

## Autism

### Federal Definition (Including IDEA) and other commonly used definitions)

#### Federal Definition:

(i) Autism means a developmental disability significantly affecting verbal and nonverbal communication and social interaction, generally evident before age 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 experiences. 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 paragraph (b)(4) of this section.

(ii) A child who manifests the characteristics of "autism" after age 3 could be diagnosed as having "autism" if the criteria in paragraph (c)(1)(i) of this section are satisfied.

<http://www.doe.mass.edu/sped/definitions.html>

- **Autism.** One of five autistic spectrum disorders; characterized by extreme social withdrawal and impairment in communication; other common characteristics are stereotyped movements, resistance to environmental change or change in daily routines, and unusual responses to sensory experiences; usually evident before age of 3 years.
- **Asperger syndrome.** One of five autistic spectrum disorders; a milder form of autism without significant impairments in language and cognition; characterized by primary problems in social interaction.
- **Rett syndrome.** One of five autistic spectrum disorders; normal development for five months to four years, followed by regression and intellectual disabilities (mental retardation); much more prevalent in females.
- **Autism spectrum disorders.** Five similar conditions: autism, Asperger syndrome, Rett syndrome, childhood disintegrative disorder, and pervasive developmental disorder not otherwise specified; all involve varying degrees of problems with communication skills, social interactions, and repetitive and stereotyped pattern of behavior. (Hallahan, Kauffman, and Pullen, 2009, p. 424-426)

### Causations of disabilities (when known)

- **Mirror neurons.** Neurons that fire when someone imitates or watches another person's behavior; malfunctioning in people with autism spectrum disorders; located deep within the brain in and around the amygdala.
- **Childhood disintegrative disorder.** One of five autistic spectrum disorders; normal development for at least two and up to ten years, followed by significant loss of skills; much more prevalent in males.
- **Pervasive developmental disorder not otherwise specified (PDD-NOS).** One of five autistic spectrum disorders; pervasive delay in development that does not fit into any of the other diagnostic categories.
- **Autistic regression.** Phenomenon whereby a child appears to progress normally until about 16 to 24 months of age and, then, begins to show signs of being autistic and ultimately is diagnosed as autistic. (Hallahan, Kauffman, and Pullen, 2009, p. 429-432)

### Characteristics of disabilities

- **Communication intent.** The need to communicate for social reasons; thought to be lacking in most children with autism.
- **Mute.** Possessing no, or almost no, language; characteristic of many with autism.
- **Stereotypic behaviors.** Any of a variety of repetitive behaviors (e.g., eye rubbing) that are sometimes found in individuals who are autistic, blind, severely mentally retarded, or psychotic; sometimes referred to as stereotypies or blindisms.
- **Autistic savant.** A person with severe autism whose social and language skills are markedly delayed but who also has advanced skill in a particular area, such as calculation or drawing.
- **Synaesthesia.** A mixing of sensory or cognitive systems whereby stimulation of the other, e.g., numbers or letters are perceived as having inherent colors or different sounds are perceived as having inherent colors.
- **Hidden curriculum.** The "dos and don'ts" of social interactions that most people learn incidentally or with little instruction but that remain hidden for those with Asperger syndrome.

- **Executive functions.** The ability to regulate one's behavior through working memory, inner speech, control of emotions and arousal levels, and analysis of problems and communication of problem solutions to others; delayed or impaired in those with ADHD and autism spectrum disorders.
- **Central coherence.** The inclination to bring meaning to stimuli by conceptualizing them as a whole; thought to be weak in people with autism spectrum disorders.
- **Theory of mind.** The ability to take another's perspective in a social exchange; the ability to infer another person's feelings, intentions, desires, etc.; impaired in those with autism spectrum disorders. (Hallahan, Kauffman, and Pullen, 2009, p. 433-438)

### **What does a student with (specific disability) need from a teacher (regarding structure and organization, curriculum, expectations, special adaptations, transition, and/or social relationships with peers)?**

- **Functional behavioral assessment (FBA).** Evaluation that consists of finding out the consequences (what purpose the behavior serves), antecedents (what triggers the behavior), and setting events (contextual factors) that maintain inappropriate behaviors.
- **Positive behavior intervention and support (PBIS).** Systematic use of the science of behavior to find ways of supporting desirable behavior rather than punishing undesirable behavior; positive reinforcement (rewarding) procedures that are intended to support a student's appropriate or desirable behavior.
- **Augmentative or alternative communication (AAC).** Alternative forms of communication that do not use the oral sounds of speech or that augment the use of speech.
- **Applied behavior analysis (ABA).** A highly structured approach that focuses on teaching functional skills and continuous assessment of progress; grounded in behavioral learning theory. (Hallahan, Kauffman, and Pullen, 2009, p. 439-442)

