

Changing Leaves

with Behaviour Analysis



# Next Steps: Resource Guide

for Individuals with  
Disabilities Across  
the Lifespan

Courtney Brohart, MPEd, BCBA

Board Certified Behaviour Analyst  
Changing Leaves with Behaviour Analysis

Calgary,  
Alberta

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## INTRODUCTION

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Changing Leaves with Behaviour Analysis has created this handbook as a resource for parents and guardians of infants and young children. At Changing Leaves with Behaviour Analysis, we understand the important role parents and caregivers have in the early detection of developmental delays. The research is clear that early intervention is beneficial for a child and therefore, the earlier a concern can be identified the sooner therapy can start. This handbook outlines the steps you can take in identifying developmental concerns and provides guidance for next steps.

### Autism Defined

#### Myths About Autism

There are so many misconceptions about autism and it is important to separate the myths from the facts (Autism Speaks, 2018).

Myths	Facts
We know what causes it	Autism is caused by a combination of genetic and environmental influences
Autism is caused by bad parenting	Autism occurs in all racial, ethnic and socio-economic groups
People with autism prefer to be alone	Autism is a lifelong spectrum disorder
Children with autism are not affectionate	Early intervention can make a lifetime of difference
Children with autism don't speak but understand everything	Mental health concerns such as anxiety and depression are common in individuals with autism

Myths	Facts
Autism is only a language disorder	No two people with autism are the same, not even identical twins
Every person with autism has an exceptional ability	Autism doesn't make an individual unable to feel the emotions you feel, it just makes the person communicate emotions (and perceive your expressions) in different ways
The prevalence of autism has been increasing for the last 40 years	Individuals with autism have a normal life span

## Autism Spectrum Disorder (ASD)

- + It is a neurodevelopmental disorder
- + It is a spectrum disorder, which means different levels of symptom severity
- + It now encompasses Autistic disorder, Asperger Syndrome, childhood disintegrative disorder, Pervasive Development Disorder Not Otherwise Specified (PDD-NOS), Rett Syndrome, and Childhood Disintegrative Disorder
- + It is diagnosed through clinical observation and parent report
- + Behaviour impairments are evident in 2 key areas: social communication and social interaction; and restricted and repetitive behaviours, interests, and activities
- + Ratio of boys to girls is 5:1
- + Rapidly increasing prevalence, 1 in 68
- + Research suggests possibly hundreds of causes of Autism

Research has shown that there is no one cause of autism just as there is no one type of autism. Researchers have identified more than a hundred autism risk genes. In around 15% of cases, a specific genetic cause of a person's autism can be identified. However, most cases involve a complex and variable combination of genetic risk and environmental factors that influence early brain development. There is a number of non-genetic, or environmental influence that further increases a child's risk. (NIMH, 2020)

Sometimes you can't control the risk factors!

## What to Look For?

### Why the increase in PREVALENCE?

Elimination of the Diagnostic and Statistical Manual (DSM-5) categories, better diagnosticians, earlier detection, media and Internet, and more effective intervention.

The prevalence has increased over 100% in the last 10 years. Autism is now the fastest growing and most commonly diagnosed neurological disorder in Canada.

### If You Have Concerns

Parents, trust your instincts when it comes to your child's development, you know them best! It is important to continually monitor your child's development and seek out second opinions if need to ensure your concerns are properly addressed.

Here are the steps to follow:

1. Identify developmental concerns
2. Make an appointment with your family doctor or paediatrician to discuss developmental milestones
3. Paediatric medical screening (referred by family doctor or pediatrician) to further evaluate age appropriate development
4. Family doctor or paediatrician makes a referral for relevant developmental assessments:
5. Hearing tests vision test, speech and language, occupational therapy, psychological assessment, Autism Spectrum (ASD), and/or Complex Developmental Behavioural Conditions (CDBC). These assessments can be done through:
  - a. A private clinic
  - b. Your local regional health authority (public)

- \* Choosing to go the private or public route is your decision.
- \* Often there are no wait lists through a private clinic, which can speed up the process.

## Developmental Milestones

Developmental milestones are things most children can do by a certain age. If you are concerned about your child reaching various developmental milestones the resource below can help (NIMH, 2020):

	Social & Emotional	Language / Communication	Cognitive (learning, thinking, problem-solving)	Movement / Physical Development
2 months	<ul style="list-style-type: none"> <li>- Begins to smile at people</li> <li>- Can briefly calm herself (may bring hands to mouth and suck on hand)</li> <li>- Tries to look at parent</li> </ul>	<ul style="list-style-type: none"> <li>- Coos, makes gurgling sounds</li> <li>- Turns head toward sounds</li> </ul>	<ul style="list-style-type: none"> <li>- Pays attention to faces</li> <li>- Begins to follow things with eyes and recognize people at a distance</li> <li>- Begins to act bored (cries, fussy) if activity doesn't change</li> </ul>	<ul style="list-style-type: none"> <li>- Can hold head up and begins to push up when lying on tummy</li> <li>- Makes smoother movements with arms and legs</li> </ul>
4 months	<ul style="list-style-type: none"> <li>- Smiles spontaneously, especially at people</li> <li>- Likes to play with people and might cry when playing stops</li> <li>- Copies some movements and facial expressions, like smiling or frowning</li> </ul>	<ul style="list-style-type: none"> <li>- Begins to babble</li> <li>- Babbles with expression and copies sounds he hears</li> <li>- Cries in different ways to show hunger, pain, or being tired</li> </ul>	<ul style="list-style-type: none"> <li>- Lets you know if he is happy or sad</li> <li>- Responds to affection</li> <li>- Reaches for toy with one hand</li> <li>- Uses hands and eyes together, such as seeing a toy and reaching for it</li> <li>- Follows moving things with eyes from side to side</li> <li>- Watches faces closely</li> </ul>	<ul style="list-style-type: none"> <li>- Holds head steady, unsupported</li> <li>- Pushes down on legs when feet are on a hard surface</li> <li>- May be able to roll over from tummy to back</li> <li>- Can hold a toy and shake it and swing at dangling toys</li> <li>- Brings hands to mouth</li> </ul>



	Social & Emotional	Language / Communication	Cognitive (learning, thinking, problem-solving)	Movement / Physical Development
			- Recognizes familiar people and things at a distance	- When lying on stomach, pushes up to elbows
6 months	<ul style="list-style-type: none"> <li>- Knows familiar faces and begins to know if someone is a stranger</li> <li>- Likes to play with others, especially parents</li> <li>- Responds to other people's emotions and often seems happy</li> <li>- Likes to look at self in a mirror</li> </ul>	<ul style="list-style-type: none"> <li>- Responds to sounds by making sounds</li> <li>- Strings vowels together when babbling ("ah," "eh," "oh") and likes taking turns with parent while making sounds</li> <li>- Responds to own name</li> <li>- Makes sounds to show joy and displeasure</li> <li>- Begins to say consonant sounds (jabbering with "m," "b")</li> </ul>	<ul style="list-style-type: none"> <li>- Looks around at things nearby</li> <li>- Brings things to mouth</li> <li>- Shows curiosity about things and tries to get things that are out of reach</li> <li>- Begins to pass things from one hand to the other</li> </ul>	<ul style="list-style-type: none"> <li>- Rolls over in both directions (front to back, back to front)</li> <li>- Begins to sit without support</li> <li>- When standing, supports weight on legs and might bounce</li> <li>- Rocks back and forth, sometimes crawling backward before moving forward</li> </ul>
9 months	<ul style="list-style-type: none"> <li>- May be afraid of strangers</li> <li>- May be clingy with familiar adults</li> <li>- Has favourite toys</li> </ul>	<ul style="list-style-type: none"> <li>- Understands "no"</li> <li>- Makes a lot of different sounds like "mamamama" and "bababababa"</li> <li>- Copies sounds and gestures of others</li> <li>- Uses fingers to point at things</li> </ul>	<ul style="list-style-type: none"> <li>- Watches the path of something as it falls</li> <li>- Looks for things she sees you hide</li> <li>- Plays peek-a-boo</li> <li>- Puts things in his mouth</li> <li>- Moves things smoothly from one hand to the other</li> <li>- Picks up things like cereal o's</li> </ul>	<ul style="list-style-type: none"> <li>- Can get into sitting position</li> <li>- Sits without support</li> <li>- Pulls to stand</li> <li>- Crawls</li> </ul>

	Social & Emotional	Language / Communication	Cognitive (learning, thinking, problem-solving)	Movement / Physical Development
			between thumb and index finger	
1 year	<ul style="list-style-type: none"> <li>- Is shy or nervous with strangers</li> <li>- Cries when mom or dad leaves</li> <li>- Has favorite things and people</li> <li>- Shows fear in some situations</li> <li>- Hands you a book when he wants to hear a story</li> <li>- Repeats sounds or actions to get attention</li> <li>- Puts out arm or leg to help with dressing</li> <li>- Plays games such as "peek-a-boo" and "pat-a-cake"</li> </ul>	<ul style="list-style-type: none"> <li>- Responds to simple spoken requests</li> <li>- Uses simple gestures, like shaking head "no" or waving "bye-bye"</li> <li>- Makes sounds with changes in tone (sounds more like speech)</li> <li>- Says "mama" and "dada" and exclamations like "uh-oh!"</li> <li>- Tries to say words you say</li> </ul>	<ul style="list-style-type: none"> <li>- Explores things in different ways, like shaking, banging, throwing</li> <li>- Finds hidden things easily</li> <li>- Looks at the right picture or thing when it's named</li> <li>- Copies gestures</li> <li>- Starts to use things correctly; for example, drinks from a cup, brushes hair</li> <li>- Bangs two things together</li> <li>- Puts things in a container, takes things out of a container</li> <li>- Lets things go without help</li> <li>- Pokes with index (pointer) finger</li> <li>- Follows simple directions like "pick up the toy"</li> </ul>	<ul style="list-style-type: none"> <li>- Gets to a sitting position without help</li> <li>- Pulls up to stand, walks holding on to furniture ("cruising")</li> <li>- May take a few steps without holding on</li> <li>- May stand alone</li> </ul>
18 months	<ul style="list-style-type: none"> <li>- Likes to hand things to others as play</li> <li>- May have temper tantrums</li> <li>- May be afraid of strangers</li> </ul>	<ul style="list-style-type: none"> <li>- Says several single words</li> <li>- Says and shakes head "no"</li> <li>- Points to show someone what he wants</li> </ul>	<ul style="list-style-type: none"> <li>- Knows what ordinary things are for; for example, telephone, brush, spoon</li> <li>- Points to get the attention of others</li> </ul>	<ul style="list-style-type: none"> <li>- Walks alone</li> <li>- May walk up steps and run</li> <li>- Pulls toys while walking</li> </ul>

