



Developmental Chart for Children's Vision

Your child's visual readiness for school begins developing at birth. Every visual experience is a part of the development that prepares your child for the visual load of the classroom and everyday life. Developmental optometrists and informed educators have prepared this chart for infants and toddlers. All of the age expectations given are approximate. Lags of a week or so are not unusual, but any definite delay or omissions should be given every necessary attention

Visual skill displayed	Approx. Age
Stares at surroundings when awake	0-6 weeks
Momentarily holds gaze on a bright light or a bright object	0-6 weeks
Blinks at a camera flash	0-6 weeks
Eyes and head move together	0-6 weeks
One eye may seem to turn in or out at times for a few seconds	0-6 weeks
Eyes begin to move more widely with less head movement	8-12 weeks
Eyes begin to follow moving objects and people	8-12 weeks
Watches parent's face when being talked to	10-12 weeks
Begins to watch own hands	12-16 weeks
Eyes move in active inspection of surroundings	18-24 weeks
While sitting, child looks at hands, food, bottle	18-24 weeks
Looks for and watches more distant objects	20-28 weeks
Looks for dropped toys	28-32 weeks
May turn eyes inward while inspecting hands or toys	28-32 weeks
Eyes are more mobile and move with little head movement	30-36 weeks
Watches surrounding activities for longer periods of time	30-32 weeks
Visually inspects toys that he/she can hold	38-40 weeks
Creeps after favorite toys when seen	40-44 weeks
Sweeps eyes around the room to see what is happening	44-48 weeks
Visually responds to smiles and voices of others	40-48 weeks
Visual inspection of objects and people becomes more frequent	46-52 weeks
Uses both hands and visually steers hand activity	12-14 mos.
Visually interested in simple pictures	14-16 mos.
Often holds objects very close to eyes to inspect	14-18 mos.
Looks for and identifies pictures in books	16-18 mos.
Occasionally visually inspects things without needing to touch them	20-24 mos.
Smiles or displays facial brightening when he/she views favorite objects or people	20-24 mos.
Likes to watch movement (i.e. wheels, tops, etc.)	24-28 mos.
Watches own hand while scribbling	26-30 mos.
Visually explores and steers own walking and climbing	30-36 mos.
Watches and imitates other children	30-36 mos.
Can now begin to keep coloring on the paper	34-38 mos.

Watch for Signs and Symptoms

Please note that this list is not inclusive of all the possible symptoms.

- Crossed or turned eyes
- Trouble with balance
- Excessive blinking
- Rubbing eyes frequently
- Delays in small motor coordination
- Poor hand-eye coordination
- Poor depth perception
- Head tilting during visual tasks
- Difficulty in judging sizes and shapes
- Extremely short attention span
- Unable to follow a moving target visually
- Motion sickness
- Avoidance of play requiring concentration
- Excessive clumsiness
- Avoidance of bright light
- Squinting
- Complaints of eyes hurting or headaches

Children on the autism spectrum typically bring a number of unusual visual behaviors or concerns to the eye doctor.

- Squints or closes an eye
- Stares at certain objects or patterns
- Looks through hands
- Flaps hands, flicks objects in front of eyes
- Looks at objects sideways or with quick glances
- Shows sensitivity to light (photophobia)
- Becomes confused at changes in flooring or on stairways
- Pushes or rubs eyes
- Has difficulty making eye contact
- Widens eyes or squints when asked to look
- Bumps into objects
- Is fascinated by lights and shadows
- Touches walls or tables while moving through space

Recommended reading

(can be requested from your local library
through inter library loan)

Seeing Is Achieving: Improve Your Child's Chances For Success

Donald J. Getz, Lora G. McGraw, and Lynne Getz

Smart Moves: Why Learning Is Not All in Your Head

Carla Hannaford

20/20 is Not Enough

Dr Seiderman and Dr S Marcus

Vision and School Success

G. G. L. F. W. L. H. D.

Thinking Goes to School

H Furth and H Wachs

Developing Your Child for Success

K. Lane

Physical Activities for Improving Children's Learning and Behavior

Billye Ann Cheatum

Helpful Websites

<http://www.pavevision.org/>

<http://www.childrensvision.com/>

<http://www.childrensvision.com/Efficacy.htm>

<http://www.vision-therapy.com/drtoler/booklet.htm>

<http://www.autisticvision.com/> (this website is not just for children with Autism. This Doctor specializes in vision therapy for all children with visual difficulties.)

