STEP Inc.
Autism Information Packet
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Updated 12/2011

AUTISM

1. Definition

Autism means a developmental disability, which significantly affects verbal and nonverbal communication and social interaction, generally evident before age three (3) that adversely affects a child's educational performance. Other characteristics often associated with autism are engagement in repetitive activities and stereotyped movements, resistance to environmental change or change in daily routines, and unusual responses to sensory experience. The term does not apply if a child's educational performance is adversely affected primarily because the child has an Emotional Disturbance, as defined in this section.

The term of Autism also includes students who have been diagnosed with an Autism Spectrum Disorder such as Autism, Pervasive Developmental Disorder—Not Otherwise Specified (PDD-NOS) or Asperger's Syndrome when the child's educational performance is adversely affected. Additionally, it may also include a diagnosis of a Pervasive Developmental Disorder such as Rett's or Childhood Disintegrative Disorder. Autism may exist concurrently with other areas of disability.

After age three (3), a child could be diagnosed as having Autism if the child manifests the above characteristics. Children with Autism demonstrate the following characteristics prior to age 3:

(1) difficulty relating to others or interacting in a socially appropriate manner;
(2) absence, disorder, or delay in verbal and/or nonverbal communication; and
(3) one or more of the following:
    (a) insistence on sameness as evidenced by restricted play patterns, repetitive body movements, persistent or unusual preoccupations, and/or resistance to change;
    (b) unusual or inconsistent responses to sensory stimuli.

2. Evaluation

The characteristics identified in the Autism Definition are present.

Evaluation Procedures

Evaluation of Autism shall include the following:

(1) parental interviews including developmental history;
(2) behavioral observations in two or more settings (can be two settings within the school);
(3) physical and neurological information from a licensed physician, pediatrician or neurologist who can provide general health history to evaluate the possibility of other impacting health conditions;
(4) evaluation of speech/language/communication skills, cognitive/developmental skills, adaptive behavior skills and social skills; and

(5) documentation, including observation and/or assessment, of how Autism Spectrum Disorder adversely impacts the child's educational performance in his/her learning environment.

Evaluation Participants

Information shall be gathered from the following persons in the evaluation of Autism Spectrum Disorders:

(1) the parent;
(2) the child's general education classroom teacher (with a child of less than school age, an individual qualified to teach a child of his/her age);
(3) a licensed special education teacher;
(4) a licensed school psychologist, licensed psychologist, licensed psychological examiner (under the direct supervision of a licensed psychologist), licensed senior psychological examiner, or licensed psychiatrist;
(5) a licensed physician, neurologist, pediatrician or primary health care provider; and
(6) a certified speech/language teacher or specialist; and
(7) other professional personnel as needed, such as an occupational therapist, physical therapist or guidance counselor.

TN. Department of Education, Division of Special Education

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RESOURCE PACKET

Assessment of Autism

Background Information

Autism is often referred to as a spectrum disorder, meaning the symptoms and characteristics can present themselves in a wide variety of combinations from mild to severe. Two children, both with a diagnosis of autism, can act very differently from one another. Throughout this chapter, the term ASD (autism spectrum disorder) will be used in place of autism. ASD may also be used synonymously with Pervasive Developmental Disorder. Both refer to a wide continuum of associated cognitive and neurobiological disorders, including, but not limited to, three core-defining features: impairments in socialization, impairments in verbal and non-verbal communication, and restricted and repetitive patterns of behaviors (American Psychiatric Association, 1994; Filipek, 1999). According to the *Diagnostic and Statistical Manual of Mental Disorders IV (DSM IV) (1994)* which is used for the purpose of diagnosis within medical and mental health community, the term Pervasive Developmental Disorder (PDD) is not a specific diagnosis, but an umbrella term under which the following specific diagnosis are identified: Pervasive Developmental Disorder-Not Otherwise Specified (PDD-NOS), Rett's Disorder, Childhood Disintegrative Disorder, Autistic Disorder, and Asperger's Disorder.

Arriving at the diagnosis of Autism/PDD typically involves experienced professionals gathering information about the child's behavior from the parents and from direct observation of the child. The current criteria for diagnosing Autism Spectrum Disorders are those given in the American Psychiatric Association's Diagnostic and Statistical Manual (DSM-IV). The formal diagnosis of autism should be made by clinicians experienced in the diagnosis and treatment of autism. Clinicians must rely on their clinical judgment, aided by guides to diagnosis, such as DSM-IV, as well as results of various assessment instruments, rating scales and checklists.

Establishing a diagnosis is only one part of a comprehensive multidisciplinary evaluation for a child with possible ASD who may be eligible for special education and related services. There is no single way that autism is first identified in young children. The process of identification and diagnosis will vary depending on the individual child. In addition the sequence in which components of the evaluation process are done will vary.

One of the recent developments in the field of autism is an increasing ability to recognize this disorder at an early age. In most cases, a young child (under the age of three) with autism can now be recognized by difficulties in orienting to social stimuli, diminished social gaze, and impairments in the areas of shared attention and motor imitation that accompany the language delays that are generally present. It can be difficult to make a definitive diagnosis at an early age in some children. It is not yet known with certainty just how early the diagnosis can be made with high reliability or whether very early diagnosis is accurate or predictive over time. Multiple observations may be required, sometimes over an extended period of time, to confirm the diagnosis of autism. The use of a differential diagnosis, that is a tentative diagnosis, may be

appropriate with very young children, in cases where the characteristics of autism are not able to be documented across settings, or when there has not been sufficient time for a more conclusive diagnosis. These children may be eligible for service as language impaired or developmentally delayed. This should not serve as a delay to providing appropriate services to the child, as children are served based on their individually identified needs.

The diagnosis of autism should include the use of diagnostic instruments and/or structured observation tools that were developed specifically for ASD. A list of such instruments is included in the appendix of this document.

Child Find

Each local school system shall develop and implement procedures for creating public awareness of special education programs and services. This includes a comprehensive system of child find activities for all children suspected of having a disability in public and private schools and facilities.

The Referral Process

Step 1: Referral

Each local school system shall develop an organized referral process, communicated to all school personnel, parents, and persons within the community, for conducting evaluations for children who may be eligible for special education. Systematic procedures should be in place to ensure that attempts have been made to meet the needs of the child within the regular school program prior to referral for special education. For a child not yet enrolled in school, the school system shall document interventions attempted in the environment that is natural for that child, i.e., home, child-care, nursery school, etc. It is recommended that interventions be tried over a reasonable period of time. This procedure must not be used to delay the referral and assessment of a child suspected of a disability such as autism spectrum disorder. When there is failure to achieve success with pre-referral interventions, or the referral information is substantial, a referral for a comprehensive evaluation is made.

For children served in Tennessee's Early Intervention System, specific collaborative referral procedures are in place, which provide for coordinated transitions from one system to another, for children who are eligible for special education and related services. These services may be provided to children eligible for special education, who are not yet three (3) years of age, under early transition agreements.

The referral process is the first step in the evaluation/assessment process. Any child suspected of having a disability may be referred to the local school system. For a child less than school age, birth through two, until the third birthday, referrals should be made to Tennessee's Early Intervention System. All school referrals should be made in writing to the school principal or the special education administrator. The local school

system will implement established written procedures for processing referrals. Parents must provide informed written consent for the evaluation.

Step 2: Review Existing Data

The child's parents, teachers and other qualified professional personnel as appropriate, shall be part of the assessment process to evaluate the child. The comprehensive evaluation shall be an in-depth assessment of all areas of suspected physical, cognitive and social/emotional disability. Attempts to gather all relevant educational, functional, and developmental information that adversely affects the child's educational performance and progress in the general curriculum (for a preschool child, to participate in appropriate activities) shall be documented. As part of the initial evaluation, and, if appropriate, as part of any reevaluation, the IEP team shall review existing data concerning the child, including

1. Evaluations and information provided by the parents
2. Current classroom/developmental based assessments and observations
1. Observations by teachers and other related service providers

After reviewing the existing data, the IEP team will determine what additional data, if any, is needed to determine:

1. Whether the child meets eligibility standards as a child with Autism Spectrum Disorder
2. The present levels of performance and educational needs of the child
3. The need for special education
4. Modifications needed to access the general curriculum

Step 3: Multidisciplinary Evaluation

Children who are suspected to be eligible for special education services for Part B of IDEA must receive a multidisciplinary evaluation. Tests and other evaluation materials are selected and administered so as not to be discriminatory on a racial or cultural basis, and are provided and administered in the child's native language or other mode of communication. A variety of evaluation tools are used to gather relevant functional and developmental information about the child, including information from the parent(s). Evaluation tools are validated for the purpose for which they will be used, and are administered by qualified personnel. No single procedure is used as the sole criterion for determining whether a child is a child with a disability. The evaluation covers all areas related to the suspected disability, including, if appropriate, health, vision, hearing, social and emotional status, general intelligence or cognitive ability, communication and motor abilities. The evaluation for eligibility for a child suspected of having ASD must include:

1. Parent interviews including developmental history
2. Behavioral observations in two or more settings (which may be two or more settings in the school)
3. Physical and neurological information from a licensed physician
4. Evaluation of speech/language/communication skills, cognitive/developmental skills, adaptive behavior skills and social skills, and

5. Documentation of how ASD adversely affects educational performance in the classroom or learning environment.

Determination of Eligibility

Upon completion of the evaluation/reevaluation, an IEP team must determine if the child is eligible for special education. In interpreting the evaluation data for the purpose of determining if a child is eligible for special education, the school system shall draw upon information from a variety of sources including aptitude and achievement tests, parent input, teacher recommendations, physical condition, social or cultural background and adaptive behavior, and ensure that the information obtained from all of these sources is documented and carefully considered. If it is determined through an appropriate evaluation that a child has ASD, but only needs a related service and not special education, the child is not a child with a disability under IDEA or state guidelines. "Special Education" means specially designed instruction to meet the unique educational needs of the student, and includes speech-language services. The determination of eligibility shall be made by the IEP team. The school system must provide a copy of the evaluation/reevaluation report and determination of eligibility to the parent.

DSM-IV Diagnostic Criteria for autism spectrum disorders is available in Appendix B. Educational assessment specialists should become familiar with the diagnostic criteria used for diagnosis of autism spectrum disorder within the medical community in order to appropriately evaluate autism spectrum disorder when considering educational eligibility.

GUIDELINES FOR EVALUATION

Procedures in Determination of Eligibility

Diagnostic evaluations must include all areas of suspected disability; in-depth evaluation of social skills, communication skills, behavior, response to sensory stimuli, adaptive behavior and educational need. In addition, diagnostic evaluations may also include factors that are not specific to autism, such as—overactivity, aggression, anxiety, depression, or specific learning disabilities, which may significantly affect the outcome and educational intervention for the child.

The diagnosis of autism should include the use of diagnostic instruments with at least moderate sensitivity and good specificity for autism. Sufficient time should be planned for standardized parent interviews regarding current concerns and behavioral history related to autism, and direct, structured observation of social and communication behavior and play. The evaluation of younger children focuses on abilities in the five developmental domains (cognitive, communication, motor, adaptive, and social/emotional), whereas the evaluation of older children may include a focus on educational ability, skills and performance.

Procedures used in the evaluation and eligibility determination of autism should include at a minimum:

1. **Parent interviews including developmental history** should focus on strengths and needs of the child in the following areas:
   - Developmental rates and sequences
   - Response to sensory stimuli
   - Cognitive function
   - Functional communication (verbal and nonverbal)
   - Adaptive and behavioral skills (including response to disciplinary methods)
   - Social skills
   - Educational performance, and
   - Parent concerns.

   Such interview instruments include the Gilliam Autism Rating Scale (GARS), the Parent Interview for Autism (PIA), the Pervasive Developmental Disorders Screening Test – Stage 2 (PDDST), or the Autism Diagnostic Interview-Revised (ADI-R) Autism Screening Scale.

2. **Behavioral observations in two or more settings**, in environments that are natural and appropriate for the child, documenting the atypical behaviors. Observation in structured and unstructured settings is recommended. Structured interaction observation instruments may be used and include the Screening Tool for Autism in Two Year Olds (STAT), and the Autism Diagnostic Observation Schedule-Generic (ADOS-G). An observational rating scale such as the Childhood Autism Rating Scale (CARS) can also be used to document behavior across settings.

3. **Physical and neurological information from a licensed physician** who may be a pediatrician, primary care physician, or neurologist, who is aware of the suspected condition of autism and can provide information about the child's general health and neurological functioning. The purpose of this information is for the physician to evaluate and rule out the possibility of other health conditions that may impact the child's behavior. Further referrals for medical diagnostic information and/or medical treatments are not the responsibility of the LEA.

4. **Evaluation of speech/language/communication skills, cognitive/developmental skills, adaptive behavior skills, social skills.**

   a. **Speech/Language and Communication**

      1) A functional communication assessment that addresses the following areas is recommended:

         - The child's ability to convey his/her needs and desires
         - The child's spontaneous use of verbal and nonverbal forms of communication
         - The child's ability to use his/her language/communication skills in a variety of social settings with a variety of interactive partners.

      2) Evaluation of phonology, morphology, syntax, semantics, and pragmatics. Options of testing instruments include the Rosetti, the Test of Pragmatic Skills, the Preschool Language Scale the SCID-R, the EASIC, the CSBS, the REEL-2, the TELD-3, and the Early Language Milestone Scale-2nd edition.

   b. **Cognitive/Developmental Skills**

      Cognitive and developmental assessment should include information about non-verbal reasoning, attention, problem solving and verbal reasoning. For young children the focus should be on the five developmental domains (cognitive, communication, motor, adaptive, and social/emotional). Cognitive assessments instruments include Mullins Scales, Bayley Scales of Infant Development, Stanford-Binet IV, Differential Ability Scales, K-ABC, and the Wechsler Scales (WISC-III and WPPSI-R). For some students non-verbal cognitive measures may be more appropriate than language based measures. Non-verbal cognitive assessments may include the C-Toni, and the Leiter battery. Developmental assessments may include Battelle, etc. Cognitive scores should be interpreted cautiously because they may be affected by the behavior of the child, the choice of test, the testing strategies employed and the variability in abilities across different cognitive domains. For older children more traditional cognitive/intelligence and academic achievement measures may be appropriate. All tests should be selected and administered to accurately reflect the child's aptitude, and the results confirmed by other sources of information and informants. All tests should be selected and administered to accurately reflect the child's aptitude, and the results confirmed by other sources of information and informants.

c. **Adaptive Behavior**
Adaptive behavior skills include the ability to care for oneself, to function independently in the home, school and community, and to conform to societal rules and expectations. Ratings, observation and interviews may be used to measure adaptive skills. Some of the instruments used in the assessment of adaptive behavior include the Vineland Adaptive Behavior Scale and the Scales of Independent Behavior.

d. **Social Skills**
Social skills are the child's ability to interact in a socially acceptable and appropriate manner. Depending on the age of the child this may include cooperative play, empathy for others, understanding feelings of others, appropriate sharing of interests, reciprocal conversations, following social routines, forming and maintaining relationships, understanding cause and effect in interpersonal situations, participation in social activities with peers. Some of the instruments used to evaluate social skills include Vineland Adaptive Behavior Scale, the Vineland Social Emotional Early Childhood Scales, and the Social Skills Rating Scales.

e. **Documentation and assessment of how autism adversely affects educational performance in the classroom or learning environment.**
Aspects of autism which may adversely affect educational performance may include difficulty with social interactions, difficulty in communication, need for routine and/or difficulty in adapting to change, and sensory sensitivity. Academic assessments may be used in addition to observations to determine the extent to which educational performance is affected. As with every disability category, the IEP team must assess and document and then determine how autism adversely affects the individual child's educational performance in the classroom or learning environment.

Socioemotional Dimensions in Communication
Autism Questionnaire

Student name_____ Completed by_____ Date _____

SOCIAL RELATEDNESS

Social and communicative motivation

- ☐ Student typically prefers to be in proximity of others.
- ☐ Student typically prefers to be alone.
- ☐ Student responds to and initiates social games and routines.
- ☐ Student visually orients to others (face to face gaze).
- ☐ Student regularly uses gaze shifts to reference the attention of others

Frequency of communicative acts directed to adults and other children:

_____

Joint attention

- ☐ Student follows adults' visual line of regard._____
- ☐ Student observes adults' or other children's activity._____

Student communicates to establish joint attention verbally by *(Check appropriate communicative functions.):*

- ☐ commenting,
- ☐ requesting information, and/or
- ☐ providing information.

- ☐ Student responds to the preverbal or verbal signals of others to establish shared attention.
- ☐ Student is able to maintain and follow-up on topics introduced by others (for older students).

Social imitation

- ☐ Student imitates actions with some evidence of social orientation (e.g., gaze checks, sharing of affect, verbal communication).
- ☐ Student imitates vocalizations with some evidence of social orientation.
- ☐ Student imitates verbalizations with some evidence of social orientation.

EMOTIONAL EXPRESSION AND RELATEDNESS

Attachment:

- ☐ Student uses caregivers as a base for security and emotional "refueling."
- ☐ After a reasonable period of time, student sees other adults (e.g., teacher, paraprofessional, etc.) as a base of security.

Functional Expression

- ☐ Student expresses different emotions through facial expression, vocalization, and/or verbalizations that are appropriate to the situational and interpersonal context. (Circle appropriate choices.)
- ☐ Student shares emotional states by directing affect displays to others.
- ☐ Student understands and responds appropriately to the emotional expressions of others

Empathy

- ☐ Student demonstrates concern for or actively attempts to soothe another student who has been hurt or is otherwise in distress.

SOCIABILITY IN COMMUNICATION

Student communicates for the functions of:

- ☐ Behavioral regulation (i.e., requesting objects/actions, protesting).
- ☐ Social interaction (i.e., greeting, calling, requesting social routine, requesting comfort).
- ☐ Joint attention (i.e., commenting, requesting and providing information).

If student communicates primarily for behavioral regulation, this may be indicative of limited sociability in communication.

