

AUTISM FACT SHEET

What Is Autism?

Autism is a developmental disability that typically appears during the first three years of life. The result of a neurological disorder that affects functioning of the brain, autism and its associated behaviors occurs in approximately one in 166 births. Autism is four times more prevalent in boys than girls and knows no racial, ethnic or social boundaries. Family income, lifestyle and educational levels do not affect the chance of autism's occurrence.

Autism interferes with the normal development of the brain in the areas of reasoning, social interaction and communication skills. Children and adults with autism typically have deficiencies in verbal and non-verbal communication, social interaction and leisure or play activities. The disorder makes it hard for them to communicate with others or become independent members of the community. They may exhibit repeated body movements (hand flapping, rocking), unusual responses to people or attachments to objects, and resist any changes in routines. In some cases, aggressive and /or self-injurious behavior may be present.

It is conservatively estimated that nearly 1.5 million people in the U.S. today have some form of autism. Yet the majority of the public, including many professionals in the medical, educational, and vocational fields, are still unaware of how autism affects people and how to effectively work with individuals with autism.

Is There More Than One Type of Autism?

Autism is often referred to as a spectrum disorder, meaning 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 these behaviors in any degree of severity. Two children, both with a diagnosis of autism, can act very differently from one another. Depending on the range of symptoms and level of severity, children may be diagnosed with Autism, Pervasive Developmental Disorder, Asperger's Syndrome or Rett's Syndrome.

What Causes Autism?

Medical researchers are exploring different explanations for the various forms of autism. Although one specific cause of autism is not known, current research links autism to biological or neurological differences in the brain. MRI (Magnetic Resonance Imaging) and PET (Positron Emission Topography) scans show abnormalities in the structure of the brain, with significant differences within the cerebellum, hippocampus and amygdala. In many families there appears to be a pattern of autism or related disabilities, suggesting a genetic basis to the disorder, and in fact, geneticists have recently identified one of the 15 or more genes believed to play a role in the development of autism. All chromosomes except 14 and 20 have been implicated in autism genetic research.

Several older theories about the cause of autism have now been proven false. Autism is not a mental illness. Children with autism are not unruly kids who choose not to behave. Autism is not caused by bad parenting. Furthermore, no known psychological factors in the development of the child have been shown to cause autism.

How Is Autism Diagnosed?

There are no medical tests for diagnosing autism. In order to be diagnosed accurately, a child must be observed by professionals skilled in determining communication, behavioral and developmental levels. However, because many of the behaviors associated with autism are shared by other disorders, a doctor may complete various medical tests to rule out other possible causes.

Ideally, a child should be evaluated by a multi-disciplinary team which may include a neurologist, psychologist, developmental pediatrician, speech/language therapist, learning consultant or other professional knowledgeable about autism. A brief observation in a single setting cannot present a true picture of an individual's abilities and behavior patterns. At first glance, the person with autism may appear to have mental retardation, a learning disability, or problems with hearing. However, it is important to distinguish autism from other conditions, since an accurate diagnosis can provide the basis of building an appropriate and effective education and treatment program.

What Are The Symptoms? What Are People With Autism Like?

Children with autism often appear relatively normal in their development until the age of 24-30 months, when parents may notice delays in language, play or social interaction. Any of the following delays by itself would not result in a diagnosis of autism. Autism is a combination of developmental challenges.

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

Communication: Language develops slowly or not at all; use of words without attaching the usual meaning to them, gestures used instead of words, short attention span.

Social interaction: The individual may spend time alone rather than with others; show little interest in making friends; less responsive to social cues such as eye contact or smiles.

Sensory Impairment: Unusual reactions to physical sensations such as being overly sensitive to touch or unresponsive to pain; sight, hearing, touch, pain, smell and taste may be affected to a lesser or greater degree.

Play: Lack of spontaneous or imaginative play; does not imitate others' actions; doesn't initiate pretend games.

Behaviors: May be overactive or very passive; throw frequent tantrums for no apparent reason; may perseverate on a single item, idea or person; apparent lack of common sense; may show aggressive or violent behavior or injure self.

There are great differences among people with autism. Some individuals mildly affected may exhibit only slight delays in language and greater challenges with social interactions. They may have average or above average verbal, memory or spatial skills, but find it difficult to be imaginative. Others, more severely affected, may require intensive support to manage even the basic tasks and needs of living day to day.

