WHAT IS STRABISMUS?

Strabismus is a visual disorder where the eyes are misaligned and point in different directions. This misalignment may be constantly present, or it may come and go. Sometimes, only one eye is affected — turning inward (esotropia), outward (exotropia) or downward — while the other eye is directed straight ahead. Strabismus can also be described by its cause. The 3 cranial nerves (III, IV, VI) responsible for eye movement can be weak or paralyzed and cause strabismus. Some examples of paralytic strabismus include third nerve palsy and superior oblique palsy.

Strabismus prevents proper binocular vision and prevents both eyes from gazing the same point. Either peripheral vision or side vision may be affected. A patient’s perception of depth is distorted. Perception of depth is the ability to recognize the order of objects in three dimensions. Patients will also experience a limited field of view.

STRABISMUS VS. AMBLYOPIA

Many people make the mistake of saying that a person who has a crossed or turned eye (strabismus) has a "lazy eye," but lazy eye (amblyopia) and strabismus are not the same condition. Some of the confusion may be due to the fact that strabismus can cause amblyopia. Amblyopia can result from a constant unilateral strabismus (i.e., either the right or left eye turns all of the time). Alternating or intermittent strabismus (an eye turn which occurs only some of the time) rarely causes amblyopia.

Strabismus or abnormal alignment can block normal binocular development and cause amblyopia or reduced vision in one eye. If vision is reduced, the brain of the child will only learn to recognize the stronger image and ignore the weaker image of the amblyopic eye. This will eventually cause a loss of depth perception and, if not treated early, can result in permanent visual loss in the affected eye.

CAUSES AND IMPLICATIONS

Many things and/or events can cause a strabismus. They include genetics, inappropriate development in the brain, problems with the controlled center of the brain, injuries to muscles or nerves or other problems involving the muscles or nerves. Surprisingly, most cases of strabismus are not a result of a muscle problem, but are due to the control system -- the brain.

Classroom accommodations for a child with Strabismus should center on ensuring that the child can see necessary materials, whether on the board, on handouts or in books. A teacher can accommodate a child with Strabismus by making some simple changes in his room and in the materials distributed. Preferential seating in the classroom may help the student with Strabismus by placing their desk in close proximity to the majority of teaching activity in the classroom. Enlarged print or magnification of print tends to be a successful assistance provided to students. Additionally, students may benefit from auditory reinforcement of visual tasks.
TREATMENT

The goal of strabismus treatment is to improve eye alignment which allows them to better work together (binocular vision). Various methods are outlined below:

Eye patches are used in amblyopic children to force the brain to interpret images from the strabismic eye.

Prisms modify the way light and images hit the eye.

Eyeglasses or contact lenses are used in an attempt to improve the positioning of the eye by modifying the patient’s reaction to focus.

Eye drops or ointment may be required along with eyeglasses. An overly active eye muscle may also require medication that is injected.

Vision therapy is a non-surgical form of physical therapy that attempts to treat the eye and brain.

Surgical procedures are used in an attempt to align the eyes by modifying one or more extravocular muscles in the eye.

The Bates Method, an alternative treatment method, proposes to restore or improve natural vision by eliminating mental strain.

Botox® is a drug provided as an alternative to eye muscle surgery. The drug proposes to temporarily relax the eye muscle, which allows the opposite eye to tighten.

REFERENCES


Developed by Molly Beasley