

Common Optometric Terms Simplified

Diagnosis

Simplified definition of diagnosis

Dictionary definition of diagnosis

(Reference)

Accommodative Esotropia

One eye turns in further when focusing (often worse at near)(note eye turn can alternate)

Convergent misalignment of the eyes associated with activation of the accommodative reflex (The Wills Eye Manual, 2008).

Accommodative Insufficiency

Unable to focus at near and unable to keep this sustained focus

Insufficient amplitude of accommodation to afford clear imagery of a stimulus object at a specified distance, usually the normal or desired reading distance (Dictionary of Visual Science, 1989).

Amblyopia

Unable to see 20/20 even with the best correction

Low or reduced visual acuity not correctable by refractive means and not attributable to ophthalmoscopically apparent structural or pathological anomalies or proven afferent pathway disorders. Generally, it is detected by the measurement of visual acuity after the correction of any refractive error which may be present. (Dictionary of Visual Science, 1989).

Anisometropia

A significant difference of refractive error (prescription) between the eyes

A condition of unequal refractive state for the two eyes, one eye requiring a different lens correction than the other (Dictionary of Visual Science, 1989).

Asthenopia

Eye strain such as fatigue, pain, blurred vision, headaches, double vision

A term generally used to designate any subjective symptoms or distress arising from use of the eyes; eyestrain (Dictionary of Visual Science, 1989).

Astigmatism

Often has difficulty focusing at different distances – the eye is shaped like a football vs a sphere – light focuses in two different areas and needs a cylindrical lens to refocus the light for clarity

The refraction of a ray of light is spread over a diffuse area rather than being sharply focused on the retina. Due to differences in curvature in various meridians of the cornea and lens of the eye (Taber's Cyclopedic Medical Dictionary).

Bilateral Integration

The ability to be aware of and use both sides of the body separately and simultaneously

Binocular Dysfunction

Difficulty with eye teaming inward (convergence) / outward (divergence)

Color Vision Deficiencies

Difficulty to distinguish some shades of color (especially certain shades of red and green)

The inability to distinguish certain shades of color or in more severe cases, see colors at all. The term "color blindness" is also used to describe this visual condition, but very few people are completely color blind. Most people with color vision deficiency can see colors, but they have difficulty differentiating between particular shades of reds and greens (most common) or blues and yellows (less common)(American Optometric Association).

Convergence Excess

The eyes are having difficulty teaming outward – (ie. has a tendency to over converge)

The condition of Esophoria or Esotropia in near vision... a condition in which Esophoria or Esotropia is greater at near than at distance (Dictionary of Visual Science, 1989).

Convergence Insufficiency

The eyes are having difficulty teaming inward (when looking closer)

The condition of Exophoria or Exotropia in near vision... Inability to converge the eyes to the average or normal near point of convergence (Dictionary of Visual Science, 1989).

Deficiencies of Pursuits

Difficulty tracking objects when having to follow a moving target

Deficiencies of Saccades

Difficulty with tracking objects when having to make a jump or switch to a new object of regard

Directionality

The ability to interpret right and left directions in external visual space, including orientational specifically of written language symbols

Disorders of Accommodation

Unable to focus at near and/or relax eyes at distance

Diplopia

Double vision (seeing two of a single object)

The condition in which a single object, or the haploscopically presented equivalent of a single object, is perceived as two objects rather than as one; double vision (Dictionary of Visual Science, 1989).

Dry Eye

Insufficient tears or poor quality of tears

Esophoria

Inward posturing of the eyes without an eye turn

The inward turning, or the amount of inward turning, of the two eyes relative to each other (Dictionary of Visual Science, 1989).

Esotropia

One eye is turning in (note eye turn can alternate)

A manifest convergent misalignment of the eye(s) (The Wills Eye Manual, 2008).

Exophoria

Outward posturing of the eyes without an eye turn

The divergent turning, or the amount of divergent turning, of the two eyes relative to each other (Dictionary of Visual Science, 1989).

Exotropia

One eye is turning out (note eye turn can alternate)

Either eye is constantly or intermittently turned outward (The Wills Eye Manual, 2008).

Fixation Dysfunction / Difficulty

Difficulty keeping the eyes on a fixed and stable target

Harmon Distance

The ideal eye-to-target distance at near equals the distance from knuckle to elbow

Hyperopia

Farsightedness – difficulty with focusing the eyes to see clearly and at times may have more difficulty focusing at near

Defect in vision in which parallel rays come to a focus behind the retina (Taber's Cyclopedic Medical Dictionary).

Hypertropia

Eye is turning up relative to the other eye

Strabismus characterized by the upward deviation of the line of sight of the non-fixating eye with reference to that of the fixating eye (*Dictionary of Visual Science, 1989*).

