

# Diagnosing Autism Spectrum Disorder in Toddlers

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1

## Goals



Describe characteristics of autism in toddlers  
(16-30 months)



Describe how autism is diagnosed



Provide information on new diagnostic tool

2

# Autism Spectrum Disorder



## Diagnostic Criteria from DSM-5-TR

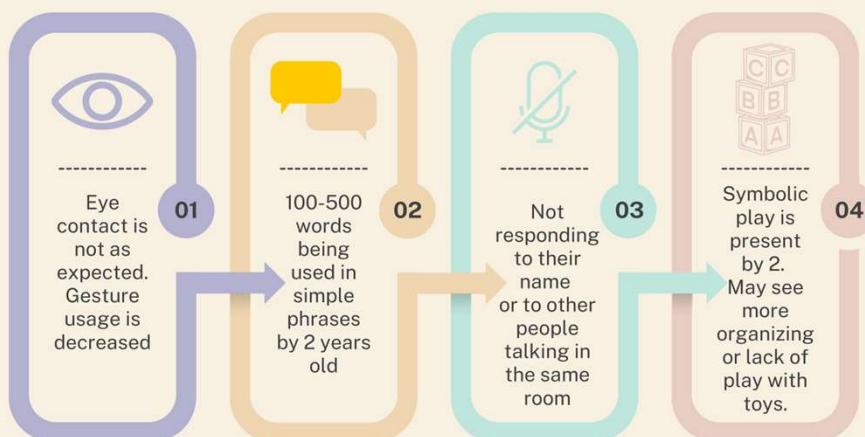
Difficulties in  
Social Interaction  
and Social  
Communication

