Children’s Health: Autism

Autism, sometimes called classical autism, is the most common condition in a group of developmental disorders known as autism spectrum disorders (ASDs). Autism is the fastest-growing developmental disability in the United States, affecting roughly 1 in 150 births.

Autism is characterized by impaired social interaction, problems with verbal and nonverbal communication, and unusual, repetitive, or severely limited activities and interests. Other ASDs include Asperger syndrome, Rett syndrome, childhood disintegrative disorder, and pervasive developmental disorder not otherwise specified which is usually referred to as PDD-NOS.

There is currently no known single cause or cure for the condition. Researchers are investigating a number of theories, including the link between heredity, genetics, and medical problems in the development of autism. Currently, it is generally accepted that autism is caused by abnormalities in brain structure or function, as brain scans have shown differences in the shape and structure of the brain in autistic versus non-autistic children.

**Genetics**
In many families, there appears to be a pattern of autism or related disabilities, further supporting a genetic basis to the disorder. While no one gene has been identified as causing autism, 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 susceptibility to autism, but a single "trigger" that causes autism 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 resulting in autism.

Another genetic theory includes possible problems during pregnancy or delivery, as well as environmental factors like 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 also have been associated with an increased risk of autism.

**The Vaccination Debate**
The question of a relationship between vaccines and autism also continues to be debated. The theory that the Measles, Mumps, and Rubella (MMR) vaccination can cause autism and other ASDs has yet to be proven. So far, experts have not been able to rule out the possibility that the MMR vaccine could contribute to ASD in a small number of children. While other researchers believe that the
data does not support a link between the MMR and autism, more research is clearly needed.

Whatever the cause, it is clear that children with autism and PDD are either born with the disorder or with the potential to develop it. Autism is not caused by bad parenting and is not a mental illness. Children with autism are not simply unruly kids who choose not to behave. There are also no known psychological factors in the development of children that cause autism.

**Signs & Symptoms**

All children develop at their own pace, but usually signs of autism, or delayed development, are present by 18 months of age. If you suspect autism, discuss your concerns with your child’s pediatrician, who can recommend further evaluation. Autism may be present if your child:

- Doesn’t babble or coo by 12 months of age
- Doesn’t gesture, such as point or wave, by 12 months of age
- Doesn’t say single words by 16 months of age
- Doesn’t say two-word phrases by 24 months of age
- Loses previously-acquired language or social skills at any age

**Screening & Diagnosis**

Your child’s doctor can check for signs of developmental delays during regular checkups. If your child shows some signs of autism, you may be referred to a specialist in treating children with autism. This specialist, working with a team of professionals, can perform a formal evaluation for the disorder. Because autism varies widely in severity and manifestations, making a diagnosis may be difficult. There isn’t a medical test to pinpoint the disorder. 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 autism often appear by 18 months, the diagnosis sometimes isn’t made until age 2 or 3, when there may be more obvious delays in language development. Early diagnosis is important because early intervention, preferably before age 3, is associated with the best chance for significant improvement.

**Treatment & Prognosis**

There is currently no cure for autism, and your child won’t outgrow it, but he or she can learn to function within the confines of the disorder, especially if treatment begins early. Preschool children who receive intensive, individualized behavioral interventions show good progress. Your doctor can help identify the best resources and treatment options for your child, including:

- **Behavioral and communication therapies** – Programs have been developed to address the range of social, language and behavioral difficulties associated with autism. Some programs focus on reducing problem behaviors and teaching new skills. Other programs focus on teaching children how to act in social situations or how to communicate better with other people.

- **Drug therapies** – Right now, there are no medications that directly improve the core signs of autism, but some can help control symptoms. Stimulants can help with hyperactivity, while antipsychotic drugs will sometimes control repetitive and aggressive behaviors.

- **Complementary/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 autism often respond well to highly structured educational programs. Successful programs often include a team of specialists and a variety of activities to improve social skills, communication and behavior.

**Did you know...?**

About 90% of costs associated with autism are in adult services. However, the cost of lifelong care can be reduced by two-thirds with early diagnosis and intervention.