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Family Eye Care Center & Optical Gallery

Glaucoma
Cataracts
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Amblyopia

What is amblyopia? Amblyopia, also known as "lazy eye", is a condition in which one or infrequently both eyes do not develop normal vision during infancy and childhood. The brain and the eyes work together to produce vision. Light enters the eye and is changed into nerve signals that travel along the optic nerve to the brain. Reduced vision results when an otherwise healthy eye sends a blurry image to the brain and the brain never develops sharp vision with that eye, even when glasses are used. A child may not be aware of having one normal eye and one with reduced vision. Unless the child has a misaligned eye or other obvious external abnormality, there is often no way for parents to tell that something is wrong. According to the National Eye Institute, the condition affects approximately 2 to 3 out of every 100 children in the United States. Unless it is successfully treated in early childhood, amblyopia persists into adulthood. If left untreated, amblyopia can cause severe visual disability in the affected eye, including legal blindness and lack of depth perception.

What causes amblyopia? Strabismic amblyopia can develop when the eyes are not properly aligned. When this happens, the brain "turns off" the eye that is not straight in order to prevent double vision and the vision does not develop properly. Refractive amblyopia can be caused when one eye is significantly more nearsighted, farsighted, or astigmatic than the other eye. Because the normal eye may have good vision and the eyes look straight to the parents and pediatrician, this kind of amblyopia may not be found until the child has an eye exam. Deprivation amblyopia can be caused by an obstruction of good vision to the eye from a cataract, severely droopy eyelid, or other vision obstructing disorder.

Will glasses help a child with amblyopia to see better? Maybe, but glasses alone may not correct the child's vision to 20/20. With amblyopia, the brain gets accustomed to seeing a blurry image and when the child gets older, the brain will not be able to interpret the clear image that the glasses produce.

How is amblyopia treated? Treating amblyopia involves making the child use the weaker eye. An opaque, adhesive patch is worn over the stronger eye daily for a period of weeks to months. If the child needs glasses to correct his/her vision, the glasses are worn full time - including while patched. This therapy encourages the brain to use the weaker eye and develop an improvement in the vision. With time, the brain may develop to see properly. Patching can be difficult for some children. Instead of patching, drops can be placed in the stronger eye to dilate the pupil and blur the vision of the stronger eye. With the stronger eye blurred, it helps the child use their weaker eye similar to patching therapy.

Please turn over →

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What kind of patch should be used? An adhesive patch which can remain firmly in place over the good eye and does not allow any light into the good eye is best. Commercial patches (Nexcare™ 3M Opticlude™, Curad®) come in "regular" and "junior" sizes are available at most drug stores in the eye care aisle. More colorful options are also available online. If your child has any problems with the adhesive patches, there are also cloth patches available online that are made to fit snugly over glasses and block out any incoming light. Black "pirate" patches are <u>not</u> adequate as they allow light to enter the good eye.

Frame Friends ™

What activities can my child do while patched? Fine detailed games and puzzles which hold the child's interest will encourage the use of the lazy eye. A detailed list of appropriate apps is available. Because of the loss of depth perception and possible loss of sharpness of the vision while the good eye is patched, the child will want to be careful when playing while patched.

What are appropriate goals of amblyopia treatment? In all cases the goal is the best possible vision in each eye. While not every child can be improved to 20/20, most can obtain a substantial improvement in vision.