

UNDERSTANDING VISION SCREENINGS

FACT SHEET

What is 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. Even the most sophisticated vision screening tools, administered by the most highly trained screeners, miss one-third of children with eye or vision disorders, according to a study funded by the National Eye Institute. 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 the report indicates that a child sees 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. Children have been known to peek with the better seeing eye, and escape detection of amblyopia.
- 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 vision screening was attempted. (An attempt was defined as 10 or more seconds spent trying to get the child to cooperate with vision screening.)
- Less than 50% of the children identified as needing professional eye and vision care ever receive that care, and of those who do, the average time between the screening and the examination is 18 months.

**EVEN 20/20 SCREENING RESULTS
REQUIRE A MORE COMPREHENSIVE
EYE EXAMINATION**



Vision Examinations — More than Meet the Eye

Comprehensive eye and vision examinations can only be conducted by an eye doctor 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 pre-school 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.

SPECIALIZED EQUIPMENT AND PROCEDURES ARE NEEDED TO ADEQUATELY EVALUATE A CHILD'S EYES AND VISION STATUS

Essential elements of a comprehensive eye exam

- The refractive state of the visual system, such as nearsightedness, farsightedness, or astigmatism is determined.

Visual acuity is measured, so that the student can read, work on the computer and 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 optometrist 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 to enable the child to work comfortably and efficiently for prolonged periods of time.
- 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.
- Ocular health is determined by examining the structures of the eye.
- Elements of visual perception, such as depth (3-D) clues used to interpret and understand visual information, are important visual functions that are typically investigated during a comprehensive eye exam.