

What is Autism?

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Autism is a lifelong developmental disability. There is no cure for autism though changes in ability and behaviour occur over time, and some individuals show remarkable improvement throughout their lives. Autism is a dysfunction of some parts of the central nervous system (i.e. the brain and nervous system) that affects the way the individual takes in information through the senses, how that information is stored in the brain and how it is referred to when it is stored. Autism is about how we understand our world and what is happening around us.

The Triad of Impairments

People with autism have repetitive and restricted behaviour and interests, as well as impaired communication and social interaction skills. These impairments are known as the Triad of Impairments.

The Cause of Autism

There is no single, known cause of autism. Some of the factors believed to be potential causes are:

- Genetic factors (there are strong family links)
- Exposure to viral diseases and infections (such as measles)
- Physical trauma (e.g birth injury)
- Metabolic disorders (such as PKU)

There is strong evidence of a biological/neurological basis for autism. New methods for studying brain anatomy and function have shown that there are consistent differences between the brains of autistic and non-autistic individuals. It appears that structural differences can occur in one or several parts of the brain and still result in autism.

Poor parenting or lack of love does not cause autism. This was one of the more damaging and incorrect theories about the cause of autism that surfaced during the 1950s and 60s.

Diagnosis of Autism

As yet there are no medical tests that can be used to diagnose autism. Instead doctors and psychologists look for the presence of a particular pattern of behaviours. The pattern of behaviours is consistent with the Triad of Impairments. Listed below are examples of behavioural indicators from the Triad of Impairments for young children:

Impairment of Communication

- Uses little facial expression
- Uses few gestures
- May have little or no speech or be significantly overly verbal
- Excessively repeats or echoes words or phrases (echolalia)
- Does not appear to understand word meanings
- Only understands and uses words in a literal sense

Impairment of Social Relating

- Appears to be unresponsive to people and does not engage (does not imitate or respond to interaction from others)
- Difficulty using social smile
- Unusual use of eye contact
- Seems excessively content when left alone
- Seeks social contact in unusual ways
- Uses adult's hand as tool
- Is unable to interact in playing games which involve taking turns
- Pays little or no attention to the needs and feelings of others (for example, does not respond to pain or distress in others)
- Repetitive, stereotyped and restricted interests and behaviours

- Responds to objects/toys in an unusual and repetitive way (e.g. lines up cars, blocks, plates, repeatedly stacks and unstacks)
- Shows unusually intense level of interest in one area (e.g. talks about Thomas the Tank Engine, watches video of Thomas the Tank Engine, touches toys related to Thomas the Tank Engine, looks intently at pictures of Thomas the Tank Engine).
- Likes to listen to the same story or watch the same video over and over again
- Is unable to understand that an object can be used for multiple purposes (for example an individual with autism may not understand that a cardboard box may be used for a boat or an aeroplane or a bug.)

The Autism Continuum

The core features of autism (Triad of Impairments) range in severity. These days the idea of a “continuum of autism” is more accepted.

Each of the core features can be represented on a continuum of severity. Because a person has a severe degree of impairment in one of the core features, it does not mean that the same level of impairment will be present in other areas.

What are Autism Spectrum Disorders?

Autism Spectrum Disorders are a general classification encompassing a range of subtypes of autism with varying degrees of severity. These are sometimes referred to as Pervasive Developmental Disorders (PDD) and may include:

- Asperger’s Disorder
- Autistic Disorder (also known as infantile autism, Kanner’s autism and early infantile autism)
- Rett’s Disorder (Only diagnosed in females. Normal functioning at birth then between 5-48 months, deceleration of head circumference growth and characteristic stereotyped hand movements, for example Hand wringing)
- Childhood Disintegrative Disorder (marked deterioration in several areas after about 2 years of normal functioning)

- Pervasive Developmental Disorder Not Otherwise Specified (PDDNOS) People diagnosed as having PDDNOS have autistic features but do not fulfill all criteria for the diagnosis of autism or Asperger's Disorder, or have had an onset of symptoms at a later age. Some refer to this category as atypical autism.

Other features commonly associated with autism that have received attention include:

- Sensory difficulties (Inability to connect to one or more of the senses)
- Cognitive aspects including the visual learning style, attention problems and information processing characteristics
- Difficulty interpreting other's feelings
- Sensory Sensitivities (eg. Expressing distress at being touched.)

Many people with autism have fluctuating sensory sensitivities. The way they respond to sound, touch, pain, noise, tastes and odours suggest that, at times, their senses are heightened and at other times their senses are dampened. This is referred to as having sensory hypersensitivity (over-sensitive perception) and hyposensitivity (under-sensitive perception). Sensory distortions may also exist.

Visual Learning Style

People with autism are visual learners. One of the most important strengths in autism is the visual learning style. People with autism are described as being 90% visual learners and 10% auditory. Visual strategies are widely recommended to enhance communication, support behaviour, facilitate learning and develop independence skills.

Other Facts About Autism

There are four times as many males as females affected by autism. For Asperger's Disorder the ratio is nine males to one female. Autism occurs with equal frequency within all ethnic and socio-economic groups. Many people with autism develop epilepsy, often during puberty and adolescence. There is continuing debate regarding the percentage of people with autism who have intellectual disability. Two studies done in 1975 and 1982 estimated that about 75-80% of people with Autistic Disorder have

intellectual disability. When people with Asperger's Disorder and Atypical Autism are considered the figure drops to about 20%.

Variations

People with autism vary enormously. The effects of autism may be mild or severe and not every characteristic is evident in every person. Different features of autism may be displayed in different contexts. People with autism, because of their understanding of the world and sensory sensitivities, often experience overwhelming anxiety, frustration and confusion when faced with the demands of everyday life. Anxiety, frustration and confusion may give rise to behaviours like repetitive movements (finger flicking, rocking), self isolating behaviours and sometimes aggression towards others, themselves, or the environment.