

FREE EYE CARE ARTICLE FROM WWW.DRRSTERLING.COM

## Back to School Eye Care

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## Are You and Your Children Ready for School?

**T**he first day of school is just around the corner, and most parents are busily making their way through a list of “to-dos”: school clothes shopping, appointments for immunizations and physicals, and trips to the store for pencils, pens, paper and all the other “must-haves” for the classroom—all with the intention of getting students Ready for School.

Is a visit to the optometrist on your list? A comprehensive eye examination for students is one of the most important “to-dos” and yet one that is often overlooked. Without an eye exam, many children have vision problems that remain undiagnosed, and may even be misdiagnosed as a learning disorder.

### Understanding the Difference Between Vision Screenings and Vision Examinations

#### **Vision Screenings — See What Your Child May Be Missing:**

Vision screening programs are intended to help identify children with eye or vision problems that threaten sight or impair their ability to develop and learn normally. However, vision screenings are a limited process and cannot be used to diagnose an eye or vision problem, but rather to indicate a potential need for further evaluation.

Many vision screenings test for visual acuity only. Use of the Snellen chart (eye chart for distance) alone only identifies five percent of the vision problems in children according to the American Foundation for Vision Awareness. A child may be able to see letters 20 feet away but that does not tell whether his eyes are able to work together to read materials 12 inches away, or if there is an eye health problem or vision perception problem.

There may be no set standards and criteria for passing a vision screening. Results can be determined arbitrarily.

A vision screening can give a parent a false sense of security.

When a child reports that he is seeing 20/20, parents often assume that no further testing is needed and fail to ever take the child for a comprehensive eye examination.

Most screening facilities lack equipment to screen young children. Vision screening using traditional methods by non-eyecare professionals is extremely difficult for children less than 4 years of age.

**Amblyopia** (poor eyesight in one eye, sometimes known as "lazy eye") is often missed if the eyes are aligned (although it is usually picked up if a child's eyes are crossed).

According to a study published by the American Academy of Pediatrics, vision screenings were not attempted on more than 60 percent of the three-year old children in pediatricians' offices. They found that in general, the younger the child, the less likely it was that a vision screening was attempted. (An attempt was defined as 10 or more seconds spent trying to get the child to cooperate with a vision screening.)

Fewer than 50% of the children identified as needing professional eye and vision care ever receives that care, and of those who do, the average time between the screening and the examination is 18 months.

## **Vision Examinations - More Than Meets The Eye:**

*Comprehensive vision examinations can only be conducted by an eye care professional with the specialized training needed to make a definitive diagnosis and prescribe treatment. Often, specialized equipment and procedures, which are not available as part of a vision screening program, are needed to adequately evaluate a child's eyes and vision status.*

*Clearly, the prevalence of vision disorders present in preschool age children and the limitations of vision screening programs support the need for and value of early detection through a comprehensive eye and vision examination by an eye doctor.*

Below are essential elements of a comprehensive eye examination used to insure that learning is maximized through good vision. The refractive state of the visual system, such as nearsightedness, farsightedness, or astigmatism is determined.

Visual acuity is measured at several distances so that the student can comfortably and efficiently read, work on the computer or see the board.

Focusing or accommodation is an important skill that is tested. The eyes must be able to focus on the object at which they are aimed and easily shift focus from one object to another. This allows the child to move attention from a book or paper to the chalkboard and back. Sustained focus affects the ability to read or write for longer periods of time.

The doctor evaluates visual alignment and ocular motility, which means the muscles aiming each eye converge so that both eyes are aimed at the same object, refining depth perception.

Binocular fusion (eye teaming) skills are assessed. These skills are critical to coordinate and align the eyes precisely so the brain can fuse the pictures it receives from each eye into a single image.

Eye tracking skills are tested to determine if the child can track across a page accurately and efficiently while reading, and can copy material quickly and easily from the chalkboard or another piece of paper.

Testing of color vision prior to school age is conducted since a large part of the early educational process involves the use of color identification and discrimination.

Eye-hand coordination, critical for handwriting, throwing a ball or playing an instrument, and visual perception, used to interpret and understand visual information like form, size, orientation, texture and color perception, are both important visual functions that are investigated during a comprehensive eye examination.

Ocular health is determined by examining the structures of the eye.

## **The five most common signs that a vision problem may be interfering with your child's ability to read and learn are:**

1. Skips lines, rereads lines
2. Poor reading comprehension
3. Takes much longer doing homework than it should take
4. Reverses letters like b's into d's when reading
5. Has a short attention span with reading and schoolwork

Any one of these symptoms is a sign of a possible vision problem.

"Vision problems can have a serious impact on a child's education. Don't wait to see if this next school year will be better, take action today!"

It's not too early to think about what you need to do to get your kids ready for school. One of the most important items on your child's "school supply" list should be an eye exam. To succeed at school, it is imperative that children see their very best.

You may not notice that your child has a vision problem, as kids don't usually complain. So get a jump on your back to school blitz by making your child an appointment for a thorough eye exam.

