

Eye Care Glossary

AAO (American Academy of Ophthalmology) – An organization with a mission to advance the lifelong learning and professional interests of ophthalmologists to ensure that the public can obtain the best possible eye care.

aberrations – Lower-order aberrations are refractive errors that occur with individuals who are nearsighted, farsighted, or have astigmatism. Higher-order aberrations are more complex and occur when a person sees glares, starbursts, or halos – especially at night.

ablation – The surgical removal of eye tissue.

ABO (American Board of Ophthalmology) – An organization with a mission to serve the public by improving the quality of ophthalmic practice through a certification and maintenance of certification process that fosters excellence and encourages continual learning.

accommodation – The eye's ability to focus from one distance to another.

age-related macular degeneration – Results from deterioration of the macula, which is the back portion of the retina responsible for clear, sharp vision.

amblyopia – Also called lazy eye. Undeveloped central vision in one eye that leads to the use of the other eye as the dominant eye.

anophthalmos – Absence of one or both eyes. Anophthalmos may be congenital or due to trauma, infection or other causes. Symptoms include reduced depth perception and peripheral vision.

ANSI (American National Standards Institute) – An organization that coordinates efforts to develop standards for manufacturing of various products, such as eyeglass lenses.

AOA (American Optometric Association) – An organization with a mission to improve the quality and availability of eye and vision care everywhere.

ASA (Advanced Surface Ablation) – Refractive surgery similar to PRK and LASEK. No corneal flap is created, but rather the epithelial layer is removed with a diluted alcohol solution. The corneal surface is reshaped using an excimer laser, covered with a bandage-like contact lens, and the epithelial layer is allowed to grow back.

astigmatism – A condition in which the irregular-shaped cornea (corneal astigmatism) or lens (lenticular astigmatism) causes light to focus on two points in the back of the eye rather than just one.

bifocal – A lens with two focal lengths: one for distance and one for close-range.

blended bifocal – A no-line bifocal lens that provides distance and near correction. The term no-line means the lens has no dividing line between the two corrective areas.

blepharospasm – Involuntary increased blinking that progresses to spasms in both eyes. The exact cause is unknown, but doctors believe it to be a central nervous system disorder.

cataract – Clouding of the natural lens of the eye, usually caused by aging in conjunction with other risk factors, such as exposure to the sun's UV rays, smoking, steroid intake and diabetes. Symptoms include blurred vision, glare, halos around lights, colors that are less bright, a cloudy spot in the vision and temporary vision improvement.

coated lenses – A vacuum coating applied to glass lenses. The most common vacuum coating is the anti-reflective coating. The same process is also used for applying mirror coatings, color coatings, and scratch coatings.

conjunctivitis – Inflammation of the conjunctiva, characterized by a pink eye. The cause is either infectious or allergic. The term "pink eye" refers to the viral variety but is commonly used for any type of conjunctivitis. Other symptoms include burning, discharge, dryness, itching, light sensitivity, eye pain, stickiness, and tearing.

contract lab – An optical laboratory that has signed a contract to provide lenses and/or frames to member doctors at agreed-upon prices.

cornea – The clear, strong surface layer of the eye covering the iris and pupil.

corneal flap – A layer of tissue created by a microkeratome or laser, under which the laser treatment is performed in the LASIK procedure

corneal implants – Devices such as rings or contacts placed in the eye, usually to correct vision.

corneal topography – The process to create a map of the eye. This map may be used for evaluations related to refractive surgery.

corneal ulcer – An infected corneal abrasion. This is an ocular emergency. Symptoms include light sensitivity, eye pain and tearing, red or pink eyes, or a white or cloudy spot. Frequently found in extended wear contact lens wearers.

cosmetic options – A lens style, coating, or feature that enhances the appearance or functionality of a lens but is not required to meet the patient's visual needs.

covered contact lenses (CCL) – A benefit where contact lenses are provided, subject to a deductible and other plan requirements.

daily wear – These soft contact lenses are worn, cleaned and disinfected daily for six months up to several years.

