

Pt Information Brochure

Amblyopia (Lazy Eye)

Q: What is Amblyopia?

A: When a young child uses one eye predominantly and does not alternate between the two eyes, the prolonged suppression of the nondominant eye by the brain may develop into amblyopia. Amblyopia is sometimes referred to as “lazy eye,” but it is more than just an eye problem. The visual portion of the brain is suppressed and vision actually decreases in the unused eye.

There are different causes of amblyopia:

- Misalignment of the eyes with one eye not being used properly
- A need for glasses that has not been corrected
- Glasses are needed because one eye is out of focus
- The presence of a cataract (an opacity of the lens inside the eye) that distorts light images from properly focusing on the back of the eye, preventing good vision from developing for that eye
- A droopy or enlarged eyelid that covers the pupil and blocks the vision in that eye

In some cases there may be more than one cause.

Q: How is amblyopia treated?

A: Amblyopia (“lazy eye”) is by far the greatest cause of treatable vision loss in India. A child with amblyopia may lose vision in the affected eye permanently if the situation is not corrected early. Treatment is more difficult and less effective with children older than 9 or 10 years of age.

If your child is diagnosed with amblyopia, an individual active treatment program will be designed. This program may involve one or more of the following: eyeglasses, patch therapy, eye drops that dilate the pupil, and in some cases a contact lens. Your ophthalmologist will give you specific information about the treatment for your child.

Q: Won't eyeglasses help?

A: In cases where child has high refractive error (high power glasses) and child has never used one, appropriate glasses can help the child see well. However glasses alone don't help, other treatments have to be given to treat amblyopia.

Q: What about contact lenses?

A: In children who have a significant difference in the refractive error (power) between two eyes as a cause of amblyopia, contact lenses can be tried in the eye with higher error along with other amblyopia treatment.

However it needs proper hygiene and good child cooperation, which in most cases cannot be possible. Hence contact lenses are given only in select cases. Glasses are preferable.

Q: What is Occlusion (Patch) Therapy?

A: In order to improve your child’s vision, you may be instructed to patch an eye. Patching is a common method of treatment for the various types of amblyopia. This type of visual loss cannot be corrected by glasses alone or with surgery. The treatment is effective when it forces the child to use the “lazy eye” by patching the good eye. Patching is most effective in young children, but can also help improve vision in the early teen years. Untreated, amblyopia cannot be reversed, and the visual loss becomes permanent. Clear instructions, reasonable expectations, patience and consistency are all part of the comprehensive approach to your child’s eye care.



Fig 1. Occlusion (Patch) Therapy

Q: How does my child adjust to the patch?

A: All children who are patching have similar problems. It is uncomfortable and sometimes difficult to adjust to wearing a patch. Your child may not see well at first, and this can be frightening. However, it does not hurt, and it does not damage your child’s normal eye. It is the best thing to do to preserve vision for a lifetime. For that reason, it is important that your child wear the patch as directed. (You will receive instructions on how often to patch your child.)

Q: Will the patching not damage the skin?

A: The patch must be of an adhesive type that sticks to the face. A “pirate patch” with strings or elastic is NOT advised. Be sure that the patch sticks firmly to the skin for the duration of patching time. The narrow end of the patch is placed toward the nose and the broad end away from the nose.

Patches come in regular and junior sizes and may be purchased at drug stores.

Although eye patches are hypoallergenic, some children develop mild skin irritation from wearing the patch. The broad area can be trimmed with scissors so that less adhesive

contacts the face. The patch may be rotated slightly so that the same part of the skin is not always under the adhesive. To protect the skin and decrease irritation, you may apply Milk of Magnesia with a cotton ball to the skin area where the patch will stick and allow it to dry completely. Be careful not to get Milk of Magnesia into the eye. Then apply the eye patch as usual.

Q: How to remove the patch?

A: Removing an adhesive eye patch can be uncomfortable and distressing to the parent and child. Try to remove the patch slowly while applying pressure to adjacent skin to lessen pulling. Soaking the patch with cool water before removal is also helpful. Another method is to rub petroleum jelly or vaseline into the adhesive portion of the patch. Let the petroleum jelly soak in for about 30 minutes before gently pulling off the patch. The skin surrounding the patched eye can be treated with any skin care product to lessen skin irritation. Avoid getting any product into the eye.

Q: What to do if my child removes the patch?

A: If your child removes the patch before the full amount of time that he/she is supposed to wear it, immediately replace it with a new patch. Refocus your child's attention with a toy or game in order to help to distract him or her from awareness of the patch. Be persistent. Since the patch is not painful, most children will wear the patch once they realize that their parents intend for them to wear it, and that it will be replaced. Young children can be discouraged from removing the patch by placing them in mittens or pediatric arm restraints.



Fig 2. Arm restraints for children

Q: What to do after patching?

