

## **Learning Impairment and Poor Vision**

The importance of good vision cannot be understated for either children or adults. As an adult, a person can express when his or her vision is not as clear as it should be and will take action to correct any impairment before it can become overly disruptive. Children however, are often not as vocal about what they can and cannot see or how clearly they are seeing it. In some cases, they may not be aware that they are not seeing as clearly as they should be. This presents a major problem when it comes to a child's ability to learn, as learning materials and tools such as computers, pictures and books, are visual in nature. When it becomes obvious that a child is having difficulties learning, one of the first things that parents and teachers will suspect is that the child is having vision problems. When learning problems are associated with the eyes, they are referred to as learning-related vision problems. This may be as simple to resolve as getting a pair of eyeglasses for the child or there may be more complex vision problems that require attention.

### **The Difference Between Vision and Learning Disabilities**

The first thing that both parents and educators should understand is that there is a difference when it comes to learning-related vision problems and learning disabilities. Often people confuse these terms, but the differences in their meaning are significant, particularly when it comes to a child's education and his or her ability to learn. When a vision problem affects a child's performance in school because he or she is unable to see clearly, focus or track properly, it is learning-related vision problem. In this case it isn't that the child is unable to learn, it is that the inability to see properly is hindering his or her ability to do so.

Specific learning disabilities however, are different. They are defined by the Individuals with Disabilities Education Act (IDEA) as "a disorder in one or more of the basic psychological processes involved in understanding or using language, spoken or written." These types of disorders limit or otherwise negatively impact a child's ability to learn or perform other functions such as speaking, reading or even listening and thinking as other children do. This does not mean that the child suffers from mental retardation or from problems that are due primarily as a result of his or her inability to hear or see.

Although these terms differ, they can exist together. In some cases, a child who has a learning disability may also have a learning-related vision problem. In these cases, resolving the vision problem will allow the child to see more clearly, but it will not resolve the child's learning disability. For this reason, parents must fully examine what is hindering their child's ability to learn. This will require input from the child's teachers, a thorough, dilated eye examination with an ophthalmologist or optometrist, and his or her pediatrician. By consulting professionals and examining all potential causes, parents are more likely to accurately pinpoint and then treat what is causing any difficulties in

learning.

### **Distinguishing Between the Different Types of Vision Problems**

In understanding learning-related vision problems, it is important to understand that the eyes and the brain work together to enable vision. As a result, vision can be affected in different ways. In some cases problems may affect visual input, while at other times problems may have more to do with visual processing and integration. This results in different types of learning-related vision problems, such as eye health and refractive problems, functional vision problems, and vision problems that are perceptual.

The most common type of eye problems to effect a child's ability to learn are refractive eye problems. These types of problems are what hinders a child's ability to read an eye chart clearly and may be a result of nearsightedness, farsightedness or astigmatism. Often children with refractive eye problems are unable to read the bottom, or 20/20 line, on an eye chart. This is usually corrected with a pair of eyeglasses or contact lenses that are made to correct the specific problem. In some cases, eye health may be reason behind visual problems and may cause low vision that corrective eye wear is unable to improve.

When the problems with vision are a result of specific functions of the eyes, they are known as functional vision problems. Functional problems may involve problems such as an inability to align the eyes properly when attempting to read, which is known as a convergence disorder. Other functional vision problems may also include the inability to accommodate or difficulty with fine eye movement. In these cases, a child may be able to see well enough to read 20/20 on an eye chart, but may complain of double vision, eye strain and headaches when using his or her eyes.

When a child has a perceptual problem, he or she is unable to decipher what is being seen. This means that when the child sees an object, his or her brain is unable to identify or relate it to previously seen objects. Often when a child sees an optometrist for a routine examination, the doctor will generally only check for refractive errors and ensure that there are no issues with eye health. It is important to confirm that the doctor is also looking for functional and perceptual vision problems as well, particularly if there is a suspicion that the eyes are causing difficulties with the child's ability to learn. Another area that eye professionals should check is color vision. Although it is not generally thought of as a learning-related vision problem, it can hinder learning, specifically for younger children when color matching and other colorful learning tools are frequently used.

### **Recognizing the Symptoms**

Often younger children are not able to understand that they are seeing

any differently than other children. To them, blurred or otherwise unclear vision is normal. In other cases, older children may not complain about their vision because they feel embarrassed or they may want to avoid wearing glasses. There are certain symptoms however, that may indicate that there is a vision problem. When it comes to reading or writing, a child may bring reading materials up close to the eyes, frequently rub his or her eyes or blink rapidly, or avoid reading all together. Children with vision problems may also read slowly and omit, reverse or confuse words that are similar in appearance. They may tilt or turn their heads in one direction when viewing objects, complain of headaches, double vision and even have a shortened attention span.

When a child is having difficulty learning and exhibits any one of these symptoms, or a combination of them, a comprehensive eye examination should be set up with an eye care professional. Ideally, the appointment should be made with an ophthalmologist or optometrist who has experience in detecting learning-related eye vision problems. In the event that no vision problems are detected, parents should be prepared to further investigate the source of their child's learning problems. This can be done by setting up an appointment with an educational specialist who will further evaluate the child for other potential problems, such as dyslexia.

### **How to Resolve Learning Problems Associated With Poor Vision**

Once it has been determined that a child's learning problems are associated with poor vision, the eye care professional will help guide parents in the best way to treat the cause of the vision problems. This is often a matter of prescribing a pair of glasses or contact lenses that will correct a specific refractive problem, such as glasses to help read books or lenses to help relieve stress to the eyes. For children who also have learning disabilities in addition to poor vision, a collaborative effort between parents, the eye care professional and the child's educators may be necessary to yield the best results. Vision therapy is an option that some optometrists may use for conditions that eye glasses or contact lenses will not correct, such as a lack of focusing or visual memory skills and poor binocular vision. This is a treatment program that is individually supervised and designed to help improve tracking, focus, binocular fusion, fixation and other visual skills that are necessary to the learning process. This may involve the use of specialized computers, prisms, or therapeutic lenses. Vision therapy often requires weekly sessions and assignments that must be done at home. Regardless of what is causing the poor vision, parents should talk with their children to ensure that they understand that there is nothing to be ashamed of.