Restricted and  
Repetitive  
Interests

American Psychiatric Association, 2022

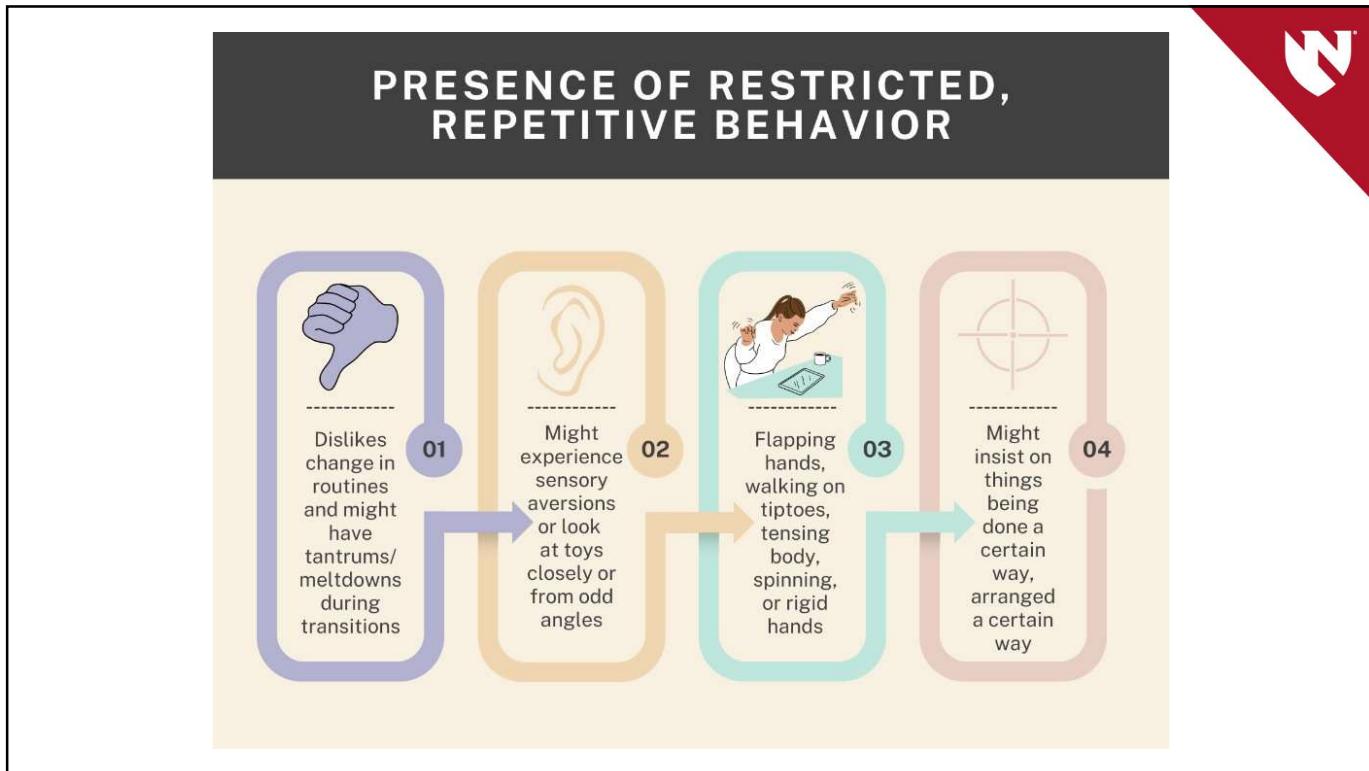
3

### DIFFERENCES IN SOCIAL COMMUNICATION

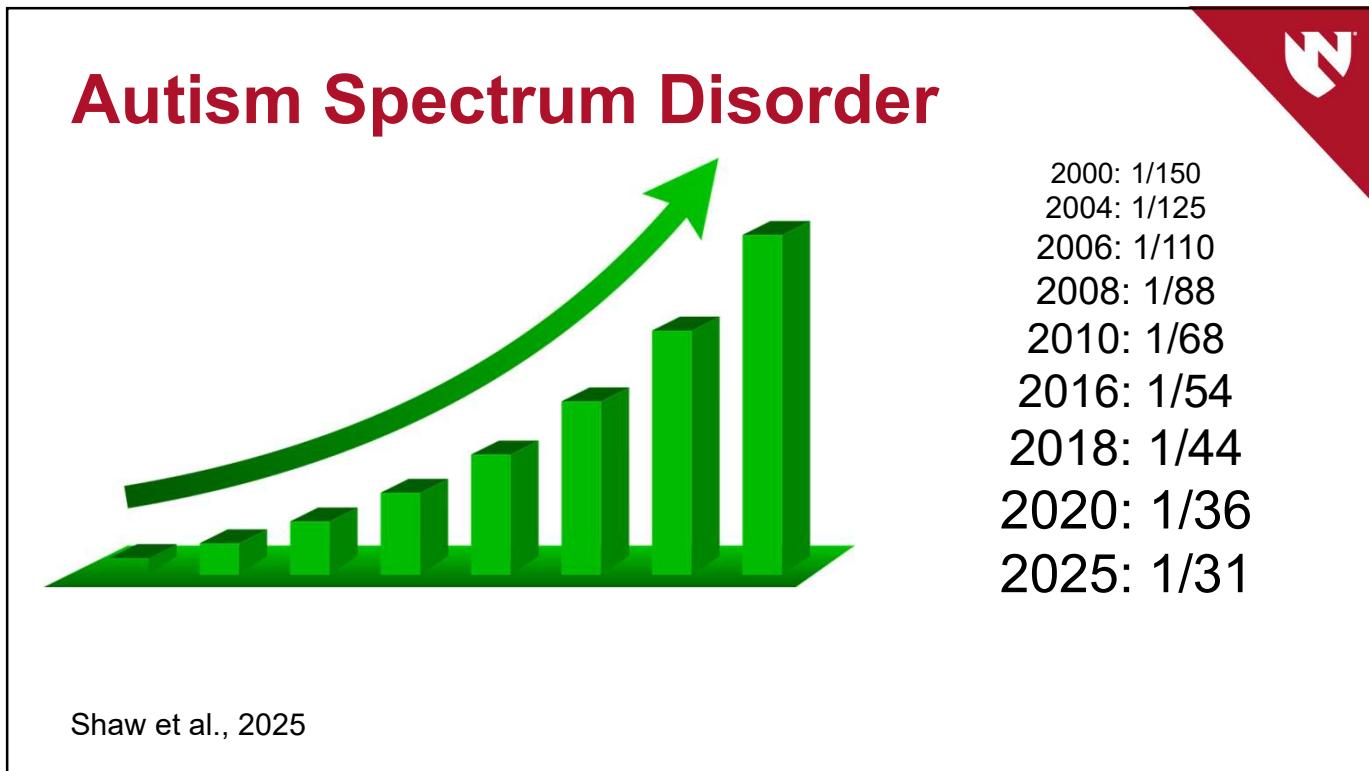


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6



# Increasing Prevalence



Screening Practices



Changes in diagnostic criteria



Awareness of the full spectrum



Grosvenor et al., 2024; Harris, 2023; Johnson, et al., 2007

7

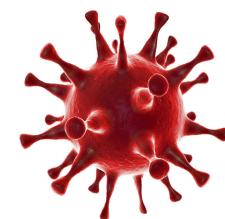
# What causes autism spectrum disorder?



Genetic Factors



Environmental Factors



Bai et al., 2019; Love et al., 2024; Taylor et al., 2020

8

# Autism Spectrum Disorder



Diagnosed  
at 18  
months

First signs  
noticed  
between 12  
and 18  
months

Median age  
is 47  
months



Smith et al., 2023

9

# Autism Spectrum Disorder



## Diagnosis



Wait times in the US  
are 1+ years



Mackenzie, Mazefsky, & Eack, 2018

10

# Autism Spectrum Disorder



## Diagnosis



There is no medical test for autism spectrum disorder



11

# Autism Spectrum Disorder



## Diagnosis



Full psychological evaluation

Appointment time: 4-5 hours total

Testing time: 2-3 hours



