



## **Autism: An Overview**

### **Provided by The King's Daughters' School**

#### **An Introduction to Autism**

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##### **What is Autism?**

- The word autism derives from the Greek word *autos*, which means *self*.
- Autism is a complex developmental disorder that typically appears during the first three years of life. It is the result of a neurological disorder that affects the typical functioning of the brain, thus impacting social and communication skills. Ultimately, autism affects a person's ability to communicate, use his or her imagination, and form attachments with other people.
- Autism is referred to as a spectrum disorder, meaning the symptoms can occur in many different combinations and with varying degrees of severity. It is also a lifelong disability.
- Autism is a widely used term that refers to the spectrum of autistic disorders, ranging from mild to severe. The more current term for autism is ASDs, or Autism Spectrum Disorders, which includes the following five diagnoses: Autistic Disorder, Asperger's Disorder, Childhood Disintegrative Disorder (CDD), Rett's Disorder, and PDD-NOS (Pervasive Disorder-Not Otherwise Specified).

##### **How Common Is Autism?**

According to the Autism Society of America.....

- 1 in 110 children born today will be diagnosed with autism.
- Over 1.5 million individuals in the United States are living with the effects of autism spectrum disorder.
- The diagnosis rate for autism is rising at a rate of 10-17% per year.
- Males are 4 times more likely than females to be diagnosed with autism. 1 in 70 boys
- We are currently spending \$90 billion dollars annually on services for individuals with autism; in 10 years, the annual cost will be \$200-400 billion. However, with early diagnosis and intervention, the cost of lifelong care for an individual with autism can be reduced by 2/3rds.

<http://www.autism-society.org>

##### **What Are Some of the Characteristics of Autism?**

A person with autism may

- Not understand where they are in space and time.

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- Be unable to deal with change or disruptions in routines.
- Have problems with social interaction: not make eye contact, not understand non-verbal language, have difficulty playing with others or engaging in conversations that they do not initiate.
- Have problems with communication: be unable to speak (or have problems speaking), appear not to hear or understand what you say.
- Engage in repetitive, self-stimulating behaviors (i.e, flapping hands or rocking back & forth).
- Act happy or sad for no obvious reason.
- Seem to be anxious or nervous.
- Have sensory integration problems.

### **The History of Autism:**

- In the nineteenth century, “autism” was originally coined by Swiss psychiatrist Eugen Bleuler, during his work with patients with schizophrenia. Dr. Bleuler used the term “autism” (*auto*=self) to describe patients who exhibited isolation from the outside world and an extremely self-absorbed personality. It was not until the early 1940’s, though, that the term “autism” was used in its current form. In the 1940’s, two pioneers, Dr. Leo Kanner and Dr. Hans Asperger, conducted two separate research studies concerning children with difficulties in communication and social skills. Amazingly, although neither researcher was aware of the other’s study, both used the word “autism” to describe the disorder exhibited by the children in their studies. Ultimately, Dr. Kanner’s definition became the classic definition for autism, describing children with impaired social interaction, lack of imaginative play, and verbal communication problems. Dr. Asperger, whose study dealt more with children with similar traits but IQs, leant his name to describe the less severe form of autism, Asperger’s Syndrome.

### **Are Children with Autism Mentally Retarded?**

Most children with “classical autism” or “PDD” also have low IQs and are labeled mentally retarded. However, many people with autism, especially Asperger’s Syndrome, have normal to above-average intelligence.

### **What Causes Autism?**

Autism is caused by abnormalities in the brain, but no one knows why these abnormalities occur. There seems to be a pattern of autism in some families, but no specific gene is currently known to cause it. It is *not* caused by poor parenting or poor pre-natal care.

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## How Is Autism Diagnosed & Treated?

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### What are the Signs of Autism?

According to the National Institute of Mental Health, some possible early indicators of ASDs (Autism Spectrum Disorders) include the following:

- Not babbling, pointing or making meaningful gestures by one year of age.
- Not speaking one word by sixteen months.
- Not combining two words by two years of age.
- Not responding to his or her name.
- Losing language or social skills.
- Avoiding eye contact.
- Not seeming to know how to play with toys.
- Excessively lining up toys or other objects.
- Being attached to one particular toy or object.
- Not smiling.
- Seeming to be hearing impaired at times.

