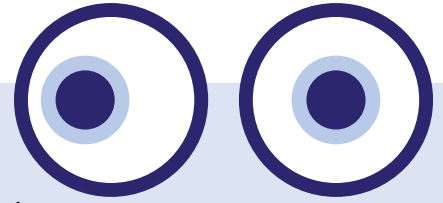


What is strabismus?



Strabismus is the condition where the eyes are not properly aligned. Other common names include 'lazy', 'crossed' or 'turned' eyes, and 'squint'.

One or both eyes may turn either inward (esotropia), outward (exotropia), upward (hypertropia) or downward (hypotropia).

Strabismus may be constant or intermittent and might always affect the same eye (unilateral), or both eyes may take turns in being misaligned (alternating).

Strabismus is the most common eye disorder in children. It is estimated that between three and five per cent of Australians are affected by the condition.

What causes strabismus?

Strabismus can be caused by abnormalities in the eye muscles, in the nerves controlling these muscles, in vision centres in the brain that control binocular vision, or due to poor vision in one or both eyes.

Genetics may also play a part – children of a parent or parents with strabismus have a greater risk of developing strabismus.

You may be **born with strabismus or develop it during infancy or childhood, or later in life.**

Sometimes strabismus can point to a more serious eye disease or another health problem.

Other risk factors for the condition may include:

- Eye/orbit injury
- Head trauma
- Premature birth or low birth weight
- Uncorrected far-sightedness (hyperopia)
- Muscular abnormalities
- Neurological abnormalities
- Cerebral palsy
- Down syndrome.



Amblyopia

Amblyopia, commonly known as 'lazy eye' is the loss of vision that may occur with untreated strabismus in early childhood (typically up to seven years old). It is estimated to affect 2% of the Australian population.

When a person with a strabismus looks at an object, the brain receives two different images and this can confuse it. In children, the brain will learn to ignore the double image from the turned eye (suppression). This suppression

of one eye during a child's visual development can result in poor vision. **Untreated, the vision will remain poor permanently.**

Strabismus and amblyopia can also interfere with the development of depth perception (stereopsis or '3D vision').

Early diagnosis and treatment of strabismus and amblyopia is essential to prevent permanent vision loss.



What are the symptoms and signs of strabismus?

The symptoms and signs of strabismus may be constant or intermittent.

They include:

- Eyes that do not look in the same direction at the same time (although if your child's eyes are only slightly misaligned, you may not notice)
- Double vision
- Uncoordinated eye movements
- Vision loss
- Loss of depth perception
- Squinting or closing one eye in bright sunlight
- Tilting or turning the head to look at an object.

How is strabismus diagnosed?

Early diagnosis of strabismus is essential to prevent irreversible vision loss later in life and to identify any serious conditions that may be causing the strabismus.

Routine children's eye exams are the best way to detect strabismus and **the earlier it is detected and treated, the more successful the outcome.** Without treatment, your child may develop amblyopia, double vision or visual symptoms that could interfere with reading and classroom learning. Serious, potentially life-threatening, conditions can in rare cases cause strabismus and should be excluded with a thorough eye exam.

During the eye exam, your ophthalmologist will conduct a range of tests, including:

- Taking a patient history, including birth and family history
- Visual tests – to check visual acuity and visual field – these include special tests for children too young to speak or to understand
- Refraction testing (checking the eyes' prescription)
- Alignment and focus testing
- Eye health assessment.

Often these tests are performed by an orthoptist who works with the ophthalmologist. An orthoptist is a health professional who specialises in children's vision assessment and in diagnosis and non-surgical treatment of strabismus.

How is strabismus treated?

Every case is different and requires individually tailored treatment strategies.

Treatment options for improving eye alignment and coordination include any one or a combination of:

- **Glasses:** to correct any significant refractive error that might be causing the strabismus or making it worse.
- **Prisms:** to eliminate double vision by moving the image towards the eye that is misaligned. These are typically incorporated in glasses or temporary prisms can be stuck onto your own glasses (eg. Fresnel prism).
- **Patching:** placing a patch over the normally functioning eye for a number of hours daily to remind the brain that it needs to pay attention to both eyes.
- **Eye exercises:** a structured program of visual activities to improve eye coordination and focusing.
- **Surgery:** surgery involves moving one or more of the eye muscles in order to adjust the position of the eye(s). The procedure is undertaken in the operating room under a general anaesthetic. There are no bandages, and usually only mild discomfort and redness for a few days. The patient usually goes home on the same day.

Need to
know more?

Please contact the Lions Eye Institute to make an appointment with one of our ophthalmologists.
Phone: (08) 9381 0777; email: carecentre@lei.org.au; or see our website: lei.org.au