This Myopia Minute gives you a brief overview of the measurements to include in an eye examination of a child with myopia or at risk of developing myopia. Please refer to the source references for more details.

**STANDARD PROCEDURE**

**DISTANCE AND NEAR VISION ASSESSMENT**

Uncorrected and best corrected

- Use age-appropriate chart.
- Record findings for monitoring and follow-up.

**OCULAR HEALTH CHECK**

- Internal.
- External.
- Intraocular pressure.

**REFRACTION**

(subjective and/or objective)

- Children at risk for developing myopia may be identified by comparing their refractive status to the normal refraction for their peer group.

**ACCOMMODATIVE AND BINOCULAR VISION (BV) TESTING**

- Even before myopia develops, children may show BV disorders.
- Watch out for reduced accommodative response, increased accommodative lag and higher AC/A ratios.

**MYOPIA RELATED MEASUREMENTS**

**CYCLOPLEGIC REFRACTION INCLUDING DROPS**

(BEST PRACTICE)

**WHY?**

For added precision assessing young children who may not be able to verbalise their vision issues.

**HOW?**

2 drops of 1% tropicamide or cyclopentolate 5 minutes apart. Refraction 30 to 45 minutes after first drop.

**ALTERNATIVE TO CYCLOPLEGIC REFRACTION**

Retinoscopy with accommodation well controlled.

**FUNDUS CHECK**

**WHY?**

To document if there are early features of myopia-related pathology.

**HOW?**

Thoroughly examine central and peripheral retina under dilation, and where possible, record observations using OCT and/or fundus photography.

**AXIAL LENGTH MEASUREMENT (AL)**

**WHY?**

To assess risk of developing myopia and to monitor progression.

**HOW?**

- Preferably use a non-contact optical biometer
- Risk scenario: AL is >25 mm with growth of 0.2 to 0.3 mm/year

**TEAR FILM EVALUATION**

**WHY?**

To guide clinical decision making on optical interventions, particularly contact lenses, so that they can be worn comfortably and compliantly.

**HOW?**

Ask probing questions and use a slit lamp biomicroscopy to examine the anterior eye.

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**Referenced Sources**