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on

You have been scheduled for a myopia control appointment at Collins Street Optometrists at

\_\_\_\_\_ am / pm

### Why have I been referred?

You, or your child, have been referred by your medical specialist or optometrist for further assessment in the myopia control clinic. Further information on the clinic as well as details of fees and claiming procedures follows below, and is also available at <u>www.collinsoptometrists.com.au</u>.

### What is myopia?

Myopia, commonly called short-sightedness ("sight set too short") makes it difficult to see distant objects clearly. It is a very common condition.

Myopia's onset is typically in the mid-teens and less frequently later in the twenties. There is considerable debate about whether myopia is inherited or whether it is exacerbated by excessive close work.

The prevalence of myopia has increased significantly over the past few decades, especially in certain population groups of East Asia. As a result, considerable efforts and research has been conducted into how myopia occurs and how the PROGRESSION of myopia can be halted or at least slowed. Current evidence supports a number of treatment methods for reducing the progression of myopia. These include:

### • Atropine eye drops

Recent studies such as the *Atropine in the Treatment of Myopia* 2 (ATOM2) project provide strong evidence to support the use of low concentration atropine eye drops to retard the progression of myopia. Atropine is a prescription-only medication, the main effects of which are usual to dilate the pupil and relax the eye's focusing (accommodation) system.

The most recent studies into atropine and myopia control show that atropine in low concentrations can significantly slow the progression of myopia without the usual side effects of pupil dilation and reduced functioning at near.

### • Orthokeratology ("ortho-K")

Orthokeratology, also known as ortho-K, is a non-surgical process that involves wearing rigid contact lenses while sleeping. These lenses change the shape of the cornea, the clear tissue at the front of the eye. On awakening, distance vision is clear, and there is no need to wear glasses or contact lenses during the day. The effect of wearing ortho-K lenses remains so long as the lenses are worn overnight, but the therapy is completely reversible.

Orthokeratology has been shown in various studies to reduce myopia progression.

## • MiSight soft multifocal daily disposable contact lenses

Multifocal contact lenses are usually prescribed for patients with age-related decreased ability to focus on close objects. Recently they have also been used as another option to reduce the progression of myopia. Like orthokeratology, these lenses inadvertently blur the image that falls on the peripheral retina; but this does nothing to compromise central vision and is not usually noticeable to the wearer.

## Hoya MyoSmart DIMS spectacle lenses

DIMS spectacle lenses feature a ring of dimples surrounding the optical centre of the lens and, like orthokeratology and soft multifocal contact lenses, this has the affect of blurring images falling on the peripheral retina and thereby slowing the progression of myopia.

### About your appointment and the procedures

The main purpose of your initial visit will be to assess the current rate of myopic progression and to determine you/your child's suitability for enrolment into the various options available for myopia control. The procedures conducted during the initial visit include:

- Visual acuity: Visual acuity measures (using the standard letter chart) the level of detail that can be detected in the distance.
- **Dry refraction:** Refraction refers to the determination of the spectacle prescription that provides best visual acuity. The word 'dry' is used to differentiate standard refraction from cycloplegic ('wet') refraction, which is done with drops that block the accommodation (focusing) system of the eye.
- **Cycloplegic refraction:** Cyclopentolate drops are used relax accommodation (the near focus system of the eye). By relaxing active accommodation it is possible more accurately determine the level of myopia. The drops take effect after 40 minutes and are instilled by the optometrist on the day. Vision, especially at near, will temporarily be adversely affected by the drops. The drops also dilate the pupils and consequently increase sensitivity to glare. Patients, including children, should bring sunglasses and adults must avoid driving for at least two hours after the consultation.
- **Binocular Vision Assessment:** Binocular vision refers to the eyes' ability to work together. Both the accommodative (focus) convergence (aiming) systems are assessed. Stereopsis, or the ability to perceive depth, is also assessed as a function of binocularity.
- Axial Length: The axial length of the eye (the distance from front to back) is measured because it is the primary indicator of non-syndromic myopia. Axial length is measured by the Haag-Street Lenstar biometer, a non-invasive technique that gives very accurate measurements. Measurements of axial length are critical in long term monitoring of myopic progression.
- **Topography:** Corneal topography provides a 3-D map of the front corneal surface. This enables us to see the characteristics of its curves and to detect any surface irregularities and is important for diagnosing conditions such as astigmatism and keratoconus that occur with varying degrees of myopia. Images from the corneal topographer are used for orthokeratology and for fitting other rigid gas permeable (hard) contact lenses.

# Fees for visits to the Myopia Control Clinic

Your visit to Collins Street Optometrists is a specialised consultation. The first consultation is usually \$137.05 (including the procedural item for axial length measurement) and this this fee will normally attract a Medicare rebate of \$62.45

### Following your consultation

A full report including the results of all the procedures is forwarded to your referring practitioner. We will inform you and the referring practitioner about your suitability for the various forms of myopia control.

### **Further information**

Further information regarding myopia control is available on the Collins Street Optometrists website at <u>www.collinsoptometrists.com.au</u>.