

In the Name of God

Ardabil University of Medical Sciences

Educational and Treatment Center of Imam Reza (pbuh)

Do you know what is strabismus or eye misalignment?

Prepared by: Zohreh Noori-Azari, Zahra Heydari

Source: Medical-surgical nursing by Brunner

Directed by: Educational supervisor

Confirmed by: Dr. Ojaghi

What is strabismus or eye misalignment?

Strabismus or eye misalignment is a condition in which the eyes do not properly align with each other when looking at an object. This misalignment can be either generally conspicuous or visible only in some specific situations. In strabismus, when one eye looks directly forward, the other eye turns either inwards, outwards, upwards, or downwards. This condition is one of the most prevalent eye conditions which affects approximately 4% of the people all over the world.

What are the causes of strabismus?

Various factors are involved in the incidence of strabismus:

- Eye disorder, vision disorder (especially when it is on-sided), cortical disorder, and congenital factors are some of the important risk factors of strabismus.
- Sometimes, an illness or fever can result in strabismus.
- The incidence of strabismus in adulthood can be the result of secondary factors such as brain diseases, or it can be the result of traumatic events such as accidents that cause direct injury to the muscles, nerves, or the eye sockets (anatomically called 'orbits').

What are the symptoms and complications of strabismus?

- When strabismus is conspicuous and affects individuals from early childhood, there are usually no symptoms other than the apparent physical ones. But, if it develops as the result of a traumatic event after childhood, farsightedness (hyperopia) can appear as a side-effect.
- The other type of strabismus, that is, hidden strabismus, can have various symptoms which mainly appear after having eye-related activities. These symptoms include eye strain, drowsiness, hyperopia, headache, feeling of tiredness and strain around the eyes, and blurred vision which are all temporary and usually disappear after getting a rest.

Can strabismus be natural?

Newborns in 2-3 months of age might seem to have strabismus; but it is to some extent natural and parents should not be worried about that. However, if the condition gets more severe, even in these early months of age, an ophthalmologist must visit the case. The emergence of any type of

misalignment in babies beyond 4 months of age must be examined by a specialist even if it is temporary.

What is pseudostrabismus?

The false detection of strabismus in children is not uncommon. Some children usually have a wide nasal bridge or prominent skin folds in the inner side of their eyelid, which make them look like they suffer from strabismus. As the nasal bridge evolves, this false condition disappears. Since this condition is temporary, there is no need for therapeutic intervention. However, it is recommended that a specialist examine the cases.

How is strabismus corrected?

- Eye misalignment or strabismus is correctable; but, if we leave its correction to the passage of time, irreparable consequences will arise for the affected children. In this case, the affected children will not be rescued from this unpleasant condition and, in addition, they will also be afflicted with amblyopia. Of course, strabismus can be corrected in adults, though not completely. Therapeutic interventions in adults can remove double vision (diplopia) or at least correct the appearance of the eyes.
- Strabismus can be treated through various methods such as the use of eyeglasses or prisms, doing special exercises for eye muscles, and surgery.
- The usual treatment for amblyopia in children is closing the healthy eye or blurring its vision via the use of medical drops or special eyeglasses so that the lazy eye is forced to work and thereby improve. (It should be noted that amblyopia is curable in childhood.)

- A child afflicted with strabismus might have poor eyesight in one or both of his/her eyes which can be treated by the use of eyeglasses. Some of the affected children fully recover their normal eyesight just with the use of glasses; some others, however, experience partial improvement.
- Eye exercises can be helpful only if the affected person is cooperative. That is why this method might not yield good results in children of lower ages.

Strabismus surgery

In none of the strabismus surgeries is the eyeball removed from its place.

- Strabismus surgery is done via a small incision in the tissue covering the eye (conjunctiva).

This makes it possible for the ophthalmologist to get access to the muscles below this tissue.

The decision as to which muscles must undergo surgery depends on the direction of misalignment in the eye. Sometimes, both of the eyes need to undergo surgery to fix the problem.

In strabismus surgery, there is usually a need for general anesthesia. Recovery is normally fast.

The person undergoing surgery usually gets back to his/her normal activities within a few days.

In some cases, there is a need for wearing eyeglasses or prism after surgery. Sometimes the correction applied by the surgery might be more or less than the intended level in which case another surgery would be necessary.

- It is recommended that corrective surgeries for eye misalignment be conducted based on doctor's orders.

- Strabismus surgery is usually a low-risk and effective treatment. However, it is never an alternative for the use of glasses or the treatment of amblyopia.

Summary:

The best and most appropriate time for the treatment of strabismus is variable depending on the type of misalignment. In some misalignments, for instance in inward misalignment, the best time for surgery is 6 months to 2 years of age. But, in those who have outward misalignment, surgery in higher ages, for example in 7-8 years of age, yields more acceptable therapeutic results.

Strabismus might be treated without surgery and just by the use of medical drops, eye exercises, or eyeglasses.

In most cases, strabismus surgery is done under general anesthesia.

Wish you health and happiness