### **Organizations that support, work for, or advocate for the disability.**

- **A-CHAMP** (Advocates for Children's Health Affected by Mercury Poisoning) is a national, non-partisan parent-led organization in support of children with neurodevelopmental and communication disorders, dedicated to advancing public policy issues affecting our children, protecting their human and civil rights, educating the public and media, sharing our goals with state and federal officials, and holding accountable those in government who do not act in the best interest of our children.
- **AGRE** The Autism Genetic Resource Exchange is the first autism gene bank of more than one person in a family affected by autism to be established for autism research.
- **Auties.org** offers a free service for persons on the autism spectrum to help increase employment, and for those seeking work partners and work experience within your own community.
- **Autism National Committee** Autcom encourages its members and partners toward self-direction and self-empowerment, welcoming the participation of family members, people with autism/PDD and other friends who wish to fulfill, not debate, the right to self-determination by hearing and heeding the voices of people with autism, providing information, support, networking, advocacy, a strong voice in federal legislation and policy, a newsletter, conferences and trainings, and a reappraisal of research and treatment issues in light of what people with autism themselves find meaningful and respectful.
- **Autism Network International** ANI is the first autistic-run self-help advocacy organization, publishing a newsletter, arranges pen pals and other activities. ANI runs a private online membership mailing list, ANI-L. Family members are welcome to participate, as long as the ANI-L list policies are followed. To join ANI-L send an e-mail with the message: subscribe ANI-L
- **Autism Network Resources for Physicians** is an autism resource site listing links to autism research and related sites of interest to physicians to assist the medical community in their efforts to understand autism and study treatment options.
- **Autism Research Institute** ARI offers complete information, autism resources, Defeat Autism Now! or DAN! protocol, treatment options, news, and publishes the quarterly newsletter, *Autism Research Review International*. ARI also offers a toll-free resource line at: (866) 366-3361 with information, contacts, and access to resources available through the Autism Research Institute.

- [Autism Society of America](#) ASA is dedicated to autism advocacy and awareness, support (for persons with autism, their families, and professionals that work with them), and provides information about autism to the public.
- [Autism Society of Indiana](#) ASI is a state chapter of the Autism Society of America (ASA). ASI is actively looking for participants from Indiana's African American community.
- [Autism Solution Center, Inc.](#) (ASC) is a non-profit organization developed to address an unmet, ongoing need for autism therapy, support services, research and other assistance. There is currently no facility in existence that addresses all of the autism-related issues proposed by the Autism Solution Center, Inc., under one roof and at no cost.
- [Autism Speaks](#) obtains funding for biomedical research into the causes, prevention, treatments, and cure for autism; raising public awareness about autism and its effects on individuals, families, and society. Cure Autism Now (CAN) recently joined with Autism Speaks to become Autism Speaks, Inc.
- [Autism Tissue Program](#) The focus of brain research is the child or adult with an autism spectrum disorder. If parents, or grandparents, wish to donate we require participation by the whole family. In these cases, donations from relatives of a person with autism are archived for future research.
- [Center for Autism and Related Disorders](#) CARD offers free services to children and adults in the state of Florida with autism spectrum disorders, providing individualized, direct assistance to these individuals and their families. Services include technical assistance, consultation, training programs and public education activities.
- [Cure Autism Now](#) CAN is a non-profit organization of parents, clinicians and scientists committed to biomedical research in autism through raising money for research projects, education and outreach. CAN recently joined with Autism Speaks to become Autism Speaks, Inc. CAN's important programs such as the Autism Genetic Resource Exchange (AGRE), Autism Treatment Network (ATN), Clinical Trials Network (CTN) and Innovative Technology for Autism will be expanded.
- [Miami Children's Hospital Dan Marino Center](#) offers complete evaluation and treatment of children with special needs. The Center, developed as a partnership between the Dan Marino Foundation and Miami Children's Hospital, provides neurological and developmental services to children throughout South Florida, South America and Europe.
- [Families for Early Autism Treatment](#) FEAT is a non-profit organization of parents, educators, and professionals providing autism resources, education, advocacy and support for the Northern California Autism Community. FEAT has many organizations across the nation. There may be one near you.
- [Feingold Association of the U.S.](#) and the Autism, Intolerance & Allergy Network is dedicated to helping children and adults apply proven dietary techniques for better behavior, learning and health.
- [First Signs, Inc.](#) provides vital information on a wide-range of issues: from healthy development to concerns about a child, from the screening and referral process to treatment, and from current research and guidelines to links to other resources, both online and in print.
- [Doug Flutie, Jr. Foundation for Autism](#) aids financially disadvantaged families who need assistance in caring for their children with autism; funds education and research into the causes and consequences of childhood autism; and serves as a clearinghouse and communications center for new programs and services developed for individuals with autism.
- The Doug Flutie, Jr. Foundation partnered with [WebED](#) offering **free online autism courses for parents** to get the latest information on autism from top experts in the field.
- [Generation Rescue](#) is a parent-led organization which believes childhood neurological disorders such as autism, Asperger's, ADHD/ADD, speech delay, sensory integration disorder, and many other developmental delays are all misdiagnoses for mercury poisoning. Also offers information on treatment options.
- [MAAP Services for Autism and Asperger Syndrome](#) is a non-profit organization dedicated to providing information and advice to families of More Advanced Individuals with Autism, Asperger syndrome, and Pervasive Developmental Disorder (PDD).
- [The Maternal and Child Health Library](#) has released a new knowledge path about identifying autism spectrum disorder (ASD) and interventions. This e-resource guide includes information and links to sites, e-print publications and databases containing resources about biomedical research into the causes of ASD; resources that address communication, education and vocational challenges in ASD, and ASD's impact on family life.
- [National Alliance for Autism Research](#) NAAR provides funding for autism research and provides information on research and science-based approaches.
- [National Autism Association](#) NAA believes and raises public and professional awareness of environmental toxins as causative factors in neurological damage that often results in an autism or related diagnosis, and provides funding for appropriate research to find a cure for the neurological damage from which so many affected by autism suffer.

