



That Lazy, Crazy Eye

What is lazy eye?

Did you know that vision at birth is not fully formed? That's right! In fact, it is learned and shaped through experience. As babies grow, vision usually gets better. In order for normal vision to develop in both eyes, the images captured by the eyes must be of equal and adequate clarity. If this does not happen, the pathways for vision in the brain will not develop correctly.

Lazy eye, or amblyopia, is the lack of development of normal vision in an eye, which ranges from mild to severe. It is estimated that 2 to 5 percent of the population has amblyopia. The National Eye Institute (NEI) estimates that amblyopia is the number one cause of visual impairment of one eye in children and in young to middle-aged adults.

What causes amblyopia?

Anything that interferes with the development of normal vision can cause amblyopia. Most often it results from the following:

Strabismus- People with strabismus often have eyes that are crossed or turned. This misalignment of the eyes can cause the brain to use just one eye. The turned eye, if habitually misaligned, will be suppressed or ignored and is then at risk for developing amblyopia.

Anisometropia- This refers to unequal vision or a large degree of difference in the amount of prescription between the eyes. For instance, if one eye is more nearsighted, farsighted or has more astigmatism than the other eye, the brain will choose the path of least resistance, thus, favoring the use of the better eye.

Visual Deprivation- Any condition that blocks the visual images from reaching the back of the eye, such as congenital cataracts or drooping eyelids, causes visual deprivation. If there is severe blurring of vision in both eyes, such as with high amounts of nearsightedness, farsightedness or astigmatism, then amblyopia can result.

How is lazy eye diagnosed?

The earlier amblyopia is detected and treated, the better the opportunity to reverse it. Quite often, there are no symptoms with this condition—especially if one eye sees well. This is why the American Optometric Association recommends eye examinations by an eye doctor at six months, three years and before starting school. Most amblyopia is discovered during routine exams and is not usually found if the person has not had his or her vision checked.

By using age-appropriate testing methods, eye doctors who see infants and children are able to perform all the necessary testing to confirm if a child has amblyopia. Eye drops that dilate the pupils are an important part of this testing because they permit evaluation of the health inside the eyes and allow a more accurate determination of the need for a glasses prescription.

What are the treatments?

Note: This is not specific medical advice. Consult your eye doctor before initiating or changing any treatment regimens. The various treatments for amblyopia depend on its cause. Before treating the amblyopia itself, the underlying reason must be addressed. Glasses, contact lenses and sometimes even refractive surgery (such as LASIK) may be used when vision correction is needed and may help to align the eyes. Eye exercises may be recommended to help improve visual function and eye teaming. Surgery may be performed to straighten the eyes in conjunction with non-surgical means, or it may be done if non-surgical means are unsuccessful. If there is a cataract or other abnormality, then the appropriate surgery is recommended. Treatment of amblyopia involves making the child use the eye with reduced vision. Most commonly, there are two ways to do this:

Patching- The more traditional form of treatment involves placing a patch over the stronger eye for a period of hours each day. This stimulates vision in the weaker eye to help the brain develop vision more completely in that eye. This process may take weeks, months or even years.

Atropine- In this treatment, a drop of the medicine called atropine is placed in the stronger eye to blur the vision so that the child must use the eye with amblyopia. Again, this forces the child to use the weaker eye.

Recently, exciting research has been completed and more is underway regarding the treatment of amblyopia. These nationwide clinical trials will certainly change and guide the way amblyopia is treated now and in the future.

Final Thoughts

There is the potential to prevent amblyopia with early detection and treatment of blurry vision, strabismus, cataracts and other problems. If left untreated, a child will not outgrow amblyopia, and it may become worse. Activities requiring good depth perception may be difficult for those with amblyopia to perform, and if the good eye becomes injured then the person may struggle in their normal activities.

Prevent Blindness America offers a web forum. The Eye Patch Club is a resource for children with amblyopia and their families. They can be reached at www.preventblindness.org or by calling 1-800-331-2020. While the best things in life may come to those who wait, when it comes to amblyopia – don't wait! Call your eye doctor today!