Parents and caregivers must carefully review the research available and make informed choices about which interventions to implement. Due to the fact that intervention information in Autism Spectrum Disorders (ASD) the information contained in these pages were relevant to the time of the development of this guide. It is the responsibility of the reader to insure that the information is current. It is widely acknowledged that ASD is a disorder that affects numerous developmental areas in varying degrees. Individuals with Autism or ASD have social impairments, speech and communication delay, behavioral problems, restricted and/or limited interests, and repetitive patterns of behavior. There is no evidence that any one treatment will address all areas of need for the individual. Many of these interventions are successful for the treatment of other developmental disabilities and not exclusive to autism and ASD. Funding for certain interventions include public expense, private expense, and medical coverage.

Many children with autism, and other developmental disorders, benefit from multi disciplinary therapies. In other words, they benefit from a combination of therapies. Most parents and caregivers are ill prepared and have little knowledge about how to request for therapies and interventions. Before receiving autism therapies and treatment, parents and caregivers must initiate writing of letters. Oftentimes, parents and caregivers become frustrated at the lack of support, information, and assistance at the local level. At the end of this guide, you will find the contact information of two special needs support organizations who can assist you through times of frustration.

Possible Interventions for Persons with Autism Spectrum Disorders

There is no one intervention which is equally effective for every individual with Autism Spectrum Disorders (ASD). There is research to support the usefulness of some interventions, while others lack research support. Even for those with "scientific proof", we recommend the family or caregiver read the research information offered, and search for replication studies done by other professionals that report similar findings. Even if there is research, it may not have been done for persons with ASD. Several of the treatments listed have been proven effective for some individuals, but have not been proven effective for those with ASD. Thus, it is important to review the research on all intervention strategies.

When deciding whether or not to proceed with an intervention technique, some things that families and professionals may want to consider, include:

- Will the intervention be viewed as part of a well integrated interdisciplinary approach to any particular individual?
- Has the intervention been researched and is it “peer reviewed”? If so, on what population? If not, what anecdotal information has been gathered to support effectiveness?
- How will use of this intervention affect the family system? (Cost, time and energy to implement, practicality for implementation)
- How functional will the results of this intervention be for the person now and in the future?
- How will the intervention be integrated into the person’s current program throughout her/his day?
The following interventions are listed alphabetically. For additional information on interventions, and ideas on evaluating their use, please contact the Autism Society of America at 1-800-3AUTISM ext. 150.

☞ Auditory Training
   ❖ Berard Method
Developed by Dr. Guy Berard, this method was designed to assist people with auditory processing problems. Auditory Integration Therapy (AIT) involves using a device which randomly selects high and low frequencies from a music source (a cassette or CD player), and then sends these sounds by headphones to the trainee. Filters are used to dampen frequencies that a person hears too acutely based on an initial audiogram. In most cases, the trainee receives AIT twice a day, each time for 1/2 hour, for ten days.
For additional information, contact the Auditory Integration Therapy home page.

❖ Tomatis Method
Developed by Dr. Alfred A. Tomatis, this method was the first auditory training method designed to re-educate the way we listen, communicate, and use language. The Tomatis training is delivered through headphones which have a special bone conductor tool on the top. Music is played on a tape recorder which is connected to a special machine called the electronic ear. The music is gradually filtered over an initial period until only the frequencies above 8000 Hz remain. The program starts with sound stimulation for about two hours a day, for a period of 15 days. The subsequent blocks are usually shorter and are taken after breaks of one to two months. Active microphone work is then used so that the trainee uses his/her own voice to assist in the process of re-education and self-listening.
For additional information, contact the Tomatis home page.

☞ Anti-Yeast Therapy
One form of yeast, candida albicans, has been reported to exacerbate behavior and health problems in persons with autism. Repeated exposure to antibiotics may kill the bacteria that keep the growth of candida suppressed; when the yeast multiplies it may release substances and lead to an overgrowth of the yeast causing an impairment of the central nervous system and the immune system.
Some of the behavior problems which may be linked to an overgrowth of candida albicans include: confusion, hyperactivity, short attention span, lethargy, irritability, and aggressiveness. Health problems may include headaches, stomach aches, constipation, gas pains, fatigue and depression.
For more information on the internet, contact the Autism-PDD Network
For additional information, contact Dr. William Shaw, Great Plains Laboratory, 9335 West 75th Street, Overland Park, Kansas, 66204.

