

## Intermittent Exotropia



### What is Exotropia?

Exotropia, also known as a divergent squint, is a misalignment of the two eyes such that one eye points outward whilst the other does the looking. In some cases the outward drift of the eye is always present (the squint is constant) but, in most cases, the eye drifts out intermittently. Sometimes the outward drift can be seen affecting either eye – this is called an alternating squint.

### What causes Intermittent Exotropia?

Nobody knows what causes intermittent exotropia or many other forms of squint. It is thought to be a problem with the brain's control of eye balance and coordination rather than a problem affecting the eye muscles themselves and is more common if there is a family history of squint.

### Intermittent Exotropia

The most common form of exotropia is called intermittent exotropia; it affects about 1 in 200 children in the UK. Intermittent exotropia can start in children as young as 2 years of age and causes a divergent squint which may be noticed particularly when the child is tired or looking into the far distance. Often the first sign is that the child tends to close one eye when they are in sunlight or in response to a camera flash.

The child is usually unaware that the eye is squinting and rarely complains of double vision. If the child is told that their eye is squinting, he/she will usually be able to bring the eye back into alignment by blinking. As long as the squint is intermittent the vision usually remains good in each eye and the 3D vision for close work is unaffected, although poor binocular vision for distance targets may be reduced, causing problems with ball sports.

Unfortunately as the years go by, the child's ability to control the intermittent exotropia often decreases, resulting in the squint becoming more noticeable more of the time. As the squint becomes more constant there is a risk of the misaligned eye becoming weaker visually (lazy eye) and of the child losing their 3D vision for close as well as distance vision. This is why close orthoptic monitoring is required.

### **What treatments are available for Intermittent exotropia?**

A full assessment is needed by a specialist, including a vision measurement in each eye, tests of 3D function, an assessment of the angle of the squint for near and distance and the child's ability to control it. Many children with mild and well controlled intermittent exotropia do not require surgery and do not develop any visual problems with it, orthoptic monitoring in early childhood is all that is required. Some children may have glasses prescribed to improve the squint control, particularly if they are short sighted. If the vision is poor in one eye (unusual in this form of squint), occlusion therapy may be needed.

The timing of squint surgery can be difficult and is based on a combination of the parent's observations of squint frequency at home and an assessment of squint control in the clinic.

Most specialists will recommend surgical correction of the squint:

- if the squint is present more than 50% of the time
- if the child's control of the squint is poor because the angle of the underlying squint is large
- if the squint is interfering with 3D vision for close work

The recommended surgery is usually a weakening procedure of the lateral rectus muscle (which turns the eye outwards) in each eye. This requires a general anaesthetic but is a day case procedure. Surgical intervention does carry risks: the most common problem is that alignment is not perfect after the operation. Initial over correction causing double vision can occur but is usually temporary and rarely requires surgical intervention. One in three patients will require further squint surgery at some point in the future. Very rarely (less than 1 in 10,000 cases) the eye itself can be damaged during the surgery leading to loss of vision in the eye.