

Early Treatment Best for Children With “Lazy Eye”

by Carol Marusich

Amblyopia or “lazy eye” as it is sometimes called, affects about four million people in the United States. If left untreated, this condition can interrupt your child’s normal visual development and cause visual dysfunctions that will last a lifetime.

Amblyopia means an inability to see clearly, usually with one eye, which does not immediately improve with eyeglasses or contact lenses. Amblyopia is diagnosed when visual acuity cannot be corrected to at least 20/40 (legal driving vision) even though the eye is healthy and no disease is present.

Several conditions can cause amblyopia including uncorrected refractive errors such as farsightedness, astigmatism, or significant nearsightedness; a large difference in refraction between the two eyes; strabismus, where the eyes do not remain properly aligned; and deprivation, where the vision in one eye has been obstructed at an early age.

Most forms of amblyopia appear early, usually before the age of six, but a significant, long-term interference in vision of one eye at any age can cause decreased vision.

In all of these situations, something has prevented the child from using the two eyes together as a team. Rather than allow a distorted picture from one eye to interfere with a good picture from the other eye, these children quickly learn to ignore or suppress the visual input from the poorer eye. The same is true when the eyes do not align properly. Rather than have the confusion of seeing double, they learn to pay attention to only one image and eventually suppress the non-dominant eye.

It is worth the extra energy it takes to actively block the visual messages from the poorer eye in order to preserve the clearer, single image seen by the dominant eye and avoid confusion. With prolonged disuse, the ability to see clearly gradually diminishes.

In some children, the “lazy eye” may wander, alerting parents and caregivers that something is wrong. These children are often examined, diagnosed and treated early before visual-motor development is significantly delayed.

Children with amblyopia whose eyes remain straight even though they are only using one eye for most of their visual tasks may go undetected and untreated through their most important developmental years. Because there are no outward signs, the eyes may look perfectly normal and these young children are usually unaware that one eye is blurred. Often in these cases the amblyopia may go unrecognized until the child first enters school unless early testing reveals the difference in function between the two eyes.

How can we prevent amblyopia from interfering with our child’s normal visual development? Early diagnosis and treatment are our best resources.

Concerned parents can check their family history for the occurrence of amblyopia or the conditions that can predispose a child to develop amblyopia. They can also be alert and watch for symptoms of vision problems in young children such as unusual blinking, winking, poor eye teaming, or extreme light sensitivity.

Be aware, however, that both family history and symptoms may be absent in the child with amblyopia. For this reason it has been recommended that all children have a comprehensive eye examination by one year of age.

With today's technology and the use of specialized pediatric tests, comprehensive examination of visual acuity, eye health, refractive condition, and eye teaming can successfully be completed on very young infants, even under one year of age. Your child does not need to be old enough to read the chart to have an accurate assessment of his or her eyesight and vision development.

What happens when amblyopia is diagnosed? Once the difference in visual acuity between the two eyes is detected, the underlying cause must be identified and treated. Glasses or a contact lens may be necessary to correct the refractive condition in one or both eyes. In addition to refractive correction, treatment may also include the use of prisms, some form of patching or penalization (blocking all or part of the vision of the preferred eye to encourage use of the amblyopic eye), vision therapy activities, or a combination of these.

The goal of treatment is to encourage the child to develop vision in the amblyopic eye and to learn to use the two eyes together as a team. Unless eye teaming (binocularity) is well established, the child will continue to use only the dominant eye out of habit and the amblyopia will return once patching is discontinued. Results are permanent, however, when both the amblyopia and underlying problems are corrected.

For many years, doctors thought that amblyopia could not be treated past the age of six. Dr. Martin Birnbaum's research at the State University of New York College of Optometry found that "success rates for people over the age of 16 were only slightly lower than those for young children." It should be emphasized, however, that the earlier amblyopia is diagnosed, the easier it is to treat. And the earlier amblyopia is successfully treated, the less likely it is to interfere with your child's long-term visual development.

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