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## **Learning Related Vision Problems Diagnosis & Treatment**

Learning related vision problems are a category of vision problems that manifest primarily during sustained reading or other desk work. They are deficits in functional vision skills as opposed to more common optical eye problems such as astigmatism and nearsightedness. There are predictable symptoms that accompany learning related vision problems. Some of the more common symptoms are eye strain, visual fatigue, difficulty keeping place, poor penmanship, difficulty copying, and confusing common words when reading or writing them.

There are 9 functional vision skills that are used during visually based academic tasks. When some or all of them are deficient, a learning related vision problem is present. The 9 functional vision skills are:

<b>Ocular Motor</b>
1. Eye Teaming
2. Eye Focusing
3. Eye Tracking

<b>Visual-Perceptual Motor</b>	
1. Visual Spatial	4. Visual Motor
2. Visual Analysis	5. Visual Auditory
3. Visual Memory	6. Visualization

### **Diagnosis**

I use a battery of standardized, norm-referenced tests to assess the level of performance for each of the 9 functional vision skills. The tests are administered following basic eye and vision testing. The results of the tests in my battery are compared to the expected result for the age or grade. When enough of the results are below expected a diagnosis of learning related vision problem is made.

The typical sequence of testing is 2 office visits for the evaluation followed by a third office visit for a conference. The first office visit includes a basic eye exam for optical eye problems and eye disease, comprehensive testing of the 3 ocular motor skills and a discussion of the results and recommendations. It requires approximately 1 hour in duration.

The second office visit is for testing the 6 visual perceptual motor skills. A total of approximately 25 tests are administered during the 75-minute appointment.

The third office visit is the case conference during which the test results and diagnosis are reviewed. Treatment recommendations are made, a prognosis is established and a treatment length predicted. A comprehensive report letter is prepared after the conference.

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## **Treatment**

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The treatment for learning related vision problems is Vision Skills Therapy. Vision Therapy is a series of procedures that require activation of a particular vision skill to accomplish. There are hundreds of vision therapy procedures for each of the 9 different functional vision skills. The procedures are targeted to vision skills diagnosed as deficient. By participation in the procedure, the individual develops the weak vision skill to a higher level. My vision therapy assistants and I provide instructions, guidance, and feedback to the patient although the patient is the most important person. When the patient masters a given procedure, another one is assigned that is harder than the prior one. The patient works through a hierarchy of procedures for each weak vision skill toward age expected performance levels. The goal of vision therapy is to ameliorate weak vision skills and solve the learning related vision problem.

The typical length of vision therapy in my office is 28 visits at the rate of 1 visit per week. The length of treatment depends on the depth and breadth of the learning related vision problem. Vision therapy office visits are 1 hour in length. Vision therapy procedures are also assigned for practice at home as part of the overall treatment plan. Professional fees for evaluation range from approximately \$160 to \$650. Professional fees for treatment with vision therapy range from \$800 to \$3,600.

The purpose of testing for learning related vision problems is to determine if deficient vision skills are contributing to a learning disorder. I recognize that a learning disorder can have many causes and dimensions. Deficient vision skills are 1 possible problem among many that can cause a learning disorder. I use a thorough case history and I review other reports to try and understand the entire learning disorder. I can then approximate the relative contribution of deficient vision skills to the learning disorder. When deficient vision skills are a minor factor and other causes dominate, vision therapy will have a minor impact. When deficient vision skills are a major factor in the learning disorder and the patient is free of other learning problems, then vision therapy will have a major impact.

## Sources for Additional Information

### **American Optometric Association**

St. Louis, MO (800) 365-2219 [www.aoanet.org](http://www.aoanet.org)

This association represents the entire profession of optometry.

### **College of Optometrists in Vision Development**

Aurora, OH (888) 268-3770 [www.covd.org](http://www.covd.org)

The College of Optometrists in Vision Development is a professional association of optometrists specializing in Vision Therapy. It has a Board Certification program, publishes a journal on vision therapy and related topics, and provides continuing education courses.

### **Optometric Extension Program Foundation**

Santa Ana, CA (949) 250-8070 [www.oepf.org](http://www.oepf.org)

The Optometric Extension Program Foundation is a nonprofit organization dedicated to education and research in vision.

### **Parents Active for Vision Education (P.A.V.E.)**

San Diego, CA [www.pavevision.org](http://www.pavevision.org)

P.A.V.E. is a non-profit resource and support organization whose mission is to raise public awareness of the crucial relationship between vision and achievement. It was founded by parents and teachers with children in their homes and classrooms who had suffered the effects of undiagnosed vision problems.

[www.vision3d.com](http://www.vision3d.com)

This website provides information about vision therapy and has links to other websites.

### **Southern California College of Optometry Studd Center for Vision Therapy**

Fullerton, CA (714) 449-7430 [www.scco.edu](http://www.scco.edu)

This optometry college is one of the best in the country in Vision Therapy care and Vision Therapy research.

[www.wendyshemyehod.com/](http://www.wendyshemyehod.com/)

Dr Yeh's website

[www.drjvt.com](http://www.drjvt.com)

Dr. Tassinari's website.