- **National Autistic Society** exists to champion the rights and interests of all people with autism and to ensure that they and their families receive quality services appropriate to their needs. The website includes information about autism and Asperger syndrome, the NAS and its services and activities.
- **Organization for Autism Research** OAR, founded by parents, uses applied science to answer questions that parents, families, individuals with autism, teachers and caregivers confront daily. No other autism organization has this singular focus. OAR publishes a monthly newsletter, The OARacle. OAR also publishes Life Journey Through Autism: A Parent's Guide to Autism Research, Life Journey Through Autism: An Educator's Guide and Life Journey Through Autism: an educator's guide to asperger syndrome, available free of charge to individuals and families.
- **US Autism & Asperger Association** USAAA is a leading nonprofit organization for education, support, and solutions for individuals with autism spectrum disorders to achieve their fullest potential.  
<http://www.child-autism-parent-cafe.com/autism-organizations.html>

### **Long term implications of the disability on adolescents and adults**

- **Person-centered planning.** Planning for a person's self-determination; planning activities and services on the basis of a person's dreams, aspirations, interests, preferences, strengths, and capacities.
  - **Community residential facility (CRF).** A place, usually a group home, in an urban or residential neighborhood where about three to ten adults with disabilities live under supervision.
  - **Supported living.** An approach to living arrangements for those with disabilities that stresses living in natural settings rather than institutions, big or small.
  - **Competitive employment.** A workplace that pays at least minimum wage and in which most workers are nondisabled.
  - **Supported competitive employment.** A workplace where adults who are disabled can earn at least minimum wage and receive ongoing assistance from a specialist or job coach; the majority of workers in the workplace are nondisabled.
- (Hallahan, Kauffman, and Pullen, 2009, p. 450)

### **Current trends**

- Entry into intervention programs as soon as an autism spectrum diagnosis is seriously considered.
  - Active engagement in intensive instructional programming for a minimum of the equivalent of a full school day, 5 days (at least 25 hours) a week, with full year programming varied according to the child's chronological age and developmental level.
  - Repeated, planned teaching opportunities generally organized around relatively brief periods of time for the youngest children (e.g., 15-20 minute intervals), including sufficient amounts of adult attention in one-to-one and very small group instruction to meet individualized goals.
  - Inclusion of a family component, including parent training.
  - Low student/teacher ratios (no more than two young children with autistic spectrum disorders per adult in the classroom); and
  - Mechanisms for ongoing program evaluation and assessments of individual children's progress, with results translated in adjustments in programming.
- (Hallahan, Kauffman, and Pullen, 2009, p. 450)

### **Annotated bibliography of at least 6 resources (websites, booklist, articles) for each disability area**

- An important and comprehensive report on autism and autistic spectrum disorders is available from the National Academy of Sciences at [http://www.nap.edu/catalog.php?record\\_id=10017](http://www.nap.edu/catalog.php?record_id=10017)
- For a comprehensive overview of Asperger syndrome, including definition, causes, and treatments, see this National Institute of Neurological Disorders and Stroke Website:  
[www.ninds.nih.gov/disorders/asperger/asperger.htm](http://www.ninds.nih.gov/disorders/asperger/asperger.htm)

- For a comprehensive overview of autism disorders, including definition, causes, and treatments, see this National Institute of Mental Health Website: [www.nimh.gov/Publicat/autism.cfm](http://www.nimh.gov/Publicat/autism.cfm)
- The following Website contains a variety of information on autistic savants, including video clip profiles of several autistic savants: [http://www.wisconsinmedicalsociety.org/savant\\_syndrome](http://www.wisconsinmedicalsociety.org/savant_syndrome)
- Products related to PECS can be purchased from Pyramid Education Products found online at [www.pyramidproducts.com/index.html](http://www.pyramidproducts.com/index.html)
- More information about TEACCH can be found at [www.teacch.com](http://www.teacch.com).
- The following Website has resources specifically for college students with Asperger syndrome: [www.users.dircon.co.uk/~cns/](http://www.users.dircon.co.uk/~cns/)  
**(Hallahan, Kauffman, and Pullen, 2009, p. 425-451)**