

# NURSING MANAGEMENT OF AUTISM SPECTRUM DISORDER IN THE SCHOOL AGED CHILD:

## PHARMACOLOGICAL & BEHAVIORAL APPROACHES

Jennifer Kazmerski, PhD, BCBA-D



PSYCHOLOGY



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## 41<sup>st</sup> Annual Belle Blackwell School Nurse Conference

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To receive contact hours for this continuing education activity, the participant must:

- Sign in to the activity
- Attend the entire activity
- Complete a participant evaluation online

Once successful completion has been verified, a "Certificate of Successful Completion" will be awarded for 6.0 contact hour(s). For web link issues, email [cne@texaschildrens.org](mailto:cne@texaschildrens.org)

### LEARNING OUTCOME

At the conclusion of this continuing nursing education activity, the participant will be able to improve nursing management, care coordination and resources for school age children.

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# NURSING MANAGEMENT OF AUTISM SPECTRUM DISORDER IN THE SCHOOL AGED CHILD

## Overview:

### INTRODUCTION:

- A. What is autism?
- B. How common is IT?
- C. What causes autism?

### DIAGNOSIS

### MANAGEMENT/TREATMENT

- A. Behavioral (ABA)
- B. Medications used for comorbidities

### HOW YOU CAN HELP

### Q & A

## Objectives:

1. Develop a better understanding of what autism spectrum disorder is (and is not), and what features are considered “core” to this disorder.
2. Understand how autism spectrum disorder is diagnosed and treated.
3. Recognize the many ways you, and others within the community, can get involved and help support children and families who have been affected by autism spectrum disorder.

# WHAT IS AUTISM?

- Neurodevelopmental disorder that affects a person's social-communication and behavioral domains
- Developmental in onset, conceptualized as lifelong
- A “spectrum” of different symptoms and severity levels

# Autism Spectrum Disorders

Autistic Disorder

Asperger's Disorder

Childhood Disintegrative Disorder

Rett's Disorder

Pervasive Developmental Disorder - Not Otherwise Specified

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# DSM-5 CRITERIA FOR AUTISM SPECTRUM DISORDER

## A. Social Communication and Interaction (Must have 3 of 3)

1. Deficits in social-emotional reciprocity
2. Deficits in nonverbal communicative behaviors used for social interaction
3. Deficits in developing, maintaining, and understanding social relationships

## B. Restricted, repetitive patterns of behavior, interests, and activities

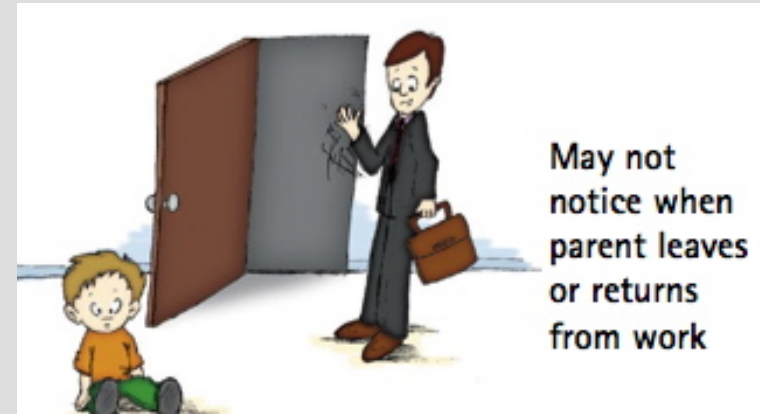
(Must have 2 of 4)

1. Stereotyped or repetitive motor movements, use of objects, or speech
2. Insistence on sameness, inflexible adherence to routines, or ritualized patterns of verbal or nonverbal behavior
3. Highly restricted, fixated interests that are abnormal in intensity or focus
4. Hyper- or hyporeactivity to sensory input or unusual interest in sensory aspects of the environment

# SOCIAL COMMUNICATION CRITERIA

(MUST HAVE 3/3)

1. Deficits in social-emotional reciprocity, ranging from
  - abnormal social approach and failure of normal back-and-forth conversation; to
  - reduced sharing of interests, emotions, or affect; to
  - failure to initiate or respond to social interactions



# SOCIAL COMMUNICATION CRITERIA

(MUST HAVE 3/3)

## 2. Deficits in nonverbal communicative behaviors used for social interaction, ranging from

- Poorly regulated integrated verbal and nonverbal communication; to
- abnormalities in eye contact and body language or deficits in understanding and use of gestures; to
- Total lack of facial expressions and nonverbal communication





# SOCIAL COMMUNICATION CRITERIA

(MUST HAVE 3/3)

