

AMBLYOPIA

What is Amblyopia?

Amblyopia means reduced vision in a normal anatomical eye. Sometimes the term “lazy eye” is used to describe it.

When does amblyopia develop?

Amblyopia develops when any of the following conditions occur:

- Squint/Strabismus (eyes not positioned straight)
- There is difference in power of two eyes (one eyes focusing differently from the other)
- Cataract (clouding of the lens)
- High or moderate power in both eyes
- Severe ptosis (droopy eyelids)

Children under 9 years of age whose vision is still developing are at a highest risk for amblyopia. Generally, the younger the child, the greater the risk.

Why does amblyopia develop?

Amblyopia develops because when one eye is turned as in squint, two different pictures are sent to the brain. In a young child, the brain learns to ignore the image of the deviated eye and see only the image of the better eye. Similarly when there is difference in power of both eyes, the blurred or de-focused image is formed by the brain. For the retina to capture the object, it needs adequate light and visual stimulus. This being absent in presence of cataract either in one or both eyes results in amblyopia. High or moderate degree of refractive power present in both eyes when not corrected early and adequately also results in amblyopia.

What should be done?

Amblyopia can often be reversed, if detected and treated early. As soon as amblyopia is detected, active measure should be taken to treat it. Co-operation of the patient and parents is required to achieve good results. If left untreated or not treated properly, the reduced vision or amblyopia becomes permanent.

And once it becomes permanent, vision cannot be improved by any means.

How is amblyopia treated?

The most effective way of treating amblyopia is to make the child use the amblyopic eye. Covering or patching the good eye to force use of the amblyopic eye may be necessary to ensure equal and normal vision. This can be achieved by

- Prescribing proper spectacles if the patient is found to have refractive error.
- Removal of cataract when indicated
- Occluding the normal eye
- Surgery when amblyopia is accompanied by strabismus

Occlusion means closure of normal eye with a patch and this makes the child use the amblyopic eye. Occlusion is done from few hours to few days depending upon the age of patient, type and severity of amblyopia. In cases having less severe amblyopia, partial occlusion by making one glass translucent, may be sufficient. Older children can do reading exercises with patching of the normal eye at home. Those patients who are doing patching need periodic follow up, which is decided by an ophthalmologist. Duration of treatment may extend from months to years. The ophthalmologist will decide whether or how long the occlusion should be continued. Loss of vision from amblyopia is preventable if treatment is begun early.

Facts on Patching

- Patching is not a pleasant thing for a child, so initially the child will be reluctant to undergo it. It is our duty to make the child understand so that he/she will co-operate.
- In a young child, it is done for shorter periods initially and gradually the duration is increased to get better compliance.
- Acceptance is good as soon as vision is increased in amblyopic eye.
- Method of patching should be according to the interests of the child.
- Patch should be stuck directly on to the face over the eye.
- If the child wears glasses, the patch should still be placed on the face, not on the glasses.
- Glasses can also be used as an occlude only in older children
- Many children try to take the patch off. This problem usually disappears as the child gets used to wearing the patch.
- Older children can be encouraged to read, and young children can be involved in playing some interesting games during patching.
- Precaution must be taken to prevent peeking around the edge of the patch
- Patching schedule should be followed strictly
- Patching should not be stopped abruptly. It should be tapered by ophthalmologists only.
- Regular follow up is must.