

## **Amblyopia (“Lazy Eye”)**

Before the age of 7-9 years old, the visual pathways in the brain are still forming. Anything that gets in the way of clear vision to one of the eyes can disrupt the visual development for that eye. The brain will preferentially develop for the good eye. The decreased vision in the bad eye will become irreversible after the window of visual development closes, even if the underlying cause of the disruption is fixed. Therefore, it is very important to remedy the underlying cause of unequal vision and strengthen the weaker eye before the age of 7-9 years.

A common cause of amblyopia is strabismus. Strabismus is present when the eyes are not pointed in the same direction. One eye will always be held straight so as to look at the object of interest. The other eye may be crossed, outwards, up, or down. Sometimes an individual with strabismus will alternate which eye is used to fixate on an object. This is good, as then both eyes will develop equal vision. If one eye is preferred, the other eye will develop amblyopia. Strabismus can be treated by surgically straightening the eyes, or in some cases with glasses.

Refractive errors, or the need for glasses, can also cause amblyopia if there is a difference between the prescriptions for each eye.

Cataracts, eye injuries, corneal scars, large eyelid droop (ptosis), and other causes of poorer vision in one eye than the other can also lead to amblyopia.

To treat amblyopia, the underlying cause of the amblyopia is rectified and patching therapy is instituted. The stronger eye is covered with a patch to allow the amblyopic eye to develop better vision. The younger the child, the faster the patching treatment will work. For example, a 1-year old patched for a week or two will get the same treatment effect that it would take a 6-year-old months of patching to attain. The more waking hours that the child’s eye is patched, the more effective the patching treatment will be. However, the latest research has shown that as little as 2—4 hours of patching per day is effective if the child is doing near activities such as reading or

coloring. Research has also shown that patching may be effective as late as age 9-10.

Children will usually object to wearing the patch, but this problem decreases as vision in the amblyopic eye increases. You may be tempted to give in to an unhappy child, but every time the patch is removed effective treatment is delayed. If vision in the amblyopic eye is very poor, it will be very important to safeguard your child. Remember, you will be covering the good eye and your child will have trouble seeing at first.

Letting the child draw on the patch or decorate it before they put it on may help in aiding acceptance. You may need to put the child on your lap and engage him or her in activity for the first 20 minutes or so of patching each day in order to keep the child from removing the patch. It is important to be firm. Failure to treat amblyopia results in permanent loss of vision, and the younger the child is treated, the faster and more successful the treatment will be. Small rewards given to the child for wearing the patch can be effective.

If the skin around the eye becomes irritated from the patch, you may apply Bacitracin ointment to the skin at night. If this fails to resolve the problem, you may apply a small amount of over-the-counter hydrocortisone cream.

In some cases, amblyopia may be treated with eye drops to dilate the good eye and make it blurry instead of patching. There are some side effects of the drops and the effects of the drops are not instantly reversible. Because of this, patching is usually the first choice treatment.