EMOTIONAL REGULATION AND COMMUNICATIVE COMPETENCE

- ❑ Communicative competence varies significantly with different communicative partners.
- ❑ **Communicative competence does not vary significantly with different communicative partners.**
- ❑ Communicative competence varies significantly in comfortable, familiar contexts as opposed to unfamiliar emotionally arousing contexts.
- ❑ **Communicative competence does not vary significantly in comfortable, familiar contexts as opposed to unfamiliar emotionally arousing contexts.**
- ❑ Student demonstrates self-regulatory strategies to modulate arousal.
  Explain: _____
- ❑ Student demonstrates mutual regulatory strategies.
  Explain: _____

How does degree of emotional arousal (positive or negative) influence communicative competence (e.g., student withdraws; speech becomes disorganized; student uses developmentally less sophisticated means etc.)?

What are the most effective means others can use to help the student modulate extreme states of arousal?

EXPRESSION OF EMOTION IN LANGUAGE AND PLAY

- ❑ Student uses vocabulary to talk about emotional states (self or other).
- ❑ Student uses emotional themes consistently in play, and they are an attempt to understand stressful life events

Additional comments:

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What We Are Learning About Autism/Pervasive Developmental Disorder: Evolving dialogues and approaches to promoting development and adaptation. 1998. Contract Consultants, Temple University Institute on Disabilities/University Affiliated Program.

DSM-IV
DIAGNOSTIC CRITERIA

DSM-IV Diagnostic Criteria—Asperger's Disorder

A. Qualitative impairment in social interaction, as manifested by at least two of the following:
   1. marked impairment in the use of multiple nonverbal gestures such as eye-to-eye gaze, facial expression, body posture, and gestures to regulate social interaction
   2. failure to develop peer relationships appropriate to developmental level
   3. lack of spontaneous seeking to share enjoyment, interests, or achievements with other people (e.g. by a lack of showing, bringing, or pointing out objects of interest)
   4. lack of social or emotional reciprocity

B. Restricted repetitive and stereotyped patterns of behavior, interests, and activities, as manifested by at least one of the following:
   1. encompassing preoccupation with one or more stereotyped and restricted patterns of interest that is abnormal either in intensity or focus
   2. apparently inflexible adherence to specific, nonfunctional routines or rituals
   3. stereotyped and repetitive motor mannerisms (e.g. hand or finger flapping or twisting, or complex whole body movements)
   4. persistent preoccupation with parts of objects

C. The disturbance causes significant impairment in social, occupational, or other important areas of functioning

D. There is no clinically significant general delay in language (e.g. single works used by age 2 years, communicative phrases used by age 3 years)

E. There is no clinically significant delay in cognitive development or in the development of age-appropriate self-help skills, adaptive behavior (other than social interaction), and curiosity about the environment in childhood

F. Criteria are not met for another specific Pervasive Developmental Disorder or Schizophrenia

DSM-IV Diagnostic Criteria—Pervasive Developmental Disorder-Not Otherwise Specified (including atypical autism) (PDD-NOS)

This category should be used when there is a severe and pervasive impairment in the development of reciprocal social interaction or verbal and nonverbal communication skills, or when stereotyped behavior, interests, and activities are present, but the criteria are not met for a specific Pervasive Developmental Disorder, Schizophrenia, Schizotypal Personality Disorder, or Avoidant Personality Disorder. For example, this category includes "atypical autism" – presentations that do not meet the criteria for Autistic Disorder because of age of onset, atypical symptomatology, or subthreshold symptomatology, or all of these.

DSM-IV Diagnostic Criteria—Rett's Disorder

A. All of the following:
   1. apparently normal prenatal and perinatal development
   2. apparently normal psychomotor development through the first five months after birth
   3. Normal head circumference at birth
B. Onset of the following after the period of normal development:
   1. deceleration of head growth between ages of five and 48 months
   2. loss of previously acquired purposeful hand skills between ages of five and 30 months with the subsequent development of stereotyped hand movements (e.g. hand-wringing or hand-washing)
   3. loss of social engagement early in the course (although often social interaction develops later)
   4. appearance of poorly coordinated gait or trunk
   5. severely impaired expressive and receptive language development with severe psychomotor retardation

DSM-IV Diagnostic Criteria—Childhood Disintegrative Disorder

A. Apparently normal development for at least the first two years after birth as manifested by the presence of age-appropriate verbal and nonverbal communication, social relationships, play and adaptive behavior.
B. Clinically significant loss of previously acquired skills (before age ten years) in at least two of the following areas:
   1. expressive or receptive language
   2. social skills or adaptive behavior
   3. bowel or bladder control
   4. play
   5. motor skills

C. Abnormalities of functioning in at least two of the following areas:
   1. qualitative impairment in social interaction (e.g. impairment in nonverbal behaviors, failure to develop peer relationships, lack of social or emotional reciprocity)
   2. qualitative impairments in communication (e.g. delay or lack of spoken language, inability to initiate or sustain a conversation, stereotyped and repetitive use of language, lack of varied make-believe play)
   3. restricted, repetitive and stereotyped patterns of behavior, interests and activities, including motor stereotypes

D. The disturbance is not better accounted for by another specific Pervasive Developmental Disorder or by Schizophrenia

Assessment Instruments for Evaluation of Autism Spectrum Disorder

The list of assessments that follow are not comprehensive and do not necessarily reflect the most recently standardized instruments or tools for assessment of Autism Spectrum Disorder. A more comprehensive list of assessment instruments can be found on the Special Education Assessment web page under the title of Assessments in Easy IEP on the Initial Eligibility tab at the following site:

http://state.tn.us/education/speced/seassessment.shtml#INITIAL

Battelle Developmental Inventory (BDI)

- Authors: J. Newborg, J.R. Stock & J.Wnek (initial development); J.Guidubladi (pilot norming study); J.S. Sviniciki (completion and standardization)
- Year: 1988
- Assessment type: Norm based/curriculum compatible; used for diagnosis, evaluation; and program development
- Ages: Birth to age 8
- Domains: Personal-Social, Adaptive, Motor, Communication, and Cognitive
- Adaptations: General adaptations for various disabilities; standardized stimulus/response options for visual, hearing, neuromotor, and behavior/emotional disorders included in most items.
- Scores: Domain scores (developmental age, z-score, developmental rate, normal curve equivalent, percentile), standard scores; and age equivalents
- Standardization: Stratified random sampling, within the guidelines of the US census, was used to select the norming sample, which was administered to more than 800 children.
- Validation: BDI reports adequate reliability, and initial validity studies show significant correlation between the BDI and a variety of measures, such as Stanford-Binet Form L-M. A weak correlation was observed between the BDI and the WISC-R Full Scale IQ. There has been a recent criticism about the use of the BDI as a norm-referenced measure for special services eligibility because of difficulty calculating extreme standard scores in a reliable fashion. The BDI received higher marks for use as a criterion referenced measure. (Wodrich, 1997)
- User Qualifications: It is primarily designed for use by infant, preschool, and primary teachers as well as by special educators. Speech pathologists, psychologists, adaptive physical education specialists, and clinical diagnosticians will also find the BDI effective in measuring the functional abilities in young disabled and nondisabled children. Although appropriate for nonpsychologist, supervised practice in administration for preschoolers with disabilities is critical. (Bagnato, 1997)
- Ordering information: Riverside Publishing
  425 Spring Lake Drive
  Itasca, IL 60143-2079
  800/323-9540 (orders)
  800/767-8420 (general business)

Bayley Scales of Infant Development, 2nd Edition (BSID-II)

- Author: Nancy Bayley
- Year: 1993
- Assessment Type: Standardized norm-referenced assessment of cognitive and motor development used to identify children who are developmental delayed, to chart a child's progress after initiation of an intervention program, as a tool for teaching parents about their infants development; and as a research tool.
- Ages: 1 to 42 months
- Domains: Mental Scale; Motor Scale; and Behavior Rating Scale
- Scores: Standard scores; scaled scores;
- Standardization: Renormed on stratified sample of 1700 children reflecting geographic and cultural diversity. Data are provided for the following groups: premature infants, HIV positive, prenatal drug exposure, birth asphyxia, frequent otitis media, developmental delay, autistic, Down syndrome.
- Validation: Correlation of .57 was obtained with the Stanford-Binet for a sample of 120 (ages 24 to 30 months) children in the standardization group.
- User Qualifications: A graduate degree in Psychology, Education or closely related field that includes advanced training in the administration and interpretation of psychological tests; OR membership in a professional association that requires training and experience in the ethical and competent use of psychological tests; OR licensed or certified by an agency which does the same.
- Ordering information: Psychological Assessment Resources, Inc.
  16204 N. Florida Ave.
  Lutz, FL 33549
  813/968-3003
  800/331-8378
  Fax: 800/727-9329
  www.parinc.com

Communication and Symbolic Behavior Scales (CSBS)

- Authors: Amy Miller Wetherby, Barry Prizant
- Year: 1993
- Assessment Type: Standardized method of examining communicative and symbolic behaviors for the purpose of early identification of communication delays or disorders. This instrument requires an additional developmental evaluation/assessment tool to complete eligibility determination.
- Ages: Developmental: 8-24 months
  Chronological: 9 months-6.0 years
- Domains: Communication functions; gestural communication means; vocal communication means; verbal communication means; reciprocity; social-affective signaling, and symbolic behavior
- Scores: Standard scores or percentile ranks may be obtained for both the clusters and a communication composite. Norms may be computed based on chronological age or language stage.
- Standardization: The norming sample consisted of approximately 280 children. The CBSC has been tested for cultural bias with African-American children.
- Validation:
- User Qualifications: Recommended that this test be given by a speech/language pathologist, early intervention professionals or other professionals trained to perform developmental
- Ordering information: Riverside Publishing
  425 Spring Lake Drive
  Itasca, IL 60143-2079
  800/323-9540 (orders)
  800/767-8420 (general business)
  www.riverpub.com

Developmental Assessment of Young Children (DAYC)

- Authors: Judith K.Voress and Taddy Maddox
- Year: 1998
- Assessment Type: Developmental assessment through observation, interview of caregivers, and direct assessment. May be used in an arena assessment.
- Ages: Birth through 5 years, 11 months
- Domains: Cognition, Communication, Social-Emotional, Physical and Adaptive
- Scores: Standard scores; percentile scores and age equivalent. The test gives a General Development Quotient if all 5 subtests are completed, but all subtests can be used independently for each domain.
- Standardization: Normed on national sample of 1,269 individuals, broken into 23 age groups. Characteristics of the normative sample approximate the 1996 census.
- Validation: Reliability coefficients range from .90 to .99. Reliabilities for children identified as environmentally at-risk and biologically at-risk are .98 and.99. (PRO-ED)
- User Qualifications: Basic understanding of test and testing statistics; knowledge of general procedures governing test administration, scoring, and interpretation; and specific information about developmental evaluations.
- Ordering Information: PRO-ED
  8700 Shoal Creek Blvd.
  Austin, TX 78757
  800/897-3202
  512/451-3246
  FAX: 512/451-8542
  www.proedinc.com

Developmental Observation Checklist System (DOCS)

- Authors: W. P. Hresko; S.A. Miguel, R. J. Sherbenou, & S.D. Burton
- Year: 1994
- Assessment Type: A three-part inventory/checklist system with respect to general development (DC), adjustment behavior (ABC) and parent stress and support (PSSC). Provides a parent-report questionnaire.
- Ages: Birth through age 6
- Domains: Language, Motor, Social, and Cognitive
- Scores: Quotients, NCE scores, age equivalents and percentiles
- Standardization: Normed on more than 1400 children birth through age 6 from more than 30 states. Characteristics of the normative group approximate those for the 1990 Census data relative to gender, geographic region, race/ethnicity, and urban/rural residence.
- Validation: Construct validity is supported through correlations with age and group differentiation relating test items to total test scores, component intercorrelations, and cognitive aptitude. Substantial content validity and criterion-related validity is offered. (PRO-ED)
- User Qualifications: Basic understanding of test and testing statistics; knowledge of general procedures governing test administration, scoring, and interpretation; and specific information about developmental evaluation.
- Ordering Information: PRO-ED
  8700 Shoal Creek Blvd.
  Austin, TX 78757
  800/897-3202
  512/451-3246
  FAX: 512/451-8542
  www.proedinc.com

Infant-Toddler Developmental Assessment (IDA)

- Authors: S. Provence, J. Erikson, S. Vater, & S. Palmeri
- Year: 1995
- Assessment Type: A comprehensive, multidisciplinary, family-centered process designed to improve early identification of children who are developmentally at risk.
- Domains: Province Birth to Three Developmental Profile, IDA Parent Report, and IDA Health Recording Guide- which focus on motor, language, cognitive-adaptive, feelings, social adaptation, and personality trait domains, as well as various subdomains, and integrated developmental concerns, health concerns, and family strengths and priorities related to the IFSP.
- Ages: Birth to age three
- Scores: Percentage delay computations based on norm-based (age), but not norm groups statistics.
- Standardization: Field-validation sample: Empirical data for the Province Birth to Three Developmental Profile was gathered by analyzing results of 100 infants and toddlers, ages birth to 3 years in a IDA training center. Test results were gathered from the IDA assessment administered by IDA practitioners at 23 different service agencies.
- Validation: Reliability coefficients for the Province domain scores generally range from .90 to .96 for ages 1-18 months and ,78 to , 96 for ages 19-36 months. Interrater reliabilities range from .91 to .95 for seven of the eight domains.
- Format: Parent Report is available in Spanish.
- User Qualifications: The professionals should have core knowledge of the basic skills necessary to conduct the IDA. All practitioners who have completed basic academic and clinical programs can incorporate IDA into their practice. Practitioners can be from the following professions: child development specialists; child psychiatrists; early childhood special educators; early intervention professionals; nurses, and nurse practitioners; occupational therapists; physical therapists, physicians; physician assistants; psychologists; school psychologists; social workers; speech and language pathologists; audiologist
- Ordering information: Riverside Publishing
  425 Spring Lake Drive
  Itasca, IL 60143-2079
  800/323-9540 (orders) OR 800/767-8420 (general business)

MacArthur Communicative Development Inventories (CDI)

- Authors: L. Fenson, P. S. Dale, J. S. Reznick, D. Thal, E. Bates, J. P. Hartung, S. , Pethick, J. S. Reilly
- Assessment Type: Parent completed, standardized checklists
- Domains: Communication
- Ages: *CDI Words and Gestures* is for children ages 8 through 16 months. *CDI Words and Sentences* is for children 16 through 30 months.
- Scores: Percentile scores based on age and gender
- Format: Spanish adaptation available. It does not yield a standard score.
- User Qualifications: Master's-level degree in Psychology or Education or the equivalent in a related field with relevant training in assessment. Or: Verification of membership in, or certification by, a professional association recognized by The Psychological Corporation to require training and experience in a relevant area of assessment consistent with the expectations outlined in the 1985 *Standards for Educational and Psychological Testing.*
- Ordering Information: Communication Skill Builders
  The Psychological Corporation
  PO Box 839954
  San Antonio, TX 78283-3954
  800/211-8378
  FAX: 800-232-1223
  www.PsychCorp.com

Mullen's Scales of Early Learning

- Author: Eileen M. Mullen
- Year; 1995
- Assessment Type: A comprehensive developmental assessment that is intended for children of all ability levels. This tool is used in conjunction with the Vineland Social-Emotional Early Childhood Scales to provide a complete developmental evaluation.
- Domains Gross Motor; Visual Reception; Fine Motor; Expressive Language and Receptive Language.
- Ages: Birth to 5 years, 8 months
- Scores: T scores, percentile ranks; age equivalents
- Standardization: Sample included 1,231 children (0 to 38 months) stratified by age, gender, race, parental occupation, and urban/rural residence. Subjects were selected from over 100 sites representing all major geographic regions of the US.
- Validation: Reliability for internal consistency ranges from median-.75 in Fine Motor to median-.91 in Early Learning Composite. The test-retest ranges from .82 in receptive language to .96 in gross motor for the 1-25 month group; and .71 in expressive language to .79 in fine motor for the 25-56 month group. (AGS)
- User Qualifications: User has completed a recognized graduate training program in psychology with appropriate coursework and supervised practical experience in the administration and interpretation of clinical assessment instruments; OR administrators should have completed graduate training and have experience in clinical infant assessment.
- Ordering Information American Guidance Service
  4201 Woodland Road
  PO Box 99
  Circle Pines, MN 55014-1796
  800/328-2560
  FAX: 800/471-8457
  www.agsnet.com

Neonatal Behavioral Assessment Scale (NBAS), 3rd Edition

- Authors: T. Berry Brazelton & J. Kevin Nugent.
- Year: 1996
- Assessment Type: This instrument assesses a broad range of neonatal behaviors. It's goal is to identify children who are at risk and determine which of the children require early intervention. It is appropriate for at risk, atypical, and normal infants.
- Ages: Newborns up to two months. Domains: **28** behavioral items and 18 reflex items. It assesses different **s**ubsystems. The items are grouped into six behavior clusters (habituation, autonomic, motor, state organization, state regulation, and social-interactive behavior) and one reflex cluster.
- Scores: Scores **o**n the behavioral scale are rated on a 9-point scale; reflex is scored on a 3-point scale. Performance on each dimension can be described as optimal, normal, or inadequate.
- Standardization: Formulated in 1973, by anthropologist, pediatrician, and psychologists, the NBAS has been used extensively in research and practice. One concern has been the lack of norming. For the first edition only 54 healthy, problem-free infants from a single hospital were used in the norm sample. However, an effort is underway to establish a representative normative base comprising healthy, problem-free infants. (Wodrich, 1997).
- Validation: Validity questions have been approached by predictive criterion-related test. When compared with 18 month scores on the Bayley Scales of Infant Development for both term and pre-term infants, the recovery curve scores were related significantly to mental and motor performance on the Bayley Scales of Infant Development; from 42% to 63% variance on the 18 month scores was predicted by the NBAS. (O'Donnell, 1996)
- User Qualifications: Examiners should have an adequate background in infant development in order to interpret the infant's behavior. Certification as an NBAS examiner involves both self-training and reliability training.
- Ordering Information: Riverside Publishing
  425 Spring Lake Drive
  Itasca, IL 60143-2079
  800/323-9540 (orders)
  800/767-8420 (general business) OR **www.riverpub.com**

