

Amblyopia

Symptoms

Amblyopia is the decrease in both far and near vision which is uncorrectable by spectacles, surgery or any other treatment.

Formation

All babies are born with poor eyesight. As babies grow, their vision develops rapidly and matures at around 6 to 8 years old. Amblyopia develops when there is no clear image to stimulate the visual area of the brain or the clear image is suppressed during this critical period. That means, amblyopia is caused by the under development of the visual area of the brain. It is not necessarily a problem with eye structure.

Causes

The two main causes of amblyopia are anisometropia and strabismus.

1. **Anisometropia** (a large difference in refractive errors between two eyes): especially in long-sightedness and astigmatism. The image from the weaker eye is not clear enough to stimulate the visual area of the brain and results in amblyopia. Amblyopia often goes undetected because the child can still see with the better eye. This causes delay in treatment and the weaker eye may become permanently impaired.
2. **Strabismus** (squint): The two eyes are looking in different directions at the same time. Two different images are sent to the brain, causing double vision. To avoid double vision, the brain suppresses the images from the misaligned eye. Gradually, this leads to amblyopia in the misaligned eye.

Incidence

The incidence of amblyopia is around 1 to 5%.

Prevention

The most important preventive measure is early detection (before 8 to 9 years old) of the causes of amblyopia such as anisometropia and squint. Prompt treatment and strict adherence to the treatment programme are required to restore good vision.

Treatment

If the child is found to have refractive error, proper spectacles are prescribed. Then occlusion therapy is carried out by patching the good eye for 2 to 6 hours per day to force the use of the amblyopic eye. The duration of patching will depend on the severity of the amblyopia, the age of the child and how well the child and their parents are able to stick to the prescribed patching regime. Improvement in the vision of the amblyopic eye may be noticed after 6 weeks of occlusion if the treatment works.

Child suffering from squint may benefit from surgery together with occlusion therapy. However, surgery is not mandatory, depending on the appearance and the severity of the squint.

The younger the child (before 8 years old), the better the chance for improvement with occlusion. If amblyopia is diagnosed after 8 years old, the chance of recovery is relatively lower.