



## **What is Autism?**

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## **WHAT IS AUTISM?**

When people hear the word autism, they often think of Dustin Hoffman's character in the film Rain Man, or they may think of the sweet faces of "autistic children" staring out of donation boxes in various locations. In reality, the term "autism" is actually used to refer to a range of conditions that fall under the broad heading of Autism Spectrum Disorders.

Autism is a neurological disorder that affects the way the brain processes information. This in turn affects the development and behavior of people who have autism. Areas affected in children and adults with Autism Spectrum Disorders are verbal and non-verbal communication; social skills, relationships, behavior, interests and activities. Despite sharing these three common challenges, autism is called a Spectrum Disorder because there is a wide range of symptoms that people with autism may display, as well as a range in the degree to which the symptoms affect their lives.

## **Most common Autism Spectrum Disorders (ASDs)**

**Autism Disorder** (also called autism or classic autism, or abbreviated as AD)

- impairs in verbal and non-verbal communication
- impairs in social understanding, skills and relationships
- unusual behaviors, restricted activities and interests
- cognitive impairments

**Asperger's Syndrome** (also called Asperger's Disorder or Asperger's, or abbreviated as AS)

- language and cognitive development are NOT delayed
- impairs communication
- impairs social understanding and interaction
- restricted activities and interests

**Pervasive Developmental Disorder Not Otherwise Specified** (also called atypical autism, abbreviated as PDD-NOS)

- severe and pervasive impairment in some areas such as reciprocal social interaction, or restricted activities and interests; but the strict criteria for autistic disorder are not met

## **Less common forms of Autism Spectrum Disorders:**

### **Childhood Disintegrative Disorder**

- significant losses in social behavior, language, play and motor skills after a period of normal development of three or more years
- severe impairments in cognitive ability

### **Rett's Disorder**

- occurs almost exclusively in girls
- severe regression after a period of normal development
- severe impairments in language and psycho-motor skills
- severe impairments in cognitive ability

## **CHARACTERISTICS OF AUTISM SPECTRUM DISORDERS**

The characteristics of autism and the degree of the severity experienced by each individual may vary, however, most individuals with autism exhibit symptoms in some or all of the following areas

### **Verbal and Non-verbal Communication**

For many children with Autism, the development of language is slow. Some children with ASD's may develop fluent language skills, while others may have only a little speech or none at all. Some may even develop language skills and then lose them later on.

Even if a person with autism has fluent speech, he or she may understand only the literal meaning of words, rather than understanding their social meanings. For example, they may provide a long and detailed answer to the question "how are you?" when asked by a stranger.

Some people with autism may use gestures and pointing instead of using words to communicate; or they may just stand or sit by an object, waiting for someone to figure out what they want. A teen with autism, for instance, may stand by an elevator in a public building, waiting for a caregiver to remember the exit is one floor down.

They may use others as tools to help them accomplish things. For example, a child may put his mother's hand on a doorknob instead of turning it himself.

People with autism may have difficulty understanding non-verbal communications such as gestures (waving goodbye, shrugging shoulders) or facial expression (smiling, frowning, raising eyebrows).

Individuals with autism may use echolalia, repeating the same words that were just spoken to them to try to communicate. For instance, a child who is asked "Do you want candy?" may respond "Do you want candy?" instead of saying "yes".

People with autism may have difficulty understanding and using pronouns such as "I", "me", or "you". For instance, a person with autism may refer to himself in the third person saying "Thomas wants a drink", rather than "I want a drink".

People with ASDs may not understand the concept of an appropriate conversational space. They may stand too close or too far away when talking.

People with ASDs may not understand the back and forth quality of conversation. They may talk at length about a topic of interest without waiting for or appearing interested in a response.

## **Social Skills and Relationships**

People with Autism Spectrum Disorders often have difficulty developing “normal” relationships with others. They may appear to “tune out” the world around them.

Many people with ASDs have trouble making eye contact. They may avoid it all together, or may prefer to use peripheral vision when looking at others. Some are unable to respond verbally in conversation while looking at the individual to whom they are speaking.

People with ASDs may find touch painful and may resist or avoid hugs, kisses, or other physical gestures of affection.

Children with ASD may not develop typical interactive play patterns with peers, preferring to play by themselves in unusual and solitary ways. They may be more comfortable interacting with adults than with other children.

