Our vision is a special sense that we often take for granted. Every day at the Olmsted Center for Sight, we see children and adults who have lost vision as a result of an eye disease or other condition. When vision becomes diminished, we begin to realize how much we rely on it, and how much we miss it when it is no longer there for us. Early detection and prevention are important goals in vision care, and many of us do not recognize how early routine eye exams should begin.

The American Optometric Association recommends that a child have their first eye exam at 6 months of age. At this early stage, the exam process looks far different than an adult’s eye exam, but even with infants it is possible to evaluate the eye health, the visual abilities, and determine whether there is a need for glasses for babies.

Children are routinely screened for obvious visual conditions once they start attending school, and if kids pass their vision screening, most parents assume that their child’s eyes are fine. However, the school testing does not look at eye health, and may miss some underlying visual conditions, which may adversely affect learning.

It is important to contact your local optometrist, or a pediatric ophthalmologist to schedule an evaluation. Most insurance plans will cover routine eye examinations.

After the initial eye examination, children should have another evaluation at age three, and again just before the start of kindergarten. Additionally, if there are any unusual signs that parents notice that seem out of the ordinary, the eyes should again be examined. The following is a list of some signs or symptoms that warrant further investigation:

- Frequent eye rubbing
- Delays in motor development
- A history of being born premature
- Excessive blinking or squinting
- Not able to maintain eye contact
- Inability to hold fixation when looking at objects
- Poor eye tracking skills
- An eye that turns in or out
- Anything that “just doesn’t seem right”

There are many visual difficulties that can be uncovered in a routine eye exam. A common finding in children includes uncorrected refractive error, which means that the eyes are not receiving a clear, focused image. This may lead to squinting, eye strain, avoiding certain visual activities, and may even prevent the proper development of the visual system (amblyopia.)

If there is an eye that seems misaligned (strabismus), then binocularity, depth perception, and other visual skill development can be affected.

Any condition that affects the eyes ability to work as a team will decrease visual efficiency, making tasks such as reading, playing sports, or learning to play an instrument more difficult. Because there are many good options for treating certain visual conditions, it is important to discover them at an early age. For a child with a visual disorder, every year that goes by without intervention is another year that they may fall behind in their classwork, their visual skill development, or in other areas like hand-eye coordination. A great benefit of early eye exams is that if a child is found to have any of these difficulties, an intervention plan can be put in place to reduce or eliminate many of the visual and developmental side effects.

While many visual coordination or focusing issues can be easily dealt with through lenses, training, or other interventions, there remain some physical conditions that create vision loss which we cannot cure. At the Olmsted Center for Sight, we work with children who cannot be fully helped with just new glasses or vision therapy.

Some of the conditions affecting vision that are commonly diagnosed at an early age include albinism, congenital glaucoma or cataracts, aniridia, nystagmus, retinopathy of prematurity, juvenile macular degeneration, retinal dystrophies, and cortical visual impairment.

**Albinism**

A hereditary condition where there is a lack of pigmentation in the iris and behind the retina. This causes a condition called nystagmus, as well as decreased visual acuity and extreme glare sensitivity.
Cataract
A condition in which the lens of the eye, which is normally clear, becomes cloudy or opaque. Most cataracts are related to aging, but some children are born with a clouding of the natural lens.

Cortical visual impairment
Visual impairment caused by damage to those parts of the brain related to vision. In this condition, the child’s eye is normal, but the brain cannot properly process the information it receives. The degree of vision loss may be mild or severe and can vary greatly, even from day to day.

Glaucoma
Disease in which the pressure of the fluid inside the eye is too high, resulting in a loss of peripheral vision. If the condition is not diagnosed and treated, the increased pressure can damage the optic nerve and eventually lead to blindness.

Nystagmus
This involves involuntary, rapid, repetitive movements of both eyes from side to side, up and down, or in a circular motion. Nystagmus may be present at birth or associated with other conditions that lead to vision impairment.

Retinitis pigmentosa
Progressive degeneration of the retina, resulting in decreased night vision, a gradual loss of peripheral vision, and in some cases, loss of central vision.

Retinoblastoma
Malignant tumor (cancer) of the retina, generally affecting children under the age of 6. Usually hereditary, retinoblastoma may affect one or both eyes. Retinoblastoma has a cure rate of over 90 percent if treated early and it has not spread beyond the eye.

Retinopathy of prematurity (ROP)
Condition associated with premature birth, in which the growth of normal blood vessels in the retina stops, and abnormal blood vessels develop. There is an increased risk of retinal detachment.

Stargardt’s Disease
This is an inherited disease that causes gradual degeneration of the macula, the area in the middle of the retina that makes possible the central vision needed for reading, driving, recognizing colors, and other activities of daily life.

For those children or adults who have a visual impairment, the Olmsted Center for Sight is here to offer options to make it through school, to find or maintain a job, or to improve safety and independence in the senior years.

Dr. James Simmons O.D., M.S. has been with the Olmsted Center for Sight (OCS) for over 20 years, where he serves as an Optometrist and Low Vision Rehabilitation Specialist. In addition to his work at OCS, Dr. Simmons is an Adjunct Biology Instructor at Erie Community College and is frequently published within the field of optometry and low-vision rehabilitation. To learn more about the center, visit www.olmstedcenter.org.