dilation – A process by which the pupil is temporarily enlarged with special eye drops. This allows an eye doctor to see more of the retina and look for signs of diabetic retinopathy and other eye diseases or health concerns. After the examination, close-up vision may remain blurred for several hours.

edge coating – Lens edges can be painted or color treated. This treatment is sometimes applied to high minus lenses to reduce or eliminate concentric rings, which are often observed on higher corrections. Edge coatings can be applied to disguise thick edges or for cosmetic reasons to coordinate with frame color.

elective contact lenses (ECL) – A type of coverage that provides an allowance toward contact lenses. Patients may choose either eyeglasses or contact lenses, but not both.

excimer laser – A class of ultraviolet lasers that removes tissue accurately without heating it. In refractive corneal surgery, the laser is controlled by a computer to make precise pre-programmed shavings of eye tissue to produce a given optical correction. Originated from optical lasers used in the computer chip etching process.

farsightedness (hyperopia) – The inability to see objects up close. It is the result of an eyeball that is too short or whose outside surface (the cornea) is too flat. The exact cause is not known, although farsightedness may be inherited.

frequency – The period of time that must elapse before a patient is eligible again for services. Usually listed in order of exam/lens/frame or “elf”.

floaters – A dark or gray spot or speck that passes across the field of vision and moves as the eye moves. Floaters are very common, especially as the eye ages when the gelatinous vitreous humor begins to liquefy in the center of the gel. Floaters are caused by the undissolved vitreous humor that floats in the liquid vitreous.

glaucoma – An eye disease in which the passages that allow fluid in the eye to drain become clogged or blocked, or too much fluid accumulates inside the eye. Increased pressure inside the eye then damages the optic nerve and causes vision loss.

gradient tint – A lens tint that is tinted lightly (usually at the bottom of the lens), then gradually tinted darker (toward the top of the lens).

high index – Any lens material with a higher refractive index than glass or plastic. Glass high-index materials have a refractive index above 1.60. Plastic high-index lens materials have a refractive index above 1.54. See refraction.

independent lab – An optical laboratory not under contract with an insurance carrier.

iris – The colored ring of tissue suspended behind the cornea and immediately in front of the lens. It regulates the amount of light entering the eye by adjusting the size of the pupil.

LASEK (Laser-Assisted Sub-Epithelial Keratectomy) – A hybrid of photorefractive keratectomy (PRK) and laser-assisted in-situ keratomileusis (LASIK), the goal of LASEK is the preservation of the corneal epithelium. Rather than creating a flap with a microkeratome (as in LASIK) or scraping and removing the patient's epithelium (as in PRK), LASEK treats the epithelium with alcohol to loosen and separate it from the stroma and it is then rolled back to perform the refractive surgery.

LASIK (Laser-Assisted in-Situ Keratomileusis) – Type of refractive surgery in which the cornea is reshaped to change its optical power. A disc of cornea is raised as a flap, then an excimer laser is used to reshape the cornea. Used for correcting myopia, hyperopia, and astigmatism.

legal blindness – In the U.S. there are two criteria: (1) visual acuity of 20/200 or worse in the better eye with corrective lenses; or (2) visual field restricted to 20 degrees diameter or less in the better eye, also known as tunnel vision. (20/200 means that a person standing 20 feet from an eye chart sees what a person with normal vision can see at 200 feet from the chart.)

lenticular – Lenses designed to reduce weight and thickness by concentrating all the power of the lens in a small area in the center. They are often used for post-cataract surgery patients.

low vision – Lenses or optical devices used for those with little correctable sight. Aids include hand-held magnifiers and other high magnification devices.

medically necessary contact lenses – Contacts that are required to achieve a specified level of visual performance which cannot be obtained with conventional eyeglasses.

microkeratome – A surgical device that is affixed to the eye by use of a vacuum ring. When secured, a very sharp blade cuts a layer of the cornea at a predetermined depth.

multifocal – Any lens having more than one power or correction. Includes bifocals, trifocals, progressives, and quadrifocals.