People with ASD do not appear to understand social situations or the emotions of others, and may appear to be unemotional themselves. In contrast, they become extremely upset when exposed to another person’s strong emotions. Individuals with autism who have written about their experiences stress that they do experience a range of emotions including extreme stress, although it may not be apparent.

People with ASD who have trouble expressing or controlling emotions and excitement, may use behaviors such as making loud or obnoxious noises, head-banging, jumping, or hand-flapping that interfere that can social interaction.

When individuals with ASD are interested in others, they may not behave in an appropriate manner. For example, a non-verbal individual wanting to connect with other boys his own age may blink his eyes rapidly or make loud noises, rather than using language or appropriate gestures to show his interest. A verbal individual may not be able to read the situation accurately and may use inappropriate language.

Individuals with ASD may have extreme difficulty developing friendships, and often experience loneliness.

### **Behaviors, Interests and Activities**

Individuals with ASDs may have unusual responses to other people, objects or situations. An individual may greet a new person, for instance, by sniffing her or him rather than with appropriate words or gestures.

Children with autism do not play with toys in a typical fashion. They may line up toys repeatedly, organize them, or take them apart.

Many children with autism do not appear to engage in imaginative play, pretending, or imitative play. For example, they may never pretend to be the mommy and cuddle the "baby", or be the daddy and drive the car. They may repeat unusual body movements such as rocking, hand-flapping, finger-flicking, head-banging, running back and forth along a straight line, or inappropriate laughter.

Some people with ASDs may have unusual posture or may have unusual ways of moving, such as toe walking or unusual gaits when walking or running.

People with ASDs may seem obsessed with certain objects such as water, buses, elevators, calculators, etc.

People with Autism may also find it difficult to cope with unfamiliar situations or when a familiar person appears out of context. For instance, a child may reject a beloved teaching assistant who appears in the child's home.

Individuals with ASDs may insist on certain routines and become extremely upset if these routines are broken. A child may become upset to the point of meltdown, for example, if his usual dressing routine is not followed.

Because people with autism are not able to make sense of the world in the usual fashion, they may be very active and easy to excite; or they may be extremely passive. They may be intensely anxious or may not seem as anxious as they should in certain situations.

In circumstances that usually call for some degree of anxiety, individuals with autism may not show any signs of fear. For instance, some individuals may not pay attention to traffic when crossing a busy road. Others may not show an appropriate degree of caution around fire or cold.

## **SENSORY RESPONSES**

Children and adults with autism may have difficulties processing the information they get through one or all of their senses: sight, hearing, taste, smell, touch, balance, and weight. Some sensory experiences can be very overwhelming for people with autism, while they may continually seek out other experiences. Some professionals think that sensory integration difficulties are at the base of some behaviors common to people with autism.

Children and adults with sensory sensitivities may react differently to a variety of sensory situations. Touch may actually be so painful that individuals shy away from physical expressions of affection; rough fabrics may be particularly irritating. The flicker of fluorescent lights may be extremely bothersome. Loud or high-pitched sounds, even if they are at a distance or virtually inaudible to others, may be extremely distressing for someone with autism. For instance, applause may be overwhelming, as may the intense array of subtle sounds in a supermarket, or an extremely high-pitched sound in the background of a tape recorder. Many people with autism react strongly to the smell, taste, and texture of foods, causing them to exist on an extremely limited and bland diet.

In some cases, it is difficult for individuals with autism to distinguish which sounds or sights they should pay attention to. A child who has an ASD may fail to respond to words or sounds, while also being extremely distressed by an everyday noise such as a garbage truck driving by or an airplane approaching from miles away.

Some children and adults may also show an apparent insensitivity to pain and a lack of responsiveness to cold or heat, or may over-react to any of these.

## **PREVALENCE OF AUTISM**

Autism is found throughout the world in families of all racial, ethnic, and social backgrounds. Autism is four times more likely to be found in boys than in girls.

The number of children diagnosed with autism has increased significantly over the last few decades. According to the Autism Society of Canada, only one in every 10,000 children was diagnosed with autism twenty years ago. Now, the rate appears to be at least one in every 150 births in Canada. Some of this increase can be explained by improved awareness and better diagnosis, while another portion may be explained by environmental factors. The increase in the prevalence of autism cannot be ascribed to genetic factors alone.

