

# What is Autism Spectrum Disorder?



Jim Mancini, MS, CCC-SLP

# Disclosures

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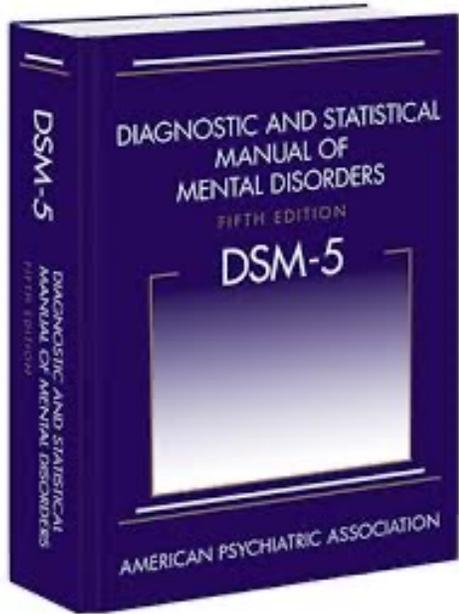
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# Objectives

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1. Describe what is meant by the “spectrum” of autism.
2. Identify behavioral characteristics observed in autism spectrum disorder.

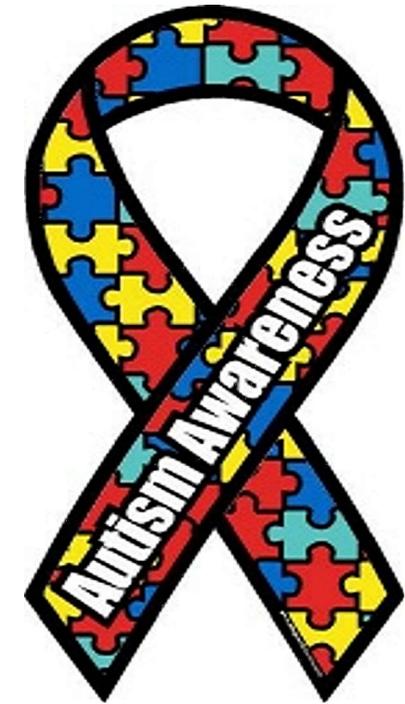
# How is Autism diagnosed?



- Using the “DSM-5” (Diagnostic and Statistical Manual of Mental Disorders)
- Clinician judgment using parent interview, standardized testing, questionnaires, school/medical records
  - No blood test
  - No brain scan
  - No genetic test

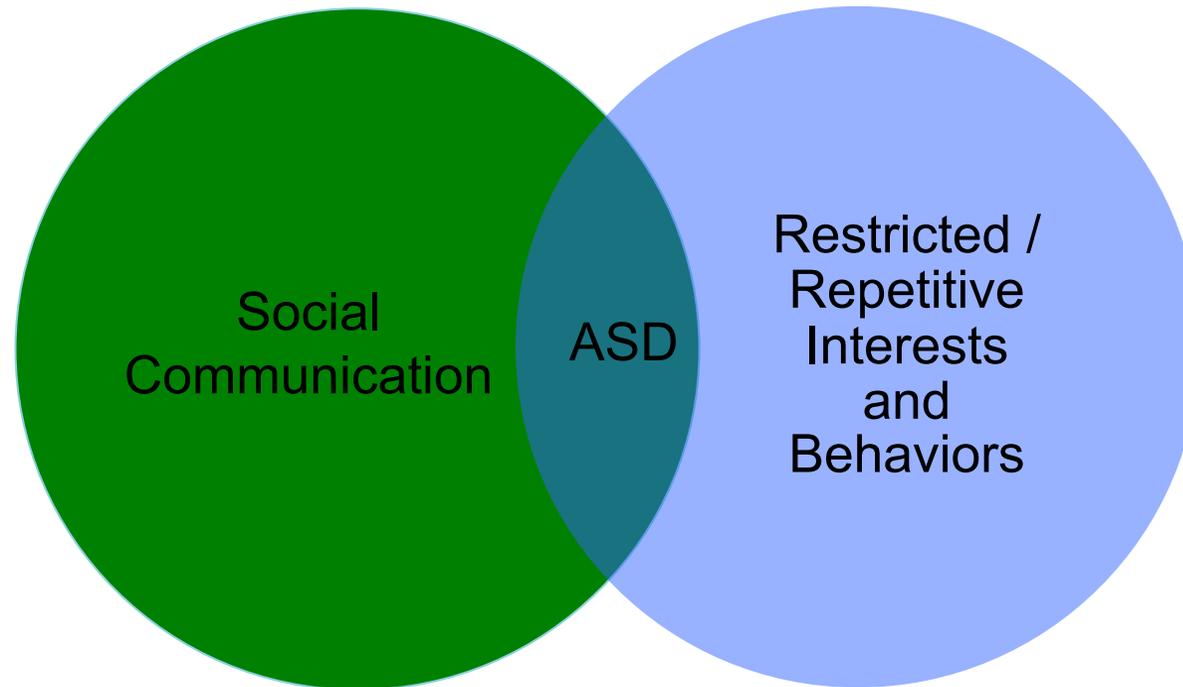
# When is ASD diagnosed?

