

Autism Spectrum Disorder (ASD)

PAULINE VAN NGOC

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Definition of autism

Autism Spectrum Disorder (ASD) is a neurodevelopmental disorder, characterized by

- a persistent deficit in social communication and social interaction*
- restricted, repetitive patterns of behavior, interests, or activities.*

In addition, Symptoms present in the early developmental period and symptoms cause clinically significant impairment in social, occupational, or other important areas of current functioning.

(DSM 5, may 2013)

Autism Spectrum Disorders (ASD)

- have common features with many other mental disorders, such as schizophrenia and obsessive-compulsive disorders.
- Brain disorder of genetic origin
- Parents are worried about the strange behavior of their child.
- usually begins in infancy, at the latest, in the first 3 years of life.
- Heterogeneous conditions
- spared abilities and deficits in areas of social-communicative development
- Importance of early diagnosis and early treatment
- Lifetime consequences for the child and the family

Do you know how to recognize a child who suffer from an Autism Spectrum Disorder?

Diagnostic criteria for Autism Spectrum Disorder (ASD) according to the DSM-IV

	Autistic Disorder	Rett's disorder	Childhood disorder	Asperger's Disorder	PDD-NOS
Age of Onset	Delays or abnormal functioning in social interaction, language, or play by age 3.	Apparently normal prenatal development for first 5 months; deceleration of head growth between ages 5 and 48 months.	Apparently normal development for at least the first 2 years of birth; clinically significant loss of previously acquired skills before age 10.	No clinically significant delay in language, cognitive development, or development of age appropriate self-help skills, adaptative behavior, and environment in childhood	This category is to be used in cases of pervasive impairment in social interaction and communication with presence of stereotyped behaviors of interests when criteria are not met for a specific disorder

	Autism disorder	Rett's Disorder	Childhood disintegrative disorder	Asperger's Disorder	PD D-N OS
Social interaction	<p>Qualitative impairment in social interaction, as manifested by at least two of the following:</p> <ul style="list-style-type: none"> a. Multiple non-verbal behavior b. Failure to develop peer relationships appropriate to developmental level c. Lack of spontaneous seekink to share enjoyment with other people d. Lack of social or emotional reciprocity 	Loss of social engagement early in the course (also often social interaction develops later)	Same as autistic disorder along with loss of social skills	Same as autistic disorder	

	Autistic disorder	Rett's disorder	Childhood disintegrative disorder	Asperger 's disorders
Commu- nication	<p>Qualitative impairments of communication as manifested by at least one of the following:</p> <ol style="list-style-type: none"> a. Delay in, or total lack of, the development of spoken language; b. Marked impairment in initiating or sustaining a conversation with others, in individuals with adequate speech; c. Stereotyped and repetitive use of language or idiosyncratic language; d. Lack of varied, spontaneous make-believe or imitative play. 	Severely impaired expressive and receptive language development and severe psychomotor retardation	Same as Autistic disorder, along with loss of expressive or receptive language previously acquired	No clinically significant delay in language

	Autistic disorder	Rett's disorder	Childhood disintegrative disorder	Asperger's disorder
Behavior	<p>Restrictive, repetitive, and stereotyped patterns of behavior, as manifested by one of the following:</p> <ul style="list-style-type: none"> a. Preoccupation with one or more stereotyped or restricted patterns of interest; b. Adherence to nonfunctional routines or rituals; c. Stereotyped and repetitive motor mannerisms; d. Persistence preoccupation with parts of objects 	<p>Loss of previously acquired purposeful hand movements;; appearance of poorly coordinated gait or trunk movement</p>	<p>Same as autistic disorder, along with loss of bowels or bladder control, play, motor skills previously acquired.</p>	<p>Same as autistic disorder.</p>

	Autistic disorder	Rett's Disorder	Childhood disintegrative disorder	Asperger's disorder	PDD-NOS
Exclusions	Disturbance not better accounted for by Rett's or CDD		Disturbance not better accounted for by another PDD or schizophrenia.	Criteria are not met for another PDD or schizophrenia.	

Asperger's Syndrome: Individuals who suffered no speech or cognitive delay as children, such that they were talking on time and have at least a "normal" IQ, but who nevertheless display a range of autistic-like behaviors and ways of taking in the world. The hallmarks of Asperger's included emersion in an all-consuming interest and a one-sided, self-focused social approach. (Klin, A., McPartland, J., & Volkmar, F. (2005))

PDD-NOS (Pervasive Developmental Disorder Not Otherwise Specified): kind of like autism, but not meeting enough criteria to qualify for the autism diagnosis

Childhood Disintegrative Disorder: People with CDD are included under the diagnosis of autism spectrum disorder. CDD was considered to be a later-developing form of autism.