## **WHAT CAUSES AUTISM?**

The cause of autism is not yet known. Although it is generally accepted that autism involves differences in the development and function of the brain. Researchers are currently investigating theories that look at the connection between autism, genetics, and medical problems such as viral infections. Others are investigating the relationship between environmental causes of autism, such as exposure to chemicals, allergens or vaccines. To date, researchers have not conclusively proven a link between any of these areas and autism.

**\*\*\*Contrary to some earlier theories, it is now known that autism is not caused by poor parenting, nor is autism a mental illness. No known psychological factors have been shown to cause autism in children.\*\*\***

## **TREATMENT AND EDUCATION**

Because people with autism process information differently, many individuals have difficulty learning in the traditional manner. For many people, communication may be a huge barrier to conventional learning. Sensory processing anomalies may make it difficult for individuals to know what to pay attention to and what to ignore. They may have difficulty with abstract concepts and sharing attention (or “multitasking”). They may also have difficulty focusing on the task at hand. While some individuals with ASD are not troubled by these symptoms, many others struggle in conventional learning environments.

Individualized education programs, whether in an inclusive or segregated settings, along with effective treatment can greatly increase a child’s ability to learn. There are a variety of education programs and therapies available to individuals with autism, but it is important to remember that autism is a spectrum disorder. Parents and caregivers must be careful to choose a program they feel is best suited to the specific needs of the person with ASD.

For an overview of educational and treatment approaches in Canada, please see [http://www.autismsocietycanada.ca/approaches\\_to\\_treatment/overview/index\\_e.html](http://www.autismsocietycanada.ca/approaches_to_treatment/overview/index_e.html).

The Autism Society Edmonton Area (ASEA) website ([www.autismedmonton.org](http://www.autismedmonton.org)) lists many treatment options. Our booklet “Services You Should Know About” is free upon request and list many educational resources available in the Edmonton Area.

## **EFFECT OF AUTISM ON FAMILIES**

Having a child with an autism spectrum disorder takes an immense amount of time and energy from all members of the family. A lot of effort is required to understand and communicate with an autistic child who does not respond in typical ways. Family members often develop a hyper-vigilance in order to ensure the safety and guard the sensitivity of the youngster with autism.

Parents must often cope with a great deal of uncertainty, both in communicating with their child, and in determining what services are available and how to access them.

Families are often concerned about what the future may hold for their family member with ASD. Self-care is critical for families, as it helps them to be the best possible parents, siblings, caregivers, advocates and organizers for their person with ASD. Family members and caregivers must ensure they get adequate rest and respite on a regular basis.

For all its challenges, however, there are many rewards. A child with autism is a special person with a unique way of looking at the world. Although he or she may communicate differently, parents and siblings do learn to read and understand their child or sibling and his or her perspective. Many family members become “experts” in understanding and living with autism.

Raising a child with autism makes you appreciate many things. Small advances in communication become cause for great joy. Children with autism teach us courage by struggling to live their lives against great odds. They show us the strength of our ability to cope, and help us develop our creativity by helping them live fulfilling lives within the community. Family members are often the vanguard of conceiving and developing new and effective community programs for individuals with autism. But most of all, living with a family member with autism deepens our ability to love and understand other human beings.

## **Autism Society of Edmonton Area**

The Autism Society of Edmonton Area (ASEA) is a not-for-profit, charitable organization dedicated to creating a community in which individuals with Autism Spectrum Disorders (ASD) are valued for their potential.

