

Case Worksheet for Learners

Case Goal

Early warning signs alert providers to the risk of a possible autism spectrum disorder (ASD). Recognizing these warning signs is necessary in order to know when to screen or further evaluate children for ASD and how to appropriately counsel families.

Key Learning Points of this Case

1. *Identify key social-emotional and language milestones through 24 months of age.*

a. Describe typical social skills that are present in children from birth through 24 months. _____

b. Identify expected language milestones from birth through 24 months. _____

c. Identify expected play skills by age. _____

2. *Recognize the major early warning signs of ASD.*

a. Identify key red flags for ASD. _____

b. Recognize the difference between a typical temper tantrum and one of a child with an ASD. _____

Post Learning Exercise

1. Go to the website www.cdc.gov/ncbddd/actearly/milestones/index.html
2. Pull up the developmental page for different age groups.
3. Take turns testing each other on the developmental milestones for each age.

One interesting way to test your knowledge is to go into a waiting room and “borrow” a typically developing child (or two). Interact and observe the child/children and try guessing the age of the child.

Case Study Part I

You are attending a family reunion and during a quiet moment, your cousin Elizabeth takes you aside and asks you what you think about the development of her son, Mark. She tears up as she tells you how worried she is about him. Mark will be 2 years old next month, and he seems so different from the other children on the playground. Although he is an affectionate and happy little boy, his behaviors can be so unpredictable. He is very shy and has terrible temper tantrums. It is usually impossible to reason with him. Small changes in his routine throw Mark off, and Elizabeth is worried that he won't be able to handle the crowd at this family gathering without causing a scene. You ask her what her pediatrician thinks.

Elizabeth tells you that Mark has been seen by his pediatrician, and she has expressed her concerns about his temper tantrums on a few visits. Mark enjoys going to the doctor's office because they have a large tropical fish tank, and he has generally been calm in that setting. Mark's doctors have all been very reassuring, and think he has a bad case of the "terrible twos." The doctor has told her to "give him some time; he is still young and will likely grow out of this phase."

You have been pre-occupied by your relatives, and you honestly haven't been paying too much attention to Mark. You know that your cousin is a doting and caring mother. Elizabeth and her husband, Sam, had fertility struggles, and she was thrilled to give birth to Mark after a grueling course of in-vitro fertilization treatments. You know that Mark was born full term without any complications. You heard that he was a fussy baby, but that he was otherwise healthy.

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Case Study Part II

During your conversation, you find out that Mark attained his motor milestones typically. By 1 year of age, he was walking. Now he is climbing on everything. He has started to repeat words and, thanks to a beloved DVD, he has learned many of his letters and can count to 10 in Spanish. You ask about how Mark communicates and gets what he wants. Elizabeth says that he is very smart and that he usually tries to get things himself. She cannot recall a time that he pointed or gestured to get his needs met.

At that moment, Mark wanders into the room. He starts to run back and forth while verbalizing “fast, fast, fast.” You call him many times, but he doesn’t seem to hear you. Elizabeth says that he is a very busy, active boy and that he acts this way a lot. He stops his playing and begins to spin the wheels of a toy train. You are beginning to get concerned. These aren’t normal play behaviors. You even think back on your family history and can’t recall anyone with an ASD.

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Case Study Part III

After thinking over milestones, early warning signs, and what you know of Mark's behavior, you do have concerns about Mark. You commend your cousin for picking up these issues. Elizabeth tears up. She admits her sister thought it could be an ASD, but she wasn't sure. Why was this missed? Anyone who works with children is in a position to make valuable observations about a child's development, and they should be taken very seriously. Learn the signs!

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Handout I: First Signs Hallmark Developmental Milestones



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Signs*®

Milestones enable parents and physicians to monitor a baby's learning, behavior, and development. The term "milestone" takes its name from a stone marker placed along the road that indicates the distance traveled. The following milestones help to mark progress along a child's developmental journey.

