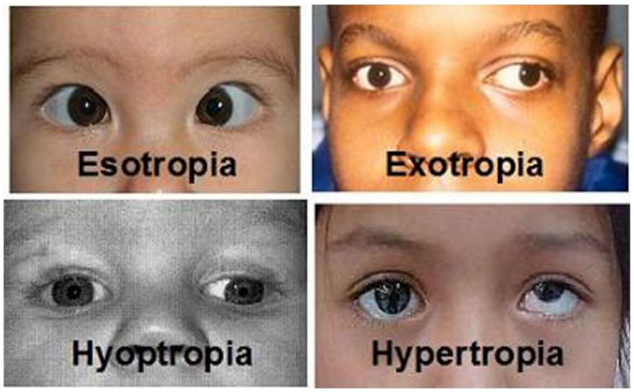
BUNBURY & BUSSELTON EYE SPECIALISTS

PATIENT INFO AND ADVICE

What is strabismus?

Strabismus is a visual defect in which the eyes are misaligned and point in different directions. One eye may look straight ahead, while the other eye turns inward, outward, upward or downward.



The eye turn may be constant, or it may come and go. Which eye is straight (and which is misaligned) may switch or alternate.

Strabismus is a common condition among children. About 4 percent of all children in the Australia have strabismus. It can also occur later in life.

Strabismus occurs equally in males and females. It may run in families; however, many people with strabismus have no relatives with the problem.

How do the eyes work together?

With normal vision both eyes aim at the same spot. The brain then combines the two pictures into a single three dimensional image. This three dimensional image gives us depth perception.

When one eye is out of alignment, two different pictures are sent to the brain in a young child, the brain learns to ignore the image of the misaligned eye and sees only the image from the straight or better seeing eye. The child then loses depth perception.

Adults who develop strabismus often have double vision because their brains have already learned to develop images from both eyes and cannot ignore the image from the turned eye.

A child generally does not see double.

Amblyopia

Good vision develops during childhood when both eyes have normal alignment. Strabismus may cause reduced vision, or amblyopia, in the misaligned eye. The brain will pay attention to the image of the straight eye and ignore the image of the crossed eye. If the same eye is constantly ignored during childhood, this misaligned eye may fail to develop good vision, or may even lose vision. Strabismic amblyopia occurs in approximately half the children who have strabismus.

Amblyopia is treated by blurring or patching the good eye. This will strengthen and improve vision in the weaker eye. If amblyopia is detected in the first few years of life, treatment is usually successful.

If treatment is delayed beyond the age of 7-8 the amblyopia may become permanent. As a rule, the earlier amblyopia is treated, the better the result for vision.

What causes strabismus?

The main sign of strabismus is an eye that is not straight. Sometimes children will squint one eye in bright sunlight or tilt their head to use their eyes together.

How is strabismus diagnosed?

Strabismus can be diagnosed during an eye exam, It is recommended that all children between 3 and 3 ½ years of age have their vision checked by their pediatrician

The exact cause for strabismus is not fully understood.

Six eye muscles, controlling eye movement, are attached to the outside of each eye, in each eye, one muscle moves the eye to the right and one muscle moves the eye to the left, The other four muscles move it up or down and at an angle.

To line up with and focus both eyes on a single target, all of the muscles in each eye must be balanced and working together. In order for the eye to move together, the muscles in both eyes must be coordinated. The brain controls these eye muscles.

Strabismus is especially common among children with disorders that may affect the brain, such as;

- Cerebral palsy
- Down syndrome
- Hydrocephalus
- Brain Tumours
- Prematurity

Eye disorders such as a cataract or eye injury that affects vision can also cause strabismus. The vast majority of children with strabismus, however, have none of these problems. Many do have a family history of strabismus.

Most common types of strabismus

PSEUDOSTRABISMUS (looks like but isn't)

This appearance of pseudostrabismus may improve as the child grows. **A child will not outgrow true strabismus.** An ophthalmologist can usually distinguish true strabismus and pseudostrabismus.

INFANTILE ESOTROPIA

Infantile esotropia, where the eye turns inward, is the most common type of strabismus in infants. Young children with esotropia cannot use their eyes together. In most cases, early surgery can align the eyes.

ACCOMMODATIVE ESOTROPIA

Accommodative esotropia is a common form of esotropia that occurs in children usually 2 years or older. When the child focuses the eyes to see clearly, the eyes turn inward. This crossing may occur when focusing at a distance, up close or both.

Glasses reduce the focusing effort and often straighten the eyes. Sometimes bifocals are needed for close work. If significant crossing of the eyes persists with the glasses, surgery may be required.

EXOTROPIA

Exotropia, or an outward-turning eye, is another common type of strabismus. This occurs most often when a child is focusing on distant objects.

The exotropia may occur only from time to time, particularly when a child is daydreaming, ill or tired. Parents often notice that the child squints one eye in bright sunlight.

Although glasses, exercises, patching or prisms may reduce or help control the outward turning eye in some children, surgery is often needed.

How is strabismus treated?

After a complete eye examination, an ophthalmologist can recommend appropriate treatment.

In some cases, eyeglasses can be prescribed for your child to straighten the eyes. Other treatments may involve surgery to correct the unbalanced eye muscles or to remove a cataract. Covering, blurring or patching the strong eye to improve amblyopia is often necessary.

Treatment for strabismus works to straighten the eyes and restore binocular (two-eyed) vision.

How is strabismus surgery done?

The eyeball is never removed from the socket during any kind of eye surgery. The ophthalmologist makes a small incision in the tissue covering the eye to reach the eye muscles.

The eye muscles are detached from the wall of the eye and repositioned during the surgery, depending on which direction the eye is turning. It may be necessary to perform surgery on one or both eyes.

When strabismus surgery is performed on children, a general anesthetic is required.

Recovery time is rapid. Children are usually able to resume their normal activities within a few days.

After surgery, glasses may still be required. In some cases, more than one surgery may be needed to straighten the eyes.

As with any surgery, eye muscle surgery has certain risks.

- Infection or heamorrhage
- over or under correction of strabismus requiring further surgery
- Loss of vision is a very very rare complication of strabismus surgery

Strabismus surgery is usually a safe and effective treatment for eye misalignment. It is not a substitute for glasses or amblyopia therapy.

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