



Mental Health and Emotional Literacy Program

Autism

Autism Spectrum Disorder (ASD) is a neurobehavioral disorder which affects the way the brain functions. Individuals with autism have difficulties with social interaction and atypical patterns of behavior, activities and interests. The term spectrum means that each individual can be affected differently, ranging from mild to severe impairments.

A good way to think about autism spectrum in kids is that it is functionally 3 different “spectrums”:

- Social reciprocity and restrictive or repetitive behaviors and interests
- Language development
- Intellectual or cognitive abilities

As you can imagine, there can be lots of combinations of mild, moderate and severe challenges in each of these categories.

Common Behaviors in Autism

While these are some common behaviors seen in children with autism, they can also be seen in neurotypical children. It is the combination of behaviors that makes autism a possible diagnosis.

Social Skills examples:

- Limited interest in social interaction with other children
- Lack of social play, such as copying
- Failure to make eye contact, for example when called by name or in conversation
- Poor understanding/respect of “personal bubbles”
- Limited to practical topics of conversation or restricted interests making it hard for peers to engage in conversation.
- Lack of desire or struggles making & keeping friends.
- Struggling when others demonstrate emotions.

in brief

- Autism is a neurodevelopmental disorder
- The diagnosis requires deficits in social reciprocity and restricted or repetitive interests or behaviors
- It is often associated with language delay and intellectual disability
- The diagnosis and treatment are based on multidisciplinary teams



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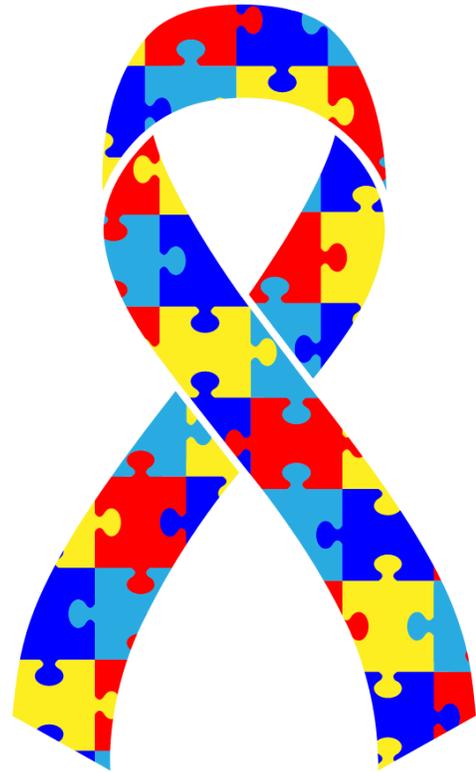


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Nonverbal and verbal communication depends heavily on a number of social conventions and can be challenging for children with autism:

- Children with autism may struggle to interpret or understand the function of eye contact, facial expressions, intonation or gestures. As children with autism get older they may learn to deploy some of these skills and sometimes come off as robotic/theatrical or insincere (e.g. smiling without the eyes, forced sounding laughter)
- Repeating words without intending them to have meaning (echolalia)
- Difficulty with turn-taking in conversation
- Children above age 6 who become distressed with or struggle with understanding metaphors, humor, sarcasm, teasing, jokes, or deception.



Some examples of repetitive or restrictive interests or behaviors that can be seen in children with autism:

- Repetitive use of the body for movement (can be self-stimulating or self-harming)
- Lining up / ordering toys in a specific manner
- Preference for eating particular foods
- Rigidity in routines - always needing the same events to happen in the same order
- Focused / intense / restricted interest in a particular topic (interests of children with ASD are more specific, unusual, and intense than those of typically developing children)

Some children with autism display atypical responses to sensory stimuli:

- over responsiveness, under responsiveness or inappropriate reactions to noises, tactile sensations, smells, tastes)
- Preoccupation with edges or spinning objects
- Refusal to eat foods with certain tastes or textures or eating only foods with certain tastes and textures
- Pain response to light touch.
- Calming effect to deep pressure.
- Resistance to certain types of clothing/tags.