12

# Autism Spectrum Disorder



## Autism Diagnosis



Caregiver Interview



Adaptive Skills



Developmental or Cognitive Skills



Autism Characteristics

13

# Autism Spectrum Disorder



## Autism Specific Services



Applied Behavior Analysis



Cognitive Skills



Communication skills



Motor Skills



Social-emotional Skills



Adaptive Skills

14

# Autism Spectrum Disorder



## Medical Monitoring



Feeding Disorders



Genetic Conditions



Gastrointestinal Conditions



Seizure Disorders

15

# Autism Spectrum Disorder



## Psychological monitoring



Intellectual Developmental Disorder



Attention-Deficit/  
Hyperactivity Disorder



Mood Disorders



Anxiety Disorders

16



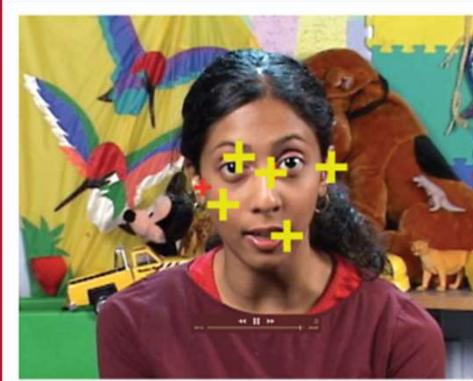
## Eye-Tracking to Diagnose Autism

17

## EarliPoint

### Development

Neurotypical/  
Non-ASD Viewer



ASD  
Viewer



18

# EarliPoint



Appointment time:  
2 hours

EarliPoint:  
15 minutes

Total Testing Time:  
30 minutes

19

# EarliPoint

**Measures Child's Looking Behavior (i.e., social visual engagement)**



Correctly identifies 4/5  
children with ASD aged  
16 to 30 months

Earlitec Diagnostics, Inc (2024)

