BUNBURY & BUSSELTON EYE SPECIALISTS

PATIENT INFO AND ADVICE

What is amblyopia?

Amblyopia is poor vision in an eye that did not develop normal sight during early childhood. It is sometimes called “lazy eye.”

When one eye develops good vision while the other does not, the eye with poorer vision is called amblyopic. Usually, only one eye is affected by amblyopia.

The condition is common, affecting approximately two or three out of every 100 people. The best time to correct amblyopia is during infancy or early childhood.

How does normal vision develop?

Newborn infants are able to see, but as they use their eyes during the first months of life, vision improves. During early childhood years, the visual system changes quickly and sight continues to develop.

If a child cannot use his or her eyes normally, vision does not develop properly and may even decrease. After the first nine years of life, the visual system is normally fully developed and usually cannot be changed.

The development of equal vision in both eyes is necessary for normal vision.

Some occupations are closed to people who have good vision in one eye only (COMMERICAL DRIVING AND FLYING).

People with amblyopia in one eye are more than twice as likely to lose vision in the healthy eye from trauma and if the vision in one eye should be lost later in life from an accident or illness, it is essential that the other eye have normal vision. For these reasons, amblyopia must be detected and treated as early as possible.

When should vision be tested?

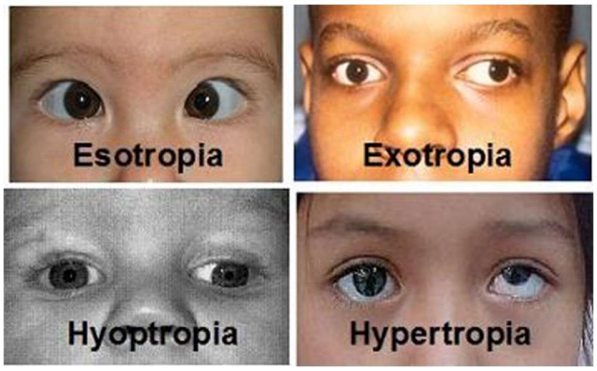
It is recommended that all children have their vision checked before their fourth birthday. New techniques are available to test vision in infants and young children, if there is a family history of misaligned eyes, childhood cataracts or a serious eye disease, an ophthalmologist should examine the eyes during infancy.

What causes amblyopia?

Amblyopia is caused by any condition that affects normal use of the eyes stopping normal visual development. In many cases, the conditions associated with amblyopia may be inherited. Amblyopia has three major causes:

1.STRABISMUS (MISALIGNED EYES)

Amblyopia occurs most commonly with misaligned or crossed eyes. The crossed eye "turns off" to avoid double vision, and the child uses only the better eye. The misaligned eye then fails to develop good vision.



2. UNEQUAL FOCUS AND REFRACTIVE ERRORS

Refractive errors are eye conditions that are corrected by wearing eyeglasses. Amblyopia occurs when one eye is out of focus because it is more nearsighted, farsighted or astigmatism than the other.

The unfocused (blurred) eye "turns off" and becomes amblyopic. The eyes can look normal, but one eye has poor vision. This is the most difficult type of amblyopia to detect since the child appears to have normal vision when both eyes are open.

3. CLOUDINESS IN THE NORMALLY CLEAR EYE TISSUES

An eye disease such as a cataract (a clouding of the eye's naturally clear lens) may lead to amblyopia. Any factor that prevents a clear image from being focused inside the eye can lead to the development of amblyopia in a child. This is often the most severe form of amblyopia.

How is amblyopia diagnosed?

It is not easy to recognize amblyopia. A child may not be aware of having one strong eye and one weak eye. Unless the child has a misaligned eye or other obvious abnormality, there is often no way for parents to tell that something is wrong.

Amblyopia is detected by finding a difference in vision between the two eyes or poor vision in both eyes. Since it is difficult to measure vision in young children, your ophthalmologist often estimates visual acuity by watching how well a baby follows objects with one eye when the other eye is covered.

Using a variety of tests, the ophthalmologist observes the reactions of the baby when one eye is covered. If one eye is amblyopic and the good eye is covered, the baby may attempt to look around the patch, try to pull it off or cry.

Poor vision in one eye does not always mean that a child has amblyopia. Vision can often be

improved by prescribing eyeglasses for a child.

Your ophthalmologist will also carefully examine the interior of the eye to see if other eye diseases may be causing decreased vision. These diseases include:

- Cataracts;
- Inflammations;
- Tumours; and
- Other disorders of the inner eye.

How is amblyopia treated?

To correct amblyopia, a child must be made to use the weak eye. This is usually done by covering or blurring the strong eye, often for weeks or months.

Even after vision has been restored in the weak eye, part-time patching may be required over a period of years to maintain the improvement.

Eyeglasses may be prescribed to correct errors in focusing. If glasses alone do not improve vision, then patching is necessary.

Blurring the vision in the good eye with special eye drops or lenses to force the child to use the amblyopic eye may also treat amblyopia.

Amblyopia is often treated before surgery to correct misaligned eyes, and patching or blurring with eye drops is often continued after surgery as well.

Prescribing eyeglasses or performing surgery can correct the causes of amblyopia, but your ophthalmologist must also treat the amblyopia itself.

Why treat amblyopia?

If amblyopia is not treated, several problems may occur:

- The amblyopic eye may develop a serious and permanent visual defect;
- Depth perception (seeing in three dimensions) may be lost;

- If the good eye becomes diseased or injured, a lifetime of poor vision may be the result.

Your ophthalmologist can give you instructions on how to treat amblyopia and can help you and your child carry out this treatment.

Children do not like to have their good eye patched or blurred. As a parent, however, you should help your child to do what is best for him or her.

Your interest, involvement and persistence will be necessary for successful treatment.

Loss of vision is preventable

Success in the treatment of amblyopia also depends upon:

- How severe the amblyopia is;
- How old the child is when treatment is begun.

If the problem is detected and treated early, vision can improve for most children. Amblyopia caused by strabismus or unequal refractive errors may be treated successfully during the first nine years of age. After this time, amblyopia usually does not recur.

If amblyopia is not detected until after early adulthood, treatment may not be successful. Amblyopia caused by cloudiness of the eye tissue needs to be detected and treated very early — within the first few months of life — in order to be treated successfully.

If you have additional questions or would like any further information, contact your ophthalmologist.

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