



“Psychology Works” Fact Sheet: Autism Spectrum Disorder

What is Autism Spectrum Disorder (ASD)?

Autism spectrum disorder (ASD) is a neurological (brain-based) disorder that affects the development of social and communication abilities, as well as other aspects of behaviour, in characteristic ways. The term "autism spectrum disorder" (ASD) reflects the current view that the impact of ASD on learning and behaviour can range from relatively mild to severe in any or all of these areas of development. For example, the pattern of social and behavioural differences that defines ASD can co-exist with all levels of intellect, although a substantial minority of people with ASD also have an intellectual disability. People with ASD face challenges in understanding and relating to other people in typical reciprocal ways. For example, although interested in social interactions and relationships someone with ASD may lack a natural grasp of some interpersonal skills, such as the ability to take another person's point of view. Language difficulties with may make it harder for some people with ASD to express their ideas, or to understand others' complex spoken ideas. However, even when language skills are strong, other differences in communication may affect social situations. For example, a person with ASD might have difficulty beginning a conversation or keeping one going in a fluent, two-sided manner. People with ASD also tend to have inflexible patterns of thinking and behaviour. For example, their interests and activities may be narrow, unusual, and /or more intense than those of their peers. In some individuals with ASD, unusual sensory responses may include over- and/or under-reaction to lights, sounds, touch, tastes, odours, or pain. Long-term outcomes vary widely for persons with ASD. Some individuals attain academic and vocational success, as well as independent living, especially as our communities become more accepting of social differences. Vulnerability to mental health difficulties such as anxiety and depression remains an issue for many of these otherwise able adults with ASD.

Research shows that ASD is a genetic disorder, but the specific causes are not yet known. The risk of developing ASD is increased for children born to families who already have a diagnosed family member, and more boys /men than girls / women are affected by ASD (although ASD is also less often diagnosed accurately in girls and women). ASD is a life-long condition that is usually recognized in more severe forms by age 2 or 3 years – often at this age because the child is not yet speaking and shows limited interest in people. However, more subtle signs of ASD may not be recognized until much later, often when the child enters school and their differences from their peers become more obvious.

How is ASD diagnosed?

ASD is diagnosed by an experienced clinician (usually a clinical child psychologist or a specialist physician) based on patterns of behaviour. There is no medical test for ASD. The diagnosis is made by gathering in-depth information from parents and others about specific aspects of the individual's development and behaviour, and by making systematic direct observations of behaviour -- both what the person *does* that



may be atypical, and *doesn't* do that would be expected of a typically developing individual at that age or level of development.

With earlier recognition in young children and a better understanding of both milder and more severe forms in people of all ages, the diagnosis of ASD is becoming far more common. A recent Canadian estimate suggests that at least 1 in every 66 children is affected (Public Health Agency of Canada, 2018). The impact of ASD varies, but can be overwhelming for some families, as well as for the health, education and community services that support them. Many communities are trying to keep pace with the increasing need for ASD services.

What do we do about ASD? Can Psychology help?

Outcomes for many people with ASD are far more positive than in past decades. Advances in psychological research have improved our understanding of the fundamental developmental differences as well as the challenges faced by people with ASD. Psychologists have contributed to improved methods of recognizing, assessing, and treating ASD. Psychological assessment of children's ability profiles – areas of relative strength and weakness – as well as evaluation of both ASD symptoms and co-occurring conditions - can guide the development of appropriate programs for children with ASD. Treatments based on psychological principles are at the leading edge of autism intervention.

Early intensive intervention based on the scientifically derived principles of learning (Applied Behaviour Analysis, or ABA) can help children with ASD when used within an individualized treatment program. Key areas for intervention usually include language / communication and social skills, daily living skills, self-regulation or coping skills, and family support. A variety of other psychological / behavioural interventions may be integrated with ABA-based techniques to meet an individual's needs. These include incidental teaching and other strategies (such as pivotal response treatment) that capitalize on teaching opportunities in the home and community. Structured teaching approaches emphasize organizing the person's environment (schedules, materials and settings) to optimize learning and functioning. Peer-mediated interventions, in which other children are taught effective ways to interact with a child with ASD, can promote more positive social opportunities. For older and more able individuals with ASD, cognitive-behavioural therapy (CBT) strategies can be modified to help manage the anxiety that is common in ASD. CBT involves teaching individuals how to change the way they think, and to use systematic relaxation techniques, in the specific situations that provoke anxiety. Emotion regulation strategies may also be taught using modified CBT methods. Evidence-based treatment for the mental health needs of adults with ASD may be particularly hard to find. Psychologists and other mental health professionals who understand ASD can modify existing programs to customize treatment when ASD-specific services are lacking. Vocational supports such as job coaching and appropriate recreational opportunities may also be beneficial for many people with ASD.

Where can I get more information?

Provincial / territorial autism organizations: <https://autismcanada.org/about-us/board-advisors/provincial-territorial-council-3/>



- National Autistic Society (UK), <http://www.autism.org.uk>
- Provincial associations of psychology: <http://www.cpa.ca/public/whatisapsychologist/PTassociations>
- Psychology Foundation of Canada: <http://www.psychologyfoundation.org>
- American Psychological Association (APA): <http://www.apa.org/helpcenter>

You can consult with a registered psychologist to find out if psychological interventions might be of help to you. Provincial, territorial, and some municipal associations of psychology often maintain referral services. For the names and coordinates of provincial and territorial associations of psychology, please visit: <http://www.cpa.ca/public/whatisapsychologist/PTassociations>

This fact sheet has been prepared for the Canadian Psychological Association by Isabel M. Smith, PhD. Dr. Smith is a registered Clinical Psychologist, Professor and Joan and Jack Craig Chair in Autism Research, Departments of Pediatrics and Psychology & Neuroscience, Dalhousie University. Dr. Smith's work at the Autism Research Centre at the IWK Health Centre in Halifax NS is focused on children and adolescents with ASD and their families.

July 2019

Your opinion matters! Please contact us with any questions or comments about any of the *Psychology Works* Fact Sheets: factsheets@cpa.ca

Canadian Psychological Association
141 Laurier Avenue West, Suite 702
Ottawa, Ontario K1P 5J3
Tel: 613-237-2144
Toll free (in Canada): 1-888-472-0657

