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KENTUCKY AUTISM
TRAINING CENTER 

Early Recognition of Autism Spectrum Disorders

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Objectives

- Learn to identify early characteristics of autism spectrum disorders
- Learn about other conditions or circumstances that may mimic characteristics of ASD

Goal—Learn at least 3 new things about ASD!



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The mission of the Kentucky Autism Training Center is to strengthen our state's systems of support for persons affected by autism by bridging research to practice and by providing training and resources to families and professionals. KATC is committed to improving the quality of life for those affected by ASD.



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Recent Statistics

- March 2014: 1 in 68 children
- 30% increase since 2008
- Over 2 million Americans live with an autism spectrum disorder
- More common in boys than girls; characteristics can "look" different in boys than girls
- 60% of costs are in adult services.
- Cost of lifelong care can be reduced by 2/3 with early diagnosis and intervention.

Center for Disease Control, 2014





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4 Corner Activity Characteristics of Autism

- I have no clue
- I have heard about it
- I know about them
- I use my expertise to problem solve strategies to address the characteristics of ASD



NOTE: see posters around the room-take 10 seconds and go stand by the one that best describes your awareness, knowledge and application of problem solving the characteristics of ASD.



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What is normal development?

By 3-4 months

- Watches faces with interest and follows moving objects
- Recognizes familiar objects and people; smiles at the sound of your voice
- Begins to develop a social smile
- Turns head toward sounds

By 7 Months

- Responds to other people's emotions
- Enjoys face-to-face play; can find partially hidden objects
- Explores with hands and mouth; struggles for out of reach objects
- Responds to own name
- Uses voice to express joy and displeasure; babbles chains of sounds

Autism Speaks, 2015





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What is normal development?

By 12 Months/1 Year

- Enjoys imitating people; tries to imitate sounds
- Enjoys simple social games, such as “gonna get you!”
- Explores objects; finds hidden objects
- Responds to “no;” uses simple gestures, such as pointing to an object
- Babbles with changes in tone; may use single words (“dada,” “mama,” “Uh-oh!”)
- Turns to person speaking when his/her name is called.

Autism Speaks, 2017



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What is normal development?

By 24 Months/2 Years

- Imitates behavior of others; is excited about company of other children
- Understands several words
- Finds deeply hidden objects; points to named pictures and objects
- Begins to sort by shapes and colors; begins simple make-believe play
- Recognizes names of familiar people and objects; follows simple instructions
- Combines two words to communicate with others, such as “more cookie?”

Autism Speaks, 2017





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What is normal development?

By 36 Months/3 Years

- Expresses affection openly and has a wide range of emotions
- Makes mechanical toys work; plays make-believe
- Sorts objects by shape and color, matches objects to pictures
- Follows a 2- or 3-part command; uses simple phrases to communicate with others, such as "go outside, swing?"
- Uses pronouns (I, you, me) and some plurals (cars, dogs)

Autism Speaks, 2017



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What are some "red flags" I should talk to my doctor about ?

- No big smiles or other warm, joyful expressions by six months or thereafter
- No back-and-forth sharing of sounds, smiles or other facial expressions by nine months
- No babbling by 12 months
- No back-and-forth gestures such as pointing, showing, reaching or waving by 12 months
- No words by 16 months
- No meaningful, two-word phrases (not including imitating or repeating) by 24 months
- Any loss of speech, babbling or social skills at any age

Autism Speaks, 2017





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Autism: The Hidden Epidemic



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What is Autism?

- *A complex neurological disorder that affects one's socialization and communication skills.*
- *Restricted, repetitive, and/or stereotyped behaviors are also present.*

Autism is a spectrum disorder--

"If you know one child with autism, you know one child with autism."





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A. Persistent deficits in social communication and social interaction across multiple contexts, not accounted for by general developmental delays, and manifest by all 3 of the following:

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



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B. Restricted, repetitive patterns of behavior, interests, or activities as manifested by at least 2 of the following:

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





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Strengths:

- Smart in an “out of the box” way
 - Creative
 - Strong rote memory skills
- Can be very affectionate and loving
- See the world in a different way!



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Areas Targeted for Intervention:

Communication

Socialization

Adaptive Skills

Executive Functioning Skills

Generalization of All Skills





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Is there a cure for Autism?

