Lazy Eye (Amblyopia)

Amblyopia is a condition of reduced or dim vision in an eye that appears to be normal. It is sometimes called "lazy eye". This is a serious eye disorder that may go undetected in early childhood when it can be corrected. It affects four per cent of infants. A lazy eye may prevent an otherwise healthy young adult from entering a chosen occupation. When associated with a squint it can become an embarrassing disfigurement. Children should have their vision tested before they start school as successful treatment depends on early detection of amblyopia.

Causes

1. Squint (Strabismus)

This is the most frequent cause and occurs when the eyes are not parallel when focusing on an object. Each eye looks in a different direction and the child sees either two objects or a blurry image (double vision). To avoid confusion, the child unconsciously suppresses the image from one eye causing it to become 'lazy' (amblyopic). Some squints are not obvious to the observer and can only be diagnosed by special tests.

2. Focusing (Refractive) Error

Many amblyopic children have apparently normal eyes when they may be seeing only from one eye. If the vision of one eye is clearer, the child's brain uses the good eye and neglects development of vision of the lesser eye. Unless treated, this may lead to permanent visual handicap. Even when the refractive error in the weak eye is corrected with glasses, the eye often remains lazy and requires further treatment to overcome the amblyopia.

3. Eye Disease

This mimics amblyopia and can only be excluded by a thorough examination by an Ophthalmologist (specialist medical practitioner trained to treat eye disorders). The most serious disease is an eye tumour but cataract, infections and other developmental disorders may occur. Many are treatable. *Any child with defective vision or apparent squint must be medically examined.* These more serious causes of amblyopia are rare but they should be excluded.

Diagnosis

Children are unaware of defective vision so routine eye examinations are important from an early age. Every child’s eyes should be checked before school age. Eye examination is part of infant health checks carried out by Family Doctors. Pre-schoolers and New Entrants are checked by a trained Vision & Hearing Tester or Public Health Nurse. Any child with defective vision should be referred to an Ophthalmologist for further investigation and treatment.

Vision problems are often asymptomatic but may be indicated by:

- Jelly-like or jerky eye movements; excessive eye rubbing in infants
- Closing or covering of one eye when looking at an object; head tilting when focusing; excessive eye rubbing; squints or frowns excessively
- Difficulty reading or other close visual tasks; holds books very close; blinks more than is usual; is irritable when attempting close work
- Trips over small objects; cannot participate in games requiring distance vision
- An involuntary turning in or out of one or both eyes at any age is a problem requiring urgent attention. **A child will not outgrow crossed eyes.**

Treatment

There are three main methods of treating amblyopia:

- "**Patching**" (covering) the good eye to force the child's brain to use the amblyopic eye. Patching alone is often successful with children.
- In some instances, **spectacles** are prescribed to correct focusing errors.
- In others, **eye muscle surgery** may be necessary to straighten a deviating eye. Surgery is usually the last step carried out once the above two steps have been completed. More than one operation may be required.

Therapy is most successful when treatment is commenced at the earliest age possible (preferably well before the age of seven).

Eye Care Team members

An **Orthoptist / Ophthalmic Technician** is trained to monitor and supervise therapy for amblyopia using special instruments to measure eyesight and binocular vision (the degree of eye co-ordination).

An **Optometrist** is trained to test for glasses / contact lenses and screen for eye disorders.

An **Ophthalmologist** is a medically trained specialist in the diagnosis and treatment of eye disorders.

Remember !

Amblyopia can be prevented by early detection and treatment of the conditions that cause it. The sooner the child receives proper treatment the better the chance of regaining normal vision. Every child should have a thorough eye examination as an infant and a visual acuity test as soon as practicable.

Patching

Patching (or Occlusion) Therapy is a challenging chore for both parents and child but is critical to successfully overcoming the reversible component of amblyopia. Covering your child's good eye is likely to be resisted - at least until the 'lazy eye' vision improves. Even though the 'lazy eye' may see poorly, your child will not be too severely handicapped by the patching. Patching may be required until your child reaches about seven years of age. Either part-time or full-time patching will be recommended according the individual child's problem. Patching is only effective while your child is awake using the 'lazy' eye. Regular follow-up visits are needed to monitor progress.

Suggestions:

- Reinforce the positive by associating patching with activities that your child enjoys or with simple rewards such as stamps, stickers, etc. Wear a patch or glasses as well. Involve your child (as far as is reasonable) in planning the times for patching. Involve other children - siblings and friends - so that they understand what is being done and why. Pick a good day to start such as when key family members are at home and your child can be "Princess / Prince for a day"
- A child will always win if occlusion therapy turns into a war of wills so be prepared to reduce the planned patching regime until your child accepts it.
- Although elastic or tied-on 'pirate patches' may allow a playful introduction, adhesive skin patches (Opticlude) are usually more effective. Special occluders can be fitted to glasses.
- Tincture of Benzoin can be used to protect the skin around the eye by applying it with a cotton ball and allowing it to dry before sticking on the adhesive patch. The patch is later removed with a warm, moist cloth. Attend to irritated skin early by protecting the area with hypoallergenic paper tape before applying the stick-on patch.
- Decorate the patch, make patching part of a game, distract your child's attention away from the patch
- Mittens limit an infant's freedom to remove a patch. Inflatable water wings around the elbows will allow a toddler to play but should keep hands away from the patch.
- Backup 'tricks' such as Atropine drops (dilates pupils and blurs vision) and plaster casts on forearms are sometimes needed. Discuss your child's progress at the regular follow-up visits.

It is never too early to test a child’s eyes - *it can easily be too late!*

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