While each child develops differently, some differences may indicate a slight delay and others may be cause for greater concern. The following milestones provide important guidelines for tracking healthy development from 4 months to 3 years of age.

Before your child's next visit to the physician, please take the time to see if your child has met his/her key milestones. These milestones should not be used in place of a screening, but should be used as discussion points between parents and physicians at each well visit. If a child does not have the skills listed—or if there is a loss of any skill at any age—be sure to let your physician know.

Is Your Baby Meeting These Important Milestones?

Key Social, Emotional, and Communication Milestones for Your Baby's Healthy Development

By Stanley I. Greenspan, MD

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Does Your Baby...

At 4 Months:

- Follow and react to bright colors, movement, and objects?
- Turn toward sounds?
- Show interest in watching people's faces?
- Smile back when you smile?

At 6 Months:

- Relate to you with real joy?
- Smile often while playing with you?
- Coo or babble when happy?
- Cry when unhappy?

At 9 Months:

- Smile and laugh while looking at you?
- Exchange back-and-forth smiles, loving faces, and other expressions with you?
- Exchange back-and-forth sounds with you?
- Exchange back-and-forth gestures with you, such as giving, taking, and reaching?

Early Warning Signs of Autism Spectrum Disorder

At 12 Months:

- Use a few gestures, one after another, to get needs met, like giving, showing, reaching, waving, and pointing?
- Play peek-a-boo, patty cake, or other social games?
- Make sounds, like “ma,” “ba,” “na,” “da,” and “ga”?
- Turn to the person speaking when his/her name is called?

At 15 Months:

- Exchange with you many back-and-forth smiles, sounds, and gestures in a row?
- Use pointing or other “showing” gestures to draw attention to something of interest?
- Use different sounds to get needs met and draw attention to something of interest?
- Use and understand at least three words, such as “mama,” “dada,” “bottle,” or “bye-bye”?

At 18 Months:

- Use lots of gestures with words to get needs met, like pointing or taking you by the hand and saying, “want juice”?
- Use at least four different consonants in babbling or words, such as m, n, p, b, t, and d?
- Use and understand at least 10 words?
- Show that he/she knows the names of familiar people or body parts by pointing to or looking at them when they are named?
- Do simple pretend play, like feeding a doll or stuffed animal, and attracting your attention by looking up at you?

At 24 Months:

- Do pretend play with you with more than one action, like feeding the doll and then putting the doll to sleep?
- Use and understand at least 50 words?
- Use at least two words together (without imitating or repeating) and in a way that makes sense, like “want juice”?
- Enjoy being next to children of the same age and show interest in playing with them, perhaps giving a toy to another child?
- Look for familiar objects out of sight when asked?

At 36 Months:

- Enjoy pretending to play different characters with you or talking for dolls or action figures?
- Enjoy playing with children of the same age, perhaps showing and telling another child about a favorite toy?
- Use thoughts and actions together in speech and in play in a way that makes sense, like “sleepy, go take nap” and “baby hungry, feed bottle”?
- Answer “what,” “where,” and “who” questions easily?
- Talk about interests and feelings about the past and the future?

The key social, emotional, and communication milestones were compiled from the following sources:

- Greenspan SI. Building Healthy Minds. Cambridge, MA: Perseus Books; 1999.
- Prizant BM, Wetherby AM, Roberts JE. Communication disorders in infants and toddlers. In: Zeanah C, ed. Handbook of Infant Mental Health. 2nd ed. New York: Guilford Press; 2000.
- Wetherby AM. Babies Learn to Talk at an Amazing Rate. FIRST WORDS Project. Florida State University; 1999.