Latent Hyperopia

A type of farsightedness where the patient is over-working their eyes and the full prescription can only be revealed with special dilation drops called cycloplegic drops

Hyperopia in which the error of refraction is overcome and disguised by ciliary muscle action (Taber's Cyclopedic Medical Dictionary).

Laterality

The ability to be internally aware of and identify right and left on oneself

Myopia

Nearsightedness – often more difficulty focusing in the distance

Defect in vision in which parallel rays come to a focus in front of the retina; objects can be seen distinctly only when very close to the eyes (Taber's Cyclopedic Medical Dictionary).

Presbyopia

Difficulty with focusing, especially at near (often occurs around 40 years of age). This is often when reading glasses are prescribed.

Defect in vision in advancing age involving loss of accommodation or recession of near point. Due to loss of elasticity of crystalline lens. The onset usually occurs between 40 and 45 years of age (Taber's Cyclopedic Medical Dictionary).

Reduced Depth Perception

Difficulty with 3D vision

Reduced Near Point of Convergence

Difficulty with converging (bringing the eyes inward towards the nose)

Reduced Vergence Ranges

Difficulty with teaming the eyes inward and outward

Refractive Amblyopia

Unable to see 20/20 even with the best correction – this is due to an uncorrected refractive error (the patient has a significant enough prescription but has not been wearing glasses so the brain is accustomed to seeing blur)

Amblyopia associated with, or attributed to, previously uncorrected high but equal refractive errors (isoametropic Amblyopia) or significantly unequal refractive errors (anisometropic Amblyopia) (Dictionary of Visual Science, 1989).

Refractive Error

Prescription as determined by the doctor, which will be approximately the measurement (ie. the power) of your glasses

Suppression

One of the eyes is not processing information. The brain can suppress information from one eye even when the eyes are aligned but are under strain from poor eye focusing or poor eye teaming

The lack or inability of perception of normally visible objects in all or part of the field of vision of one eye. (Dictionary of Visual Science, 1989).

Strabismic Amblyopia

Unable to see 20/20 even with the best correction – this is due to an eye turn (when the eye is turning, the brain is ignoring images from that eye and becomes accustomed to this pattern)

Amblyopia, usually unilateral, in association with strabismus and generally considered to be a sequel to the onset of strabismus (Dictionary of Visual Science, 1989).

Strabismus

The eyes are not working together as a team – one eye is turning in or out at any distance – you may notice one eye turning or you may notice the eyes are alternating

The condition in which binocular fixation is not present under normal seeing conditions, i.e., the foveal line of sight of one eye fails to intersect the object of fixation (Dictionary of Visual Science, 1989).

Visual Acuities

Sight measured as 20/20, 20/40, etc.

A measure of the resolving power of the eye. Usually determined by having the subject read letters of various sizes at a standard distance from the test chart. The result is expressed as a fraction. For example, 20/20... means the subject's eye has the ability to see from a distance of 20 feet what the normal eye would see at that distance. 20/40 means that person sees at 20 feet what the normal eye could see at 40 feet (Taber's Cyclopedic Medical Dictionary).

Visual-Auditory Integration

The ability to match serially presented visual stimuli with auditory counterparts

Visual Closure

The ability to recognize a complete feature from fragmented stimuli

Visual Form Constancy

The ability to recognize an object regardless of orientation and location

Visual Discrimination

The ability to perceive dominant features in different stimuli

Visual Figure Ground

The ability to distinguish an object from irrelevant background stimuli

Visual Memory

Either the ability to recall a dominant feature of a stimulus or the ability to recall the sequence of visually presented stimuli

Visual-Motor Integration

The ability to integrate vision with body movements

Visual Spatial Relations

The ability to perceive the position of objects in space

Visual-Verbal Integration

The rapid retrieval of verbal labels for visually presented stimuli

References:

- American Optometric Association. (2014, February 26). *Color Vision Deficiency*. Retrieved from [www.aoa.org: http://www.aoa.org/patients-and-public/eye-and-vision-problems/glossary-of-eye-and-vision-conditions/color-deficiency](http://www.aoa.org/patients-and-public/eye-and-vision-problems/glossary-of-eye-and-vision-conditions/color-deficiency)
- Clayton L. Thomas, M. M. (n.d.). *Taber's Cyclopedic Medical Dictionary, Edition 17*. F.A. Davis Company: Philadelphia.
- David Cline, Henry W Hofstetter & John R. Griffin. (1989). *Dictionary of Visual Science, Fourth Edition*. Radnor: Chilton Trade Book Publishing.
- Justin P. Ehlers & Chirag P. Shah. (2008). *The Wills Eye Manual: Office and Emergency Room Diagnosis and Treatment of Eye Disease* (Fifth ed.). (E. N. Gregory L. Fenton, Ed.) Baltimore: Lippincott Williams& Wilkins.