



FACTS: ABOUT AUTISM

Symptoms & Diagnosis

When parents or support providers become concerned that their child is not following a typical developmental course, they turn to experts, including psychologists, educators and medical professionals, for a diagnosis.

At first glance, some people with autism may appear to have an intellectual disability, sensory processing issues, or problems with hearing or vision. To complicate matters further, these conditions can co-occur with autism. However, it is important to distinguish autism from other conditions, as an accurate and early autism diagnosis can provide the basis for an appropriate educational and treatment program.

Other medical conditions or syndromes, such as sensory processing disorder, can present symptoms that are confusingly similar to autism's. This is known as [differential diagnosis](#).

There are many differences between a medical diagnosis and an educational determination, or school evaluation, of a disability. A [medical diagnosis](#) is made by a physician based on an assessment of symptoms and diagnostic tests. A medical diagnosis of autism spectrum disorder, for instance, is most frequently made by a physician according to the [Diagnostic and Statistical Manual](#) (DSM-5, released 2013) of the American Psychological Association. This manual guides physicians in diagnosing autism spectrum disorder according to a specific number of symptoms.

A brief observation in a single setting cannot present a true picture of someone's abilities and behaviors. The person's developmental history and input from parents, caregivers and/or teachers are important components of an accurate diagnosis.

An [educational determination](#) is made by a multidisciplinary evaluation team of various school professionals. The evaluation results are reviewed by a team of qualified professionals and the parents to determine whether a student qualifies for special education and related services under the Individuals with Disabilities Education Act (IDEA) (Hawkins, 2009).

The characteristic behaviors of autism spectrum disorder may be apparent in infancy (18 to 24 months), but they usually become clearer during early childhood (24 months to 6 years).

As part of a well-baby or well-child visit, your child's doctor should perform a "developmental screening," asking specific questions about your baby's progress. The National Institute of Child Health and Human Development (NICHD) lists five behaviors that warrant further evaluation:

- Does not babble or coo by 12 months
- Does not gesture (point, wave, grasp) by 12 months
- Does not say single words by 16 months

- Does not say two-word phrases on his or her own by 24 months
- Has any loss of any language or social skill at any age

Any of these five “red flags” does not mean your child has autism. But because the disorder’s symptoms vary so widely, a child showing these behaviors should be evaluated by a multidisciplinary team. This team might include a neurologist, psychologist, developmental pediatrician, speech/language therapist, learning consultant or other professionals who are knowledgeable about autism.

CAUSES

There is no known single cause for autism spectrum disorder, but it is generally accepted that it is caused by abnormalities in brain structure or function. Brain scans show differences in the shape and structure of the brain in children with autism compared to in neurotypical children. Researchers do not know the exact cause of autism but are investigating a number of theories, including the links among heredity, genetics and medical problems.

In many families, there appears to be a pattern of autism or [related disabilities](#), further supporting the theory that the disorder has a genetic basis. While no one gene has been identified as causing autism, researchers are searching for irregular segments of genetic code that children with autism may have inherited. It also appears that some children are born with a susceptibility to autism, but researchers have not yet identified a single “trigger” that causes autism to develop.

Other researchers are investigating the possibility that under certain conditions, a cluster of unstable genes may interfere with brain development, resulting in autism. Still other researchers are investigating problems during pregnancy or delivery as well as environmental factors such as viral infections, metabolic imbalances and exposure to chemicals.

Genetic Vulnerability

Autism tends to occur more frequently than expected among individuals who have [certain medical conditions](#), including fragile X syndrome, tuberous sclerosis, congenital rubella syndrome and untreated phenylketonuria (PKU). Some harmful substances ingested during pregnancy also have been associated with an increased risk of autism.

FACTS & STATISTICS

- About 1 percent of the world population has autism spectrum disorder. ([CDC, 2014](#))
- Prevalence in the United States is estimated at 1 in 68 births. ([CDC, 2014](#))
- More than 3.5 million Americans live with an autism spectrum disorder. ([Buescher et al., 2014](#))

