





# CHILDREN'S HEALTH: AUTISM SPECTRUM DISORDERS

Autism spectrum disorders (ASDs) refer to a group of developmental disabilities that vary in severity and affect socialization, communication and other behaviors in those that have them. The Centers for Disease Control and Prevention (CDC) estimates that roughly 1 in 68 children have an ASD.

#### **Types of ASDs**

The three types of ASDs are autistic disorder, Asperger syndrome and Pervasive Developmental Disorder-Not Otherwise Specified (PDD-NOS).

Autistic disorder is characterized by impaired social interaction, communication issues (including problems with language), and unusual, repetitive or severely limited activities and interests. People with this disorder also often have intellectual disabilities.

Individuals with Asperger syndrome often experience some of the symptoms of autistic disorder, but they are less severe. While problems with socializing and unusual behaviors and interests are not uncommon, Asperger syndrome is not associated with language difficulties or intellectual disability.

PDD-NOS is a term used to describe individuals who display only some of the signs of autistic disorder or Asperger syndrome. These individuals' symptoms are often milder and only affect socialization and communication.

#### Causes

Researchers are still currently searching for answers, as the exact causes of ASDs remain unknown.

#### **Genetics**

In many families, there appear to be patterns of ASDs,

although one specific gene has never been identified as the cause of ASDs, researchers are searching for irregular segments of genetic code that children with these disorders may have inherited.

It also appears that some children are born with a susceptibility to ASDs, but a single "trigger" that causes the disorders to develop has yet to be identified. Other research efforts are investigating the possibility that under certain conditions, a cluster of unstable genes may interfere with brain development.

#### **Environmental Factors**

Another possible cause of ASDs is problems during pregnancy or delivery, particularly environmental factors like viral infections, metabolic imbalances and exposure to environmental chemicals. Some harmful substances, when ingested during pregnancy, have been associated with an increased risk of ASDs.

## **Vaccinations**

There is no link between vaccines and developing an ASD, according to the CDC. Vaccine ingredients do not cause autism.

#### **Signs and Symptoms**

All children develop differently, but signs of delayed development are generally present by 18 months of age. If you suspect that your child has an ASD, discuss your concerns with your child's pediatrician, who can



recommend further evaluation. An ASD may be present if your child has the following symptoms:

- Doesn't respond to his or her name by 12 months of age
- Doesn't gesture, such as point or wave, by 14 months of age
- Repeats words or phrases over and over
- Doesn't play "pretend" by 18 months of age
- Appears obsessive or easily upset by change
- Avoids eye contact and wants to be alone
- Has delayed speech and language skills
- Loses previously acquired language or social skills at any age, or is delayed in developing them

#### **Screening and Diagnosis**

Your child's doctor should check for signs of developmental delays during regular well-child visits. If your child shows signs of an ASD, you may be referred to a specialist who can perform a comprehensive diagnostic evaluation.

Because the disorders vary widely in severity, making a diagnosis may be difficult. There are no medical tests available to easily pinpoint these disorders. A formal evaluation consists of the specialist observing your child and talking to you about how your child's social skills, language skills and behavior have developed and changed over time. To help reach a diagnosis, your child may undergo a number of developmental tests covering speech, language and psychological issues.

Although the signs of ASDs often appear by 18 months, the diagnosis sometimes isn't made until around age 2, when delays in language and social development may be more obvious. Early diagnosis is important because early intervention is associated with the best chance for significant improvement.

### **Treatment and Prognosis**

There are currently no cures for ASDs. ASDs cannot be outgrown, but individuals can learn to function with their disorders, especially if treatment begins early. Preschool children who receive intensive, individualized behavioral interventions often show significant progress. Your doctor can help identify the best options for your child, including the following treatments:

 Behavioral and communication therapies—Programs have been developed to address the range of social, language and behavioral difficulties associated with ASDs. Some programs focus on reducing problem behaviors and teaching new skills, while others focus

- on teaching children how to act in social situations or how to communicate better with others.
- Drug therapies—Right now, there are no medications that directly improve the core signs of ASDs, but some do help control obsessivecompulsive disorders, depression, anxiety and hyperactivity. Certain medications, though, may only be considered after behavior management has failed.
- Complementary or alternative approaches— Supplement educational and medical intervention with complementary therapies, such as art therapy, music therapy, special diets, vitamin and mineral supplements, and sensory integration.

Children with ASDs often respond well to structured educational programs. Successful programs often include a team of specialists and a variety of activities to improve social skills, communication and behavior.