☞ Auditory Tutorial Programs

❖ Earobics
This tutorial program contains six games that are designed to teach a variety of auditory and phonological skills to children between the ages of 4 and 7 years. Older children with developmental disabilities may also benefit. Some of the skills taught include auditory attention, discrimination and memory, phonemic synthesis and identification, sound segmentation, sound-symbol correspondence, and rhyming and phonological awareness.

❖ Fast ForWord
Fast ForWord uses seven games which are designed to train the brain to process sounds more efficiently and rapidly. Through this program the length of speech sounds is altered so that the person can more easily recognize the sounds. As the person successfully performs the tasks within the games, the speech sounds are gradually shortened until the person can process these sounds in real time. Fast ForWord games are designed to teach perception and identification of phonemes, discrimination between phonemes, auditory memory skills, and word and sentence structure processing. The program usually takes from 6-8 weeks to complete and is provided by a trained practitioner.

**The AZ Method**
The AZ method uses video to develop language skills in people with ASD. The video technique illustrates everyday objects and uses voice-over to identify each. Each video stresses different things, including concepts. Life skills and facial expressions used to describe emotions are also taught through the use of videos.

For additional information on the internet, contact: Fern Zihni, PO Box 32, Shrewsbury, Shropshire, SY3 OWB England, UK.

**Bridges**
Bridges for Children with Autism has been developed by Educational Models, Inc. to assist parents and professionals in learning about Applied Behavioral Analysis (ABA) and how it applies to children with Autism Spectrum Disorders and related disabilities, as well as in beginning their own program using ABA. This series of videotapes guides parents and professionals through the process of establishing an ABA program for children with ASD.

**Chelatin Therapy**
Chelatin Therapy is provided to lessen the amount of mild or mixed substance in the body (e.g., lead, mercury, copper, aluminum, etc.). It is a treatment by which a man-made amino acid called ethylene diamine tetracetic (EDTA) is administered by a properly trained physician to a patient, intravenously. The EDTA in solutions bonds with metals in the body and carries them away in the urine. Treatments take 3-4 hours and participants receive an average of 30 treatments. Chelatin Therapy may be used for persons with ASD concerned with heavy metal toxicity affecting biological and behavioral aspects of their lives.

For additional information on the internet, contact The Edelson Center.

**Craniosacral Therapy**
Craniosacral Therapy uses light hand contact to subtly affect the natural rhythmic movement of the skull bones and the sacrum. It causes an unwinding of areas of tension or restriction throughout the body, leading to a feeling of deep relaxation and general well-being.

**Developmental Approach**
Dr. Stanley Greenspan is the major influence behind the Developmental Approach. This approach places an emphasis on what happens during specific periods of development. Then it tries, as Greenspan (1992) notes "to re-establish the developmental sequence which went awry. Following the child's lead and supporting spontaneity, internal motivation, affective expression in free play, and unstructured interactions as the vehicles for accomplishing developmental sequence". Dr. Greenspan has developed the Developmental, Individual-Difference, Relationship-Based Model or DIR.
**Diet/Nutrition**
There are several dietary concerns that families have had regarding food allergies for people with ASD. One way to find a reaction to a particular food is to remove the food from the person’s diet. Families seem to have most concern with the following: milk, sugar, wheat, preservatives, and red dye.
For additional information on the internet, contact the [Center for the Study of Autism](#).

**Feingold Diet**
The [Feingold Diet](#) is based upon an elimination diet composed of two stages. After a favorable response to elimination of the foods/additives in stage 1, some are slowly reintroduced. A specific plan of elimination and reintroduction can be found in the internet site below.

**Gluten Free/Casein Free Diet**
There is a belief that certain foods contain protein peptides that are unable to breakdown in persons with ASD, causing difficulties in their brain. Elimination of these foods is the basis of the gluten free/casein free diet. Gluten is found in wheat, oats, rye and barley, and casein in milk products.
For additional information on the internet, contact [GFCF Diet](#).

**Dolphin Therapy**
Several educational facilities have been developed which use dolphins as a therapeutic tool for persons with autism. The multi-sensory stimulation which occurs in the dolphin environment may allow for increased communication, social, and sensory improvements as well as boosting immune systems for persons with ASD.
[Additional information](#).

