

## Glossary of Terms

**apodization** – The gradual reduction or blending of the diffractive step heights. The application of apodization to intraocular lenses is a patented process by Alcon and can only be found in the AcrySof® ReSTOR® IOL.

**cataract** – A “clouding” of the lens in your eye. As light passes through the cataractous lens, it is diffused or scattered. The result is blurred or defocused vision. Cataracts may develop in a person as young as 40, but typically affects vision after age 60.<sup>1</sup>

**ciliary muscle** – A muscle that wears out with age, that enables the eye to quickly change focus to see objects at near, intermediate and far distances.

**cornea** – Transparent front part of the eye that covers the iris, pupil, and anterior chamber and provides most of an eye’s optical power.

**diffraction** – The spreading of light. Occurs when light passes through discontinuities (i.e. steps or edges). In an optical system, light can be diffracted to form multiple focal points or images.

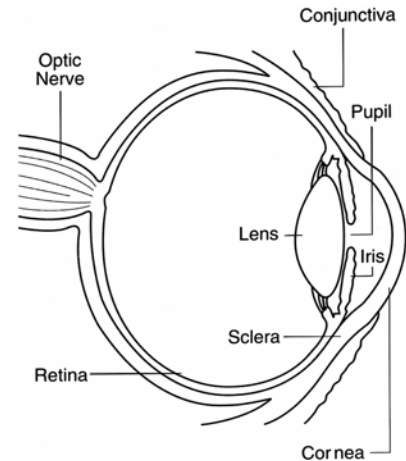
**intraocular lens (IOL)** – An artificial lens that replaces the eye’s clouded crystalline lens.

**iris** – The colored part of the eye.

**lens, crystalline lens** – The eye’s natural lens. Transparent, biconvex intraocular tissue that helps bring rays of light to a focus on the retina.<sup>2</sup>

**monofocal IOL** – An artificial lens that provides patients with only one focal point, most commonly distance, thus leaving patients dependent on glasses for near activities. Currently, this is the most commonly implanted artificial lens.

**optic nerve** – Largest sensory nerve of the eye; carries impulses for sight from the retina to the brain.<sup>2</sup>



<sup>1</sup> *Don't Lose Sight of Cataract*. National Eye Institute: 2005; [http://www.nei.nih.gov/health/ataract/cataract\\_risk.asp#1](http://www.nei.nih.gov/health/ataract/cataract_risk.asp#1).

<sup>2</sup> Source: Cassin, Barbara and Rubin, Melvin L. “Glossary of Eye Terminology.” *Dictionary of Eye Terminology*. 4<sup>th</sup> ed. Gainesville, Florida: Triad Publishing Company, 2004.



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**presbyopia** – Condition in which there is a diminished power of accommodation arising from loss of elasticity of the crystalline lens, as occurs with aging. Accommodation is the ability to quickly change focus to see objects at distances up-close, far away and everything in between. Presbyopia usually becomes significant in a person's mid-forties.<sup>2</sup>

**pupil** – Variable-sized black circular opening in the center of the iris that regulates the amount of light that enters the eye.<sup>2</sup>

**retina** – The transmitter located at the back of your eye that sends the images to your brain.

**sclera** –The white part of the eye. Opaque, fibrous, protective outer layer of the eye that is directly continuous with the cornea in front and with the sheath covering optic nerve behind.<sup>2</sup>

**visual acuity** – The assessment of the eye's ability to distinguish object details and shape, using the smallest identifiable object that can be seen at a specified distance (usually 20 feet for distance or 16 inches for near).

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