Squint

Symptoms

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 an illusion of squint. This condition, called pseudo-squint, is very common among children.

Type of the squinting eye

1. Esotropia: An eye that turns towards the nose bridge is called an esotropia.
   Exotropia: An eye that turns towards the ear is called an exotropia.
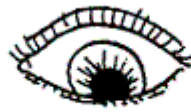

Left esotropia   Left exotropia

2. Hypertropia: An eye that turns upwards is called a hypertropia.
   Hypotropia: An eye that turns downwards is called a hypotropia.

Left hypotropia   Left hypertropia

Squint can be divided into constant and intermittent type
Constant squint: Present at all times
Intermittent squint: Occurs only in certain situations such as very tired or lack of concentration

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 nerves and a total of twelve muscles around our eyes that enable 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 nerves or eye muscles can compromise this coordination and lead 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.

Incidence

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. Approximately about 4% of children are affected by squint.

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 reduce squint 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 affected 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.