	Social & Emotional	Language / Communication	Cognitive (learning, thinking, problem-solving)	Movement / Physical Development
	<ul style="list-style-type: none"> <li>- Shows affection to familiar people</li> <li>- Plays simple pretend, such as feeding a doll</li> <li>- May cling to caregivers in new situations</li> <li>- Points to show others something interesting</li> <li>- Explores alone but with parent close by</li> </ul>		<ul style="list-style-type: none"> <li>- Shows interest in a doll or stuffed animal by pretending to feed</li> <li>- Points to one body part</li> <li>- Scribbles on his own</li> <li>- Can follow 1-step verbal commands without any gestures; for example, sits when you say "sit down"</li> </ul>	<ul style="list-style-type: none"> <li>- Can help undress herself</li> <li>- Drinks from a cup</li> <li>- Eats with a spoon</li> </ul>
2 years	<ul style="list-style-type: none"> <li>- Copies others, especially adults and older children</li> <li>- Gets excited when with other children</li> <li>- Shows more and more independence</li> <li>- Shows defiant behaviour (doing what he has been told not to)</li> <li>- Plays mainly beside other children, but is beginning to include other children, such as in chase games</li> </ul>	<ul style="list-style-type: none"> <li>- Points to things or pictures when they are named</li> <li>- Knows names of familiar people and body parts</li> <li>- Says sentences with 2 to 4 words</li> <li>- Follows simple instructions</li> <li>- Repeats words overheard in conversation</li> <li>- Points to things in a book</li> </ul>	<ul style="list-style-type: none"> <li>- Finds things even when hidden under two or three covers</li> <li>- Begins to sort shapes and colours</li> <li>- Completes sentences and rhymes in familiar books</li> <li>- Plays simple make-believe games</li> <li>- Builds towers of 4 or more blocks</li> <li>- Might use one hand more than the other</li> <li>- Follows two-step instructions such as "Pick up your shoes and put them in the closet."</li> <li>- Names items in a picture book such</li> </ul>	<ul style="list-style-type: none"> <li>- Stands on tiptoe</li> <li>- Kicks a ball</li> <li>- Begins to run</li> <li>- Climbs onto and down from furniture without help</li> <li>- Walks up and down stairs holding on</li> <li>- Throws ball overhand</li> <li>- Makes or copies straight lines and circles</li> </ul>

	Social & Emotional	Language / Communication	Cognitive (learning, thinking, problem-solving)	Movement / Physical Development
			as a cat, bird, or dog	
3 years	<ul style="list-style-type: none"> <li>- Copies adults and friends</li> <li>- Shows affection for friends without prompting</li> <li>- Takes turns in games</li> <li>- Shows concern for crying friend</li> <li>- Understands the idea of "mine" and "his" or "hers"</li> <li>- Shows a wide range of emotions</li> <li>- Separates easily from mom and dad</li> <li>- May get upset with major changes in routine</li> <li>- Dresses and undresses self</li> </ul>	<ul style="list-style-type: none"> <li>- Follows instructions with 2 or 3 steps</li> <li>- Can name most familiar things</li> <li>- Understands words like "in," "on," and "under"</li> <li>- Says first name, age, and sex</li> <li>- Names a friend</li> <li>- Says words like "I," "me," "we," and "you" and some plurals (cars, dogs, cats)</li> <li>- Talks well enough for strangers to understand most of the time</li> <li>- Carries on a conversation using 2 to 3 sentences</li> </ul>	<ul style="list-style-type: none"> <li>- Can work toys with buttons, levers, and moving parts</li> <li>- Plays make-believe with dolls, animals, and people</li> <li>- Does puzzles with 3 or 4 pieces</li> <li>- Understands what "two" means</li> <li>- Copies a circle with pencil or crayon</li> <li>- Turns book pages one at a time</li> <li>- Builds towers of more than 6 blocks</li> <li>- Screws and unscrews jar lids or turns door handle</li> </ul>	<ul style="list-style-type: none"> <li>- Climbs well</li> <li>- Runs easily</li> <li>- Pedals a tricycle (3-wheel bike)</li> <li>- Walks up and down stairs, one foot on each step</li> </ul>
4 years	<ul style="list-style-type: none"> <li>- Enjoys doing new things</li> <li>- Plays "Mom" and "Dad"</li> <li>- Is more and more creative with make-believe play</li> <li>- Would rather play with other children than by himself</li> <li>- Cooperates with other children</li> </ul>	<ul style="list-style-type: none"> <li>- Knows some basic rules of grammar, such as correctly using "he" and "she"</li> <li>- Sings a song or says a poem from memory such as the "Itsy Bitsy Spider" or the "Wheels on the Bus"</li> <li>- Tells stories</li> </ul>	<ul style="list-style-type: none"> <li>- Names some colours and some numbers</li> <li>- Understands the idea of counting</li> <li>- Starts to understand time</li> <li>- Remembers parts of a story</li> <li>- Understands the idea of "same" and "different"</li> </ul>	<ul style="list-style-type: none"> <li>- Hops and stands on one foot up to 2 seconds</li> <li>- Catches a bounced ball most of the time</li> <li>- Pours, cuts with supervision, and mashes own food</li> </ul>

	Social & Emotional	Language / Communication	Cognitive (learning, thinking, problem-solving)	Movement / Physical Development
	<ul style="list-style-type: none"> <li>- Often can't tell what's real and what's make-believe</li> <li>- Talks about what she likes and what she is interested in</li> </ul>	<ul style="list-style-type: none"> <li>- Can say first and last name</li> </ul>	<ul style="list-style-type: none"> <li>- Draws a person with 2 to 4 body parts</li> <li>- Uses scissors</li> <li>- Starts to copy some capital letters</li> <li>- Plays board or card games</li> <li>- Tells you what he thinks is going to happen next in a book</li> </ul>	
5 years	<ul style="list-style-type: none"> <li>- Wants to please friends</li> <li>- Wants to be like friends</li> <li>- More likely to agree with rules</li> <li>- Likes to sing, dance, and act</li> <li>- Is aware of gender</li> <li>- Can tell what's real and what's make-believe</li> <li>- Shows more independence (for example, may visit a next-door neighbour by himself [adult supervision is still needed])</li> <li>- Is sometimes demanding and sometimes very cooperative</li> </ul>	<ul style="list-style-type: none"> <li>- Speaks very clearly</li> <li>- Tells a simple story using full sentences</li> <li>- Uses future tense; for example, "Grandma will be here."</li> <li>- Says name and address</li> </ul>	<ul style="list-style-type: none"> <li>- Counts 10 or more things</li> <li>- Can draw a person with at least 6 body parts</li> <li>- Can print some letters or numbers</li> <li>- Copies a triangle and other geometric shapes</li> <li>- Knows about things used every day, like money and food</li> </ul>	<ul style="list-style-type: none"> <li>- Stands on one foot for 10 seconds or longer</li> <li>- Hops; may be able to skip</li> <li>- Can do a somersault</li> <li>- Uses a fork and spoon and sometimes a table knife</li> <li>- Can use the toilet on her own</li> <li>- Swings and climbs</li> </ul>

(CDC, 2020)

Act early by talking to your child's doctor if your child:	
2 months	<ul style="list-style-type: none"> <li>Doesn't respond to loud sounds</li> <li>Doesn't watch things as they move</li> <li>Doesn't smile at people</li> <li>Doesn't bring hands to mouth</li> <li>Can't hold head up when pushing up when on tummy</li> </ul>
4 months	<ul style="list-style-type: none"> <li>Doesn't watch things as they move</li> <li>Doesn't smile at people</li> <li>Can't hold head steady</li> <li>Doesn't coo or make sounds</li> <li>Doesn't bring things to mouth</li> <li>Doesn't push down with legs when feet are placed on a hard surface</li> <li>Has trouble moving one or both eyes in all directions</li> </ul>
6 months	<ul style="list-style-type: none"> <li>Doesn't try to get things that are in reach</li> <li>Shows no affection for caregivers</li> <li>Doesn't respond to sounds around him</li> <li>Has difficulty getting things to mouth</li> <li>Doesn't make vowel sounds ("ah", "eh", "oh")</li> <li>Doesn't roll over in either direction</li> <li>Doesn't laugh or make squealing sounds</li> <li>Seems very stiff, with tight muscles</li> <li>Seems very floppy, like a rag doll</li> </ul>
9 months	<ul style="list-style-type: none"> <li>Doesn't bear weight on legs with support</li> <li>Doesn't sit with help</li> <li>Doesn't babble ("mama", "baba", "dada")</li> <li>Doesn't play any games involving back-and-forth play</li> <li>Doesn't respond to own name</li> <li>Doesn't seem to recognize familiar people</li> </ul>

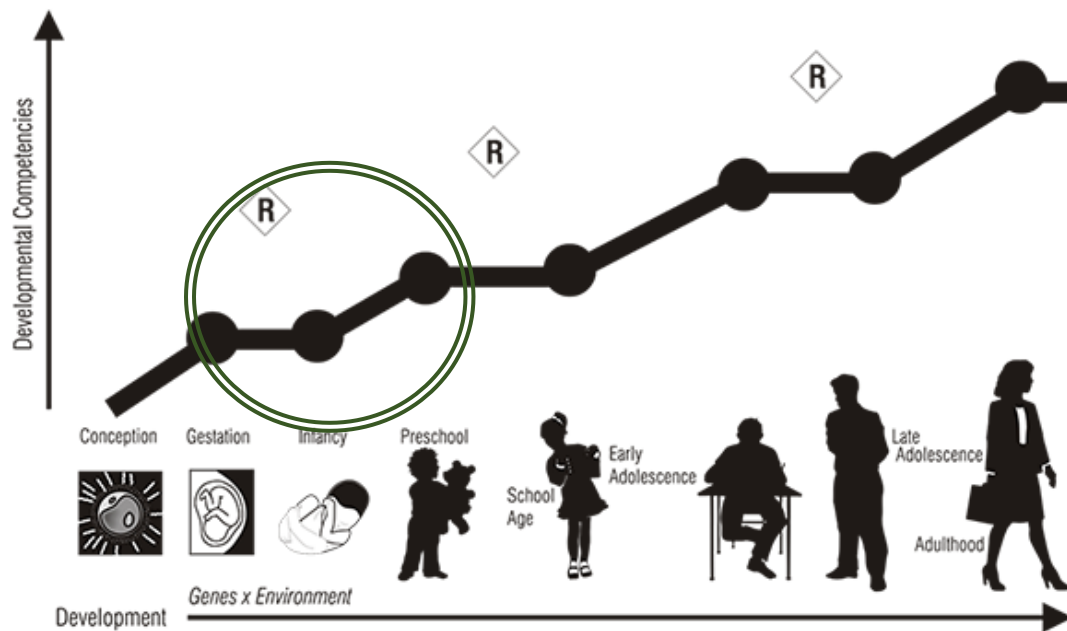
Act early by talking to your child's doctor if your child:	
	<ul style="list-style-type: none"> <li>Doesn't look where you point</li> <li>Doesn't transfer toys from one hand to the other</li> </ul>
1 year	<ul style="list-style-type: none"> <li>Doesn't crawl</li> <li>Can't stand when supported</li> <li>Doesn't search for things that she sees you hide</li> <li>Doesn't say single words like "mama" or "dada"</li> <li>Doesn't learn gestures like waving or shaking head</li> <li>Doesn't point to things</li> <li>Loses skills he once had</li> </ul>
18 months	<ul style="list-style-type: none"> <li>Doesn't point to show things to others</li> <li>Can't walk</li> <li>Doesn't know what familiar things are for</li> <li>Doesn't copy others</li> <li>Doesn't gain new words</li> <li>Doesn't have at least 6 words</li> <li>Doesn't notice or mind when a caregiver leaves or returns</li> <li>Loses skills he once had</li> </ul>
2 years	<ul style="list-style-type: none"> <li>Doesn't use 2-word phrases (for example, "drink milk")</li> <li>Doesn't know what to do with common things, like a brush, phone, fork, spoon</li> <li>Doesn't copy actions and words</li> <li>Doesn't follow simple instructions</li> <li>Doesn't walk steadily</li> <li>Loses skills she once had</li> </ul>
3 years	<ul style="list-style-type: none"> <li>Falls down a lot or has trouble with stairs</li> <li>Drools or has very unclear speech</li> <li>Can't work simple toys (such as peg boards, simple puzzles, turning handle)</li> <li>Doesn't speak in sentences</li> <li>Doesn't understand simple instructions</li> <li>Doesn't play pretend or make-believe</li> <li>Doesn't want to play with other children or with toys</li> </ul>

