

## **Testing Trifield glasses**

A study conducted at the Schepens Eye Research Institute, an affiliate of Harvard Medical School, showed that Trifield lenses, a device invented by Professor Eli Peli, MSc, provided some benefit to study subjects with "tunnel vision" (10-degree or less visual field). **Russell L. Woods, MCOptom, PhD**, described the development of the

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Trifield glasses, the evaluation of a variety of designs and preliminary testing with two pilot subjects. Trifield glasses were shown to produce an extension of the visual field, as measured with perimetry, of about three times. That visual field extension may improve searching, orientation and mobility, such as walking.

Dr. Woods and colleagues found that Fresnel prisms produced a reduction in vision that was greater than found for normally sighted subjects. Incorrect prism power caused disturbing diplopia. Subjects were unable to determine the direction of field expansion; that is, they detected objects but did not know on which side they were.

The researchers concluded that the Trifield lenses provided some benefit to subjects by warning of nearby objects; however, subjects did not adapt to the field expansion with altered perception of visual direction. An extended wear trial has been launched in which 12 subjects are fitted and evaluated for a 6-week period, to objectively evaluate the effect on walking, visual direction and quality of life. Visit [www.eri.harvard.edu/faculty/peli/posters/index.htm](http://www.eri.harvard.edu/faculty/peli/posters/index.htm) for more information.