20

# EarliPoint

Earlitec Diagnostics Inc, 2024



## Building and Testing the Model

### Train the Model

Gold Standard Diagnostic Evaluation

ASD

Non-  
ASD/TD

Non-  
ASD DD

EarliPoint

### Test the Model

EarliPoint

ASD

Non-  
ASD/TD

Non-  
ASD DD

Gold Standard Diagnostic Evaluation

21

# Autism Diagnostic Evaluations

## Autism Evaluation for Toddlers in Autism Diagnostic Clinic

EarliPoint (15-20 min)

Play Based Observation (10-15 min)

EarliPoint = ASD

Feedback (30 min)

EarliPoint = no ASD

Additional Testing

Feedback (30+ min)

22

# EarliPoint

## Considerations



FDA authorized for toddlers  
16 to 30 months



Must be able to see and hear  
videos



English & Spanish

Earlitec Diagnostics, Inc, 2024



23

# EarliPoint

## Considerations



Coming  
Soon  
(2026)

FDA authorization for kids  
age 31 months to 8



Must be able to see and hear  
videos



English

Earlitec Diagnostics, Inc, 2024



24

12



## Where Can People Access EarliPoint?



Now

- Autism Diagnostic Clinic at MMI



Now

- Psychology Department at MMI



- Early Intervention
- Schools
- Doctor's offices



25

## Getting An Evaluation



Medical Provider Referral



Caregiver Referral

- Call 402-559-6418
- To access an EarliPoint evaluation, ask to be seen for an autism evaluation with a provider in the Autism Diagnostic Clinic in iCASD

26

# Identifying Autism Concerns

## Medical Provider Screening



9-Month-Old Child



18-Month-Old Child



24-Month-Old Child



Developmental and behavioral monitoring at 9, 18, and 30 months



Autism specific screenings at 18 and 24 months

Hyman, et al, 2020

27

# Medical Providers



## Screening for Autism Spectrum Disorder

### M-CHAT-R™

Please fill out the following about how your child usually is. Please try to answer every question. If the behavior is rare (e.g., you've seen it once or twice), please answer as if the child does not do it.

- If you point at something across the room, does your child look at it? (For example, if you point to a toy, does your child look at the toy or animal?) Yes No
- Have you ever noticed if your child might be deaf? Yes No
- Does your child play pretend or make-believe? (For example, pretend to drink from an empty cup, pretend to talk on a phone, or pretend to feed a doll or stuffed animal?) Yes No
- Does your child like climbing on things? (For example, furniture, playground equipment, or stairs) Yes No
- Does your child make unusual finger movements near his or her eyes? (For example, does your child wiggle his or her fingers close to his or her eyes?) Yes No
- Does your child point with one finger to show you something or to get help? (For example, pointing to a snack or toy that is out of reach) Yes No
- Does your child show you things by bringing them to you or holding them up for you to see—not to get help, but just to share? (For example, showing you a flower, a stuffed animal, or a toy truck) Yes No
- Does your child respond when you call his or her name? (For example, does he or she look up, talk or babble, or stop what he or she is doing when you call his or her name?) Yes No
- When you smile at your child, does he or she smile back at you? Yes No
- Does your child get upset by everyday noises? (For example, does your child scream or cry to noise such as a vacuum cleaner or loud music?) Yes No

Common screening tools may not detect autism in



Girls



Average or above average cognitive skills

Eldeeb, et al., 2023

28

# Caregivers

## Developmental Monitoring



CDC Milestone's Tracker App



Developmental Monitoring



English and Spanish



Activities and tips to promote development



Prompts to talk with providers about concerns

29

# Support for Developmental Concerns

## Early Intervention



- Free supports for kids birth to three
- Call 1-888-806-6287

30

## Watch and Wait



31

## Acknowledgements



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32



# Q&A

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- Full references available upon request

33



34