

Autism Spectrum Disorder

Background

Autism is a developmental disorder or disability of the brain. Signs of autism can usually be seen within the first few years of a child's life and may affect their development, in various ways for the rest of their life.

Individuals who have autism have three main categories of symptoms

- Problems with social interaction
- Problems with verbal and nonverbal (gestures) language/communication
- Unusual, limited or repetitive interests

There are currently no known cures for autism, but intervention, especially when offered early in life, can help the child immeasurably.

Autism affects males about four times as often as females. It is a disorder that is found throughout the world, and effects people of all racial and social backgrounds.

There is a lot of variation in the severity of autism. In children with a severe form of the disorder, repetitive, unusual, self-injurious, and aggressive behaviors can be seen. These behaviors often persist over time, especially when the child does not receive any intervention services. These behaviors make it very challenging for those people caring for and teaching them.

Children with milder forms of autism, appear somewhat different from other children their age. They often have difficulties making friends, engaging in conversations, organizing and completing class and homework assignments, and often experience learning difficulties. In addition, they can have unusual and repetitive interest that set them apart.

Behavioral features of autism

- Impaired social interaction
- Delayed and impaired language skills
- Odd use of language; (echolalia (repetition of others' words and phrases), language scripts (insertion of words and phrases from unusual sources, such as movies, television, etc.)
- Odd tone of voice (sing-song, unusual rate, rhythm, pitch, stress
- Delayed or failure to respond to name
- Avoidance of looking at others
- Difficulty interpreting tone of voice/facial expressions/gestures
- Lack or delayed response to other people's experiences and emotions
- Repetitive movements (rocking, hair twirling)

- Abnormal responses to sounds, touch, or other sensory stimulation (may not like to be touched, may seek to experience a sensation over and over)
- Reduced sensitivity to pain

Autism is diagnosed behaviorally through observations, parent reports and assessments.

Researchers and clinicians have developed diagnostic criteria for autism. Most children with autism present with these behaviors:

- Absence or impairment of imaginative/social play
- Problems making and keeping friends
- Problems starting and maintaining conversations
- Repetitive or unusual language (inserting statements from a movie script into conversations)
- Interests that are limited and/or very intense
- Insisting on preserving the same routine
- Very interested in the parts of objects (wheels of a car)

Milder forms of autism are categorized by the term, Pervasive Developmental Disorders.

Asperger's Syndrome is a term that is used for children who display some autistic behavior (more social than communicative difficulties), but who have experienced fairly typical language development.

Hearing problems can be confused with autism. Children with delayed speech development should always have their hearing checked. Children with autism sometimes have impaired hearing, but not all.

Causes:

Autism does not have one cause. Researchers believe that several genes as well as environmental factors like viruses and/or chemicals contribute to the disorder.

Studies of people with autism have found abnormalities in several parts of the brain suggesting that autism results from disruption of normal brain development before the baby is born.

For reasons still not known 20 to 30% of people with autism also develop epilepsy by the time they become adults

Treatment:

There is no cure for autism

Therapies or interventions address specific symptoms that an individual presents with

The best studied therapies include educational/behavioral and medical interventions

Although these interventions do not cure autism, they often bring about substantial improvement

Educational/Behavioral Interventions

These are often carried out in a very structured setting with high adult to child ratios (1:1)

Therapists work with children to help them develop social and language skills.

Children learn most effectively when they are young; this type of therapy should begin as early as possible. Recent research has shown that the earlier you intervene with children with autism; the most likely you can influence brain development to reduce autistic behaviors.

Some names of known educational behavioral interventions for students with autism are:

Applied Behavior Analysis – very intensive approach in which therapists work 1:1 with children using principles of learning theory. (rewarding/shaping behavior)
Uses ABC Model

A= Antecedant- direct request to perform action

B= Behavior – response from child

C= Consequence- reaction from therapist

Weblinks:

<http://www.abainternational.org/ba.asp>

<http://www.appliedbehavioranalysis.com/>

TEACCH (Treatment and Education of Autistic and related Communication-handicapped Children)

Works on the child's strengths to ensure that the child becomes independent

Combines different strategies like ABA and other tools like pictures to help children to communicate.

<http://www.teacch.com/>

Most educational programs for children with autism include both direct teaching and other supports which are vital for the children's learning and progress.

These supports usually include speech and language therapy since most children with autism present with language delays or difficulties and occupational therapy to help children control oversensitivity and better able to control their bodies in the environment

Some children who have difficulty with mobility also require physical therapy.

It is very helpful for children to have their education, speech therapy, occupational therapy provided during the time they are in school. If children are not yet in school, many times these services are provided in the home.