**Exercise**
Other than the obvious benefits of exercise, several research studies have shown that vigorous or strenuous exercise is often associated with decreases in self-stimulatory behaviors, hyperactivity, aggression, self-injury, and destructiveness. Exercise through school or community programs is helpful as well as through the development of an individual exercise program.
For additional information, contact the [Center for the Study of Autism](#).

**Early Intervention**
It is now known that much learning occurs in the very earliest days and months of a child’s life. Early Intervention programs are designed to meet not only educational, intellectual and social needs, but a variety of the child’s therapeutic and medical needs as well as the needs of the family.

Early Intervention services are defined differently in each state. In most states, persons are eligible if they:
- Are under the age of three.
- Have an established developmental delay.
- Have a diagnosed physical, mental, or neurological condition.
- Or are at risk due to a biological/medical or environmental condition.
A number of "early intervention" services are available for the individual and family, and services vary from state to state.

**Public Education - Public/Private/Home**
Education can occur in a variety of ways. Some of the possibilities are through the public education system, public special education services, in a private school of
choice (Montessori, parochial, etc.), or through home schooling. For additional information contact your local schools and home school organizations, or contact the Autism-PDD Network, select special education. For legal information on Special Education visit www.wrightslaw.com. Suggested reading: How to Compromise with your School District without Compromising your Child by Gary Mayerson, and Autism Rights by Sherman & Ziegler.

Facilitated Communication
Facilitated Communication is a technique by which a trained professional, a facilitator, supports the hand, arm or shoulder of an individual with communication impairments so that the person with the impairment can either point to or press the keys of a communication device. If successful, the individual who was previously unable to communicate can do so through typing or spelling out words. For additional information on the internet, contact the Autism Society.

Higashi (Daily Life Therapy)
This technique was pioneered by Dr. Kiyo Kitawa at the Higashi School in Japan and provides education and emphasizes greatly vigorous physical education and the arts. For more information on the internet, contact the Boston Higashi School.

Hippotherapy (Therapeutic Horseback Riding)
The benefits of Therapeutic Horseback Riding for persons with ASD are many. Therapy builds upon the psychosocial benefits of riding a horse, and adds improvements in physical components as well. The motion and heat of the horse not only aid a rider’s blood circulation and reflexes, but also gently exercise the rider’s spinal column, providing a combination of sensory and neurological input that can be used to address a variety of disabilities, including ASD. Horses provide a motivating, rich therapeutic environment—combining fresh air and the outdoors with the emotional contact and movements of a horse. For persons with ASD, significant gains in communication and social skills have been noted, often the result of relationships formed between riders and “their” horses. Other benefits may include assistance with balance, assuming of responsibility, increasing attention span, and decreasing negative behaviors. For additional information contact: North American Riding for the Handicapped Association (NARHA).

Holding Therapy
This therapy involves the forced holding of a child experiencing a tantrum, through theoretical phases of acceptance, resistance, and acquiescence. The rationale for this therapy is that a bond was not established with the affected child, perhaps because of problems with social reciprocity, and thus the child withdraws to defend himself against the perceived rejection. For information on the internet, contact the Autism-PDD Network. For additional information, read: Let Me Hear Your Voice by Catherine Maurice.

Interventions
Allergy—Induced Intervention
Numerous tests are used to identify allergens in a person’s body. These include skin prick tests, blood tests, nasal endoscopy, and x-rays. There are many different treatments which help with the symptoms caused by allergens. These treatments range from over-the-counter and prescription medications to vitamin therapy, nutritional supplements, and reduction of allergens in a person’s surroundings through the use of an air filter and/or conditioner in the person’s environment.
**Applied Behavior Analysis (ABA)**

The basic premise of ABA methods is that learning can be shaped by reinforcement. Responses that are reinforced are likely to occur again while responses that are ignored are less likely to occur again. ABA methods tend to be intensive. Every skill that is taught is broken down into small steps that can be mastered. Each step is taught by giving an instruction, and rewarding the correct response. Eventually, the correct response will be given consistently though a reward does not follow it. The basic method of the teaching is: a) instruction; b) response; and, c) consequence (reward or lack of reward). This method of instruction-response-consequence is called discrete trial. There are several ways in which to use ABA. Some types of ABA include the Lovaas Method and Bridges, which are described later in this booklet. For additional information, search the internet with query "Applied Behavioral Analysis + autism" for numerous possible internet sites. Search also Leo Kanner, B.F. Skinner, Vince Carbone, James Pardington, Tony Atwood, and Mark L. Sundberg.