Vision plays a critical role in our learning, working, and recreation. Vision is more than just having 20/20 eyesight. Vision is the ability to take in information through our eyes and process the information so that it has meaning.

It is essential that our visual system is efficient because two-thirds of all information we receive is visual and 75%-90% of classroom learning comes through our visual system. The visual system is composed of 20 visual abilities. These visual abilities are:

- **Distance and near acuity:** the ability to see clearly at a far distance such as 20 feet, and the ability to see clearly at a near distance such as 16 inches.
- **Accommodation:** the eye's ability to adjust focus on objects with various distances.
- **Binocularity:** the ability to use both eyes as a team. Proper eye alignment and coordination is necessary so that the eyes can unite two images into one (*fusion*), which allows an individual to perceive a single three dimensional image (depth perception, *stereopsis*).
- **Oculomotor skills:** the ability to quickly and accurately move our eyes. These skills allow us to move our eyes so we can direct and maintain a steady visual attention on an object (*fixation*), move our eyes smoothly from point to point as in reading (*saccades*), and efficiently track a moving object

(pursuits).

- **Peripheral vision:** the ability to see or be aware of what is surrounding us (our side vision).
- **Visual-sensory integration:** after visual data is gathered, it is processed and combined in the brain with information from hearing (*auditory-visual integration*), balance (*bilateral integration/gross-motor*), posture, and movement (eye hand coordination, *visual-motor integration*).

Visual perceptual skills: the ability to organize and interpret information that is seen and give it meaning. These information-processing skills include figure-ground, form constancy, spatial relations, visual closure, visual discrimination, visual memory, and visualization.

- **Figure-ground:** the ability to recognize distinct shapes from their background, such as objects in a picture, or letters on a chalkboard.
- **Form constancy:** the ability to recognize two objects that have the same shape but different size or position. This ability is needed to tell the difference between "b" and "d", "p" and "q", "m" and "w".
- **Spatial relations:** the ability to judge the relative position of one object to another (*directionality*) and the internal awareness of the two sides of the body (*laterality*). These skills allow the individual to develop the concepts of right, left, front, back, up, and down. This is needed in reading and math.
- **Visual closure:** the ability to identify or recognize a symbol or object when the entire object is not visible.
- **Visual discrimination:** the ability to discriminate between visible likeness and differences in size, shape, pattern, form, position, and color. Such as the ability to distinguish between similar words like "ran" and "run".
- **Visual memory:** the ability to recall and use visual information from the past.
- **Visualization:** the ability to create or alter new images in the mind. It is needed in reading and playing sports.

These visual abilities are basic skills used to perform tasks such as reading and using a computer. According to the American Optometric Association, "Among school-age children, vision disorders affect one in every four. While many of these patients have refractive errors (myopia (nearsightedness), hyperopia (farsightedness), and/or astigmatism) commonly treated by compensatory lenses, some have additional problems in the functioning of the vision system that are most appropriately treated with optometric vision therapy". About 40% of all Americans have functional vision deficits. Vision problems not only affect an individual's ability to perform tasks, but it can also affect his/her self-esteem as well.





Developmental Delay Resources (DDR)

Integrating Conventional & Holistic Approaches
to Learning and Behavioral Problems

<http://devdelay.org/booklist.html#school> Website for this
information below.

DDR Shopping List: Recommended Reading

can be requested from your local library
through inter library loan)

Below is a list of books we recommend as providing useful information for those interested in developmental issues. The list includes the title, author, and includes a brief explanation about each publication. Follow the link given to order a book directly from its publisher or from Amazon. Books published by OEP should be [ordered through DDR](#).

[NOTE: DDR is a member of the Amazon Associates program, and if you purchase a book by following the link to Amazon directly from the DDR website, Amazon gives DDR a referral fee.]