Act early by talking to your child's doctor if your child:	
	<p>Doesn't make eye contact</p> <p>Loses skills he once had</p>
4 years	<p>Can't jump in place</p> <p>Has trouble scribbling</p> <p>Shows no interest in interactive games or make-believe</p> <p>Ignores other children or doesn't respond to people outside the family</p> <p>Resists dressing, sleeping, and using the toilet</p> <p>Can't retell a favourite story</p> <p>Doesn't follow 3-part commands</p> <p>Doesn't understand "same" and "different"</p> <p>Doesn't use "me" and "you" correctly</p> <p>Speaks unclearly</p> <p>Loses skills he once had</p>
5 years	<p>Doesn't show a wide range of emotions</p> <p>Shows extreme behaviour (unusually fearful, aggressive, shy or sad)</p> <p>Unusually withdrawn and not active</p> <p>Is easily distracted, has trouble focusing on one activity for more than 5 minutes</p> <p>Doesn't respond to people, or responds only superficially</p> <p>Can't tell what's real and what's make-believe</p> <p>Doesn't play a variety of games and activities</p> <p>Can't give first and last name</p> <p>Doesn't use plurals or past tense properly</p> <p>Doesn't talk about daily activities or experiences</p> <p>Doesn't draw pictures</p> <p>Can't brush teeth, wash and dry hands, or get undressed without help</p> <p>Loses skills he once had</p>

(CDC, 2020)

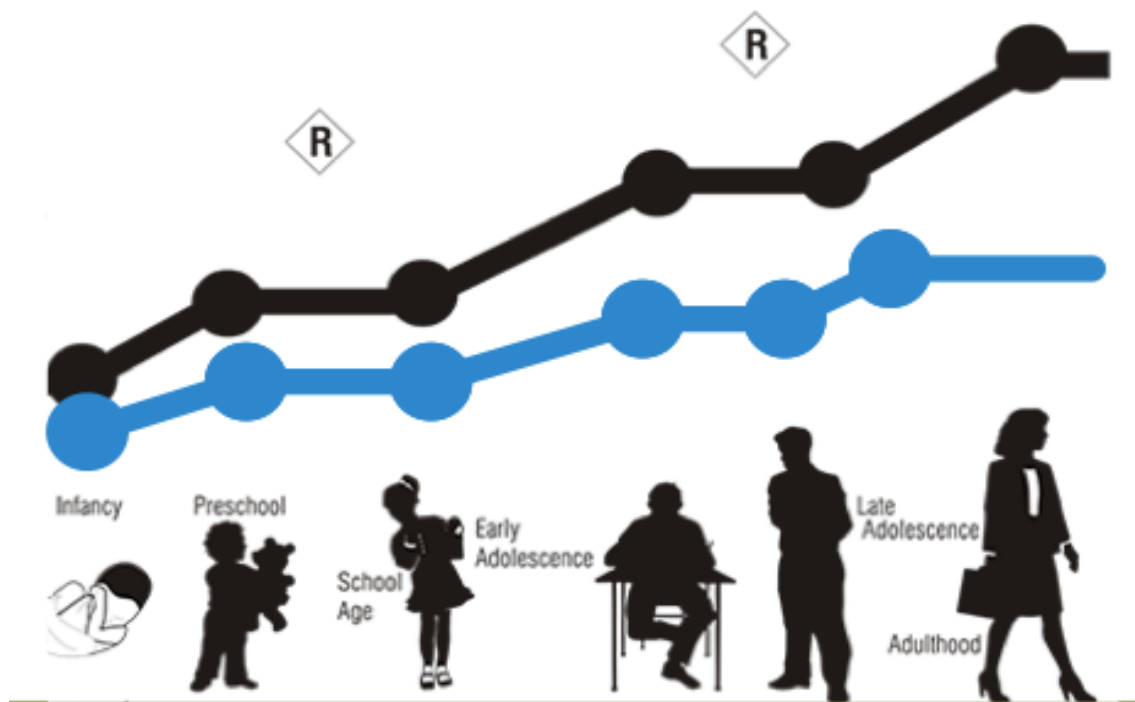


## Developmental Trajectory from Conception to Adulthood



(NIMH, 2001)

On the Y axis we have developmental competencies - this is the "bar." The bar includes things like, learning to play Lego with your brother, making a friend, having a conversation, getting homework done, joining the soccer team, getting a job, paying rent, going on dates, ending friendships. The bar is constantly rising. You see it does ebb and flow naturally, for all of us. Along the X-axis you see time passing, which includes the interaction of our nature (genetics) and our environment, again, which is unique for everyone.



(NIMH, 2001)

As you can see, a delay that begins in infancy/toddler years creates a gap in that trajectory. If intervention is not provided, it is likely that the developmental course will continue to be below what is expected at various time points. You can see the blue line still moves and stalls much like the person developing typically; however, they may not be meeting all the developmental competencies, which are expected at each stage.

**On the visual you saw a number of times when the “bar” raises.**

We believe that learning doesn’t stop because our earliest intervention window has closed. Our lifespan service model grows with the individual.

**The need for support is not consistent for every person across the lifespan.**

Learning continues across the lifespan, and occurs at different rates for everyone. We believe in leveraging available best-practice treatments and innovation in treatment planning to provide the best services and supports possible for each person.

**Treatment should be flexible, time limited, dynamic, and unique.**

Appropriate treatment should be both evidence-informed AND developmentally appropriate. The same strategy, if applied with a 4 year old and a 18 year old (e.g. a visual schedule) should look VASTLY different.

## GETTING STARTED

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### First Step, Who to Talk to?

#### Referral to a Developmental Specialist

The Autism Physician Handbook is a useful tool when speaking with your health care providers about a suspected diagnosis.

The first step is to get in touch with your family doctor or paediatrician. They will screen and/or assess your child for characteristics of autism. You may want to book a hearing test and make arrangements for speech and language assessments as well.

If you are interested in having your child assessed at a provider that provides this service, contact your child's physician who can complete the Developmental Paediatric Referral form. The assessment may be covered under your health benefits at your place of work or may cost ranges approximately 1,500 – 2,600 if you pursue the assessment privately depending on the child's age and IQ level.

#### Finding a family doctor

- I. Call Health Link at 811 province wide. In addition to helping you find a family doctor, Health Link provides 24/7 telephone nurse advice and general health information for Albertans and information on diseases, treatments, staying well, and healthcare services
- II. Use the Online tool provided by the College of Physicians and Surgeons to find a doctor in your area. URL: <http://search.cpsa.ca>
- III. Most family doctors are part of a Primary Care Network (PCN) (groups of health professionals working together to coordinate your health care). PCN's have tools to help you find a family doctor.

#### Finding a Paediatrician

- I. Speak with your family doctor to obtain a referral to a Calgary paediatrician or one in the surrounding area if necessary.

## Screening for Autism Spectrum Disorder

### Why It Is Important To Conduct Early Screening for ASD and Developmental Delays

#### + Autism can often be detected in infants (but not all) as young as 6-18 months (ASF, 2020)

Results of the Pierce study (2011) indicated that it is possible to detect some toddlers showing early signs autism and other delays at 12 months using a simple, broad band screening tool (i.e., the CSBS DP IT Checklist) that takes only 5 minutes for a caregiver to complete. The form is next scored by a trained medical professional, and any toddler that fails the CSBS Checklist should be referred for an in-depth developmental evaluation.

This study focuses our attention on the first birthday as a key age for efforts in early screening.

#### + Paediatricians are the first line of defence

Paediatricians in San Diego, who collectively screened over 10,000 babies as part of their involvement in this study, stand as a clear example of what can be done when people work together. Today over 170 paediatricians have joined the Autism Centre of Excellence paediatrician network and have screened over 18,000 toddlers at the routine 1-Year Check-Up.

#### + Early detection leads to early treatment

The very early treatment of autism can have a significantly positive impact on the health and well-being of children and their families. For example, a new research study by Dawson and colleagues (2010) has shown that toddlers with autism who received specialized treatment based on a developmental model between 18-30 months were shown to have an increase in 15 IQ points following treatment.

#### + Early detection and early treatment stand the greatest chance of positively impacting brain development

If we consider the positive impact of treatment from a brain development standpoint, the importance of early treatment becomes even clearer. Consider that babies are born with all the brain cells that they will ever have (with the exception of the hippocampus and olfactory

bulb which have been shown to produce new neurons postnatally). It is during the first 3 years of life that connections between brain cells in the frontal lobe – the part of the brain that is essential for the development of complex social behaviours – and the rest of the brain begin to become established. If treatment starts before mature brain circuitry is established (i.e., between ages 1 and 3 years), then it makes sense that treatment efforts may stand the best chance of promoting positive and effective connections between brain cells because stimulation and treatment will be happening while brain connections are actively being created (Tierney & Nelson, 2009).

In contrast, treatment that starts later in development (i.e., at age 4 or later) will have the more challenging job of trying to change connections in the brain that are already somewhat established (Tierney & Nelson, 2009).

#### **+ Early detection may help scientists in the search for early biomarkers and causes**

Screening for autism at 1 year using a broadband screen allows scientists the opportunity to study the disorder during the first year or two of life. This is before the onset of glaring symptoms, a key time point in development and an age that is virtually unstudied in the field of autism.

At the UCSD Autism Centre of Excellence, they use the 1-Year Well-Baby Check-Up Approach as a way to study autism during the first years of life. As a result, they have made several important discoveries about how the brain functions differently in babies at risk for autism relative to typically developing babies (see information on MRI and fMRI research).

(UCSD, 2020)

## **When Can You Screen for Autism Spectrum Disorders**

### **+ As Early as 18 months**

Research has found ASDs can sometimes be detected at 18 months or younger (Autism Canada, 2020). The earlier an ASD is diagnosed, the sooner treatment can begin.

### **+ Developmental Screening Tools**

Screening tools are designed to help identify children who might have developmental delays. Screening tools do not provide conclusive evidence of developmental delays and do not result in diagnoses (Autism Canada, 2020). A positive screening result should be followed up with a referral to a developmental specialist.

## + Types of Screening Tools

Screening tools may be administered by [professionals](#), [community service providers](#) and in some cases [parents](#).

## Types of Screening Tools

- A. Ages and Stages Questionnaire (ASQ)
- B. Communication and Symbolic Behaviour Scales (CSBS)
- C. Parent’s Evaluation of Development Status (PEDS)
- D. Modified Checklist for Autism in Toddlers, Revised (M-CHAT-R)
- E. Pervasive Development Disorder Screening Test-II (PDDST II)
- F. Screening Tool for Autism in Toddlers and Young Children (STAT)
- G. The Childhood Autism Rating Scale (CARS)
- H. Gilliam Autism Rating Scale – Second Edition (GARS-2)

\* This list is not exhaustive, and other tests are available.

(Autism Canada, 2020)

Autism Canada has several online screening tools available based on the age of the individual being screened at the following URL:

<https://autismcanada.org/about-autism/diagnosis/screening-tools/>

If you suspect you or a loved one has an autism spectrum disorder, please consult with your family doctor, neurologist, psychologist or developmental paediatrician.

