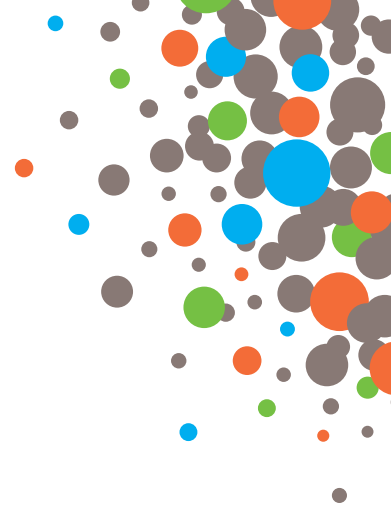




The National Centre of Excellence  
in Youth Mental Health



MythBuster

## Autism spectrum disorder: Fighting myths with evidence

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**MYTH**

“Autistic people  
don’t want to or  
can’t establish  
relationships”



This MythBuster is designed for young people, their families and friends, and the service providers who work with them, to better understand important aspects about autism spectrum disorder (also called ASD or autism). The first section summarises some key facts about ASD and the second section describes some common myths about autism, where these myths come from, why they are harmful, and the evidence against them.

### Autistic person or person with autism?

Autistic person (identity-first language) vs person with autism (person-first language) – what should we use?

The majority of autistic people choose identity-first language<sup>1-4</sup> (e.g. 'autistic person'), embracing autism as part of their identity. However, many people prefer to use language that recognises the person first and autism as secondary to their identity (e.g. 'person with autism').

This resource uses identity-first language, such as 'autistic person', to align with the position taken by Amaze, the peak body for people with autism and their supporters in Victoria (Australia)<sup>5</sup>.

### What is autism?

Autism spectrum disorder is a lifelong developmental disorder affecting about 1% of people. It is usually first diagnosed in children after the age of three, or in the primary school years. ASD is an umbrella term that includes conditions that were previously called: autistic disorder, Asperger's disorder, and pervasive developmental disorder<sup>6</sup>.

Autism does not look the same for everyone; it occurs on a very broad spectrum and can present in any number of different ways. Generally, autistic people will have problems communicating and interacting with others, and may seem inflexible. They can also have habits that some people may see as repetitive, inappropriate, or odd. Some autistic people can also experience other conditions, such as problems with language, intellectual disability, anxiety (including social anxiety), and depression<sup>6-8</sup>. An autistic person may demonstrate all or few of these traits in any combination, and at any level of severity. It is not known what causes ASD, but research suggests that it is at least part genetic and may also be part environmental<sup>9-11</sup>.

### Busting myths about autism...

There are a lot of myths about ASD. This is probably in part because some well-known film and television shows have characters that are portrayed as having ASD, including Sheldon Cooper from *The Big Bang Theory*<sup>12</sup> and Raymond Babbitt from *Rain Man*<sup>13</sup>, which can lead to stereotypes about ASD. It is important to understand that autistic people have many individual strengths, but ASD can sometimes be challenging for those experiencing it, as well as for their family, friends or other supports. These challenges can be made worse by the fact that people may have the wrong idea about what ASD is.

### MYTH: "Autistic people don't want to or can't establish relationships"

#### Where did this come from?

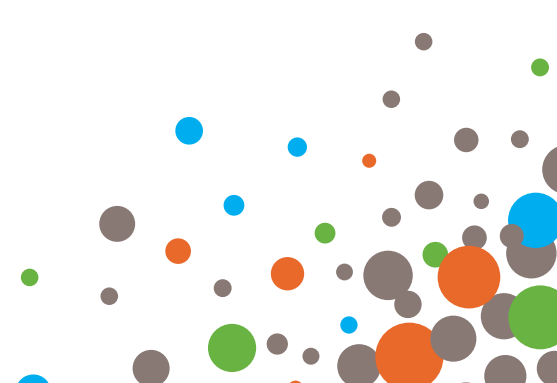
ASD can involve difficulties in communication and social functioning<sup>6</sup>. It also often co-occurs with social anxiety<sup>8</sup>. It is possible that some people mistake these difficulties for a lack of desire to participate in relationships. However, just because someone finds something difficult, doesn't mean they don't want to do it.