**Irlen Lenses and Scotopic Sensitivity**

Scotopic Sensitivity/Irlen Syndrome is a visual-perceptual problem which occurs in some people with learning/reading disorders, ASD, and other developmental disorders. People with Scotopic Sensitivity/Irlen Syndrome experience perceptual stress which can lead to a variety of perceptual distortions when reading and/or viewing their environment. As a result, the person may experience:

- Light sensitivity: bothered by brightness, glare, types of lighting.
- Inefficient reading: letters on page move, dance, vibrate, jiggle.
- Inadequate background accommodation: difficulty with high contrast.
- Restricted span of recognition: tunnel vision or difficulty reading groups of letters.
- Lack of sustained attention.

Helen Irlen has developed two methods to treat Scotopic Sensitivity: 1) the use of colored transparencies or overlays to improve reading; and 2) tinted glasses to improve one’s visual perception of his/her environment.

For additional information, contact: Irlen_Institute@compuserve.com

**Lovaas**

Dr. Ivar Lovaas directs the Lovaas Institute for Early Intervention, or LIFE, which is a research-based clinic in the Los Angeles area that specializes in developing and implementing behavior modification treatment programs for children with ASD. There are 11 treatment centers in the U.S. and 11 Lovaas Replication sites across the world. Central Valley Autism Project is one of those sites. For more information, contact Mila Amerine-Dickens at (209)521-4791.

The program uses traditional ABA therapy, which was described earlier. Contracting through the Lovaas Institute, families or programs can receive an intensive 40-hour per-week program which uses a "Lovaas" trained consultant to teach, and then requires families or school districts to hire one or more additional "behavior therapists" to implement the program.

In the Central Valley of California, Lovaas treatment is available through the EIBT research program. This is a collaboration between Central Valley Autism Project, Applied Behavior Consultants, Inc., BEST, Inc., Therapeutic Pathways/Kendall Schools, Genesis Behavior Center, and Valley Mountain Regional Center. These agencies are referred to as the "matrix" providers. The EIBT research program can be found on the Valley Mountain Regional Center website.

For additional information on the internet, contact the Center for the Study of Autism.

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wishing to receive services must go through Valley Mountain Regional Center’s EIBT application, referral and waiting list process. Parents wishing to participate in EIBT research should contact Sharlyne Nomellini or Tara Sisemore Hestor of VMRC at (209)473-0951. VMRC co-funds intensive ABA treatment with SELPA’s and school districts of San Joaquin County, Stanislaus County, and Tri valley counties of region 6. Federal and state funds are used to pay vendorized “matrix” agencies through the IDEIA IEP process. However, children are hand-selected based on criteria such as IQ score, dual-parent household, family income, English as the primary spoken language in the home, Caucasian v. Spanish or other minority race, and level of college education of parents. Once entered into the research program, the child must maintain a “B” average (EIBT Quarterly Report Card for 80% yes/no) in order to continue receiving ABA treatment. Failure to maintain “continuation criteria” will result in loss of “matrix” services and exiting. For more information www.no4way.org or www.business-web.org/Parent_Advocate

**Medication**

Since the diagnosis of ASD is based on a grouping of symptoms and behaviors, no medications have been found to be effective in the treatment of ASD specifically. Most medications used to treat ASD were developed primarily to treat other disorders, and then tried on persons with ASD because of the overlap in the symptoms. Most physicians will recommend behavioral and educational interventions prior to trying medication. Putting a person with ASD on medication should always be considered an experiment. Therefore, there should be a plan for objectively evaluating whether or not the medication is alleviating the symptoms for which it was prescribed. There are a number of drugs that have been prescribed for persons with ASD. A qualified physician, with experience with persons with ASD, should be secured to prescribe and monitor medications.

For additional information, contact the Autism-PDD Network, select drug treatments

**Music Therapy**

Music Therapy is the application of music to enhance personal lives by creating positive changes in human behavior. Music is used as a tool to encourage development in social/emotional, cognitive/learning, and perceptual-motor areas. A trained music therapist delivers the therapy which is particularly useful with ASD, in part, due to the nonverbal, nonthreatening nature of the music.