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For a more in-depth view of the actual diagnostic criteria all physicians and psychologists use to diagnose autism, please consult the following:

<https://www.cdc.gov/ncbddd/autism/hcp-dsm.html>

It is common for children with ASD to have associated language delay, however, language delay is not necessary to make a diagnosis.

- Some children are non-verbal and may make no apparent attempt at communication
- Some children may exclusively gesture to communicate their needs
- Some may have single words / a very limited vocabulary
- Some may have language delay
- Some children seem to experience regression (loss of previously acquired skills)
- Atypical tempo, melody or tone.
- Specific language-based learning disabilities (reading, listening comprehension, oral expression, and written expression)

It is common for children with ASD to have a certain degree of intellectual disability. It is not necessary for the diagnosis.

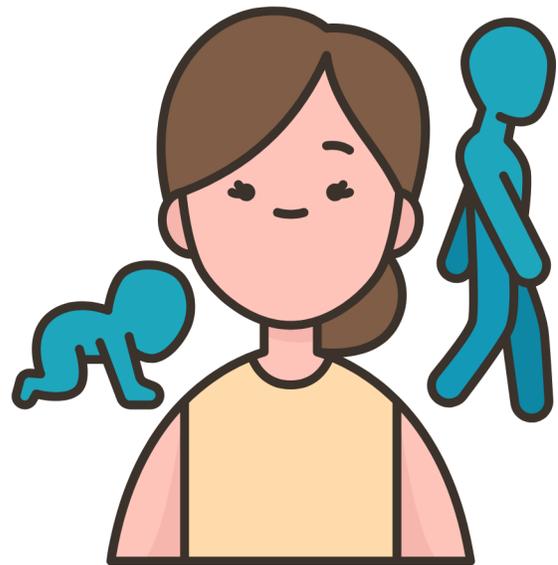
Causes

There are various genetic and environmental factors that interact with and contribute to autism.

If your child is diagnosed with autism, your pediatrician may order some bloodwork to investigate for some medical and genetic causes.

- Autism is more common in males
- Autism is more common in siblings of children with autism
- Many named genetic syndromes have increased risk for autism

Some of the effects that are associated with autism can happen during fetal development (for example drug exposures, prematurity or prenatal infections).



Autism is not caused by MMR or any other immunizations. For more information on this topic, please visit: www.immunize.ca/en/publications-resources/questions/autism.aspx
www.cdc.gov/vaccinesafety/Concerns/Autism/antigens.html

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Diagnosis

The diagnostic process for autism can be initiated by parents, teachers, family doctors or the pediatrician on the basis of social dysfunction, atypical behaviors, behavioral challenges, language delay or academic dysfunction.

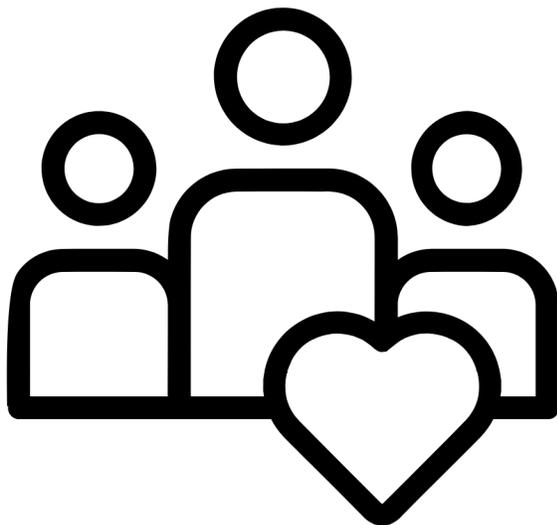
It will always involve history taking, a physical exam and usually involve scoring questionnaires and information from other health care specialists like Speech Language Pathology, Psychology or even teachers.

