

Autism Spectrum Disorder



Autism Spectrum Disorder (ASD) is a broad umbrella term for a variety (or spectrum) of symptoms, skills, and disability levels [1]. No single cause for ASD has yet been identified, but it is generally accepted that it is caused by abnormalities in brain shape or function and by heredity [2].

Typically, a person with ASD will exhibit social and communication problems, limited interests, repetitive behaviors, and other issues impairing function in school, work, and daily life. The degree to which any of these behaviors might affect an individual varies broadly [1].

Autism intervention plans must be tailored to address each patient's specific needs. Treatment might include behavioral methodology, medicine, or both of these. Life expectancy for those with ASD is not affected, but mortality risk is twice as high as the general populace due to potential accidents [4].

Causes and Incidence



Causes. Individuals with medical conditions such as Fragile X Syndrome, tuberous sclerosis, congenital rubella syndrome, and untreated phenylketonuria (PKU) tend to most commonly receive an autism diagnosis. Increased risk is also associated with ingestion of harmful substances during pregnancy [2].

Incidence. About one percent of the world population has autism spectrum disorder, including 2.5 million Americans [2]. From 2002 to 2010, prevalence has increased by 6 to 15 percent. ASD is diagnosed four times more often in boys than in girls [4].

Behaviors and Symptoms

Repetitive behaviors. Unusual repeating behaviors may include overly focused interests, and lasting, intense interests in particular topics such as numbers, details, and facts [1].

Social Communication and Interaction. These behaviors may include:

- Becomes upset by changing routine or an overly stimulating setting
- Does not maintain consistent eye contact
- Responds unusually to the way other people show emotions
- Fails to respond to own name
- Shows difficulties with managing basic conversation, exhibiting echolalia (repeating words or phrases) and an unusual tone of voice
- Demonstrates facial expressions that do not match what's being said
- Speaks without giving another person a chance to respond [1].

Strengths and Abilities. Forty-six percent of children with ASD have above average intelligence [1]. They can learn and remember detailed facts for lengthy periods of time. Additionally, they are often strong visual and auditory learners, excelling in math, science, music, or art.

Diagnosis

Children. Today, 1 in 68 children have been diagnosed with ASD at some level. This condition is often diagnosed by the age of two [1]. Children at high risk for ASD include those who have a family member previously diagnosed with ASD, exhibit ASD behaviors, or were born prematurely. The National Institute of Child Health and Development (NICHD) outlines five behaviors that may be a red flag [2]:

- 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
- Has loss of any language or social skill at any age

Adults. Diagnosis in adults can be difficult, as symptoms commonly overlap with other mental health disorders [1].

Treatment

Children. Early intensive behavioral intervention involves a child's entire family and a team of healthcare professionals, at home, at a clinic, or at school. Commonly used behavioral therapies include Applied Behavior Analysis and the Early Start Denver Model, which include features such as 25 hours of weekly therapeutic activities focusing on core areas such as social skills, language and communication, imitation, play skills, daily living, and motor skills [3]. Targeted social skills training will help them mature successfully into independence and gain employment in adulthood. Outcomes vary broadly, but all children benefit. It is even possible for ASD to be overcome completely with early intensive behavioral intervention [4].

Adults. There are many therapies for adults with ASD to improve the quality of their lives. These include adaptive technologies, Applied Behavioral Analysis, cognitive behavioral therapy, dietary interventions, medications, motor sensory interventions, psychological interventions, and social care services [5].

References

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