Lions Eye Institute

FACT SHEET

What is amblyopia?

Amblyopia (lazy eye) is reduced vision in one eye caused by abnormal visual development early in life. The weaker – or lazy – eye often wanders inward or outward. It is a common problem in babies and young children.

Amblyopia generally develops from birth up to age seven years and is the leading cause of decreased vision among children. Amblyopia can affect both eyes, but this is rare.

A child's vision develops in the first few years of life and it is important to diagnose and treat amblyopia as early as possible.

If the condition is undiagnosed and untreated, a child with amblyopia will not develop normal, healthy vision.

What causes amblyopia?

Amblyopia can develop from other eye and vision problems, such as:

- **Strabismus**: when the eyes point in different directions. The brain receives two different images and is confused. To avoid seeing double, the brain may ignore the image from the eye that is not looking straight ahead. This constant ignoring of the image from one eye during a child's visual development can result in poor vision. Untreated, your child's vision will remain poor.
- **Refractive errors**: having a refractive error means being near-sighted, far-sighted, or having astigmatism. A child may have a refractive error that is worse in one eye. That eye can 'turn off' and vision will not develop properly. Sometimes this is difficult to detect since the child's vision seems good when both eyes are being used.
- **Blockage of vision**: anything that blocks images from being focused on the retina will stop the eye from sending signals for vision and result in amblyopia. This is called deprivational amblyopia and is a very strong stimulus for amblyopia to develop. Causes of this include cloudiness in the normally clear parts of the eye – some children are born with a cataract, where the eye's normally clear lens is cloudy, or a droopy eyelid (ptosis) blocking images entering the eye.

Factors that can be associated with an increased risk of amblyopia include:

- Premature birth
- Family history
- Small birth size
- Developmental disabilities.

What are the symptoms of amblyopia?

Symptoms include:

- Poor vision in one eye
- An eye that wanders inward or outward
- Poor depth perception
- Squinting or shutting an eye
- Head tilting.

How is amblyopia diagnosed?

Eye specialists diagnose amblyopia by:

- Checking to see if vision differs between the two eyes
- Covering one of the child's eyes to see how well they can follow a moving object, and watching to see how the child reacts when one eye is covered
- Performing a complete medical eye exam to check for other eye problems that could be affecting vision
- Undertaking tests designed specifically for pre-verbal children.

Poor vision in one eye does not always mean a child has amblyopia. In some cases, wearing glasses to correct a refractive error in one eye can improve vision.

> All children should have their vision checked at or before their fourth birthday.

Many schools offer vision screening as part of the child health screening service in kindergarten. Alternatively, your optometrist or health practitioner can check your child's vision.

If there is a family history of misaligned eyes, childhood cataracts or serious eye disease, an ophthalmologist should check your child's eyes when they are an infant.

How is amblyopia treated?

It is important to start treatment for amblyopia as soon as possible in childhood, when the connections between the eye and the brain are forming.

Treatment options depend on the cause of amblyopia and on how much the condition is affecting your child's vision.

It is usually corrected by making the child use their weaker eye, and it generally takes months or even years to strengthen vision in the weaker eye.

Treatments include:

- **Corrective eyewear**: glasses or contact lenses can correct problems such as near-sightedness, far-sightedness or astigmatism that result in amblyopia
- **Eye patches**: your child wears an eye patch over the eye with better vision for two to six or more hours daily

- **Bangerter filter**: this special filter is placed on the eyeglass lens of the stronger eye to blur the stronger eye and stimulate the weaker eye
- **Eye drops:** these can temporarily blur vision in the stronger eye and encourage your child to use the weaker eye
- **Surgery**: might be required if your child has droopy eyelids (ptosis) or cataracts that cause deprivation amblyopia or if the appropriate glasses do not stop the crossing or wandering eye.

Continued monitoring of your child's eye is required as amblyopia can recur.

Need to know more?

Please contact the Lions Eye Institute to make an appointment with one of our ophthalmologists.
Phone: (08) 9381 0777; email: carecentre@lei.org.au; or see our website: lei.org.au