For additional information contact Center for the Study of Autism

**Neuro-Linguistic Programming**

Neuro-Linguistic Programming is the relationship between neurology, linguistics, and observable patterns of behavior, to help build self-confidence and capability. One example of its use is through pacing. Pacing implies an absence of any pressure and is the first stage of building rapport modeling a person’s way of being. By pacing and matching language, emotional state, breathing, body language, and thinking speed, it helps to build a strong, mutually respectful relationship.

For general information about Neuro-Linguistic Programming, not specific to ASD, contact ANLP The Association for Neuro-Linguistic Programming

For additional information, contact Bibi at 108 Wellfield Road, Streatham, London, SW 16 2BU, tel/fax 0181 677-6550.

**Melatonin**

Melatonin is a hormone which acts as a natural sleep aid and is naturally produced within the pineal gland, a glandular organ nestled between the cerebral hemispheres.
It is usually released into the body when illumination diminishes. It is believed that for some persons with ASD, too little melatonin is released, causing sleep difficulties. It is believed that by adding melatonin to the body, the sleep disorders will lessen. It is presently available over-the-counter at many health food stores. It is important to follow certain guidelines in its use as a sleep promoting agent for persons with ASD and to confer with a doctor if the person takes other medications. Very little research has been conducted on the effectiveness of melatonin for treating sleep disorders in individuals with ASD. For additional information about melatonin and its use, contact Center for the Study of Autism.

**Mind/Knowledge Mapping**

Mind mapping is a graphic technique which has been found to be helpful for more able persons with ASD. Instead of note-taking, mind mapping uses a graphic "map" which has a central point or main subject and then branches out with additional key information/themes surrounding it visually. There are smaller branches linked to the main ones, and all form a connected structure. This visual depiction of an idea may assist persons with ASD who respond well to visual learning. For additional information at Linguarama: Postscript Magazine - Mind mapping

**Occupational Therapy**

Occupational Therapy is the therapeutic use of self-care, work, and play activities to increase independent function, enhance development, and prevent disability. It may include adaptation of task or environment to achieve maximum independence and to enhance quality of life. Occupational Therapy serves those who are recovering from illness or injury, and others who because of age, poverty, cultural difference, or psychological, physical, and social disability, have difficulty coping with the tasks of living. For ASD, an occupational therapist may use a variety of strategies: sensory integration addressing developmental, gross & fine motor needs; visual structuring; movement therapy to address motor needs; listening therapy; and provide combination therapy with speech/language pathologists. For additional information contact AOTA - American Occupational Therapy Association

**Options Therapy (SonRise Method)**

Founded by Barry and Samahria Kaufman, the Option Institute provides intensive personal growth seminars for adults. The SonRise Program offers specific training to families with children with ASD. The program recognizes that parents are a child’s most valuable resource, and trains parents to learn about the child and how to involve the child as the guide in learning about themselves. The participant is taught the process of "going with" the child through exploration.

**Picture Exchange Communication System**

The Picture Exchange Communication System (PECS) is an augmentative communication training package that allows children and adults with ASD, who comprehend relate to pictures, to initiate communication. PECS begins with teaching a student to exchange a picture of a desired item with a teacher, who immediately honors the request. The system goes on to teach discrimination of symbols and then puts these together in simple sentences. The system was developed by Lori Frost and Dr. Andrew Bondy. The PECS Training Manual is available commercially.

**Picture Rehearsal**

Picture rehearsal is an instructional strategy that uses repeated practice of a sequence of behaviors by presenting the sequence to the individual in the form of
Recreation Therapy
The spontaneous, less-structured nature of play and recreation may be difficult for people with autism to comprehend and follow. Persons with ASD must be taught to play and to socialize. Recreation therapy provides a structured way to learn how to play.
More information.

Relaxation
A program developed by Edmund Jacobson, the relaxation program involves teaching individuals how to discriminate between tense muscles and relaxed muscles. The person learns to tighten and relax the arms, hands, and legs, and to do deep breathing in a sitting position. The child or adult is then taught relaxing without tensing. Finally, the person is taught to tighten and relax all remaining muscle groups of the body. Work is then done to identify stressful situations. Once the stressful situations have been pinpointed, coping strategies of visual imagery or relaxation can be used.
For additional information read an Interview with June Groden, Ph.D.

