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Understanding Autism -- the Basics

What Is Autism?

Autism is a complex neurobehavioral condition that includes impairments in social interaction and developmental language and communication skills combined with rigid, repetitive behaviors. Because of the range of symptoms, this condition is now called autism spectrum disorder (ASD). It covers a large spectrum of symptoms, skills, and levels of impairment. ASD ranges in severity from a handicap that somewhat limits an otherwise normal life to a devastating disability that may require institutional care.

Children with autism have trouble communicating. They have trouble understanding what other people think and feel. This makes it very hard for them to express themselves either with words or through gestures, facial expressions, and touch.

A child with ASD who is very sensitive may be greatly troubled -- sometimes even pained -- by sounds, touches, smells, or sights that seem normal to others.

Children who are autistic may have repetitive, stereotyped body movements such as rocking, pacing, or hand flapping. They may have unusual responses to people, attachments to objects, resistance to change in their routines, or aggressive or self-injurious behavior. At times they may seem not to notice people, objects, or activities in their surroundings. Some children with autism may also develop seizures. And in some cases, those seizures may not occur until adolescence.

Some people with autism are cognitively impaired to a degree. In contrast to more typical cognitive impairment, which is characterized by relatively even delays in all areas of development, people with autism show uneven skill development. They may have problems in certain areas, especially the ability to communicate and relate to others. But they may have unusually developed skills in other areas, such as drawing, creating music, solving math problems, or memorizing facts. For this reason, they may test higher -- perhaps even in the average or above-average range -- on nonverbal intelligence tests.

Symptoms of autism typically appears during the first three years of life. Some children show signs from birth. Others seem to develop normally at first, only to slip suddenly into symptoms when they are 18 to 36 months old. However, it is now recognized that some individuals may not show symptoms of a communication disorder until demands of the environment exceed their capabilities. Autism is four times more common in boys

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than in girls. It knows no racial, ethnic, or social boundaries. Family income, lifestyle, or educational levels do not affect a child's chance of being autistic.

Autism is said to be increasing; however, it is not entirely clear whether the increase is related to changes in how it is diagnosed or whether it is a true increase in the incidence of the disease.

Autism is just one syndrome that now falls under the heading of autism spectrum disorders. Previous disorders that are now classified under the umbrella diagnosis of ASD or a social communication disorder include:

- **Autistic disorder.** This is what most people think of when they hear the word "autism." It refers to problems with social interactions, communication, and imaginative play in children younger than 3 years.
- **Asperger's syndrome.** These children don't have a problem with language -- in fact, they tend to score in the average or above-average range on intelligence tests. But they have the same social problems and limited scope of interests as children with autistic disorder.
- **Pervasive developmental disorder or PDD -- also known as atypical autism.** This is a kind of catch-all category for children who have some autistic behaviors but who don't fit into other categories.
- **Childhood disintegrative disorder.** These children develop normally for at least two years and then lose some or most of their communication and social skills. This is an extremely rare disorder and its existence as a separate condition is a matter of debate among many mental health professionals.

Rett syndrome previously fell under ASD spectrum but it is now confirmed that Rett's cause is genetic. It no longer falls under ASD guidelines. Children with Rett syndrome, primarily girls, start developing normally but then begin losing their communication and social skills. Beginning at the age of 1 to 4 years, repetitive hand movements replace purposeful use of the hands. Children with Rett syndrome are usually severely cognitively impaired.

What Causes Autism?

Because autism runs in families, most researchers think that certain combinations of genes may predispose a child to autism. But there are risk factors that increase the chance of having a child with autism.

Advanced age of the mother or the father increases the chance of an autistic child.

When a pregnant woman is exposed to certain drugs or chemicals, her child is more likely to be autistic. These risk factors include the use of alcohol, maternal metabolic

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conditions such as diabetes and obesity, and the use of antiseizure drugs during pregnancy. In some cases, autism has been linked to untreated phenylketonuria (called PKU, an inborn metabolic disorder caused by the absence of an enzyme) and rubella (German measles).

Although sometimes cited as a cause of autism, there is no evidence that vaccinations cause autism.

Exactly why autism happens isn't clear. Research suggests that it may arise from abnormalities in parts of the brain that interpret sensory input and process language.

Researchers have no evidence that a child's psychological environment -- such as how caregivers treat the child -- causes autism.

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Sources

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