Books are organized into the following categories:

[General](#)
[Health](#)
[Sensory Integration, Cognitive, Language and Motor Development](#)
[Vision](#)
[Cookbooks](#)
[School and Academics](#)
[Vaccines](#)
[Autism Recovery Stories](#)

General

LEMER [EnVISIONing a Bright Future: Interventions that Work for Children and Adults on the Autism Spectrum](#). The ONLY book you really need to understand how Total Load factors add up to make kids sick and result in the diagnosis of ADD, ADHD, Asperger syndrome, PDD or Autism.

Health

DORFMAN [What's Eating Your Child?](#) The hidden connection between food and your child's well-being. A wonderful book by DDR co-founder and "nutrition detective" Kelly Dorfman. The latest on picky eating and the relationship between food, ear infections, tummy aches, learning and behavior.

McCARTHY and KARTZINEL [Preventing and Healing Autism](#) The ultimate "Autism Mom" and her pediatrician team up to help parents understand how a biomedical approach can help their children recover from and avoid autism.

RANZI [Creating Healthy Children](#). A unique approach to children's health that combines a raw food diet with attachment parenting.

ZAND and WALTON [Smart Medicine for a Healthier Child](#) A practical A-Z guide to natural and conventional treatments for infants and children. referenced by symptoms and disease.

Sensory Integration, Cognitive, Language and Motor Development

AGIN [The Late Talker: What to Do If Your Child Isn't Talking Yet](#)

Written by a physician who used to be a speech-language pathologist. Includes nutritional and other approaches.

BERARD and BROCKETT [Hearing Equals Behavior -Updated and Expanded](#). The new version of this classic explaining auditory integration therapy for those with developmental and other differences.

BIEL and PESKE [Raising a Sensory Smart Child](#) The ultimate handbook for anyone who wants to understand sensory integration issues.

BLUESTONE [The Fabric of Autism: Weaving Threads Into a Cogent Theory](#) A sensory approach to autism, which includes chapters on anxiety, sleep, nutrition and more. A unique appendix of exercises for Sensory Integration.

CHEATUM and HAMMOND [Physical Activities for Improving Children's Learning and Behavior](#) A great resource for parents and teachers. Authors combine extensive experience in adaptive physical education with sensory motor development.

HENRY [Tools for Tots: Sensory Strategies for Toddlers and Preschoolers](#) Beautifully illustrated guide for therapists and parents. Includes chapters on teeth brushing, nail clipping, hair cutting, potty training and dressing.

HENRY and SAVA [Sensory Tools for Pets: Animals and People Helping Each Other](#) Stories and photos highlight techniques that use pets to help children and adults with sensory processing disorders.

JEREB: [No Worries \(CD and Booklet\)](#) Delightful CD brings rhythmic melody to promote sensory integration at home and in the classroom and clinic. Booklet provides insight and lyrics.

[Say G'Day \(CD\)](#) Calming, fun and rhythmic songs for children to strengthen sensory-motor skills and improve attention, body awareness and learning.

JOHNSON: ***The Roadmap from Learning Disabilities to Success.*** A step-by-step guide for professionals and parents on treating underlying causes of learning disabilities, ADD/ADHD, dyslexia, dyscalculia, and dysgraphia.

KRANOWITZ and NEWMAN ***Growing an In-Sync Child:*** Simple Fun Activities to Help Every Child Develop, Learn and Grow. A great team has given you a great new book!

O'HARA ***Movement and Learning CDs and Booklets*** *Beanbag Ditties, the Wombat and His Mate, and Children's Songbook.* These are a series of safe and simple movements to enhance brain development, integrate primitive reflexes and to help children age 3-8 learn efficiently. Activities are synthesized from Brain Gym, NLP and vision therapy.

WILLIAMS and SHELLENBERGER ***The Alert Program tapes, booklets, and CDs*** "How Does Your Engine Run©?" provides the underlying theory and key concepts of the authors' self-regulation program for use in the home, school and therapy settings. These materials are full of practical ideas and songs to support children's self-regulation.

Vision

GESELL ***Vision: Its Development in Infant and Child*** Originally published over 50 years ago, this classic is a must read for anyone interested in child development. Beautifully illustrated and documented.

GETMAN ***How to Develop Your Child's Intelligence*** Explains the critical relationship between vision and intelligence. Essential for anyone considering vision therapy.