## 3. Deficits in developing, maintaining, and understanding social relationships, ranging from

- Difficulties adjusting behavior to suit various social contexts; to
- Difficulties in sharing imaginative play or in making friends; to
- Absence of interest in peers



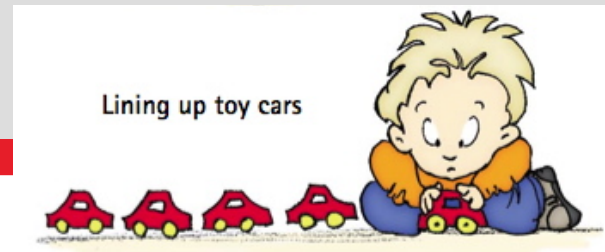
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# RESTRICTED/REPETITIVE BEHAVIOR CRITERIA

(MUST HAVE 2/4)

## 1. Stereotyped or repetitive motor movements, use of objects, or speech, such as

- Simple motor stereotypies
- Lining up toys
- Flipping objects
- Echolalia
- Idiosyncratic phrases

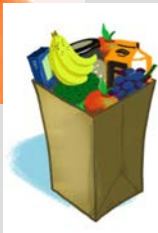
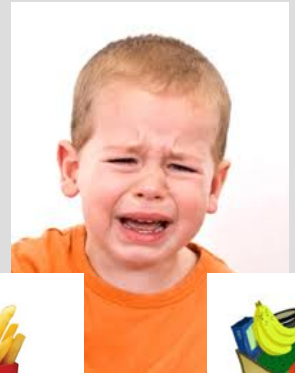


# RESTRICTED/REPETITIVE BEHAVIOR CRITERIA

(MUST HAVE 2/4)

## 2. Insistence on sameness, inflexible adherence to routines, or ritualized patterns of verbal or nonverbal behavior, such as

- Extreme distress at small changes
- Difficulties with transitions
- Rigid thinking patterns
- Greeting rituals
- Need to take same route or eat same food every day



# RESTRICTED/REPETITIVE BEHAVIOR CRITERIA

(MUST HAVE 2/4)

## 3. Highly restricted, fixated interests that are abnormal in intensity or focus, such as

- Strong attachment to or preoccupation with unusual objects
- Excessively circumscribed or perseverative interests

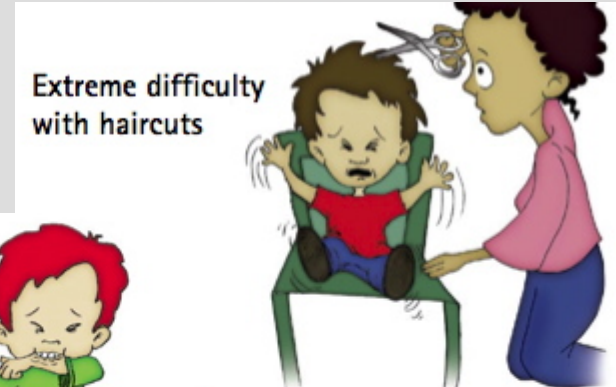


# RESTRICTED/REPETITIVE BEHAVIOR CRITERIA

(MUST HAVE 2/4)

## 4. Hyper- or hyporeactivity to sensory input or unusual interest in sensory aspects of the environment, such as

- Apparent indifference to pain/temperature
- Adverse response to specific sounds or textures
- Excessive smelling or touching of objects
- Visual fascination with lights or movement



# AUTISM SPECTRUM DISORDER



## HIGH-FUNCTIONING AUTISM

### LEVEL 1

Needs support  
Patient's social and communication skills and repetitive behaviors are only noticeable without support.

## AUTISM

### LEVEL 2

Needs substantial support  
Patient's social and communication skills and repetitive behaviors are still obvious to the casual observer, even with support in place.