Peabody Developmental Motor Scales (PDMS)

- Authors; M. Rhonda Folio, Rebecca Fewell
- Year: 1983
- Assessment Type: A motor development program that provides both an in-depth norm-referenced standardized assessment and instructional programming. This instrument requires an additional developmental evaluation/assessment tool to complete eligibility determination.
- Ages: Birth to 6 years, 11 months
- Domains: Fine motor: grasping, hand use, eye-hand coordination, and finger dexterity; and Gross motor: reflexes, balance, nonlocomotor, locomotor, receipt and propulsion.
- Scores: Scaled scores (z-scores, T-scores, developmental motor quotients), age scores, basal and ceiling age levels
- Standardization: Sample of 617 children stratified by age, race, gender, and regional distribution.
- Validation: Concurrent validity between the PDMS Fine Motor total and the Bayley Mental and Psycho-Motor Scales are .78 and .36 respectively. (Selected Tools)
- User Qualifications: May be administered by a wide variety of persons experienced with children once procedures have been learned; agreement reliability with an experienced examiner (85%) is recommended.
- Ordering Information: Riverside Publishing
  425 Spring Lake Drive
  Itasca, IL 60143-2079
  800/323-9540 (orders)
  800/767-8420 (general business)
  www.riverpub.com

Pediatric Evaluation of Disability Inventory (PEDI)

- Author: Stephen M. Haley, Wendy J. Coster, Larry H. Ludlow, Janet T. Haltiwanger, and Peter J. Andrellos Year: 1992
- Assessment Type: A criterion-based assessment that provides a descriptive measure of function in children with a variety of disabilities, especially those with physical and cognitive disabilities. This instrument requires an additional developmental evaluation/assessment tool to complete eligibility determination.
- Ages: 6 months to 7.5 years
- Domains: Three content domains: (1) self-care, (2) mobility, and (3) social function
- Scores: Standard and scaled performance scores
- Standardization: 412 children and families in MA, CT, and NY, stratified by age, gender, race and origin, level of parent education, community size and family marital and socioeconomic status.
- Validation:
- User Qualifications: Should be administered by a professional with background in pediatrics, experience with young children with disabilities and an understanding of tests and measures.
- Ordering Information: The Psychological Corporation
  PO Box 839954
  San Antonio, TX 78283-3954
  800/211-8378
  FAX: 800-232-1223
  www.PsychCorp.com

Preschool Language Scale-3 (PLS-3)

- Author: Irla Lee Zimmerman, Violette G. Steiner, Roberta Evatt Pond
- Year: 1992
- Assessment Type: A standardized assessment. This instrument requires an additional developmental evaluation/assessment tool to complete eligibility determination.
- Age: Birth to 6 years
- Accommodation: Suggested modifications for children with physical or hearing impairments
- Domain: Two subscales: Auditory Comprehension and Expressive Communication to assess language precursors, semantics, language structure and integrative thinking skills
- Standardization: Sample on 1200 children ages 2 weeks through 6 years, 11 months. Within each age group, 50 percent were female and 50 percent were male. A representative same based on the 1980 US Census, 1986 update, was stratified on the basis of parent education level, geographic region, and race.
- Validation:
- Format: Spanish-language version available
- User Qualifications: Verification of a Master's degree in Psychology or Education or the equivalent in a related field with relevant training in assessment; OR Verification of membership in or certification by. a professional association recognized by The Psychological Corporation to require training and experience in a relevant area of assessment consistent with the expectations outlined in the 1985 *Standards for Educational and Psychological Testing.*
- Ordering Information: The Psychological Corporation
  PO Box 839954
  San Antonio, TX 78283-3954
  800/211-8378
  FAX: 800-232-1223
  www.PsychCorp.com

Sequenced Inventory of Communication Development, Revised (SICD-R)

- Authors: Dona Lea Hedrick, Ph. D, Elizabeth M. Prather, Ph. D., and Annette R. Tobin, M. S. P. A.
- Year: 1984
- Assessment Type: A norm-referenced diagnostic test that evaluates and quantifies communication skills of normal and developmentally delayed children. This instrument requires an additional developmental evaluation/assessment tool to complete eligibility determination.
- Ages: 4 to 48 months
- Domains: Receptive: sound and speech discrimination, awareness, and understanding; and Expressive: behavior (imitating, initiating, and responding) expressive measurement (length and grammatical and syntactic structures of verbal output and articulation).
- Scores: Receptive communication age; and expressive communication age. Assignment of age levels is limited to estimation of child's level of development. (Kurtz, 1996).
- Standardization: 252 children, 21 at each of 12 age levels ranging from 4 to .48 months. Subjects were representative of the general population of Seattle, WA. Children whose parents judged their language to be abnormal, who were living in bilingual home, who displayed obvious physical or mental abnormalities, who had abnormal hearing, or who had ear pathologies within six weeks prior to testing were excluded from the sample.
- Validation: Reliability for test-retest is .90; Inter-rater is .90. Reviewers emphasize construct validity only. (Selected Instruments)
- Format: Cuban-Spanish edition
- User Qualifications: Speech/language pathologists, teachers in preschool programs, special education teachers, and psychologist.
- Ordering information; Western Psychological Services
  12031 Wilshire Blvd
  Los Angeles, CA 90025-1251
  800/648-8857
  FAX: 310/478-7838
  www.wpspublish.com

Syracuse Play-Based Assessment (SPBA)

- Authors: G. Ensher, E. Gardner, T. Bobish, C. Michaels, K. Butler,C. Reinson, D. Foertsch, and C. Cooper
- Year: 1999
- Assessment Type: A play-based assessment of early development. The SDA and its companion norm-referenced assessment, the Syracuse Play-Based Assessment (SPBA), were developed by a transdisciplinary team. The SPBA uses 1) parent report; 2) direct observation of parent-child interactions during play; 3) direct observation of the child in free play with and examiner (unfamiliar adult); and 4) interactions with the child in structured play with an examiner. It is designed for eligibility determination based on norms
- Ages: Birth to 36 months
- Domains: Neuromotor, sensation and perception, cognition, language and communication, social-emotional behavior, and adaptive behavior. Scores: Standard scores and percentile ranks
- Accommodations: Administration is flexible and encourages accommodating individual differences. Provides scaffolding in suggested levels of assistance for children who do not exhibit fully developed forms of skills.
- Standardization: Research and trial spanning 10 years support the item content, standardization procedures, reliabilities, and approximate norms; norming and validation are ongoing across the US ((1997).
- Validation: Not completed at this time.
- User Qualifications: Professional skills, knowledge of development and content of assessment manual. Training tape and workshop available.
- Ordering Information: Applied Symbolix, Inc.
  800 N. Wells Street
  Chicago, IL 60610
  800/676-7551
  313/787-3772
  www.symbolix.com

Temperament and Atypical Behavior Scale (TABS)

- Authors: Stephen J. Bagnato, John T. Neisworth, John Salvia & Frances M. Hunt
- Year: 1999
- Assessment Type: Norm-referenced screening and assessment tool designed to identify temperament and self-regulation problems that may indicate a child's risk for developmental delay.
- Domains: Atypical behavior in four categories-detached, hypersensitive/active, underreactive, and dysregulated.
- Ages: 11-71 months
- Scores: Normative means, standard deviations, and cut-off scores for both typical and atypical samples
- Standardization: Normed on 1000 young children from diverse socioeconomic and ethnic backgrounds developing typically and atypically.
- Validation: Research validated the Regulatory Disorder Axis of the *Diagnostic Classification System: 0-3,* published by ZERO TO THREE: National Center for Infants, Toddlers, and Families.
- User Qualifications: Early childhood professionals
- Ordering information: Paul H. Brookes
  PO Box 10624
  Baltimore, MD 21285-0624
  1-800-638-3775
  Fax: 1-410-337-8539
  www.brookespublishing.com

Test of Sensory Functions in Infants (TSFI)

- Authors: Georgia A. DeGangi, Ph.D, OTR and Stanley I. Greenspan. M/D.
- Year: 1989
- Assessment Type: A criterion-referenced tool designed to provide an overall measure of sensory processing and reactivity in infants with regulatory disorders, developmental delays, and those at risk for learning disorders; to be used in conjunction with other developmental test to provide an overall indicator of the child's developmental functioning.
- Ages: 4 to 18 months
- Domains: Five domains of sensory processing and reactivity: reactivity to tactile deep pressure, adaptive motor functions, visual-motor integration, ocular-motor control, and reactivity to vestibular stimulation.
- Scores: Criterion-referenced
- Standardization: Not standardized
- Validation: Criterion validated for inter-observer reliability, decision consistency reliability, and test-retest reliability using samples of normal, regulatory-disordered, and developmentally delayed infants
- User Qualifications: Not specified
- Ordering Information: Western Psychological Services
  12031 Wilshire Blvd
  Los Angeles, CA 90025-1251
  800/648-8857
  FAX: 310/478-7838
  www.wpspublish.com

Transdisciplinary Play-Based Assessment (TPBA)

- Authors: Toni Linder and invited contributors
- Year: 1993
- Assessment Type: Curriculum embedded, diagnostic comprehensive model for assessing a child's developmental level, learning styles, temperament, motivation, and interactional patterns. It is not a standardized, norm-based assessment, nor is it a checklist of developmental skills.
- Ages: Infancy to 6 years of age.
- Domains: Cognitive, social-emotional communication and language, and, sensorimotor domains
- Scores: By using observation and age charts for each developmental area along with observation and summary worksheets, team members are able to identify child strengths, area of concern and area of readiness procedures for TPBA consists of six phases of flexibly administered unstructured and structured activities in which the child plays alone, with a parent/caregiver, and with a peer. A team makes observations while the child plays.
- Adaptations: The curriculum is flexible and accommodates several special needs.
- Standardization: Not standardized
- Validation: Few supporting data provided for program efficacy; however, TBPA is widely used and is endorsed in a number of states. (Bagnato, 1997)
- Ordering Information: Brookes Publishing Co.
  PO Box 10624
  Baltimore, MD 21285-0624
  800/638-3775
  FAX: 410/337-8539
  www.pbrookes.com

Vineland Social-Emotional Early Childhood Scales (Vineland SEEC)

• Authors:	Sara S. Sparrow, David A. Balla, & Domenic V. Cicchetti
• Year:	1998
• Assessment Type:	The SEEC Scales identify strengths and weaknesses in specific areas of social-emotional behavior, the test results can be used to plan a program and select activities best suited to the child's needs. The data is collected through an interview with the parent or caregiver. This tool is used in conjunction with the Mullen's Scale of Early Learning to provide a complete developmental evaluation.
• Ages:	Birth through 5 years, 11 months
• Domains:	It consists of three scales-Interpersonal Relationships, Play and Leisure Time, and Coping Skills- and the Social-Emotional Composite.
• Scores:	Standard scores, percentile ranks, stanines, and age equivalents
• Standardization:	Norms were developed using data gathered from the early childhood sample (birth to 5 years, 11 months) from the Vineland ABS national tryout and standardization. The final sample was chosen from subjects that best matched the 1980 US Census data. The subjects were regrouped into 6 age groups or 200 subjects each.
• Validation:	The results of the studies of convergent and discriminate validity, test-criterion relationships, factor analysis, and developmental progression support the construct validity as a measure or personal and social sufficiency. (Sparrow, 1998).
• Formats:	Manual includes Blackline Masters of Report to Parents (in English and Spanish)
• User Qualifications	User has completed a recognized graduate training program in psychology with appropriate coursework and supervised practical experience in the administration and interpretation of clinical assessment instruments.
• Ordering Information	American Guidance Service 4201 Woodland Road PO Box 99 Circle Pines, MN 55014-1796 800/328-2560 FAX: 800/471-8457 www.agsnet.com

Parent-Child Services Group, Inc.
1225 E. Weisgarber Road, Suite 180 South • Knoxville, TN 37909 • (865) 584-5558 • Fax: (865) 584-6607

AUTISM: COMMUNICATION, SOCIALIZATION, AND BEHAVIOR

Communication and appropriate social behavior are inseparable, especially for a child with autism. Progress in these areas depends on development of strategies which will encourage and stimulate the development of the total child.

Inappropriate behavior may be caused by the inadequate development of communication. Conversely, behavior may be interfering with communication. Additionally, the inappropriate behavior may be the child's way of communicating. Without question, analysis of these factors will be the most important part of developing an effective treatment program.

SUGGESTED STRATEGIES FOR CLASSROOMS:

ENVIRONMENTAL: ***Manipulate the environment*** - Initially, progress in individual goals may require that you to find a quiet place, devoid of interferences from visual distractions, where you can situate yourself and the child to encourage interaction and control stimuli. In the classroom, this is difficult at best. Consider a study carrel for certain times of the day and certain activities depending on the child's needs. Position the child away from open windows, noises of the fan in the heating/cooling unit, and other visual and auditory distractions. The best placement will be near a hard-working child who can sometimes serve as a peer tutor or model for the child with autism. Avoid sensory triggers (e.g., mirrors, lights, loud noises) until they can be addressed in therapy. Analyze the classroom for ways to maximize success (e.g., chairs with side arms slow down the escape from the a desk or table!). You may want to position the classroom assistant in a chair on one side of the child initially and position the child's chair next to a leg of a table, designating the boundaries and preventing a rapid impulsive run across the room.

Provide structure - Routines develop good habits. The child will learn to pick up toys, put away classroom supplies/books or perform other routine tasks if completion of the task is ensured daily as part of the structured routine. For example, try to develop the habit of the child only having the items needed for the subject on his desk during instruction and putting away all items after each subject is completed. Also, develop a routine for putting away papers which have been completed and papers which should be taken home for homework. A notebook system works well for this. Consider using pockets labeled clearly as "Done" (for younger children) or "Completed" or "Finished work" and "Homework."

Change the environment - Maintain consistent structure to build success, then build "tolerance to change" by systematically altering the daily schedule and managing any resultant behaviors. Changes can be effective in breaking a bad habit, as well. Look for antecedents of a behavior and change the schedule/routine to reduce the likelihood of occurrence.

Take advantage of the schedule - Using visual cues (e.g., pictures, objects, written schedules), show the child what activities need to be completed and encourage the child to indicate the end of each activity by replacing the objects or representative pictures in a "done" box. This encourages task completion as a rewarding experience.

Structure for active participation - Waiting is difficult for the child with autism but can be taught. Initially, minimize the wait and reinforce "good waiting" by providing a high incentive activity after a short wait. Place a visual cue of the activity in view of the child during the wait. In classrooms, ensure that the child has frequent opportunities to respond. You may ask the child with autism to verbally respond or point etc. on one of 3 questions that you ask the class so that this child can continue to attend to the information. This will minimize waiting and will assist with focusing attention. During waiting times in the hallway or between subjects in the classroom, teach the child to participate in a quiet activity (e.g., looking at a book, playing with a small toy) while waiting.

Give a private retreat - Children with autism are often over-stimulated by their environment. Teach the child to retreat to a calm area when over-stimulated. The retreat can include a bean bag chair, rocking chair, books, or soothing music. The classroom assistant will become adept at reading the signs that the child with autism needs to take a break. Eventually, the child will know on his/her own and will go there for a few minutes as needed.

BEHAVIOR: ***Choose your battles*** - Decide important long-term goals for the development of socialization (i.e., increasing eye contact will increase attention, socialization, and the likelihood of following directions) and classroom participation. Remember that reduction of some self-stimulations may not be successful nor will the reduction always result in development of other good skills.

Don't try to extinguish ALL self-stims - Remember that if a self-stimulatory behavior is extinguished, it will probably be replaced by another. Think about whether the self-stim is tolerable or if it will call undue attention to the child. Prioritize!! Reduction of self-stimulatory behavior takes time and behavioral consistency. Remember that we all have odd mannerisms; try to replace the strange or irritating ones with tolerable ones. Look for toys that appropriately fill the child's need for a certain type of stimulation. Use the sensory toy as an incentive to communicate or complete an activity.

Be consistent - The child is much more likely to be successful in the classroom if expectations for behavior and communication remain consistent between various caregivers and teachers. Later, the program

can be varied to require different behaviors in different environments depending on the child's cognitive level.

Identify reinforcers/aversions - Be aware that a child may have more aversions than positive reinforcers initially. Reinforcement can be taught after the child's behavior starts to improve. Reinforcement initially may be the withdrawal of the aversion (e.g., completion of classroom work yields a break from work). Throughout this process, teach the child that he/she has "control" of people in the environment and can communicate (e.g., through a "no" head shake) to exercise that positive control. Develop the concept of grades over time so that the child views grades as a positive reinforcement. You may need to use a graph or chart to indicate the goal (i.e., grade in numbers or letters) and the actual grade received so that the child can track progress.

Use logical rewards/consequences - Punishment is rarely logically-connected with a behavior and may not encourage more appropriate responses. For example, if a child is sent to time out for not completing a task, he/she may actually be reinforced for the refusal to cooperate! The child actually "got out of" doing the task by going to time out. On the other hand, manipulating the child through the task may be aversive and would be a logical message of "If you don't do as I asked, I will help." Most children with autism do not like physical assistance due to sensory factors. Therefore, the child will learn to comply to avoid the assistance.

Look for logical connections between communication and rewards. In the classroom, it is logical for a child to get free time when work is completed. It is logical for the child to receive praise for responding to questions in class.

Encourage positive control - Work toward "one try" of less desirable activities then reinforce with a preferred activity. Say "You can do it by yourself or I will help." to indicate that the child can determine whether or not the aversive "help" occurs. Teach the child to answer choice questions (e.g., Do you want _____ or _____?). Encourage self-talk as self-regulatory by giving sequential verbal cues with the same words each time you tell the child what to do (e.g., Get your cup. Sit at the table.). The child will begin to verbalize the same words as a self-cueing mechanism when confronted with the situation as practiced in his daily schedule.

COMMUNICATION: ***Vary your tone of voice/body language*** - Initially, you may need to speak consistently in a calm and reassuring voice while working on behavioral compliance and to reduce

tantrumming. Thereafter, be demonstrative in your emotions to ensure that there are no inconsistencies between your words and nonverbal communication. The child may comprehend your nonverbal communication more than the actual language; build comprehension of the language as you ensure consistency of all communication parameters.