A: While your child is wearing the eye patch, he/she should be encouraged to use the other eye as much as possible. To shorten the patching period, encourage your child to participate in detailed busy work such as paint-by-numbers, connect-the-dot books, colouring, writing, drawing and tracing.



Fig 3. Activity with lazy eye

Some slight redness of the eye is common because children frequently rub the eye or the patch. Extreme redness, accompanied by discharge, should be reported immediately to your eye doctor. If at any time during the patching routine your child contracts measles, chicken pox, poison ivy, or any other type of skin eruption around the eye, DISCONTINUE the patching.

Q: What is the effect of the patch on the better eye?

A: If the cause of amblyopia is a squint, then sometimes the deviation seems to switch eyes or get worse with the patch. This is normal and only means that the “lazy eye” is now being used so that it stays straight while the other eye turns. This indicates that the patching program is having an effect. Improving vision in the weaker eye is the first step. The deviation can be dealt with when the lazy eye’s vision has recovered. Keeping return visits is important so any changes can be tracked.

Q: How long will my child need to wear the patch?

A: Patching will be continued until there is no further improvement in visual activity or until your child uses one eye equally as well as the other. It is impossible to predict how long this will be for each child, but it typically lasts for several months with some less intense patching thereafter. Patching could be one of the most important steps in the treatment of your child’s eye condition. Do not become discouraged! No matter how difficult it may seem, the long-term results are well worth it.

Q: What if my child must wear the patch while at school?

A: Some children will need to wear the patch at school or at the day care facility. If your child removes the patch frequently at home, this will probably also happen at school. Make sure your child’s teachers understand the importance of the patch. Provide them with extra patches so they can be replaced at school when needed.

Please help your older child to deal with the comments that others will make about the patch. Just as a leg plaster and crutches help while a broken bone is healing, the eye patch is a short-term way of helping your child to have better vision for life. Practice an answer to any questions that will satisfy the questioner and make your child feel positive about the process. For example, when asked “What is that on your eye?” the response could be “It’s a patch to make my weaker eye stronger.”

Q: What is Atropine Treatment for amblyopia?

A: Atropine drops may be used to treat your child’s amblyopia. Atropine blurs vision in the better-seeing eye and encourages use of the eye with poor vision and improves vision in that eye over time. Atropine may be used in addition to or as an alternative to traditional patching therapy. Because atropine cannot be removed once applied, it is a good treatment option.

Q: How to apply the drops?

A: Have your child lie down on his/her back, looking up at the ceiling. Hold the eyelids apart and let one drop fall anywhere between the eyelids. If the child is frightened, try giving the drop before he or she wakes up. In some children, it is necessary for one adult to hold the child while the other gives the drop. Eventually a routine will be established. Be sure to wash your hands after applying the drop so that you do not accidentally get any medication into your eyes. Also, take care not to get any of the drops in your child’s other eye.



Fig 4: How to instill Atropine eye

Q: What to expect from the drops?

A: Unlike other types of eye drops, atropine usually does not sting. These drops cause the pupil (black center of the eye) to become very large. Your child may notice that close objects are blurred. This is the normal effect of the drops and may last for up to a week following one drop of atropine. Your child may also be bothered by bright sunlight. Sunglasses or a broad-brimmed hat may be worn outdoors on sunny days to avoid discomfort.

Since atropine blurs the vision of the better eye for near work, this forces the child to use the weaker eye for reading, drawing, etc. Allow your child to hold reading material close or to lean close to the desk. If your child attends school, please notify his/her teacher of the eye treatment. In some cases, reading glasses may be prescribed for using the better eye while at school.



Fig 5: Atropine causes the pupil to become very large

Q: What are the side effects of atropine?

A: Rarely, a child may develop redness and swelling around the eye, fever, or a red warm face and neck. If this occurs, STOP using the drops and contact our clinic. Be sure to keep the atropine drops out of the reach of children. If a child drinks atropine from the bottle, contact your paediatrician immediately. It is an emergency.

Q: How long do I continue giving the drops?

A: Atropine treatment may be continued for weeks or months, depending on your child's age and the severity of the vision loss in the amblyopic eye. Keep using the drops as instructed until the next appointment day unless your doctor says differently.

Q: Will my child's vision improve with surgery?

A: Many patients who have amblyopia due to squint will eventually need an operation to align the eyes called squint surgery.

In cases of cataract or lid drooping, surgery is required to remove the cause of amblyopia followed by patching, glasses or both. Surgery alone will not improve your child's vision.

Other causes of amblyopia will not require surgery.

Q: What is the prognosis?

A: Most cases of amblyopia do well if compliance with treatment is good. Majority of children will have good enough vision to do normal activities. However it ultimately depends on age of child, severity of amblyopia and presence or absence of other co-morbidity factors.