



FACT SHEET

Myopia (Short Sightedness) Control: It is now a lot easier

We have had effective techniques to slow Short Sight (Myopia) progression for some years now. While extremely effective, previous strategies have relied solely on contact lens options which don't necessarily appeal to everyone. We are very proud to be an accredited prescriber of MiYOSMART spectacle lenses by HOYA.

The MiYOSMART Spectacle Lens & Contact Lens Options



This award winning invention allows everyone the opportunity to control short sight progression regardless of age or concerns about contact lens wear. Coupled with our existing contact lens options we can tailor strategies to suit each individual child.



MiSight is a daily disposable contact lens specifically designed to slow myopia progression.

We also use Multifocal soft contact lenses and Orthokeratology as bespoke strategies for difficult prescriptions.

Eye Growth from Birth

We are all born 'Long Sighted', meaning our eyes are slightly small; this is normal. Children of age 2 should be about +2.00. As we grow our eyes lengthen and we become less long sighted. Unfortunately, for some children, the growth doesn't stop. The eye length moves beyond the neutral point and these people become short sighted. This is why some people may not become short sighted until their teens.

Health and Lifestyle

Currently Myopia progression can be slowed but not stopped. So...

'Why bother, I will still need correction?'

Short sighted eyes are more prone to eye problems such as retinal detachment and myopic macular degeneration. Any reduction is therefore important. A reduction in myopia also aids quality of life. A reduction from -4.00 to -2.00 would give comfortable reading, while a drop from -2.00 to -1.00 would allow many indoor tasks without spectacles.

The theoretical mechanism of myopia progression

Figure 1: In eyes destined to remain normally sighted the retinal image is equally focussed across the entire retina (the 'image shell' is represented as the red arc - Fig 1) and not simply the central macula. The macula is the portion of the retina at the centre of vision used for accurate vision such as watching TV and reading

Fig 1: Normal vision with aligned 'image shell'.

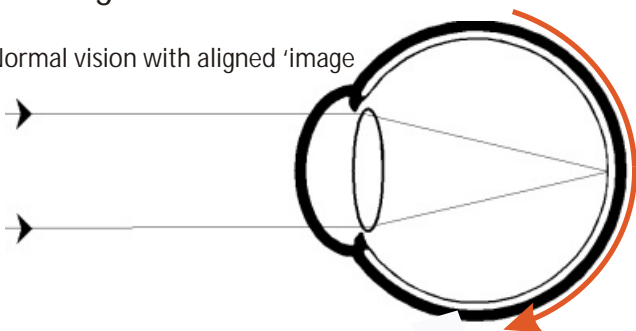


Figure 2: A push toward short sight is induced when the 'image shell' is behind the retina in the periphery (Fig 2). The patient will not notice this as the central vision is clear. The 'peripheral defocus' stimulates the eye to grow in an attempt to bring this imaging into focus.

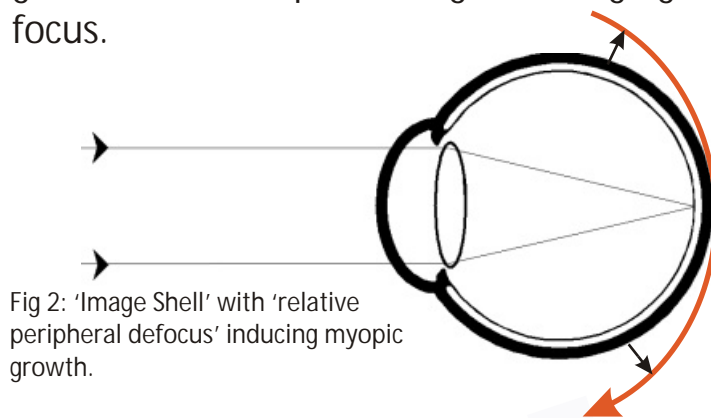


Fig 2: 'Image Shell' with 'relative peripheral defocus' inducing myopic growth.

Figure 3: As the eye grows it becomes short sighted (myopic) and the patient will notice blurry vision as the increased eye length pushes the macula away from the accurately focussed point.

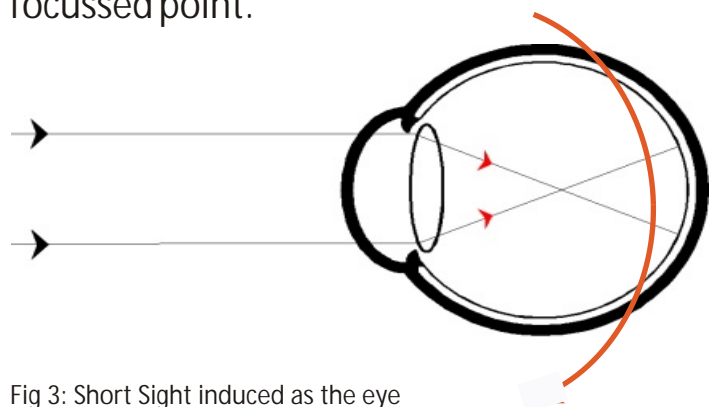


Fig 3: Short Sight induced as the eye grows in response to peripheral blur.

Figure 4: Once the eye is corrected for its central myopic blur the 'relative peripheral defocus' is re-established and with it the stimulus for further eye growth and myopic progression.

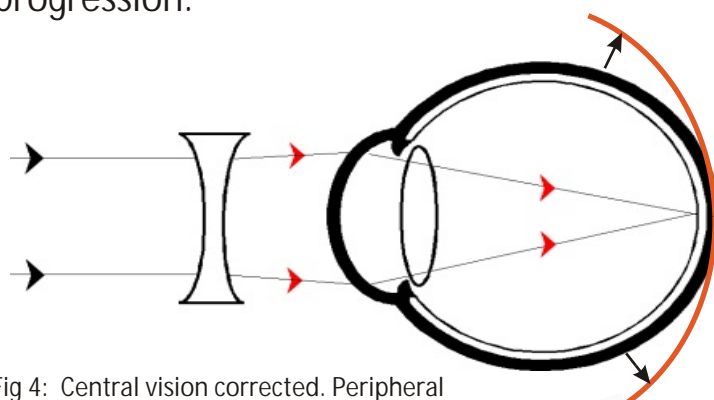


Fig 4: Central vision corrected. Peripheral defocus re-established and with it stimulus for myopic eye growth.

Resources



The official HOYA official can be accessed at: www.hoyavision.com/uk/discover-products/eye-care-professionals/special-lenses/ecp-myopia-management/



A not-for-profit resource MyopiaCare is now available to check out on line at: www.myopiacare.org/. This group presents a predictive test to estimate an individual's predicted myopia progression.

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Myopia (Short Sightedness) Management: Slowing Progression 2021 UPDATE

Please check out our power point giving a fuller explanation of 'Myopia Control' at: aaronoptometrists.com/education-support/power-points/

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