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## Vision and Learning

### What Parents and Teachers Need to Know, March 2001

Recently, I have seen several new clients whose vision I have questioned. Their visual acuity (clarity of sight) had been tested and all seemed well, but testing for other learning-related vision problems had not been administered. Parents, teachers, and caregivers need to know that it is not only visual acuity that may affect learning success.

As the pace in many classrooms seems to be increasing, greater demands are being placed on students for efficient learning and information processing. Efficient learning is accomplished through complex and interrelated processes, one of which is vision. Determining the relationships between vision and learning involves more than evaluating eye health and clarity of sight. The eyes, visual pathways, and brain comprise the visual system. Therefore, to understand the complexities of visual function, one must look at the total visual system. People at risk for learning-related vision problems should receive a comprehensive optometric evaluation, possibly examining each of the three interrelated areas of vision function. The three areas are:

1. Visual pathway integrity including eye health, visual acuity, and refractive status;
2. Visual efficiency including accommodation (focusing), binocular vision (eye teaming), and eye movements;
3. Visual information processing including identification and discrimination, spatial awareness, and integration with other senses.

Recent research has demonstrated that some people with reading disabilities have deficits in the transmission of information to the brain through a defective visual pathway. This creates confusion and disrupts the normal visual timing functions in reading. Visual defects such as restriction in the visual field of view, can have substantial impact on reading performance. Eye strain and double vision, resulting from insufficient convergence, can also be a significant handicap to learning. The list of possible learning-related visual impairments goes on.....By ensuring that your child's vision examination and care is complete, you are providing the foundation for much future success!