

Information on Amblyopia

What is amblyopia?

Amblyopia is the poor vision which develops when a young child's brain learns to ignore an eye. There are 3 main causes: one eye is more out of focus; one eye is not straight; or one eye has a defect, such as a cataract, which was not promptly corrected.

Is amblyopia the same thing as "lazy eye"?

Yes and no. People use the term "lazy eye" for amblyopia, but also for disorders which are not amblyopia (for example: an eye which requires a stronger glasses correction, but sees well with glasses; an eye which crosses, but still sees well; a droopy eyelid; even a slight difference in the shape of the eyelid openings).

Can amblyopia cause permanently decreased vision?

Yes. If not treated early enough, the loss of vision is usually permanent.

Is amblyopia common?

Yes. 2% - 2.5% of children (between 1 out of 40 and 1 out of 50) develop amblyopia. This represents roughly 5 million Americans. More Americans under 40 have lost vision in an eye from amblyopia than from any other cause.

What are the causes of amblyopia?

- 1) One eye is out of focus relative to the other - anisometropic amblyopia
- 2) One eye is not straight - strabismic amblyopia
- 3) One eye has a cataract or other defect which causes the brain to ignore that eye (even if the defect is corrected, vision will remain poor until the amblyopia is treated and the brain no longer ignores the eye) - deprivation amblyopia

One may also see amblyopia due to a combination of the above: an eye that turns in which is also more farsighted; an eye that turns up and in which also has a cataract, etc.

Can amblyopia occur in both eyes?

Yes, rarely. If both eyes are extremely hyperopic (farsighted), the brain becomes accustomed to blurry vision from each eye and the visual part of the brain does not develop properly. Glasses, if worn full time and started at an early enough age, will correct this.

Amblyopia in both eyes is almost never a problem with myopia (nearsightedness); even if vision is very poor at a distance, vision is good enough up close that the brain sees how things ought to look and develop normally.

Can amblyopia be treated?

Yes. The better seeing eye is patched, forcing the brain to pay attention to the eye it has ignored. The underlying problem must also be addressed. If one eye is out of focus relative to the other, glasses are prescribed. If the eyes are not straight, glasses and/or surgery are used to straighten the eyes.

What type of patch is used?

An adhesive patch, like a large oval Band-aid, is usually the first choice. It has the advantages of completely covering the eye and being difficult for the child to remove.

What if my child resists patching?

This is normal. After all, it is harder to see with the better eye covered. In general, the more a child resists patching, the more you know he needs it.

Be understanding, but firm, from the start. Patching will only become more lengthy and difficult if put off. If you are steadfast the first few days, you will usually be rewarded with improving vision and better acceptance of the patch. If a teacher or day care provider supervises your child part of each week, impress on her the seriousness of patching. Permanently reduced vision is likely if patching fails.

What if my child absolutely won't patch?

A cloth patch or tape on one lens of the glasses is an alternative to the adhesive patch. These measures, and the proverbial "Pirate" patch, are only successful in the cooperative older child who will not peek by removing the glasses or patch. If a child peeks, patching will not be successful. Period.

Alternatively, vision in the better seeing eye may be blurred by using the dilating drop Atropine, which blocks the ability to focus up close. The amblyopic eye must be used for reading and close work, and is thereby strengthened.

Finally, an overly strong lens correction may be used in front of the better seeing eye. In this case the amblyopic eye must be used for distance vision, and is thereby strengthened.

Is it ever too late to patch?

Unfortunately, yes. On the other hand, many people give up too soon.

The different types of amblyopia differ greatly in severity. Amblyopia due to cataract must be treated promptly. A child born with a cataract in one eye must undergo surgery in the first 2-3 months of life, as well as intensive patching, to have a chance at good vision in that eye. Older children who develop a cataract as a result of trauma should also have prompt surgery to minimize amblyopia.

Amblyopia due to crossing, or other misalignment, may be treated up to age 7 or 8, but responds more quickly in younger children, because the visual part of the brain is not as "set in its ways". An important lesson for parents of children with crossing is that surgery or glasses which straighten the eyes will not eliminate amblyopia by themselves. Improvement in vision also requires that the brain stop ignoring the eye. And this means patching.

Amblyopia which results from one eye being out of focus relative to the other (anisometropic amblyopia) is a serious problem, but the least severe of the three forms of amblyopia. With proper glasses, and patching, improved vision can be obtained in children age 8 and older. Restoration of vision is still better and quicker, though, the earlier the problem is detected and treated.