Determining that a child has autism usually requires input from a multidisciplinary team. Diagnosis is based on specific criteria set forth by the DSM-5, which is the Diagnosis and Statistical Manual of Mental Health Disorders

There are various ways that you can be diagnosed:

- Community Pediatrician, in certain situations with input from your child's current multidisciplinary team
- Child Developmental Services at the Child Developmental Centre
- Private assessment by a trained psychologist or in some specialized preschools.

Once your child has been diagnosed with autism, you are strongly encouraged to attend the "After a diagnosis of Autism Spectrum Disorder" session at Child Developmental Services. Ask your pediatrician for more information.



Treatment

Autism is a neurodevelopmental disorder - meaning at all times, the brain functions differently than in neurotypical peers. The goals of interventions in autism are:

- Improve social functioning and play skills
- Improve communication skills
- Improve the child's ability to adapt to different situations/requirements
- Decrease negative behaviors
- Improve academic functioning

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Intensive early intervention involves a multidisciplinary team that can include:

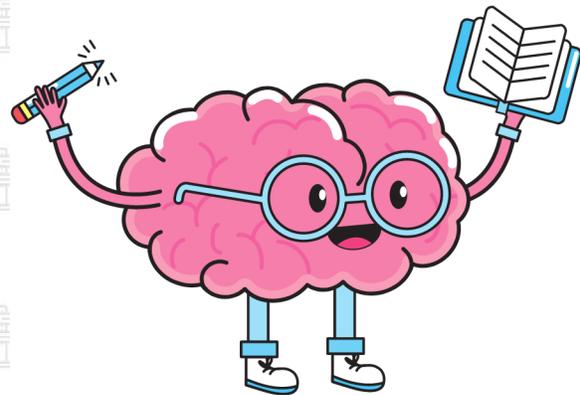
- Your pediatrician, and occasionally other medical specialists
- Speech language pathologist (SLP),
- Occupational therapist (OT),
- Physiotherapist (PT),
- Behavioural therapist,
- Psychologist

Treatment is often done as a combination of school-program-based and in-home support. In Calgary, there are a variety of specialized preschools and schools. More information on this can be obtained from your local school board - ask your pediatrician for a diagnosis letter for the school.

Medications for ASD

There are no specific medications for ASD.

It is very common to find other associated mental health conditions such as ADHD, depression, anxiety, sleep disruption or aggression with ASD - these conditions can generally benefit from medical treatment.



Alternative treatments.

Alternative treatments for autism include things such as specific diets or supplements. These are not widely recommended in autism as most are not supported by any scientific evidence. Many families will explore alternative treatments, and it is important to ensure that you are making an informed decision. The pediatricians at Pinecone Pediatrics do not promote or endorse a specific alternate treatment for autism. It is important to tell your child's pediatrician if you have chosen to explore an alternative treatment.

Funding & Support

Preschool Unit Funding (PUF)

A trained specialist, such as SLP, OT or PT submits a diagnostic report on the behalf of families to obtain funding for their service. The assessment usually needs to be done after March for

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program funding for the following September. There are 3 years of funding available, generally starting at age 2.5 to 3 years old and continuing for the first year of kindergarten.

With a new diagnosis of autism your child likely qualifies for one or both of the below government support programs. Please take time to inform yourself about the nature of these programs before submitting the application(s).

For Family Supports for Children with Disability (FSCD) more information can be found at <https://www.alberta.ca/fscd-supports-and-services.aspx>

For the application itself start with this site:

<https://www.alberta.ca/fscd-how-to-apply.aspx>

You will need a letter from your pediatrician. Feel free to book a follow-up appointment if you need to discuss this further.

Disability tax credit

For the Disability Tax Credit, you may find a partially filled form which you will need to complete and send in. Similarly, feel free to book a follow-up if you need to discuss this further.

