

What is autism?

Autism is a developmental disability that affects communication, social interaction, and play skills. Autism affects about 1 in 68 people and it occurs four times more in boys than in girls. It affects brain function and should be diagnosed by a medical professional. Children with autism will exhibit the following symptoms:

- Trouble learning language as well as problems with verbal and non verbal communication
- Problems with social skills
- Presence of unusual behaviours (e.g., hand flapping, rocking, biting) and strong preference for sticking to a routine

Individuals with autism may have trouble processing things they hear, see, smell, touch or taste. Also, autism is known as a spectrum disorder, meaning the severity and type of symptoms are different from person to person. Autism is an evolving disorder and your child's symptomology and needs may change as they pass through different stages of development.

Autism Spectrum Disorders

Autism is one of several disorders which fall under the umbrella of autism spectrum disorders (ASD). Autism spectrum disorders describe a whole range of overlapping developmental difficulties that children may have in the areas of communication/language development, social interactions, and flexibility of thought and behaviour. These are often referred to as the "Core Triad of Impairments." They usually become apparent within the first three years of life in most cases. Many children also have trouble processing sensory input (sights, sounds, tastes, textures, smells), though this symptom does not have to present for an autism diagnosis. Given the multiple symptoms that can occur in children with autism, no two children with autism will look or behave the same. They will have their own strengths and problems and it is important that you and the child's therapists are aware of their abilities and develop an intervention plan individually suited to your child.

The term "spectrum" implies a range of severity from mild, allowing close to normal functioning in many areas, to the most severe, in which functioning across most areas is profoundly impaired. Children of all levels of abilities and IQs can have an ASD. Autism spectrum disorders can also co-occur with other disorders such as hearing/visual impairment, Down's syndrome, seizure disorder, or Attention Deficit/Hyperactivity Disorder (ADHD), to name a few.

Core Triad of Impairments

Communication: Trouble with language development can range from a complete absence of speech, to fluent speech with unusual features (e.g., speaking about only one topic that is of interest to the individual with an ASD). Regardless of the fluency of speech acquired, a person with an ASD will always experience some level of difficulty with verbal (what is spoken) and/or non-verbal communication (body language, gestures, tone of voice, facial expressions). Individuals with an ASD may need to be taught the purpose of communication and how to effectively communicate with others. Visual communication aides, such as PECS and picture schedules, can be helpful tools to teach children with autism how to communicate with others.

Social skills: Trouble getting along with others can range from complete aloofness to wanting desperately to make friends, but lacking the understanding of social rules to do so. Typical children develop this social understanding quite easily and without having to be formally taught how to behave socially. For a child with autism, the opinions and views of others may have little influence on their behaviour. Children with ASD often find it hard to play and communicate with other

children, who may be confused by their behaviour and may also avoid or tease them. Adults who do not know a child has autism, or who are unfamiliar with the disorder, may misunderstand the child's behaviour. They may see the child as being naughty, difficult, or lazy, when in fact, the child may simply have misread or misunderstood the adult's mood or intention. Furthermore, children with autism do not make good eye contact with others, either looking too briefly, or staring inappropriately. In the past, there has been a focus on teaching the child to look at the person and talk to them at the same time.

Repetitive behaviours and inflexibility: Children with autism often do not play with toys in a conventional way. Instead they will spin or flap objects, or watch moving parts of toys/machinery for long periods of time and with intense concentration. Their play tends to be isolated or *alongside* others, rather than *with* other children. Children with an ASD may also develop a special interest in a topic or activity, which is pursued to extreme lengths. Children with autism also exhibit rigidity with regards to routine and sameness, and tend to dislike changes from what they are used to. These children also have trouble adapting to new situations. This inflexibility is noted in their inability to generalize skills learned in one environment (such as the home or school) to another. For example a child who has learned how to ask to use the toilet while at home, may not use this skill when at school.