- ASD can be reliably diagnosed **by age 2**
- Some children with ASD are diagnosed during **school-age** years.
- Others may not be diagnosed until **adulthood**



# Autism Spectrum Disorder (ASD)

- ASD is diagnosed based on presence of deficits in social communication and interaction and the presence of restricted or repetitive interests and behaviors.



# What is meant by a “spectrum disorder”?

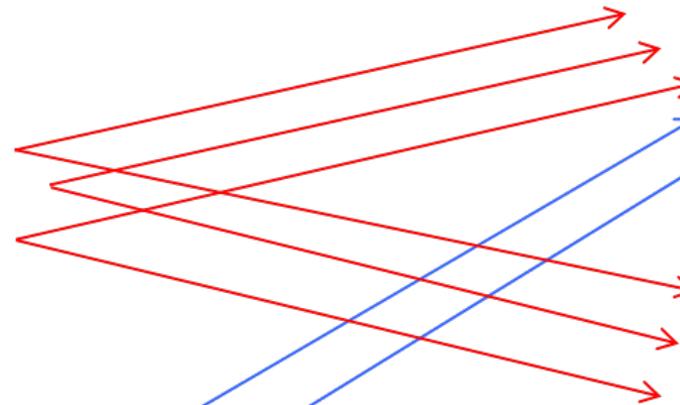
- Symptoms can occur in a variety of combinations.
- Symptoms present with varying degrees of severity.
- Two children with a diagnosis of autism can have very different strengths and challenges and can act completely differently from one another.
- Intellectual and language abilities vary.

# Heterogeneity of ASD



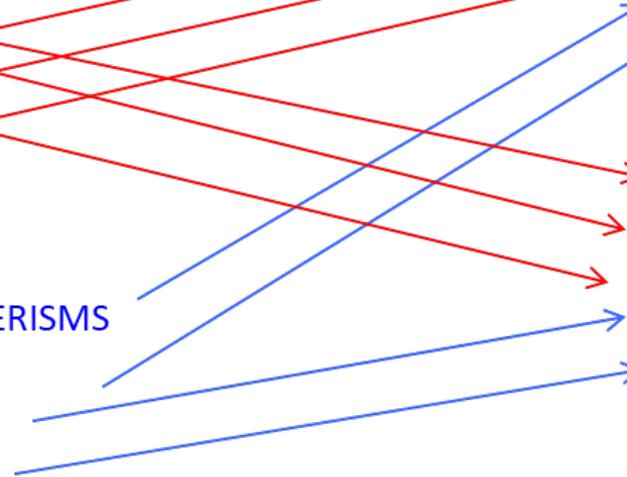
## SOCIAL

NONVERBAL COMMUNICATIVE BEHAVIORS  
SOCIAL OR EMOTIONAL RECIPROCITY  
PEER RELATIONSHIPS



## BEHAVIOR

STEREOTYPED AND REPETITIVE MOTOR MANNERISMS  
INFLEXIBLE ADHERENCE TO ROUTINES  
INTERESTS OF UNUSUAL FOCUS OR INTENSITY  
SENSORY SENSITIVITIES/AVERSIONS