Handout II: Shy Temperament vs. ASD

The following table displays some key differences between a child with a shy temperament and an autism spectrum disorder:

<i>SHY TEMPERAMENT</i>	<i>AUTISM SPECTRUM DISORDER</i>
Quiet and withdrawn in new settings	Lack of spontaneous seeking to share enjoyment, interests, or achievements with others
Slow to develop friends and play with others	Failure to develop peer relationships appropriate to developmental level; even with closest peers, prefers to play alone
Tends to look away from others or look down	Marked impairments in use of eye-to-eye gaze even with familiar people and family members
Takes a long time to become comfortable in group settings	Lack of emotional or social reciprocity, does not understand the back and forth of communication

Suggested Citation: Harstad L, Baum C, Yatchmink Y. Shy Temperament vs. ASD. Developed for the *Autism Case Training: A Developmental-Behavioral Pediatrics Curriculum*. 2013.

Your Child at 18 Months (1½ Years)

Child's Name _____

Child's Age _____

Today's Date _____

How your child plays, learns, speaks, and acts offers important clues about your child's development. Developmental milestones are things most children can do by a certain age.

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Check the milestones your child has reached by the end of 18 months. Take this with you and talk with your child's doctor at every visit about the milestones your child has reached and what to expect next.

What most children do at this age:

Social/Emotional

- Likes to hand things to others as play
- May have temper tantrums
- May be afraid of strangers
- Shows affection to familiar people
- Plays simple pretend, such as feeding a doll
- May cling to caregivers in new situations
- Points to show others something interesting
- Explores alone but with parent close by

Language/Communication

- Says several single words
- Says and shakes head "no"
- Points to show someone what he wants

Cognitive (learning, thinking, problem-solving)

- Knows what ordinary things are for; for example, telephone, brush, spoon
- Points to get the attention of others
- Shows interest in a doll or stuffed animal by pretending to feed
- Points to one body part
- Scribbles on his own
- Can follow 1-step verbal commands without any gestures; for example, sits when you say "sit down"

Movement/Physical Development

- Walks alone
- May walk up steps and run
- Pulls toys while walking

- Can help undress herself
- Drinks from a cup
- Eats with a spoon

Act early by talking to your child's doctor if your child:

- Doesn't point to show things to others
- Can't walk
- Doesn't know what familiar things are for
- Doesn't copy others
- Doesn't gain new words
- Doesn't have at least 6 words
- Doesn't notice or mind when a caregiver leaves or returns
- Loses skills he once had

Tell your child's doctor or nurse if you notice any of these signs of possible developmental delay for this age, and talk with someone in your community who is familiar with services for young children in your area, such as your state's public early intervention program. For more information, go to www.cdc.gov/concerned or call 1-800-CDC-INFO.

The American Academy of Pediatrics recommends that children be screened for general development and autism at the 18-month visit. Ask your child's doctor about your child's developmental screening.

Adapted from CARING FOR YOUR BABY AND YOUNG CHILD: BIRTH TO AGE 5, Fifth Edition, edited by Steven Shelov and Tanya Remer Altmann © 1991, 1993, 1998, 2004, 2009 by the American Academy of Pediatrics and BRIGHT FUTURES: GUIDELINES FOR HEALTH SUPERVISION OF INFANTS, CHILDREN, AND ADOLESCENTS, Third Edition, edited by Joseph Hagan, Jr., Judith S. Shaw, and Paula M. Duncan, 2008, Elk Grove Village, IL: American Academy of Pediatrics.

www.cdc.gov/actearly

1-800-CDC-INFO



Handout IV: Temper Tantrums

Kids vary in their temperament and in their responses to frustrating experiences. Temper tantrums are a typical phase of development for most children and are often exacerbated when children are tired, hungry, and disappointed. Tantrums are likely related to children's struggle to express themselves and their need to assert control over their environment. Fortunately, most children's tantrums begin to subside in intensity and frequency by 3 years of age, when their language skills enable them to express their needs and wants, and their capacity for self-regulation has grown.

