

# Pediatric Low Vision

## WHAT IS LOW VISION?

A person with low vision has measurable vision but has difficulty doing visually oriented tasks. A person with low vision has decreased vision (usually defined as 20/70 or less), a decreased field of vision (peripheral vision), or both. People with low vision are not blind and usually retain some useful vision. Low vision care is about rehabilitation. It is not a cure. It is about finding new ways to accomplish the tasks of daily life. For a child, this includes optimizing visual function to allow for development of literacy, including the ability to read and write,

## WHAT ARE SIGNS OF LOW VISION?

Some signs of low vision include difficulty recognizing a familiar face, difficulty reading, difficulty seeing objects that are potential hazards such as steps, curbs, and walls. Printed material can appear broken or distorted. Color and contrast discrimination may also be impaired.

## WHAT ARE SOME OF THE CAUSES OF LOW VISION IN CHILDREN?

Low vision can be the result of childhood conditions such as albinism, pediatric cataracts, pediatric glaucoma, nystagmus, high refractive errors, trauma, and retinal and optic nerve abnormalities. Many of these conditions are irreversible. They may be progressive or non-progressive.

## WHAT IS A LOW VISION EXAM?

Low vision care may include pediatric ophthalmologists, orthoptists, and optometrists who specialize in low vision. A team-based approach may be used. The low vision exam will vary depending on the age of the child. The examiner will try to gain as much knowledge as possible about your child's visual function. This will include visual acuity (a measure of how small an object your child can see), refractive error (the type of eyeglass prescription that may improve your child's vision), visual field (the extent of peripheral or side vision), eye muscle function (the alignment of the eyes and ability to move them in all directions), and color vision. Because functional vision may vary across different



settings, vision may be assessed in different lighting environments. Additional testing may include an electroretinogram (ERG) and visual evoked potential (VEP). These studies typically will be done in a hospital or clinic setting and may require some sedation.

## **WHAT TYPE OF TREATMENT IS AVAILABLE FOR PATIENTS WITH LOW VISION?**

Glasses and/or contact lenses may be recommended. Magnifiers, binoculars, telescopes or tinted lenses may be helpful as well. There are many non-optical devices such as closed-circuit TV's, large print books, and adaptive technology tools such as electronic tablets. Children below the age of three years will be referred to Early Intervention. School-aged children should receive services from a teacher of the visually impaired. Eligibility for these services varies by state.

## **WHAT IS EARLY INTERVENTION?**

Early Intervention comprises a team of special education professionals. The early intervention team works with parents and caregivers to develop a family centered program to enable a young child to develop all his/her abilities and potential. A teacher trained in working with the visually impaired should be involved. Your child may also need physical, occupational and speech therapy.

## **WHAT RESOURCES ARE AVAILABLE ONLINE FOR PATIENTS WITH LOW VISION?**

- **The American Foundation for the Blind: [afp.org](http://afp.org)**
- **American Association for Pediatric Ophthalmology and Strabismus: [aapos.org](http://aapos.org)**
- **American Printing House for the Blind: [aph.org](http://aph.org)**
- **Children's Eye Foundation: [childrenseyefoundation.org](http://childrenseyefoundation.org)**
- **The National Eye Institute: [nei.nih.gov](http://nei.nih.gov)**

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