

Newborn infants are able to see. Their vision continues to improve over the first 8 years of life with proper use of the eye. If an eye problem develops during the first 8 years of life, it may hinder the proper use of the eye. If uncorrected, this will lead to lazy eye (or amblyopia).

### Short-sightedness

In Hong Kong, more than 40% of primary school children suffer from short-sightedness. Short-sightedness is due to the eyeball being too long.

Generally speaking, short-sightedness usually increases as the child grows until after adolescence when the eye reaches a stable length.

A child with short-sightedness will have problem seeing distant objects. He will have difficulty in copying from the blackboard and he might screw his eyes when looking at distant objects.

If a child has significant short-sightedness, he should wear spectacles. This will improve his vision as well as prevent lazy eye.

### Long-sightedness

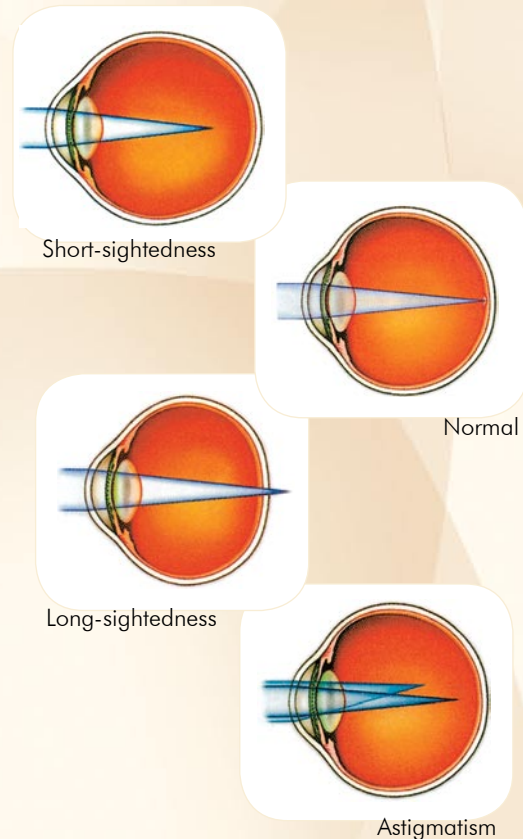
Long-sightedness is less common than short-sightedness amongst Hong Kong children. Long-sightedness is due to the eyeball being too short.

The symptoms of long-sightedness are less obvious than short-sightedness. If a child only has mild long-sightedness (less than 200 degrees), he may behave quite normally. He can use the plasticity of his lens to keep things in focus and he can see rather clearly.

However, if the child has severe long-sightedness, he will have difficulty in focusing and he will see poorly. He might even develop squint (strabismus) and lazy eye. Under these circumstances, the child must wear glasses.

### Astigmatism

In astigmatism, the curvature of the cornea is different along the vertical axis and the horizontal axis. As a result, light rays entering the eye are focused at different points instead of a single point. This will create a blurry image. The child may also suffer from eyestrain. He might screw his eyes or adopt a head tilt. A child with



high astigmatism requires glasses.

### Strabismus (Squint)

Strabismus (squint) is a condition in which the eyes are misaligned. The two eyes point towards different directions. One eye is fixed at the object of interest, while the other eye is misaligned to a different direction. The misaligned eye may be directed inward (convergent squint), outward (divergent squint) or upward (vertical squint).

A child with squint will only use the properly aligned eye to see. The image from the misaligned eye will be suppressed. This will lead to loss of binocular vision and may even cause lazy eye. Squint also causes a cosmetic problem that will affect the child's self-esteem.

In most cases, squint is caused by improper eye muscle balance. However, in a small number of children, squint is caused by serious underlying eye diseases such as congenital cataract, cancer of the eye, etc. Therefore,



we should never neglect a squint.

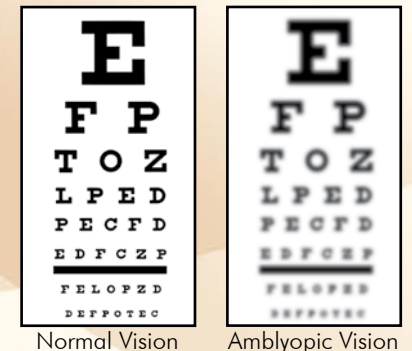
Treatment of squint includes glasses, patching, vision training and surgery.

Some people have a misconception that children will outgrow their squint. Actually these people have confused true squint with pseudo squint. In a child with pseudo squint, his eyes are actually normal and are well aligned. He has a wide and flat nose bridge which gives the illusionary appearance of crossed eyes. As he grows older and the nasal bridge becomes higher, this illusionary appearance of crossed eyes will disappear. However, in a child with true squint, his eyes are misaligned. This condition will not outgrow. He needs early treatment to straighten the eyes and allow normal vision to develop.

### Lazy Eye (Amblyopia)

During the first 8 years of life, the visual system is in a developmental stage. Though a newborn infant is able to see, his vision will continue to develop with proper use of his eyes. If proper use of his eye is hindered, the vision in that eye will not develop properly, and that eye will become a lazy eye. A lazy eye has poor vision and is not correctable with glasses.

What can hinder an eye from being used normally? Firstly, this occurs with misaligned eyes. Secondly, it could occur when one eye is out of focus with respect to the other because of a stronger degree of short-



sightedness, long-sightedness or astigmatism. The more out-of-focus eye “turns off” and becomes lazy. Thirdly, droopy eyelid and eye diseases like cataract that inhibit light entering the eye also lead to lazy eye.

Lazy eye commonly occurs in only one eye of a child. Parents might not be aware that their child is only seeing the world with one eye unless they bring their child for a formal eye examination.

If lazy eye is detected in early childhood, it can be corrected by patching the normal eye. However, after the age of eight, lazy eye becomes irreversible.

### Eye Examination

A young child will not be able to tell you of his visual problems. Therefore, parents should bring their child for a comprehensive eye examination. A comprehensive eye examination can tell you whether the child has short-sightedness, long-sightedness, astigmatism, squint, lazy eye or any other eye diseases. If an abnormality is detected, early treatment can be offered. If the eyes are found to be normal, this would be a piece of

useful baseline information for future reference.

An eye doctor is able to examine a child of any age and also check whether the child has focusing problems. For infants, the eye doctor might need to use special techniques, instruments or diagnostic eye drops.

We recommend every child to have an annual comprehensive eye examination after the age of 4. If you notice any of the following conditions, you should

1. An infant who has abnormal visual response. For example, he does not respond to light or follow toys and cannot recognize the face of his parents.
2. The eyes have abnormal external appearance (e.g. droopy eyelids, redness and swelling of the eyes, bulging eyeballs, or white reflex from the pupils, etc.)
3. Frequent tearing, blinking and rubbing of eyes.
4. Blurred vision, double vision.
5. Abnormal alignment of eyes, e.g. eye turned inward, outward or upward.
6. Head tilt when looking at objects.
7. Screwing of eyes when looking at objects or when copying from the board.
8. Any other condition that makes you worried.



Droopy Eyelid



Congenital Cataract



Head Tilt Caused by Vertical Squint



Treatment of Lazy Eye with Occlusion



Squint Assessment



Assessment of Stereopsis

For appointment  
Please call : 2835 8880 / 2835 8890  
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## Common Eye Problems in Children



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