Emphasize following directions and communication skills - Phrase directions in positive form (e.g., "Be quiet" vs. "Don't talk!") and always get eye contact before giving a direction. Say it once, then if no response, say it again as you physically cue the child to respond. Fade cues as quickly as possible. Teach reliable yes/no responses as a basic skill at all levels of development.

Provide physical assistance/nonverbal cues - If you can't ensure compliance, don't give the direction. Remember that the child will only learn to comprehend and comply with requests based on following the direction when you give it. Fade the physical cues as quickly as possible.

THERAPY:

Successful techniques - Use a variety of methods and materials so that skills are likely to generalize. Repetition is not bad (in fact, it HELPS!) but most skills should not be considered mastered until they have been observed in more than one situation and with more than one person. Be aware of the amount of stimulation you are providing and reduce or increase as needed.

Choosing goals / activities - Seldom will you be working on one skill without tapping into others. Be aware that activities such as "sorting shapes" work on visual motor, shape concepts, receptive language, expressive language, attention, and compliance. If the child cannot do an activity in the way that it has been listed as a goal, analyze the breakdown. For example, he may be able to sort shapes, but have a short attention span requiring you to cue each attempt.

Children with autism often show an early interest in letters or numbers. Use this interest to develop meaningful activities. The development of early reading skills is helpful as a cueing system for teaching a child to communicate.

"Up the ante" - In deciding on a mode of communication, use all possible avenues. Structure for verbal, provide opportunities to sign/gesture, and allow use of communication devices and pictures as appropriate. Research shows that use of an alternative system does not interfere with development of verbal communication. Remember that you may be working with a child that has NO means of communication.

Communicating in any way is a priority. Communicating through negative behavior is merely an indication that the child wants to communicate and has no better system.

Create opportunities to communicate - Having identified high incentives and structured the environment, you will be ready to create some scripts for communication. In the classroom, these may be words or phrases that are consistently paired with an activity or action within the schedule. Hearing you consistently verbalize the sound or action, the child will come to expect the occurrence. Once the sound/word is part of the routine, delay verbalizing and the child will often "fill-in" the expected verbal part of the routine. Remember that we are not concerned with the accuracy of the production initially. The attempt to communicate is the most important!!

Involve others - As soon as you gain compliance in therapy, involve others in the activities. Development of social interaction should always be a priority.

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Autism, Autism Spectrum Disorder (ASD), Pervasive Developmental Disorder (PDD), Asperger Syndrome (AS)

FAQs I Articles I Caselaw I Books I Resources I Organizations
Explaining Autism to Children

Print page

We receive many questions from parents, teachers, and health care providers about special education services for children with autism. If you are a parent, you need to educate yourself about your child's disability, effective educational methods and medical treatments, and how to present your child's problems and needs to school staff so they want to help.

On the Autism, PDD & Asperger Syndrome page, you will find FAQs, articles, legal resources, recommended books, free publications, and a short list of information and support groups.

The Centers for Disease Control and Prevention (CDC) has opened the Autism Information Center. You can find out exactly what Autism and other Pervasive Developmental Disorders (PDD) are on this website.

What is Autism?

Autism is a neurological disorder that can impair communication, socialization and behavior. It is usually diagnosed within the first three years of life and is four times more common in boys than in girls. However, some types of Autism may not be diagnosed until years later when the child enters school, due to late-occurring social deficits or difficulty playing with others. When this occurs, the child is usually too old to take advantage of early childhood intervention services and is evaluated for entry into the special education system.

Though awareness and understanding have greatly increased over the past few decades, many people are still unaware of the true affect of Autism. It can become an overshadowing factor in every aspect of life, including education, establishing and maintaining relationships, responding to pain and discomfort, and even in the ability to express emotion.

Symptom severity in Autism can range from mild to severe. For example, one child may intensely flap their arms to show excitement, another may display a smile under the same set of circumstances, while another child may sit in the corner and rock, leading the observer to believe that they may be incapable of showing or feeling emotion.

As parents reach the diagnosis, treatment and education stages of Autism, they will hear many different terms used to describe their child. This may include words such as autistic-like, non-verbal, developmentally delayed, autistic tendencies, savant, high-

functioning, and low-functioning. The important thing to realize is that all children with Autism are different. What works for one may have zero effect on another. The combinations of signs and symptoms are endless. More important than the words used to describe the child is the underlying understanding that whatever the diagnosis is, children with Autism are able to learn, function productively in society and show positive gains with appropriate education and treatment plans in place. Without appropriate support, the child may never realize his full potential. (Source)

According to the National Academy of Sciences, "the diagnosis of autism can be made reliably in two-year-olds by professionals experienced in the diagnostic assessment of young children" with autistic disorders. Early diagnosis is crucial because education is the primary form of treatment, and the earlier it starts, the better." Autism and PDD: Fact Sheet.

What is Asperger's Syndrome?

Asperger Syndrome (AS) is a severe developmental disorder characterized by major difficulties in social interaction, and restricted and unusual patterns of interest and behavior. There are many similarities with autism without mental retardation (or "Higher Functioning Autism"), (see Resources: Asperger's Syndrome; information & support).

What Can You Tell Me About Asperger Syndrome? Asperger syndrome (AS) is a neurobiological disorder, which most researchers feel falls at the "high end" of the autistic spectrum. Individuals with Asperger syndrome can have symptoms ranging from mild to severe. While sharing many of the same characteristics as Pervasive Developmental Disorder, Not Otherwise Specified and High-Functioning Autism, Asperger syndrome is a relatively new term in the United States, having only recently being officially recognized as a diagnosis by the medical community.

Pervasive Developmental Disorder (PDD) and Pervasive Development Disorder Not Otherwise Specified (PDD-NOS)

The diagnostic category of pervasive developmental disorders (PDD) refers to a group of disorders characterized by delays in the development of socialization and communication skills. Parents may note symptoms as early as infancy, although the typical age of onset is before 3 years of age. Symptoms may include problems with using and understanding language; difficulty relating to people, objects, and events; unusual play with toys and other objects; difficulty with changes in routine or familiar surroundings, and repetitive body movements or behavior patterns, (source)

Autism Spectrum Disorders (Pervasive Developmental Disorders). A detailed booklet, from the National Institute of Mental Health, that describes symptoms, causes, and treatments, with information on getting help and coping.

Intensive Early Intervention

All available research strongly suggests that intensive early intervention makes a critical

difference to children with autistic spectrum disorders. Without early identification and diagnosis, children with autism are unlikely to learn the skills they need to benefit from education.

New Study from the Kennedy Krieger Institute shows that when and how autism symptoms appear in the first three years of life has vital implications to a child's developmental, diagnostic, and educational outcomes. Published April 2010 in the *Journal of Autism and Developmental Disorders* (Epub ahead of print) based on data collected from the Interactive Autism Network, the nation's largest online autism research project. Research Reports.

The National Research Council analyzed intervention models for young children with autistic disorders and concluded that intensive early intervention "makes a clinically significant difference for many children. Children who had early intervention had better outcomes. (See Current Interventions in Autism: A. Brief Analysis)

What is Developmental Screening? In this CDC article, many questions are discussed regarding developmental screening. For example: What is developmental screening? Developmental screening is a procedure designed to identify children who should receive more intensive assessment or diagnosis, for potential developmental delays. It can allow for earlier detection of delays and improve child health and well-being for identified children.

Early intervention for Toddlers with Autism Highly Effective. The study, published online in the journal *Pediatrics,* examined an intervention called the Early Start Denver Model, which combines applied behavioral analysis (ABA) teaching methods with developmental 'relationship-based' approaches. Study finds significant gains in IQ, communication and social interaction. (November 2009)

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Articles

Here are links to articles about educating children with autism. For additional articles, please visit the Advocacy Library.

Autism Speaks 100 Day Kit. Specifically for newly diagnosed families, to make the best possible use of the 100 days following the diagnosis of autism. The kit contains information and advice collected from trusted and respected experts on autism as well as from parents of children with autism. There is a week by week plan for the next 100 days, as well as organizational suggestions and forms that parents/caregivers can use to help with the paperwork and phone calls, as they begin to find services for their child. Newly diagnosed families (within six months of diagnosis) can order a kit which will contain personalized information specific to the child's age and location.

Request a kit (click here) and an Autism Speaks Autism Response Team coordinator will contact you by phone, to get some additional information so that a kit can be personalized for you and your child.

Autistic Spectrum Disorders: Best Practice Guidelines for Screening, Diagnosis and Assessment. This publication provides professionals, policymakers, parents and others with "best practice" recommendations and rationale for screening, evaluating and assessing individuals suspected of having autistic spectrum disorders. These guidelines are the product of nearly a year's work by experts in the field of autistic spectrum disorders and are based on validated scientific evidence, clinical experience and clinical judgment.

Preventing Challenging Behaviors in Young Children with Autism. A recorded online presentation and discussion from the Technical Assistance Center on Social Emotional intervention for Young Children (TACSEI.) entitled "Preventing Challenging Behavior: A Model for Young Children with Autism Spectrum Disorder" with Glen Dunlap and Phil Strain. The session presents a three-tiered framework for organizing prevention and intervention strategies that is appropriate for home, community and preschool applications. (November 2009) Watch the presentation 1 Listen to the Teleconference 1 Handouts (pdf)

Judging Autism. Parents of autistic children win two important lawsuits against local school systems. Is Virginia ready for the fallout?

Learning to Live With Autism: Discovery & Diagnosis (PDF). In this article, you will discover the basics of Autism. What is Autism? What are the signs? How is Autism diagnosed? Could we have prevented this? These are just a few of the burning questions that are discussed. Resources are provided at the end of each section so that you can find more in-depth information on each topic.

Learning to Live With Autism: Lessons Learned & Advice for Newly Diagnosed Families (PDF). In this article, Jackie D. Igafo-Te'o provides advice for families and shares research options for education and resources on topics from "How to cherish the good times and preserve positive memories" to "planning for the future".

Anatomy of a Special Education Case. Stefan Jaynes has autism. His parents implemented an intensive ABA/ Lovaas program. This article tells the story of Stefan's case, from the due process hearing to the final decision from the U. S. Court of Appeals for Fourth Circuit. Includes links to pleadings and decisions.

Analysis *of Deal* v. *Hamilton Co. Bd. Educ.* by Gary Mayerson, Esq. Attorney for family discusses case, costs when school districts cling to outmoded programs and fight to retain the status quo.

Analysis *of Bucks Co Dept of Mental Health v. De Mora* by Gary Mayerson, Esq. In Bucks County, the Federal District Court (E.D. PA) held that a parent may be compensated by the school district for providing ABA services. This appears to be the first time any federal court has made such a ruling.

Analysis *of Henrico County School Board v. R.T.* by Pete Wright, you learn about the Burden of Proof and Burden of Persuasion after the U. S. Supreme Court ruling in *Schaffer v. Weast* and the comprehensive analysis of ABA v. TEACCH. The decision includes a discussion of the balance between FAPE and LRE and describes what deference, if any, should be provided to school board programs and testimony of school board witnesses.

Autism Therapy is Effective, but Rare by Laurie Tarkan, New York Times. Describes problems parents face in getting appropriate services for their children with autism, including the failure to use effective methods to teach these children. "A vast majority of children with autism are not getting the intensive early intervention that experts say is both essential and effective."

Children with Autism: Special Education . The Government Accountability Office published this report to answers questions submitted by Congress about special education for children with autism.

Injunction issued on Behalf of Child with Autism. Federal Judge issues injunction in ADA case; orders day care center to readmit child with autism and train staff.

Ninth Circuit Issues New Decision, in ABA/Lovaas Case. Pete Wright's analysis of *Amanda J. v. Clark County School District and Nevada Dept of Education.*

Play Hearts. Not Poker by Jennifer Bollero, Esq. Attorney and mother of child with autism writes that parents who learn the rules and strategies will reduce the risks when they negotiate for their children. "Your child's IEP should never be a gamble. Know what your goals are and work them. Many roads lead to the same place. Many different cards can win the game." Includes 8 Steps to Better IEP Meetings.

TEACCH v. ABA Debate. Pete answers questions about methods used to educate young children with autism.

$133,000 Settlement to Parents of Young Child with Autism. Describes issues in ABA/Lovaas case; child regressed in public school program, made impressive gains in intensive ABA / Lovaas program.

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Here are links to several important decisions about educating children with autism from our caselaw section. For more cases, please visit the Law Library.

Free Appropriate Education, ABA/Lovaas Cases

Amanda C. v. Clark County Sch. Dist. and Nevada Dept of Educ. (9th Cir. 2001) Court of Appeals reinstates hearing officer's decision; cites school employees for failure to inform parents of rights; procedural safeguards violations.

Deal v. Hamilton County TN Board of Ed (6th Cir. 2004) Court of Appeals found that school predetermined child's placement with "unofficial policy" of refusing to provide one-on-one ABA Lovaas programs; procedural violations can cause substantive harm; that "the approach offered by the School System provides little or no chance of self-sufficiency for an autistic child while, under the Lovaas approach, self-sufficiency is a real possibility;" that while schools are not required to "maximize" child's potential, "there is a point at which the difference in outcomes between two methods can be so great that provision of the lesser program could amount to denial of a FAPE."

Deal v. Hamilton Dept of Educ (TN Due Process Decision Aug 2001) Administrative law judge issues 45 page decision after **a 27-day due process hearing;** finds procedural safeguards and LRE violations; substantive violations; discusses credibility problems with school witnesses re: closed minds, evasiveness. (Appealed; overturned by U. S. District Court; appealed; U. S. District Court decision overturned by Court of Appeals for Sixth Circuit)

G. v. Fort Bragg Dependent Schools (4th Cir. 2003). ABA/Lovaas case; rights of children who attend Dept of Defense schools; FAPE & educational benefit; methodology; reimbursement for home-based Lovaas program; procedural safeguards and notice by parents; compensatory education for failure to provide FAPE; prevailing party status & attorneys fees (pdf)

School Bd of Henrico CountyVA v. R T, (E.D. VA 2006). Comprehensive decision about school district's repeated failure to provide an appropriate program to young autistic child; tuition reimbursement for private school that employs ABA approach. Includes lengthy discussion of autism, ABA v. TEACCH models; burden of proof; FAPE and LRE; IEP goals; measurable progress; what deference should be provided to school board programs and testimony of school board witnesses. Slams school board's "inertia," low expectations, and failure to use proven methods of teaching and learning for children with disabilities.

School Bd of Henrico County VA v. *Z.P* (4th Cir. 2005) Parents of young child with autism rejected typical generic preschool program and requested tuition reimbursement for private program that utilizes one-on-one ABA therapy. Issues include deference to hearing officer as factfinder and deference to opinions of professional public school

educators.

L.B. and J.B. ex rel. K.B. v. Nebo UT Sch. District (10th Cir. 2004). Parents of child with autism reimbursed for ABA/Lovaas therapy and private preschool that was LRE for child; educational benefit; impartiality of hearing officer.

Stefan Javnes v. Newport News (4th Cir. 2001). ABA/Lovaas case; parents to be reimbursed for expenses of ABA / Lovaas program.

Stefan Javnes v..Newport. News (E.D. VA 2000) ABA/Lovaas case (in pdf). ABA/ Lovaas case; school fails to provide appropriate program; judge orders school to reimburse parents more than 100K.

Michael v. Kanawaha (S.D. WVA 2000) ABA/Lovaas case (in pdf). One of Pete's favorite cases, includes excellent discussion of IEPs. See also Order in Michael v. Kanawaha

Mr. X v. New York (S.D. NY 1997). Early ABA Lovaas case; discusses autism, components of effective educational programs for children with autism.

T. H. v. Bd. Ed. Palatine IL (N. D. JL 1999). Powerful well-written decision in ABA-Lovaas case; discusses methodology, IEP development process; IEP goals and objectives, individualization, educational benefit, unilateral placement by parents, reimbursement, standard of review, (pdf)

Independent Sch. Dist. No. 318 (MN SEA 1996). Early ABA-Lovaas case; child represented by Sonja Kerr.

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Extended School Year, LRE/Inclusion, Other Issues

Mark Hartmann v. Loudoun. County Sch. Bd. (4th Cir. 1997) LRE/Inclusion case on behalf of child with autism.

Daniel Lawyer v. Chesterfield (E.D. VA 1993). ESY for child with autism; child represented by Pete Wright.

Reusch v. Fountain (MD 1994) Case on behalf of child with autism re: ESY; factors that must be considered by IEP team in making decisions about ESY.

Asbury v. Special Sch. Dist. of St. Louis. Case on behalf of young child with autism; child regressed in district's preschool program, made gains in ABA/Lovaas program. News Release and Settlement Agreement

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Recommended Books & Videos

How to Compromise with Your School District without Compromising Your Child by Gary Mayerson, Esq. Parents learn how educational bureaucracies work - or don't - for children with special educational needs. Includes strategies on how to prepare for an IEP meeting, what to do when a child does not get crucial services, and how to avoid due process. The practical approaches in this guide are applicable to children with all disabilities.

Educating Children with Autism by National Academy Press. Children with autism have difficulty interacting with other people, communicating ideas and feelings, and imagining what other people think or feel. Although education is the primary form of treatment for autism, educators are often poorly equipped to deal with these children. Executive Summary (Pdf format)

Educating Children with Autism describes effective educational practices, programs, and strategies. Learn:

* How children's specific diagnoses should affect educational assessment and planning
* How to support the families of children with autism
* Features of effective instructional and comprehensive programs and strategies
* How to prepare teachers, school staffs, professionals, & parents to educate autistic children.

Behavioral Intervention for Young Children With Autism: A Manual for Parents and Professionals, Catherine Maurice, Gina Green, Stephen C. Luce, Editors. What is Lovaas therapy? How does it work? This is the only treatment backed up with empirical research data ... it is a credible and effective treatment method . . . there is hope for these children and this book shows how.

How Well Does Your I E P Measure Up? Step-by-step guide to writing IEPs for children with autistic spectrum disorders. Includes sample goal & objective templates for areas of functioning typically neglected in IEPs including oral-motor skills, executive function, theory of mind, & critical thinking. Includes recommendations for teaching strategies, educational programming formats & useful resources.

