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Autism Spectrum Disorders An Overview

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What is Autism Spectrum Disorder?

Autism Spectrum Disorder (ASD) is a neurobiological disorder of development that typically appears during the first three years of life. It causes discrepancies or differences in the way the brain processes information.

Autism First Described by Leo Kanner in 1943

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ASD

This information-processing difference affects the individual's ability to:

- Understand and use language to interact and communicate with people.
- Understand and relate in typical ways to people, events, and objects in the environment.
- Understand and respond in typical ways to sensory stimuli such as pain, hearing, taste, smell, etc.
- Learn and think in the same way as do children with typical development.


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ASD


– Well over two million people in the U.S. today have some form of ASD. Its prevalence rate now places it as the third most common developmental disability - more common than Down's syndrome.

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Autism Facts Autism Speaks


- Prevalence is 1 in 88 (CDC) in children and 1 in 54 boys and 1 in 252 girls (a ten-fold increase in 40 years)
- Prevalence figures are growing
- Fastest-growing developmental disability in the U.S. Rates have increase 10-17% annually in recent years
- Costs a family \$60,000 per year on average
- Boys are nearly 5 times more likely than girls to have autism
- No medical detection or cure for Autism

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Autism Facts ASA


- Life long cost of caring for a child with autism between 3.5-5 million
- \$90 billion annual cost (U.S.)
- 60% of costs are in adult services
- Cost of lifelong care can be reduced by 2/3 with early diagnosis and intervention
- In 10 years, the annual cost will be \$200-400 billion

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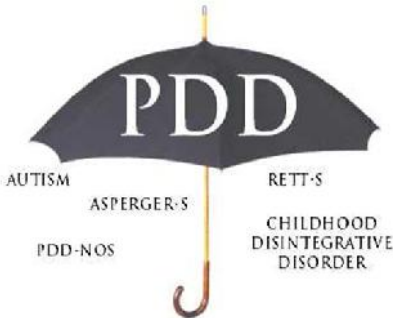
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Is There More than One Type of Autism?

Several related disorders are grouped under the broad heading "Pervasive Developmental Disorder" or PDD--a general category of disorders which are characterized by severe and pervasive impairment in several areas of development (American Psychiatric Association 1994). A standard reference is the Diagnostic and Statistical Manual. Diagnosis is made when a specified number of characteristics listed in the DSM-IV-TR are present.

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Autistic Disorder

- Impairments in social interaction.
- Impairments in communication.
- Deficits in imaginative play.
- Occurs prior to age three years.
- Often have stereotyped behaviors.
- May have restricted interests and activities.


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Asperger Disorder/Syndrome

- Impairments in social interactions.
- Presence of subtle communication issues. (May have had more significant language delays as a young child.)
- Restricted interests and activities.
- Intelligence ranges from low average to well above average.

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PDD-NOS

Pervasive Developmental Disorder- Not Otherwise Specified

- Diagnosis of often made when a child does not meet the criteria for a specific diagnosis. There is generally a severe and pervasive impairment in specified behaviors of communication, social interactions, and restricted interests.
- Sometimes used as a "holding" diagnosis in very young children.

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Rett's Disorder

- A progressive disorder.
- Almost exclusively in girls
- Period of normal development with loss of previously acquired skills.
- Often misdiagnosed as autism or Cerebral Palsy
- Usually occurs in the first or second year.
- Loss of purposeful motor movement
- Researchers have found the gene that causes Rett's disorder. A mutation on the X chromosome
- Occurs in 1 in 10,000-15,000

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Childhood Disintegrative Disorder

- Also known as Heller's Syndrome
- Normal development for a period of at least the first two years but usually normal development until 3-4 years (later and more severe regression than autism)
- A progressive disorder with continued disintegration into later years.
- Occurs in 1-2 out of 100,000 children

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Why do there seem to be so many more kids with ASD these days?

- More uniform criteria for diagnosis.
- Broader range of diagnosis.
- Misdiagnosis.
- Actual increase in the number of children with ASD.

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Some of the Disorders that Can Co-occur with ASD

- Mental Retardation
- Epilepsy
- Tourette Syndrome
- Down Syndrome
- Tuberous Sclerosis
- Neurofibromatosis
- Fragile X

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Autism Spectrum Continuum

Mental Retardation-----	Cognitive	Gifted
Nonverbal-----	Communication	Verbal
Hyposensitive-----	Sensory	Hypersensitive
Appears withdrawn-----	Social Interaction	Inappropriately Social
Hypoactive-----	Activity Level	Hyperactive
None-----	Self Regulatory Behavior	Frequent
None-----	Appropriate Play	Limited Pretend
None-----	Aggressive Behavior	High Rate

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Social Characteristics of ASD

- May not respond, even when name is called.
- Lack of social smile.
- Eye contact may be unusual.
- Seems content when left alone.
- Seeks social contact in unusual ways.
- Drifts about aimlessly.
- Exhibits intense and obsessive interests.