Rett's disorder: Most babies with Rett syndrome seem to develop normally at first, but symptoms surface after 6 months of age. Over time, children with Rett syndrome have increasing problems with movement, coordination and communication that may affect their ability to use their hands, communicate and walk.

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- Do you know if autism is caused by a genetic problem or by an environmental influence?

The etiology of ASD is mostly genetic



Identical twins

80-95% concordance
for ASD

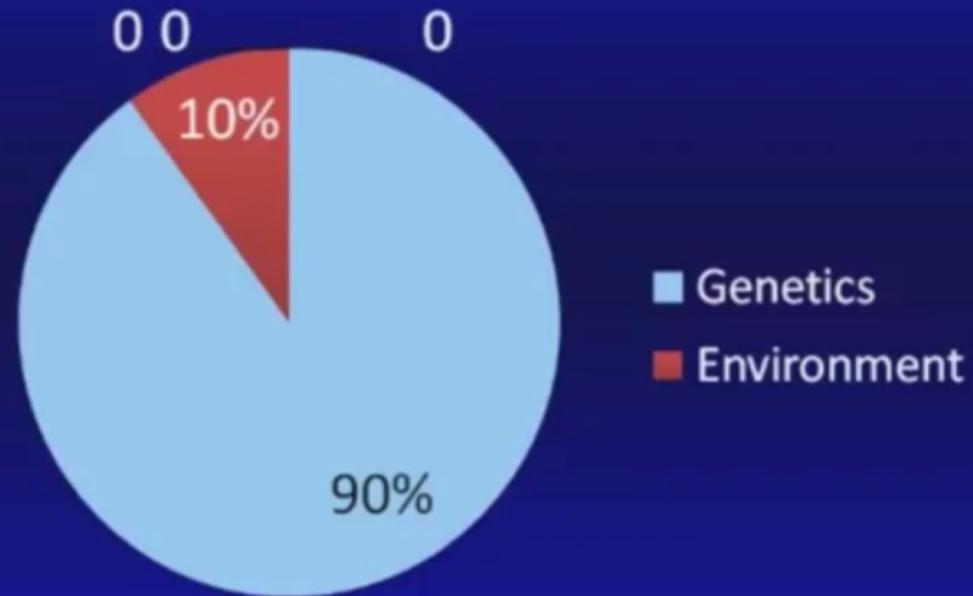


Fraternal twins

5-20% concordance
for ASD

Do you have any idea about how many percentage is caused by the environment and how many is caused by genetic?

The etiology of ASD



Baylor College of Medicine
(2014)

Interventions

PECS method (Picture Exchange Communication System)



The picture exchange communication system (PECS) is

- ❑ an augmentative communication system frequently used with children with autism
- ❑ developed for non-verbal children with ASD.
- ❑ aims to teach spontaneous social-communication skills by means of symbols or pictures and teaching relies on behavioural principles, particularly reinforcement techniques.
- ❑ The requesting behaviour is reinforced by the receipt of the desired item
- ❑ Once a child is using symbols with some flexibility, having learned to seek out a communication partner and generalise skills to other adults, training moves on to picture discrimination, 'vocabulary' extension and constructing sentences. These later stages are often paired with verbal prompts from the communication partner

http://youtu.be/nzire9I_aw8

TEACCH Program (Treatment and Education of Autistic and Communication Handicaped Children)

In the 60s, Eric Schopler postulates that autism is the result of brain dysfunction and not the parents' fault.

- ❑ He promotes a collaborative work with parents.
- ❑ This program is based on an analysis of the behavior and is based on a structured education. They want to understand the cognitive and learning characteristics, and needs associated with ASD.
- ❑ This program adapts to the needs, interests and skills of autistic children. They make the environment more explicit, more understandable and organized.
- ❑ It provides also a continuous service with autism and family throughout life.
- ❑ Goal: integrate the child into the society

<http://youtu.be/ddGLJ2r4rcw>

ABA (Applied Behavior Analysis)

- ❑ method based on the principles of learning theory of Skinner.
- ❑ They change the behavior of the child by providing specific to certain behaviors consequences: There is positive reinforcement for social behavior
- ❑ They focus on the motivation of the child, on communication, on intuition, and self-management.
- ❑ The environment is set up to encourage the active participation of the child
- ❑ Goal: develop appropriate behavior and reduce inappropriate behaviors

<http://youtu.be/iyCx-OLzgJw>

Medications

The medications used for ASD aren't usually intended to correct the underlying neurological or developmental abnormalities, but instead are directed to help the difficulties that result from these changes. Currently, no one knows for sure how many children with ASDs are taking medications, but rough estimates are around 50%.

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