AUTISM RESOURCES

This is not meant to be a comprehensive list of all the autism resources, but rather is meant to highlight some of the frequently used and local resources by our patient's families.

Autism Calgary www.autismcalgary.com

Autism Society Canada <https://autismcanada.org/>

Autism Canada Foundation autismcanada.org

Society for Treatment of Autism
<https://www.sta-ab.com/>

Autism Society Alberta <https://autismalberta.ca/>



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Autism Partnership Calgary <https://www.autismpartnership.ca/calgary.html>

Autism Aspergers Friendship Society of Calgary www.aafscalgary.com

Between Friends Club www.betweenfriends.ab.ca

The Ability Hub from Sinneave Foundation (For teens - focused on transitioning to adult living with autism) www.theabilityhub.org If you have a teen transitioning out of our practice with a diagnosis of autism, please discuss the Ability Hub with your pediatrician.

Children's Link, Autism Resources www.childrenslink.ca

ACH Family & Community Resource Centre, Information Prescription on Autism <http://fcrc.albertahealthservices.ca/health-information/library/information-prescriptions/asd/> - great website with LOTS of information for parents about autism

Neurodevelopmental Disorders Care Coordination Project <http://fcrc.albertahealthservices.ca/coordination/> - Let us know if you think you qualify for this program - your pediatrician can look into it with you and make a referral as needed.

Health Help: <http://healthhelpalberta.org/> this not-for-profit group proposes to help families fill out forms, navigate and access all the resources they may benefit from for autism.

AUTISM BEHAVIOUR SUPPORT RESOURCES

When we are looking at behavioral interventions, it is important to identify a goal. Is it to:

- Teach new skills?
- Maintain positive behaviors?
- Transfer behavior to a new situation?
- Reduce interfering/negative behaviors?

Your child's allied health team (including occupational therapist (OT), behavioral aide, psychologist) is a great resource to help understand your child's behavior. You are strongly encouraged to ask them about your specific concerns and questions! For severe behavioral problems, ask your team and FSCD if anyone is able to do a functional behavioral analysis. This type of assessment looks at what is happening right before the episode, the episode itself, and what is the outcome of the episode. For example, was the outcome sensory seeking, avoiding,

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attention-seeking, etc. Understanding all aspects of the behavior, will help you and your team make a plan to address it. That being said, many parents would like to know more and review behavioral supports online. Below is a summary of some of the websites that can help you gain insight into your child's behaviors. This list is not meant to be inclusive, and we are not promoting a specific website.

Websites:

National Autism Centre works to (1) Develop and disseminate national standards of practice (2) Provide reliable information about evidence-based interventions (3) Shape public policy concerning ASD and its treatment

www.nationalautismcenter.org

Autism Focused Intervention Modules (AFIRM) has modules designed to help you learn the step-by-step process of planning for, using, and monitoring an evidence-based plan (EBP) to help challenging behaviours.

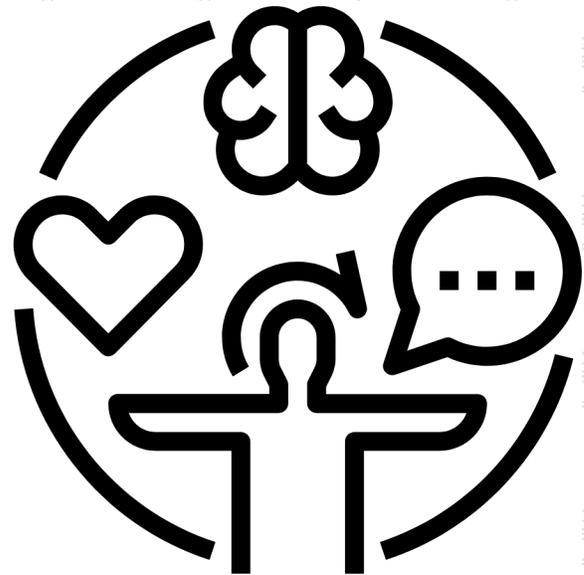
<https://afirm.fpg.unc.edu/node/137>

Autism Internet Modules (AIMs) has modules designed to provide high-quality information and professional development for anyone who supports, instructs, works with, or lives with someone with autism. <https://autisminternetmodules.org/>

