myopia a person develops, using eye drops or lenses. These treatments are not available through the NHS as their effectiveness and long-term benefits are not yet fully understood. Research is ongoing into the effectiveness of these treatments.

Myopia management

Trying to slow down how quickly myopia gets worse is called Myopia Management and involves the use of specially designed glasses, contact lenses or the use of atropine eye drops.

Glasses – myopia control lenses

These are lenses specially designed for myopia management. They look the same as ordinary glasses lenses but the focussing strength of the lens changes in the periphery of the lens. These lenses are designed to be used instead of standard glasses lenses.

Contact lenses

There are two types of lenses used to manage myopia:

- Soft daily disposable lenses, which are similar to glasses lenses, but have a different focussing power in the periphery of the lens.
- Orthokeratology lenses which are rigid (hard) lenses designed to 're-shape' the cornea. They are worn overnight to alter the shape of the front surface of the eye. These lenses temporarily reduce or correct mild myopia and may reduce the progression of myopia.

Drops

A low dose of a drug called Atropine has been shown to slow down the progression of myopia. This a drop used to dilate the pupil and is put in the eyes daily over a period of years. This drug is currently not licensed in the UK for treating myopia and research into how effective this treatment is, is ongoing.

The potential side effects of Atropine are:

- Light Sensitivity – photophobia.
- Poor/blurred near vision/reading problems.
- Allergic reaction.
- Dilated pupil.

Evidence of effectiveness of myopia management

Ongoing research is required to understand how effective myopia management is. Currently there is no evidence about the long-term results of this treatment, how much it reduces myopia progression and whether myopia will start to get worse again once treatment is stopped.

If myopia management is successful it may result in your child having a lower level of myopia than if they didn't have the treatment and potentially be at less risk of developing a related eye condition.

How can we access myopia management?

Treatments involving the use of myopia control lenses in glasses or contact lenses are available from some High Street Optometrists, but they are not paid for by the NHS. If you want your child to have this treatment you will have to pay for it.

Will my child still need to wear glasses after myopia management?

It is more than likely that your child will still need glasses or contact lenses even if the treatment has been successful.

If you need more information about myopia management, please discuss it with your orthoptist.

Tell us what you think of this leaflet.

We hope that you found this leaflet helpful. If you would like to tell us what you think, please contact:

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Teaching, training and research

Our Trust is committed to teaching, training and research to support the development of health and healthcare in our community. Healthcare students may observe consultations for this purpose. You can opt out if you do not want students to observe. We may also ask you if you would like to be involved in our research.

Patient Advice and Liaison Service (PALS)

PALS offers impartial advice and assistance to patients, their relatives, friends and carers. We can listen to feedback (positive or negative), answer questions and help resolve any concerns about Trust services.

PALS can be contacted on 01904 726262, or email
yhs-tr.patientexperienceteam@nhs.net.

An answer phone is available out of hours.

Leaflets in alternative languages or formats

If you would like this information in a different format, including braille or easy read, or translated into a different language, please speak to a member of staff in the ward or department providing your care.

Patient Information Leaflets can be accessed via the Trust's Patient Information Leaflet website:

www.yorkhospitals.nhs.uk/your-visit/patient-information-leaflets/

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