

# Autism Spectrum Disorders



## What Are Autism Spectrum Disorders (ASDs)?

Autism spectrum disorders, or pervasive developmental disorders, range in severity from autistic disorder to a milder form called Asperger Syndrome. When a child has some symptoms of either of these disorders, but does not meet all the criteria for the syndrome, the diagnosis is called pervasive developmental disorder not otherwise specified (PDD-NOS). Other disorders included in the autism spectrum include Rett Syndrome and Childhood Disintegrative Disorder.

## How Many Children Have An Autism Spectrum Disorder?

Studies in several states and Europe have reported that 3.4 of every 1,000 children aged 3-10 have some form of autism. Some autism groups believe that the incidence is even higher... in the range of 1 out of 150 children aged 3-10.

## How Do You Know If Your Child has an ASD?

### Early Indicators That a Child May Have an ASD\*

Does not babble, point or make meaningful gestures by one year of age

Does not speak one word by 16 months

Does not combine two words by age two

Does not respond to their name

Loses language or social skills that they had previously

### Other Indicators\*

Doesn't make eye contact or enjoy physical cuddling

Doesn't seem to know how to play with toys

Obsessively lines up objects

Becomes overly attached to one toy or object

Doesn't smile

Needs a rigid, highly structured routine

Makes repetitive movements such as head banging, spinning, and rocking that may be continued even when these activities cause self-injury to the child

Abnormal responses to sensations, light, sound, touch

Children with autism may act as if they are deaf

Speech problems including immature speech patterns and using words without understanding their meanings

Very high or low activity levels

Insensitivity to pain

Impulsive behavior with no real fear of dangers

Frequent crying and tantrums for no reason

\*Some of these symptoms may occur in children with other disabilities.

### Asperger Syndrome

Children with Asperger Syndrome (AS) have an obsessive interest in a single object or topic. Children with AS want to know everything about their topic of interest and don't want to talk with others about anything else. Children with AS are sometimes referred to as "the little professors" because of

their expertise, high level of vocabulary, and formal speech patterns. Children with AS also have repetitive routines or rituals; peculiarities in speech and language; socially and emotionally inappropriate behavior and the inability to interact successfully with peers. They have problems with non-verbal communication; and clumsy and uncoordinated motor movements.

## **Rett Syndrome**

Rett Syndrome is a rare condition affecting one out of 10,000 to 15,000 children. It is almost always in females. In Rett Syndrome, the little girl develops normally until sometime between 6 and 18 months. At that point, her mental and social development regresses and she loses social skills, stops talking (if she had started), wrings her hands and can't control her feet. Scientists have discovered a gene mutation that can cause Rett syndrome.

## **Childhood Disintegrative Disorder**

Childhood disintegrative disorder (CDD) is rare occurring in less than two children per 100,000 with an ASD. It is most common in boys. Symptoms may happen as early as age 2, but the average age is between 3 and 4 years. After a period of normal development, the child loses vocabulary more quickly than other children with ASDs. Boys with CDD are not social and prefer to be alone. They do not respond to their parents attempts to give them cuddling and affection. They also have difficulty learning to react to what others are thinking or feeling. In addition, they may find it hard to control their emotions and may break things, attack others or hurt themselves.

## **Fragile X Syndrome**

This syndrome occurs in 2-5 % of children with ASD. Fragile X is the most common type of inherited mental retardation. The syndrome is named because one part of the X chromosome has a defective piece that appears fragile when viewed under a microscope. If a family has one child with Fragile X, there is a 50% chance that other boys they have will have the same syndrome.

## **Tuberous Sclerosis**

This rare genetic disorder causes benign tumors to grow in the brain and other vital organs. One to 4 percent of children with ASD also have Tuberous Sclerosis.

## **What Causes ASDs?**

In addition to the ASDs that involve genetic disorders, ASDs have been linked to untreated phenylketonuria (PKU), rubella (three day measles virus), celiac disease (an inability to tolerate gluten in grains), and certain chemical exposures during pregnancy. There is no evidence that autism is caused by any factors in the child's psychological environment.

## **How Is Autism Diagnosed?**

Since there are no medical tests that can diagnose autism, children must be observed to see if their behavior patterns are consistent with autism. Symptoms can change as the child grows older; so it is important for parents to provide as complete a medical history as possible.

## **How Can You Help A Child With Autism?**

**Multidisciplinary Team:** A child with autism needs the coordinated services of a team of specialists including a special education teacher, language pathologist, clinical psychologist, and child development specialist. Parents are also an essential part of this treatment team.

**Medication:** Diet and medication can sometimes help in cases of autism involving metabolic abnormalities. Improvements have been noted in some children with autism when they are put on dairy and gluten free diets.

**Treatment Strategies:** There are six goals of treatment for children with autism.

- 1) Stopping the bizarre and inappropriate behavior that prevents the autistic child from relating and communicating with others.
- 2) Increasing the attention span and perceptual skills needed to work on educational skills.
- 3) Helping the child with self-care skills.
- 4) Providing opportunities for the child to socialize with others.
- 5) Stimulating the quantity and quality of language to increase communication skills.
- 6) Training parents to help provide these educational and relationship experiences.

Education: A child with an ASD will benefit from a highly structured, individualized educational program. Speech therapy can help develop language skills. Special efforts should be made to help the child learn to relate as normally as possible to family and peers.

Counseling: Meeting the challenges of raising an autistic child can be difficult for any family. Counseling services can serve as a relief valve to release some of the pressure that can build up in a family that is coping with a complex disability like autism.

## **What Is In The Future For Children With Autism?**

The National Institute of Neurological/Communicative Disorders and Stroke is sponsoring studies to determine the best methods for training children with ASDs in language and communication skills.

## **Can Autism Be Prevented?**

Since some cases of autism have been associated with chemical exposure during pregnancy, it is important to avoid all unnecessary exposure to drugs, chemicals and other potentially toxic environmental substances during

pregnancy. Early diagnosis and treatment of PKU and celiac disease will also reduce the risk of a child having autism. Immunization prior to pregnancy can prevent rubella-associated autism. Because of the rising incidence of ASDs, many new research projects have been funded to study the causes, early diagnosis and treatment of ASDs.

Fact Sheet by:

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