Positive Behaviour Supports (PBS) combines evidence-based practices from applied behavior analysis (ABA) and other disciplines to resolve behavioral challenges and improve the independence, participation, and overall quality of life of individuals. <http://www.pbsc.info/>

The Enhance Lab has multiple studies looking at Autism. They are free programs if you agree to participate in their research studies. One study is looking at treating anxiety in persons with Autism called "Facing Your Fears Program" for ages 8-14yr. Please ask your pediatrician if you'd like a referral to this program. <https://www.enhancekidshealth.com/current-projects>

Autism Speaks website has lots of great resources, which include free Toolkits to download. The toolkits include visual schedules to help teach your child behavioural skills to navigate certain



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situations, such as blood draws, dental work, and travel.

<https://www.autismspeaks.ca/science-services-resources/resources/>

There are lots of apps out there, but one that seems to work well by offering visual choices is Choiceworks. There is a cost to use all the features of this app, even the basic/free part is worthwhile. If you come across a website or app that you really like, or any of these links don't work when you try them please let us know!

NAVIGATING INFORMATION ON INTERVENTION FOR AUTISM SPECTRUM DISORDERS

For a parent of a child with Autism Spectrum Disorder, it can be very overwhelming navigating the vast amount of information out there regarding intervention and treatment (as this message may very well prove!). Many families pursue further intervention outside of their allied health team and FSCD resources.

As pediatricians that care for children with ASD, we want to support you on this journey. Most importantly, we want you to pursue an intervention that does not bring harm to your child. It is also important to focus your time, energy, and money on therapies that have proven benefits. This is an ever-changing field with ongoing research and we wanted to provide you with some resources to access great, up-to-date information on evidence-based interventions.



As a member of your child's care team, it is important for your pediatrician to be aware of all the interventions your child is involved in. This includes all medical therapy, behavioral therapy, complementary and alternative therapies.

National Autism Center

www.nationalautismcenter.org Develops national standards of practice for ASD. Provides reliable information regarding evidence-based interventions. The National Standards Project is found here and is a summary of the ASD intervention research and provides information on "Established" interventions, "Emerging" interventions, and "Unestablished" interventions. Phase 1 was published in 2009, Phase 2 in 2015, and Phase 3 is anticipated in 2021.

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National Professional Development Center

<https://autismpdc.fpg.unc.edu/national-professional-development-center-autism-spectrum-disorder> Goal of the NPDC is to promote the use of evidence-based practices for children and youth with ASD. A good resource on how to plan, implement and monitor evidence-based practice. Includes the Autism Focused Intervention Modules (AFIRM).

Association for Science in Autism Treatment www.asaonline.org Great information on ASD and specifically evidenced-based information on treatments. Divides up information on Psychological, Educational, Therapeutic Interventions and Biomedical Interventions into “what works”, “what needs more research”, “what doesn’t work or is untested”, and quotes the studies on each therapy. Also an incredible wealth of resources for parents, educators, and medical professionals on all aspects of ASD. Includes videos of various effective teaching methods and instructions on getting started with the home ABA program.

Huge thanks to Infinity Pediatrics for sharing much of this information on their website.

We know this is a lot of information, and we would love to meet again and discuss any questions you might have about any of the content here. Please let us know if any of the links aren’t working - we’ll fix it ASAP

Your care team at



**Compassion,
Collaboration and
Community.**

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Pinecone Pediatrics & Priscilla : (587) 885-2767

Rocky Mountain Psychological services : (403) 245-5981

Access Mental Health: (403) 943-1500

Crisis line : call or text 2-1-1