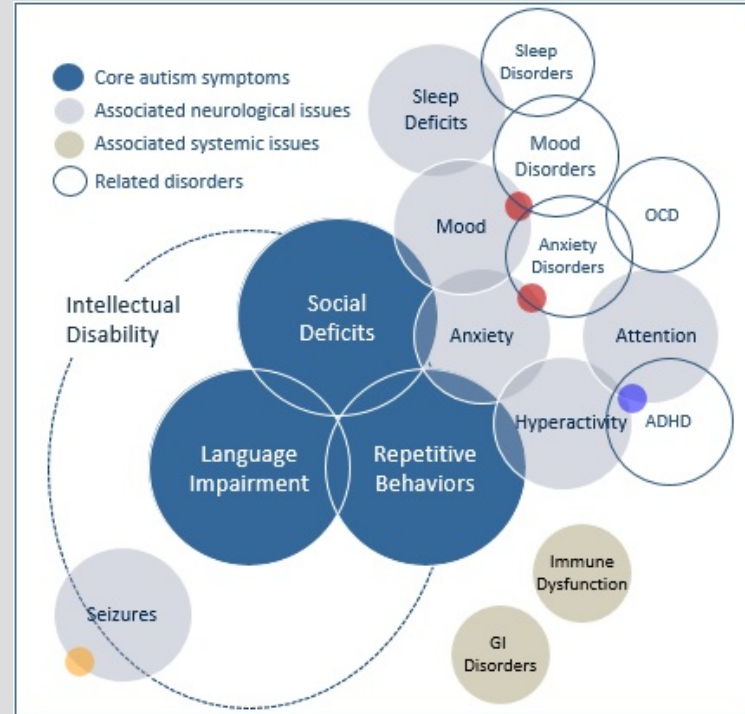
## SEVERE AUTISM

### LEVEL 3

Needs very substantial support  
Patient's social and communication skills and repetitive behaviors severely impair daily life.

# COMMON COMORBIDITIES

- Intellectual Disability
- ADHD
- Anxiety Disorders
- Mood Disorders
- Sleep Disorders
- GI Disorders
- Seizures & Tics



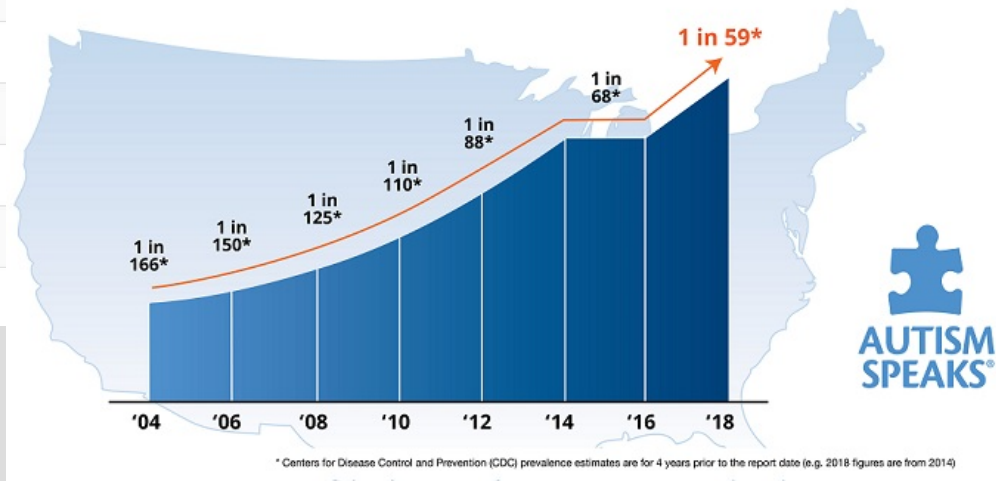


# HOW PREVALENT IS ASD?

## Identified Prevalence of Autism Spectrum Disorder: ADDM Network 2000-2014 Combining Data from All Sites

Surveillance Year	Birth Year	Number of ADDM Sites Reporting	Prevalence per 1,000 Children (Range)	This is about 1 in X children...
2000	1992	6	6.7 (4.5-9.9)	1 in 150
2002	1994	14	6.6 (3.3-10.6)	1 in 150
2004	1996	8	8.0 (4.6-9.8)	1 in 125
2006	1998	11	9.0 (4.2-12.1)	1 in 110
2008	2000	14	11.3 (4.8-21.2)	1 in 88
2010	2002	11	14.7 (5.7-21.9)	1 in 68
2012	2004	11	14.6 (8.2-24.6)	1 in 68
2014	2006	11	16.8 (13.1-29.3)	1 in 59

## Estimated Autism Prevalence 2018



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# FACTORS THAT IMPACT ASD PREVALENCE

- Increases in...
  - Awareness & access to services
  - Identification of toddlers
  - Identification of children with average/above average intelligence
- Changes in...
  - Diagnostic criteria & substitution
  - Study methodology

# WHAT CAUSES AUTISM?

- Many pathways, most not yet well defined or understood
- Small percentages of children with ASD have a genetic or chromosomal disorder of known significance (10-20%)
- Other biological / environmental factors under investigation; few effects are well-established, and none account for large percentages of the ASD population

# ASD RISK FACTORS

- Males are 4-5 times more likely to have ASD than females
- Family risk factors
  - Parents who have a child with ASD have a 2%–18% chance of having a second child who is also affected.
  - 20-40% of siblings of a child with autism have language and/or social deficits.
  - Children born to older parents are at a higher risk for having ASD.
  - Twin studies
    - 36-95% of identical (monozygotic) twin pairs
    - 0-31% of non-identical (dizygotic) twin pairs
- A small percentage of children who are born prematurely or with low birth weight are at greater risk for having ASD.
- ASD commonly co-occurs with other developmental, psychiatric, neurologic, chromosomal, and genetic diagnoses.
  - The co-occurrence of one or more non-ASD developmental diagnoses is 83%.
  - The co-occurrence of one or more psychiatric diagnoses is 10%.
  - Almost half (44%) of children identified with ASD has average to above average intellectual ability.

