



www.autism-society.org

Autism is a complex developmental disability that typically appears during the first three years of life and is the result of a neurological disorder that affects the normal functioning of the brain, impacting development in the areas of social interaction and communication skills. Both children and adults with autism typically show difficulties in verbal and non-verbal communication, social interactions, and leisure or play activities. One should keep in mind however, that autism is a spectrum disorder and it affects each individual differently and at varying degrees - this is why early diagnosis is so crucial. By learning the signs, a child can begin benefiting from one of the many specialized intervention programs.

Prevalence of Autism

Autism is the most common of the Pervasive Developmental Disorders, affecting an estimated 1 in 88 births (Centers for Disease Control Prevention, 2014). Roughly translated, this means as many as 1.5 million Americans today are believed to have some form of autism. And this number is on the rise.

Based on statistics from the U.S. Department of Education and other governmental agencies, autism is growing at a startling rate of 10-17 percent per year. At this rate, the ASA estimates that the prevalence of autism could reach 4 million Americans in the next decade.

Autism knows no racial, ethnic, social boundaries, family income, lifestyle, or educational levels and can affect any family, and any child.

And although the overall incidence of autism is consistent around the globe, it is four times more prevalent in boys than in girls.

Learn the Signs

As mentioned previously, autism is a spectrum disorder, and although it is defined by a certain set of behaviors, children and adults with autism can exhibit any combination of these behaviors in any degree of severity. Two children, both with the same diagnosis, can act completely different from one another and have varying capabilities.

You may hear different terms used to describe children within this spectrum, such as autistic-like, autistic tendencies, autism spectrum, high-functioning or low-functioning autism, more-abled or less-abled; but more important than the term used to describe autism is understanding that whatever the diagnosis, children with autism can learn and function normally and show improvement with appropriate treatment and education.

Every person with autism is an individual, and like all individuals, has a unique personality and combination of characteristics. Some individuals mildly affected may exhibit only slight delays in language and greater challenges with social interactions. They may have difficulty initiating and/or maintaining a conversation. Their communication is often described as talking at others instead of to them. (For example, monologue on a favorite subject that continues despite attempts by others to interject comments).

People with autism also process and respond to information in unique ways. In some cases, aggressive

and/or self-injurious behavior may be present. Persons with autism may also exhibit some of the following traits:

- Insistence on sameness; resistance to change
- Difficulty in expressing needs, using gestures or pointing instead of words
- Repeating words or phrases in place of normal, responsive language
- Laughing (and/or crying) for no apparent reason showing distress for reasons not apparent to others
- Preference to being alone; aloof manner
- Tantrums
- Difficulty in mixing with others
- Not wanting to cuddle or be cuddled
- Little or no eye contact
- Unresponsive to normal teaching methods
- Sustained odd play
- Spinning objects
- Obsessive attachment to objects
- Apparent over-sensitivity or under-sensitivity to pain
- No real fears of danger
- Noticeable physical over-activity or extreme under-activity
- Uneven gross/fine motor skills
- Non responsive to verbal cues; acts as if deaf, although hearing tests in normal range.

For most of us, the integration of our senses helps us to understand what we are experiencing. For example, our sense of touch, smell and taste work together in the experience of eating a ripe peach: the feel of the peach's skin, its sweet smell, and the juices running down your face. For children with autism, sensory integration problems are common, which may throw their senses off they may be over or under active. The fuzz on the peach may actually be experienced as painful and the smell may make the child gag. Some children with autism are particularly sensitive to sound, finding even the most ordinary daily noises painful. Many professionals feel that some of the typical autism behaviors, like the ones listed above, are actually a result of sensory integration difficulties.

There are also many myths and misconceptions about autism. Contrary to popular belief, many autistic children do make eye contact; it just may be less often or different from a non-autistic child. Many children with autism can develop good functional language and others can develop some type of communication skills, such as sign language or use of pictures. Children do not "outgrow" autism but symptoms may lessen as the child develops and receives treatment.

One of the most devastating myths about autistic children is that they cannot show affection. While sensory stimulation is processed differently in some children, they can and do give affection. However, it may require patience on the parents' part to accept and give love in the child's terms.

Theories on Causes

There is no known single cause for autism, but it is generally accepted by the medical community that it is caused by abnormalities in brain structure or function. Brain scans show differences in the shape and structure of the brain in autistic versus non-autistic children. Researchers are investigating a number of theories, including the link between heredity, genetics and medical problems. While no one gene has been identified as causing autism, in many families there appears to be a pattern of autism or related disabilities, further supporting a genetic basis to the disorder. Researchers are searching for irregular segments of genetic code that autistic children may have inherited. It also appears that some children are born with a higher susceptibility to autism, but researchers have not yet identified a single "trigger" that causes autism to develop.

Researchers are also investigating the possibility that, under certain conditions, a cluster of unstable genes may interfere with brain development, resulting in autism. Still other researchers are investigating problems during pregnancy or delivery, as well as environmental factors such as viral infections, metabolic imbalances, and exposure to environmental chemicals.

Autism tends to occur more frequently than expected among individuals who have certain medical conditions, including Fragile X syndrome, tuberous sclerosis, congenital rubella syndrome, and untreated phenylketonuria (PKU). Some harmful substances ingested during pregnancy have also been associated with an increased risk of autism. Early in 2002, The Agency for Toxic Substances and Disease Registry (ATSDR) prepared a review of hazardous chemical exposures and autism and found no compelling evidence for an association. However, there was very limited research and more needs to be done to rule out chemicals.

The question regarding a relationship between vaccines and autism continues to be debated. In 2001, an investigation by a committee of the Institute of Medicine concluded that the "evidence favors rejection of a causal relationship.... between MMR vaccines and autistic spectrum disorders (ASD)." The committee however, acknowledged that "they could not rule out" the possibility that the MMR vaccine could contribute to ASD in a small number of children. While other researchers agree the data does not support a link between the MMR and autism, they also agree more research is clearly needed.

Whatever the cause, it is clear that children with autism and PDD are born with the disorder or born with the potential to develop it. Bad parenting does not cause it. It is not a mental illness. Children with autism are not unruly kids who choose not to behave. Furthermore, no known psychological factors in the development of a child have been shown to cause autism.

The demands of raising a child with autism are great, and families frequently experience high levels of stress. Recognizing and preparing yourself for the challenges that are in store will make a tremendous difference to all involved, including the parents, siblings, grandparents, extended family, and friends.

The uniqueness of each individual with autism makes the experience of raising a child with autism different for each family. But there are some consistent themes or issues that most families will want to be aware to be able to provide the best support to the individual and to family members.

The ASA has developed in-depth information on a variety of topics related to living with autism. Please visit our website: www.autism-society.org/shop_downloads