GETZ and McGRAW ***Seeing is Achieving*** How children's problems in school, sports and social activities can be corrected by developing good communication between the eyes and the brain.

HELLERSTEIN ***See It, Say It, Do It*** The ultimate book on visualization. The acronym VDAT stands for Visualize, Declare, Take Action, and Transform. Each section includes Activities to support its specific theme.

HICKMAN and HUTCHINS ***Seeing Clearly*** An OT and OD suggest 40 fun visual perceptive activities for children and adults to use at home, at work, in school and in the clinic.

KAPLAN ***Seeing Through New Eyes*** The only book about vision therapy for children with autism, Asperger syndrome and other developmental delays by an optometrist who has worked with this population for many years.

KAVNER ***Your Child's Vision*** The guide to understanding vision from a behavioral standpoint. Everything you need to know age by age about children's vision development.

LANE ***Developing Your Child for Success*** A year's worth of activities to develop perceptual-motor, visual and cognitive skills. A must for OTs, educators and parents.

NUREK and WENDELBERG:

Vision Development: Birth - 3 An introduction to how vision develops between birth and age three, this workbook encourages parents and professionals to enhance visual skills through play.

Vision Development: Age 4 - 5: Kindergarten Readiness Workbook for parents and professionals. Continuation of the stages of vision development occurring between ages four and five.

Vision in the Classroom Workbook for parents and teachers. An introduction to the role of vision development in learning. Designed to help understand, develop and improve students' visual skills in the classroom.

OEP *Vision and Sensory Integration* A multi-authored volume of articles highlighting new brain and rehabilitation research, sensory integration, vision correction in child development, the OT (Occupational Therapist) role and more. Over 30 pages of activities.

ORFIELD *Eyes for Learning: Preventing and Curing Vision-Related Learning Problems* Explains how parents and teachers can spot a vision-related learning problem and how to treat it. Dr. Orfield provides answers about referrals, required vision tests, and vision-improvement techniques.

WENDLEBERG:

Beanbags and Fun Develop visual and visual-perception skills with this kit of beanbags and scarves. A booklet with ideas for activities is included.

A Different Approach to Academics A handbook offering innovative ways to teach math, spelling and reading by enhancing visual foundation.

ZELINSKY *Open Your Eyes and Listen* A parent and teacher's guide to visual processing written by an optometrist. Explains central and peripheral vision, the importance of neck muscles and the relationship between them.

Cookbooks

COMPART and LAAKE *The Kid-Friendly ADHD and Autism Cookbook* The best recipes and guide to the gluten-free, milk-free diet. What it is, why it works, and how to do it.

GATES *The Body Ecology Diet - 9th Edition* Want to restore and maintain the important "inner ecology" of your gut, and at the same time prepare quick, delicious, nutritionally dense foods for your family? Try the BED!

SEROUSSI and LEWIS *The Encyclopedia of Dietary Interventions* The new joint effort of two veterans of special diets. Includes definitions of terms as well as recipes.

School and Academics

COHEN and GOLDSMITH *Hands On: Brain Gym in the Classroom* A practical manual providing teachers, parents and therapists with step-by-step ideas to support reading, handwriting, spelling and mathematical skills.

DENNISON *Brain Gym Teacher's Edition* THE guide of exercises and explanation to increase learning through movement and educational kinesiology.

FURTH and WACHS *Thinking Goes to School* Hundreds of games and activities for parents and educators to develop academic readiness and enhance visual thinking through play.

HENRY:

Tools for Teachers and ***Tools for Students*** DVD or Videos with fabulous activities for kids of all ages designed by a seasoned occupational therapist. Videos and handbooks (see next listing) combine to provide innovative strategies for promoting efficient sensory processing at home and school.

Tools for Parents Handbook, the ***Tool Chest for Teachers, Parents and Students***, and ***Tools for Teens*** These three handbooks accompany videos or DVDs (see previous listing) to provide innovative strategies for promoting efficient sensory processing at home and school.

KALMAN: (All of these teach unique, simple solutions devised by a school psychologist and therapist.)

Bullies to Buddies: How to Turn Your Enemies into Friends (for kids of all ages.)

