

# Autism spectrum disorder

The twelfth annual World Autism Awareness Day is April 2, 2019. World Autism Awareness Day (WAAD) aims to put a spotlight on the hurdles that people with autism – and others living with autism – face every day. As a growing global health issue and WAAD activities are planned every year to further increase and develop world knowledge of children and adults who have autism spectrum disorder (ASD).

Joined by the international community, hundreds of thousands of landmarks, buildings, homes and communities around the world, light blue in recognition of people living with autism.

Autism spectrum disorder (ASD) is a developmental disorder most commonly involving problems with verbal and non-verbal communication and social interactions, and play skills. In addition children with ASD often have abnormal behaviours, interests and play.

Some characteristics of autism are common to a greater or lesser extent among many people on the autism spectrum; other characteristics are typical but not necessarily experienced by all people on the autism spectrum. Thus, the word 'spectrum' is used to reflect the wide scope of differences in how individual people experience autism and their environment. While some people on the autism spectrum also have an intellectual impairment or disability, many others have average intelligence, while others have above-average intelligence. Which means despite having similar diagnosis all children with ASD may not have similar symptoms. The disorder is referred to as a spectrum because there is a wide range of features among people with ASD. Children with mild symptoms are sometimes referred to as 'high functioning'.

It is estimated that worldwide there are 52 million people on the autism spectrum and research suggests that there is little variation from one region to another in the proportion of the population who are on the autism spectrum. Estimates of the number of people on the autism spectrum rely largely on the reported the number of people who have received a diagnosis. Diagnosis is now more common in childhood, and this means that the reported number of children with an autism diagnosis is higher than for adults. In Australia, up to 2.5%, or 1 in 40 parents with children born in 2004-2005 reported that their child had received an autism diagnosis by the age of 7 years, whereas 1 in 67 parents with children born in 1999-2000 reported that their child had received n autism diagnosis by the age of 7 years.

The United States Centres for Disease Control and Prevention has estimated that about 1 in 68 children in the United States are identified as being on the autism spectrum. Consistent with the understanding that autism is a lifelong condition; researchers from the United Kingdom have shown that the prevalence of autism in the adult population is similar to that identified in children. The rate of diagnosis in children is higher for males than for females.

Over the last two decades the reported prevalence of autism has increased dramatically from its 1995 count of around 1 in 500. Current research suggests that the increased rate of autism diagnosis is due to changes in reporting practices , and changes in the diagnostic criteria, which now includes a broader range of diagnostic features.

Research suggests that ASD is a genetic condition, but the exact gene thought to cause the disorder has not yet been identified. Research continues, with the aim of finding the cause and discovering more treatment options.

Although the rates of ASD have increased since the 1980s, this is due to increased awareness and changes in the way the disorder is diagnosed, rather than a growing number of people being affected. At the same time, the number of recommended childhood vaccinations has increased, and many parents worry that these two issues are somehow linked.

A paper was published in 1998 on a potential link between ASD and the measles, mumps, rubella (MMR) vaccine, but this was later proven to be fraudulent and the medical journal retracted the paper. Since then, multiple studies have shown no association between vaccinations and ASD. It is important that you discuss your concerns with your GP or paediatrician, so that you can be fully informed.

There is absolutely no association between ASD and any birth trauma, medications taken during pregnancy or formula feeding.

ASD is a lifelong disorder with no cure but the condition can be improved with early interventions. However, early interventions may include behavioural therapy, speech therapy, occupational therapy and it may help children with ASD reaching their full potential.

**Behaviour** People on the autism spectrum may exhibit non-typical skills and focus. This can include: , unusually intense or focused interests, including savant skills , excellent memory skills , high level of attention to details, plans, patterns and codes , either difficulties, or exceptional skills in planning and self-organisation.

Some people on the autism spectrum may behave in non-typical ways, often in response to the different ways in which they experience their environment. Such behaviours are generally a way to communicate their feelings or to adapt to a situation, or may result from their heightened sensitivity to a sound or something they have seen or felt.

Some people on the autism spectrum may use these behaviours as a way to reduce uncertainty and maintain the predictability of their environment. This can include: strict adherence to rules and routines, repetitive body movements, repetitive use of objects, such as repeatedly switching lights on and off, or placing objects in a strict order or pattern.

Children on the autism spectrum may to a greater or lesser extent be unable to understand and express their needs and emotions, or unable to interpret and understand the needs and emotions of others. This can affect their ability to share interests and activities with other people. Their nontypical communication styles and skills can lead to their avoidance of any social interaction and

withdrawal into repetitive play and behaviour. For these reasons, people on the autism spectrum may sometimes appear distant and aloof and may have challenges in establishing and maintaining relationships. People on the autism spectrum may also show strong loyalty and commitment to honesty.

Children on the autism spectrum may face communication challenges in one form or another. Many people on the autism spectrum are highly articulate and speak fluently, others may have speech impairments of varying degrees and others are unable to speak at all (non-verbal). Of those who can speak, they can often use language in a limited or non-typical way. People on the autism spectrum may tend to speak their mind and to present and interpret information in 'black and white' concepts. Conversations may involve repeating phrases, asking the same questions over and over, or focussing only on topics that are of interest to them.

Children on the autism spectrum may either miss or misinterpret non-verbal forms of communication such as facial expressions, hand gestures and other body language.