## Type of Diagnostic Tools

### Diagnostic Criteria for Autism Spectrum Disorders

- A. DSM-5 Criteria for ASD With Examples

- B. Autism Diagnostic Interview, Revised (ADI-R)
- C. The Autism Diagnostic Observation Scale (ADOS)

### DSM-5 Criteria for ASD With Examples

#### A. PERSISTENT DEFICITS IN SOCIAL COMMUNICATION AND SOCIAL INTERACTION ACROSS CONTEXTS, NOT ACCOUNTED FOR BY GENERAL DEVELOPMENTAL DELAYS, AND MANIFEST BY 3 OF 3 SYMPTOMS:

- A1.** Deficits in social-emotional reciprocity; ranging from abnormal social approach and failure of normal back and forth conversation through reduced sharing of interests, emotions, and affect and response to total lack of initiation of social interaction.

\* A1 reflects problems with social initiation and response

- *Abnormal social approach*
  - Unusual social initiations (e.g. intrusive touching; licking of others)
  - Use of others as tool
- *Failure of normal back and forth conversation*
  - Poor pragmatic/social use of language (e.g. does not clarify if not understood; does not provide background information)
  - Failure to respond when name called or when spoken directly to
  - Does not initiate conversation
  - One-sided conversations/monologues/tangential speech
- *Reduced sharing of interests*
  - Doesn't share
  - Lack of showing, bringing, or pointing out objects of interest to other people
  - Impairments in joint attention (both initiating and responding)
- *Reduced sharing of emotions/affect*
  - Lack of responsive social smile (note: the focus here is on the response to another person's smile; other aspects of emotional expression should be considered under A2).
  - Failure to share enjoyment, excitement, or achievements with others
  - Failure to respond to praise
  - Does not show pleasure in social interactions
  - Failure to offer comfort to others
  - Indifference/aversion to physical contact and affection



- *Lack of initiation of social interaction*
  - Only initiates to get help; limited social initiations
- *Poor social imitation*
  - Failure to engage in simple social games

**A2.** Deficits in nonverbal communicative behaviours used for social interaction; ranging from poorly integrated- verbal and nonverbal communication, through abnormalities in eye contact and body-language, or deficits in understanding and use of nonverbal communication, to total lack of facial expression or gestures.

\* A2 reflects problems with non-verbal communication

- *Impairments in social use of eye contact*
- *Impairment in the use and understanding of body postures (e.g. facing away from a listener)*
- *Impairment in the use and understanding of gestures (e.g. pointing, waving, nodding/shaking head)*
- *Abnormal volume, pitch, intonation, rate, rhythm, stress, prosody or volume in speech*
- *Abnormalities in use and understanding of affect (note: responsive social smile should be considered under A1, while affect that is inappropriate for the context should be considered under A3)*
  - Impairment in the use of facial expressions (may be limited or exaggerated)
  - Lack of warm, joyful expressions directed at others
  - Limited communication of own affect (inability to convey a range of emotions via words, expressions, tone of voice, gestures)
  - Inability to recognize or interpret other's nonverbal expressions
  - Lack of coordinated verbal and nonverbal communication (e.g. inability to coordinate eye contact or body language with words)
  - Lack of coordinated non-verbal communication (e.g. inability to coordinate eye contact with gestures)

**A3.** Deficits in developing and maintaining relationships, appropriate to developmental level (beyond those with caregivers); ranging from difficulties adjusting behaviour to suit different social contexts through difficulties in sharing imaginative play and in making friends to an apparent absence of interest in people

\* A3 reflects problems with social awareness and insight, as well as with the broader concept of social relationships

- *Deficits in developing and maintaining relationships, appropriate to developmental level*
  - Lack of “theory of mind”; inability to take another person’s perspective (CA ≥ 4 years)
- *Difficulties adjusting behaviour to suit social contexts*
  - Does not notice another person’s lack of interest in an activity
  - Lack of response to contextual cues (e.g. social cues from others indicating a change in behaviour is implicitly requested)
  - Inappropriate expressions of emotion (laughing or smiling out of context) (note: other abnormalities in the use and understanding of emotion should be considered under A2)
  - Unaware of social conventions/appropriate social behaviour; asks socially inappropriate questions or makes socially inappropriate statements
  - Does not notice another’s distress or disinterest
  - Does not recognize when not welcome in a play or conversational setting
  - Limited recognition of social emotions (does not notice when he or she is being teased; does not notice how his or her behaviour impacts others emotionally)
- *Difficulties in sharing imaginative play (Note: solitary imaginative play/role playing is NOT captured here)*
  - Lack of imaginative play with peers, including social role playing (>4 years developmental age)
- *Difficulties in making friends*
  - Does not try to establish friendships
  - Does not have preferred friends
  - Lack of cooperative play (over 24 months developmental age); parallel play only
  - Unaware of being teased or ridiculed by other children
  - Does not play in groups of children
  - Does not play with children his/her age or developmental level (only older/younger)

- Has an interest in friendship but lacks understanding of the conventions of social interaction (e.g. extremely directive or rigid; overly passive)
- Does not respond to the social approaches of other children
- *Absence of interest in others*
  - Lack of interest in peers
  - Withdrawn; aloof; in own world
  - Does not try to attract the attention of others
  - Limited interest in others
  - Unaware or oblivious to children or adults
  - Limited interaction with others
  - Prefers solitary activities

**B. RESTRICTED, REPETITIVE PATTERNS OF BEHAVIOUR, INTERESTS, OR ACTIVITIES AS MANIFESTED BY AT LEAST 2 OF 4 SYMPTOMS:**

**B1.** Stereotyped or repetitive speech, motor movements, or use of objects; (such as simple motor stereotypies, echolalia, repetitive use of objects, or idiosyncratic phrases).

\* B1 includes atypical speech, movements, and play

- *Stereotyped* or repetitive speech
  - Pedantic speech or unusually formal language (child speaks like an adult or “little professor”)
  - Echolalia (immediate or delayed); may include repetition of words, phrases, or more extensive songs or dialog
  - “Jargon” or gibberish (mature jargoning after developmental age of 24 months)
  - Use of “rote” language
  - Idiosyncratic or metaphorical language (language that has meaning only to those familiar with the individual’s communication style); neologisms
  - Pronoun reversal (for example, “You” for “I”; not just mixing up gender pronouns) ○
  - Refers to self by own name (does not use “I”)
  - Perservative language (note: *for perseveration on a specific topic, consider B3*)

- Repetitive vocalizations such as repetitive guttural sounds, intonational noise-making, unusual squealing, repetitive humming
  - *Stereotyped or repetitive motor movements*
    - Repetitive hand movements (e.g., clapping, finger flicking, flapping, twisting)
    - Stereotyped or complex whole body movements (e.g., foot to foot rocking, dipping, & swaying; spinning)
    - Abnormalities of posture (e.g., toe walking; full body posturing)
    - Intense body tensing
    - Unusual facial grimacing
    - Excessive teeth grinding
    - Repetitively puts hands over ears (*note: if response to sounds, consider B4*)
    - Perseverative or repetitive action / play / behaviour (*note: if 2 or more components, then it is a routine and should be considered under B2*)
    - Repetitive picking (unless clear tactile sensory component, then consider B4)
  - *Stereotyped or repetitive use of objects*
    - Non-functional play with objects (waving sticks; dropping items)
    - Lines up toys or objects
    - Repetitively opens and closes doors
    - Repetitively turns lights on and off
- B2.** Excessive adherence to routines, ritualized patterns of verbal or nonverbal behaviour, or excessive resistance to change; (such as motoric rituals, insistence on same route or food, repetitive questioning or extreme distress at small changes).

\* B2 includes rituals and resistance to change

- *Adherence to routine*
  - Routines: specific, unusual multiple-step sequences of behaviour
  - Insistence on rigidly following specific routines (*note: exclude bedtime routines unless components or level of adherence is atypical*)
  - Unusual routines
- *Ritualized Patterns of Verbal and Nonverbal Behaviour*
  - Repetitive questioning about a particular topic (distinguish from saying the same word or phrase over and over, which goes under B1)

- Verbal rituals - has to say one or more things in a specific way or requires others to say things or answer questions in a specific way
- Compulsions (e.g. insistence on turning in a circle three times before entering a room) (*note: repetitive use of objects,, including lining up toys, should be considered under B1*).
- *Excessive resistance to change*
  - Difficulty with transitions (should be out of the range of what is typical for children of that developmental level)
  - Overreaction to trivial changes (moving items at the dinner table or driving an alternate route)
- *Rigid thinking*
  - Inability to understand humor
  - Inability to understand nonliteral aspects of speech such as irony or implied meaning
  - Excessively rigid, inflexible, or rule-bound in behaviour or thought

**B3.** Highly restricted, fixated interests that are abnormal in intensity or focus; (such as strong attachment to or preoccupation with unusual objects, excessively circumscribed or perseverative interests).

\* B3 includes preoccupations with objects or topics

*Note: Consider B1 for preservative speech*

- *Preoccupations; obsessions*
- *Interests that are abnormal in intensity*
- *Narrow range of interests*
- *Focused on the same few objects, topics or activities*
- *Preoccupation with numbers, letters, symbols*
- *Being overly perfectionistic*
- *Interests that are abnormal in focus*
- *Excessive focus on non-relevant or non-functional parts of objects*
- *Preoccupations (e.g. color; time tables; historical events; etc.)*
- *Attachment to unusual inanimate object (e.g., piece of string or rubber band)*
- *Having to carry around or hold specific or unusual objects (not common attachment objects such as blankets, stuffed animals, etc.)*
- *Unusual fears (e.g. afraid of people wearing earrings)*

- B4.** Hyper- or hypo-reactivity to sensory input or unusual interest in sensory aspects of environment; (such as apparent indifference to pain/heat/cold, adverse response to specific sounds or textures, excessive smelling or touching of objects, fascination with lights or spinning objects).

\* B4 includes atypical sensory behaviours

- *High tolerance for pain*
- *Poking own eyes*
- *Preoccupation with texture or touch (includes attraction/aversion to texture)*
  - Tactile defensiveness; does not like to be touched by certain objects or textures
  - Significant aversion to having hair or toenails cut, or teeth brushed
- *Unusual visual exploration / activity*
  - Close visual inspection of objects or self for no clear purpose (for example, holding things at unusual angles) (no vision impairment)
  - Looks at objects, people out of corner of eye
  - Unusual squinting of eyes
  - Extreme interest or fascination with watching movement of other things (e.g., the spinning wheels of toys, the opening and closing of doors, electric fan or other rapidly revolving object)
- *In all domains of sensory stimuli (sound, smell, taste, vestibular, visual), consider:*
  - *Odd responses to sensory input (e.g. becoming extremely distressed by the atypical sound)*
- *Atypical and/or persistent focus on sensory input*
- *Unusual sensory exploration with objects (sound, smell, taste, vestibular)*
  - *Licking or sniffing objects (note: as part of a ritual, consider B2; licking or sniffing people consider A1)*

**C. SYMPTOMS MUST BE PRESENT IN EARLY CHILDHOOD (BUT MAY NOT BECOME FULLY MANIFEST UNTIL SOCIAL DEMANDS EXCEED LIMITED CAPABILITIES)**

- Early primary caregiver report no longer essential
- “Early Childhood” approximately age 8 and younger (flexible)

**D. SYMPTOMS TOGETHER LIMIT AND IMPAIR EVERYDAY FUNCTIONING**

- Select one severity level specifier for Social Communication and one for Restricted Interests and Repetitive Behaviours.
- **Minimal Social Impairments:** "Without supports in place, deficits in social communication cause noticeable impairments. Has difficulty initiating social interactions and demonstrates clear examples of atypical or unsuccessful responses to social overtures of others. May appear to have decreased interest in social interactions." (*from DSM 5 severity rating*)
- **Minimal RRB Impairments:** "Rituals and repetitive behaviours (RRB's) cause significant interference with functioning in one or more contexts. Resists attempts by others to interrupt RRB's or to be redirected from fixated interest." (*from DSM 5 severity rating*)

**E. THESE DISTURBANCES ARE NOT BETTER EXPLAINED BY INTELLECTUAL DISABILITY (INTELLECTUAL DEVELOPMENTAL DISABILITY) OR GLOBAL DEVELOPMENTAL DELAY**

- Intellectual disability and autism spectrum disorder frequently co-occur; to make comorbid diagnoses of autism spectrum disorder and intellectual disability, social communication should be below that expected for general developmental level.

