



CHILDREN'S EYE HEALTH

ESOTROPIA

By Dr Christolyn Raj

What is esotropia?

Esotropia is the inward turning of one or both eyes (Figure 1).

The following features are common in esotropia:

- Can be intermittent or constant
- Often most noticeable when looking at a near object
- Can occur in one or both eyes

Is esotropia a medical concern?

Esotropia may occur in the first 4 months of life and may resolve spontaneously. In some cases, one or both eyes may appear inward-turning but are in fact straight. This is referred to as pseudoesotropia.

Therefore, if an esotropia is suspected at any age, the child should still be assessed thoroughly by a paediatric ophthalmologist.

What are the common causes of esotropia?

Common causes of esotropia include:

- **Early-onset or infantile esotropia:** Often occurs within the first 12 months of life
- **Accommodative esotropia:** Often occurs from 12 months to 4 years of age
- **Other ocular conditions:** May be associated with a congenital cataract, other strabismus (Duane's syndrome) or retinal pathology
- **Neurological conditions:** Cranial nerve palsy, hydrocephalus and stroke

How will a paediatric ophthalmologist evaluate my child for esotropia?

The following will be used in the assessment of your child to determine the presence and type of esotropia:

- A thorough history of the onset, eye/s involved, relevant medical history
- A visual acuity test using an age-appropriate testing method
- An examination to determine ocular misalignment and estimate the size of this misalignment
- Assessment of the refractive status of the eye (i.e. long-sightedness, short-sightedness and/or astigmatism)
- Further testing to exclude other ocular conditions that may be causing the esotropia

Aspects of the examination will require your child's eyes to be dilated by a safe dosage of eye drops.

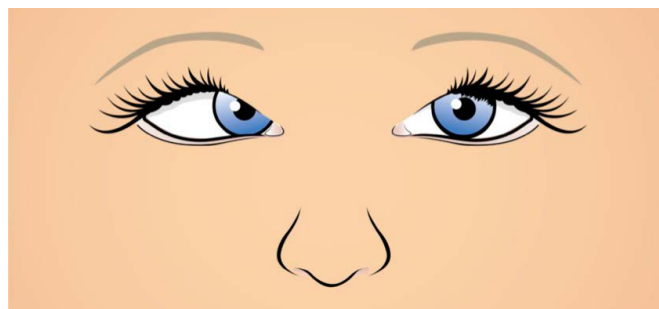


Figure 1: Esotropia or inward turning

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What can happen if esotropia is left untreated?

If esotropia is left untreated, it may result in some or all of the following:

- **Impaired binocular vision:** We rely on good alignment of both eyes to judge depth and appreciate three dimensions
- **Amblyopia:** A constantly turned eye will lose the ability to focus and see well. This is irreversible after 6–8 years of age
- **Impaired motor development:** A limited ability to appreciate depth can affect a child's ability to draw, play, run, jump, climb, etc.
- **Poor cosmetic appearance:** Untreated esotropia of a small size may increase over time

How is esotropia treated?

The management of esotropia may vary depending on the type and underlying cause. However, there are key goals in treatment that an ophthalmologist will address. These include:

- Treatment of amblyopia to ensure that vision is equal in both eyes. Usually, this involves wearing glasses and amblyopia therapy
- Re-establishment of ocular alignment, which often involves measuring the esotropia and undergoing strabismus surgery (eye muscle surgery) (Figure 2)

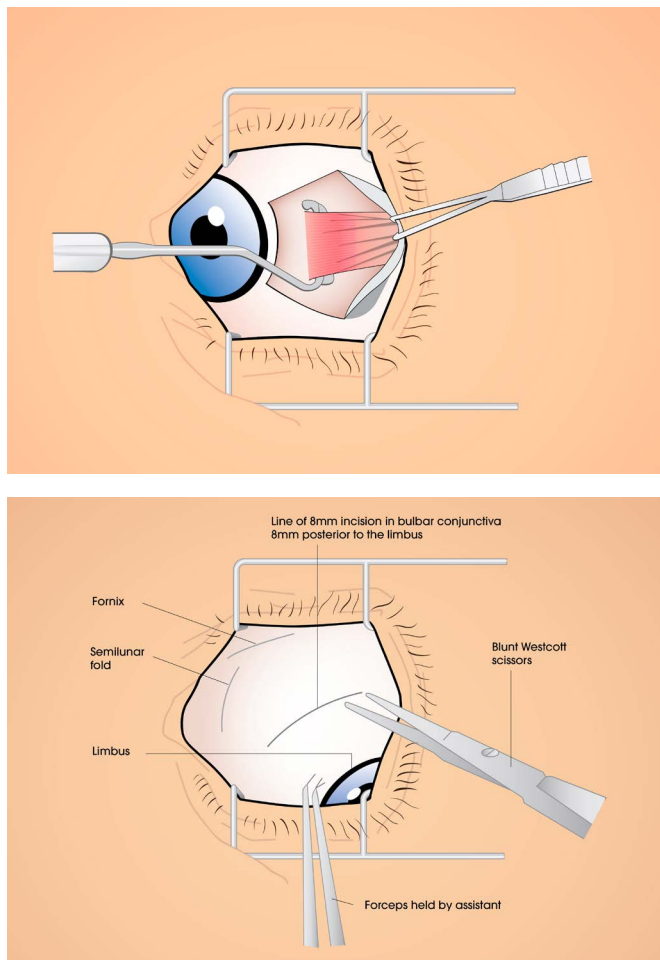


Figure 2: Strabismus surgery involves locating the eye muscles around the eye ball. Manipulating the position of the eye muscles can improve the alignment of both eyes.



Dr Christolyn Raj is an experienced ophthalmologist with considerable expertise in cataract surgery, retinal disease and paediatric ophthalmology. She treats paediatric patients at Vision Eye Institute Camberwell.