Children with autism spectrum may experience non-typical sensory sensitivities and may seek to avoid everyday sounds and textures such as hair dryers, vacuum cleaners and sand. Some people on the autism spectrum may have unusual sensory interests, such as sniffing objects or staring intently at moving objects. These sensitivities and interests can lead to non-typical behaviours, often as means of adapting to and coping with the sensitivity.

Many children with ASD have poor communication skills, or focus their communication towards objects rather than people. Some children with more severe ASD are not able to speak. There are many children with ASD who have normal language skills, but will still have problems socialising with other people. Their conversations may be one-sided; they may talk excessively, make up new languages (neologism), or repeat certain words and sounds (echolalia).

Most children with ASD have difficulties with non-verbal communication, such reading body language and other non-verbal cues (e.g. understanding or expressing emotions through tone of voice and facial expressions). These children also struggle with more complex language, such as sarcasm, and are more likely to take what people say literally. Eye contact is also often difficult for children with ASD.

A child with ASD may have many unusual ways of socialising. They may only interact with others when they need to, or they might actively talk with others but only about their own special interests.

Children with ASD often lack creativity and imaginative play. They may prefer using their senses to explore toys, for example smelling, tasting or staring at the toys rather than playing with them. Some children prefer repetitive or obsessive actions, such as lining toys up in a long line or continuously spinning a car wheel.

Higher-functioning children with ASD can become intensely interested in one topic, often to the exclusion of other activities or interests.

In addition, children with ASD may be unusually under sensitive or oversensitive to everyday sounds or textures. There are also body movements that are typical of children with ASD, such as repetitive hand flapping and spinning, as well as head-banging and poor coordination. They may also adopt unusual postures or walk on their toes.

Many children with ASD can also have other difficulties, which include: restricted eating patterns, sleeping problems, anxiety, behaviour problems, emotional difficulties, learning difficulties, attention difficulties, difficulties with planning and organising. Intellectual ability

One of the main factors that affects how a child with ASD behaves and functions is their intellectual ability (i.e. IQ). Children with ASD can range from being severely disabled through to highly intelligent. About one child in four with ASD has an IQ in the normal range or above, but three out of four children with ASD will have some intellectual disability. The child's level of ability is often uneven, with areas of strength and weakness.

### **When to see a doctor**

**If you are concerned about aspects of your child's behaviour and development, see your GP and ask for a referral to a specialist paediatrician, speech pathologist or psychologist. Do not try to make a diagnosis yourself.**

Many of the unusual behaviours that occur with ASD are often seen in normal toddlers, which makes the diagnosis quite difficult at times. Many specialists will wait until a child is older than three years of age before assessing for ASD, but you should discuss this with your child's doctor.

**The diagnosis of ASD requires a multi-disciplinary assessment. This means a team – consisting of a paediatrician, psychologist and/or speech pathologist – will assess your child. As features vary so much between children, there is no single or simple test for ASD.**

Early intervention is important for helping your child reach their full potential. Your child's treating team or specialist will help to develop an action plan for the family that can include information resources, parent training, strategies for family support, and an action plan for your child.

Treatment will depend of the needs of each child and the nature of their impairment/s and may include:

Speech therapy: most children with ASD have communication difficulties and will benefit from seeing a speech therapist to help them improve their language and social skills in connecting with others through conversation.

Medication: may be helpful in some specific situations, especially involving some of the associated problems listed above like sleeping difficulties, aggressive behaviour.

Behaviour therapy: a psychologist may help identify triggers for behavioural outbursts and help the family develop ways to avoid and/or manage these issues.

Social skills development: an Applied Behaviour Analysis (ABA) therapist works one-on-one with children to help them 'learn how to learn', and to help them develop social and communication skills.

Occupational therapy: occupational therapists can help children who are oversensitive to hearing, visual input or touch. They can also help with concentration and focus.

Environmental changes: children with ASD prefer a structured and predictable environment and routine. Visual aids such as picture cards (e.g. a picture of a bed that a child can point to) can be very helpful to improve children's understanding and communication and therefore reduce their stress.

Special education settings: there are a number of early intervention programs available for children with ASD. If your child attends a regular school, they will be supported by a Student Support Group (or similar arrangement) and a classroom aide. There are also specialist schools that may be more suitable for some children with ASD.

The needs of your child and family may change over time, and your child's treatment will change to meet these needs.

**People with ASD will not grow out of their condition, but will learn ways to function well in society. Many adults with ASD live very comfortable, successful lives, without others being aware that they have ASD.**

The cost of intervention depends on the severity of the ASD as well as the number of consultations needed. The Australian government heavily subsidises early intervention, and also offers support through NDIS/carer payments/allowances for children with developmental problems. Discuss these financial supports with your doctor.

Interventions can begin as soon as your child is able to interact with health professionals. It may seem like playing games to your child, but they will be learning invaluable life skills, such as socialising and communicating. Children are often diagnosed with ASD after they turn three years old, which is when intervention usually begins.

**Parents often ask question should my child attend a normal school?**

It depends on the severity of the condition. Many children with ASD are encouraged to attend regular schools. Your school can work with you to accommodate any special requirements your child may have in the classroom and in the playground. Your child may be eligible for a teacher's aid, who can provide extra support in the classroom. There are specialist schools available for children severely affected by ASD who need more support that a regular school can provide.

**Some people have incredible skills in memory, mathematics, art, music or problem-solving. They are referred to as savants and the condition is very rare (one in a million people). About half of all savants have ASD (autistic savant) and one in 10 children with ASD have some areas of incredible skill, despite their unusual behaviours or difficulties with communication.**

Courtesy,

**RCH, Aspect, WAAD**

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