Severity Level for ASD	Social Communication	Restricted Interests & Repetitive Behaviours
Level 3 'Requiring very substantial support'	Severe deficits in verbal and nonverbal social communication skills cause severe impairments in functioning; very limited initiation of social interactions and minimal response to social overtures from others.	Preoccupations, fixated rituals and/or repetitive behaviours markedly interfere with functioning in all spheres. Marked distress when rituals or routines are interrupted; very difficult to redirect from fixated interest or returns to it quickly.
Level 2 'Requiring substantial support'	Marked deficits in verbal and nonverbal social communication skills; social impairments apparent even with supports in place; limited initiation of social interactions and reduced or abnormal response to social overtures from others.	RRBs and/or preoccupations or fixated interests appear frequently enough to be obvious to the casual observer and interfere with functioning in a variety of contexts. Distress or frustration is apparent when RRB's are interrupted; difficult to redirect from fixated interest.

<p>Level 1 'Requiring support'</p>	<p>Without supports in place, deficits in social communication cause noticeable impairments. Has difficulty initiating social interactions and demonstrates clear examples of atypical or unsuccessful responses to social overtures of others. May appear to have decreased interest in social interactions.</p>	<p>Rituals and repetitive behaviours (RRB's) cause significant interference with functioning in one or more contexts. Resists attempts by others to interrupt RRB's or to be redirected from fixated interest.</p>
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### Behaviours/Symptoms that are not/may not be captured in DSM-5 ASD

- *Problems with play/imagination*
  - Impairments in imaginative/symbolic play
  - Lack of functional play skills
  - Difficulty distinguishing fantasy from reality
- *Shyness/social anxiety*
- *Language and developmental delays*
  - Milestone delays/developmental delays
  - Speech delays (expressive or receptive)
  - Language disorder
- Behavioural difficulties/temper tantrums
- Poor imitation skills (poor SOCIAL imitation skills ARE captured)

(DSM-IV, 2013)

### The Autism Diagnostic Interview, Revised (ADI-R)

- The ADI-R is administered by an experienced clinical interviewer who questions a parent or caregiver who is familiar with the developmental history and current behaviour of the individual being evaluated
- The interview can be used to assess both children and adults, as long as their mental age is above 2 years, 0 months
- Administrative time 90-150 minutes, including scoring
- Standardized interview composed of 93 items, focusing on three functional domains:
  - A. *Language/Communication* (e.g., stereotyped utterances, pronoun reversal, social usage of language)



- B. *Reciprocal Social Interactions* (e.g., emotional sharing, offering and seeking comfort, social smiling and responding to other children)
- C. *Repetitive Behaviours/Interests* (e.g., unusual preoccupations, hand and finger mannerisms, unusual sensory interests)
- Responses are scored by the clinician based on the caregiver's description of the child's behaviour
- Results can be used to support a diagnosis of autism or to determine the clinical needs of various groups in which a high rate of autism spectrum disorders might be expected

(ADI-R, 2003)

### The Autism Diagnostic Observation Scale (ADOS)

- The ADOS is administered by an experienced clinician who provides a series of opportunities for the individual being evaluated to show social and communication behaviours relevant to the diagnosis of autism
- It is an instrument used to assess and diagnose ASDs across age, developmental level, and language skills
- It can be used to assess individuals 12 months of age through adulthood
- Administrative time 40-60 minutes
- The individual is assessed on one of four modules. The selection of an appropriate module is based on the development and language level of the referred individual
- The assessment consists of a series of structured and semi-structured tasks

(ADOS-2, 2012)

## TREATMENT

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### Intensive Behavioural Intervention (IBI)

IBI uses the principles of applied behaviour analysis for treatment and refers to a specific type of therapy for children on the moderate to severe end of the autism spectrum. IBI programs usually involve 20 to 40 hours per week of treatment. It requires frequent, direct measurement of the child's performance and progress with regular updates to the child's individualized plan.

IBI is comprehensive in scope, targeting a broad range of developmental areas. It is developmental in sequence, focusing on skills in the order they would tend to appear in typically developing children. IBI is designed to improve key learning skills in the areas of cognitive, language, and social development.

### Applied Behaviour Analysis (ABA)

Science of applying principles of behaviour to increase socially significant behaviours, and, in turn, decreases disruptive and maladaptive behaviours.

**Applied:** theory and research are the basis for the techniques that are applied to produce positive change in socially significant behaviours

**Behaviour** is considered to be anything a child says or does; defined in observable and measurable terms

**Analysis:** data is collected and analysed in a systematic and ongoing manner to evaluate the effectiveness of the intervention

\* ABA is not a therapy for autism. It is a therapy for a variety of behaviours and diagnosis, autism being one of them.

(Cooper et. al., 2020)

## Why ABA?

- + Based on over 60 years of scientific evidence
- + Research supports intensive, structured intervention
- + Best way to prepare young children with ASD and other disabilities to learn
- + Effective way to teach many new skills
- + Individualized and intensive
- + Ongoing monitoring through data collection

## Evidence-Based Practice

### National Autism Center

Is a non-profit organization dedicated to disseminating evidence-based information about the treatment of autism spectrum disorder (ASD), promoting best practices, and offering comprehensive and reliable resources for families, practitioners, and communities.

### National Standards Project (2009)

Established a set of standards for effective, research-validated educational and behavioural interventions for children on the spectrum. These standards identify treatments that effectively target the core symptoms of ASD. The resulting National Standards Report is the most comprehensive analysis available to date about treatments for children and adolescents with ASD. It is a single, authoritative source of guidance for parents, caregivers, educators, and service providers as they make informed treatment decisions (National Standards Project, 2020).

Selecting the most appropriate intervention for an individual with ASD is complicated. There are four factors that should influence intervention selection:

- Evidence of intervention effectiveness;
- Professional judgments and data-based clinical decision making;
- Values and preferences of families (including the individual on the autism spectrum);
- Capacity to accurately implement an intervention.

(National Standards Project, 2020).

## Established Treatments Based on the National Standards Report

### Antecedent Package

These interventions involve the modification of situational events that typically precede the occurrence of a target behaviour. These alterations are made to increase the likelihood of success or reduce the likelihood of problems occurring. Treatments falling into this category reflect research representing the fields of applied behaviour analysis (ABA), behavioural psychology, and positive behaviour supports. This category includes a broad array of strategies such as prompting, behavioural momentum, environmental modification of tasks, etc.

### Behavioural Package

These interventions are designed to reduce problem behaviour and teach functional alternative behaviours or skills through the application of basic principles of behaviour change. Treatments falling into this category reflect research representing the fields of applied behaviour analysis, behavioural psychology, and positive behaviour supports. This category includes a broad array of antecedent and/or consequent strategies such as delayed contingencies, differential reinforcement strategies, discrete trial teaching, and functional communication training. These treatments may involve a complex combination of behavioural procedures.

### Comprehensive Behavioural Treatment for Young Children

This treatment reflects research from comprehensive treatment programs that involve a combination of applied behaviour analytic procedures (e.g., discrete trial, incidental teaching, etc.) that are delivered to young children (generally under the age of 8). These treatments may be delivered in a variety of settings and involve a low student-to-teacher ratio. These treatment programs may also be referred to as ABA programs or behavioural inclusive programs and early intensive behavioural intervention.

### Joint Attention Intervention

These interventions involve building foundational skills involved in regulating the behaviours of others. Joint attention often involves teaching a child to respond to the nonverbal social bids of others or to initiate joint attention interactions. Examples include pointing to objects, showing items/activities to another person, and following eye gaze.

## Modelling

These interventions rely on an adult or peer providing a demonstration of the target behaviour that should result in an imitation of the target behaviour by the individual with an ASD. Modelling can include simple and complex behaviours. This intervention is often combined with other strategies such as prompting and reinforcement. Examples include live modelling and video modelling.

## Naturalistic Teaching Strategies

These interventions involve using primarily child-directed interactions to teach functional skills in the natural environment. These interventions often involve providing a stimulating environment, modelling how to play, encouraging conversation, providing choices and direct/natural reinforcers, and rewarding reasonable attempts. Examples of this type of approach include but are not limited to focused stimulation, incidental teaching, milieu teaching, embedded teaching, and responsive education and pre-linguistic milieu teaching.

## Peer Training Package

These interventions involve teaching children without disabilities strategies for facilitating play and social interactions with children on the autism spectrum. Peers may often include classmates or siblings. Common names for intervention strategies include peer networks, circle of friends, buddy skills package, integrated playgroups, peer initiation training, and peer-mediated social interactions.

## Pivotal Response Treatment

This treatment is also referred to as PRT, pivotal response teaching, and pivotal response training. PRT focuses on targeting “pivotal” behavioural areas—such as motivation to engage in social communication, self-initiation, self-management, and responsiveness to multiple cues—with the development of these areas having the goal of very widespread, and fluently integrated collateral improvements. Key aspects of PRT intervention delivery also focus on parent involvement in the intervention delivery and on intervention in the natural environment such as homes and schools with the goal of producing naturalized behavioural improvements. This treatment is an expansion of natural language paradigm, which is also included in this category.

## Schedules

These interventions involve the presentation of a task list that communicates a series of activities or steps required to complete a specific activity. Schedules are often supplemented by other interventions such as reinforcement.

## Self-management

These interventions involve promoting independence by teaching individuals with ASD to regulate their behaviour by recording the occurrence/non-occurrence of the target behaviour and securing reinforcement for doing so. Initial skills development may involve other strategies and may include the task of setting one's own goals. In addition, reinforcement is a component of this intervention with the individual with ASD independently seeking and/or delivering reinforcers. Examples include the use of checklists (using checks, smiley/frowning faces), wrist counters, visual prompts, and tokens.

## Story-Based Intervention Package

These interventions include treatments that involve a written description of the situations under which specific behaviours are expected to occur. Stories may be supplemented with additional components (e.g., prompting, reinforcement, discussion, etc.). Social stories are the most well-known story-based interventions and they seek to answer the "who, what, when, where, and why" questions in order to improve perspective taking.

National Standards Project. (2020)

## Established Treatments

Treatments are suggested to produce beneficial outcomes and are known to be effective for individuals on the autism spectrum.

**Antecedent-Based Intervention (ABI):** Arrangement of events or circumstances that precede the occurrence of an interfering behaviour and designed to lead to the reduction of the behaviour.

**Cognitive Behavioural Intervention (CBI):** Instruction on management or control of cognitive processes that lead to changes in overt behaviour.