[www.cdc.gov](http://www.cdc.gov)

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# WHAT ABOUT VACCINES?

2001 – FDA: “**No evidence of harm** from the use of thimerosal”

2003 – AAP: “**No scientific data** link thimerosal...with any pediatric neurologic disorder, including autism.”

2004 – IOM: Scientific review favors **rejection** of the hypothesized causal links between MMR/thimerosal vaccines and autism

2010 - *Lancet* **retracts** original 1998 paper suggesting vaccines may cause autism due to “deception and ethics violations”

2011 – CDC: “**No convincing scientific evidence** of harm”

2014 – *Pediatrics* publishes systematic review describing “strong evidence that MMR vaccine is **not associated with autism**”

2015 – *JAMA* publishes large cohort study identifying “**no harmful association** between MMR vaccine receipt and ASD”

# DIAGNOSIS

- The first step in diagnosis is early detection, typically by routine developmental screening provided at routine well child checks.
- All children should be screened for developmental delays and disabilities at:
  - 9 months
  - 18 months
  - 24 or 30 months
- In addition, all children should be screened specifically for ASD at:
  - 18 months
  - 24 or 30 months



# Red Flags of Autism Spectrum Disorders and Developmental Delays in the Second Year of Life



## ASD Red Flags

- Lack of showing
- Lack of coordination of nonverbal communication
- Lack of sharing interest or enjoyment
- Repetitive movements with objects
- Lack of appropriate gaze
- Lack of response to name
- Lack of warm, joyful expressions
- Unusual prosody
- Repetitive movements or posturing of body

## ASD & DD Red Flags

- Lack of pointing
- Lack of playing with a variety of toys
- Lack of response to contextual cues
- Lack of communicative vocalizations with consonants

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# MODIFIED CHECKLIST FOR AUTISM IN TODDLERS

- M-CHAT Revised with Follow-Up (2014)
  - Ages 16-30 months
  - Multiple languages
  - Free
  - 20 Yes/No items + follow-up interview

## M-CHAT-R™

Please answer these questions about your child. Keep in mind how your child usually behaves. If you have seen your child do the behavior a few times, but he or she does not usually do it, then please answer **no**. Please circle **yes** or **no** for every question. Thank you very much.

1. If you point at something across the room, does your child look at it? (FOR EXAMPLE, if you point at a toy or an animal, does your child look at the toy or animal?)	Yes	No
2. Have you ever wondered if your child might be deaf?	Yes	No
3. 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
4. Does your child like climbing on things? (FOR EXAMPLE, furniture, playground equipment, or stairs)	Yes	No
5. Does your child make <u>unusual</u> 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
6. Does your child point with one finger to ask for something or to get help? (FOR EXAMPLE, pointing to a snack or toy that is out of reach)	Yes	No
7. Does your child point with one finger to show you something interesting? (FOR EXAMPLE, pointing to an airplane in the sky or a big truck in the road)	Yes	No
8. Is your child interested in other children? (FOR EXAMPLE, does your child watch other children, smile at them, or go to them?)	Yes	No
9. 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
10. 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
11. When you smile at your child, does he or she smile back at you?	Yes	No
12. 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
13. Does your child walk?	Yes	No
14. Does your child look you in the eye when you are talking to him or her, playing with him or her, or dressing him or her?	Yes	No
15. Does your child try to copy what you do? (FOR EXAMPLE, wave bye-bye, clap, or make a funny noise when you do)	Yes	No
16. If you turn your head to look at something, does your child look around to see what you are looking at?	Yes	No
17. Does your child try to get you to watch him or her? (FOR EXAMPLE, does your child look at you for praise, or say "look" or "watch me"?)	Yes	No
18. Does your child understand when you tell him or her to do something? (FOR EXAMPLE, if you don't point, can your child understand "put the book on the chair" or "bring me the blanket"?)	Yes	No
19. If something new happens, does your child look at your face to see how you feel about it? (FOR EXAMPLE, if he or she hears a strange or funny noise, or sees a new toy, will he or she look at your face?)	Yes	No
20. Does your child like movement activities? (FOR EXAMPLE, being swung or bounced on your knee)	Yes	No