Talk to your child about eyes and vision in general. Check your local library for children's books about the eyes. Try playing "I Spy" or other fun games that deal with the eyes. Help your child draw an eye chart on a large poster board for playing eye doctor...take turns being the patient. Practice putting eye drops into your child's eyes, and your eyes as well, using a small bottle of artificial tears. When eye drops are instilled into his or her eyes at the doctor's office, it won't be a total surprise. These ideas will get children to think about their eyes and how they use them. Some may even give you an idea of how your child may react in the exam room.

## **Does your child wear protective eyewear? If not, you may want to consider the following facts:**

- More than 600,000 eye injuries related to sports and recreation occur each year. 42,000 of these injuries are of a severity that requires Emergency Room attention.

- More than 90% of all eye injuries can be prevented with the use of appropriate protective eyewear.
- Sports participants using "street wear" (corrective eyewear or sunwear that does not conform to ASTM standard F803) are at a far more severe risk of eye injury than participants using no eye protection at all.
- The American Academy of Pediatrics, American Academy of Ophthalmology and American Optometric Association all strongly recommend protective eyewear for all participants in sports in which there is a risk of eye injury.
- The following sports are considered a high-to-moderate risk of eye injury: Basketball, Baseball, Softball, Lacrosse, Hockey, Tennis, Soccer, Volleyball, Water Polo, Football, Air Rifle, BB Guns, Paintball, Boxing, Martial Arts, Cricket, Squash, Racquetball, Fencing, Badminton, Fishing and Golf.
- One-in-eighteen college athletes will sustain an eye injury each season. The odds increase to one-in-ten for basketball players.
- One-in-eight victims of a severe eye injury and one-in-twenty victims of less-severe eye injury, initiate legal proceedings against parties assumed to be responsible.
- According to the 2002 National Health Interview Survey, 84.6% of children do not utilize protective eyewear in situations that represent a risk of eye injury.
- Increasing the use of protective eyewear in sports is a goal of the National Institute of Health's "Healthy People 2010".

Even if your child does not participate in any sporting activities, those that wear glasses to enhance their vision should most certainly be wearing **polycarbonate** lenses in his or her eyewear.

Polycarbonate lenses are special high index lenses that offer superior impact resistance. These lenses are up to 10 times more impact resistant than regular plastic lenses, making them an ideal choice for children's eyewear, safety glasses, and for anyone with an active lifestyle who wants a thinner, lighter, safer lens.

Polycarbonate lenses have a refractive index of 1.59, making them 20% to 25% thinner than regular plastic lenses. They are also up to 30% lighter than regular plastic lenses, making them a good choice for anyone who is sensitive to the weight of eyeglasses on their nose.

**DID YOU KNOW?**

Millions of children will start school this year with a vision problem that may inhibit their ability to learn and ultimately affect the rest of their lives.

**Learn more at [www.drrsterling.com](http://www.drrsterling.com)**

## Frequently Asked Questions Regarding Children's Vision

**Q: Why is it so important that children have a comprehensive eye exam prior to heading back to school?**

**A:** One of the most important things a parent can do to help their children succeed in school is to take them for a comprehensive eye exam. According to the AOA, vision screenings are not diagnostic, and therefore, typically identify only a small portion of the vision problems in children. Comprehensive eye exams are necessary to detect problems that a simple screening can miss, such as eye coordination, lazy eye, and near and farsightedness.

**Q: What risks does a child who does not receive an eye exam face before entering school?**

**A:** Millions of children will start school this year with a vision problem that may inhibit their ability to learn and ultimately affect the rest of their lives.

When vision problems have an adverse effect on learning, they are referred to as learning-related vision problems. Learning-related vision problems can affect comprehension performance in reading, writing and concentration. According to one study, approximately 60 percent of students identified as problem learners have undetected vision problems.

When parents send their children back to school, one of the most important things they can do to help ensure their child's ability to learn is to take them for an eye exam.

**Q: What are some warning signs that a child might have a vision problem?**

**A:** Parents can help identify vision problems by watching for the following warning signs:

- An eye turning inward, outward, upward or downward frequently
- Bumping into objects
- Red eyes or eye lids
- Frequent rubbing of the eyes
- Excessive tearing
- Turning or tilting head to use one eye only
- Encrusted eyelids
- Frequent eye styes
- Avoiding coloring, puzzles, or detailed activities
- Difficulty with eye-hand-body coordination
- Avoiding close work
- Holding reading material closer than normal
- Headaches
- Making frequent reversals when reading or writing
- Using a finger to maintain place when reading
- Omitting or confusing small words when reading
- Consistently performing below potential
- Behavioral problems

If parents notice any of those symptoms, they should **schedule an appointment for their child to see an optometrist.**

**Q: How are behavioral problems an indication that a child's vision may be impaired?**

**A:** According to the American Eye-Q® survey, 39 percent of parents don't realize that behavioral problems can be an indication that a child's vision is impaired. A child with undetected vision problems may get frustrated or bored in school because he or she can't see the board, the teacher or read a book easily. Therefore, students with problems seeing sometimes act out in school.

