

# Vision and Pre-Schoolers



Children grow and change rapidly, so how they see has a tremendous impact on their learning and development. During preschool years, children develop visually-guided eye-hand-body coordination, fine motor skills and the visual motor skills necessary to learn to read. As a parent, you can help with this process by initiating skill exercises, by watching for signs that indicate an eye or vision problem and by ensuring that children receive a comprehensive eye exam prior to entering kindergarten.

Helping a preschooler develop vision skills begins with simply reading to the child while allowing him/her to see the book and pictures. Other fun activities include imaginative play, using colored shapes, a chalkboard or finger paints. Using playground equipment like a jungle gym and balance beam in a safe, supervised environment, learning to ride a bike and playing ball games are all helpful to eye-hand-body coordination.

Parents should watch for any signs that could indicate a vision development problem. These include:

- A short attention span for the child's age
- Difficulty with eye-hand-body coordination in ball play and bike riding
- Avoidance of puzzles, coloring and other detailed activities
- "Tired" or rubbing at eyes while or after reading or using eyes

Only a comprehensive eye exam can detect such vision problems as amblyopia, or lazy eye, which is the loss or lack of development of vision in an eye so the brain "learns" to see with the good eye only. The Minnesota Optometric Association (MOA) suggests that children have a complete eye exam as early as six months old, again at age three and then before starting kindergarten, and two years thereafter unless risk factors indicate more frequent visits. According to the United States Center for Health Statistics, only 14 percent of American children under the age of five have received a comprehensive eye exam.

To help make the eye examination a positive experience:

1. Allow one hour. It may be helpful to schedule the exam in the morning.
2. Talk about the examination in advance and encourage your child's questions.
3. Explain the examination in your child's terms, comparing the E chart to a puzzle and the instruments to tiny flashlights and a kaleidoscope.

The Minnesota Optometric Association has over 500 member doctors of optometry around the state. The MOA is committed to furthering awareness of optometrists as primary eye care or family eye doctors and to bringing about change that positively impacts the MOA member doctors and their patients. For more information on the MOA, visit [www.MNEyeDocs.org](http://www.MNEyeDocs.org).

# An Eye Care and Vision Guide



Good vision is a prerequisite for learning in school-aged children, so detecting any eye or sight problems early is important in schoolwork and play.

## The components of vision:

- Eyesight is just one component of vision. It is the ability to see objects clearly.

## Other aspects of vision are:

- Eye health
- Eye teaming, which is the ability of the eyes to work together
- Eye focusing, the ability of the eyes to focus and shift focus on near and distance points
- Eye motility, when eyes can move together to read, to directly view an object or move to one viewing area to another
- Near vision, the ability to see clearly and comfortably at 10-13 inches
- Distance vision, the ability to see clearly and comfortably beyond arm's reach
- Comprehension of what the eye sees

Vision is a "guiding mechanism" in daily performance as well as in overall growth and development, including the role of eye-hand coordination.

## Here are possible symptoms of eye and vision problems:

- Loses place while reading
- Places head close to the book or desk when reading or writing
- Has trouble finishing written assignments

- Has difficulty remembering, identifying and reproducing basic shapes
- Has difficulty with sequential concepts
- Has poor hand-eye coordination
- Displays evidence of developmental immaturity
- Has headaches, nausea and dizziness
- Has burning and itching eyes
- Experiences blurring of vision at any distance
- Has double vision
- Uses finger to maintain place while reading
- Omits, repeats and miscalls small words or confuses similar words
- Excessively blinks or rubs eyes
- Has difficulty remembering what was read
- Turns or tilts head to use one eye only or closes or covers one eye
- Has eyes that are crossed, turned in or out, or move independently of each other
- Has reddened, watering eyes, encrusted eyelids, frequent styes
- Dislikes or avoids close work
- Makes frequent reversals when reading or writing
- Consistently performs below potential

## What to do if any of these exist:

Sometimes symptoms such as not handing in written assignments may mean the child is not sleeping well or there is another problem unrelated to vision. But if this behavior correlates with any other symptoms, or any single vision-related symptom exists, make an appointment with your family eye doctor.