#### Why is this myth harmful?

Deciding that an autistic person does not want to, or is not capable of having relationships may change someone's behaviour towards that person. That is, a person holding those beliefs about an autistic person may be less likely to try to engage with or befriend them. This may make a connection much less likely and can lead to loneliness for an autistic person, which in turn can lead to low self-esteem, depression, and anxiety<sup>14</sup>.

#### What does the evidence say?

Just like other people, autistic people feel good and enjoy themselves when they spend time with friends<sup>15, 16</sup>. And just like other people, they may feel loneliness and want friendships and romantic relationships<sup>14, 17, 18</sup>. They are also just as capable of having lasting and satisfying romantic relationships<sup>17, 19</sup>. Taking this into account, along with the consequences of loneliness, it is very important that autistic people are not denied the opportunity to make social connections because of harmful myths or assumptions.



## **MYTH: "Autistic people do not experience the full range of emotions"**

### **Where did this come from?**

Autistic people are not always able to express or communicate their emotions in the same way as the general population<sup>6, 20-22</sup>. It also appears that neurotypical (non-autistic) people may sometimes have difficulty correctly interpreting the way an autistic person expresses their emotions<sup>23</sup>. It may be because of these difficulties that others assume that autistic people simply don't experience emotions.

### **Why is this myth harmful?**

Assuming that autistic people are less capable of some or all emotions can change the way that they are treated by society. This may lead some neurotypical people to believe that an autistic person's feelings can't be hurt, which could change the way they behave towards autistic people. This assumption also denies autistic people human-ness, and may rob them of many positive experiences with others.

### **What does the evidence say?**

Autistic people have the same experiences as anyone else; they are capable of feeling a full spectrum of emotions, even if they can't always express this<sup>16, 24, 25</sup>. Research has also confirmed that there is no difference in the intensity of emotion felt by autistic people and those in the general population<sup>16, 24, 25</sup>.

## **MYTH: "All autistic people have a 'savant' skill"**

### **Where did this come from?**

Savant syndrome is a rare condition, described as one where someone with a developmental disorder that interrupts their functioning, has an 'island of genius' or a special skill<sup>26</sup>. These skills can be anything from memorising things like dates, timetables, or trivia, to outstanding performance in areas such as music, art, or maths<sup>26</sup>. Many fictional, pop culture portrayals of autism have a special skill or ability. This stereotype of ASD may be why some people form the idea that these special skills and abilities are a part of or almost always accompany it.

### **Why is this myth harmful?**

This myth places a lot of pressure on autistic people to have a special skill, whereas most of the time they will not. It also encourages the community to treat all autistic people as the same, which denies them their individuality and human-ness.

### **What does the evidence say?**

The rates of savant syndrome are higher in the autistic population than in the neurotypical population<sup>27-29</sup>. It also appears that most people with a savant skill also have ASD<sup>30</sup>. This means that there is likely to be some sort of link between ASD and savant skills. However, we currently do not know the exact nature of that link, and despite these elevated rates of savant skills in the autistic population, more than two thirds of autistic people do not have a savant skill<sup>29</sup>. This means that although ASD and savant skills may be linked in some way, most autistic people do not have a savant skill.

## **MYTH: "Autistic people are intellectually disabled"**

### **Where did this come from?**

One of the features of ASD is difficulty communicating with others. Autistic people can also sometimes seem rigid or fixated when they are talking to others<sup>6</sup>. Neurotypical people may therefore have difficulty understanding the emotions, viewpoints, or behaviours of autistic people, and so might incorrectly assume that they have an intellectual disability. This is not helped by the fact that intellectual disability can - but does not necessarily - co-occur with ASD.