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# DIAGNOSIS

- The second step of diagnosis is a comprehensive evaluation which typically includes:
  1. Parent and collateral interviews to assess developmental course, social history, and current behavioral concerns
  2. Formal evaluation of:
    - Cognitive / developmental abilities
    - Speech and language abilities
    - Adaptive and social functioning
    - Fine/gross motor and sensory functioning
  3. Direct observation
- May also include a hearing and vision screening, genetic testing and other medical diagnostic studies



# Autism Diagnostic Observation Schedule (ADOS-2)



Gold standard to support diagnosis in clinical and research contexts

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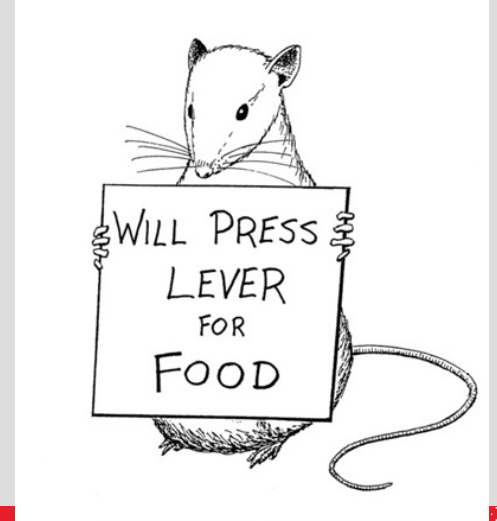


# TREATMENT OPTIONS

- BEHAVIORAL:
  - Applied Behavior Analysis (ABA)
- PHARMACOLOGIC :
  - Aggression
  - Anxiety
  - Attention Deficit Hyperactivity Disorder

# APPLIED BEHAVIOR ANALYSIS

- Applied Behavior Analysis = The science of how learning and behavior change takes place
  - “**ABA Therapy**” often refers to intense, structured one-on-one teaching based on the principles of applied behavior analysis
- Behavioral intervention may also be called:
  - **Early intensive behavioral intervention (EIBI)**
  - Operant conditioning
  - Positive behavioral supports
  - Classroom behavior management
  - Behavior modification
  - Behavior therapy
  - Behavioral parent training (e.g., PCIT)



# APPLIED BEHAVIOR ANALYSIS

- Numerous modalities, including:
  - Discrete trial teaching
  - PECS / FCT
  - Incidental / Naturalistic teaching
  - Pivotal response training
  - Verbal behavior
  - Early Start Denver Model
  - Parent-mediated interventions (emerging support)
- Best outcomes occur when:
  - Children receive **25+ hours/wk between ages 2-5**
    - Includes behaviorally based special education, speech therapies, etc.
  - Functional communication established by age 5
  - Intervention targets “learning to learn” skills
  - Intervention includes planning for generalization – expanding beyond 1-on-1

# DISCRETE TRIAL TEACHING

- Key elements
  - **Massed** repetition & practice of very specific behaviors & skills
  - Gradual increases in difficulty
  - Targeted encouragement of skills using high-preferred rewards

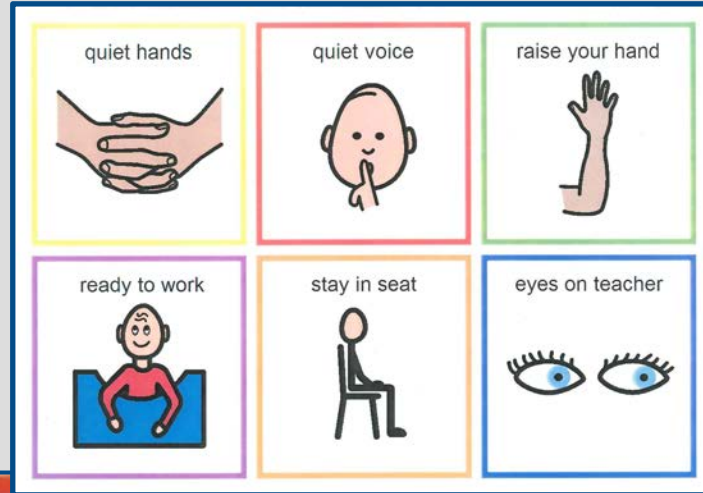


# FUNCTIONAL COMMUNICATION TRAINING

- Goal: Improve expressive language skills through repetition and practice
- Modality tailored to child
  - Verbal language
  - Picture exchanges (e.g., PECS)
  - Sign language
  - Augmentative communication device (e.g., iPad)



# VISUAL SUPPORTS



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# NATURALISTIC/INCIDENTAL TEACHING

- Goal: Use child motivation and teaching opportunities in the natural environment to build behavioral, communication and adaptive skills



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# SPEECH/LANGUAGE THERAPY

- Intensive, behaviorally-based structured teaching
- Augmentative strategies
  - Sign language
  - PECS
  - Electronic devices
- Increase functional language
- Developmental/social pragmatics
  - Effective use of verbal and nonverbal communication strategies to improve social interaction (i.e., social skills training)



# PHYSICAL & OCCUPATIONAL THERAPIES

## OT

- Fine motor coordination
- Adaptive skills
- Sensory Integration
  - Addresses “sensory abnormalities”
  - No evidence of corresponding neurological changes

\*\* Inconsistent evidence of effects on core ASD symptoms or behavior \*\*

## PT

- Balance & coordination difficulties
- Natural environment
  - Adaptive PE, community activities, hippotherapy, etc.

