



SEE WHAT YOUR CHILD ISN'T SEEING: 3 STEPS TO HEALTHY VISION

The complete evaluation and treatment of a child's vision starts with the education of parents and teachers regarding unique signals of problems that children can show and the necessary steps to correct the dysfunction.

Although squinting and headaches are the most common symptoms noticed by parents, there are other signs one can observe that may suggest a visual difficulty. Tilting of the head, reading difficulties, lack of focus or attention, letter recognition and formation (penmanship) problems, excessive use of finger or “guides” while reading, copying incomplete thoughts from overheads and blackboards are all less common signs of potential vision and/or muscle development delays. It is important to understand the testing and evaluation process, as well as some common terminology:

THE MOST IMPORTANT STEP IS TO EVALUATE A CHILD BEFORE THE PROBLEM HAS SERIOUS VISION AND ACADEMIC COMPLICATIONS

1. A comprehensive eye examination is necessary to test for a refractive (nearsighted, farsighted, or astigmatism) problem. A refractive problem is one that can be corrected by the use of glasses or contact lenses. The correction allows a patient to see clearly. This seems easy; however it can be made more difficult by factors such as amblyopia (lazy eye) and some internal eye health problems. All eye examinations are NOT the same. Be sure the doctor who evaluates the child (or who you refer the parent to) has experience with pediatric and binocular vision. Binocular vision is defined as, bi = two, ocular = eyes, so it is the ability of both eyes to focus together. The title Ophthalmologist or Optometrist is independent of pediatric and binocular vision specialties. Once a refractive problem is ruled out and/or corrected, the next step is a Visual Efficiency Examination.

2. A Visual Efficiency Exam is often called a "**functional exam**", because it evaluates how "good seeing eyes" work or function together under stress. The focusing and tracking systems, and all other muscles of the eye, are measured and compared to known normals for differing age groups and the increasing demand placed upon them. This is a test that wears down the opposing muscle systems of the eyes, and evaluates their strengths and weaknesses. There are age appropriate guidelines to compare to, but this is where the experience of the practitioner is important, as the "text book norms" are not always indicative of true academic demands. If an ocular motor (or eye muscle) dysfunction is found, a series of exercises can be prescribed to rehabilitate and strengthen the weakened muscle systems. It is imperative that the exercise treatment program is individually tailored to the specific strengths and weaknesses of the child and his/her visual system. If an ocular motor problem is ruled out, or it is rehabilitated, the next step is to evaluate the sensory processing of information.

3. A Developmental Vision Examination is one that evaluates the handling or processing of the information once we know that the child sees the image clearly and he or she can focus on it accordingly. This highly specialized test was often confused as a functional exam in past years, but more recently, the rehabilitation of these areas has deviated sharply as new techniques have been established and a better understanding of the sensory pathways to the brain uncovered. For this reason, finding a true specialist in developmental vision is difficult. The testing procedure is longer, using nationally standardized tests of time and performance to examine areas such as: laterality and directionality, hand-eye coordination, figure-ground, visual-ground, visual perception, reversals, visual-motor integration, and auditory screenings. A detailed report should be generated to assist the communication between parents, school, and all academic and athletic instructors. Although many of these problems cannot be cured, technology has improved, and new forms of visual and cognitive aids/therapies have been discovered to help individuals perform tasks with more efficiency and greater accuracy. The ChromaGen lens is a wonderful example of how technology can assist in areas that science cannot yet cure.

As you can see, the complete and comprehensive evaluation of a child's eyes and vision requires more than a 15 - 20 minute "exam". Problems uncovered at the earliest stages can be corrected so they do not impact a child's academic or athletic development. Like most medical problems, skillful evaluation and early detection can prevent the costly and detrimental difficulties that a child may carry for the rest of his/her life.