- Prevalence of autism in U.S. children increased by 119.4 percent from 2000 (1 in 150) to 2010 (1 in 68). ([CDC, 2014](#)) Autism is the fastest-growing developmental disability. ([CDC, 2008](#))
- Prevalence has increased by 6-15 percent each year from 2002 to 2010. (Based on biennial numbers from the [CDC](#))
- Autism services cost U.S. citizens \$236-262 billion annually. ([Buescher et al., 2014](#))
- A majority of costs in the U.S. are in adult services – \$175-196 billion, compared to \$61-66 billion for children. ([Buescher et al., 2014](#))
- Cost of lifelong care can be reduced by 2/3 with early diagnosis and intervention. (Autism. 2007 Sep;11(5):453-63; The economic consequences of autistic spectrum disorder among children in a Swedish municipality. Järbrink K1.)
- 1 percent of the adult population of the United Kingdom has autism spectrum disorder. ([Brugha T.S. et al., 2011](#))
- The U.S. cost of autism over the lifespan is about \$2.4 million for a person with an intellectual disability, or \$1.4 million for a person without intellectual disability. ([Buescher et al., 2014](#))
- 35 percent of young adults (ages 19-23) with autism have not had a job or received postgraduate education after leaving high school. ([Shattuck et al., 2012](#))
- It costs more than \$8,600 extra per year to educate a student with autism. ([Lavelle et al., 2014](#)) (The average cost of educating a student is about \$12,000 – [NCES, 2014](#))
- In June 2014, only 19.3 percent of people with disabilities in the U.S. were participating in the labor force – working or seeking work. Of those, 12.9 percent were unemployed, meaning only 16.8 percent of the population with disabilities was employed. (By contrast, 69.3 percent of people without disabilities were in the labor force, and 65 percent of the population without disabilities was employed.) ([Bureau of Labor Statistics, 2014](#))

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AUTISM AGENCIES

AutismNE (Northeast Ohio Support for Autism)

AutismNE is an Online family/parent support and resource group in Northeast Ohio. In addition to a family group forum; AutismNE posts upcoming events, workshops and activities for families in Northeast Ohio, See website for more details “Who We Are.” – AutismNE is free resource and parent support service run by Marian Helmick founder/ Administrator of AutismNE and parents of individuals who have autism. This group is open for all Parents, Grandparents and anyone caring for someone on the Autism Spectrum of any age.

[Autism Speaks](#)

Autism Speaks has grown into the world's leading autism science and advocacy organization, dedicated to funding research into the causes, prevention, treatments and a cure for autism; increasing awareness of autism spectrum disorders; and advocating for the needs of individuals with autism and their families. We are proud of what we've been able to accomplish and look forward to continued successes in the years ahead.

[ASGC – Autism Society of Greater Cleveland](#)

To serve the autism community by providing information, coordinating support services, and facilitating communication for the benefit of those with Autism Spectrum Disorders from diagnosis through adulthood.

[The Upside of Downs – \(Support for Down Syndrome\)](#)

The Up Side of Downs exists to provide support, education and advocacy for people with Down syndrome, their families and communities throughout Northeast Ohio. We invite you to connect with our on-line family support network, to join us at one of our many programs, do research in our comprehensive resource directory, or enjoy the photos in our photogallery and so much more.

[The Arc](#)

For People with Intellectual or developmental disabilities.

[Milestones](#)

milestones.org/about/history/

Milestones Autism Organization is dedicated to improving the quality of life for individuals on the autism spectrum and their families. Milestones helps individuals reach their potential through education of family members and professionals in evidence-based practical strategies.

[My Autism Team](#)

International Parents social network for Autism.

COUNTY AND STATE AGENCY SUPPORTS

[Cuyahoga County Board of Developmental Disabilities](#)

Each year, the Board of DD provides services and supports to more than 10,000 men, women and children in Cuyahoga County. The community knows us best for our early childhood centers, schools, adult activities centers and group homes, but we're much more than that. Our full range of services includes everything from in-home early intervention programs for very young children and their families to leisure programs for seniors. Much of what we do goes beyond the walls of our own centers and homes and takes place in the community, where we encourage individuals with developmental disabilities to live, learn, work and play.

[Ohio Department of Job and Family Services](#)

Job Training, Unemployment, Medicaid, food assistance, protective services, child support., cash assistance, foster care.

PHYSICIANS, PSYCHOLOGISTS, NEUROLOGISTS

[Kids Link – Neurology and Psychology](#)

A coordinated team of professionals who address the total needs of children and young adults with a variety of neurological and psychological diagnoses. Located in Twinsburg, OH.

[Dr. Phillip DeMio, MD – Physician \(Autism Specialist\)](#)

Dr. DeMio's practice focuses on the medical testing and treatment for you and/or loved one with Autism Spectrum Disorder. Dr. DeMio is the father of a child with autism, and has been an M.D. for over twenty years. He graduated from the Case Western Reserve University School of Medicine with honors in metabolism, women and children's health, and neurosciences. Prior to medical school he taught and worked in the organic chemistry laboratory at Creighton University in Omaha Nebraska. He is an experienced biomedical physician, an author of medical topics including alternative and conventional medicine, and is accredited for speaking nationally on medical topics.

GUIDEBOOKS OR HANDBOOKS ON GOVERNMENT FUNDED PROGRAMS, OR "HOW TO" ONLINE BOOKS OR REFERENCES TO LIBRARY MATERIALS.

[Level 1 waiver – Handbook – Ohio Department of Disabilities](#)

Guidebook Revised Jan, 2011 What Services are Covered? For How Much? And Who is Eligible?