Secretin
Secretin is a hormone that is found in the pancreas, liver, and upper intestinal tract. Secretin stimulates the pancreas to release bicarbonate and digestive enzymes into the intestinal tract, and stimulates the liver to excrete bile and the stomach to produce pepsin. Secretin is also found in the brain and stimulates the production of serotonin. Some families have found that if their child had digestive tract difficulties in the past, and had injections of Secretin, their digestive difficulties improved, along with some of their autistic behaviors. Research on the efficacy of Secretin is just beginning, and will continue.
Additional information.

Self-Management
Self-Management refers to the individual achieving personal autonomy. The goal for the person with ASD is to shift super-vision and control from a parent, caregiver, job coach, or employer to the person himself/herself.
For more information, read Self-Management, written by Stephen M. Edelson, Ph.D.

Sensory Integration Therapy
Sensory Integration Theory was developed by A. Jean Ayres, Ph.D., OTR/L. Sensory integration refers to the organization of our senses to give us an understanding of ourselves and what is going on in the world around us. Our perceptions of taste, touch, smell, hearing, vision, balance, movement, body awareness, etc., are combined and organized by our brain to give us a clear "picture". Each of our different senses provides us with a piece of the puzzle that combines to form a picture.

There are three major sensory systems with receptors in different places in our body that provide our brain with information: tactile system includes receptors in our skin that give the brain information about touch, temperature, pressure, and pain; the vestibular system includes receptors in the inner ear that tell our brain about movement and balance as well as arousal levels; and the proprioceptive system which includes receptors in muscles and joints that tell our brain about what position our body is in.
When these systems do not work in harmony in a person, a trained therapist, usually an occupational therapist, will attempt to provide activities which help to organize the senses. For additional information read an Interview with Lorna Jean King, OTR, FAOTA.

**Alert Program**
The Alert Program helps children learn a repertoire of strategies that strengthens their abilities to learn, interact with others, and work or play. Children not only learn to monitor their alertness, but to improve in self-esteem and self-confidence skills. This program was developed by occupational therapists Mary Sue Williams and Sherry Shellenger. For additional information call Therapy Works, Inc. at (505) 897-3478.

**Brushing Program**
The Brushing Program was developed by Pat Wilbarger, an occupational therapist, who believes that brushing provides assistance with sensory defensiveness (tendency to react negatively or with alarm to sensory input that is generally considered harmless or non-irritating). This treatment is professionally guided by an occupational therapist or others trained in the program. It involves applying rapid and firm pressure touch to the arms, hands, back, legs, and feet with a surgical scrub brush. It is repeated throughout the day for a specified time period and a specific number of days. This touch is combined with joint compression to reduce sensory defensiveness. For additional information, review the booklet, Sensory Defensiveness in Children Aged 2-12 Years. An Intervention Guide for Parents and Other Caretakers", by Pat Wilbarger, 1991.

**Sensory Diet**
This concept is based on the idea that each individual requires a certain amount of activity and sensation to be alert, adaptable, and skillful. Some persons who are sensory defensive (see Brushing Program) respond well to a sensory diet, which means that a variety of different activities are used to reduce sensory defensiveness. Activities may include deep pressure, specific movement, neutral warmth, activities in upside down postures, joint traction and compression, heal to head rocking, activities requiring heavy work to muscles, and others. For additional information on the internet, contact the Sensory Integration Resource Center.

**Signed Speech or Simultaneous Communication**
Teaching sign language and speech at the same time is often referred to as Signed Speech or Simultaneous Communication. Although this form of communication is not universally understood and used by others, it is one form of communication that may be considered when teaching communication to persons with ASD. Additional information.

**Encyclopedia**
A social encyclopedia is a social map of a person’s life, a journal of personal experiences that are organized into categories to teach social understanding. The encyclopedia includes experiences journal, feelings journal, and social maps. For more information read about DO-WATCH-LISTEN-SAY Social and Communication Intervention for Children with Autism online or review pages 160-162, Do-Watch-Listen-Say, by Kathleen Ann Quill, Brookes
Social Stories
Many persons with ASD have deficits in social cognition, the ability to think in ways necessary for appropriate social interaction. This can be addressed through a technique which is used to help individuals with ASD "read" and understand social situations. This technique, called "social stories" presents appropriate social behaviors in the form of a story. Once read by the student (or read to) the person then takes the information and uses it to change social behavior accordingly. The technique was developed by Carol Gray and seeks to include answers to questions that persons with ASD need to know to interact appropriately with others. Other interventions to teach social understanding developed by Carol Gray include: Comic Strip Conversations; The Topic Box; Pictures of Me; and the Sixth Sense. There are a number of books, manuals, and videos, which describe the technique in detail. Additional information.