### **Why is this myth harmful?**

Assumptions about someone's intellectual abilities might lead to them missing important educational and social interaction opportunities, and may thus lead to poorer outcomes.

### **What does the evidence say?**

Research indicates that the rate of intellectual disability is higher in the autistic population than the neurotypical population<sup>31-33</sup>. However, recent estimates indicate that overall, it affects no more than half of autistic people<sup>31-33</sup>. In fact, many autistic people have an above average IQ<sup>31</sup>. It's neither helpful nor accurate to assume that someone with ASD has an intellectual disability.

## **MYTH: "Autism can be outgrown or cured"**

### **Where did this come from?**

There is a lot of misinformation about 'cures' for ASD. This idea has been present for some time, but has recently been sensationalised in the media<sup>34</sup>.

### **Why is this myth harmful?**

The idea that autism can be cured is a damaging myth because it places pressure and blame on autistic people and their parents or carers. It can also cause distress if people try, but cannot, cure their ASD. Importantly, it also discounts the many strengths associated with autism.

### **What does the evidence say?**

There is no cure for ASD. This has been demonstrated by extensive research and multiple exhaustive, high quality



reviews of research in the area<sup>35-44</sup>. Autism is a lifelong difference, but that does not mean that some of the challenges associated with it can't be improved. Research has shown that it is possible to improve the functioning and quality of life of autistic people. For example, studies have shown that some programs can improve social skills, job skills, and education outcomes for autistic people struggling with those things. Other programs have been able to reduce the distress experienced by autistic people and the behaviours associated with that distress<sup>45-51</sup>. So, while ASD cannot be cured, it is possible for an autistic person to capitalise on their many individual strengths and to reduce some of the challenges associated with their ASD.

### **MYTH: "Autism is caused by parenting style"**

#### **Where did this come from?**

In the very first formal description of autism in 1943, Leo Kanner suggested that the condition was likely to be created in children by cold, unemotional parenting<sup>52</sup>. This idea became known as 'refrigerator parenting', and for a long time was thought to be autism's cause<sup>53, 54</sup>.

#### **Why is this myth harmful?**

It goes without saying that blaming parents and their parenting style for their children's developmental disorders is not only harmful to autistic people, but also to parents, families, and other supports. Aside from the psychological and emotional distress this blame can cause, it has previously led to autistic children being unnecessarily separated from their families for long periods of time<sup>53</sup>.

#### **What does the evidence say?**

As more research was conducted on the causes of ASD, it became clear that the 'refrigerator parent' idea was incorrect. Today, no clear, single cause of ASD has been identified, but research shows that it is at least part genetic and may also be part environmental<sup>9-11</sup>.

### **MYTH: "Vaccinations cause autism"**

#### **Where did this come from?**

The idea that vaccinations cause autism started with a 1998 study of 12 children with developmental disorders<sup>55</sup>. This study claimed that some of the parents of the children in the sample associated the onset of their child's developmental disorder with the administration of the measles, mumps, and rubella vaccine.

#### **Why is this myth harmful?**

This is a particularly dangerous myth that has led to some children suffering unnecessarily from preventable diseases because their parents decided not to vaccinate them in response to this research<sup>56</sup>. This under-vaccination response by parents has also reduced the overall immunity levels of society, leading to more deadly illnesses affecting children who can't be vaccinated for genuine medical reasons.

### **What does the evidence say?**

The authors of the above study were later found to have *intentionally altered* their results to make it look like the measles, mumps, and rubella vaccine was associated with autism<sup>57</sup>. The falsified results, poor experimental design, very small study size, and other concerns led to the paper being withdrawn from publication<sup>58</sup>. Extensive, high quality research in the 20 years since that paper was published has not found any link between vaccines and ASD<sup>10, 59, 60</sup>. There is no scientific evidence to support the notion that vaccines lead to ASD.