**Q: Many children already receive vision screenings before they enter school. Why is a comprehensive eye exam necessary as well?**

**A:** Most vision screenings only check to determine how well a person can see at a distance. Vision exams, however, are much more thorough. A comprehensive eye exam includes tests to determine nearsightedness, farsightedness, astigmatism, eye coordination and eye muscle function, eye focusing abilities and an overall eye health exam-which in most cases involves dilation.

Eye exams are also especially important in diagnosing diseases and disorders in young children. They are critical for the diagnosis and treatment of eye and vision problems that can lead to vision loss and other issues that affect a person's quality of life.

Simple screenings identify only a small portion of the vision problems in children. Screenings do not measure visual alignment, color vision or visual perception, among other important visual abilities. In reality, screenings only indicate a need for further evaluation and often miss many children with vision problems. According to the Vision in Preschoolers study, screenings, even when performed by the most highly trained screeners, miss more than one third of children who should be referred for a comprehensive eye examination.

**Q: What specific things are tested during a comprehensive eye exam?**

**A:** There are several essential elements an optometrist will check during a comprehensive eye examination to help ensure learning is maximized through good vision.

Visual acuity is measured at several distances so students can comfortably and efficiently read, work on the computer or see the chalkboard.

Focusing or accommodation is an important skill that is tested. Eyes must be able to focus on a specific object, and to easily shift focus from one object to another. This allows a child to move attention from a book to the chalkboard and back.

Visual alignment and ocular motility is evaluated. Ideally, the muscles that aim each eye converge so that both eyes are aimed at the same object, refining depth perception.

Binocular fusion (eye teaming) skills are assessed. These skills are critical to coordinating and aligning the eyes precisely so the brain can fuse the pictures it receives from each eye into a single image.

Eye tracking skills are tested to determine whether the child can track across a page accurately and efficiently while reading, and can copy material quickly and easily from the chalkboard or another piece of paper.

Testing preschoolers' color vision is important because a large part of the early educational process involves the use of color identification.

Eye-hand-body coordination, critical for handwriting, throwing a ball or playing an instrument, and visual perception, used to interpret and understand visual information like form, size, orientation, texture and color perception, is another important visual function that is tested.

**Q: How often should children receive a comprehensive eye exam?**

**A:** The AOA recommends that a child's first eye exam take place at six months of age. Unless problems are detected, the next exam should be at age three, again before entering school and then every two years thereafter. Unfortunately, the Eye-Q® survey showed that 57 percent of children did not receive their first eye exam until age five or older.

For more information on frequency of children's eye exams, **please click here.**

**Q: Are comprehensive eye exams expensive?**

**A:** Comprehensive eye exams are a wise investment in your child's future. Typically, these exams are covered by insurance policies, so we encourage you to check with your medical provider.

In addition, the AOA has relationships with organizations like the Lions Club and special AOA programs such as VISION USA, which offer exams and care at discounted rates and some programs, such as InfantSEE®, provide care at no cost for the patient.

**Q: How many children have undetected vision problems?**

**A:** According to the AOA, one in four kids has a vision problem. However, most parents weren't aware of the number of children with vision problems. In fact, 87 percent of Eye-Q® survey respondents didn't know how many children have undetected vision problems.

#### **About the Author:**

Dr. Richard Sterling received his Doctor of Optometry degree from the Pennsylvania College of Optometry in 1980. Prior to joining the staff of Nevyas Eye Associates he had years of experience in optometric care. He began in private practice in New Holland, PA where he administrated the practice as well as providing patient care. After eight years in this partnership experience he continued in private practice in an urban setting in Philadelphia, PA. After leaving this practice he acquired four locations and maintained optometric coverage for all four practices within a commercial setting.

In May of 1995 Dr. Sterling joined the ophthalmologic practice of Nevyas Eye Associates. His many responsibilities include Director of Interprofessional Relations, Refractive Surgery Coordinator, Director of Academic Affairs, frequent lecturer, writer and editor for Nevyas Eye Associates publications, board member for Delaware Valley Refractive Surgery Partnership and North Eastern Eye Care Network, marketing and advertising director for refractive surgery services and clinical monitor for investigational device exemption for the FDA leading towards pre-market approval of the Nevyas model excimer laser.

His additional optometric responsibilities include President of the Philadelphia County Optometric Society (PCOS), advisory board member of the Regional Eye Care Benefits Committee of the Pennsylvania Optometric Association (POA), serves on the POA committee for PCO called Student Membership Task Force and is executive board member of the Camden Eye Center. Dr. Sterling designed and coordinates the web sites for the practice as well as for the society. Dr. Sterling manages the claims and insurance needs for North Eastern Eye Care Network, P.C.. Dr. Sterling is CEO of Sterling Management Consultants, a practice management optometric brokerage firm. You can learn more about his practice by visiting [www.drrsterling.com](http://www.drrsterling.com)