Speech/Language Therapy
Speech/language therapy is a service provided when a person's speech or language is markedly different from that of others of the same age, sex, or ethnic group; when a person's speech or language is difficult to understand; when a person is overly concerned about his or her own speech; or when a person frequently avoids communicating with others. Difficulties may involve articulation, voice, stuttering or language, including semantics, syntax and pragmatics. Although individuals with ASD may evidence a variety of speech and language difficulties, their primary deficit appears to be in the area of pragmatics or social communication. For additional information on the internet, contact the American Language-Speech-Hearing Association.

Squeeze Machine
The "Squeeze Machine" or "Hug Box" was developed by Temple Grandin. It is made of two padded side-boards which are hinged near the bottom to form a V-shape. The user lies down or squats inside the V. By using a lever, the user engages an air cylinder, which pushes the side-boards together. This action provides the deep pressure stimulation evenly across the lateral parts of the body, which some persons with ASD crave. Some persons prefer long squeezes while others prefer a short one.

TEACCH (Treatment and Education of Autistic and Related Communication Handicapped Children)
The TEACCH program takes a developmental approach by recognizing differences in rate and nature of development within and between people. TEACCH advocates emphasize that goals for treatment include both the person and family members. Objectives include changing the behavior and skill level of the person as well as developing an environment that matches the person’s needs. TEACCH’s structured approach caters to the person’s visual processing strengths by organizing the physical structure of the room and providing visual schedules to supply information about activities. Other visual cues are developed for all aspects of the person’s day at school or home. Areas of emphasis include assessment, physical structure, routines, scheduling, work systems, and task organization. Additional information.

Vision Therapy/Training
Some persons with ASD have vision dysfunction of a variety of sorts, which
may include:

- Eyes that cross or turn, even a little.
- 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.
- Avoidance of close work and activities.

Since vision development follows predictable stages, it is a process that can respond to training if disruption occurs. Vision Therapy is a process of retraining the visual perceptual system so that 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 practitioner’s office, and frequently reinforced with home activities. Vision training is available through Behavioral Optometrists who have received postdoctoral training in this specific field. Additional information.

**Visual Imagery**
Visual imagery focuses on stressful events that are known to trigger problem behaviors and supports a person with ASD in learning alternative self-control strategies. For more information read an [Interview with June Groden, Ph.D.](#).

**Vitamin Therapy (DMG, B6 & Magnesium, Vitamin C, Vitamin A)**

- **DMG (Dimethylglycine, a non-toxic metabolite)**
  DMG is available in many health food stores. It is legally classified as a food. Parents have reported positive benefits in behavior. For those who have noted a difference, most have noticed this within two weeks of its usage. There have been legal battles over its use, so it is no longer sold as a vitamin, but rather as a food product. For additional information on the internet, contact the [Autism Research Institute](#). Or: Bernard Rimland, Ph.D., Autism Research Institute, 4182 Adams Ave., San Diego, California.

- **Vitamin B6 (and Magnesium)**
  Vitamin B6 is reported to have made wide range effects on some persons with ASD. Those who have noted a positive benefit from use of Vitamin B6 and Magnesium Therapy have noted an improvement in eye contact, less self-stimulatory behavior, more interest in the world around them, fewer tantrums, and more speech. Although these positive effects have been noticed, no reports of a cure for autistic symptoms have been noticed with Vitamin B6. For additional information, contact the [Autism Research Institute](#).

- **Vitamin C**
  Vitamin C is suggested as a vitamin for persons with ASD due to its improvement in the depressive, manic, and paranoid symptom complexes, together with an improvement in personality functioning. It has not been researched as a treatment for ASD, but families report improvement in some children. Vitamin C is crucial to brain function, which may relate to noted improvements in some persons with ASD. For additional information on the internet, contact the [Autism Research Institute](#).
NOTES TO REMEMBER