Contrary to popular understanding, many children and adults with autism make eye contact, show affection, smile and laugh, and show a variety of emotions, but in varying degrees. Like other children, they respond to their environment in positive and negative ways. The autism may affect their range of responses and make it more difficult for them to control how their body and mind react. They live normal life spans and the behaviors associated with autism may change or disappear over time.

Individuals with autism may have other disorders which affect the functioning of the brain, such as epilepsy, mental retardation, or genetic disorders such as Fragile X Syndrome. Autism does not preclude the development of psychiatric disorders such as mood and anxiety disorders. About two-thirds of those diagnosed with autism will test in the range of mental retardation, although the accuracy of intelligence testing is more suspect in individuals with autism because sensory issues and communication difficulties can affect responses during testing. Approximately 25-30% may develop a seizure pattern at some period during life.

While no one can predict the future, we do know that some adults with autism live and work independently in the community, while others depend on the support of family and professionals. Adults with autism can benefit from vocational training to provide them with the skills needed for obtaining jobs, in addition to social and recreational programs. Adults with autism may live in a variety of residential settings ranging from an independent home or apartment to group homes, supervised apartment settings, living with other family members or a more structured residential care site.

Is There A Cure For Autism?

There is no cure for the differences in the brain which result in autism. However, we're finding better ways to understand the disorder and help people cope with the various symptoms of the disability. Some of these symptoms may lessen as the child ages; others may disappear altogether. With appropriate intervention, many of the autism behaviors can be positively changed, even to the point that the child or adult may appear to the untrained person to no longer have autism. The majority of children and adults will, however, continue to exhibit some symptoms of autism to some degree throughout their entire lives.

What Are the Most Effective Approaches to Autism?

Because of the spectrum nature of autism and the many behavior combinations which can occur, no one approach is effective in alleviating symptoms of autism in all cases. Various types of therapies have proven effective, including speech/language therapy, occupational therapy, behavior modification, and medications, among others. Experience has shown that individuals with autism respond well to a highly structured, specialized education program, tailored to the individual needs of the person.

Basic special education programs, such as those designed for the student population with mental retardation, are not appropriate for students with autism, because of the wide range of skills and unique sensory issues an individual with autism can exhibit. A student who can do math at three years above age level but cannot use a pencil, who can ride a bike but not hop on one foot, who can identify all the flags of the world but cannot dial his own phone number, presents great challenges which can only be met by professionals trained specifically in dealing with the challenges of autism.

Students with autism should have training in functional living skills at the earliest possible age. Learning to cross a street safely, to make a simple purchase, or ask for assistance when needed are critical skills, and may be difficult, even for those with average intelligence levels. Tasks that enhance the person's independence, give more opportunity for personal choice and allow more freedom in the community are important. At the same time, academics cannot be ignored, since isolated strengths which are identified and developed can serve as the basis for a student's productivity as he or she moves into adulthood.

A generation ago, 90% of the people with autism were eventually placed in institutions. More recently, with the availability of more appropriate school programs and related services, people with autism are living more productive lives within their communities. More families are able to care for their son or daughter at home, while group homes, assisted apartment living

arrangements, or residential facilities offer more options for out of home care. Autism specific programs and services provide the opportunity for even the more severely disabled to be taught skills to allow them to reach their fullest potential.

Autism Check List

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. No child will exhibit all of these characteristics.

- ~~///~~ Difficulty in mixing with other children
- ~~///~~ Insistence on sameness; resists changes in routine
- ~~///~~ Often anxious or nervous
- ~~///~~ Inappropriate laughing and giggling
- ~~///~~ No real fear of dangers
- ~~///~~ Little or no eye contact
- ~~///~~ Sustained odd play
- ~~///~~ Apparent insensitivity to pain
- ~~///~~ Echolalia (repeating words or phrases in place of normal language)
- ~~///~~ Prefers to be alone; aloof manner
- ~~///~~ May not want cuddling or act cuddly
- ~~///~~ Spins object or self
- ~~///~~ Noticeable physical overactivity or extreme underactivity
- ~~///~~ Tantrums; displays extreme distress for no apparent reason
- ~~///~~ Not responsive to verbal cues; acts as if deaf
- ~~///~~ Inappropriate attachment to objects
- ~~///~~ Uneven gross/fine motor skills (may not want to kick a ball but can stack blocks)
- ~~///~~ Difficulty in expressing needs

For more information, contact:

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