**Differential Reinforcement of Alternative, Incompatible, or Other behaviour (DRA/I/O):**

Provision of positive/desirable consequences for behaviours or their absence that reduce the occurrence of an undesirable behaviour. Reinforcement provided: (a) when the learner is engaging in a specific desired behaviour other than the inappropriate behaviour (DRA), (b) when the learner is engaging in a behaviour that is physically impossible to do while exhibiting the inappropriate behaviour (DRI), or (c) when the learner is not engaging in the interfering behaviour (DRO).

**Discrete Trial Teaching (DTT):** Instructional process usually involving one teacher/service provider and one student/client and designed to teach appropriate behaviour or skills. Instruction usually involves massed trials; each trial consists of the teacher's instruction/presentation, the child's response, a carefully planned consequence, and a pause prior to presenting the next instruction.

**Exercise (ECE):** Increase in physical exertion as a means of reducing problem behaviours or increasing appropriate behaviour.

**Extinction (EXT):** Withdrawal or removal of reinforcers of interfering behaviour in order to reduce the occurrence of that behaviour. Although sometimes used as a single intervention practice, extinction often occurs in combination with functional behaviour assessment, functional communication training, and differential reinforcement.

**Functional Behaviour Assessment (FBA):** Systematic collection of information about an interfering behaviour designed to identify functional contingencies that support the behaviour. FBA consists of describing the interfering or problem behaviour, identifying antecedent or consequent events that control the behaviour, developing a hypothesis of the function of the behaviour, and/or testing the hypothesis.

**Functional Communication Training (FCT):** Replacement of interfering behaviour that has a communication function with more appropriate communication that accomplishes the same function. FCT usually includes FBA, DRA, and/or EX.

**Modelling (MD):** Demonstration of a desired target behaviour that results in imitation of the behaviour by the learner and that leads to the acquisition of the imitated behaviour. This EBP is often combined with other strategies such as prompting and reinforcement.

**Naturalistic Intervention (NI):** Intervention strategies that occur within the typical setting/activities/routines in which the learner participates. Teachers/service providers establish the learner's interest in a learning event through arrangement of the setting/ activity/routine,

provide necessary support for the learner to engage in the targeted behaviour, elaborate on the behaviour when it occurs, and/or arrange natural consequences for the targeted behaviour or skills.

**Parent-Implemented Intervention (PII):** Parents provide individualized intervention to their child to improve/increase a wide variety of skills and/or to reduce interfering behaviours. Parents learn to deliver interventions in their home and/or community through a structured parent-training program.

**Peer-Mediated Instruction and Intervention (PMII):** Typically developing peers interact with and/or help children and youth with ASD to acquire new behaviour, communication, and social skills by increasing social and learning opportunities within natural environments. Teachers/service providers systematically teach peers strategies for engaging children and youth with ASD in positive and extended social interactions in both teacher-directed and learner-initiated activities.

**Picture Exchange Communication System (PECS):** Learners are initially taught to give a picture of a desired item to a communicative partner in exchange for the desired item. PECS consists of six phases which are: (1) “how” to communicate, (2) distance and persistence, (3) picture discrimination, (4) sentence structure, (5) responsive requesting, and (6) commenting.

**Pivotal Response Training (PRT):** Pivotal learning variables (i.e., motivation, responding to multiple cues, self-management, and self-initiations) guide intervention practices that are implemented in settings that build on learner interests and initiative.

**Prompting (PP):** Verbal, gestural, or physical assistance given to learners to assist them in acquiring or engaging in a targeted behaviour or skill. Prompts are generally given by an adult or peer before or as a learner attempts to use a skill.

**Reinforcement (R+):** An event, activity, or other circumstance occurring after a learner engages in a desired behaviour that leads to the increased occurrence of the behaviour in the future.

**Response Interruption/Redirection (RIR):** Introduction of a prompt, comment, or other distracters when an interfering behaviour is occurring that is designed to divert the learner’s attention away from the interfering behaviour and results in its reduction.

**Scripting (SC):** A verbal and/or written description about a specific skill or situation that serves as a model for the learner. Scripts are usually practiced repeatedly before the skill is used in the actual situation.



**Self-Management (SM):** Instruction focusing on learners discriminating between appropriate and inappropriate behaviours, accurately monitoring and recording their own behaviours, and rewarding themselves for behaving appropriately.

**Social Narratives (SN):** Narratives that describe social situations in some detail by highlighting relevant cues and offering examples of appropriate responding. Social narratives are individualized according to learner needs and typically are quite short, perhaps including pictures or other visual aids.

**Social Skills Training (SST):** Group or individual instruction designed to teach learners with autism spectrum disorders (ASD) ways to appropriately interact with peers, adults, and other individuals. Most social skill meetings include instruction on basic concepts, role-playing or practice, and feedback to help learners with ASD acquire and practice communication, play, or social skills to promote positive interactions with peers.

**Structured Play Groups (SPG):** Small group activities characterized by their occurrences in a defined area and with a defined activity, the specific selection of typically developing peers to be in the group, a clear delineation of theme and roles by adult leading and/or prompting or scaffolding as needed to support the students' performance related to the goals of the activity.

**Task Analysis (TA):** A process in which an activity or behaviour is divided into small, manageable steps in order to assess and teach the skill. Other practices, such as reinforcement, video modelling, or time delay, are often used to facilitate acquisition of the smaller steps.

**Technology-Aided Instruction and Intervention (TAII):** Instruction or interventions in which technology is the central feature supporting the acquisition of a goal for the learner. Technology is defined as "any electronic item/equipment/application/or virtual network that is used intentionally to increase/maintain, and/or improve daily living, work/productivity, and recreation/leisure capabilities of adolescents with autism spectrum disorders."

**Time Delay (TD):** In a setting or activity in which a learner should engage in a behaviour or skill, a brief delay occurs between the opportunity to use the skill and any additional instructions or prompts. The purpose of the time delay is to allow the learner to respond without having to receive a prompt and thus focuses on fading the use of prompts during instructional activities.

**Video Modelling (VM):** A visual model of the targeted behaviour or skill (typically in the behaviour, communication, play, or social domains), provided via video recording and display equipment to assist learning in or engaging in a desired behaviour or skill.

**Visual Supports (VS):** Any visual display that supports the learner engaging in a desired behaviour or skills independent of prompts. Examples of visual supports include pictures, written words, objects within the environment, arrangement of the environment or visual boundaries, schedules, maps, labels, organization systems, and timelines.

National Standards Project. (2020)

## Unestablished Treatments

Treatments for which there is no sound evidence of effectiveness. There is no way to rule out the possibility these treatments are ineffective or harmful.

- A. Academic Interventions
- B. Auditory Integration Training
- C. Facilitated Communication
- D. Gluten- and Casein-Free Diet
- E. Sensory Integrative Package

### Matrix of Evidence-based Practices by Outcome and Age

EBP - Evidence-based Practice	Social			Communication			Joint Attention			Behavior			School-Readiness			Play			Cognitive			Motor			Adaptive			Vocational			Mental			Academic		
	0-5	6-14	15-22	0-5	6-14	15-22	0-5	6-14	15-22	0-5	6-14	15-22	0-5	6-14	15-22	0-5	6-14	15-22	0-5	6-14	15-22	0-5	6-14	15-22	0-5	6-14	15-22	0-5	6-14	15-22	0-5	6-14	15-22	0-5	6-14	15-22
Antecedent-based Interventions (ABI)	✓	✓	✓																																	
Cognitive Behavioral Intervention (CBI)																																				
Differential Reinforcement of Alternative, Incompatible, or Other Behavior (DRA/I/O)																																				
Discrete Trial Training (DTT)																																				
Exercise (ECE)																																				
Extinction (EXT)																																				
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Technology-aided instruction and intervention (TAII)																																				
Time Delay (TD)																																				
Video Modeling (VM)																																				
Visual Support (VS)																																				



## Treatment Outcomes

ABA involves various strategies and techniques which are evidence-based and utilized in working with individuals with ASD and those with and without disabilities. These are strategies we use in our daily with each other. ABA is a systematic and data-driven approach that results in changing socially significant behaviours. It is our job to ensure these outcomes are meaningful and add to an individual's quality of life.

We can have an active role in treatment delivery and service planning; we can foster the development and deployment of interventions that can reduce the risk and maximize adaptive skills.

Studies have shown that early intensive educational interventions result in improved outcomes for the child and family. Initial strategies may include teaching the child to notice what is going on in their environment, to be able to pay attention, to imitate behaviour, and later progressing to communication skills, etc. (Autism Canada, 2015).

## Available Services and Resources

As soon as you discover that your child may have developmental delays or has received a diagnosis there are a number of resources to draw from. Alberta Health Services provides funding for developmental delays (FSCD, 2020).

Changing Leaves with Behaviour Analysis Calgary - provides an array of services for individuals with developmental disabilities and/or behaviour challenges. Our services are specifically tailored to meet the unique needs of every individual throughout all phases of their life. Clients or caregivers decide if they would like therapy to be focused at home, in the community, or in school.

**Phone:** 587-437-1866

**Website:** [www.changingleavesaba.ca](http://www.changingleavesaba.ca)

## UNDER 18 YEARS OLD: SUPPORTS AND SERVICES

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### FSCD and Establishing Supports and Services

Parents of children with disabilities sometimes need support so they can raise their children at home and fully participate in community life.

The Family Support for Children with Disabilities (FSCD) Program provides a wide range of family-centred supports and services. Services are meant to help strengthen families' ability to promote their child's healthy development and encourage their child's participation in activities at home and in the community.

The FSCD program works in partnership with eligible families to provide supports and services based on each child and family's individual assessed needs.

**Step 1:** Begin the intake process for FSCD, you will need to:

- ▶ Create an account with Alberta Supports
- ▶ Complete application form
- ▶ Copies of all assessments and documentation
- ▶ Copy of your diagnostic report

**Step 2:** You will receive a letter from FSCD identifying the assigned worker to your case. You will need to contact them to schedule a home visit, where the FSCD worker will observe your child in their natural environment. It is important to try to keep things as natural as possible, as they would occur on a daily basis, in order to provide the best services.

**Step 3:** The FSCD worker will negotiate a service contract with you. FSCD can provide various supports and resources that will support your family.

Summary of Supports and Services provided under the FSCD Act (Chart)

Refer to the FSCD Policies and Procedures Manual for details on the services that FSCD provides.

If you disagree with an FSCD decision, you may appeal the decision. Refer to the Concerns Resolution Process.

In order for a family to be eligible for the FSCD program:

1. The child with a disability must be under age 18
2. The person applying for the program must be the child's parent or have guardianship of the child
3. The child must be a Canadian citizen or permanent resident
4. The child and the parent or guardian must reside in Alberta
5. Medical documentation must be provided confirming that the child has a disability or is awaiting a diagnosis.

For the purposes of the FSCD program a disability is defined as a chronic, developmental, physical, sensory, mental or neurological condition or impairment that does not include a condition for which the primary need is for medical care or health services to treat or manage the condition, unless it is a chronic condition that significantly limits a child's ability to function in normal daily living.

(FSCD, 2020)

## Medical Documentation Confirming Child's Disability

In order to help determine eligibility, the FSCD program requires a letter or report from an appropriate health care professional identifying:

1. The child's diagnosis and/or disability, or
2. That the child's condition or impairment may lead to a disability and that the child is awaiting a medical diagnosis.

