

VISION THERAPY: A BENEFICIAL INTERVENTION FOR DEVELOPMENTAL DISABILITIES

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Just as language and motor skills are achieved through a sequence of developmental stages, vision must also follow a progression of development. An infant is not born with the visual abilities that he will need in order to function successfully in his world. These abilities must develop through a variety of experiences across a period of time. At any point during this process, the visual development may be hindered, altered or completely stopped, sometimes by injury, illness, emotional trauma, lack of appropriate stimulation, or other unidentified causes. When language and/or motor skill development is interrupted, parents and teachers seek to identify the problem and intervene with therapy or training activities designed to assist the child in overcoming the delay. A similar approach is available to parents of children (or to adults) who have inadequately developed visual abilities.

Distorted Input. When we speak of vision, we are referring to the ability of the brain to organize and interpret the information seen so it becomes understandable or meaningful. Even individuals with good eyesight (20/20 acuity), can have undiagnosed vision problems that make it difficult to correctly comprehend the visual message. If sensory input, whether it is visual, tactile, auditory, etc., is received in a distorted or faulty manner, the behaviors that are based on that input are likely to be distorted. Many of the behaviors characteristic of autism, and many behavior problems associated with learning disabilities, may include attempts to manage in spite of a visual system, and other systems that fail to provide understandable, reliable information.

Vision Therapy. Since vision development follows predictable stages, it is a process that can respond to training if disruptions occur. Vision training is available through Behavioral (developmental or functional) Optometrists who have received postdoctoral training in this specific field. Unlike the correction of refractive problems (near and farsightedness, and focusing problems), which may only require the use of a specific prescriptive lens, vision therapy is a process of retraining the visual perceptual system so it functions with optimal efficiency. The process follows a sequence of steps aimed at improving the visual system. Therefore, it is a procedure with therapy activities prescribed by the vision therapist which are carried out in the office, and frequently reinforced with home activities.

Identifying the Problem. Vision dysfunctions often go unrecognized or misdiagnosed because people do not understand how vision relates to behavior and can affect the overall performance of the individual. In addition, many people develop ways to compensate for their visual difficulties, which masks the fundamental cause of the problem. So how does a parent know if their child has a problem with visual development? Since dysfunctions in the visual system can lead to a variety of behavior, learning, social, work and health problems, the parent and/or teacher should consider this as a possibility for any individual with developmental disabilities. There are also many observable clues that can indicate visual difficulties, including:

Symptoms:

- Eyes that cross or turn, even a little bit.
- Tilting, turning the head, covering or closing an eye in order to use only one eye.
- Looking at things out of the corner or side of the eyes.

- Blinking, grimacing, squinting and other compensating behaviors.
- Visual stimulation behaviors: finger flicking; obsession with spinning, patterns, or other visual effects; sighting along linear objects (counter edges, telephone wires).
- Short attention span, avoidance of close work and activities.
- Low frustration level, irritability, emotional immaturity.
- Headaches, dizziness, nausea, car sickness and light sensitivity.

Obtaining an Evaluation. Parents interested in a functional or developmental visual evaluation for their child can locate a Behavioral Optometrist through the College of Optometrists for Vision Development, (619) 425-6191, or the Optometric Extension Program, (714) 250-8070. Informative books, such as *The Suddenly Successful Student*, *Your Child's Vision*, and *20/20 Is Not Enough* are also available through these sources. These books cite many of the research studies that document the efficacy of vision therapy. A comprehensive evaluation should take between 45-60 minutes and typically costs between \$100 to \$250 for the initial visit. In the evaluation, the doctor should be interested in the child's symptoms, general physical health, developmental history and specific visual demands. In addition, the doctor should examine not only the clarity of eyesight and health of the eyes, but eye movements, skills, focusing ability, depth perception and binocularity (eyes working together as a team).

What to Expect. The optometrist should discuss the results of the evaluation and recommend treatment in the form of lens, prisms or visual therapy. Therapy sessions are usually between 30 - 60 minutes, depending on the person's attention span, and range in cost from \$65 to \$120 depending on the time spent. Many health insurance companies include this type of vision care in their coverage. Therapy with young children, highly distractible people, or autistic individuals is usually done on an individual basis. A closely monitored program is essential in order to evaluate progress and make adjustments as changes occur.

Vision evaluations and therapy provided by Behavioral Optometrists should, at some point, include the use of developmental lenses. This may include prisms to help achieve better visual alignment and processing, and/or red/green filters (anaglyphs) and polaroid filters during the individual sessions. As parents interview the provider of their choice, questions should be asked and answered regarding this type of lens. When this type of lens is used, parents should be aware that it is a lens to help direct more efficient visual processing and this lens must be monitored by the optometrist every three to four weeks. If the optometrist is not seeing the child regularly, this is a red flag for parent concern. Lenses are the tool used by Behavioral Optometry to produce postural and processing changes. If lenses are not used in vision therapy, parents should ask questions about the procedure.

How Will My Child Respond? Frequently, parents express concern that their child will not accept wearing glasses, particularly if the child is tactilely defensive or very resistant to change. Some individuals with visual problems generally adjust quickly to wearing glasses once they see the difference and how the glasses help them. A behavioral plan following learning principles such as desensitization, positive reinforcement, shaping, etc. can be implemented for those who have difficulty accepting new glasses. Many parents report that their child shows interest in glasses, frequently taking glasses off other people to try on themselves. This may be an indication that the child is seeking to find a solution to his vision problem!

Vision therapy may correct or improve visual functioning conditions which will otherwise continue to interfere with appropriate development and learning. Sometimes the changes occur quickly and dramatically; more often, the individual will make gradual progress, with spurts of more rapid growth mixed with short periods of regression, typical of normal developmental progression. A great many parents have reported positive results with vision therapy.