### **MYTH: "There is an increase in the rates of autism"**

#### **Where did this come from?**

There has been an increase in the number of children diagnosed with ASD over the past 25 years<sup>61-63</sup>, and this has led some people to claim we are in the midst of an autism 'epidemic'<sup>64, 65</sup>.

#### **Why is this myth harmful?**

Using the term 'epidemic' to refer to the rise in diagnoses of ASD is harmful because it implies that ASD is contagious. Belief in this myth can further stigmatise autism and cause unnecessary worry within in the community.

#### **What does the evidence say?**

It may seem logical to think that an increase in the number of people diagnosed with ASD means that the rates of ASD are increasing, but the reality is a little more complicated. The rise in rates of diagnosis of a disorder can mean that the rates of that disorder are increasing, but it can also mean a number of other things. In the case of autism, the increase in diagnosed cases is thought to be because of a change of definitions<sup>66-68</sup> and new, better ways of diagnosing ASD<sup>66</sup>.

### **MYTH: "Autistic people are all alike"**

#### **Where did this come from?**

In order to be diagnosed with ASD, autistic people must share some traits. It can therefore be easy for others to assume that all autistic people have the same personalities, challenges, and abilities.

#### **Why is this myth harmful?**

It's never a good thing to make assumptions about who someone is and how they will behave according to a stereotype, which may include negative aspects. When people presume to know the entire personality of an autistic person based on only one aspect (i.e. a diagnosis), they deny that person human-ness. It can be very distressing for an autistic person to be labelled a particular way before they have had the chance to be themselves and express themselves in their own unique way.

## What does the evidence say?

Just like the neurotypical population, autistic people have a diverse range of personalities, talents, skills, challenges, interests, countries of origin, and cultural backgrounds<sup>46, 69-74</sup>. All autistic people have different ASD features, with many variations in their experiences<sup>6, 71, 75-77</sup>. A good demonstration of the diversity of autistic people can be found in the vastly differing talents of some public figures who identify as autistic and are open about their experiences. Some of these people include singers (e.g. Susan Boyle), actors (e.g. Dan Akroyd, Daryl Hannah), scientists (e.g. Dr Temple Grandin, Dr Lisa-Ann Gershwin), TV personalities (e.g. Dan Harmon), models (e.g. Heather Kuzmich), and professional food bloggers (e.g. Chase Bailey).

## **MYTH: "Autistic people are prone to violence"**

### Where did this come from?

There is a misconception that autistic people are more likely to be aggressive or violent. This idea may be based on previous research that has drawn weak or questionable conclusions about this relationship<sup>78, 79</sup>.

### Why is this myth harmful?

This myth can contribute to autistic people experiencing stigma, and may contribute to social exclusion.

### What does the evidence say?

Whilst some research has reported violent behaviours in autistic people, these either tend to be studies of a single autistic person (and therefore are not representative), or that have not compared the rates of violence in an autistic sample with those of a similar group of people without ASD<sup>78, 79</sup>. This means that any conclusions of that research cannot be applied to autistic people in general, and that it does not say anything meaningful about how these rates compare to the general population. A recent high quality review of the published research on aggression in autistic people found that there was no evidence that autistic people are more violent than the general population<sup>78</sup>, and that these previous assumptions were because of flawed methodology in the research.

## So what does this all mean?

Busting common myths about ASD is important as it helps people to avoid jumping to conclusions or making assumptions about what ASD is like for a person. The diagnosis of an autism spectrum disorder can mean different things to different people. For some it is a welcome relief, for others it may feel confusing or upsetting, and for some people it is something to be proud of. ASD is a unique experience for each individual, and while there can be aspects of it that present challenges, there are also strengths to embrace.

## Further resources

### Useful websites

[Amaze \(AU\)](#)

[www.autism-help.org](http://www.autism-help.org)

[Autism Spectrum Australia](#)

[Autism Association of Western Australia](#)

[National Autistic Society \(UK\)](#)

### Related factsheets

[Autism Spectrum Disorder + Young People](#)

[Depression + Young People](#)

[Anxiety + Young People](#)



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