- Currently, there is no “cure” for Autism.
- There are many researched-based strategies that have been shown to greatly decrease the symptoms and help the child to become a more fully functioning individual.

The word “cure” is questionable in the Autism community.



Early Signs and Symptoms

- ✓ Joint attention
- ✓ Inappropriate toy play
- ✓ Lack of Imitation

Note: This is not an exclusive list, but merely starting points.

Early Signs and Symptoms

Joint attention Inappropriate toy play Lack of Imitation

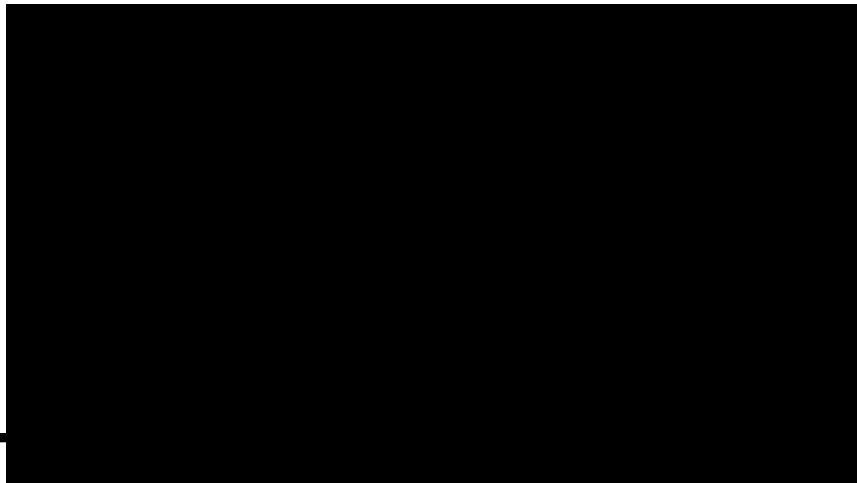




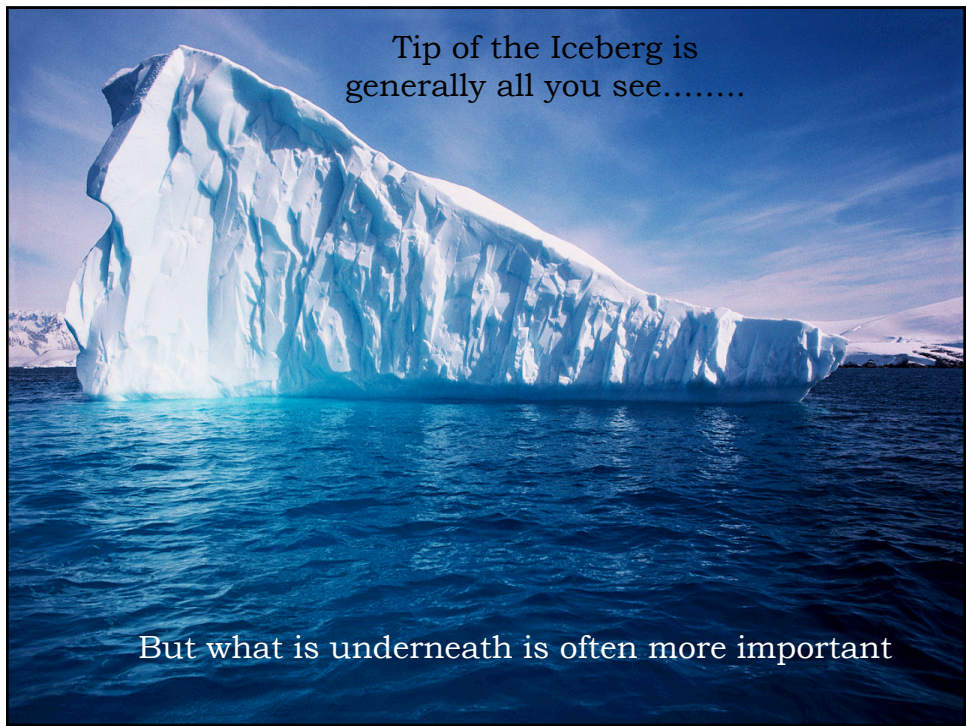
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Early Signs and Symptoms

Joint attention Inappropriate toy play Lack of Imitation








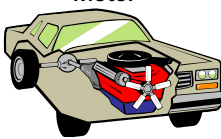


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Tip of the Iceberg is generally all you see.....