# The Family Eye Doctor



## What is optometry?

- Doctors of optometry are independent primary care health providers who examine, diagnose, treat and manage diseases and disorders of the visual system, the eye and associated structures as well as diagnose related systemic conditions.
- As the primary eye care or family eye doctor, the optometrist is an integral part of the health care team. The management of eye care health is the focus of the family eye doctor's practice.

## Specifically, doctors of optometry do the following:

- Examine the internal and external structures of the eyes to diagnose eye diseases like glaucoma, cataracts and retinal disorders; system diseases such as hypertension and diabetes; and vision conditions like nearsightedness, farsightedness, astigmatism and presbyopia.
- Test to determine the patient's ability to focus and coordinate the eyes, and to judge depth and see colors accurately.
- Prescribe medications to treat eye diseases, prescribe eyeglasses and contact lenses as well as low vision aids and vision therapy.
- Refer and work with MDs when surgery or advanced care is necessary.

## The family eye doctor is accessible.

- There are over 500 doctors of optometry practicing in Minnesota.
- Optometrists are the most accessible eye care providers in the nation, with optometric services available in more than 6,900 municipalities. In more than 4,000 of these communities, optometrists are the only local primary eye care providers.

## An optometrist's education:

- Following a four-year college education, optometric students receive a professional education during a four-year doctoral program. The degree of doctor of optometry (O.D.) is conferred upon graduation.
- Classroom and clinical training includes human anatomy, pharmacology, sensory and perceptual psychology, biochemistry and epidemiology as well as all aspects of vision care, optics and eye health.
- These are the unique aspects of an optometrist's education:
  - Focused education over four years on ocular and related systemic pathology.
  - The advanced study of optics.
  - The science of light and vision.
  - Lens design, construction, application and fitting.

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# Back-In-School Eye Test



Take this simple yes or no test for your child. If you answer “yes” to more than one question, or you have not seen your optometrist in over a year, it’s probably time to schedule an appointment.

	Yes	No
<b>Does your infant or pre-schooler:</b>		
Have an eye turning inward, outward, upward, or downward frequently	<input type="checkbox"/>	<input type="checkbox"/>
Tend to bump into objects	<input type="checkbox"/>	<input type="checkbox"/>
Have red eyes or lids	<input type="checkbox"/>	<input type="checkbox"/>
Rub eyes frequently	<input type="checkbox"/>	<input type="checkbox"/>
Have excessive tearing	<input type="checkbox"/>	<input type="checkbox"/>
Turn or tilt head to use one eye only	<input type="checkbox"/>	<input type="checkbox"/>
Have encrusted eyelids	<input type="checkbox"/>	<input type="checkbox"/>
Have frequent styes	<input type="checkbox"/>	<input type="checkbox"/>
Avoid coloring, puzzles, or detailed activities	<input type="checkbox"/>	<input type="checkbox"/>
Experience difficulty with eye-hand-body coordination	<input type="checkbox"/>	<input type="checkbox"/>

	Yes	No
<b>Does your school-age child:</b>		
Lose place while reading	<input type="checkbox"/>	<input type="checkbox"/>
Avoid close work	<input type="checkbox"/>	<input type="checkbox"/>
Hold reading material closer than normal	<input type="checkbox"/>	<input type="checkbox"/>
Tend to rub eyes	<input type="checkbox"/>	<input type="checkbox"/>
Have headaches	<input type="checkbox"/>	<input type="checkbox"/>
Turn or tilt head to use one eye only	<input type="checkbox"/>	<input type="checkbox"/>
Make frequent reversals when reading or writing	<input type="checkbox"/>	<input type="checkbox"/>
Use finger to maintain place when reading	<input type="checkbox"/>	<input type="checkbox"/>
Omit or confuse small words when reading	<input type="checkbox"/>	<input type="checkbox"/>
Consistently perform below potential	<input type="checkbox"/>	<input type="checkbox"/>

Regular eye exams, starting at six months, by a doctor of optometry can help you be certain that your child’s vision is developing normally. Since vision changes can occur without you or your child noticing them, your child should visit the optometrist at least every two years, or more frequently, if specific problems or risk factors exist. If needed, the doctor can prescribe treatment including eyeglasses, contact lenses or vision therapy. Keep in mind that a school vision screening, while helpful, is not a substitute for a thorough eye examination. Schedule your child’s back-to-school eye examination with your optometrist to make the most of a good education.