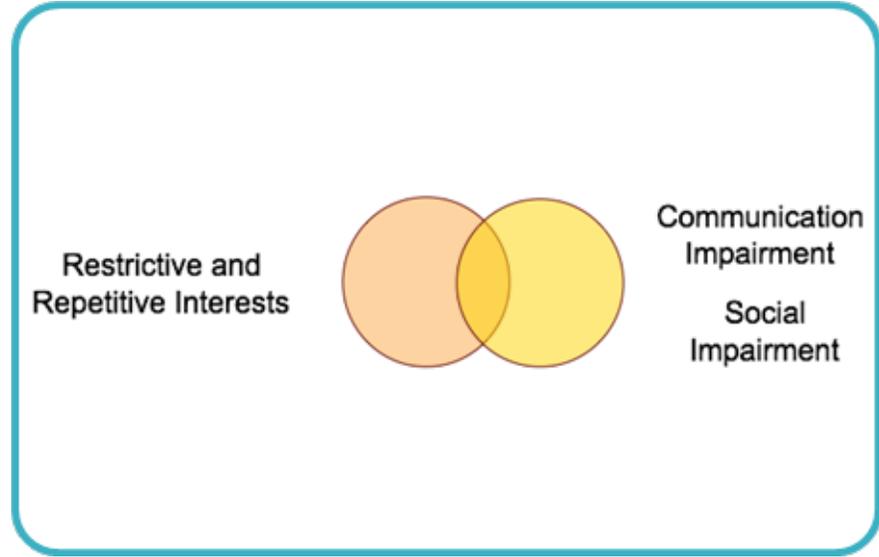


# Characteristics of ASD

Social Communication Impairments



Restricted, Repetitive Behaviors



# 7 symptoms of ASD

## 3 *Social Communication* symptoms:

1. Limited **reciprocity**
2. Poor “**nonverbal**” **communication**
3. **Relationship** difficulties

## 4 *Behavioral* symptoms of ASD

4. **Repetitive** speech, movements, or activities
5. **Inflexibility**
6. Intense **interests**
7. **Sensory** problems

# To qualify for an ASD diagnosis:

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- Must have 3 out of 3 social communication symptoms
- Must have at least 2 out 4 behavioral symptoms
- Symptoms must be present in childhood

# From the DSM-5 .....

- Symptoms must be present in the early developmental period, but may not become apparent until ***social demands exceed limited capacity*** or may be ***masked by learned strategies later in life***.
- Symptoms cause clinically significant impairment in social, occupational, or other important areas of current functioning.
- Individuals with ASD would *not* present with every characteristic/symptom that is listed.

# Symptom #1: Social-Emotional Reciprocity

- What is *reciprocity*?
  - The back and forth of interactions
- Examples of limited reciprocity:
  - Interact on own terms or follows own agenda
  - Difficulty influencing behavior
  - Preferring to play alone
  - Not showing or sharing with others; lack of social commenting
  - Decreased sharing interests, accomplishments, feelings
  - Difficulty attending to and “reading” the feelings of others, decreased empathy
  - Difficulty with conversational skills
  - Interacting better with adults or younger kids than with peers

# Conversations: What is expected?

- A *reciprocal* conversation involves:
  - Attending and responding to others
  - Responding to the questions or comments of others
  - Accessing personal knowledge (through experience)
  - Relating personal stories
  - Asking *relevant* questions
  - Staying on topic
  - Turn taking
  - Modifying conversation based on partner
  - Has a large social component



# Symptom #2: Nonverbal communication

May have problems with:

- Eye Contact
- Gestures (descriptive, pointing, others)
- Body Language
- Facial Expressions (showing and interpreting)
- Personal space
- Coordinating verbal & nonverbal communication



# Symptom #3: Relationships

- Examples of relationship difficulties:
  - Avoids social interactions, not interested in peers
  - Difficulty playing/interacting in groups; often plays alone
  - Doesn't engage in imaginary/ creative play with others
  - Wants to direct the play of others; own terms
  - Difficulty understanding others' feelings, taking anothers' perspective
  - Poor understanding of “what is a friend?” and the child's own role in a friendship
  - Wants friendships but does not know how to make or sustain a friendship
  - May be teased or bullied by peers, with varying awareness of the issue
  - For older kids, romantic relationships may be difficult or confusing