### What Do I Do If a Child Shows Signs of Autism?

- Early Intervention can significantly improve the quality of life for individuals with autism. Thus, immediate medical evaluation by a pediatrician is imperative. Pediatricians who suspect autism will make referrals to appropriate specialists. The Autism Society of America is an excellent source for future plans concerning an autistic child [www.autism-society.org](http://www.autism-society.org).

### What Kinds of Interventions (Treatment Methods) Are Used for Children with Autism?

Autism is not curable, but children with autism can live happier, healthier, more productive lives with good intervention and treatment. Some of the educational, programmatic, physical, and behavioral tools include the following:

- **An Individual Education Program (IEP)** – An IEP is a legally binding document, which establishes a plan for an individual student who is identified as having one or more of the 13 disabilities. The complete IEP is developed by school teachers and personnel, parents, and therapists; it includes identification, intervention, multi-factored evaluation, development of the IEP, implementation of the IEP, and an annual review.
- **Applied Behavior Analysis (ABA)** – ABA is a systematic process of studying and modifying observable behavior through a manipulation of the environment. ABA uses an experimental approach of manipulating the environment and tracking alterations in behavior to understand and manipulate functional relationships between behavior and environments.
- **Occupational Therapy (OT)** - a treatment that focuses on helping children achieve independence in all areas of their lives. It can also provide children with positive, fun activities to improve their cognitive, physical, and motor skills, thus enhancing their self-esteem and overall sense of accomplishment through successful and meaningful

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experiences. Through treatment such as play theories, developmental theories, and sensory integration, occupational therapy can improve coping skills, fine motor skills, self help skills, play skills, and socialization.

- **Physical Therapy (PT)** - PT is a set of services that is designed to promote strong gross motor skills such as strength, posture and balance, with an emphasis on improving movements that make a person more functional in daily living. Ultimately, PT helps children control movements, increase body awareness, and develop the motor coordination required for skills such as walking, running and jumping, thereby enhancing the child's developmental skills, processing, and overall learning.
- **Speech Language Therapy (SLT)** – SLT enhances intentional communication through expression of ideas, obtaining desires, sharing information, and interpersonal interaction. SLT is important because children with autism have difficulty using language in a social context. They may also need to address issues such as staying on topic or using eye contact while speaking to others. Thus, SLT may also focus on nonverbal communication such as teaching gestural communication, or training with PECS (Picture Exchange Cards), electronic talking devices (voice output systems), and other communication tools.
- **Picture Exchange Communication System (PECS)**- PECS was developed in 1985 as a unique augmentative and alternative training package that teaches children and adults with autism to initiate communication. The system teaches discrimination of symbols, the use of pictures as “words” to communicate, and ultimately how to put these symbols together to create simple sentences. PECS does not require complex or expensive materials and can be used in a variety of settings.
- **Wilbarger Protocol**- Wilbarger Protocol is a specific, professionally guided treatment regime designed to reduce sensory defensiveness. Sensory defensiveness is an adverse or defensive reaction to visual, auditory, tactile, or other stimuli (sight, sound, touch, etc). Symptoms may include withdrawal from touch, discomfort from certain clothes, over reaction to sounds, dislike of foods with mixed textures, exaggerated personal space, increased startle reflex and dislike of complex visual stimuli. The Wilbarger Deep Pressure and Proprioceptive Technique (DPPT) is the use of a soft, surgical brush to give intense deep pressure stimulation to the arms, back, and legs, which is immediately followed by joint compression of the wrist, elbow, shoulder, hip, knee, and ankle. This calming and organizing technique is repeated every two hours.
- **Sensory Integration**- Sensory Integration is a brain process that occurs within all of us; it allows us to take information through our senses, organize it and make a plan to produce a meaningful response. However, a child diagnosed with autism who has sensory integration problems cannot respond to sensory information and use it to behave in a meaningful way. These children may be hypersensitive or hyposensitive to sensory information, meaning some senses are too strong and others are not strong enough. In these children, their response impairs their learning and decreases their ability to interpret and respond appropriately to stimuli.