# ESTABLISHED TREATMENTS

- Behavioral Interventions
  - Emphasizes Antecedent and Consequence Interventions
  - 155 studies                      17 in adults

**Age range of participants:** Children and adolescents 3–21 years

**Skills increased:**

- higher cognitive functions (NSP2)
- motor skills (NSP2)
- academic, communication, interpersonal, learning readiness, personal responsibility, play, and self-regulation (NSP1&2)

**Behaviors Decreased:**

- sensory or emotional regulation (NSP1)
- problem behaviors (NSP1&2)
- restricted, repetitive, nonfunctional patterns of behavior, interests, or activity (NSP1&2)

**Ages of participants:** Adults 22+ years

**Skills increased:**

- communication
- personal responsibility
- self-regulation

**Behaviors decreased:**

- problem behaviors

# TREATMENTS WITH EMERGING EFFECTIVENESS (BEING FURTHER STUDIED)

- Augmentative and Alternative Communication Devices
- Developmental Relationship-based Treatment
- Exercise
- Exposure Package
- Functional Communication Training
- Imitation Based Interaction
- Initiation Training
- Language Training (Production/Understanding)
- Massage Therapy
- Music Therapy
- Picture Exchange Communication
- Reductive Package
- Sign Instruction
- Social Communication Intervention
- Structured Teaching
- Technology-Based Training
- Theory of Mind Training
- Vocational Training Package (for adults)

Always start by trying an established treatment before moving to these less studied interventions

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# UNESTABLISHED AND POSSIBLY INEFFECTIVE/HARMFUL INTERVENTIONS

## For under 22

- Animal assisted Therapy
- Auditory Integration Training
- Concept Mapping
- DIR/Floor Time
- Facilitated Communication
- Gluten & Casein Free Diets
- Movement-Based Intervention
- SENSE Theatre Intervention
- Sensory Integration Package
- Shock Therapy
- Social Behavior Learning Strategy
- Social Cognition Intervention
- Social Thinking Intervention

## For Adults

- Cognitive Behavioral Intervention Package
- Modeling
- Music Therapy
- Sensory Integration Package

# SUMMARY OF ALL EFFECTIVE INTERVENTIONS FOR SPECIFIC AREAS

<b>Skills Increased</b>				
<b>Academic</b>	<b>Communication</b>	<b>Higher Cognitive Functions</b>	<b>Interpersonal</b>	<b>Learning Readiness</b>
Behavioral Package	Antecedent Package Behavioral Package CBTYC Joint Attention Modeling NTS Peer Training PRT	CBTYC Modeling	Antecedent Package Behavioral Package CBTYC Joint Attention Modeling NTS Peer Training PRT Self-management Story-based	Antecedent Package Behavioral Package NTS
<b>Motor</b>	<b>Personal Responsibility</b>	<b>Placement</b>	<b>Play</b>	<b>Self-Regulation</b>
CBTYC	Antecedent Package Behavioral Package CBTYC Modeling	CBTYC	Antecedent Package Behavioral Package CBTYC Modeling NTS Peer Training PRT	Antecedent Package Behavioral Package Schedules Self-management Story-based
<b>Behaviors Decreased</b>				
<b>Problem Behaviors</b>	<b>Restricted, Repetitive, Nonfunctional Behavior, Interests, or Activities</b>		<b>Sensory/Emotional Regulation</b>	<b>General Symptoms</b>
Antecedent Package Behavioral Package CBTYC Modeling Self-management	Behavioral Package Peer Training		Antecedent Package Behavioral Package Modeling	CBTYC

# PSYCHOPHARMACOLOGY

- **Adjunct** to educational, developmental & behavioral treatments
- Focused on treating associated (rather than core) ASD symptoms
- Evidence supporting is variable
- **Targeted** symptoms
  - “Irritability”
  - Stereotypies
  - Withdrawal
  - Obsessions
  - Hyperactivity
  - Attention span
  - Self-injurious behavior
  - Aggression
  - Sleep

Owen et al. (2009)  
McDougle et al. (2005)  
Fung et al. (2016)