# Symptom #4: Repetitive movements or speech

- Repetitive movements could be a response to emotions (excitement or frustration), self-stimulatory behavior or an attempt at self regulation (soothing). Common examples:
  - Hand flapping/Finger Twisting
  - Rocking or Spinning
  - Tensing or Posturing
  - Head-banging
  - Pacing
  - Tip toe walking

# More on Symptom #4: Echolalia

- Echolalia
  - Literal repetition of others' speech either immediately (*immediate echolalia*) or later (*delayed echolalia*)
  - May serve a variety of communicative functions, and, not unlike imitation for typically developing children, it may be a productive language learning strategy for many children with autism (atypical development)
- Stereotyped Use of Words or Phrases (“scripting”)
  - Can be from books/movies or a previous emotional event
  - Can include pronoun errors (referring to self in second person)
  - Can include using the same intonation each time a phrase is spoken
  - Overly formal language

# Repetitive play

- Lining up toys
- Playing with a toy over and over in exactly the same way



# Symptom #5: Inflexibility or rigidity

- Examples
  - Difficulty with *transitions*
  - Inflexibility with minor changes to routine or schedule
  - Rigidity or having own agenda
  - Ritualized behavior or adherence to routines
  - “Obsessive-Compulsive” behavior
  - Can become upset when routines are disrupted
  - Children may experience difficulty when their lives are not predictable
  - Kids with ASD often do best with structure, predictability, schedule

# Symptom #6: Restricted interests

- Intense interest in highly specific topic(s) or activities.

Common examples:

- Thomas the Train; cars, legos
- Pokemon or Minecraft or other videogames
- History topics (e.g., WWII; Presidents)

- Interests can be highly specific and/ or unusual.

Examples:

- Sprinkler systems; vacuums, washer/dryers
- Manhole covers
- Korean jazz



# Symptom #7: Sensory differences

- Sensory problems/ differences relate to our senses:
  - Touch
  - Smell
  - Sight
  - Sound
  - Taste

Children with ASD may be over and/or under sensitive to specific sensory stimuli (e.g., sound, touch, sight, smell).

# Commonly co-occurring conditions

- **\*\*Speech and language delay**
- **\*\*Intellectual disability**
- **\*\*Genetic syndromes**
- Seizure disorders
- Other mental health conditions (ADHD, anxiety, etc.)
- Gastrointestinal problems
- Sleep problems
- Picky eating
- Difficult behaviors (e.g., tantrums, aggression, self-injury)
- “Fine motor” delays (writing, drawing, buttons, etc.)
- Executive functioning deficits

**\*\*Add as specifiers to diagnosis**

# Common strengths



## Autism: the positives



Understanding, embracing and celebrating different ways of thinking and doing can release the true power of the autistic mind. Here we look at the positive features of autism.



### Attention to detail

- Thoroughness
- Accuracy



### Methodical approach

- Analytical
- Spotting patterns, repetition



### Deep focus

- Concentration
- Freedom from distraction



### Novel approaches

- Unique thought processes
- Innovative solutions



### Observational skills

- Listen, look, learn approach
- Fact finding



### Creativity

- Distinctive imagination
- Expression of ideas



### Absorb and retain facts

- Excellent long term memory
- Superior recall



### Tenacity and resilience

- Determination
- Challenge opinions



### Visual skills

- Visual learning and recall
- Detail-focussed



### Accepting of difference

- Less likely to judge others
- May question norms



### Expertise

- In-depth knowledge
- High level of skills



### Integrity

- Honesty, loyalty
- Commitment

## Remember

Every experience of autism is **unique**. No one person will identify with every positive feature of autism. We all have **individual** skills, attributes and characteristics that are as unique as our personalities – this is the **power of neurodiversity**.

Harriet Cannon  
Disability Services, February 2018

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# Questions

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**THANK YOU!**

Contact information: [jmancini@uw.edu](mailto:jmancini@uw.edu)