What is Autism?

Autism spectrum disorder (ASD) is a complex developmental disability; signs typically appear during early childhood and affect a person's ability to communicate, and interact with others. ASD is defined by a certain set of behaviors and is a "spectrum condition" that affects individuals differently and to varying degrees. There is no known single cause of autism, but increased awareness and early diagnosis/intervention and access to appropriate services/supports lead to significantly improved outcomes. Some of the behaviors associated with autism include delayed learning of language; difficulty making eye contact or holding a conversation; difficulty with executive functioning, which relates to reasoning and planning; narrow, intense interests; poor motor skills' and sensory sensitivities. Again, a person on the spectrum might follow many of these behaviors or just a few, or many others besides. The diagnosis of autism spectrum disorder is applied based on analysis of all behaviors and their severity.

In 2018, the Centers for Disease Control and Prevention issued their ADDM autism prevalence report. The report concluded that the prevalence of autism had risen to 1 in every 59 births in the United States – twice as great as the 2004 rate of 1 in 125 – and almost 1 in 54 boys. The spotlight shining on autism as a result has opened opportunities for the nation to consider how to serve families facing a lifetime of supports for the individual with autism. In June 2014, researchers estimated the lifetime cost of caring for an individual with autism is as great as \$2.4 million. The Autism Society estimates that the United States is facing almost \$90 billion annually in costs for autism.

Learn the signs: Early identification can change lives

Autism is treatable. Individuals with autism do not "outgrow" autism, but studies show that early diagnosis and intervention lead to significantly improved outcomes. For more information on developmental milestones, visit the CDC's "Learn the Signs. Act Early" site. Here are some signs to look for:

- Lack of 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

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.

Diagnosing Autism

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 of Autism

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.

Treatment Options

While there is no known cure for autism, there are treatment and education approaches that can address some of the challenges associated with the condition. Intervention can help to lessen disruptive behaviors, and education can teach self-help skills for greater independence. But just as there is no one symptom or behavior that identifies people with autism, there is no single treatment that will be effective for everyone on the spectrum. Individuals can use the positive aspects of their condition to their benefit, but treatment must begin as early as possible and focus on the individual's unique strengths, weaknesses and needs.

It is important to match a child's potential and specific needs with treatments or strategies that are likely to help him/her reach established goals and greatest potential. A search for appropriate treatment must be paired with the knowledge that all treatment approaches are not equal — what works for one will not work for all. The basis a treatment plan should come from a thorough evaluation of the child's strengths and weaknesses. Families should educate themselves about all options and choose what they feel is in the best interest of their child and family, based on their experience and what resources are available.

For more information on Autism and Living with Autism go to:

https://www.autism-society.org

https://www.autism-society.org/wp-content/uploads/2014/04/buildingourfuture06.pdf