

# Glossary

## Access™

The brand name for Sola enhanced, near-vision lenses. An Access™ lens is a single vision reading lens with an enhanced (extra-close) range at the bottom of the lens.

## Age-related macular degeneration (AMD)

An acquired retinal disorder characterized by degeneration in the central (macular) area of the retina. This is the leading cause of blindness in persons over age 65.

## American Optometric Association (AOA)

The national, professional association representing optometry.

## Anti-Reflective Coating

A clear lens coating that limits light reflection by allowing the maximum amount of light to pass through the lens (e.g., Reflection-Free™).

## Associates

A term used in place of “employees” by Davis Vision to refer to its work force. “Associates” refers to people working together toward a common goal.

## Astigmatism

The eye has two different curves on the corneal surface or within the eye.

## Bifocal

A lens containing two different powers: one for distance vision and one for near vision.

## Blended Invisible Bifocal / Blended-Segment Lenses

A lens containing two different powers, one for distance vision and one for near vision. The segment with near-vision prescription is invisible.

## Cataract

A partial or complete loss of transparency of the crystalline lens. The clouded lens is removed by surgery and usually replaced with a plastic lens called an intraocular lens implant.

## Comprehensive Eye Examination

It describes a level of service in which a general evaluation of the complete visual system is made. The comprehensive services constitute a single-service entity but need not be performed at one session. The service

includes history, general medical observation, external and ophthalmoscopic examination, gross visual fields and basic sensorimotor examination. It often includes, as indicated, biomicroscopy, examination with cycloplegia or mydriasis and tonometry. It always includes initiation of a diagnostic and treatment program as indicated.

## Contact Lens

A small shell-like lens that rests directly on the eye. There are many styles:

**Soft Lens** – Lenses made from flexible water-absorbent plastics. These lenses are comfortable, even at the end of the day.

**Daily-Wear** – Lenses put in the eye at the beginning of the day and removed at the end of the day. *Davis Vision no longer carries in their collection.*

**Disposable/Planned-Replacement** – Soft lenses that are worn for a prescribed length of time, then are discarded. Compared to conventional soft lenses, these lenses offer the patient better eye health, clearer vision, increased comfort and a “fresh-lens feeling” on a continuous basis. There is very little to no maintenance involved with these lenses.

**Extended-Wear** - A soft lens with the same comfort as a daily-wear soft lens, but that can be left in the eye for up to two weeks. Also tears easily.

**Gas-Permeable** - A hard lens that is very oxygen-soluble and quite comfortable to wear. They need minimal care and last for years.

**Hard** - One of the first contact lenses. Made of hard plastic. Generally not as comfortable as soft or gas-permeable lenses.

**Medically Necessary** – Contact lenses prescribed for conditions in which visual acuity cannot be adequately corrected with eyeglasses but can be corrected by contact lenses.

**Toric Bifocal Contact Lens** - A lens containing two different powers: one for distance vision and one for near vision. It is of specific design to correct astigmatism as they are curved in a way that compensates for the irregularly shaped cornea.

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**Monovision** – A contact lens fitting technique used to correct presbyopia. The dominant eye is used for distance vision, while the weaker eye is used to see close up.

**Scleral Shell** – A contact lens that fits over both the cornea and the surrounding sclera (i.e., the “white of the eye”).

**Toric** - A contact lens of a specific design to correct astigmatism. Toric lenses may be made of soft or rigid materials. They are curved in a way that compensates for the irregularly shaped cornea.

## Convergence

The movement of the eyes in such a way that the internal recti turn the visual axes to intersect at some finite point.

## Cornea

Transparent portion of eye in front of the iris (colored part).

## Digital Surface Technology for Progressive Lenses

Digital Surface Technology (available in the Ultra Tier), sometimes called Free-form, is a manufacturing process, not a lens. This technology allows lens designers great freedom for lens designs because they are not confined to using the traditional semi-finished lens blanks. The optical design of those new lenses can be customized and optimized to the fitting and prescription requirements of the patient, Direct surfacing allows the manufacturer to grind the back surface and produce a highly accurate and customized finish product.

## Dilated Examination (Dilation)

The enlargement of the pupil by the application of diagnostic drugs in the form of eye drops. The larger pupil opening allows more detailed inspection of the peripheral retina to facilitate diagnosis and documentation of numerous potential diseases or disorders.

## Diopter

Unit that describes the power of spectacle lenses.

## Dominant Eye

The eye that “leads” its mate during eye movements.

## DPA

Stands for Diagnostic Pharmaceutical Agents. A term used by eye doctors for eye drops used for diagnostic purposes during an eye examination.

## Edging

The process of cutting a lens blank to the appropriate size

and shape required for a particular frame.

## Executive Bifocal

Bifocal in which the near (reading) portion is across the entire bottom of the lens. Useful for extended close-up work (e.g., bookkeeping) at a desk.

