



Autism Spectrum Disorders (Signs and Symptoms)

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Introduction

- ▶ Autism spectrum disorder is a **neurodevelopmental** disorder which present in the early developmental period,
 - ▶ ASD is estimated to be **prevalent** in children (one in 68 to 100 children)
 - ▶ It is a **chronic** and long standing disorder which is present throughout the life
 - ▶ ASD is considered as a **brain disorder** which affects cognition, behavior, emotion, and social relationship
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Cardinal Features of ASD

1. Social communication deficits
2. Restricted repetitive stereotyped behavior



Social Communication Deficits in Autism

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1. No **Babbling** by **12** months (babbling occurs normally around 4 to 5 months)
 2. No **gesturing** by **12** months
 3. Lack of **recognizing others' body language**
 4. Lack of recognizing others' **intentions** (normally occurs before age 1)
 5. Lack of recognizing **goal directed behaviors**



Social Communication Deficits in Autism

- 6- Lack of **social smile** (occurs normally around 3 to 4 months)
- 7- No interest in **hugging**
- 8- No stranger and separation **anxiety** (normally occurs from 8 and lasts to 24 months)
- 9- Lack of **eye contact**
- 10- Lack of **appropriate gaze**
- 11- Lack of following **another's gaze**



Social Communication Deficits in Autism

- 12- Lack of **pointing** and understanding pointing
 - 13- No response to **name**
 - 14- Lack of **showing** objects to the others
 - 15- Lack of **sharing enjoyment** or interest
 - 16- Lack of **recognizing emotions** (normally occurs around 4 to 5 months)
 - 17- Lack of **expressing emotions**
 - 18- Lack of interest in looking at **human faces**
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Social Communication Deficits in Autism

- 19- Lack of interest in human voice
 - 20- Impairment in recognizing parents through their faces and voices
 - 21- Lack of normal attachment to parents
 - 22- Lack of playing normally with the toys
 - 23- Lack of imaginative playing
 - 24- No interest in relating to the peer group
 - 25- Lack of social playing (parallel play)
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Social Communication Deficits in Autism

- 26- lack of **sharing toys** with the other children
 - 27- Not being able **to imitate** others' behavior
 - 28- Lack of showing their requests and intentions through **body language** such as nodding
 - 29- Expressing their requests by **crying** and irritability
 - 30- Lack of showing **social skills** such as saying goodbye
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Receptive Language

- Lack of **understanding** others' language
 - This ability may gradually develop
 - Can understand **simple commands**
 - Older children cannot understand **abstract** words such as love
 - Cannot understand **humor, lying**
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Receptive Language

- ▶ Cannot understand **metaphor** and complex sentences
 - ▶ Impairment in understanding **social** and emotional stories
 - ▶ Older children and adolescents can understand **physical words** and sentences
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Expressive language

- Lack of **babbling** before the age 1 year
 - **Delay** in producing words
 - Impairment in using words correctly in terms of **meaning**
 - Impairment in producing **sentences** correctly in terms of **syntax** and **semantics**
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Expressive language

- Deficits in using functional words like preposition
- Impairment in using pronouns (lack of first person pronoun)
- Robotic language
- Echolalia (repeating others' phrases)
- Stereotypic and repetitive language



Expressive language

Pragmatics

- Inappropriate language to social context
- Lack of ability to use abstract words, imagination, and metaphor
- Lack of ability to describe jokes
- Lack of ability to lie
- Idiosyncratic words



Expressive language Pragmatics

- Inability to **shift** to another subject during the speech
- Talk a lot about their **interested subjects**
- Lack of appropriate **prosody**
- Impairment in describing **social** and affective situations
- **Literal language** (use of written language in conversation)



Stereotyped Behaviors

- Repetitive movements in hands, head, and body (flapping, rocking)
- enjoy spinning, banging, and watching water flow
- strong attachment to a particular inanimate object
- lining up objects



Stereotyped Behaviors

- increased rates of self-stimulatory and self-injurious behaviors
- Resistance to change in routines
- Strong interest in some voices such as music
- Strong interest in light
- Inappropriate smelling, Touching



Stereotyped Behaviors

- Excessive interest in mechanical subjects and probably math
- Persistence in some unvalued things
- Lack of ability to change their minds and routines
- Excessive interest in paying attention to details



Non-Core Symptoms

- **Irritability** (aggression, self injurious behaviors)
 - **Hyperactivity**
 - **Attention** deficit
 - sudden **mood changes**, with bursts of laughing or crying
 - **Insomnia**
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Non-Core Symptoms

- Over response to some voices
- Over response to touching
- Under response to pain
- Gastrointestinal problems (constipation)
- Low IQ and cognitive abilities



Strengths (sometimes)

- Attention to details
- Strong ability in visual search and memory
- Ability in math and physic
- strong ability in calculating
- strong ability as a calendar
- strong musical ability



Course of ASD

- ▶ Autism spectrum disorder is typically evident during the **second year of life**,
- ▶ and in **severe cases**, a lack of interest in **social interactions** may be noted even in the **first year**.
- ▶ a **decline in social interaction** may occur between the first and second years of life.
- ▶ However, **in milder cases**, core impairments in autism spectrum disorder may not be identified for several more years.



Prognosis

- Autism spectrum disorder is typically a **lifelong**, with highly variable severity and prognosis.
 - Children with autism spectrum disorder and **IQs above 70** with average adaptive skills,
 - who develop communicative language by ages 5 to 7 years,
 - have the **best prognoses**.
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Prognosis

- Early intensive behavioral interventions can provide a profound positive impact on many children with the disorder
 - The prognosis of a given child with autism spectrum disorder is generally improved if the home environment is supportive.
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