A Revolutionary Guide to Reducing Aggression between Children (for parents and teachers.)

Stop Being Teased Without Trying (CD for victims.)

RICHARDS and REMICK *Classroom Visual Activities* A manual of practical visual activities providing educators with tools to help children improve the critical vision skills needed for learning.

WILSON: Activities to bridge OT techniques with the classroom to improve motor planning, timing, posture and sensory-motor processing. Includes 10 18" by 20" posters, a DVD and a booklet.

Minute Moves for the Classroom Easy to follow movement routines set to music are warm-ups for vision, writing, reading fluency and attention. Includes "Rainbow Planet" CD.

S'cool Moves Brain Gym meets Sensory Integration. Learn practical ways to support struggling learners of all ages. Great activities and pictures.

Poster PE (Pre-K to Grade 3) and ***Poster PE (Grade 3 up)***

Vaccines

KIRBY *Evidence of Harm: Mercury in Vaccines and the Autism Epidemic* The true story of mercury in vaccines and the autism epidemic. An impeccable investigative report by an award-winning author. Like reading a mystery novel.

ROMM *Vaccinations: A Thoughtful Parent's Guide* A fantastic resource for anyone concerned about childhood vaccinations. Includes vaccination schedules and alternatives, school requirements, immunity and optimal health. *A must for every new parent.*

Autism Recovery Stories

EDELSON and RIMLAND *Recovering Autistic Children* Personal stories of families who are recovering their children with autism spectrum disorders using the Defeat Autism Now model.

OPTOMETRY'S ROLE IN AUTISM SPECTRUM DISORDERS

By Randy Schulman, MS, OD, FCOVD

Many of the behavioral characteristics of those falling within the autism spectrum involve the visual system. Poor eye contact, staring at lights or spinning objects, looking askance, side viewing and general difficulties attending are often symptoms of visual dysfunction. Thus, any individual with a diagnosis of autism, PDD, learning disability, speech-language delay, sensory integration dysfunction, Asperger syndrome, non-verbal learning disability or with psychological problems should most certainly undergo a thorough examination by a developmental optometrist.

The earlier families of children with autism undergo a visual examination and begin visual intervention, the faster the improvement and the longer lasting the gains and overall chances for success. The American Optometric Association (AOA) recommends that all children undergo visual exams by six months of age. If parents complied with this guideline, optometrists would certainly note many visual problems in these young, yet undiagnosed children. For those with autism spectrum diagnoses, an immediate developmental exam is essential. After age four, a child may make adaptations which further embed the visual problems. For example, an eye turn out becomes an eye turn in or a suppression becomes firmly established by a large angle head turn or tilt.

Children with autism spectrum disorders (ASD) have motor, sensory, language and social-emotional delays that affect visual processing. Likewise visual problems affect cognitive, speech-language, social-emotional and perceptual development. Specifically, delays in oculomotor function, focusing, and binocular abilities can affect gross and fine motor abilities and language acquisition. Sensory problems result when vision does not coordinate with the vestibular and proprioceptive systems properly, or if there is poor synchronization between the central and peripheral visual systems. Poor visual awareness and poor eye contact negatively affects socialization and poor visualization can hinder the development of skills for imaginative play.

What is important is that the time period from age 18 months to four years of age, when autism is usually diagnosed, is an extremely important window of development for vision, as well as language, socialization and other crucial areas.

During this very critical time frame, vision should begin to dominate the movement system, to coordinate the proprioceptive, vestibular and tactile systems. As vision combines with the other senses, central or focal vision should emerge. If there is faulty information processing in any of the primitive sensory systems, visual dysfunction is inevitable. These patients then still need to touch and move to experience their environment because their visual systems are so inefficient. Some of their stimulatory behaviors such as flapping and side looking, may actually serve the purpose of allowing them to interact with their world, and tell the brain where the body is in space.