## Eye

The sense organ responsible for the sense of vision.

## Eyeglasses

A term commonly used to describe an ophthalmic frame with lenses inserted.

## Farsightedness

A common term for hyperopia.

## Frame

Plastic or metal structure for holding lenses.

## Frame, Rimless

A type of frame that provides no, or only partial, peripheral support for the lenses.

## “Frames”

A book that is published quarterly and lists every frame manufactured along with a price list that all doctors use to establish UCR for frames.

## Full-Spectrum Lens

An ophthalmic lens made from a plastic that transmits approximately 90% of ultraviolet light. (A conventional plastic lens transmits only 10%.)

## Glaucoma

A disease caused by high pressure in the eye. When pressure gets too high, it blocks circulation to the retina and retinal tissue, resulting in a loss of vision and, in severe cases, blindness. Glaucoma is usually controlled by eye drops. Laser treatment is sometimes necessary when eye drops fail.

## Gradient Tint

A lens tint that is darker at the top of the lens, fading to lighter at the bottom.

## High-Index/High Lite

Material that is used to create thinner (by almost one-third) lenses than normal plastic. Does not contain the impact-resistant qualities of polycarbonate.

## Hyperopia

A condition where images do not come into focus on the retina but at a theoretical point behind it, resulting in blurring of images viewed at close range.

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## Hyperphoria

Tendency of one eye to deviate upward.

## Hypertropia

An actual deviation of the z-axes in the vertical meridian.

## Hypophoria

Vertical heterophoria in which one eye tends to deviate downwards relative to the other. This can be differentiated from Hyperphoria in the other eye only by evidence of paresis or paralysis of elevating.

## Intermediate-Vision Lenses

That area in a trifocal lens or lens blank that has been designed to correct vision at intermediate to distant ranges.

## Intermediate Examination

Describes a level of service pertaining to the evaluation of a new or existing condition complicated with a new diagnostic or management problem. This does not necessarily relate to the primary diagnosis. It includes history, general medical observation, external ocular and adnexal examination and other diagnostic procedures as indicated; it may include the use of mydriasis.

## Keratitis

Inflamed cornea.

## Keratoconus

A condition (cause unknown) in which the cornea gets progressively steeper (cone-shaped). Fitting with a hard contact lens may slow progression. Surgery may eventually be necessary.

## Lens, Corrected Curve

A lens designed to reduce peripheral power errors for the conditions of intended use over a specified portion of the field of view.

## Lens, Multifocal

A lens designed for two or more viewing ranges for example, bifocal or trifocal lenses.

## Lens, One-Piece Multifocal

A multi-focal lens or a lens blank fabricated from a single piece of glass or plastic.

## Lens, Photochromic

A lens that darkens in response to the ultraviolet component of sunlight.

## Lens, Plano

A lens that has zero refractive power.

## Lens, Plus

A lens that has positive refractive power. It is thicker at the center than at the edge.

## Lens, Progressive Power

A lens that is designed to provide correction for more than one viewing range, in which the power changes continuously rather than discretely.

## Lens Size

The horizontal box dimension (A-dimension) of a finished lens. Also called eye size.

## Lens, Spherical

A lens that has the same refractive power in all meridians. Such a lens may have rotationally symmetrical aspheric surfaces.

## Lens, Sphero-Cylinder

A lens that has different refractive power in the two principal meridians. It is sometimes referred to as an astigmatic or toric lens. It is sometimes INCORRECTLY referred to as a cylinder lens.

## Lens, Toric

A lens that has two distinct curvatures at right angles (90 degrees) to each other. See Lens, Sphero-Cylinder.

## Lensometer

Instrument that can measure the power of a spectacle lens.

## Mirror Coating

A thin deposit of appropriate material to the front surface of a lens, causing a portion of the light striking the lens to reflect directly from the front surface.

## Monocular

Refers to only one eye or one side of a prism binocular.

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## Myopia

Nearsighted (difficulty seeing at distances).

## Nearsightedness

A condition that usually starts in childhood and stabilizes in the late teens or early twenties. Because the eye's focusing powers are too strong for the size of the eye, near objects are seen more clearly and those far away appear blurry. Light is focused in front of the retina (see Myopia).

## Network Provider

An Ophthalmologist, an Optometrist or an Optician, as defined by the Plan, who has signed an agreement with the Claim Supervisor to provide Covered Services to Enrollees.

## Ophthalmologist

A medical doctor who has completed a residency program in ophthalmology and specializes in vision care that is related to medical conditions, such as treating diseases of the eye and performing ocular surgery. "Title" is M.D.

## Ophthalmoscopy

A test for internal health of the eye.

## Optic Nerve

The nerve that carries impulses from the eye to the brain.