How to be a Para-Pro: A Comprehensive Training Manual for Para professionals by Diane Twachtman-Cullen. This practical manual is filled with tips and strategies to help the paraprofessional handle problems and challenges. Learn about the 4 categories of educational support; a blueprint for adjusting caregiver support; how to solutions to problem situations; take home messages, includes reproducible data and record keeping forms.

Creating a Win-Win SEP for Students with Autism. This book helped me to know what is needed in the IEP - a good tool for parents who want services for their child but often don't know how to ask. Devour this book before the next IEP meeting!"

Thinking in Pictures by Temple Grandin - In this unprecedented book, **Temple Grandin,** gifted animal scientist who is also autistic, writes about autism from her unique personal perspective. Thinking in Pictures is a good reference to the types autism and treatments being used successfully today.

Asperger Syndrome: A (great Series of Videos from Coulter Video. Series Includes: Manners for the Real World: Basic Social Skills, Intricate Minds: Understanding Classmates With Asperger Syndrome, Intricate Minds II: Understanding Elementary School Classmates With Asperger Syndrome, Intricate Minds III: Understanding Elementary School Classmates Who Think Differently, Asperger Syndrome: Success in the Mainstream Classroom, Asperger Syndrome Dad: Becoming An Even Better Father To Your Child With AS, Asperger Syndrome: Transition to Work, and Asperger Syndrome: Transition to College and Work. Read the reviews.

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Resources: Autism, PDD, Asperger's Syndrome

National Standards Report, the most extensive analysis of treatments for children and adolescents with ASD ever published from the National Autism Center. Completed in 2009, the National Standards Project is an unprecedented multi-year project to establish a set of standards for effective, research-validated educational and behavioral interventions for children on the spectrum.

New! *Evidence-Based Practice and Autism in the Schools* Educator Manual from the National Autism Center (2010). The manual outlines the current state of research findings, professional judgment and data-based clinical decision making, values and preferences of families, and capacity building. Each chapter sets a course for advancing the efforts of school systems to engage in evidence-based practice for their students on the autism spectrum. Free download (pdf) 1 order print copy ($24.95)

Autism Check list or Parents

Milestones Checklist. This interactive tool allows you to view how a developmental milestone category (social and emotional, cognitive, or language) changes as a child grows. Learn the signs: Act Early.

Autism Speaks New School Community Tool Kit. The purpose of this kit is to provide information about autism - the features, challenges and strengths ~ as well as some of the tools and strategies that may result in more positive interactions for all members of a

school community. This tool kit is *not* intended to be a curriculum for special education for students on the autism spectrum, but rather a support for the general education and administrative school staff who interact with students with autism in various capacities. However, it is envisioned that this tool kit will provide valuable information and resources that can be employed by special education and administrative staff in their efforts to plan for and support students in general education environments and involvement in the school community as a whole.

Click here for a PDF of the School Community Tool Kit (203 pages)

New! Collection on Autism Spectrum Disorder. IDEA Partnership's comprehensive collection of materials includes a PowerPoint Presentation along with a Presenter Guide, numerous resources and recommended handouts, and Dialogue Guides to assist you in furthering understanding of ASD.

Identification and Evaluation of Children with Autism Spectrum Disorders
Provides detailed information to help pediatricians recognize early, subtle signs of ASDs in young children that if detected could lead to earlier diagnosis. Also introduces universal screening, recommending pediatricians conduct formal ASD screening on all children at 18 and 24 months regardless of whether there are any concerns.

Management of Children With Autism Spectrum Disorders
Reviews therapies and educational strategies that are the cornerstones of treatment for ASDs and strongly advises intervention as soon as an ASD diagnosis is seriously considered, rather than waiting until a definitive diagnosis is made. Recommends that the child be *actively engaged in intensive intervention at least 25 hours per week, 12 months per year* with a low student-to-teacher ratio allowing for sufficient one-on-one time. Parents should also be included.

Centre of Excellence for Early Childhood Development's Encyclopedia on Early Childhood Development: Autism (PDF). This 40 page, PDF document includes a Synthesis on autism, Autism and its impact on child development, The impact of autism on child development, Autism and its impact on young children's social development, Autism and its impact on child development, Autism intervention, The effect of early intervention on the social and emotional development of young children (0-5) with autism, and Autism intervention.

Free Online Course from the Autism Society of America: Autism 101. The online course will take approximately 30 minutes to complete. The course covers the following areas: Introduction to Autism Spectrum Disorder, Treatment Options, Treatment Assistance, Transition to Adulthood, and More Information and Resources. At the end of the course you will be able to download a certificate of completion. You must first register to take this free course.

Guide for Educators on ASD: The Puzzle of Autism (PDF). The National Education Association (NEA) published a free, downloadable 38-page guide entitled *The Puzzle of Autism.* It explains the common features of autism and suggests effective classroom strategies for improving communication, sensory, social and behavioral skills.

Next Steps: A Guide For Families New To Autism (PDF). This 8-page brochure will provide the reader with a general understanding of Autism Spectrum Disorders, an overview of the various treatment options, and brief information about education and services that are helpful to children and adults with autism.

Teaching Kids with Asperger Syndrome for the First Time. You're a teacher. You've just found out that you're going to have a student with Asperger Syndrome (AS) in class this year. You're in for an interesting year. And that's not coded language for "brace yourself." It's a real-life perspective that teaching a child with AS often gives you as many opportunities as challenges.

Asperger's Syndrome - Guidelines for Assessment and Diagnosis by Ami Klin, Ph.D., and Fred R. Volkmar, M.D., Yale Child Study Center.

Asperger's Syndrome: Guidelines for Treatment and Intervention. In this article, written by by Ami Klin, Ph.D. and Fred R. Volkmar, M.D. the from Yale Child Study Center, many topics are discussed including: Securing and Implementing Services, General Intervention Setting, General Intervention Strategies, General Strategies for Communication Intervention and Social Skills Training, General Guidelines for Behavior Management, Academic Curriculum, Vocational Training, Self-Support, Pharmacotherapy, and Psychotherapy. *This is an older article but it contains a lot of useful information that is currently relevant.*

Social Skills promoting. Positive Behavior, Academic Success, and School Safety - published by National Association of of School Psychologists.

Educating Children with Autism (2001). This 276 page publication from National Academy Press is being used as evidence in due process hearings; can download free from National Academy Press or purchase from the NAP. Includes research about effective educational programs for children with autism; early intervention; one-on-one therapy or direct instruction at least 25 hours a week, 12 months a year; more.

An IEP Team's Introduction to Functional Behavioral Assessment and Behavior Intervention Plans, Center for Effective Collaboration and Practice (1998). If your child has behavior problems, this publication about Functional Behavioral Assessments will help. Describes need to identify the underlying causes of child's behavior (what the child "gets" or "avoids" through the behavior) and the IEP team's job of developing proactive instructional strategies, including positive behavioral interventions and supports, to address those behaviors that interfere with learning.

More Free Publications. Includes report by Surgeon General about ABA-Lovaas treatment for children with autism; IEPs, reading, high-stakes testing, transition plans, children's mental health, discipline, zero tolerance and more.

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Organizations

Autism Speaks

Autism Society of America (ASA)

Autism Coalition

Autism Research Institute

Center for the Study of Autism

Families for Effective Autism Treatment (FEAT)

National Autism Center

Unlocking Autism

Asperger Syndrome Education Network **(ASPEN)**

ASA's Autism Source Resource Directory. Find local resources, providers, services and support.

For information about Asperger's Syndrome, contact Asperger Syndrome Coalition of the U.S., Inc. (866)-4-ASPRGR) www.asperger.org or MAAP (More able autistic persons) (219)-662-1311) www.maapservices.org

Directory of Disabilities Organizations and Information Groups. Groups that you can contact for more information about disabilities and educational methods.

Yellow Pages for Kids with Disabilites. Your state Yellow Pages includes evaluators, therapists, advocates, attorneys, health care providers, educational consultants, speech language pathologists, support groups, and more.

Legal and Advocacy Resources. Includes links to legal sites.

Schafer Autism Reports – Subsscribe

Free Newsletters. You can't beat a good online newsletter for up-to-the minute information. Our list of free online newsletters is divided into four categories and has links that you can follow to subscribe.

Explaining Autism to Children

Just For Kids! What is Autism? (PDF). This document from the New Jersey Center for Outreach and Services for the Autism Community explains autism in a way that a child can easily understand - by comparing the child with autism to the child without autism -in a very positive way.

Growing Up Together: A Booklet About Friends with Autism (PDF). In this booklet, you will learn about kids you may meet who have autism and how you can be their friend.

My Brother Has Autism (PDF). This book, written by an 8-year-old girl, explains what it is like to be the sibling of a child with Autism. This book is now available in print.

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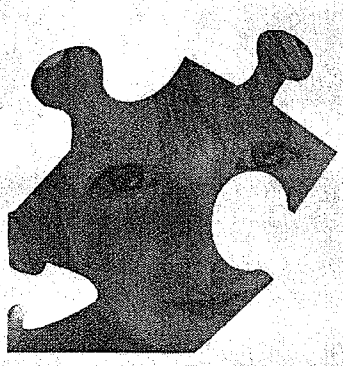
N I C H D

Eunice Kennedy Shriver
National Institute of Child Health and Human Development



Autism Research at the NICHD

Autism Overview: What We Know

The ***Eunice Kennedy Shriver*** **National Institute of Child Health and Human Development (NICHD)**, part of the National Institutes of Health (NIH), within the U.S. Department of Health and Human Services, is one of many federal agencies working to understand autism. The NICHD supports and conducts research on what causes autism, how many people have autism, how best to treat the symptoms of autism, and other topics.

Even though autism was first described in the 1940s, little was really known about the disorder until the 1990s. Even today, there is a great deal that researchers, scientists, and health care providers don't know about autism.

But there are things that we do know about autism. This fact sheet offers broad information about autism and answers some of the more common questions that parents and families often have about the disorder. You can get more detailed information on these topics from the sources listed in the *References* section. Keep in mind that the articles listed are geared toward scientists and researchers, so the information is more technical than what is presented here.

Knowledge of autism is always growing as research examines more and different sides of the disorder. The NICHD joins other federal agencies, organizations, and support groups in helping those with autism achieve their full potential to live healthy, productive lives.

U.S. Department of Health and Human Services
National Institutes of Health

What is autism?

Autism is a complex neurobiological disorder of development that lasts throughout a person's life. It is sometimes called a *developmental disability* because it usually starts before age three, in the developmental period, and because it causes delays or problems in many different skills that arise from infancy to adulthood.

Check the Glossary on pages 14-15 to learn how to say the **bolded** words and what they mean.

The main signs and symptoms of autism involve[1] language, social behavior, and behaviors concerning objects and routines:

- Communication—both verbal (spoken) and non-verbal (unspoken, such as pointing, eye contact, or smiling)
- Social interactions—such as sharing emotions, understanding how others think and feel (sometimes called empathy), and holding a conversation, as well as the amount of time a person spends interacting with others
- Routines or repetitive behaviors—often called **stereotyped behaviors**, such as repeating words or actions, obsessively following routines or schedules, playing with toys or objects in repetitive and sometimes inappropriate ways, or having very specific and inflexible ways of arranging items

People with autism might have problems talking with you, or they might not look you in the eye when you talk to them. They may have to line up their pencils before they can pay attention, or they may say the same sentence again and again to calm themselves down. They may flap their arms to tell you they are happy, or they might hurt themselves to tell you they are not. Some people with autism never learn how to talk. These behaviors not only make life challenging for people who have autism, but also take a toll on their families, their health care providers, their teachers, and anyone who comes in contact with them.

Because different people with autism can have very different features or symptoms, health care providers think of autism as a "*spectrum*" disorder—a group of disorders with a range of similar features. Based on their specific strengths and weaknesses, people with autism spectrum disorders (ASDs) may have mild symptoms or more serious symptoms, but they all have an ASD. This fact sheet uses the terms "*ASD*" and "*autism*" to mean the same thing.

What conditions are in the ASD category?

Currently, the ASD category includes:

- Autistic disorder (also called "classic" autism)
- Asperger syndrome
- Pervasive Developmental Disorder Not Otherwise Specified (or atypical autism)

In some cases, health care providers use a broader term—*pervasive developmental disorders (PDD)*—to describe autism. The PDD category includes the ASDs mentioned above and: Childhood disintegrative disorder, and **Rett syndrome**.

Depending on specific symptoms, a person with autism may fall into the ASD or the PDD category. Sometimes, the terms "*ASD*" and "*PDD*" are used to mean the same thing because autism is in both categories.

What causes autism?

Scientists don't know exactly what causes autism at this time.

Much evidence supports the idea that genetic factors—that is, **genes**, their function, and their interactions—are one of the main underlying causes of ASDs. But, researchers aren't looking for just one gene. Current evidence suggests that as many as 12 or more genes on different **chromosomes** may be involved in autism, to different degrees.

Some genes may place a person at greater risk for autism, called **susceptibility**. Other genes may cause specific symptoms or determine how severe those symptoms are. Or, genes with changes or **mutations** might add to the symptoms of autism because the genes or gene products aren't working properly.

Research has also shown that environmental factors, such as viruses, may also play a role in causing autism.

While some researchers are examining genes and environmental factors, other researchers are looking at possible neurological, infectious, metabolic, and immunologic factors that may be involved in autism.

Because the disorder is so complex, and because no two people with autism are exactly alike, autism is probably the result of many causes.

Is there a link between autism and vaccines?

To date, there is no conclusive scientific evidence that any part of a vaccine or any combination of vaccines causes autism, even though researchers have carried out many studies to answer this important question. There is also no proof that any material used to make or preserve vaccines plays a role in causing autism.

Although there have been reports of studies that relate vaccines to autism, the findings have not held up under further investigation. Researchers have been unable to **replicate** the studies that reportedly found a link between autism and vaccines.

There is a great deal of research and discussion on the topic of vaccines and autism—too much to cover here. The *U.S. Centers for Disease Control and Prevention (CDC)* conducts and supports most of the federal **epidemiological studies** that seek to answer questions about vaccines and autism.

Currently, the CDC provides the most accurate and up-to-date information about research on autism and vaccine research, both supported by the federal government and funded independently. For more information, visit *http://www.cdc.gov/nip/vacsafe/concerns/autism/default.htm*.

How many people have autism?

Currently, researchers don't know the exact number of people with an ASD in the United States.

Researchers use different ways to determine **prevalence** that often give different results.

Some estimates of prevalence rely on previously published studies. Researchers review all the published data on a topic and take the averages of these calculations to determine prevalence. Independent researchers[3] recently conducted two such reviews. Based on these studies, the best conservative estimate[4] of the prevalence of ASDs in the United States is that one child in 1,000 children has an ASD.

Is autism more common now than it was in the past?

Researchers are not certain whether autism is more prevalent now than in the past for a number of reasons. Although more cases of autism are being identified, it is not clear why. Some of the increase may result from better education about the symptoms of autism or from more accurate diagnoses of autism.

The new definition of autism as a spectrum disorder means that even people with mild symptoms can be classified as having an ASD, which could also account for the increase in identified cases. As research moves forward using the current definition of ASDs, more definite numbers may be available to answer this question.

Is autism more common in certain groups of people?

Current figures show that autism occurs in all racial, ethnic, and social groups equally, with individuals in one group no more or less likely to have ASDs than those in other groups. Three groups are at higher-than-normal risk for ASDs, including:

- *Boys.* Statistics show that boys are three to four times more likely[5] to be affected by autism than are girls.
- *Siblings of those with ASDs.* Among families that have one child with an ASD, recurrence of ASD in another sibling is between[6] 2 percent and 8 percent, a figure much higher than in the general population.
- *People with certain other developmental disorders.* For certain disorders, including **Fragile X syndrome**, **mental retardation**, and **tuberous sclerosis**, autism is common in addition to the primary symptoms of the disorder.

When do people usually show signs of autism?

A number of the behavioral symptoms[7] of autism are observable by 18 months of age, including: problems with eye contact, not responding to one's name, joint attention problems, underdeveloped skills in pretend play and imitation, and problems with non-verbal communication and language.

Some studies also note that, although more subtle, some signs of autism are detectable at eight months[8] of age.

In general, the average age of autism diagnosis is currently three years old. In many cases, a delay in the child's starting to speak around age two brings problems to parents' attention, even though other, less noticeable signs may be present at an earlier age.[9]

Studies[10] also show that a subgroup of children with ASDs experiences a "*regression*," meaning they stop using the language, play, or social skills they had already learned. This regression usually happens between the first and second birthdays.

Researchers are still learning about the features of regression in ASDs, and whether the features differ from those shown by individuals who show signs of autism in early life.

What are some of the possible signs of autism?

Parents, caregivers, family members, teachers, and others who spend a lot of time with children can look for "*red flags*." Some may mean a delay in one or more areas of development, while others are more typical of ASDs. A list of red flags appears to the right.

Possible Red Flags for Autism[11]

- The child does not respond to his/her name.
- The child cannot explain what he/she wants.
- The child's language skills are slow to develop or speech is delayed.
- The child doesn't follow directions.
- At times, the child seems to be deaf.
- The child seems to hear sometimes, but not other times.
- The child doesn't point or wave "bye-bye."
- The child used to say a few words or babble, but now he/she doesn't.
- The child throws intense or violent tantrums.
- The child has odd movement patterns.
- The child is overly active, uncooperative, or resistant.
- The child doesn't know how to play with toys.
- The child doesn't smile when smiled at.
- The child has poor eye contact.
- The child gets "stuck" doing the same things over and over and can't move on to other things.
- The child seems to prefer to play alone.
- The child gets things for him/herself only.
- The child is very independent for his/her age.
- The child does things "early" compared to other children.
- The child seems to be in his/her "own world."
- The child seems to tune people out.
- The child is not interested in other children.
- The child walks on his/her toes.
- The child shows unusual attachments to toys, objects, or schedules (i.e., always holding a string or having to put socks on before pants).
- Child spends a lot of time lining things up or putting things in a certain order.