Most individuals on the less severe end of the spectrum, generally show more subtle, but very significant visual processing problems. Patients with attention deficits and learning disabilities are often very attracted to external, highly charged visual stimulation. They love to play video games and are generally highly skilled with computers. These traits lead to the misunderstanding by well-meaning adults that vision is an area of strength. Often it is these kids who are then labeled "visual learners" because they learn best when they can touch and see the materials. The real crime is that this misunderstanding about vision often prevents them from seeing any eye doctor, let alone one who can make a profound difference in their functioning. Optometrists must enlighten educators and parents about vision as a developmental process that must work with other systems in a coordinated manner. Just because the visual system is "strong" does not necessarily mean that it is operating in an efficient manner.

The literature supports that a very high percentage of children with autism spectrum disorders demonstrate eye movement disorders and a high incidence of strabismus. Many children with autism also have many competing stressors on their bodies during the critical second year of life. Inadequate or inappropriate sensory stimulation and health problems, ranging from food allergies to ear infections and asthma can all wreck havoc with vision development. Whether the health or the vision issues come first, visual concerns are real, and parents and professionals must pay attention to them. Even when health issues subside, and behavior, attention, and even eye contact improve, underlying visual delays often remain, and optometric intervention is necessary. Those with autism spectrum disorders simply have gaps in sensory, motor and visual areas so enormous that they cannot be closed without therapy.

Presentation of Vision Problems

Children on the autism spectrum typically bring a number of unusual visual behaviors or concerns to the eye doctor.

- Squints or closes an eye
- Stares at certain objects or patterns
- Looks through hands
- Flaps hands, flicks objects in front of eyes
- Looks at objects sideways or with quick glances
- Shows sensitivity to light (photophobia)
- Becomes confused at changes in flooring or on stairways
- Pushes or rubs eyes
- Has difficulty making eye contact
- Widens eyes or squints when asked to look
- Bumps into objects
- Is fascinated by lights and shadows
- Touches walls or tables while moving through space

Parents, teachers, and other professionals assume that most behaviors seen in autism spectrum disorders are simply a result of the disorder, not a by-product of vision problems. They are astonished to learn that poor eye contact, repetitive stimulatory behaviors, and practically every other behavioral symptom, could be caused by poor fixation, accommodation, or eye teaming abilities.

Vision Examination

A vision examination with a behavioral optometrist, such as can be found on www.oep.org or www.covd.org, will determine not only the eye health and refraction or whether they require a compensatory prescription, but also the visual skills of an individual with autism and how they are functionally performing. The examination will assess acuity, or ability to see clearly, accommodation, or the ability to focus clearly, pursuits, fixations and saccades, the ability to move the eyes appropriately, and binocular or eye teaming ability. She will also determine whether there is an eye turn or lazy eye and assess higher-level visual functions such as visual motor integration, or how the eyes direct the hands and the body, visual auditory integration, or how the visual system interacts with auditory commands, and most importantly, visual perception or processing or how the brain understands what is being seen. For example, she will determine if the individual can picture in his head what he is seeing, recall what is being seen or differentiate the figure from the ground.

Consultation

The optometrist will explain each aspect of the exam, discussing the child's skills in focusing, eye teaming, visual motor and visual perceptual abilities. She will also discuss treatment options in terms of lenses and prisms, how they create changes in the light energy coming into the eye, and how they allow the brain to

to lenses and prisms, vision therapy is appropriate. Vision therapy, like occupational or speech therapy, is a tool to teach the visual system how to work. Most children with autism spectrum disorders require one-on-one, in-office therapy plus a home program to reinforce the work done in the office. The frequency and duration of therapy must be determined on a case-by-case basis. The optometrist may also make a referral to adjunct professionals whose interventions are also indicated.

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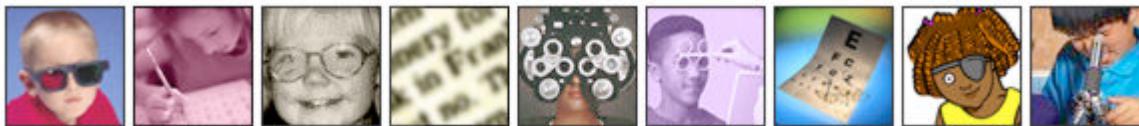
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- 3 Kaplan
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- 5 Ratner Eye Center (www.add-adhd.org)
- 6 Another study (COVD white paper on ADHD)
- 7 Harvard (COVD vision and dyslexia)
- 8 Beth Israel (COVD vision and dyslexia)
- 9 "Vision, Learning and Dyslexia" (To order a copy call COVD's Fax on Demand at 800-365-2219 and ask for document #0040 or go to www.aoanet.org)
- 10 Bowan
- 11 Cheatem
- 12 Out-of Sync Child
- 13 Szpulski
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Dr. Schulman graduated cum laude from the University of Pennsylvania where she received her degree in psychology. She graduated with both her Doctor degree and a Masters degree in Vision Science from the State University of New York, State College of Optometry. She received her Fellowship in the College of Optometry for Vision Development and is an Associate member of the Optometric Extension Program. She