Temper tantrums might be cause for concern when –

- Child has more than 10 to 20 discrete tantrum episodes on separate days at home during a 30-day period.
- Child has more than five tantrums a day on multiple days while at school or outside of home/school during a 30-day period.
- Tantrums regularly last longer than 25 minutes on average.
- Child is unable to calm himself/herself (., frequently requires assistance from a caregiver) and shows very limited capacity for self-regulation regardless of tantrum intensity, frequency, or context.
- During tantrum, child consistently shows aggression (e.g., hitting, kicking, biting, spitting or throwing directed toward a caregiver or an object).
- Child attempts to hurt himself/herself (e.g., head-banging, scratching or hitting himself/herself) during tantrums.
- Tantrums are accompanied by other atypical behaviors, such as self-stimulating behaviors that may not be injurious, atypical social responses, or aspects of mood that seem unusual to the situation.
- Tantrums seem exaggerated (i.e., child has strong reaction to seemingly minor events or changes in routine) or without clear pattern or trigger (e.g., when the child is hungry or tired).

The presence of these signs does not necessarily suggest an ASD or even pathology. It does suggest that the child may warrant evaluation and further discussion, and possibly screening for behavior and developmental challenges is indicated.

Suggested Citation: Harstad L. Baum C, Yatchmink Y. Temper Tantrums. Developed for the *Autism Case Training: A Developmental-Behavioral Pediatrics Curriculum*. 2013.

Handout V: Play Skills by Age

12 months

- Plays social games like peek-a-boo or patty cake
- Uses a few social gestures, like waving or pointing
- Shows preference for certain toys

18 months

- Does simple pretend play, like feed a doll
- Looks at you when excited with a toy
- Recruits help from parent when playing with you, like looking at you and giving you the bubble wand to blow more bubbles

24 months

- Uses objects symbolically; for example, uses a crayon to pretend to give baby a bottle
- Uses toys as complete objects rather than becoming preoccupied with one part of the toy
- Is excited about the company of others and imitates the behaviors of others

3 years

- Completes puzzle with three or four pieces
- Pretends to play different characters with you or talk for dolls or figurines

4 years

- Engages in fantasy play
- Plays simple games that involve taking turns

Suggested Citation: Harstad L, Baum C, Yatchmink Y. Play Skills by Age. Developed for the *Autism Case Training: A Developmental-Behavioral Pediatrics Curriculum*. 2013.

Handout VI: Red Flags of Autism Spectrum Disorder

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The following red flags may indicate a child is at risk for an autism spectrum disorder, and is in need of an immediate evaluation.

In clinical terms, there are a few absolute indicators, often referred to as “red flags,” that indicate a child should be evaluated. For a parent, these are the “red flags” that your child should be screened to ensure that he/she is on the right developmental path.

Red Flags of Autism Spectrum Disorders

Impairment in Social Interaction

- Inappropriate gaze
- Lack of warm, joyful expressions
- Lack of sharing interests
- Lack of response to contextual cues
- Lack of response to name
- Lack of coordination of nonverbal communication

Impairment in Communication

- Lack of showing
- Lack of pointing
- Unusual prosody
- Lack of communicative consonants
- Using person’s hand as a tool

Repetitive Behaviors & Restricted Interests

- Repetitive movements with objects
- Repetitive movements or posturing of body
- Lack of playing with a variety of toys
- Unusual sensory exploration
- Excessive interest in particular toys

Emotional Regulation

- Distress over removing objects
- Difficulty calming when distressed
- Abrupt shifts in emotional states
- Unresponsive to interactions

McCoy D, Wetherby AM, Woods J. Screening children between 18 and 24 months using the Systematic Observation of Red Flags (SORF) for Autism Spectrum Disorders: a follow-up study. Oral presentation summary. International Meeting for Autism Research; Chicago; May 7-9, 2009.

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- Rogers SJ. Developmental regression in autism spectrum disorders. *Ment Retard Dev Disabil Res Rev*. 2004;10:139-43.

Other Useful Resources

- Bridgemohan C, Augustyn M, Torchia M. Surveillance and Screening for Autism Spectrum Disorders in Primary Care. UptoDate http://www.uptodate.com/contents/surveillance-and-screening-for-autism-spectrum-disorders-in-primary-care?source=search_result&search=autism+spectrum+disorders&selectedTitle=5%7E68, Accessed December 31, 2012.
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