In addition, your child's health care provider will send your child for an evaluation if you report any of the behaviors listed below; such an evaluation would consider ASDs, among other possible causes.[12]

If the child...

- Does not babble or coo by 12 months of age
- Does not gesture (point, wave, grasp, etc.) by 12 months of age
- Does not say single words by 16 months of age
- Does not say two-word phrases on his or her own (rather than just repeating what someone says to him or her) by 24 months of age
- Has *ANY* loss of *ANY* language or social skill at *ANY* age

What should I do if I think my child has a developmental problem or autism?

Tell your child's health care provider *immediately* if you think something is wrong.

According to the *American Academy of Pediatrics (AAP)*[13], "Pediatricians should listen carefully to parents discussing their child's development. [Parents] are reliable sources of information and their concerns should be valued and addresses immediately."

Your child's health care provider will note your comments and concerns, will ask some other questions, and will determine the best plan of action. In some cases, the health care provider will ask you to complete a questionnaire about your child to get more specific information about symptoms. To rule out certain conditions, the health care provider will also test your child's hearing and check your child's lead level before deciding on a course of action.

If *red flags* are present, and if the lead and hearing tests show no problems, your child's health care provider may refer you to a specialist in child development or another specialized health care provider. The specialist will conduct a number of tests to determine whether or not your child has autism or an ASD.

What if I don't notice any symptoms?

If you don't report any of these signs, your child's health care provider will continue to check for problems at every well-baby and well-child visit.[14] If your child's health care provider does not routinely check your child with such tests, you should ask that he or she do so.

In this **developmental screening**, the provider asks questions related to normal development that can help measure your child's specific progress. Typically, these questions are similar to the red flags listed earlier. Based on your answers, the health care provider may send your child for further evaluation.

The AAP recommends[15] that health care providers ask questions about different aspects of development. These questions include (but are not limited to) those listed here.

Does your child...[15]

- Not speak as well as other children his/her age?
- Have poor eye contact?
- Act as if he/she is in his/her own world?
- Seem to "tune out" others?
- Not smile when smiled at?
- Seem unable to tell you what he/she wants, and so takes your hand and leads you to what he/she wants, or gets it him/herself?
- Have trouble following simple directions?
- Not play with toys in a usual way?
- Not bring things to you to "show" you something?
- Not point to interesting things or direct your attention to items of interest?
- Have unusually long or severe temper tantrums?
- Show an unusual attachment to objects, especially "hard" ones, such as a flashlight or key chain, instead of "soft" ones, such as a blanket or stuffed animal?
- Prefer to play alone?
- Not pretend or play "make believe" (if the child is older than age two)?

Is there a cure for autism?

To date, there is no cure for autism, but sometimes, children with ASDs make so much progress that they no longer show the full syndrome of autism when they are older.

Research[16] shows that early diagnosis and interventions delivered early in life, such as in the preschool period, are more likely to result in major positive effects on later skills and symptoms. The sooner a child begins to get help, the more opportunity for learning. Because a young child's brain is still forming, early intervention gives children the best start possible and the best chance of developing their full potential. Even so, no matter when a person is diagnosed with autism, it's never too late to benefit from treatment. People of all ages with ASDs at all levels of ability generally respond positively to well designed interventions.

Public Law 108-77: Individuals with Disabilities Education Improvement Act[17](2004) and *Public Law 105-17: Individuals with Disabilities Act, or IDEA*[18] (1997) require your child's primary care provider to refer you and your family to an early intervention service. Every state operates an early intervention program for children from birth to age three; children with autism should qualify for these services. Early intervention programs typically include behavioral methods, early developmental education, communication skills, occupational and physical therapy, and structured social play.

What are the treatments for autism?

Currently there is no definitive, single treatment for ASDs. However, there are a variety of ways to help minimize the symptoms and maximize learning. Persons with an ASD have the best chance of using all of their individual capabilities and skills if they receive appropriate behavioral and other therapies, education, and medication. In some cases, these treatments can help people with autism function at near-normal levels.

Some possible treatments for autism are explained below. If you have a question about treatment, you should talk to a health care provider who specializes in caring for people with autism.

Behavioral therapy and other therapeutic options

In general, **behavior management therapy** works to reinforce wanted behaviors and reduce unwanted behaviors. At the same time, these methods also suggest what caregivers should do before or between episodes of problem behaviors, and what to do during or after these episodes. Behavioral therapy is often based on **Applied Behavior Analysis (ABA)**. Different applications of ABA commonly used for people with autism include: Positive Behavioral Interventions and Support (PBS), Pivotal Response Training (PRT), Incidental Teaching, Milieu Therapy, Verbal Behavior, and Discrete Trial Teaching (DTT), among others.

Keep in mind that other therapies, beyond ABA, may also be effective for persons with autism. Talk to your health care provider about the best options for your child.

A variety of health care providers can also help individuals with ASDs and their families to work through different situations.

- *Speech-language therapists* can help people autism improve their general ability to communicate and interact with others effectively, as well as develop their speech and language skills. These therapists may teach non-verbal ways of communicating and may improve social skills that involve communicating with others. They may also help people to better use words and sentences, and to improve rate and rhythm of speech and conversation.

- *Occupational therapists* can help people with autism find ways to adjust tasks and conditions that match their needs and abilities. Such help may include finding a specially designed computer mouse and keyboard to ease communication, or identifying skills that build on a person's interests and individual capabilities. Occupational therapists may also do many of the same types of activities as physical therapists do (see below).

- *Physical therapists* design activities and exercises to build motor control and to improve posture and balance. For example, they can help a child who avoids body contact to participate in activities and games with other children.

Special services are often available to preschool and school-aged children, as well as to teens, through the local public school system. In many cases, services provided by specialists in the school setting are free. More intense and individualized help is available through private clinics, but the family usually has to pay for private services, although some health insurance plans may help cover the cost.

Educational and/or school-based options

Children with ASDs are guaranteed free, appropriate public education under federal laws. *Public Law 108-77: Individuals with Disabilities Education Improvement Act*[17] (2004) and *Public Law 105-17: The Individuals with Disabilities Education Act—IDEA*[18] (1997) make it possible for children with disabilities to get free educational services and educational devices to help them learn as much as they can. Each child is entitled to these services from age three through high school, or until age 21, whichever comes first.

The laws state that children must be taught in the least restrictive environment, appropriate for that individual child. This statement does not mean that each child must be placed in a regular classroom. Instead, the laws mean that the teaching environment should be designed to meet a child's learning needs, while minimizing restrictions on the child's access to typical learning experiences and interactions. Educating persons with ASDs often includes a combination of one-to-one, small group, and regular classroom instruction.

To qualify for special education services, the child must meet specific criteria as outlined by federal and state guidelines. You can contact a local school principal or special education coordinator to learn how to have your child assessed to see if he or she qualifies for services under these laws.

If your child qualifies for special services, a team of people, including you and your family, caregivers, teachers, school psychologists, and other child development specialists, will work together to design an **Individualized Educational Plan (IEP)**[19] for your child. An IEP includes specific academic, communication, motor, learning, functional, and socialization goals for a child based on his or her educational needs. The team also decides how best to carry out the IEP, such as determining any devices or special assistance the child needs, and identifying the developmental specialists who will work with the child.

The special services team should evaluate and re-evaluate your child on a regular basis to see how your child is doing and whether any changes are needed in his or her plan.

A number of parents' organizations, both national and local, provide information on therapeutic and educational services and how to get these services for a child. Visit *http://www.nlm.nih.gov/medlineplus/autism.html* for a listing of these organizations, or check the local phone book.

Medication options

Currently, there is no medication that can cure ASDs or all of the associated symptoms. Further, the *Food and Drug Administration (FDA)* has not approved any drugs specifically for the treatment of autism or its causes. But, in many cases, medication can treat some of the symptoms associated with ASDs.

Please note that the NICHD does not endorse or support the use of any of these medications for treating symptoms of ASDs, or for other conditions for which the medications are not FDA approved.

Medication can improve the behavior of a person with autism. Health care providers often use medications to deal with a specific behavior, such as reducing self-injurious behavior. With the symptom minimized, the person with autism can focus on other things, including learning and communication. Some of these medications have serious risks involved with their use; others may make symptoms worse at first or may take several weeks to become effective.

Not every medication helps every person with symptoms of autism. Health care providers usually prescribe medications on a trial basis, to see if it helps. Your child's health care provider may have to try different dosages or different combinations of medications to find the most effective plan. Families, caregivers, and health care providers need to work together to make sure that medications are working and that the overall medication plan is safe.

Medications used to treat the symptoms of autism[20] may include (but are not limited to):

- *Selective serotonin re-uptake inhibitors (SSRIs)* are a group of antidepressants that treat problems, such as obsessive-compulsive behaviors and anxiety, resulting from an imbalance in one of the body's chemical systems that are sometimes present in autism. These medications may: reduce the frequency and intensity of repetitive behaviors; decrease irritability, tantrums, and aggressive behavior; and improve eye contact.

- *Tricyclics* are another type of antidepressant used to treat depression and obsessive-compulsive behaviors. Although these drugs tend to cause more side effects than the SSRIs, sometimes they are more effective for certain people.

- *Psychoactive or anti-psychotic medications* affect the brain of the person taking them. Use of this group of drugs is the most widely studied treatment for autism. In some people with ASDs, these drugs may decrease hyperactivity, reduce stereotyped behaviors, and minimize withdrawal and aggression.

- *Stimulants* may be useful in increasing focus and decreasing hyperactivity in people with autism, particularly in higher-functioning individuals. Because of the risk of side effects, health care providers should monitor those using these drugs carefully and often.

- *Anti-anxiety drugs* can help relieve anxiousness and panic disorders associated with autism.

What is secretin and is it an effective treatment for autism?

Secretin is a hormone produced by the small intestine that helps in digestion. Currently, the FDA approves a single dose of secretin only for use in diagnosing digestive problems.

In the 1990s, news reports described a few persons with autism whose behavior improved after getting secretin during a diagnostic test.

However, a series[21] of clinical trials funded by the NICHD and conducted through the *Network on the Neurobiology and Genetics of Autism: Collaborative Programs of Excellence in Autism (CPEAs)* found no difference in improvement between those taking secretin and those taking placebo. In fact, of the five case-controlled clinical trials published on secretin, not one showed secretin as any better than placebo, no matter what the dosage or frequency. For this reason, secretin is not recommended as a treatment for ASDs.

Are there other disorders associated with ASDs?

In about 5 percent[22] of autism cases, another disorder is also present. Studying this kind of co-occurrence helps researchers who are trying to pinpoint the genes involved in autism. Similar disorders or disorders with similar symptoms may have similar genetic origins. In cases of one disorder commonly occurring with another, it could be that one is actually a risk factor for the other. This kind of information can provide clues to what actually happens in autism.

Some of these co-occurring disorders include:

- **Epilepsy** or **seizure** disorder—Nearly one-third[23] of those with autism also show signs of epilepsy by adulthood. In most cases, medication can control and treat epilepsy effectively.

- Tuberous sclerosis—About 6 percent[24] of those with autism also have tuberous sclerosis, a disorder that shares many symptoms with autism, including seizures that result from lesions (cuts) on the brain.

- Fragile X syndrome—Nearly 2.1 percent[25] of those with autism also have Fragile X, the most common inherited form of mental retardation.

- Mental retardation—About 25 percent[26] of persons with autism also have some degree of mental retardation.

Many people have treatable conditions in addition to their autism. Sleep disorders, allergies, and digestive problems are commonly seen in those with ASDs, and many of these can be treated with environmental interventions and/or medication. Treatment for these conditions may not cure autism, but it can improve the quality-of-life for people who have autism and their families.

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Glossary

The word...	Is pronounced...	And means...
Applied Behavior Analysis	ah-PLYED bee-HAY-vyur ah-NALL-uh-siss	An intervention that relies on the theory that rewarded behavior is more likely to be repeated than ignored behavior. This theory provides the foundation of several different methods of behavioral management often used with persons who have autism and other developmental disorders.
Behavior Management Therapy	bee-HAY-vyur MANN-ej-ment thee-ree	A method of therapy that focuses on managing behavior—that is, changing unwanted behaviors through rewards, reinforcements, and by confronting something that arouses anxiety, discomfort, or fear and overcoming the unwanted responses.
Chromosomes	kro-mu-SOM	One of the "packages" of genes and other DNA in the nucleus of a cell. Humans have 23 pairs of chromosomes, 46 in all. Each parent contributes one chromosome to each pair, so children get half of their chromosomes from their mothers and half from their fathers.
Developmental screening	dee-vel-up-menn-tul skree-ning	A check-up similar to the physical check-up a child gets from a health care provider, but that focuses on a child's social, emotional, and intellectual development. This screening monitors and charts development to make sure that the child is developing as expected for his or her age.
Epidemiological studies	epp-ih-DEEM-me-oh-loj-i-kul STUH-dees	Studies of the number of people with a disease(s), the locations of these people, the patterns of the disease(s), and what contributes to or causes the disease(s) or related events in certain groups.
Epilepsy	epp-ih-LEPP-see	A brain disorder in which clusters of nerve cells, or neurons, in the brain sometimes signal abnormally. In epilepsy, the normal pattern of neuronal activity becomes disturbed, causing strange sensations, emotions, and behavior or sometimes convulsions, muscle spasms, and loss of consciousness.
Fragile x syndrome	FRA-jell EKS sinn-DROM	Is the most common form of inherited mental retardation. A mutation in a single gene, the *FMR1* gene located on the X chromosome, causes Fragile X syndrome and can be passed from one generation to the next. Symptoms of Fragile X syndrome occur because the mutated gene cannot produce enough of a protein that is needed by the body's cells, especially cells in the brain, to develop and function normally.
Gene	jeen	Pieces of DNA. They contain the information for making a specific protein.

Glossary (Continued)

The word...	Is pronounced...	And means...
Individual Education Plan (IEP)	INN-div-ih-djewel ED-djew-kay-shun plan	A written set of instruction goals, or specific skills, for every child in a special education program that is required by law. The document is an agreement between the school and the family about a child's educational goals. The IEP is reviewed every year and, if needed, changed to meet a child's new or changing needs.
Mental retardation	MENN-tul ree-tarr-DAY-shen	A term used when a person has certain limitations in mental functioning and in skills such as communicating, taking care of him or herself, and social skills.
Prevalence	prev-uh-lens	The number of people in a given population who have a certain condition or disease.
Replicate	repp-li-KATE	Describes a situation in which many studies that use the same methods and steps have gotten the same outcome, suggesting that a finding is likely to be true.
Rett syndrome	RETT sinn-DROM	Mostly caused by mutations in the *MECP2* gene on the X chromosome. Rett syndrome is a disorder of brain development that occurs almost exclusively in girls. After a few months of apparently normal development, affected girls develop problems with language, learning, coordination, and other brain functions.
Seizures	SEE-jurs	A sudden attack, often one of convulsions, as in epilepsy. Seizures don't necessarily involve movement or thrashing; they can also make someone seem as though they are frozen, unmoving.
Stereotyped Behaviors	STARE-ee-oh-tipd bee-HAY-vyurs	Actions that are repeated without change.
Susceptibility	suss-ept-ih-BULL	The state of being predisposed to, sensitive to, or of lacking the ability to resist manifestations of something (such as a pathogen, familial disease, or a drug); a person who is susceptible is more likely to show symptoms of a disorder.
Tuberous sclerosis	TOOB-er-us sklar-OH-siss	A rare, multi-system genetic disease that causes non-cancerous tumors to grow in the brain and on other vital organs such as the kidneys, heart, eyes, lungs, and skin. It commonly affects the central nervous system and results in symptoms including seizures, developmental delay, behavioral problems, skin abnormalities, and kidney disease.

How can I get involved with studies of autism?

If you are interested in taking part in one of the CPEA studies, or if you want more information about one of the CPEA sites, visit *http://www.nichd.nih.gov/autism/cpea.cfm*. You and your family are welcome to take part in many different studies, but you can only take part in one genetics study at a time.

To find out what studies related to autism are currently looking for participants, go to *http://www.nichd.nih.gov/autism/research.cfm* and choose the "Autism clinical trials currently recruiting patients" link.

You can also visit *http://www.clinicaltrials.gov* or call 1-800-411-1222 for more information on federally funded studies that are seeking participants.

Where can I go for more information about autism?

For more information about the CPEA Network, genetic studies, or autism research, contact the NICHD. The NICHD supports and conducts research on topics related to the health of children, adults, families, and populations, including autism and developmental disabilities. The mission of the NICHD is to ensure that every person is born healthy and wanted, that women suffer no harmful effects from the reproductive process, and that all children have the chance to fulfill their potential for a healthy and productive life, free of disease or disability, and to ensure the health, productivity, independence, and well-being of all people through optimal rehabilitation. You can contact the NICHD through the **NICHD Information Resource Center** at:

Mail: P.O. Box 3006, Rockville, MD 20847
Phone: 1-800-370-2943 (TTY: 1-888-320-6942)
Fax: 1-866-760-5947
E-mail: NICHDInformationResourceCenter@mail.nih.gov (Please use AUTISM in the subject line)
Internet: http://www.nichd.nih.gov/autism

The National Library of Medicine also provides information on ASDs at http://www.nlm.nih.gov/medlineplus/autism.html. The NIH Web site also has information about ASDs at http://health.nih.gov/result.asp/62.