## Optician

A fabricator and dispenser of eyeglasses. Some opticians also fit contact lenses. An optician is skilled in the application of the science of optics, including optical lens and/or instrument designing or manufacturing.

## Optometrist

A doctor of optometry, who provides all ophthalmic services except surgery. In most states, they are licensed to treat ocular diseases. "Title" is O.D.

## Oversize

A larger-than-standard lens required to fabricate eyeglasses.

## Peripheral Vision

Side vision. That which an eye can see to the side while looking straight ahead.

## Photochromic

Glass or plastic lenses that darken when exposed to the ultraviolet rays of the sun.

## Photogrey

Glass lenses that turn grey when exposed to the sun.

## Photorefractive Keratectomy (PRK)

Refractive surgery to eliminate myopia by flattening the central portion of the cornea with a laser.

## Pinnacle Lens

The trade name of a private-label series of ophthalmic lenses available only at Davis Vision point-of-service locations. The lens is an aspheric design in polycarbonate material with anti-reflective coating and improved scratch resistance.

## Plano

Eyeglasses to which no prescription has been applied.

## Plastic Photosensitive Lenses

Plastic lenses that darken when exposed to the sun's ultraviolet rays.

## Polaroid™

Two lenses that are laminated to remove glare. Polaroid lenses are especially useful for boaters and pilots.

## Polished Edge

A cosmetic service to make the sides of a cut lens look clear rather than a milky white. This service can be used on any "minus" lens and on most "plus" lenses. It is not beneficial to polish the edges of a lens when:

1. An Anti-Reflective Coating has been applied, because polished edges may let light in through the sides, which causes glare negating this feature.
2. Lenses are thin, in which case the polished sides can affect the structure of the lens.

## Polarized Lenses

Lenses that block light reflected from horizontal surfaces such as water, in order to reduce glare.

## Polycarbonate

Highest impact-resistant lens material available. Its high-index properties result in lenses 20-25% thinner than "regular plastic." Used for safety and children's eyewear as well as for sports and cosmetic purposes.

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## Presbyopia

A reduction in accommodative ability. This occurs normally with age and causes the need for bifocal eyewear.

## Progressive Addition Lens

A lens that has no line but progresses from distance to intermediate to near vision (e.g., Varilux®, Seiko®, Kodak®, Super Noline®, Rodenstock®, etc.). An all-distance lens.

## Pupil

The dark opening in the center of the iris.

## Pupillary Distance (PD)

Measurement of the distance between the pupils.

## Pupillary Distance, Monocular (MPD)

The measurement from the center of the nose to the pupil.

## Quadrifocal Lens

A spectacle lens with different powers in four different segments, typically for occupational use.

## Readables

Varilux® reading lenses with an expanded visual range that provides an extra-close range at the bottom of the lens. Ideal for single vision reading lenses. Also available in Varilux® bifocal.

## Refraction

Loosely referred to as an eye examination (brief eye examination). The measuring of visual acuity and required correction.

## Retina

The thin transparent membrane in back of the eye. The light-receptive portion of the eye.

## RLX™ Coating

Scratch-Resistant coating.

## Safety Glasses

Protective eyeglasses with a minimum lens thickness of 3.0mm (1mm thicker than conventional lenses). Special (stronger) frames must be used instead of conventional dress frames.

## Scratch-Resistant Coating

Coating applied to spectacle lenses to increase the scratch

resistance of the lens surface (e.g., Supershield®).

## Single Vision

A lens with one correction, either for distance vision or for near vision, as opposed to a bifocal lens, which has corrections, for both near and distance vision.

## Solid Tint

A lens dyed or coated with pigment of uniform color and density, which causes rays of light to be absorbed or blocked.

## Tints

Normal tints that can be added to lenses to block between 5% and 20% of light. A darker tint is also available, which blocks up to 88% of light. The UV coating is always recommended with a sunglass tint. The most common tint colors are grey, green and brown.

## Transitions®

Plastic lenses that turn dark when exposed to the ultraviolet rays of the sun.

## Transitions 3®

The third generation of Transitions® plastic photochromic lens technology. These lenses are designed to become darker outdoors, have improved lens color, and become transparent indoors more rapidly.

## Trifocal Lens

A multifocal lens with three different powers in three different positions. Usually, the top (largest) portion is for distance vision, the middle portion is for intermediate distances and the bottom portion is for near vision.

## Ultraviolet Coating (UV)

A coating that blocks ultraviolet rays.

## Visual Acuity

Degree of visual sharpness, as determined by a conformance to or deviation from the standard 20/20 measurement.

## Visual Field

Davis Vision provides confrontational fields that are a simple screening provided by an ECP. An automated field is an electronic field that utilizes a field analyzer that requires an ECP or a COT to administer the test. This test provides a detailed electronic report that measures a patient's VF utilizing sets of thresholds and compares those to thresholds to the individual results.