

Eye M.D. Fact Sheet

How To Read Your

EYEGLOSS PRESCRIPTION

The numbers your Eye M.D. (ophthalmologist) jots down during your eye exam describe what you're seeing. O.D. (oculus dextrus) is your right eye and O.S. (oculus sinister) is your left. You might see the abbreviations RE and LE, or possibly no designation at all. If that is the case, the first set of numbers is probably for your right eye.

	Sphere	Cylinder	Axis
O.D.	+2.50	+1.00	180
O.S.	+1.75	+1.50	180
		+2.00 add	

The prescription above reads, "Right eye, plus two point five zero, plus one point zero zero, axis 180. Left eye, plus one point seven five, plus one point five zero, axis one eighty. Plus two point zero add."

The "Sphere" column indicates how nearsighted or farsighted you are. "Cylinder" refers to the measurable degree of astigmatism of your central cornea. The cylindrical number describes the dioptric difference between your cornea's steepest and lowest curves. If you have astigmatism, your cornea is shaped like the back of a spoon, curved more on one side than the other. The orientation of the spoon shape can differ from person to person, for instance like a spoon standing on end or on its side. The "Axis" column describes the orientation in degrees from horizontal. Most left and right eyes with astigmatism are symmetrical.

What Do the Numbers Mean?

Lens power is measured in units called diopters. Diopters are based on how much light rays passing through the lens will be bent. As the power of the lens increases, so does the thickness of the lens. There are three different types of lenses:

Convex lenses are thicker in the center than at the edges, like a magnifying glass. Light rays are gathered together towards a central point. Convex lenses are used in glasses for farsighted (hyperopic) eyes that can't bend light rays as much as they need to. Convex lenses are indicated with a plus (+) symbol on prescriptions.

Concave lenses are thinner at the center than at the edges and spread light rays apart. These lenses are used for eyes that are nearsighted (myopic). Concave lenses are indicated with a minus (-) symbol.

Cylindrical lenses are curved more in one direction than the other. To tell if your lenses are cylindrical, hold your glasses at arm's length and sight a straight line through the lens. Rotate the glasses clockwise and counterclockwise. If the line bends, it's a cylindrical lens. Cylindrical lenses, used for astigmatism, are usually part of a prescription for near- or farsightedness.

(over)

Eyeglass Prescription

The prescription below reads, "Right eye, minus one point two five, minus two point five zero, axis ninety. Left eye, minus zero point seven five, minus two point two five, axis eighty-five."

	Sphere	Cylinder	Axis
O.D.	-1.25	-2.50	90
O.S.	-0.75	-2.25	90
		+1.50 add	

This means the patient's right eye has $1 \frac{1}{4}$ diopters of nearsightedness with $2 \frac{1}{2}$ diopters of astigmatism. The axis refers to the orientation of the cylindrical area of the lens. The axis can be anywhere from 1 to 180 degrees, with 90 being the vertical meridian. The left eye has $\frac{3}{4}$ diopters of nearsightedness, $2 \frac{1}{4}$ diopters of astigmatism, axis 90.

Bifocal prescriptions are indicated with numbers such as the "+1.50 add" above. This number indicates the strength of the lens. This patient will need $1 \frac{1}{2}$ diopters of power for reading.

For more information, visit the Web site of the American Academy of Ophthalmology - The Eye M.D. Association - www.eyenet.org. An Eye M.D. is an ophthalmologist-a medical doctor specially trained to provide the full spectrum of eye care - medical, surgical and optical.