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Play Differences in Children with ASD

- Manipulation -- Less variation, repetitive and perseverative actions.
- Functional Play -- more restricted use of objects, more object oriented play.
- Symbolic Play -- generally absent. When present, has poor content.
- Children with ASD don't learn to play just by being exposed to it.
- Motor and sensory issues makes play difficult.

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Communication Characteristics of Individuals with ASD

- Language may not develop or is delayed in development.
- May experience a loss of language.
- May have echolalia.
- May experience confusion in the use of pronouns.
- May experience processing delays and differences.
- May have difficulty responding on demand.
- May have limited or inappropriate affect.

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Communication Characteristics (continued)

- Likely to have difficulty understanding the reciprocal nature of communication.
- Likely to have difficulty with pragmatics.
- May have difficulty with nonverbal aspects of communication.
- May have difficulty with perspective taking.
- May have attentional difficulties.
- May have a limited repertoire of interests.
- Generally have difficulty with abstract concepts.
- Often interprets things literally.

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Sensory Issues

Auditory Sensitivities

- Puts hands over ears, puts objects in ears, or fidgets with ears.
- Grimaces/flinches when a sound occurs, or perhaps grimaces for no obvious reason.
- Destructive behavior around objects that may be related to loud sounds (telephones flushing toilets, alarm clocks).
- Bolts from certain areas or sounds.

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Auditory Sensitivity Strategies

- Decrease your volume.
- Use short, direct sentences.
- Don't talk too fast.
- Don't chatter on and on.
- Don't repeat what you have said right away, give time to process what has been said.
- Be aware of acoustics in rooms that may be irritating (theaters, gyms, churches, cafeterias).

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Auditory Sensitivity Strategies

- Be aware of difficulty with crowd sounds, you may need to help the individual anticipate applause or move to a quieter area.
- Pre-warn the individual about sounds that are about to happen.
- Anticipate that an individual may bolt from distressing sounds. Be prepared for dangerous situations such as traffic.
- Use soft music or other more desirable sounds to mask undesirable sounds.
- Allow a quiet place for retreat as necessary.

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Sensory Issues

Visual Sensitivities

- Closes eyes.
- Looks off to one side rather than straight ahead while walking, watching television, or doing a task.
- Finger fiddling in front of eyes, spinning objects, fascination with fans, or other moving objects.
- Squinting.
- Agitation in environments that are full of visual stimuli, especially moving stimuli.
- Agitation in rooms with fluorescent lighting

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Visual Sensitivity Strategy

- Do not assume that the individual is not looking at a task.
- Allow the individual to use peripheral vision.
- Do not insist on eye contact, looking at someone's eyes is sometimes uncomfortable.
- Keep the environment as neutral as needed to eliminate visual overstimulation.

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Sensory Issues

Tactile Sensitivities

- Defensive about being touched.
- Appears uncomfortable in certain clothing.
- Sensitive feet.
- Problems with eating. May be a picky eater.
- Difficulty with haircuts, hair washing.
- Pulls at hats, accessories.
- Problems holding things and doing tasks that require a firm grip such as zippers or buttons.
- Gags easily.
- Extreme dislike of sticky or dirty hands.

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Tactile Sensitivity Strategies

- ❖ As caregivers we need to be aware that our natural inclination to touch may be very difficult for an individual with autism.
- ❖ Give the person space.
- ❖ Soft, loose clothing may be helpful.


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Tactile Sensitivity Strategies


- New clothes should be washed before wearing to make them softer.
- Be aware of problems caused by new shoes or textured socks.
- Never insist that the person sit in one place for long periods of time. Allow them to move about, standing for some tasks and sitting for others.

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Differences in Pain Sensitivity


- No or minimal reaction to touching something hot.
- Lack of response to painful stimuli.
- Self-injurious behavior.
- Not seeming to need warm clothing when going outside in cold weather.
- Continuing to work or play while severely ill.
- Inappropriate laughter.

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Pain Sensitivity (continued)

Whenever there is a change in behavior, illness must be a consideration. If a person with ASD acts as if they don't feel well, pay very close attention. Because of the lack of pain sensitivity, individuals often do not show symptoms of being ill until it may be too late. Any time you see a person with ASD acting as though they might not feel well, take it very seriously. Note -- in some people with ASD you will see an improvement in behavior when they are ill.


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Anxiety Issues

- Increased pacing.
- Clingy behavior.
- Increased vocalizations.
- Frequent attacks of diarrhea.
- Gritting or grinding teeth.
- Regression to old behavior patterns.
- Increased intensity of behaviors.
- Withdrawal.
- Zoning out.
- Use of comfort routines or objects.
- Sudden outbursts of aggression.
- Disrupted sleep patterns.

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Anxiety Strategies

- Be aware that because of high stress levels, small things may trigger big reactions.
- Anxiety may get worse with puberty.
- Try having a quiet time or use a quieting routine if anxiety seems high.
- Teach relaxation exercises as part of the daily routine.
- Predict changes in schedule/transitions.

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Anxiety Strategies

- Allow the individual to carry a comfort object (be careful -- it needs to be small, age appropriate, and don't let it become an obsession).
- Deep pressure may help calm anxiety.
- Physical exercise may be calming.

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