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The Vision in Preschoolers Study Group. Comparison of Preschool Vision Screening Tests as Administered by Licensed Eye Care Professionals in the Vision in Preschoolers Study. *Ophthalmology* 2004;111:637-650. Preschool Vision Screening Tests Administered by Nurse Screeners Compared with Lay Screeners in the Vision in Preschoolers Study. *Invest Ophthalmol Vis Sci* 2005;46:2639-2648.

## **Noncycloplegic Retinoscopy**

### ***What Are You Testing?***

Noncycloplegic retinoscopy measures refractive error. The retinoscopy spectacles ensure that the vertex distance is kept constant and that accommodation is relaxed.

### ***What You Need to Do the Test:***

1. A streak retinoscope.
2. A distance fixation target in the form of a VCR and video tape.
3. Remote control for the VCR system.
4. A retinoscopy rack or loose lenses.
5. Retinoscopy spectacles corresponding to the examiner's working distance: +2.00 DS (50 cm), +1.75 DS (57 cm), or +1.50 DS (67 cm).
6. A box of tissues.

### ***Getting Ready:***

1. Place the examiner's chair about 50-60 cm from the child.
2. Set up the distance fixation target at least 10 feet from the child.
3. Lower the VCR to the child's eye level.
4. Dim the lights by manually turning off the overhead lights.

### ***How You Do the Test:***

1. Position the child facing the distance fixation target at the end of room.
2. The right eye is measured first.
3. The examiner is positioned facing the child so that his/her right eye is directly in front of the child's right eye.
4. Place the retinoscopy glasses (in the appropriate power for the working distance) on the child's face.
5. The examiner activates the distance fixation target with the remote control.
6. Use a retinoscopy lens rack or hand-held trial lenses to neutralize the refractive error.
7. Examiners may perform noncycloplegic retinoscopy in their customary manner.

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8. If the child has overt strabismus, care should be taken to perform retinoscopy on axis. Reposition the child and examiner as necessary to achieve distance fixation and to maintain the working distance.
9. The procedure is then repeated for the left eye.
10. Wipe the temples and bridge of the glasses with a tissue after testing.

***What You Tell the Child:***

1. Tell the child to keep looking at the distance fixation target.
2. Tell the child that you are going to look into his/her eyes with a light.
3. Repeat the instruction to the child to keep looking at the distance fixation target.

***What You Write Down:***

1. The refractive error present over the retinoscopy spectacles is recorded in standard prescription notation (either plus or minus cylinder form) on the GSE data form. If there is no cylinder, put a dash in each of the fields for Cyl and Axis. If the refractive error is plano, also put a dash in the Sphere field.
2. Record the power of the spherical and cylindrical lenses to the nearest 0.25 diopter. Lens powers must be recorded with two decimal places (.00, .25, .50, or .75).
3. You may use the optical cross on the data sheet as a scratch pad prior to recording the refractive error in standard prescription notation on the GSE data form.

***Remember!***

1. Constantly remind the child to maintain fixation on the distance target so that accommodation is stable and relaxed.