Abnormal sensory perception and responses: Some children with an ASD display an over- or under-responsiveness to sights, sounds, smells, textures and tastes, which affects their responses to these sensations. This has implications for the home and school environment and may explain abnormal responses to changing clothes, eating certain foods, and specific noises. Some occupational therapists use aspects of sensory integration therapy in an effort to help the child better process and organize sensory input. As a result of problems with sensory perception, those with an ASD may also have unusual sleep patterns and behavioural problems.

Types of ASDs

As stated above, there are several developmental disorders that fall within the category of ASDs. They are described briefly below:

Asperger's syndrome: Individuals with Asperger's syndrome differ from those with classic autism in that their language development is not generally delayed and they are of average or above average intelligence. They have difficulties understanding others socially, communicating effectively, and problems being flexible. They also tend to develop an intense interest in a subject or activity. Some with Asperger's syndrome may be clumsy or have difficulty with motor coordination. Their average and above average functioning in most areas can mask their difficulties leading to their not being identified and diagnosed until late childhood to early adulthood.

Atypical autism: This term is used for children who meet the criteria for autism in two of the three areas of the triad. It is synonymous with Pervasive Developmental Disorder – Not Otherwise Specified (PDD-NOS). These children may or may not have additional learning difficulties.

Classical autism: Children with classical autism show impairments in all three areas of the triad by the age of three years. Some of them may also qualify for a diagnosis of mental retardation.

Childhood disintegrative disorder/Heller's syndrome: This is a very rare condition in which children usually develop normally until the age of two years, after which they undergo a marked loss of developmental skills, including a loss of speech. It is then difficult to distinguish from classical autism.

High-functioning autism/Mild autism/Able autism: There are some professionals who argue that there are children with autism of average or high intellectual ability who do not meet all the criteria for Asperger's syndrome. They therefore propose another subgroup termed high-functioning autism. These children may not be delayed in developing language and speech, but show the remaining impairments of the triad.

** Some professionals argue that there is a meaningful difference between those with Asperger's syndrome and those who are termed to have high functioning autism. The former are more likely to be clumsy, more sociable, and have special interests. The latter tend to display delayed development of speech/language. Others argue that there is no difference between these two terms and they can be used interchangeably. There is no definitive conclusion to this debate as yet.

Rhett's syndrome: This is a fairly rare condition found only in girls. After a brief period of normal development, there is a significant regression, learning to severe learning difficulties, seizures, and motor problems. In the early stages it can be difficult to distinguish from classical autism.

Pragmatic Language Impairment: This is a term developed by speech and language therapists to describe children of average or above average intelligence who have difficulties in understanding the meaning of language and its social use. These children also have some difficulties in understanding social behaviour and may have rigid thought patterns and restricted interests. There is debate as to whether this warrants a separate sub-group within the spectrum.

Strengths

All children with an ASD are individuals first, and their areas of strength will vary. Many children with an ASD will have an ability to focus on detail and they may be able to concentrate for long periods of time on a single activity, if it is of interest to them. They can give their sole attention to a task beyond the point at which others would tire of it. Those with an ASD are generally able to process information presented visually rather than orally. They often succeed in academic areas that do not require high degrees of social understanding and where the language used is technical or mathematically-based (e.g., science, engineering, music, IT).

Comparison with Mental Retardation

Autism is different from mental retardation (MR) because in autism there is an uneven development of skills. Individuals with MR tend to display even levels of impairment across all areas of development. Uneven skill development is actually the hallmark of autism. In some areas children may show age-appropriate skills, some skills might be below their developmental level, while other skills could be exceptionally better than other children their age.

Hyperactivity

Hyperactivity can have a medical reason. However, most children with Autism are restless because of an impairment of their imaginative and social skills. They cannot play with their toys and other children meaningfully and find it very difficult to occupy themselves. Often they eat a lot to keep themselves occupied. Hyperactivity can be reduced as the children are taught new skills and ways to keep themselves occupied.
