#### What is amblyopia?

Amblyopia is reduced vision in an anatomically normal eye.

#### Causes of Amblyopia?

Amblyopia develops due to any of the following:

- Squint/Strabismus (eyes not positioned straight)
- There is great difference in the refractive power of both eyes (one eye focusing differently from the other)
- Cataract (clouding of the lens, corneal opacities)
- Severe ptosis (droopy eyelid)
- Any disease that affects the eye

Amblyopia develops during childhood. Children under 9 years of age whose vision is still developing are at a risk for amblyopia. The younger the child, greater the risk.

# Normal eye-Fusion Fused single image Brain Two identical images

#### Why does amblyopia develop?

Amblyopia develops because when one eye is turned as in squint, two different images are sent to the brain. In a young child, the brain learns to ignore the image of the deviated eye and sees only the image of the better eye. Similarly when there is a difference in power of both eyes, the blurred or defocused image formed by the eye with more power is avoided 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.

#### How can we detect amblyopia early

- Many children do not complain of poor vision in one eye.



- Routine eye examination at 6 months of & another by the third year of life.
- Regular vision checkups in school.

#### What should be done?

Amblyopia can often be reversed, if detected and treated early. As soon as amblyopia is detected, active measures should be taken to treat it. Cooperation 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 can not 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

#### What is the Occlusion therapy or patch therapy?

• It is closure of the eye with better vision so that the eye with lesser vision is stimulated.

#### When can we start occlusion therapy?

- Can be started as early as possible. First 8 years of life are the critical years when amblyopia can be treated.

#### How many hours of occlusion is to be done?

- This depends upon the severity of amblyopia and will be decided by your doctor.

## For how long does this treatment have to be continued?

- This depends on improvement of vision. It can go on for few months to few years.

#### What can the child do while doing patching?

- Patching should always be done under adult supervision.
- Younger children can be encouraged to do drawing or colouring exercises.
- Older children can be encouraged to read while doing patching.

#### Facts on Patching

- Patching is not a pleasant thing for a child, so initially the child will be reluctant to undergo it.
- Acceptance increases as soon as vision improves in the ambloypic 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, even if the child may wear glasses.
- Glasses can be used as an occluder only in older children.

- 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 the child from peeping and looking around the edge of the patch.
- Patching schedule should be followed strictly.
- Patching should not be stopped abruptly. It should be tapered off by ophthalmologists only.
- Regular follow up is a must.



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# Amblyopia



### Treat Amblyopia early and save sight



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