

## WHAT IS INFANTILE ESOTROPIA?

Esotropia is an inward turning of one or both eyes. Infantile esotropia is when esotropia is seen in the first year of life. Infantile esotropia is also called congenital esotropia, but the wording infantile is preferred because this problem is not always seen right after birth [See figure 1].



**Fig. 1:** Child with infantile esotropia (eyes turning inward).

## WHY DOES INFANTILE ESOTROPIA HAPPEN?

The cause of infantile esotropia is not completely understood. We know that these children have problems using the two eyes together, but with early surgery and medical treatment children with infantile esotropia can learn to use both eyes together.

## DO CHILDREN WITH INFANTILE ESOTROPIA LOSE VISION?

People with infantile esotropia usually have good vision in both eyes. If one eye is turned in more often than the other, there is a chance that eye can have poor or blurry vision (amblyopia). When a baby with crossed eyes looks with either eye the same amount of time, the risk of amblyopia is less. Amblyopia is poor vision in an eye because the brain does not use that eye and does not build good connections to that eye.



## **WHAT MEDICAL PROBLEMS HAVE A HIGHER RISK FOR DEVELOPING INFANTILE ESOTROPIA?**

Several medical problems are seen more commonly in people with infantile esotropia. These include: prematurity (being born early), hydrocephalus (a condition where there's too much fluid on the brain), seizures, developmental delay, intraventricular hemorrhage (bleeding inside the brain), cerebral palsy and a family history of strabismus (eye movement problems).

## **WHAT IS CROSS FIXATION?**

Cross fixation is when the right eye is used to see the left peripheral or side vision and the left eye is used to see the right peripheral or side vision. The eyes cross over to look at things rather than staying straight and working together. This behavior is very common in children with infantile esotropia.

## **DO PEOPLE WITH INFANTILE ESOTROPIA NEED GLASSES?**

Children with infantile esotropia usually do not need glasses more than children with straight eyes. However, if these children are very farsighted or nearsighted or have lots of astigmatism, glasses may be given.

## **HOW IS INFANTILE ESOTROPIA TREATED?**

Infantile esotropia is usually treated with [strabismus surgery](#) (eye muscle surgery) to make the eyes straight. Botulinum toxin may also be used alone or in combination with eye muscle surgery. Sometimes glasses and eye patching are also needed, especially if there is [amblyopia](#).

## **AT WHAT AGE SHOULD SURGERY FOR INFANTILE ESOTROPIA BE DONE?**

Eye muscle surgery for infantile esotropia is often done when the child is young, under 2 years of age. Studies show that early surgery often helps with vision development in infantile esotropia. However, each patient is different and timing of surgery should be discussed with the surgeon.



## **WILL MORE THAN ONE SURGERY BE REQUIRED?**

Yes, sometimes more than one surgery is needed to treat infantile esotropia. In some cases, a secondary surgery is needed shortly after the first surgery if the first surgery did not help enough. In other cases, people with infantile esotropia do well with one surgery as young children but need another surgery as older children or adults. Each case is different. The chances of needing more than one surgery should be discussed with the surgeon.

## **WILL MY BABY HAVE GOOD DEPTH PERCEPTION WHEN OLDER?**

Most children with infantile esotropia have problems with a form of depth perception (binocularity = being able to use both eyes at the same time). It is hard to know this until they are old enough to be tested reliably. If esotropia is corrected before the age of 2 years, there can be a better chance of being able to use both eyes together.

## **ARE OTHER EYE MOVEMENT PROBLEMS SEEN WITH INFANTILE ESOTROPIA?**

Yes, there can be other eye movement problems in people with infantile esotropia.

Many people with infantile esotropia with also get [dissociated vertical deviation](#) (DVD). DVD is an upward drifting of the eyes, usually one eye more than another. Sometimes an eye muscle that pushes the eye upward (usually the inferior oblique muscle) may overact which may cause the eye to move up when looking to the side. For example, the right eye may float up when it looks toward the nose. In some cases, this inferior oblique overaction or DVD may be treated with eye muscle surgery.

Latent [nystagmus](#) may be present. This is a shaking movement of the eyes when one eye is closed or covered. Vision may be blurry when the eye shaking is happening. Treatment is usually not needed for latent nystagmus.



## WHERE CAN I GET MORE INFORMATION ON INFANTILE ESOTROPIA?

More technical and scientific information may be found on the [EyeWiki Site](#).

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