nearsightedness (myopia) – The inability to see clearly at a distance, caused by an eyeball that is too long or whose outside surface (cornea) is too curved. Nearsightedness can be inherited or caused by the stress of concentrating for long periods on work at a close distance.

ophthalmologist – A doctor of medicine (M.D.) who is licensed to examine, diagnose, treat disorders, prescribe corrective lenses, and perform surgery on the eye.

ophthalmology – the medical specialty encompassing the anatomy, functions, diseases, and treatment of the eye.

optician – A skilled technician licensed to fill prescriptions for glasses (and sometimes contact lenses). The optician does not perform eye examinations.

optometrist – A doctor of optometry (OD) who is licensed to examine, measure, and treat certain visual defects by means of corrective lenses or other methods.

optometry – the profession of examining, measuring, and treating certain visual defects by means of corrective lenses or other methods that do not require license as a physician.

out-of-network doctor – An ophthalmologist or optometrist who is not a member of an insurance carrier's panel. Patients visiting non-member doctors will be reimbursed according to the non-member allowances dictated by the group's contract.

photochromic (transitional lenses) – Lenses that darken when exposed to sunlight.

polarized – Lenses that reduce reflected glare and make excellent sun wear, particularly for water sports and driving.

polycarbonate – High index plastic material used to make lightweight lenses with great impact resistance. Often used for children and individuals with active lifestyles.

presbyopia – The gradual loss of the eye's ability to change focus for seeing near objects. With age, the lens inside the eye gradually loses its flexibility and focusing ability. It occurs in almost all people over age 45. Laser surgery will not correct this problem.

PRK (Photorefractive Keratectomy) – A procedure involving the removal of the surface layer of the cornea (epithelium) by gentle scraping and use of a computer-controlled excimer laser to reshape the stroma.

progressive lens – A multi-focal lens where power gradually changes from distance correction in the top half to reading correction in the bottom half with clear vision provided for the intermediate zone.

pupil – The adjustable opening at the center of the iris that allows varying amounts of light to enter the eye.

refraction – The bending of light that takes place within the human eye. Refractive errors include nearsightedness (myopia), farsightedness (hyperopia), and astigmatism. Lenses can be used to control the amount of refraction, correcting those errors.

refractive surgery – A general term referring to many different procedures to correct the refractive error of the eye.

retina – The light-sensitive layer of tissue that lines the back of the eyeball. It sends visual impulses through the optic nerve to the brain.

scratch coating – Coating applied to plastic lenses to increase resistance to handling scratches. Front surface coating can be factory-applied. Back coating is usually applied by the laboratory.

single vision – Lenses with one power, as opposed to bifocals, trifocals, quadrifocals or multifocals.

solid tints – Color tints that have the same density throughout the lens.

stroma – The cornea's middle layer.

tinting – Most non-glass lenses can be dyed to add color for cosmetic purposes or to reduce light transmission. Glass lenses must be made from colored glass or have color applied by vacuum coating.

tonometry – A standard test that determines the fluid pressure inside the eye. Elevated pressure is a possible sign of glaucoma.

TPA (Therapeutic Pharmaceutical Agent) – The highest level of licensure available to an optometrist. The TPA endorsement allows optometrists to dilate the pupils and prescribe medication after diagnosis.

trifocals – Lens with three distinct powers to correct for distance, arm's length, and near viewing.

U&C Fee (Usual and Customary Fee) – The fee normally charged by a doctor to private patients.

UPIN (Universal Physicians Identifier Number) – A provider code issued by the federal government. The UPIN code differs from the state-issued Medicaid code in that the UPIN follows a doctor from state to state. This allows the federal government to track the doctor in the national database. The Medicaid ID is state-specific and therefore does not travel with the doctor.

UV coating – Lens treatment applied to absorb the harmful portion of ultraviolet light found in daylight. When applied to plastic lenses, it is actually a dye, not a coating.

visual acuity test – An eye chart test that measures how well a person sees at various distances.

wavefront – A measure of the total refractive errors of the eye, including nearsightedness, farsightedness, astigmatism, and other aberrations that cannot be corrected with glasses or contacts.