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## What Is the KDS Center for Autism?

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### What is the Center for Autism?

The Center for Autism is state-of-the-art branch campus of The King's Daughters' School. As a highly-structured private residential, co-educational campus, the Center for Autism provides individual attention to help children ages 7-22 learn to communicate and master self-help skills. Optimizing each individual student's fullest potential. The Center serves children from across the United States and abroad who have significant communication, sensory, social, daily living, and/or behavioral challenges. The Center is a private school, which does not accept Medicaid Waiver money, insurance, or other public funding.

Students at the Center for Autism benefit from a small student-teacher ratio (2.5 to 1, and lower for children who need more intensive supports) and a small capacity (just 20 students residentially and a small number of day students). This allows teachers and staff to focus on each child as an individual, and to tailor their teaching strategies to meet each child's needs and abilities.

The Center for Autism uses a combination of widely accepted training methods, including:

- PECS (Picture Exchange Communication System)
- TEACCH (Treatment and Education of Autistic and related Communication-handicapped Children)
- ABA (Applied Behavior Analysis)
- Floor time
- Positive Behavior Supports
- Speech, Occupational, and Sensory Therapies

Students at the Center receive the following minimum services:

- A regular 6 1/2-hour school day, including regular periods for communication, functional academics, daily living skills, adaptive physical education, community based instruction, and sensory integration
- Self-help and daily living skills training
- Speech therapy & Occupational therapy
- Behavior analysis and modification
- Cognitive-behavioral therapy
- Animal therapy
- Access to computers and other assistive technology
- Opportunities for socialization and social-adaptive training
- Regular community involvement activities
- Structured leisure and recreational activities
- Assistance in overcoming transitioning challenges
- Training in skill generalization
- Small student-to-teacher ratio
- Year-round programming
- Twenty-four hour supervision and assistance

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## Where Can I Go to Learn More?

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### General Autism Resources:

- Autism Society of Middle Tennessee  
400 Craighead St., Ste 200  
Nashville, TN 37204  
615-385-2077  
[www.autismmidtenn.org](http://www.autismmidtenn.org)  
*Provides free networking, resources, names of doctors and specialists; for a \$10 yearly membership fee, provides free monthly workshops on topics such as behavior management, special education, etc.*
- Vanderbilt University Center for Human Genetics Research  
1207 17<sup>th</sup> Ave. South, Ste. 100  
Nashville, TN 37212  
1-888-717-4319  
<http://autismgenes.org>  
*For families of children with autism, provides the free opportunity to be involved in genetic studies of children with autism and siblings of children with autism*
- Vanderbilt University's TRIAD Program  
615-936-1705  
[www.triadatvanderbilt.com](http://www.triadatvanderbilt.com)  
*Provides (for a fee) support and education for parents of young children (age 4 and under) with autism, and resources for diagnoses of autism (also for a fee)*
- Vanderbilt University's Disability Pathfinder  
[www.kc.vanderbilt.edu/tnpathfinder](http://www.kc.vanderbilt.edu/tnpathfinder)  
*Free online referral service that helps parents find different services in Tennessee for different disabilities*
- Internet Resources:
  - Autism Society of America: [www.autism-society.org](http://www.autism-society.org)
  - National Institute of Mental Health: [www.nimh.nih.gov](http://www.nimh.nih.gov)
  - National Dissemination Center for Children with Disabilities: [www.nichcy.org](http://www.nichcy.org)
  - Vanderbilt University's Disability Pathfinder
  - International Society for Autism Research: <http://autism-insar.org/>
  - State of Tennessee Early Intervention System:  
<http://www.state.tn.us/education/speced/TEIS/>
  - Autism Speaks: <http://www.autismspeaks.org/>

### Special Education Resources:

- Department of Education's Special Education Resource Page:  
<http://tennessee.gov/education/speced/selinks.shtml>
- Rights of Children with Disabilities and Parent Responsibilities:  
<http://tennessee.gov/education/speced/doc/spedrights.pdf>
- IDEA Basics: ABCs of Parents' Rights:  
<http://tennessee.gov/education/speced/doc/seabcprosafe.pdf>

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