

# Pediatric Clips

**Early Recognition of Autism Spectrum Disorders: Surveillance and Screening** By Cecilia Rivera-Amisola, MD

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Pediatric Clips from The Children's Medical Center of Dayton are quick reviews of common pediatric conditions.

The Children's Medical Center of Dayton is the region's pediatric referral center for a 20-county area. As the only facility in the region with a full-time commitment to pediatrics, Dayton Children's offers a wide range of services in general pediatrics as well as in 35 subspecialty areas for infants, children and teens. We welcome your inquiries about services available – call 937-641-3666 or e-mail marketing @childrensdayton.org.



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## CASE STUDY

Timmy, a 2-year-old male, presents to his pediatrician's office for his well visit. His mother describes him as happy and very content, makes no demands on her and plays by himself for hours. She is worried, though, because he seems quieter lately and no longer says mama except when

upset. He has also become oblivious to his 5-year-old brother and no longer responds when called by his name. His pediatrician failed to engage Timmy successfully with a teddy bear before releasing him from his stroller for a physical exam. As soon as he got out, Timmy ran

towards a toy that spins and lights up at the push of a button. It was only then that they heard his voice – as he laughed and hopped up and down in a frenzy while flapping his hands.

## CASE DISCUSSION

Early detection of autism spectrum disorder (ASD) and intervention at less than 3 years of age can lead to a significantly better prognosis. Children diagnosed early develop improved language, social relationships and adaptive functioning, and have fewer maladaptive behaviors. Their parents also undergo timely genetic counseling, which is important because younger siblings of children with ASD have a 10 times increased risk of having an ASD.<sup>1</sup>

Autism is difficult to diagnose because there are no pathognomonic clinical signs, confirming laboratory tests or neuroimaging findings. It is infrequently diagnosed earlier than 3 years of age, although concerns arise as early as 11 months. The initial concern is usually speech delay, although deficits in gestural communication (pointing) and social skills (eye contact, response to praise) occur earlier but are subtle and not easily recognizable. Ritualistic behaviors usually appear only after the child turns 3. Thus, even a child with severe autistic disorder may not meet full DSM-IV criteria at a very young age. The American Academy of Pediatrics (AAP) brochure, "Is Your One-Year-Old Communicating with You?" was developed to raise

awareness of earlier social communication milestones and promote recognition of ASD symptoms before 18 months of age.<sup>2</sup>

The AAP published two guidelines: "Identifying Infants and Young Children with Developmental Disorders in the Medical Home: An Algorithm for Developmental Surveillance and Screening"<sup>3</sup> and "Identification and Evaluation of Children with ASDs."<sup>4</sup> These recommend ongoing surveillance for autism and general development at every health supervision visit in all children, heightened surveillance in high-risk younger siblings, and autism-specific screening for all children at the 18- and 24- month visits.

The Modified Checklist for Autism in Toddlers (M-CHAT) is an autism-specific screening test validated for children 16- to 30-months-old. It can be scored in less than two minutes. The child fails the checklist when two or more critical items are failed, or when any three items are failed. The M-CHAT Follow-Up Interview can be administered for those items failed, or for those items that the primary care provider (PCP) thinks may not have been answered accurately. The M-CHAT questionnaire, scoring sheet and

supplemental materials are available free to the PCP through two authorized websites, [www.firstsigns.org](http://www.firstsigns.org) or [www2.gsu.edu/~wwwpsy/faculty/robins.htm](http://www2.gsu.edu/~wwwpsy/faculty/robins.htm). Other autism screening tools are described in detail in the AAP's Clinical Report.

## REFERENCES

- 1) **Plauche Johnson C. Recognition of autism before the age 2 years.** *Pediatrics in Review.* 2008; 29: 86-96
- 2) **Is your one-year old communicating with you? Elk Grove Village, IL: American Academy of Pediatrics; 2004**
- 3) **Council on Children with Disabilities, Section on Developmental and Behavioral Pediatrics, et al. Clinical Report: Identifying infants and young children with developmental disorders in the medical home: an algorithm for developmental surveillance and screening.** *Pediatrics.* 2006; 118: 405-420
- 4) **Johnson C, Meyers S, and the Council on Children with Disabilities. Clinical Report: Identification and evaluation of children with autism spectrum disorders.** *Pediatrics.* 2007; 120: 1183-1215

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## FEATURED SPECIALIST



**CECILIA RIVERA-AMISOLA, MD,** is a developmental pediatrician at The Children's Medical Center of Dayton and an assistant professor of pediatrics at Wright State University Boonshoft

School of Medicine. She completed her pediatric internship, residency and chief residency at Beth Israel Medical Center Albert Einstein College of Medicine, NY. She was a fellow and an attending physician in developmental and behavioral pediatrics at Schneider Children's Hospital in Long Island, NY, prior to coming to Dayton in 2004. Her special interests include early diagnosis of autism, developmental follow up of premature babies and general developmental disorders.

