

# Mummy, I can't read

Get a handle of common eye conditions that afflict young children.



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Lazy eye, strabismus and myopia are common eye conditions found in children.

'Lazy eye', or amblyopia, refers to a decrease in the child's vision that can happen even when there is no problem with the structure of the eye — something has interfered with normal brain cortical visual development. It usually only affects one eye, but if both eyes are deprived of good, clear visual images for sustained periods, the condition can arise in both eyes.

The three main causes of lazy eye are strabismus, vision deprivation and refractive errors (abnormal spectacle power):

- Strabismus refers to eye misalignment. One eye may turn in, out, up or down. When this happens, the corresponding part of the brain 'switches off' the eye that is not straight, and vision subsequently drops in that eye.
- Deprivation amblyopia develops when media opacities (e.g. cataracts, vitreous haemorrhage, droopy eyelids) 'deprive' young eyes of visual experience. This can affect one or both eyes.
- Refractive amblyopia happens when there is a large or unequal amount of refractive error (glasses strength/degree) in a child's eyes. Usually the brain will 'switch off' the eye that has more refractive error. This type of amblyopia is frequently undetected until the child has a vision test as the eyes look normal and the child functions well.

In myopia, close objects are seen clearly, but objects far away appear blurry. Parents should be vigilant and take their child for eye checks promptly so that problems can be diagnosed and treated early. A delay could lead to poor vision and even blindness.

### Signs to watch out for

Children with lazy eye often do not complain of poor vision; a problem is usually first noted when vision in both eyes is tested, such as during school visual screening. Occasionally, parents will notice a squint (strabismus) when one eye appears to be misaligned.

Signs of strabismus are unusual head tilting or face turning, squinting, closing one eye when gazing intently at something, clumsiness, or the appearance of not looking directly at the object of regard. Children do not outgrow strabismus; left alone, it can result in loss of depth perception, double vision or permanent loss of vision when the child grows up. Under certain conditions (e.g. where there is strabismus, droopy eyelid or obstruction to the visual axis), your doctor may need to screen your child regularly for amblyopia.



Myopic children may complain of problems seeing distant objects, such as oncoming bus numbers, whiteboard in class, or television. They may also tilt or turn their head, or narrow their eyes to see better. It is important to take steps to slow the progression of myopia because — as the child grows and his myopia worsens — the likelihood of developing complications (retinal detachment, macular degeneration, cataracts, glaucoma) increases. Spending more time outdoors can delay its onset and progression, while the use of atropine eye drops can help control the condition.

### Prevention is better

A comprehensive paediatric eye examination can be carried out at any age. As long as the child's visual behaviour is abnormal, or if the eye does not seem to be fixing well, the child needs to be evaluated by an eye specialist.

Eye screening is strongly recommended over the course of childhood to detect amblyopia early enough to allow successful treatment. Infants are examined for the ability to fix and follow and whether they have strabismus. Parents are advised to send all children for a complete eye examination at least once between the ages of three and five. If the child is too young to speak, special techniques are used to measure visual acuity. Refraction (checking eye power) can be done using a method such as cyclo-retinoscopy, which does not require the child to read.

Timely treatment of lazy eye is crucial. If there is abnormal spectacle power, the child needs to wear appropriate spectacles. Treatment of strabismus depends on its type, and includes patching, exercises, glasses and/or surgery. The child needs to be encouraged to use the lazy eye. This is usually done by patching or covering the good eye, typically for several hours per day. Treatment may take years, and is often more effective when it is started earlier. When amblyopia is detected too late, it may not be possible to reverse the visual damage. 