

# **GENERAL EYE HEALTH**

## **STRABISMUS**

By Vision Eye Institute

### What is strabismus?

To move the eyes, your brain sends a signal through various cranial nerves to your eye muscles. Each muscle then contracts or relaxes, depending on the direction your eyes need to move. Your eyes should move together at the same time in the same direction.

In patients with strabismus, the eyes are misaligned and do not point in the same direction and/or might not move together. One or both eyes may point inwards, appearing 'crossed' (known as esotropia), outwards (exotropia), upwards (hypertropia), or downwards (hypotropia). The misalignment may come and go or be permanently present.

Strabismus is commonly known as 'squint', 'turned eyes' or 'crossed eyes'. It can affect children and adults.

#### What are the symptoms of strabismus?

Since the eyes point in two different directions, each eye sees a different image. The symptoms the patient experiences will vary depending on how their brain processes the two images and may include:

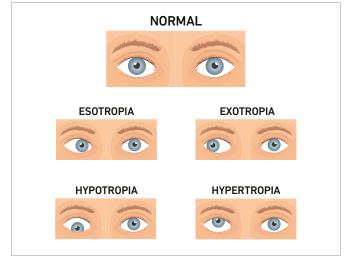
- Double vision if the brain processes both images at once
- Single vision from the unaffected eye if the brain ignores the image from the misaligned eye (in turn, this can lead to amblyopia and reduced visual development in the misaligned eye\*)
- Reduced depth perception
- Reduced peripheral (side) vision.

\*Amblyopia is also known as 'lazy eye' and can result in poor vision in the affected eye.

These visual difficulties can make day-to-day activities more challenging. Additionally, the cosmetic appearance of the condition, and/or the inability to make eye contact during social interactions, can lead to problems with self-esteem and building social connections.

#### What causes strabismus?

While the exact cause of strabismus is unknown, most cases are probably due to an inability of the visual area of the brain to align the eyes correctly. Less commonly, one or more of the eye muscles may not be functioning properly. Sometimes, strabismus may occur due to weakness or paralysis of the cranial nerves controlling the eye muscles.



Types of strabismus (Source: iStock)

Strabismus may also occur due to another medical condition.

#### Risk factors for strabismus

- Family history
- Down syndrome
- Cerebral palsy
- Hydrocephalus
- Brain injury
- Prematurity

- Stroke
- Brain tumour
- Diabetes
- Thyroid disorders
- Cataract

#### Can strabismus be treated?

Yes - the treatment options for strabismus include glasses, prisms, botox, eye exercises (occasionally) and surgery. The goal is to improve the alignment of the eyes, which allows them to work together better ('binocular vision').

Treatment should be initiated as early as possible to improve outcomes, especially in young children. Children who are treated before they are six years old tend to have better longterm visual outcomes.

It is important to note that, although strabismus may get better or worse at times, it very rarely resolves on its own. However, in extremely rare cases, infants under four months old may spontaneously recover.