But what is underneath is often more important

Communication 	Socialization 	Restrictive/Repetitive 
Cognition 	Characteristics of Autism Spectrum Disorders	Sensory 
Academic 	Emotional Vulnerability 	Motor 



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Communication

- Joint attention
- Turn taking
- Anticipating a routine
- Eye Contact
- Imitation Skills
- Functional Communication may be limited:
 - Idiosyncratic language usage
 - Literal language interpretation
- Nonverbal/Paraverbal language



Remember the “marriage” of communication and socialization.

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Social Interactions

- Responding to their name
- Interest in objects versus people.
- Understanding social rules, social engagement, and maintaining interactions.
- Poor empathy or perspective taking
- Bluntly honest.
- Withdrawal tendency - Prefer to be alone.
- Difficulties making/maintaining friends.
- Difficulty with time (off pace with others).



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Restrictive and Stereotypic Behaviors, Interests and Activities

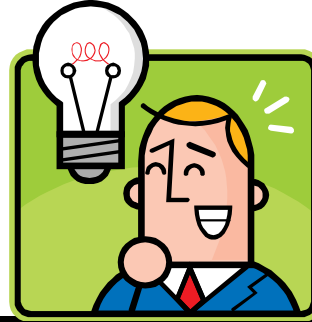
- **Restricted Range of Interests**
 - Unusual attachments to objects.
 - Preference for routines/rituals (need for sameness).
 - Perseverative behaviors.
 - Eccentric preoccupations.
 - Trouble letting go of ideas.
 - Single channeled (Focused on one idea).
 - Difficulties understanding the concept of finished.
- **Stereotypic Behaviors**--hand flapping, video or movie talk, spinning, lining up items
- **Limited range of interests/insist on interacting around preferred topics**



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Cognitive Processes

- **Prefer Order, Predictability, and Familiarity**
- Theory of Mind (perspective-taking) difficulties
- Over-selectivity
- **Time Management**
- Uneven Skill Development
- Problem-solving



Prefer Order, Predictability, and Familiarity

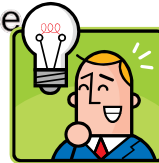
- Need for sameness
- Like order.
- Engages in repetitive behaviors or rituals.
- Difficulties making transitions or can be resistive to change.
- Easily overwhelmed by minimal changes.
- Rote learners



Time Management



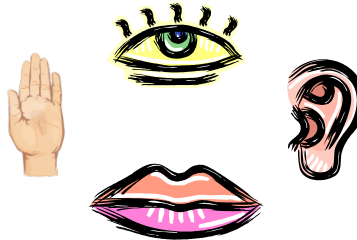
- Many individuals with ASD may demonstrate difficulties
 - In understanding the passing of time
 - Waiting
 - Using a clock to signal activity change



Sensory Integration

Some individuals may over respond or under respond to sensory stimuli


- As a result certain things in the environment might be exceptionally **reinforcing** or **aversive** to some individuals.




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Sensory Integration





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**Is there a difference between
a tantrum and a meltdown?**

Tantrum= to get something

Meltdown=sensory overload

How does that change how you respond?




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Academic







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Academic

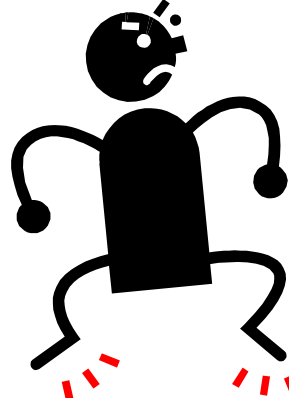
- Extensive knowledge in narrow areas of interest.
- Strong rote memory skills
- Weak comprehension skills.
- Knows facts/details but difficulty with abstract reasoning.
- Difficulties applying learned skills in new situations.
- Easily distracted





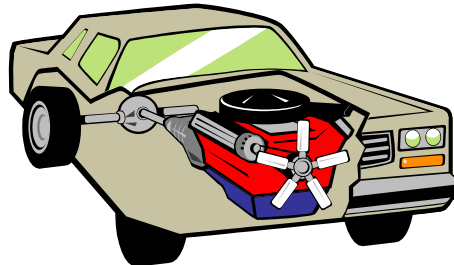
Emotional Vulnerability

- Easily stressed-worries obsessively
- Unusual fear responses
- Difficulties tolerating mistakes
- Difficulties identifying, expressing or controlling emotions.
- Low frustration tolerance
- Exhibits “meltdowns” reactions



Motor Skills

- Poor motor coordination
- Awkward gait
- Unusual body postures, movements, & facial expressions
- Oral motor defensiveness,
Under-developed muscles



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Let's meet Adam!



