

Gulden Ophthalmics' Retinoscopy Practice Eye (Part 15174) - Instructions for Use

The training eye is designed to help students acquire the skill of performing retinoscopy and to provide instructors a means to evaluate that skill. The back of the training eye can be adjusted from +3 to -4.5 to simulate different refractive errors. Hypermetropia (farsightedness) is created with the eye set to "+" values, while myopia (nearsightedness) will result with "-" values. This range can be extended by placing a 38mm diameter trial lens in the well in front of the eye's pupil. The power of a convex (plus power) lens adds to the amount of myopia set by the position of the back of the training eye while concave (minus power) lenses simulate increased farsightedness. For example, if the back of the eye is set to -2 and a +2 diopter lens is positioned in the lens well, the resulting refractive error will be 4 diopters of myopia.

By inserting a cylinder lens into the lens well, arbitrary astigmatism error can be simulated. Instructors can place the included 'solution shroud' in the lens well in front of the cylinder lens to cover the handle and axis marking. This shroud makes it impossible for the student to obtain the prescription without having first mastered the skill of retinoscopy. Here is how to set up the training eye with -3 diopters of myopia and +0.25 diopter cylinder power on the 60 degree axis:

		
Pull Back of Training Eye to achieve the -3 Diopters of Myopia	Insert +0.25 cylinder lens and align axis to 60 degrees	Insert 'solution shroud' to conceal the markings on the trial lens

A note on working distance: Because the neutralizing lens power varies with the working distance, it may be helpful for students to use a string to set their distance until they become comfortable with a chosen distance. The examiner's distance from the eye introduces an additional 'lens power':

Working Distance	Lens Diopters
50 cm	+ 2.00
57 cm	+1.75
67 cm	+1.50

To achieve the actual refractive correction, the power of the working distance is subtracted from the total lens power used to achieve a neutral retinoscopy reflex.

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