

An introduction to autism

School resources

Autism is a type of neurodevelopmental difference, present early in and throughout life. Recent estimates suggest that as many as one in 59 children may be diagnosed with autism. Males are currently three to four times more likely to be diagnosed with autism than females, although research suggests that females may be underdiagnosed.

Autistic people's brains make different kinds of patterns of connections than typically developing brains, and are particularly good at making multiple and diffuse connections. This means that autistic people have very busy brains, and may have trouble switching between tasks. They also have specialised, focused, and intense interests. Autistic people usually have difficulty with social communication and interacting with others, due to different, and fewer, connections being present in these areas of the brain¹. If a person has trouble with social communication and interaction, but does not have specialised and intense interests (or vice versa), then he or she is not autistic.

Autistic children and young people may have some of the following characteristics². Firstly, they may demonstrate differences in social communication and interaction, such as:

- **'Social-emotional reciprocity'**, including differences in ways of sharing emotions, initiating conversations, or responding to others' attempts to interact.
- **Non-verbal communication**, including differences in use of eye contact, gesture, and facial expressions.
- **Developing and maintaining relationships**, including differences in identifying behaviours for a particular context, differences in ways of making friends, or differing levels of interest in peers.

Autistic children and young people may also have specialised, focused and intense interests, including:

- **A preference for particular motor movements, use of objects, or speech**, such as lining up toys, or using particular speech and hand mannerisms.
- **A preference for continuity and sameness particularly in routines**, and they may become distressed about changes or transitioning between activities. They may also need some time to learn new routines.
- **Fascination with a particular interest** such as cars, dinosaurs, or a particular period in history.
- Autistic children and young people may experience differences in the way they experience and process sensations and [sensory information](#). For example, they may be underresponsive to certain sensations, not noticing pain, hunger, or temperature, or not responding when spoken to. They may be hypersensitive to other sensory information, perhaps having a dislike of or experiencing distress from specific sounds or textures. They may find some sensory information overwhelming, or alternatively they may seek out sensations that they find enjoyable or therapeutic. There is an extremely wide range of sensory profiles, and it is important to be attentive to an individual student's sensory needs.

Autistic children and young people may also have one or more other medical or behavioural conditions. This could include intellectual disability, language disorder, self-injurious behaviour, epilepsy, [attention](#)

[deficit hyperactivity disorder](#), [pathological demand avoidance \(PDA\)](#), mood disorder, sleep problems, and/or issues with eating and drinking. When working with autistic students, it is important to be informed about any co-occurring conditions.

Without appropriate support, adjustments, and modifications, an autistic child or young person may experience difficulties and distress in social situations, at school, and at home. Autism is a broad spectrum that encompasses a diverse range of autistic experiences, meaning that some children and young people may require more support than others. The amount and type of support that each child or young person needs will also change as they develop. It is important to remember that autistic people will be very diverse individuals. As the saying goes: 'if you've met one autistic person, you've met one autistic person'.

The way that autism is defined and described has changed a great deal since it was first identified in the 1940s³. Presently, the correct diagnostic label is Autism Spectrum Disorder (ASD). However, this label can be perceived as offensive by autistic people and their families, and reinforce the negative stereotype that autism means something is wrong and in need of curing. Autism, Autistic Spectrum Conditions [ASC], or autism spectrum are preferable terms⁴. Generally, autistic individuals prefer identity-first rather than person-first language (autistic person rather than person with autism) to emphasise autistic identity (similar to an ethnic or cultural identity⁵), although teachers should respect the family's individual preferences here. Terms such as Asperger's syndrome have been used for individuals with social interaction differences and specialised, focused, and intense interests but without cognitive or language delay. These individuals would now receive a diagnosis of ASD rather than Asperger's syndrome. It is likely that the definition and defining characteristics of autism will change as researchers learn more about autism.

Strengths and abilities

Autistic people have many strengths. The way that autistic people perceive the world often means they bring a unique perspective to many situations. They are less susceptible to cognitive biases, and they may be innovative and effective problem-solvers. They may have enhanced perceptual skills, with strong visual memory, great attention to detail, and a high levels of pattern recognition. Many autistic children and young people develop intense interests, about which they are able to learn a great deal. They also have the ability to focus intently and for extended periods on topics and activities that interest them. There is no interrelationship between autism and intelligence, and with the appropriate supports and opportunities, autistic students are capable of being highly successful at school. Indeed, their strengths in areas such as problem-solving, attention to detail, and visual memory, as well as their ability to hyperfocus for long periods, may support their academic success in a number of ways.

Myths and misconceptions about autism

Autism has received a lot of attention in popular culture and in the media, which has led to the spread of several myths and misconceptions. These are some examples of beliefs about autism which are not supported by research:

- **Autistic people are not interested in social interaction**

Many autistic children and young people do demonstrate differences in social interaction but this does not mean that they do not want to be social or make friends. In fact, many individuals with autism do report that they have friends, and also report feeling lonely if they do not have friends.