the developmentally delayed, and has published on vision and autism. She is fully licensed to diagnose and treat eye disease and specializes in vision therapy, pediatrics, learning disabilities and preventative vision care for all ages. You can reach Dr. Schulman at her practices in Fairfield County, CT:

VisionWorks
139 Main Street
Norwalk, CT 06851
203-840-1991
www.optometrists.org/schulman

Total Learning and Therapy Center
5893 Main Street
Trumbull, CT 06611
203-268-8852
www.tlhc.org



WHAT IS VISION THERAPY?

Vision Therapy Is Effective Treatment

Vision therapy -- a type of physical therapy for the eyes and brain -- is a highly effective non-surgical treatment for many common visual problems such as lazy eye, crossed eyes, double vision, convergence insufficiency and some reading and learning disabilities. Many patients who have been told, "it's too late," or "you'll have to learn to live with it" have benefited from vision therapy.

In the case of learning disabilities, vision therapy is specifically directed toward resolving visual problems which interfere with reading, learning and educational instruction. Optometrists do not claim that vision therapy is a direct treatment for learning disabilities.

What is involved in a Vision Therapy program?

Vision therapy is --

- a progressive program of vision "exercises" or procedures;
- performed under doctor supervision;
- individualized to fit the visual needs of each patient;
- generally conducted in-office, in once or twice weekly sessions of 30 minutes to an hour;
- occasionally supplemented with procedures done at home between office visits ("home reinforcement" or "homework");
- depending on the case, the procedures are prescribed to:
 - help patients develop or improve fundamental visual skills and abilities;
 - improve visual comfort, ease, and efficiency;
 - change how a patient processes or interprets visual information.

Vision Therapy Is Not Just Eye Exercises

Unlike other forms of exercise, the goal of Vision Therapy is not to strengthen eye muscles. Your eye muscles are already incredibly strong. Vision Therapy is not to be confused with any self-directed self-help program of eye exercises which is or has been marketed to the public.

In-office Vision Therapy is supervised by optometric vision care professionals and many types of specialized and/or medical equipment can be used in Optometric Vision Therapy programs, such as:

- corrective lenses (regulated medical devices);
- therapeutic lenses (regulated medical devices);
- prism lenses (regulated medical devices);
- optical filters;
- occluders or eye patches
- electronic targets with timing mechanisms;
- computer software;

- balance boards (vestibular device)
- visual-motor-sensory integration training devices

The first step in any Vision Therapy program is a [comprehensive vision examination](#). Following a thorough evaluation, a qualified vision care professional can advise the candidate as to whether Vision Therapy would be appropriate treatment.

[FIND A DOCTOR](#) who provides comprehensive vision exams.

[Vision Therapy FAQs](#) | [What is Vision Therapy?](#) | [Links](#) | [References](#)
[Vision Therapy and Learning Disabilities](#) | [Vision Therapy and Reading](#)
[Vision Therapy and ADD](#) | [Vision Therapy and Dyslexia](#)
[Crossed Eyes, Wandering Eyes, Lazy Eye](#)
[Success Stories](#)

OPTOMETRISTS NETWORK	FIND A DOCTOR ♦ OUR SITES ♦ LINKS ♦ FOR PARENTS ♦ CONTACT US
add-adhd.org braininjuries.org children-special-needs.org convergenceinsufficiency.org lazyeye.org learningdisabilities.net optometrists.org strabismus.org vision3d.com visiontherapy.org visiontherapystories.org visiontherapydirectory.com	Terms and Conditions Our Privacy Policy © Copyright 1996- 2012, Optometrists Network