

Amblyopia & strabismus

Questions

What is amblyopia?

A person with amblyopia, or “lazy eye”, has a condition in which the message sent from the affected eye or eyes to the brain is of low quality, making the sight of that eye poor. Sometimes the phrase “dimness of vision” is used to describe amblyopia. A person with amblyopia will have poor vision that cannot be corrected simply with spectacles.

How common is amblyopia?

Up to four per cent of the population have amblyopia.

What causes amblyopia?

Amblyopia has many different causes. Generally, if a person cannot use both eyes together when they are young, one eye may become amblyopic. Common causes of this are a turned eye (otherwise known as strabismus) or a large difference in the extent of short-sightedness, long-sightedness or astigmatism (refractive error) between the person’s eyes. Rare causes of amblyopia can include disease or injury to the nerve connecting the eye to the brain, some psychiatric conditions, excessive use of tobacco, alcohol or other drugs.

How do these factors lead to amblyopia?

Although the basic components of the visual system are present at birth, a child’s visual system continues to develop after birth in response to his or her visual environment. This development progresses rapidly in the first few years of life and continues until at least the age of seven years. Normally, the message sent to the brain from both eyes is the same. In a person with amblyopia, the message received by the brain from one eye is different to that from the other eye, either because it is out of focus, or because the eyes are pointing in different directions (strabismus).



The brain compensates for this by ignoring the message from the worse eye. If a child’s visual system is not corrected early in life, the child may never develop the ability to process the image from the worse eye.

How can I tell if my child has amblyopia?

The most important sign is poor vision, but because only one eye is affected and the other eye usually does the work of both, often parents are unaware of the problem. Amblyopia doesn’t cause any eye pain but may cause a child to lose interest in detailed tasks such as reading and writing or lead to poor performance at school. Other clues are a noticeable favouring of one eye, a “turned” eye and bumping into objects on one side of the body. A thorough eye examination is the only sure way of determining whether your child has amblyopia. If you think that there may be something wrong with your child’s vision, discuss it with your optometrist.

How is amblyopia treated?

The treatment depends on the particular cause of the amblyopia. Glasses, contact lenses and binocular vision training strategies can be used to train the poorer eye to function normally. It is also common to patch the better eye to force the person to use and strengthen the poor eye. The optometrist may also suggest atropine eye drops as a possible alternative to patching. Sometimes the better eye is covered with a patch to force the person to use and strengthen the poor eye. Some special or rare types of amblyopia are treated simply by improving the person’s general health. The earlier amblyopia is detected, the easier it is to treat.

How does amblyopia differ from strabismus?

Strabismus is the technical name for ‘turned eye’. It means the eyes are pointing in different directions. Your eyes normally work together, to look at the same spot. A person with strabismus cannot co-ordinate their eyes to do this, and cannot make their eyes work together equally. An eye may turn inwards (esotropia), outwards (exotropia) or upwards/ towards (hypertropia/hypotropia). The eye turn may occur some of the time (intermittent) or all the time (constant). From childhood, if a turned eye consistently receives lack of clear vision to the brain, the turned eye will develop amblyopia - ‘lazy eye’.

Regular eye examinations are the best way to ensure good vision for life.

Your optometrist