- **Autistic people don't have empathy**

Some autistic children and young people may struggle to interpret and understand others' emotions

because of difficulty reading body language, facial expressions, and non-verbal cues. However, this does not mean that they are unable to empathise with other people's emotional experiences. Research suggests that, when emotions are communicated more directly, autistic individuals may be just as likely to feel empathy for others.

- **All autistic people are savants**

This stereotype has probably spread due to popular movies such as *Rain Man*. Even though most autistic people are not savants, they have unique strengths and challenges, just like every other person.

- **Vaccines cause autism**

This is an extremely damaging and completely unsupported myth. The original study which claimed that vaccines cause autism was fundamentally flawed and was withdrawn from the journal in which it was published. At least 15 well-designed studies, involving more than 1.8 million children, have found that there is no link between autism and vaccines.

Early signs of autism

Most research suggests that signs of autism are often apparent in children under the age of one, and that most children can be reliably diagnosed with autism before the age of two. For children under the age of two, there are several behaviours that could be relevant for a later diagnosis of autism⁶. These include the absence of or differences in:

- Engagement in social games (such as peek-a-boo)
- Eye contact
- Response to name (for example, not turning when name is called)
- Imitation
- Pointing or use of social gestures (such as waving or clapping)
- Joint attention (like following another's point and gaze)

They also include the presence of:

- Using another's hand/body as a tool (such as placing someone's hand on a container as a request to open it)
- Repetitive behaviours (like lining up toys)
- Stimming (self-stimulation) behaviours, such as flapping hands or arms, in order to calm or express feelings
- Sensory behaviours and interests (for example, staring at objects, smelling objects)
- Ritualistic behaviours and routines (such as needing all doors in the house to be closed)
- Echolalia (repeating back what is said to them)

What to do if you are concerned

It is important to remember that some children who show behaviours relevant to an autism diagnosis may not be autistic. Only trained professionals can diagnose a child with autism. A child or young person should not be labelled as autistic without an official diagnosis.

As a teacher, there are several things you can do if you have concerns about a student:

- Speak to other members of staff to see if they share your concerns. Most schools have a Special Education Needs Coordinator (SENCo) who may be knowledgeable in this area.
- Observe the student and record specific behaviours of note.
- Speak to the student's parents. *Do not* say that the child or young person might have autism: instead, talk about the specific behaviours you have noticed.
- If the parents are also concerned, then you can advise them to talk to their GP. If the GP shares these concerns, then he or she will refer the child to a paediatrician or relevant agency.

The diagnostic process

In New Zealand, most children and young people who are suspected to be autistic undergo assessment with the Child Development Service. It is recommended that assessment is conducted by a multidisciplinary team⁷. Typical members of the team include paediatricians, child and adolescent psychiatrists, clinical or educational psychologists, speech-language therapists, and occupational therapists. This assessment should include:

- Developmental and family history
- Physical examination and medical testing
- Observations of the child or young person in familiar settings such as the home or school
- Observation using standardised measures such as the Autism Diagnostic Observation Schedule

The importance of early support

Arguably, there is little point in providing an early diagnosis if it does not lead to tailored early support. There is a lot of research to suggest that the earlier a child receives support, the greater the progress he or she is likely to make in areas such as communication, social skills, and daily living skills, although it is important that supports and services are aimed at facilitating the autistic child or young person to live their lives as authentically autistic - in other words, without aiming to correct the child's autism or autistic characteristics. Adjustments and modifications to the environment that can be made to accommodate a child's strengths and challenges will significantly help improve their wellbeing and learning. It is important to ensure that the strategies used to support autistic children and young people are both empowering and based on high-quality research evidence.

Endnotes

- 1 Heyworth, M. (2021). Introduction to autism, Part 1: What is autism? Reframing autism. <https://reframingautism.org.au/what-is-autism/>
- 2 American Psychiatric Association. (2013). Diagnostic and statistical manual of mental disorders (5th Ed.). Arlington, VA: American Psychiatric Publishing.
- 3 Kanner, L. (1943). Autistic disturbances of affective contact. *Nervous Child*, 2, 217-250.
- 4 Autism NZ. (2022). Autism Terminology Guidance From the Autistic Community of Aotearoa New Zealand (autismnz.org.nz)
- 5 Autism NZ. 2022.
- 6 Barbaro, J., Ridgway, L., & Dissanayake, C. (2011). Developmental surveillance of infants and toddlers by maternal and child health nurses in an Australian

community-based setting: Promoting the early identification of autism spectrum disorders. *Journal of Pediatric Nursing*, 26(4), 334-347.

- 7 Ministries of Health and Education (2008). *New Zealand Autism Spectrum Disorder Guideline*. Wellington: Ministry of Health.

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