

# Squint

## Features

In people with a squint, the eyes are misaligned and they point towards different directions, with the squinting eye turning inwards, outwards, upwards or downwards. However, people who are mildly affected may look perfectly normal. On the other hand, people may appear to have squint when their eyes are actually normal and well aligned due to a broad nose bridge that gives the illusionary appearance of squint. This condition, called pseudo-squint, is very common among children.

## Classification

### A. Direction of the squinting eye

#### 1. Esotropia / Exotropia:

- a. An eye that turns towards the nose bridge is called an esotropia
- b. An eye that turns towards the ear is called an exotropia



Left esotropia

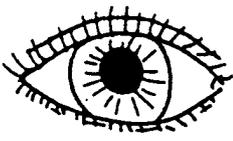


Left exotropia

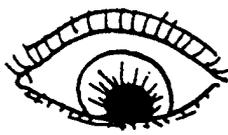


#### 2. Hypertropia / Hypotropia:

- a. An eye that turns upwards is called a hypertropia
- b. An eye that turns downwards is called a hypotropia



Left hypotropia



Left hypertropia

### B. Manifest or Latent Squint

1. Manifest Squint: When one focuses on an object, one eye deviates away from the object. It can be further divided into constant squint and intermittent squint.
  - a. Constant squint is present at all times
  - b. Intermittent squint comes and goes
2. Latent Squint: The appearance is normal most of the time. The squint only appears under certain conditions e.g. very tired or under the influence of alcohol.

## **Causes**

Squint is caused by failure of our two eyes to look at objects in a coordinated manner. This coordination depends on the normal functioning of our brain, optic nerve and a total of twelve muscles around our eyes that enables the two images from our eyes to superimpose on each other and to form a three dimensional image. Any congenital problems or those that occur after birth causing disorders of the brain, optic nerve or eye muscles can compromise this coordination and leads to squint.

In some cases, when there is a significant difference in the refractive error between our two eyes and the condition is not rectified, making the two images from our eyes fail to superimpose on each other, it will also lead to squint.

## **Prevalence**

The most common being exotropia, followed by esotropia, with relatively few cases of hypertropia or hypotropia. Though exotropia is the most common type of squint, the adverse effects on the eyes (loss of stereopsis or amblyopia) occur less often than in esotropia, hypertropia or hypotropia.

## **Prevention**

- In most cases of congenital squint, as the cause is unknown, there are no effective preventive measures.
- Avoid injuries because injury to the nerves supplying eye muscles can also lead to squint.
- Squint caused by significant difference in refractive error between the eyes can be prevented by having regular eye checks and wearing suitable glasses.

## **Treatment**

Any significant difference in refractive error between the eyes should be corrected first. This improves vision and may even straighten the eye in some cases where refractive error is responsible for the squint. Otherwise, treatment of squint is mainly achieved by surgical procedures that involve weakening or strengthening of the relevant eye muscles to restore balance and to get a good coordination. Nevertheless, most surgical procedures can only improve the appearance of the eyes without completely correcting the squint. Hence, any need for surgery should take into consideration the inflicted person's perception about the severity of the cosmetic problem caused by the squint. Other factors to be considered include the age at presentation and whether amblyopia is present. In cases where the age is less than eight and there is amblyopia, surgical procedures would help rectify amblyopia. If the child is more than eight years old and there is no amblyopia, surgical procedures are in general not indicated and might even lead to double vision as a possible post-operative complication.