### **ASEA Offers:**

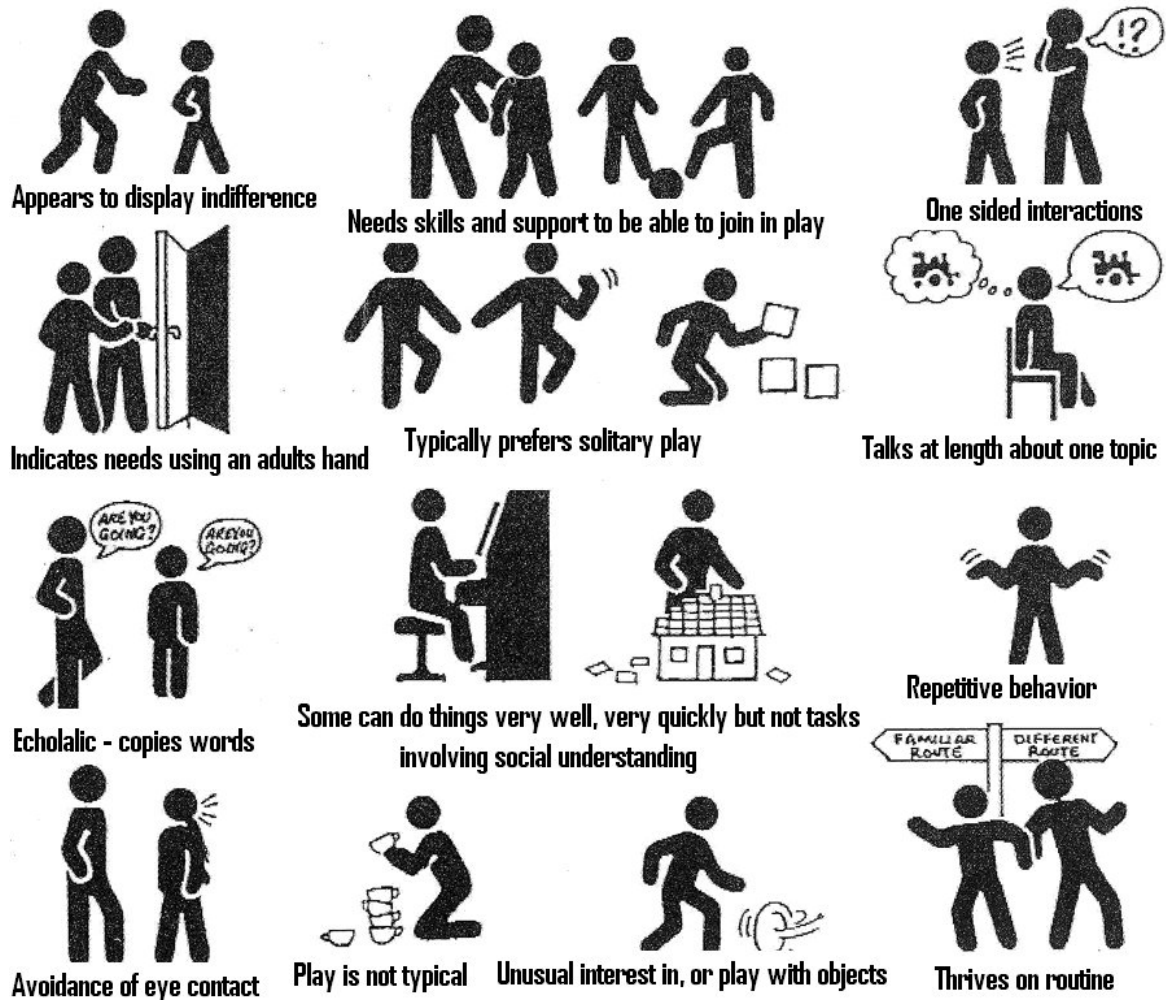
- Parent Support Groups: for parents of individuals with autism or asperger's syndrome.
- Parent Information Evenings: talks on a variety of autism-related topics are presented once a month from September to March.
- Library and Resource Materials: including books, periodicals, conference proceeding, articles, CD's videotapes, and DVD's.
- A Quarterly Newsletter called Autism Now
- Family Programs: a summer aide program and various social activities for people with autism/PDD-NOS/asperger's and their families.
- Advocacy and Partnerships: advocacy support for inclusive education placements; education program liaison with EPSB autism sites; ASEA initiated and chairs the Autism Collaboration Team with professionals in the field; representation to government focus groups and committees; and member of the Autism Society Alberta and Autism Society Canada

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

For more information contact the Autism Society of Edmonton Area at (780) 453-3971 or email [autism@autismedmonton.org](mailto:autism@autismedmonton.org).

# Autism is:

These figures illustrate some of the manifestations of autism. Not all persons with Autism experience each of these symptoms and they vary in severity.



Early diagnosis is essential if people with autism are to achieve their full potential. It is only when their disability is understood that they can be helped to maximize skills and minimize problems.

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