# PHARMACOLOGIC

- Aggression:
  - The Journal of Autism and Developmental Disorders has published a new study showing that nearly 28% of 8-year-old children with autism spectrum disorder (ASD) behave in ways that can lead to self-injury.
  - Tx: Antipsychotics (Risperdone, Abilify)
- Anxiety:
  - SSRIs, SNRIs
- Attention Deficit Hyperactivity Disorder
  - Stimulants or nonstimulants



# COMPLEMENTARY & ALTERNATIVE TREATMENTS

- Chelation
- Hyperbaric Oxygen Therapy
- Vitamins/Supplements
- Immune & Hormone Therapies
- Auditory, Visual & Music Therapy

- **Biologically Based**
- **Mind-body Medicine**

- Yoga
- Music Therapy

- **Manipulative and Body-based**

- Chiropractic
- Massage/Therapeutic Touch
- Auditory Integration

- **Energy Medicine**

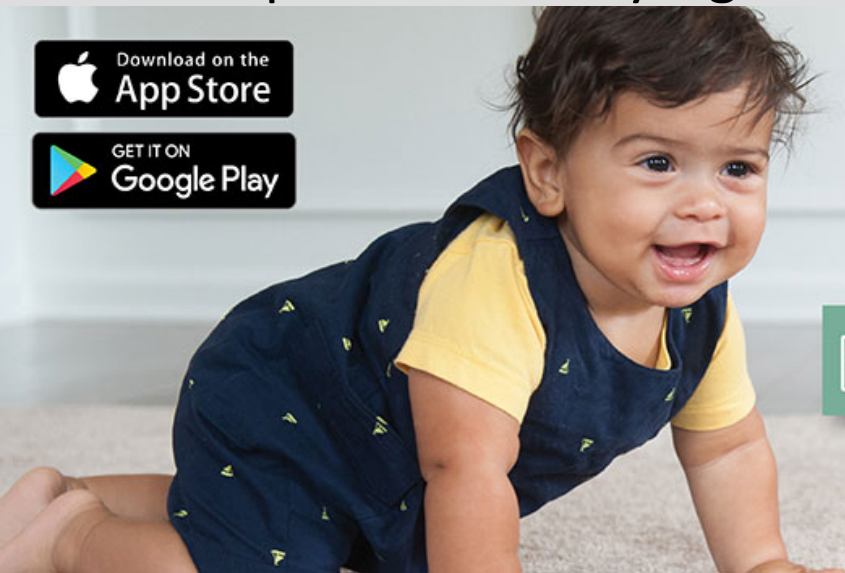
- Transcranial & magnetic stimulation

- >30% of patients use some form
- Most use multiple forms
- 9% use potentially harmful forms

Most commonly used  
~50% - Biologically based  
30% - Mind-body  
25% - Manipulative/body

# HOW YOU CAN HELP

1. Help DETECT early signs



## Download CDC's FREE Milestone Tracker App



Track Milestones



Share a Summary



Get Tips & Activities

Learn more at [cdc.gov/MilestoneTracker](https://cdc.gov/MilestoneTracker)

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# HOW YOU CAN HELP

## 2. Be a RESOURCE

Increase your own knowledge & share it with others:

- Advise parents of any concerns you note regarding their child's development and behavior
- Recommend appropriate assessment, referrals/interventions
- Distribute patient/parents resources

### Making Connections:

#### 9 Tips for Communicating Better With People With Autism

People with autism spectrum disorder may have difficulties communicating or interacting socially, but that doesn't mean they don't want to connect. It just may be more challenging for them. It takes two to communicate successfully, so here are some ways you can do your part when conversing with someone with autism:

**1. Help them to communicate; don't communicate for them!**

Don't assume you know what the person is thinking, needs or wants. Be patient, and let the person finish their message without trying to finish the sentences for them. Give time for the person to process what you've said.

**2. Be sure you have the person's attention before speaking.**

People with autism may not always look at you when you talk. But that doesn't mean they aren't listening.

**3. Speak with a normal rate and volume.**

Keep background noise low when possible, or move to an area with fewer distractions when talking.

**4. Face the individual so they can see your expressions.**

Make sure you are not standing or sitting where there is a lot of glare or low light.

**5. Reword what you say if the person doesn't understand.**

Repeat back what you heard, and ask for confirmation. Don't pretend to understand the message if you're not sure—work to get clarification. Acknowledge that you are having trouble understanding, but make sure they know you want to understand. Give them cues ... what letter does the word start with? Are you talking about [name the topic]?

**6. Speak to the person—not a parent, teacher or other person assisting them.**

If a person is using a communication device, don't try to "read over their shoulder"; instead, stand in front of them as you would with others. Know that using a device may require more time to communicate.