Eunice Kennedy Shriver NICHD
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- Calm, quiet, clear
- Individualized reinforcement
- Bonding based on decreased chaos and highly reinforcing interactions.
- Work to generalize skills and make them practical for the child

QUALITATIVE IMPAIRMENT IN SOCIAL INTERACTION (AT LEAST TWO OF THE FOLLOWING):

- **MARKED IMPAIRMENT IN THE USE OF MULTIPLE NONVERBAL BEHAVIORS (EYE-CONTACT, FACIAL EXPRESSION, BODY POSTURES, GESTURES) .**
- **POORLY DEVELOPED PEER RELATIONSHIPS.**
- **LACK OF SPONTANEOUS SEEKING TO SHARE ENJOYMENT, INTERESTS, OR ACHIEVEMENTS OF OTHERS (E.G. SHOWING, BRINGING, ETC.).**
- **LACK OF SOCIAL OR EMOTIONAL RECIPROCITY.**

QUALITATIVE IMPAIRMENTS IN COMMUNICATION (AT LEAST ONE OF THE FOLLOWING):

- **DELAY IN, OR LACK OF, THE DEVELOPMENT OF SPOKEN LANGUAGE.**
- **IN THOSE WITH SPEECH, MARKED IMPAIRMENT IN THE ABILITY TO INITIATE OR SUSTAIN CONVERSATION.**
- **STEREOTYPED AND REPETITIVE USE OF LANGUAGE OR IDIOSYNCRATIC LANGUAGE.**
- **LACK OF VARIED, SPONTANEOUS MAKE-BELIEVE PLAY OR SOCIAL IMITATIVE PLAY.**

RESTRICTED, REPETITIVE, AND STEREOTYPED PATTERNS OF BEHAVIOR, INTERESTS, AND ACTIVITIES:

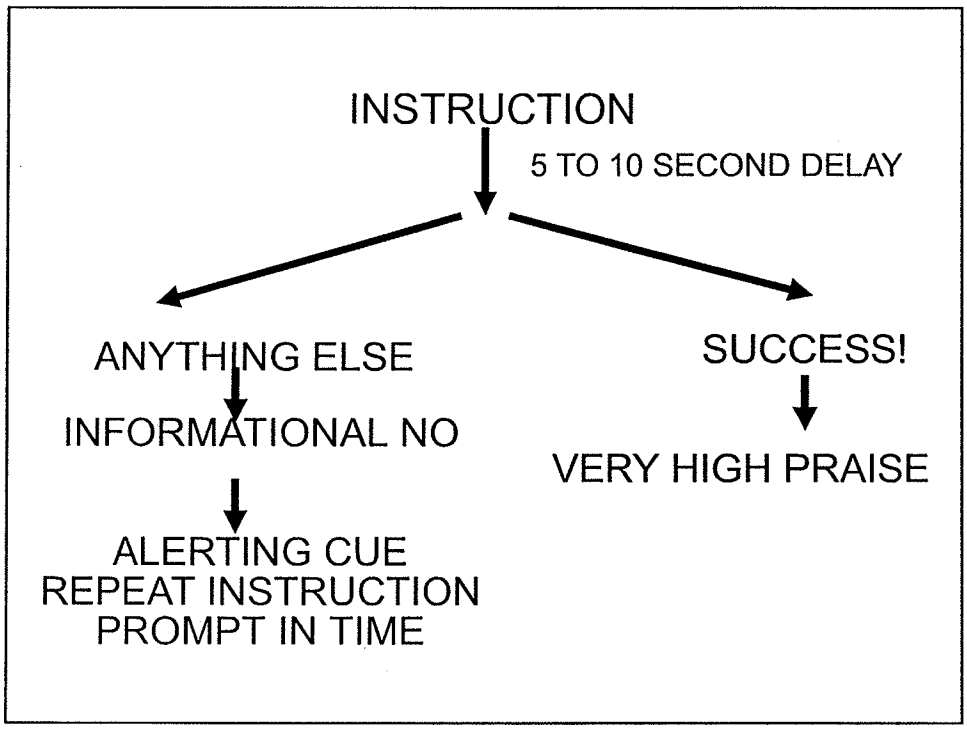
- **ABNORMAL, INTENSE PREOCCUPATION WITH STEREOTYPED AND RESTRICTED PATTERNS OF INTEREST AND ACTIVITIES.**
- **APPARENTLY INFLEXIBLE ADHERENCE TO NONFUNCTIONAL ROUTINES AND RITUALS.**
- **STEREOTYPED AND REPETITIVE MOTOR MANNERISMS (HAND FLAPPING, SPINNING, FINGER POSTURING, ETC.).**
- **PERSISTENT PREOCCUPATION WITH PARTS OF OBJECTS.**

Approaches to Intervention

- Parent education
- SL therapy
- OT for sensory processing problems
- Structured teaching (i.e. DTT)
- Incidental teaching (i.e. Pivotal Response)
- Connection-based interventions (i.e. RDI)
- Social skills instruction

Approaches to Intervention

- Lacking evidence:
  - Biomedical approaches
  - Inclusion
  - Animals and robots in therapy
  - Music therapy
  - No interventions have a solid base in research



PRIMARY GOALS

INSERTION (increasing complexity)

MATCHING (identical, non-identical, conceptual)

MATCHING WITH SOUNDS AND WORDS (receptive then expressive)

IMITATING

GROSS MOTOR, FINE MOTOR, ORAL MOTOR, SOUND, WORD

PRIMARY GOALS

RECEPTIVE LABELING

- POINTING OR GIVING OBJECT NAMED

EXPRESSIVE LABELING

- NAMING OBJECT SHOWN

PRIMARY GOALS

- NOUNS
- VERBS
- PREPOSITIONS
- MULTIPLE ATTRIBUTES
- COMPLEX INSTRUCTIONS

PROMPTING

ALERTING CUE REPEAT

PARTIAL VERBAL

WRITTEN WORD VISUAL CUE

MODEL GESTURE

POSITION PHYSICAL GUIDANCE

HAND-OVER-HAND

PROMPTING

- REPEAT LAST SUCCESS
- MINIMAL NECESSARY
- INSTRUCT, WAIT, PROMPT
- BRIEF, VISUAL
- INCREASE INTRUSIVENESS IF NEEDED
- FADE AFTER ABOUT n SUCCESSES (5?)

PROMPTING

- INSTRUCTION
- 1 OR 2 VERBAL PROMPTS
- 1 OR 2 VISUAL PROMPTS
- PARTIAL PHYSICAL PROMPT
- FULL PHYSICAL PROMPT
- OVERALL SUCCESS RATE > 70%

REINFORCEMENT

PRAISE

LOUD, EXCITED

QUIET, WHISPERED

DEEP PRESSURE

PREFERRED ACTIVITY OR OBJECT

FOOD

REINFORCEMENT

VERY FREQUENT

INDIVIDUALIZED

PAIRED WITH "NORMAL" REINFORCEMENT

CONTINGENT UPON COMPLIANCE, NOT GOOD BEHAVIOR

FOOD AS A LAST RESORT

REINFORCEMENT

Questions for the expert (the parent):

"What lights him up?"

"What does he do when he gets to choose?"

"How do you know when he likes somebody? Why do you think he likes them?"

MODULATE FRUSTRATION

- > 70% success rate
- Intermingle enjoyable activities
- Mix verbal and nonverbal tasks
- Emphasize social enjoyment
- Practice, model and teach deep breathing

RESPONDING TO BEHAVIORS THAT ARE PROBLEMS FOR YOU

✓Fully ignore incorrect responses
✓Fully ignore "misbehavior"
✓Do not comment
✓Stop aggression without attention
✓Push task demands
✓Stay calm and do not add sensory or emotional chaos

BEHAVIORAL PROBLEM SOLVING

- SENSORY OVERLOAD
- FUNCTIONAL COMMUNICATION
- CALMING TECHNIQUES
- PAYOFF
- MEDICATION

GENERALIZATION

- SKILLS, SETTINGS, PEERS
- MULTIPLE EXAMPLES
- COMMON STIMULI
- FUNCTIONAL
- PROMPT FADING
- MULTIPLE SETTINGS AND PEERS
- ???

DTT Resources

- **Teaching Developmentally Disabled Children: The ME Book, by O. Ivar Lovaas**
- **Behavioral Intervention for Young Children With Autism, By Catherine Maurice, (800) 897-3202**

STRUCTURED TEACHING FOR CHILDREN WITH AUTISM (a.k.a. "ABA," Discrete Trials Therapy, Lovaas)

DR. WILLIAM ALLEN
CHEROKEE HEALTH SYSTEMS
(423) 581-3673

Checklist: Including Students With Autism -- Back-to-School Tips

You're headed back to your classroom this year knowing a child with an autism spectrum disorder is one of your students. You may have taught a student with autism previously, but relying on your past experience may not be the only way to help the student learn successfully in an inclusive setting.

Here is some advice from Tips for Teaching High Functioning People With Autism, by Susan Moreno and Carol O'Neal of MAAP Services Inc., based in Indiana.

1. Don't take misbehaviors personally. The higher-functioning student with autism-is- -not manipulative or scheming, trying to make your life difficult. They are seldom, if ever, capable of being manipulative. Usually, misbehavior is the result of efforts to survive experiences which may be confusing, disorienting or frightening.

2. Remember that facial expressions and other "social cues" you use with other students may not work for autistic students. Most people with autism have difficulty reading facial expressions, interpreting body language and understanding some common gestures, like a wave 'hello' or 'goodbye,' a 'come over here' motion, etc.

3. If the student does not seem to be learning a task, break it down into smaller steps, or present the task in another way (visually, verbally, physically acting it out, drawing pictures).

4. Avoid verbal overload. Be clear. Use shorter sentences if you perceive that the student is not fully understanding you. Although autistic people do not necessarily have hearing problems and may be paying attention, the student may have difficulty understanding your main point and identifying important information.

5. Prepare the student for environmental changes or changes in routines. This would include assemblies, having a substitute teacher, rescheduling of classes, and so on. Use a written or visual schedule to prepare the student for changes.

6. Use positive and chronologically age-appropriate behavior procedures. Behavior management works, but if incorrectly used, it can encourage robot-like behavior, provide only a short-term behavior change or result in some form of aggression.

7. Be consistent. Consistent treatment and expectations from everyone around the student are vital.

In addition, here are some aspects of autism disorders that you should keep in

mind when including an autistic student:

1. Students with autism can have trouble with organizational skills. Even a "straight A"' student with autism who has a photographic memory can be incapable of remembering to bring a pencil to class or remembering a deadline for an assignment. In such cases, aid should be provided in the least restrictive way possible. Strategies could include having the student put a picture of a pencil on the front of his notebook or maintaining a list of assignments to De completed at home. Praise the student when he or she remembers something he has previously forgotten. Don't harp on the student if he or she falls to remember. A lecture will not only not help, it will often make the problem worse.

2. Students with autism have problems with abstract and conceptual thinking. Some may eventually acquire abstract skills, but others never will. When abstract concepts must be used, use visual cues, such as drawings or written words, to augment the abstract idea. Avoid asking vague questions such as, "Why did you do that?" Instead say, "I did not like it when YOU slammed your book down when I said it was time for gym. Next time put the book down gently and tell me you are angry. Were you showing me that you did not want to go to gym, or that you did not want to stop reading?" Be as concrete as possible.

3. Most high-functioning students with autism use and interpret speech literally. Until you know the capabilities of the individual, you should avoid:
_____ Idioms ("Save your breath," "Jump the gun," "Second thoughts?")
_____ Double meanings (most jokes have double meanings)
_____ Sarcasm(saying "Great!" after the student has just spilled a bottle of ketchup on the table)
_____ Nicknames
_____ "Cute" names ("pal," "buddy")

4. An increase in unusual or difficult behaviors probably indicates an increase in stress. Sometimes stress is caused by feeling a loss of control. Many times the stress will only be alleviated when the student physically removes himself from the stressful event or situation. If this occurs, a program should be setup to assist the student in re-entering and/or staying in the stressful situation. When this occurs, a 'safe-place' or 'safe-person' may come in handy, if it can be arranged.

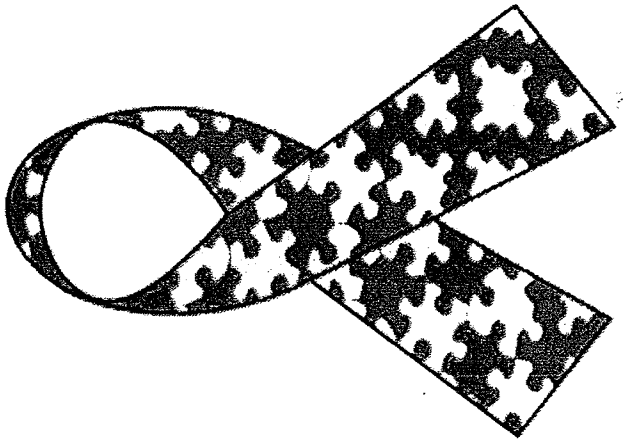
5. Be aware that normal levels of auditory and visual input can be perceived by the student as too much or too little. For example, the hum of fluorescent lighting is extremely distracting for some people with autism. Consider environmental changes such as removing "visual clutter" from your room or making seating changes if the student seems distracted or upset by the classroom environment.

6. If your high-functioning student with autism uses repetitive verbal arguments and/or repetitive verbal questions, you need to interrupt what can become a continuing, repetitive litany. Continually responding in a logical manner or arguing

back seldom stops this behavior. The subject of the argument or question is not always the subject which has upset the student. more often the individual is communicating a feeling of loss of control or uncertainty about someone or something in the environment.

For more information on Tips for Teaching, contact MAAP Services Inc. at (219) 662-1311

AUTISM SOCIETY
Improving the Lives of All Affected by Autism
East Tennessee



Serving People with Autism and Their Families

Office Location: 2890 Alcoa Highway
Knoxville, TN 37920
Mailing Address: P.O. BOX 30015
Knoxville, Tennessee 37930
(865) 247-5082
Email: asaetc@gmail.com
ww.asaetc.org

AUTISM SOCIETY
Improving the Lives of All Affected by Autism
East Tennessee
P.O. BOX 30015
Knoxville, TN 37930

RETURN SERVICE REQUESTED

Membership Form for Autism Society (national)

Name:_____ **Home Phone: (____)**_____

Address:_____ **Cell Phone: (____)**_____

City/State/Zip:_____ **Email:** _____

Local Chapter Affiliation: ASA-ETC

(ASA-ETC does not request local dues. To support East TN programs & services call: (865) 247-5082)

Household -$25 _____ **Champion - $75**_____ **Professional - $150** _____ **Lifetime—$1,500** _____

Mail payment (Dues are tax deductible to extent allowable by law) **to: Autism Society**
4340 East West Highway, Ste 350
Bethesda, MD 20814-8476

Autism Is...

- Autism is a complex neurodevelopmental disorder that typically appears during the first two years of life. Autism impacts the normal development of the brain in the areas of social interaction and communication skills. Children and adults with autism typically have difficulties in verbal and non-verbal communication, social interactions and leisure or play activities.
- Autism is unique to the individual and may demonstrate markedly different behaviors and skills in varying degrees.
- Autism crosses all racial, ethnic, social, economic, and educational levels.

Autism Is Not...

- Children of autism are not unruly or spoiled kids with *just* a behavior problem.
- Autism is not a behavior problem.
- Autism is not a child or an adult without feelings and emotions.
- Autism is not the result of poor parenting.

My Child May Have Autism – What Can I Do?

1. **Contact ASA-ETC** at: **(865) 247-5082**, asaetc@gmail.com or www.asaetc.org for information, assistance, support, and services.
2. **Obtain an accurate diagnosis** for your child as early as possible.
3. **Learn all that you can about autism.** You will be your child's strongest advocate.
4. **Investigate your child's educational rights under federal law at:** www.wrightslaw.com.
5. **Locate a local early intervention program.**
6. **Seek special education services.**
7. **Make the following calls** as they apply:

- If your child is under age 3, contact Tennessee Early Intervention Services (TEIS) at 1-800-852-7157 for the nearest early intervention program.
- If your child is age three to twenty-one, contact your local public school system to plan and implement special education services for your child.
- For information about services for adults who have autism, please contact Breakthrough Corporation at (865) 247-0065 or www.breakthroughknoxville.com.

Making A Difference...

Our mission is to provide support, services, advocacy, education, and public awareness activities for all individuals with Autism Spectrum Disorders (ASD) and their families as well as educators and other professionals.

Information and Services we provide in our East Tennessee Community include:

- Conferences, workshops, and multiple education opportunities
- Social Skills programs for children with ASD and typical peers, as well as family activities
- Support to parents and professionals via email, newsletter, and website; knowledge of local resources and support groups; and parent representatives in the counties we serve
- Ongoing Autism awareness, education, and advocacy in a variety of settings

Facts....

Autism effects 1 out of every 110 children; most often effects boys

Every 21 minutes another child is diagnosed with Autism

IMAGINE THE POSSIBILITIES!

Autism Society of Middle Tennessee

giving hope · raising expectations · connecting worlds

together, we are making a difference

***ASMT** is the Voice and Resource for **parents, families, and individuals** in the Middle TN Autism Community in the areas of Support, Advocacy & Education. **ASMT** is committed to meaningful participation and self-determination in all aspects of life for individuals on the autism spectrum and their families. **ASMT** accomplishes its ongoing mission of **improving the lives of all affected by autism** through close collaboration with parent representatives, county contacts, disability and community agencies, and professionals, as well as our members and supporters.*

Support

- Phone Support from Parent Representatives in I &R Office
- County Contacts
- Access to Support Groups
- Autism Information Center & Lending Library
- Newsletter
- Website
- SibSaturdays
- Family Fun Events
- Networking Opportunities to Create A Sense of Community

Advocacy

- Work with Legislators, Government Agencies, & Policymakers
- Public Awareness Campaign
- Connection with Greater Disability Community
- Active in Local, State, and National Initiatives

Education

- Monthly Workshops
- Autism Orientations
- Annual Conference
- Law Enforcement and Emergency Responder Training
- Autism Awareness Presentations in the Schools for Students, Teachers & Administrators
- Awareness Campaign within Medical Community

HOW YOU CAN HELP?

I Would Like to...

- ☐ Learn more about ASMT-please add me to your mailing list
- ☐ Hear about volunteer opportunities
- ☐ Become a member of ASMT (visit tnautism.org for membership form)
- ☐ Make a tax deductible donation to ASMT in the amount of $_____
- ☐ Have a parent representative contact me

Please detach this and return to:
ASMT, 955 Woodland St.,
Nashville, TN 37206

Name _____

Address _____

_____

E-Mail _____

Phone _____

Method of Payment

☐ Check (payable to ASMT)

☐ Visa

☐ MasterCard

Credit Card # _____ Exp. date _____

Signature _____

What is Autism?

Autism is a developmental disorder that is present from birth. It occurs in as many as one in one hundred children and is about four times more common in boys than girls. There are no medical tests for autism; the diagnosis is based on the presence of a pattern of behavioral symptoms.

