

Any and all use of these documents should cite the following references:
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.

Lensometry

What Are You Testing?

Lensometry is a technique that measures the dioptric power of spectacle lenses.

What You Need to Do the Test:

1. A lensometer.
2. The patient's spectacles.

Getting Ready:

1. Adjust the focusing eyepiece of the lensometer so that it reads 0 D on the measuring drum with the target crisply in focus.

How You Do the Test:

1. Place the spectacles in the lensometer with the ocular surface away from the examiner.
2. Measure the right lens first. Then measure the left lens.
3. Center the spectacles within the carriage of the instrument so that the target is centrally aligned within the eyepiece reticle.
4. From an excess plus power direction, rotate the power drum of the lensometer so that the target comes to a sharp focus in the first meridian, simultaneously rotating the axis drum and making its target lines contiguous. This is the first meridian. Note the position of the power drum.
5. Continue rotating the power drum until the second meridian comes into sharp, contiguous focus. This is the second meridian. Note the position of the power and axis drums.
6. If both meridians come to a sharp focus simultaneously, the lens is spherical. If there are two distinctly different foci, the lens is spherocylindrical.
7. If there is an add, measure it.
8. The spherical or spherocylindrical power and axis is recorded in minus cylinder form.
9. The multifocal add, if present, is recorded as a plus add.

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Remember!

1. Focus the lensometer before each reading.
2. Carefully fine-tune the power and the axis drums.
3. If the lens is a multifocal lens, look carefully for the maximum plus power position of the lens.

VIP Study Group