The letter or report may be written by, or on behalf of, the following health professionals who are able to make the diagnosis or probable diagnosis within their scope of practice:

- Physician or psychiatrist
- Physical or occupational therapist, speech and language pathologist or audiologist

- Clinical social worker or psychologist.
- The letter or report should include:
- Your child's name and date of birth
- Your child's diagnosis, with some description of the condition, how the disability affects daily functioning and, where applicable, an explanation of whether the condition is expected to have long term or lifelong implications
- The date when your child was diagnosed with the condition
- The name of the physician or other health professional who diagnosed your child with the condition.
- The information you provide should be as current as possible. If your child was diagnosed more than two years ago, please provide any documentation available from when the original diagnosis was made, and any recent information you have from the health professionals who are providing ongoing or follow-up care for your child.

The FSCD worker may ask you to provide additional information or clarification about your child's diagnosis, in order to understand your child's disability and determine if he or she is eligible for the FSCD program.

PLEASE NOTE: Fees or costs associated with obtaining medical documentation are the responsibility of the applicant.

(FSCD, 2020)

## What Happens After I Submit my Application to the FSCD Program?

### Step 1: An FSCD worker will determine if your child is eligible for the FSCD program

After an FSCD worker reviews your application and documents, you will be contacted to discuss if your child is eligible for the FSCD program, or if we need more information to determine eligibility.

- If your child is not eligible for the FSCD program, an FSCD worker will contact you to explain why your child is not eligible, and will provide information about other programs, services and community resources that may be helpful to your family.
- If your child is eligible for the FSCD program, an FSCD worker will contact you to discuss next steps, provide information about other programs, services and community resources

that may be helpful to your family, and answer any questions you may have about the FSCD program.

### **Step 2:** An FSCD worker will meet with you to complete an Assessment of Needs

If your child is eligible for the FSCD program, an FSCD worker will meet with you to discuss:

- The exceptional care needs of your child
- The impact that your child's disability has on your family
- Natural supports or community programs that may be helpful to your family.

The worker may also ask your permission to speak with other professionals who work with your child in order to better understand his or her specific care needs.

### **Step 3:** You and your FSCD worker will create your Individualized Family Support Plan

The FSCD program takes a family-centred approach to working with families. It is critical that you and your FSCD worker have a shared understanding of the strengths, needs and priorities for your family and child.

Your FSCD worker will work with you to identify your priorities, and the short and long-term goals for your family and child. Setting goals is an important part of service planning, and helps you and your FSCD worker focus on what is important for your family. Your FSCD worker will work with you to develop an Individual Family Service Plan reflecting your priorities, identifying goals you want to work toward, and outlining what resources, supports and services are needed to help you achieve those goals.

### **Step 4:** The FSCD services you and your FSCD worker agree upon will be included in an FSCD agreement

The FSCD services you and your FSCD worker agree upon will be included in an FSCD agreement. This is a legal agreement between you and the FSCD program that outlines the services that will be provided. An FSCD agreement can last for a period of up to one year.

### **Step 5:** Your FSCD worker will be available to review and discuss your family's ongoing support needs

You and your FSCD worker will contact each other at least once per year to:

1. Assess and confirm your child's ongoing eligibility for the FSCD program
2. Discuss your family's and child's needs and circumstances



3. Complete a new service plan.
4. Discuss FSCD supports and services based on your current priorities, goals and needs.

If your family's or child's needs or circumstances change at any time, please contact your FSCD worker who can provide information, referrals, and assistance with coordinating supports and services you may need.

(FSCD, 2020)

## Specialized Services (SS)

Specialized services are intended to support families of children with severe disabilities to acquire specific skills and learn strategies to help promote their child's development and participation in normal daily living activities at home and in the community.

A team of professionals that may include aides, speech-language pathologists, occupational therapists, physical therapists, and/or psychologists assists parents with acquiring specific skills and strategies to help manage difficult behaviours, support their child's participation in social activities, or teach their child new skills.

Specialized services are individualized to meet each family's needs and priorities, complement any other supports and services that a family already has in place, and are coordinated through a single service plan.

Eligibility for specialized services is based on the individual needs of the family and their child.

Specialized services are provided to families when:

- Their child has a severe disability that is significantly limiting their ability to function in normal daily living activities
- They need to provide continual and ongoing assistance and supervision to ensure their child's safety and ability to participate in normal daily living activities
- Their child has critical service needs in two or more areas, including behaviours, communication and social skills, physical abilities, cognitive abilities, or self-help skills
- Their service needs cannot be met by other programs or services, including other less intrusive FSCD services and
- They need support to acquire specific skills and learn strategies to help promote their child's development and participation in normal daily living activities.

The term “severe disability” refers to the degree to which the child is limited in their ability to function in normal daily living activities and the extra care demands this creates for their family.

(FSCD, 2020)

## Preschool Unit Funding (PUF)

Program Unit Funding (PUF) is available to children diagnosed with ASD for a maximum of three years. Parents should choose a program that aligns with their lifestyle.

Typically children complete 2 years of preschool, then transition to the community school for kindergarten. However, families do have the option to continue in a PUF funded pre-school for their 3<sup>rd</sup> year of PUF funding.

\* If you are accessing PUF Funding this ONLY lasts for 3 years. Please take this into consideration with regards to the age of your child when they first start preschool to ensure your funding does not run out before your child finishes their final year of preschool/kindergarten.

(FSCD, 2020)

## PUF funding can be accessed through Alberta Education

Phone: 780-427-7219

Toll-free: 310-0000

Alberta Education fact sheet related to Early Education Programming for Children with Special Education Needs

URL: <https://education.alberta.ca/media/159758/ecs-sn-programming.pdf>

It is recommended that parents familiarize themselves with legislation, policy and procedures related to special education needs and funding:

Standards for the Provision of Early Childhood Special Education

URL: [https://education.alberta.ca/media/1626521/ecs\\_specialedstds2006.pdf](https://education.alberta.ca/media/1626521/ecs_specialedstds2006.pdf)

Standards for Special Education

URL: <https://education.alberta.ca/media/1626539/standardsforspecialeducation.pdf>

## Essential Components of Educational Programming for Students with Autism Spectrum Disorder

URL: [https://education.alberta.ca/media/1477208/ecep\\_autism\\_spectrum\\_disorder.pdf](https://education.alberta.ca/media/1477208/ecep_autism_spectrum_disorder.pdf)

## Funding Manuals for School Authorities

URL: <https://education.alberta.ca/media/158750/2015-2016-funding-manual-v1.pdf>

## PUF funded early education programs in Calgary and surrounding areas

### Behaviour Therapy and Learning Center

Phone: (403) 205-2749 ext. 51

Website: <http://www.btlc.ca/>

### Big Plans for Little Kids

Phone: (403) 685-4229

Website: <http://www.bigplans.org/home/about-us>

### Brilliant Beginnings Education Centre

Phone: (403) 283-5437

Website: [www.brilliantbeginnings.ca](http://www.brilliantbeginnings.ca)

### Calgary Board of Education's Early Development Centre

Phone: (403) 817-7612

Website: [www.cbe.ab.ca/earlylearning](http://www.cbe.ab.ca/earlylearning)

### Calgary Montessori School

Phone: (403) 252-3281

Website: [www.calgarymontessori.com](http://www.calgarymontessori.com)

### Calgary Quest Children's Society

Phone: (403) 253-0003

Website: <http://www.calgaryquestschool.com/>

**Cause & Effect Foundation (Early Intervention Services)**

Phone: (403) 652-1503

Website: [www.causeandeffectfoundation.com](http://www.causeandeffectfoundation.com)

**Creative Learning Center**

Phone: (403) 225-0660

Website: [www.creativelearningcenter.ca](http://www.creativelearningcenter.ca)

**Emily Follensbee School – Calgary Board of Education**

Phone: (403) 777-6980

Website: [www.schools.cbe.ab.ca/b036/](http://www.schools.cbe.ab.ca/b036/)

**Even Start (Heartland Agency)**

Phone: (403) 541-0277

Website: [www.heartlandagency.org](http://www.heartlandagency.org)

**Families of Alberta for Conductive Education (FACE)**

Phone: (403) 338-0022

Website: [www.conductive-education.ca](http://www.conductive-education.ca)

**Froebel's Garden of Children**

Phone: (403) 280-4855

**GRIT (Getting Ready for Inclusion Today)**

Phone: (403) 215-2444

Website: [www.gritcalgarysociety.com](http://www.gritcalgarysociety.com)

**I'm For Kid's**

Phone: (403) 236-8919

Website: [www.imforkids.org](http://www.imforkids.org)

**Inspiration Station (Foundation 4: Special Needs Team)**

Phone: (403) 945-4561

Website: [www.inspirationstation.ca](http://www.inspirationstation.ca)

**Jamie's Preschool – St. Andrew's United Church**

Phone: (403) 258-1308

Website: <http://www.leadfoundation.info/>

**Little Blossoms Early Intervention Foundation**

Phone: (403) 968-0607

**Medicine Wheel Early Learning Centre**

Phone: (403) 240-4642 ext. 304

Website: [www.mcfs.ca](http://www.mcfs.ca)

**Mosaic Preschool Program**

Phone: (403) 265-6093

Website: [www.immigrantservicescalgary.ca](http://www.immigrantservicescalgary.ca)

**New Heights Learning Services**

Phone: (403) 240-1312

Website: [www.newheightscalgary.com](http://www.newheightscalgary.com)

**One World Child Development Centre**

Phone: (403) 264-2217

**Pacekids Programs**

Phone: (403) 234-7876

Website: <http://www.pacekids.ca/>

**PREP Program**

Phone: (403) 282-5011

Website: [www.prepprog.org](http://www.prepprog.org)

**Providence Children's Centre**

Phone: (403) 255-5577

Website: [www.providencechildren.com](http://www.providencechildren.com)

### Renfrew Educational Services

Phone: (403) 291-5038  
Website: [www.renfreweducation.org](http://www.renfreweducation.org)

### Society for Treatment of Autism

Phone: (403) 253-2291  
Website: [www.autism.ca](http://www.autism.ca)

### Tiny Talkers Preschool

Phone: (403) 703-2012  
Website: <http://tinytalkerspreschool.com/home>

### For more PUF options in the areas surrounding Calgary please contact

#### Alberta Learning

Phone: 780-427-7219  
Toll free: 310-0000  
Email: [puf@gov.ab.ca](mailto:puf@gov.ab.ca)

\* If you have Specialized Services you may qualify for PUF.

## Behavioural / Developmental Aide (BDA)

Behavioural/Developmental Aide (BDA) services are funded by Family Support for Children with Disabilities (FSCD). BDA services are up to 6 months in length, and may involve one or two clinicians (for example, an Occupational Therapist and Behaviour Consultant). The type/amount of support provided is based on the needs of each family and is determined with their FSCD caseworker. In Calgary, families receive 26 hours of clinician time over the 6 month period. The clinician(s) work with the family to help them gain skills related to specific areas of concern in their child's development. The program may include a parent coach for up to 9 hours a week to support the family in practicing strategies in the home and community. Children are either very young with less severe challenges, or, more often, school-aged with significant challenges.

### Who is eligible?

- ASD and other Diagnoses (Down Syndrome, Cerebral Palsy, ADHD, Anxiety)
- Canadian citizens or permanent residents

- Up to 18
- Does not qualify for SS
- Has a current need that exceeds other available supports

Eligibility for BDA services includes: ASD and other diagnoses that do not qualify for SS and have a current need that exceeds other available supports.

\* Agreements must be in place with FSCD in order to access BDA or SS programs.

(FSCD, 2020)

## OVER 18 YEARS OLD: SUPPORTS AND SERVICES

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### Persons with Developmental Disabilities (PDD)

PDD funds programs and services to help adult Albertans with developmental disabilities to be a part of their communities and live as independently as they can.

