



## Information about Myopia progression and control options

Myopia is a refractive error where far away objects are blurred. The distant light entering the eye is focused in front of the retina (not on the retina). The usual reason for this is because the eyeball has grown slightly too long (axial length). It is also called short-sightedness or near-sightedness.

As we grow, especially with rapid changes during puberty, our eye growth occurs at a similar time. This is why myopia generally develops in childhood or in teens, when for some people their eyeball is growing longer than it should.

For a long time it has been known that there is a genetic component to myopia. Having one parent who is myopic doubles the risk of developing myopia, and having two parents increases the risk by 8 times.

Also known are "environmental" factors that seem to influence the development of myopia. Some of these are

- Time spent indoors vs outdoors - more time outdoors seems to result in less myopia. Recommended is 2 hours day (14 hours week) outdoors
- Time spent on close-up work - more time on reading and on screens is associated with more myopia.

If your child is myopic, the likelihood is that it will progress as they grow. For some children this is a slow rate of progression, while others have rapid vision changes.

### Why Do Something?

Previously the standard approach to managing myopia development was simply to prescribe glasses to correct the focus error. Then annual reviews to determine the increase, and again prescribe stronger glasses as required.

However having to wear glasses or contact lenses is not the only issue with myopia development. The longer axial length of a myopic eye is a known risk factor for longer term eye health conditions including peripheral retinal disease, glaucoma, cataract and myopic macular degeneration. These are potential sight-threatening conditions and the higher the myopia the higher the risk that they may occur. Thus it is important to minimise myopia to lower the risks.

### What to Do?

There is now new and developing research with options for slowing myopic progression. These include:

- Assessment of near binocular alignment which may benefit from glasses for close work.
- Prescription of atropine eye drops used nightly
- Contact lenses; specially developed lenses (comfortable daily disposable) with advanced optics proven to slow the rate of myopia progression.
- Review assessments are recommended 6 monthly for children & teens with myopia for progression assessment.

These are individual approaches and we are happy to discuss these further with you. An excellent website for reference is Richard Andersons [www.myopiaprevention.org](http://www.myopiaprevention.org)