

Detailed Testing Procedures

What is Myopia?

Definition:

Myopia (near-sightedness) occurs when the eye's curvature is too strong or its length (axial length) is too long. This causes distant objects to appear blurry.

Why It Matters:

As the eye continues to grow throughout childhood or adolescence, myopia often worsens, leading to an increased dependency on corrective lenses. More importantly, the continued elongation of the eye can weaken the retina and sclera, raising the risk of serious ocular health conditions such as cataracts, myopic maculopathy, glaucoma, and retinal detachment.

Axial Length Measurement:

Tracks the growth of the eye over time. This is similar to growth charts at the paediatrician's office. This measurement helps monitor how quickly the eye is growing, assess the progression of myopia, and to ensure treatments are working as expected.

Binocular Vision Exam:

Evaluates how well the eyes focus and work together, as improper functioning can influence myopia progression. This exam is conducted during the initial appointment and as needed during follow-up visits.

Cycloplegic Refraction:

Involves using drops that dilate the pupil and relax the focusing muscles, allowing for the most accurate prescription measurement. This test also helps determine how much myopia is due to over-focusing muscles. Temporary side effects include light sensitivity and blurred near vision for 4-8 hours. This test may be repeated at follow-up appointments if needed.

Corneal Topography:

Provides a detailed map of the cornea's surface, helping us determine the type of myopia and assess candidacy for contact lenses. It also helps rule out corneal diseases such as keratoconus. This test is conducted at the initial assessment and during follow-ups.

Peripheral Retinal Exam:

The peripheral retina is closely monitored due to the increased risk of eye disease in myopia. This can be done through wide-field retinal photography (Optomap) or a dilated fundus exam. The frequency of this test depends on your child's specific risk factors.

Myopia Management Program

Helping Your Child See a Clearer Future



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Worldwide Myopia Statistics

- In the year 2000, 22% of the world's population was myopic.
- By 2050, it is estimated that 52% of the population will be myopic

Contributing Factors:

- Reduced time spent outdoors
- Increased near work (e.g., screen time, reading)
- Changing sleep patterns
- Family history
- Ethnicity

Why Myopia Management is Important

As children grow, their eyes do too, leading to an increase in myopia. This can result in greater reliance on corrective lenses and higher risks for serious eye health issues. The continuous stretching of the eye's structure can lead to:

- **Cataracts:** Clouding of the eye's lens.
- **Myopic Maculopathy:** Damage to the central part of the retina.
- **Glaucoma:** Increased pressure in the eye, leading to optic nerve damage.
- **Retinal Detachment:** Separation of the retina from its underlying tissue.

What Can Be Done

Myopia Management:

Recent advancements in eye care have introduced several treatment options that can significantly slow myopia progression, offering a proactive approach to managing this condition.

Treatment Options:

- Myopia Control Soft Contact Lenses
- Myopia Control Glasses Lenses
- Specially Formulated Eye Drops
- Ortho-Keratology (Ortho-K) Rigid Contact Lenses

Treatment Success:

Effectiveness varies by patient, with many treatments showing a 50-60% reduction in the progression of myopia and axial length growth. Our goal is to select the best treatment option tailored to your child's needs based on the latest scientific research.

What to Expect During Your Myopia Assessment

Initial Assessment:

- The Myopia Management Initial Assessment includes all necessary testing and follow-up appointments for one year.
- This assessment provides detailed measurements beyond a basic eye exam and evaluates risk factors to determine the most suitable treatment plan.

Follow-Up Visits:

- Patients are generally seen every 6 months. Additional visits may be required based on treatment progress and effectiveness. The annual fee covers all myopia related visits for one year.

During the Assessment:

Expect a thorough evaluation of your child's eyes, risk factors, and current habits. This visit also allows time to discuss treatment options with your doctor and to address any questions you may have.