The program funds four kinds of staffing supports based on an individualized service plan:

**Community Living Supports** help individuals in their home (for example: meal planning and housekeeping)

1. **Employment Supports** train, educate and support individuals to get and keep jobs
2. **Community Access Supports** help individuals participate in their community (for example: volunteering, going to clubs, sports and other activities)
3. **Specialized Community Supports** are generally short-term supports to help with special circumstances (for example: extra help when a person is having trouble)

To be eligible for PDD, a person must be an adult (18 or older) and meet these three criteria:

- a. The individual must have a "significant limitation in intellectual capacity." This means an IQ score of 70 or below.
- b. The individual must have a "significant limitation in adaptive skills." This means the individual needs help with daily living activities like making food. PDD measures this by checking whether the person needs help with six or more out of 24 typical skills.
- c. The individual must have had both of these two limitations before he or she turned 18.

The Developmental Disabilities Guidelines explains the regulations to define significant limitation in intellectual capacity and adaptive skills.

URL: <http://www.humanservices.alberta.ca/disability-services/pdd-developmental-disabilities-guidelines.html>

(PDD, 2020)



## Assured Income for the Severely Handicapped (AISH)

### Eligibility based on:

- You have a disability that substantially limits your ability to earn a living
- Your disability is likely to remain permanent
- There's no training, rehabilitation or medical treatment that will help you to work enough to earn a living
- You're at least 18 years old and not eligible to receive an Old Age Security pension
- You live in Alberta and are a Canadian citizen or permanent resident
- You aren't in a correctional facility or some mental health facilities such as Alberta Hospital Edmonton
- You meet financial eligibility criteria

### Benefits of AISH:

- Monthly living allowance – money to pay for your living costs such as food, rent and utilities
- Monthly child benefit – money to assist you with raising your dependent children
- Health benefits – assistance to cover health needs for you, your spouse or partner and your dependent children
- Personal benefits – money over and above your monthly living allowance for specific needs such as a special diet or assistance in an emergency

### How to Apply:

You can access the Application on-line or call Alberta Supports Contact Centre Toll free (1-877-644-9992)

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

- AISH reviews applications in the order they're received
- Applicants who are palliative are prioritized
- Application processing times vary depending on the number of applications AISH receives from Albertans and how quickly we get all the financial and medical information we need for each person's application

(AISH, 2020)

## Income Support and Barriers to Employment

Those who do not qualify for PDD or AISH, may qualify for Income Support and Barriers to Employment Funding. This covers:

- Core Essentials (food, clothing, household needs, personal needs, basic transportation etc.)
- Core Shelter (rent, mortgage, utilities, heating fuel, municipal taxes, insurance, condominium fees, lot rental, homeowner's maintenance, and damage deposit.)
- Continuous Needs (personal living allowance, childcare, other benefits)
- Non-Continuous Needs (employment training and transition resources, emergency allowance, community living start up allowance, other benefits)

Call or visit Alberta Supports Contact Centre Toll free (1-877-644-9992) to learn more about Income Support and Barriers to Employment

(Income Support, 2020)

## Additional Supports and Services

- + Education Options
- + Post-Secondary
- + Life Skills Training
- + Housing Options
- + Transportation
- + Employment Support and Development

## ESTABLISHING SUPPORTS AND SERVICES

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### Service Providers

#### Changing Leaves with Behaviour Analysis Calgary

We provide behavioural consultation services for individuals with developmental disabilities and/or behaviour challenges. Our services are specifically tailored to meet the unique needs of every individual throughout all phases of their life. Clients or caregivers decide if they would like therapy to be focused at home, in the community, or in our purpose-built centre.

Phone: 587-437-1866

Website: [www.changingleavesaba.ca](http://www.changingleavesaba.ca)

\* Families always have the option of selecting their own therapists and creating a Family Directed Support Service Team.

### Respite Providers

#### Autism Asperger's Friendship Society

Phone: (403) 246-7383

Website: [www.aafscalgary.com](http://www.aafscalgary.com)

#### Developmental Disabilities Resource Centre (DDRC)

Phone: (403) 240-3111

Website: [www.ddrc.ca](http://www.ddrc.ca)

#### Enable

Email: [info@enablecommunity.ca](mailto:info@enablecommunity.ca)

Website: [www.enablecommunity.ca](http://www.enablecommunity.ca)

### Just 4 U Family Services

Phone: (403) 590-2122  
Website: [www.just4familyservices.ca](http://www.just4familyservices.ca)

### Carya

Phone: (403) 269-9888  
Email: [info@caryacalgary.ca](mailto:info@caryacalgary.ca)

### Cowtown Children's Services

Phone: (403) 607-4485  
Website: [www.cowtownservices.com/about1-c1x1t](http://www.cowtownservices.com/about1-c1x1t)

### Post Natal Helpers Ltd

Phone: (403) 640-0844  
Website: [www.postnatalhelpers.ca](http://www.postnatalhelpers.ca)

### Rabboni Support Services

Phone: (403) 714-2921  
Website: [www.rabbonisupportservices.com](http://www.rabbonisupportservices.com)

### Responsive Children's Supports

Phone: (403) 207-5115 ext. 289  
Website: [www.responsivechildrenssupports.com/services/responsive-respite-services.html](http://www.responsivechildrenssupports.com/services/responsive-respite-services.html)

### Other Options

There are many post-secondary students looking for respite work through: Mount Royal University (Social Work students, Disability Studies, Nursing, Early Childhood Education students); U of C (Disability Studies, Nursing, Education etc.), Columbia College (Human Services) & Bow Valley College (Disability Studies).

<https://www.kijiji.ca/> Public classifieds. Look under services/childcare nanny. You can also post your own ad

## SERVICE PLANS

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### Individual Program Plans (IPPs) and Behavioural Support Plans (BSPs)

Alberta Education allows students with learning difficulties the access to appropriate adapted academic accommodations and related adaptive technologies according to their special needs.

#### Individual Program Plans (IPPs)

Individualized Program Plans (IPPs) are required for all students with special needs, including those with learning disabilities.

IPPs are:

- Written commitments of intent by education teams to ensure appropriate planning for individual students with special needs
- Working documents and records of student progress
- Collaborative team efforts involving students, parents, regular education teachers and resource personnel
- Based on a belief in individualized programming and developed to address the specific needs of individual learners
- Instructional guides for teachers
- Administrative documents that help monitor and evaluate students' educational progress and programs
- Guides for transition planning.

One way of looking at the IPP process is as a set of interrelated actions that can be described as the following six steps.

1. Identifying needs
2. Setting the direction

3. Creating a plan
4. Implementing the plan
5. Reviewing and revising
6. Transition planning

\* These steps may occur in different sequences or be worked on simultaneously depending on the individual needs of students.

(FSCD, 2020)

## Behavioural Support Plans (BSPs)

Behaviour Support Plans (BSPs) are a school-based document designed to assist individual students who require additional intensive and individualized strategies and support.

Key information provided about a student's behaviour for staff who work with the student includes:

1. Key understandings about this student's behaviour
2. Conditions or antecedent events that are most likely to trigger the problem behaviour
3. Warning signs that the student is experiencing difficulty
4. Plans for diffusing the situation
5. Positive supports to help the student increase his or her abilities
6. What peers need to learn to do to support this student
7. Other strategies school staff can use to support and encourage this student.

It is important that parents are aware of this plan and are supportive of the proactive strategies, pre-planned consequences and crisis management plan. Ideally, the development of a support plan is a collaborative effort between parents and school staff.

Developing an individual behaviour support plan takes a team effort and should be done at the beginning of each school year or shortly after a student has been identified as needing a support plan.

(FSCD, 2020)

## ADDITIONAL RESOURCES

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### Financial Resources

#### Government Financial Resources

- I. The Disability Tax Credit (DTC) is a non-refundable tax credit that helps persons with disabilities or their supporting persons reduce the amount of income tax they may have to pay. A medical practitioner has to complete and certify that your dependent has a severe and prolonged impairment and must describe its effects.
- II. The Child Disability Benefit (CDB) is a tax-free benefit for families who care for a child under age 18 who is eligible for the disability tax credit. The amount payable for CDB payments depends on your family's income and the number of disabled children in the family.
- III. Registered Disability Savings Plan (RDSP) is a savings plan that is intended to help parents and others save for the long term financial security of a person who is eligible for the disability tax credit (DTC). The RDSP is a valuable financial tool for families. Government Grants match contributions to the RDSP account between 100-300%. Canadian Savings Disability Bonds automatically get deposited to the RDSP account if the family income is less than the CSDB threshold amount, up to the age of 49. This is to a maximum of \$1,000/year and a lifetime maximum of \$20,000. Many financial institutions and brokers are licensed to sell RDSP's.

#### Post-Secondary Financial Resources

- I. Employment and Social Development Canada – Grant for Students with Permanent Disabilities  
\$2000 per academic year
- II. Canada Student Grant for Service and Equipment for Students with Permanent Disabilities  
Up to \$8000 per year

Designed to help cover exceptional education-related costs associated with disability, such as a tutor, interpreter, note-takers, readers or brailers, attendant care for studies, specialized transportation, or 75% of the cost of a learning disability assessment up to a maximum of \$1200.

III. Alberta Grant for Students with Disabilities  
Up to \$3000 per year

IV. Richard Haskayne

The Richard Haskayne Scholarship is an annual scholarship of \$5000 that will be awarded to an eligible Albertan with Autism Spectrum Disorder (ASD) pursuing a post-secondary education or vocational program.

V. Mortenson Scholarship Program for Students with Disabilities

For full-time students in their third or fourth year of a first undergraduate degree. Candidates must be Canadian citizens or permanent residents of Canada, and must be nominated by their school's disability services department. Only one nominee from each of Universities Canada's member institutions will be accepted (Calgary schools include U of C and Mount Royal only).

Candidates must be diagnosed with a documented permanent disability that is the primary disability for which they are applying and must have a minimum average of 80%. Apply Feb to May.

Value: \$2,000/year

VI. The NEADS National Student Awards Program

NEADS is a scholarship for Canadian citizens or permanent residents of Canada with a permanent disability, who are currently registered in and returning to a full-time program of study at an accredited Canadian post-secondary college or university.

(Disability Supports, 2020)

## Support Groups

Coming soon.



## Important Contacts and Resources

**Changing Leaves with Behaviour Analysis:** 587-437-1866 [www.changingleavesaba.ca](http://www.changingleavesaba.ca)

**Alberta Health Services:** <http://www.albertahealthservices.ca/info/Page8891.aspx>

**Early Intervention Program:** 403-955-5999

**Family Support for Children with Disabilities:** <http://www.humanservices.alberta.ca/disability-services/14855.html>

**Persons with Developmental Disabilities:** <http://www.humanservices.alberta.ca/disability-services/pdd.html>

**The Ability Hub:** <https://www.theabilityhub.org/>

**Children's Link Society:** [www.childrenslink.ca](http://www.childrenslink.ca)

**Autism Calgary Association:** [www.autismcalgary.com/](http://www.autismcalgary.com/)

**Sinneave Family Foundation:** [www.sinneavefoundation.org/](http://www.sinneavefoundation.org/)

**Autism/Aspergers Friendship Society:** [www.aafscalgary.com/](http://www.aafscalgary.com/)

**U of C ASERT (Autism Spectrum Education, Research, and Training group):**  
<https://www.ucalgary.ca/asert/>

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