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Associated Medical Conditions

- Genetic Disorders
 - Examples: Fragile X, Angelman's Syndrome, Chromosome Duplications
- Gastrointestinal Disorders
 - Can affect up to 85% of children with ASD
 - Can cause behavioral changes, aggression, self injury
- Seizure Disorders
 - May occur in as many as 39% of children with ASD
 - Many different types of seizures, presentation
- Sleep Dysfunction
- Sensory Processing Issues
- Pica

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Other circumstances or disorders that may mimic autism...



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Receptive/Expressive Language Disorders





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Receptive/Expressive Language Disorders

- Has difficulty understanding language
- Has trouble expressing language
- May lack some of the social language aspects of development

- No stereotypical behaviors present



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Attention Deficit Hyperactivity Disorders





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Attention Deficit Hyperactivity Disorders

Difficulty focusing/sustaining attention

Easily distracted

Executive Functioning delays

May not transition well

Can have delays in speech/social understanding
but LOOKS different (etiology)

No stereotypic behaviors



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Attachment Disorders or Issues





Attachment Disorders or Issues

Reactive **attachment disorder** and other **attachment** problems occur when children have been unable to consistently connect with a parent or primary caregiver.

www.mayoclinic.org



Attachment Disorder: Signs and Symptoms:

- Withdrawal, fear, sadness or irritability that is not readily explained
- Sad and listless appearance
- Not seeking comfort or showing no response when comfort is given
- Failure to smile
- Watching others closely but not engaging in social interaction
- Failing to ask for support or assistance
- Failure to reach out when picked up
- No interest in playing peekaboo or other interactive games

www.mayoclinic.org



Which of these may mimic autism?



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The Effects of Trauma



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What is Trauma?

Exposure to conditions that:

- Cause harm to physical or psychological/emotional well-being
- Overwhelm the ability to cope
- Interfere with daily life or the ability to function

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National Association of School Psychologists





Adverse Childhood Experiences (ACE)

- **Maltreatment**
 - Physical, Sexual, Emotional Abuse
 - Neglect
- **Family Dysfunction**
 - Incarcerated family member
 - Mentally ill family member
 - Substance abusing family member
 - Domestic Violence
 - Absence of parent (divorce, separation, death)

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Adverse Childhood Experiences (ACE)

- **The more ACEs you have the more at risk you are to develop “trauma”**
- **These experiences:**
 - Often begin at an early age
 - Are often chronic and reoccurring
 - Impact learning/development

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Effects of Trauma

- **Neurology:**
 - **Impacts brain structure and function**
 - Prefrontal cortex of traumatized kids smaller
 - Prefrontal cortex is very responsive to environment
 - **Production of adrenaline and cortisol**
 - **Ability to read emotions**

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What does Trauma look like?

- Which of these may mimic autism?*
- Difficulty processing instructions
 - Decreased attention, memory, focus
 - Reduced executive functioning
 - Difficulty solving problems
 - Difficulty understanding the consequences of actions
 - Heightened vigilance (inaccurate perception of danger)
 - Rapid response to perceived threats
 - Self-protective factors (aggression, withdrawal)

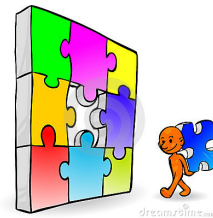
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Take a minute to process what you
have learned?

What questions do you have?

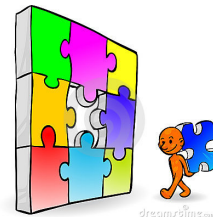


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Your turn!

- Think of a student whom you have or will serve--with an elbow partner discuss what 3 things you have learned today to address an individual's needs.
- Be prepared to share out



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Questions?

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