## DEVELOPMENTAL PEDIATRICS AT DAYTON CHILDREN'S

The department of developmental pediatrics offers a variety of diagnostic and treatment services for children with developmental problems. Children are treated for developmental delays including language, cognitive, motor or social. The department also treats children with Down syndrome, hypotonia/hypertonia, cerebral palsy, ADHD/LD and autism. To contact the developmental pediatrics department, call 937-641-5487.

## M-CHAT

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

- |   |            |                  |
|---|------------|------------------|
| 1. Does your child enjoy being swung, bounced on your knee, etc? . . . . .  | Yes        | <u>No</u>        |
| <b>2. Does your child take an interest in other children?</b> . . . . .   | <b>Yes</b> | <b><u>NO</u></b> |
| 3. Does your child like climbing on things, such as up stairs? . . . . .  | Yes        | <u>No</u>        |
| 4. Does your child enjoy playing peek-a-boo/hide-and-seek? . . . . .  | Yes        | <u>No</u>        |
| 5. Does your child ever pretend, for example, to talk on the phone or take care of dolls,<br>or pretend other things? . . . . . | Yes        | <u>No</u>        |
| 6. Does your child ever use his/her index finger to point, to ask for something? . . . . .                                      | Yes        | <u>No</u>        |
| <b>7. Does your child ever use his/her index finger to point, to indicate interest in something?</b> . . . . .                  | <b>Yes</b> | <b><u>NO</u></b> |
| 8. Can your child play properly with small toys (eg, cars or bricks) without<br>mouthing, fiddling or dropping them? . . . . .  | Yes        | <u>No</u>        |
| <b>9. Does your child ever bring objects over to you (parent) to show you something?</b> . . . . .                              | <b>Yes</b> | <b><u>NO</u></b> |
| 10. Does your child look you in the eye for more than a second or two? . . . . .  | Yes        | <u>No</u>        |
| 11. Does your child ever seem oversensitive to noise? (eg, plugging ears) . . . . .   | <u>Yes</u> | No               |
| 12. Does your child smile in response to your face or your smile? . . . . .   | Yes        | <u>No</u>        |
| <b>13. Does your child imitate you? (eg, you make a face-will your child imitate it?)</b> . . . . .                             | <b>Yes</b> | <b><u>NO</u></b> |
| <b>14. Does your child respond to his/her name when you call?</b> . . . . .   | <b>Yes</b> | <b><u>NO</u></b> |
| <b>15. If you point at a toy across the room, does your child look at it?</b> . . . . .   | <b>Yes</b> | <b><u>NO</u></b> |
| 16. Does your child walk? . . . . .   | Yes        | <u>No</u>        |
| 17. Does your child look at things you are looking at? . . . . .  | Yes        | <u>No</u>        |
| 18. Does your child make unusual finger movements near his/her face? . . . . .  | <u>Yes</u> | No               |
| 19. Does your child try to attract your attention to his/her own activity? . . . . .  | Yes        | <u>No</u>        |
| 20. Have you ever wondered if your child is deaf? . . . . .   | <u>Yes</u> | No               |
| 21. Does your child understand what people say? . . . . .   | Yes        | <u>No</u>        |
| 22. Does your child sometimes stare at nothing or wander with no purpose? . . . . .   | <u>Yes</u> | No               |
| 23. Does your child look at your face to check your reaction when faced with something unfamiliar? . . . . .                    | Yes        | <u>No</u>        |

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Please refer to: Robins, D., Fein, D., Barton, M., & Green, J. (2001). The Modified Checklist for Autism in Toddlers: An initial study investigating the early detection of autism and pervasive developmental disorders. *Journal of Autism and Developmental Disorders*, 31 (2), 131-144. -- Format adapted to fit table. Critical Items are in bold. Failed answers are bold and underscored.



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