Autism affects the normal development of the brain; children with autism demonstrate difficulty in the areas of social interactions, language and communication skills and behavioral flexibility. Autism is a spectrum disorder, which means that there can be differences in the way it is expressed from child to child, in terms of clinical features as well as severity of symptoms.

The specific cause of autism is not yet known, though there is consensus that its origin is neurobiological, rather than emotional. Early identification and intervention for autism have come to be recognized as key components for optimizing outcomes for these children.

Quick Facts About Autism

- Autism is a neurological disorder that typically appears during the first three years.
- Autism affects about 1 out of 100 individuals.
- Autism is four times more prevalent in boys than girls.
- Individuals with autism have difficulties in three areas: forming social relationships, impaired understanding and use of language, restricted patterns of activities and interests.
- The Autism Spectrum consists of five disorders: Autistic Disorder, Asperger's Disorder, Childhood Disintegrative Disorder (CDD), Rett's Disorder, PDD-Not Otherwise Specified (PDD-NOS).
- There is no known single cause for autism, but it is generally accepted by the medical community that it is caused by abnormalities in brain structure and function. Researchers are investigating a variety of theories examining the link between genetics and environmental factors.
- Autism knows no racial, ethnic, social boundaries, family income, lifestyle, or educational levels and can affect any family, and any child.
- Autism is not a mental illness.
- Autism is not the result of poor parenting.
- Children with autism are not unruly or spoiled kids who just have a behavior problem.
- The vast majority of persons with autism are not savants, like the character portrayed by Dustin Hoffman in the move *Rain Man.*
- Children with autism are not without feelings and emotions (they do give and/or receive physical affection).

ASMT | Autism Society *of* Middle Tennessee

giving hope · raising expectations · connecting worlds

together, we are making a difference

955 Woodland Street - Nashville, TN 37206
Ph: 615-385-2077 - Toll Free: 866-508-4987
Fax: 615-383-1176 - asmt@tnautism.org
tnautism.org

To learn more about ASMT:

Visit TNAUTISM.ORG.

You may also contact one of our parent representatives for information or assistance related to autism spectrum disorders at:

615-385-2077 Ext. 1
OR
asmt@tnautism.org

KNOW THE SIGNS

Early Identification Can Change Lives

Lack or delay in spoken language.

Repetitive use of language and/or motor mannerisms (e.g. hand-flapping, twirling objects).

Little or no eye contact.

Lack of interest in peer relationships.

Lack of spontaneous or make-believe play.

Persistent fixation on parts of objects.

AUTISM SOCIETY
Improving the Lives of All Affected by Autism
Mid-South Tennessee

National Resources

ASA (Autism Society of America)
www.autism-society.org

Center for Disease Control & Prevention
http://cdc.gov/ncbddd/autism/index

Global & Regional Asperger Syndrome Partnership
http://grasp.org/

National Institute of Mental Health
http://nimh.nih.gov/

Sensory Processing Disorder Foundation
http://spdfoundation.net/

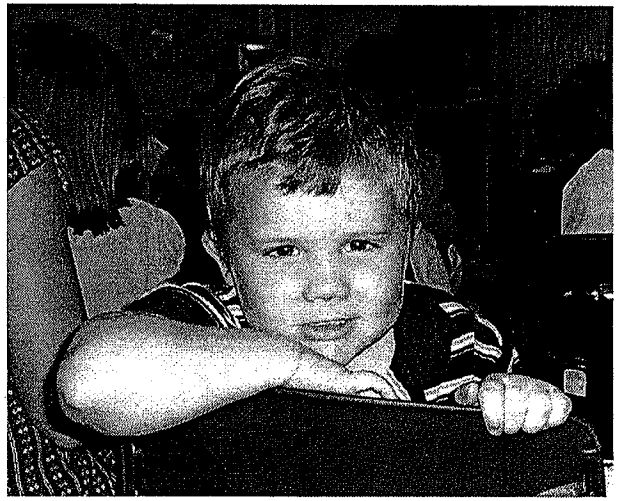
National Dissemination Center for Children with Disabilities
http://nichcy.org/Pages/Home.aspx

Autism Society of the Mid-South is a 501 (c)(3) non-profit organization. To make a donation or for more information, you may contact us at 901-542-ASMS (2767)
autismsocietymidsouth@yahoo.com
or visit:
AutismSocietyMidsouth.org

Written inquiries may be sent to:

ASMS
P.O. Box 382294
Germantown, TN 38183-2294

AUTISM SOCIETY
Improving the Lives of All Affected by Autism
Mid-South Tennessee

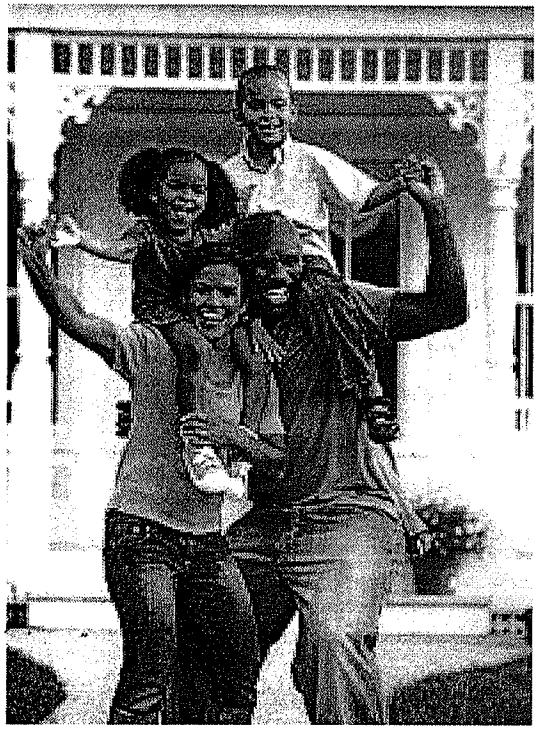


P.O. Box 382294
Germantown TN 38139
(901) 542-ASMS
(901) 542-2767
AutismSocietyMidsouth.org

ABOUT THE ASMS

Our mission is to provide the resources and support to improve the lives of people living with Autism and their families here in the Mid-South.

Our goal is to increase public awareness about Autism, to promote harmony and acceptance for people living with Autism, and to support legislation that expands education and improves services for people with Autism.



GROWING SUPPORT

The ASMS consists of families helping families. ASMS holds new parent orientations, programming for children, informational seminars and community awareness events. We are a resource for parents and professionals wanting more information about Autism and about what the Mid-South area has to offer for children and adults with Autism. We rely on our families for their input and help in making the Mid-South a better place for people with Autism.

Local Resources

TEIS (TN Early Intervention System
http://tennessee.gov/eduation/teis

STEP (Support & Training for Exceptional Parents)
http://tnstep.org/

LEAD (LeBonheur Early Intervention and Development)
http://lebonheur.org

Harwood Center
http://harwoodcenter.org

Boling Center for Developmental Disabilities
http://www.uthsc.edu/bcdd/

Shelby County Schools
http://scsk12.org

Memphis City Schools
http://www.mcsk12.net/

Disclaimer: We have provided web addresses to local and national websites because they may have information that may be of interest to you. The ASMS does not necessarily endorse the views or information presented on these sites nor do we endorse any commercial products or information that may be presented or advertised on these sites.

What is Autism?

Finding Support

What is Autism?

Autism is a complex neurobiological disorder that typically lasts throughout a person's lifetime. It is part of a group of pervasive developmental disorders known as Autism Spectrum Disorders (ASD) that significantly affects how a person perceives the world, interacts with others, and communicates. As its name implies, ASD is a spectrum disorder that affects individuals differently and with varying degrees of severity.

ASD is more common than childhood cancer, cystic fibrosis, and multiple sclerosis combined. It is estimated that as many as 1 out of every 110 children born today will be diagnosed with some form of ASD (Centers for Disease Control and Prevention, 2007). This means that an estimated 1.5 million Americans (children and adults) have an ASD today, and that more than 15 million Americans (loved ones, caregivers, educators, etc.) are directly impacted by the disorder. In the state of TN alone there are over 30,000 individuals living with ASD (based on 2006 Census).

Autism spectrum disorder knows no racial, ethnic, or social boundaries. While ASD is typically diagnosed in children, it is a lifelong disorder that affects individuals of all ages.

There is no known single, specific cause of autism. In some families there does appears to be a pattern of autism or related disabilities - which suggests there is a genetic basis to the disorder - although no single gene has been directly linked to autism. Research today seems to indicate that the basis for autism does indeed lie in both genetics and in environmental health. Many of the best scientific minds today do not believe that a single underlying cause of autism exists, but that it is

likely due to a constellation of causitive factors that come into play differently for different individuals.

What Autism Is Not:

Several outdated theories about causes and characteristics of autism have been proven to be false.

- Autism is not a mental illness
- Autism is not the result of poor parenting;
- Children with autism are not unruly or spoiled kids who just have a behavior problem;
- The vast majority of persons with autism are not savants, like the character protrayed by Dustin Hoffman in the movie Rain Man;
- Children with autism are not without feelings and emotions.

Furthermore, no known psychological factors in the development of the child have been shown to cause autism.

Is There More Than One Type of Autism?

Yes. there are five disorders that are grouped under the broad heading of "Pervasive Developmental Disorder" or PDD.

- Autistic Disorder - impairments in social interaction communication, and imaginative play which are usually seen by the age of three;
- Pervasive Developmental Disorder-Not Otherwise Specified (PDD-NOS) - commonly referred to as atypical autism, a diagnosis of PDD-NOS may be made when a child does not meet the criteria for a specific diagnosis, but there is a severe and pervasive impairment in the areas of communication, social interaction, and behavior;
- Asperger's Disorder (or Asperger's Syndrome) - characterized by impairments in social interactions and the presence of restricted interests and activities, with no significant delay in language and testing in the average to above average range of intelligence;
- Rett's Disorder - a progressive disorder that occurs only in girls. A period of normal development is followed by a loss of previously acquired skills, loss of purposeful use of the hands replaced with repetitive hand movements beginning at the age of one to four years;
- Childhood Disintegrative Disorder - normal development for at least the first two years is followed by a significant loss of previously acquired skills.

Autism is a spectrum disorder. This means that the symptoms and characteristics of autism can present themselves in a wide variety of combinations, from mild to

severe. Although autism is defined by a certain set of behaviors, children and adults can exhibit any combination of the behaviors in any degree of severity.

What Are People With Autism Like?

Some children with autism spectrum disorders demonstrate a delay early in life while others appear to develop typically until the age of 24-30 months, when parents may notice delays or regression in language, play, or social interaction.

The following areas are among those that may be affected by autism:

- Communication: Develops language slowly or not at all; uses words that may not be very meaningful or functional; communicates with gestures or behaviors instead of words; displays short interactive attention span.
- Social Interaction: Spends time alone rather than with others; shows little interest in making friends; shows limited understanding and responsiveness to social cues such as eye contact or smiles.
- Sensory Impairment: May be hypersensitive or hyposensitive to sights, sounds, touch, smells, and tastes.
- Play: Lacks spontaneous or imaginative play; does not imitate others' actions; does not initiate pretend games; may prefer to use toys in odd ways such as lining them up or spinning the wheels on toy car.
- Behaviors: May be overactive or very passive; throws tantrums for no apparent reason; perseverates (shows an obsessive interest in a single item, idea activity, or person); lacks common sense; may show aggression to others or self; often has difficulty with changes in routine.

Autism Checklist

Individuals with autism usually exhibit at least half of the traits listed below. These symptoms can range from mild to severe and vary in intensity from symptom to symptom. In addition, the behavior usually occurs across many different situations and is consistently inappropriate for their age.

- Insistence on sameness; resists changes in routine
- Severe language deficits
- Difficulty in expressing needs; uses gestures or pointing instead of words
- Echolalia (repeating words or phrases in place of normal, responsive language)
- Laughing, crying, or showing distress for reasons not apparent to others
- Prefers to be alone; aloof manner
- Tantrums - displays extreme distress for no apparent reason
- Difficulty in mixing with other children

- May not want cuddling or act cuddly
- Little or no eye contact
- Unresponsive to normal teaching methods
- Sustained odd play
- Spins objects or self
- Inappropriate attachment to objects
- Apparent oversensitivity or undersensitivity to pain
- No real fear of dangers
- Noticeable physical overactivity or extreme underactivity
- Not responsive to verbal cues; acts as if deaf although hearing tests in normal range
- Uneven gross/fine motor skills. (May not kick a ball but can stack blocks.)

If your child is exhibiting any of these symptoms, it may be an indication that additional developmental testing is needed. Please don't delay - early intervention is the key to a child's sucessful development! Go to ASMS's "Getting Started" page for more information on how you can help your child. Remember - you are not alone!

Autism Society of the Mid-South

books

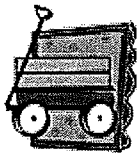
jewelry
gifts, cards

time timers

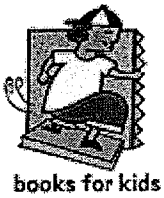
PECS, visuals

music,
speech / lang.

chewables,
sensory items



shopping cart



books for kids

Free Shipping!!!

on orders over $100
(Purchase Orders Excluded)

on sale

software, CDs, DVDs

FAQs / shipping

Click Here For Details

games, playthings

contact us

Our proceeds benefit autism research and support!

Autismshop.com is the online home of the Autism Resource Network, a one-of-a-kind Book & Toy Store that is packed with merchandise and information for individuals with ASD and those who love, care for, and educate them. We are a Minnesota nonprofit corporation.

Web site development by iCRE8

Additional Autism Resources Links and Books

http://www.pacer.org/

http://www.nichcy.org/Pages/Home.aspx

http://www.state.tn.us/education/speced/

http://www.tnautism.org

http://www.tnvoices.org/index.php

http://www.autism-society.org/site/PageServer

http://www.autismsocietymidsouth.org/11.html

http://www.parent-childservices.com/forms/brochure.pdf

http://www.cdc.gov/ncbddd/autism/facts.html

http://www.autismsource.org

http://kc.vanderbilt.edu/site/default.aspx

http://www.nea.org/assets/docs/autismpuzzle.pdf

http://aspergersyndrome.org

http://www.tennessee.gov/education/speced/

http://www.webmd.com/search/search_results/default.aspx?query=autism&sourceType=all

http://ianproject.org/

http://www.aap.org/audio/autism/

http://autismspeaks.org/

http://www.narha.org/

http://www.autismlink.com/locations/view/43

http://www.johnrobison.com/

Additional Autism Resources Links and Books

http://www.wrongplanet.net/

http://www.yourlittleprofessor.com/

http://www.disability.gov/education/parent_resources/developmental_&_intellectual_disabilities

www.autismshop.com

http://www.yellowpagesforkids.com/help/tn.htm

http://www.discoveret.org/ettac/

http://www.asperger.net/social_times/

The Social Times has been developed as a tool to support other social skills curricula. The reading level varies from article to article, but is generally appropriate for students with Asperger Syndrome in grades 3 through 10. Prior to publishing the first volume, the concept and samples were reviewed by many, including students ages 10-21. Most of the responses regarding the usefulness of the content were very positive.

We know that students with Asperger Syndrome typically learn best within predictable routines. *The Social Times* offers a predictable format for students to appreciate and anticipate, especially when used at regular intervals – there are seven issues, which can be spread over the school year on an almost monthly basis. The articles discuss common problems that can be discussed in more systematic and less personal ways.

In each issue, the main topic focuses on an area of social cognition that appears to be affected in individuals with autism spectrum disorders. The word searches and crossword puzzles support the vocabulary introduced in the Main Event article. Whenever possible, guest authors who are experts in a given area write The Main Event.

Motivation is a typical problem faced when teaching social information in a "classroom" environment. *The Social Times* has been designed to add some fun to the curriculum and thereby increase student

motivation. To that end, the online teacher materials for each issue contain a quiz and accompanying answers. You can have all your students fill it out at the beginning of class as a pretest and then revisit it later. You can also use it as a discussion starter or you can shred it and use it in the hamster cage.

An overall goal of the magazine is to increase active participation by offering each participant his or her own copy of the magazine and suggesting activities that require actual practice of the skills and concepts discussed.

Eunice Kennedy Shriver National Institiute of Child Health and Human Development (NICHD), NIH, DHH; http://www.nichd.nih.gov

Eunice Kennedy Shriver National Institiute of Child Health and Human Development (NICHD), NIH, DHH; Spanish version Autism and Genes http://www.nichd.nih.gov/publications/pubs/upload/autismo_genes_2005R.pdf

National Institute of Mental Health Publications in http://www.nimh.nih.gov/health/publications/autism/nimhautismspectrum.pdf

http://bookbuilder.cast.org/model.php?page=2&sort=title&order=asc

Welcome to Book Builder! Use this site to create, share, publish, and read digital books that engage and support diverse learners according to their individual needs, interests, and skills.

What People Are Saying

UDL Book Builder deserves a few shout outs for being a free online tool to create books and stories. Along with the tool itself, there are tips for authors, model books to explore and resources galore for creating the online books.

Additional Autism Resources Links and Books

Books about Autism & Asperger Syndrome

Born on A Blue Day by Daniel Tammet

The Horse Boy by Rupert Issacson

The Curious Incident of the Dog in the night-time by Mark Haddon

Asperger's....What Does It Mean To Me? By Catherine Faherty (call STEP @ 1/800-280-7837 and request # 1411)

More Laughing & Loving with Autism by Wayne Gilpin (call STEP @ 1/800-280-7837 and request # 1020)

A Guide to Successful Employment for Individuals with Autism by Maria Datlow Smith, et.al (call STEP @ 1/800-280-7837 and request # 1059)

Asperger's Syndrome by Tony Atwood (call STEP @ 1/800-280-7837 and request # 1776)

There's A Boy In Here Emerging from the Bonds of Autism Judy Barron and Sean Barron (call STEP @ 1/800-280-7837 and request # 1697)

Teaching Developmentally Disabled Children: The ME Book, by O. Ivar Lovaas

Behavioral Intervention for Young Children with Autism, by Catherine Maurice