**7. Use visual cues/pictures when possible.**

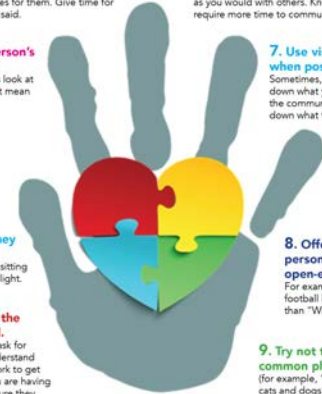
Sometimes, it even helps to write down what you want to say or to ask the communication partner to write down what they want to say.

**8. Offer a set of choices if a person doesn't respond to open-ended questions.**

For example, ask "Do you like football better than soccer?" rather than "What is your favorite sport?"

**9. Try not to use idioms or common phrases**

(for example, "play it by ear" or "training cats and dogs"), as they may be misinterpreted.



Overall, understand that people with autism want to communicate and form social relationships just like everybody else. It may take a lot more energy and effort for people with autism to talk and interact, so be patient and proactive.

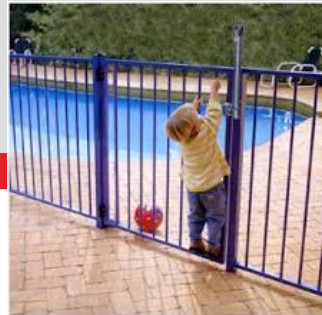


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SPEECH-LANGUAGE-  
HEARING  
ASSOCIATION

# SAFETY PLANNING

## Did you know?

- Children with ASD are 8 times more likely to elope between the ages of 7 and 10 than their typically developing siblings
- From 2009-2011, accidental drowning (during wandering/elopement) accounted for 91% of deaths for children with ASD under age 15 in the US
- Half of families with elopers never receive guidance about elopement from a professional
- **Only 14% receive guidance from a physician**



## 12 Ways to Prevent Wandering/Elopement:

1. Understand and Eliminate
2. Teach Safety
3. Secure Your Home
4. Consider Personal Locator
5. Consider ID Materials
6. Swimming Lessons
7. Alert Neighbors
8. Alert First Responders
9. Initiate "TAG" System
10. Secure External Settings
11. Learn From others
12. Never Have False Sense



# HOW YOU CAN HELP

## 3. GET INVOLVED

**AUTISM SPEAKS**

Home | FAMILIES & ADULTS | RESEARCH | ADVOCATE | **GET INVOLVED** | Search

- Find a WALK Near You**
- Attend an EVENT**
- Support our Corporate PARTNERS**  
TJ-MAXX, JOE'S CRAB SHACK, SHERWIN-WILLIAMS, TOYS R US, CASEY'S GENERAL STORE, DOLLAR GENERAL, SPROUTS, WINTER CASTLE
- ADVOCATE in Your State**

Other Ways to Give  
Become a Partner  
Donate in Someone's Honor  
Fundraise Your Way  
Join Autism Speaks U  
Run, Ride, Tri With Us  
World Autism Month

Get the latest on research, programs, services, walks and special events.

FIRST NAME  
LAST NAME  
EMAIL  
ZIP

**SPARK**  
Igniting autism research  
Improving lives

PSYCHOLOGY



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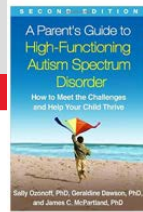
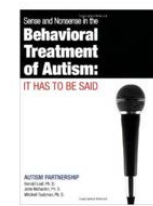
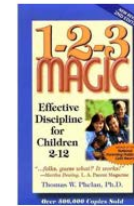
# BIGGEST TAKE-HOME POINTS

- Active screening and responsiveness of all of a child’s caregivers has a major impact on identifying children early
- Early intensive behavioral intervention (i.e., “ABA” or applied behavior analysis) can profoundly shift the outcomes of children with autism spectrum disorders
- Medical, developmental, behavioral, safety, and family/social risk factors must be monitored & addressed by providers and the community



# RESOURCES

- [autismspeaks.org](http://autismspeaks.org)
  - Toolkits: First 100 Days, Challenging Behaviors, Sleep, Feeding, needle sticks, etc.
- [m-chat.org/](http://m-chat.org/)
- [nationalautismassociation.org](http://nationalautismassociation.org)  
& [autismsafety.org](http://autismsafety.org)
  - Safety resources



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# AFFILIATION STATEMENT



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*Texas Children's Hospital is affiliated with Baylor College of Medicine in the areas of pediatrics, pediatric surgery, and obstetrics and gynecology. Currently and throughout the 60-year partnership, Texas Children's serves as Baylor's primary pediatric training site, and more than 1,500 Baylor faculty are the division chiefs and staff physicians of Texas Children's patient care centers.*



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**COMMENTS/QUESTIONS?**