

Developmental Delay

What is developmental delay?

- Children have developmental delay when they do not attain the skills that typically developing children acquire at a certain age. Child development is a process that involves learning and mastering skills such as sitting, rolling over, walking, understanding, and talking. Typically developing children learn specific skills, called *developmental milestones*, during predictable time periods.
- Children develop skills in 5 main areas of development.
 - 1 **Cognitive development:** This development results in the child's ability to learn and solve problems. For example, it includes a 2-month-old girl learning to explore the environment with her hands or eyes and a 5-year-old boy learning to read and spell his name.
 - 2 **Social and emotional development:** This development results in the child's ability to interact with others, including helping oneself and demonstrating self-control. Examples of this type of development include a 6-week-old infant smiling, a 10-month-old infant waving bye-bye, and a 5-year-old child knowing how to take turns in games at school.
 - 3 **Speech and language development:** This development results in the child's ability to understand and use language. For example, it includes a 1-year-old (ie, 12-month-old) girl pointing to an object she wants her parent to see and a 2-year-old (ie, 24-month-old) child speaking in short sentences.
 - 4 **Fine-motor skill development:** This development results in the child's ability to use small muscles, specifically his or her hands and fingers, to pick up small objects, hold a spoon, turn pages in a book, use a crayon to draw, and perform other fine-motor skills.
 - 5 **Gross-motor skill development:** This development results in the child's ability to use large muscles. For example, a 6-month-old infant learns how to sit up with some support, a 12-month-old child learns to pull up to a stand by holding on to furniture, and a 5-year-old child learns to skip.

What are the risk factors for developmental delay?

- Risk factors for developmental problems fall into 3 interrelated categories.
 - 1 **Genetic:** Children may have a genetic risk for developmental delay. Trisomy 21 syndrome (Down syndrome) (see Down Syndrome Quick Reference Sheet [page 115]) is a good example of a genetic risk.
 - 2 **Environmental:** Environmental risk results from exposure to harmful agents, before or after birth, and can include things such as poor maternal nutrition and exposure to toxins (eg, lead, drugs or alcohol) or infections or diseases that are passed from a mother to her baby during pregnancy (eg, cytomegalovirus infection, measles, HIV infection). Environmental risk also includes a child's life experiences; that is, children who are born preterm, those who face severe poverty, those whose mothers have depression, those with poor nutrition, those who lack care, and those with other adverse childhood experiences are at increased risk for developmental delays.
 - 3 **Sensory difficulties:** Limitations to vision or hearing can affect development. Diagnosing and addressing problems with seeing or hearing is important to promoting development.
- Risk factors have a cumulative impact on development. As the number of risk factors increases, a child is put at greater risk for developmental delay.

What are the warning signs of a developmental delay?

There are several general warning signs of possible delay. These include

- **Gross-motor skill warning signs**
 - Has stiff arms or stiff legs (or both)
 - Has a floppy or limp body posture compared with other children of the same age
 - Uses one side of the body more than the other
 - Has a very clumsy manner compared with other children of the same age
- **Fine-motor skill warning signs**
 - Cannot pick up and move small objects compared with other children of the same age
 - Has difficulty feeding himself/herself
 - Pictures or letters drawn look like a younger child's drawings

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■ Vision warning signs

- Seems to have difficulty following objects or people with the eyes
- Turns, tilts, or holds the head in a strained position or an unusual position when trying to look at an object
- Closes one eye when trying to look at distant objects
- Has eyes that appear to be crossed or turned
- Brings objects too close to the eyes to see them

■ Hearing and language warning signs

- Seems to have difficulty responding when called from across the room, even when it is for something interesting
- Turns body so the same ear is always turned toward sound
- Has difficulty understanding what is said or following directions at 12 to 15 months of age
- Does not startle to loud noises
- Fails to develop sounds or words that would be appropriate at his or her age

■ Behavioral warning signs

- Does not pay attention or stay focused on an activity for as long a time as other children of the same age
- Focuses on unusual objects for long periods of time; enjoys this activity more than interacting with others
- Avoids or rarely makes eye contact with others
- Shows aggressive and acting-out behaviors and appears to be very stubborn compared with other children
- Stares into space, rocks body, or has repetitive-type movements and behaviors

- **Cognitive warning signs:** Does not seem to learn or retain new information like other children of the same age

How is a developmental delay identified?

Developmental delay is identified through 2 types of assessments.

1 Developmental screening

- A developmental screening is a quick and general measurement of skills. A developmental screening is not a definitive diagnostic process. Its purpose is to identify children who *may* have a developmental delay and who need further evaluation. A screening test can be in one of 2 formats—a questionnaire that is handed to parents/guardians or child care provider that asks about developmental milestones or a test that is given to the child by a health or educational professional.

- A screening test is meant only to identify children who might have a developmental delay. However, the screening test may overidentify or under-identify children with developmental delay. As a result, a diagnosis cannot be made simply by using a screening test. If the results of a screening test suggest that a child may have a developmental delay, the child should be referred for a developmental evaluation.

- 2 **Developmental evaluation:** A developmental evaluation is a longer, more in-depth assessment of a child's skills and should be administered by a highly trained professional, such as a psychologist, although part of the evaluation may be done by other professionals, such as a speech-language therapist for language skills and an occupational therapist for fine-motor skills. Evaluation tests are used to create a profile of a child's strengths and weaknesses in all developmental areas. The results of a developmental evaluation are used to determine whether the child needs early intervention services or a treatment plan (or both).

Who might be on the treatment team?

Children with suspected developmental delay can be evaluated by health professionals in an early intervention program or a local Part C program (see Chapter 2). They may see their pediatrician/primary care provider in the medical home, a psychologist, a developmental-behavioral pediatrician, or a behavioral specialist. In addition, several clinical specialists who are specifically trained in various areas of development can be consulted. These include speech-language therapists, occupational and physical therapists, developmental psychologists, and audiologists.

What are some elements of a Care Plan for children with developmental delay?

The Care Plan will vary depending on what developmental domain is delayed.

- A physical therapist, an occupational therapist, or a speech-language therapist; a behavioral consultant; or a special education teacher may work with a classroom teacher to identify opportunities for skill promotion.
- The child may receive intensive physical or speech-language therapy and may be absent from the classroom for short intervals of time, if therapy is done during the normal hours of an early education and care program or school.

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What adaptations may be needed?

Physical Environment and Other Considerations

- The classroom and playground settings may be examined to identify potential “danger zones” for children with gross-motor skill disabilities or limitations related to poor fine-motor skills, such as handling tableware at mealtime.
- Help encourage development in child care and school.
 - Give all children lots of love and attention. Holding, hugging, and listening are important ways to show children that they matter.
 - Interact with children by talking, singing, playing, eating, and reading with them. You will learn a lot about their strengths and ways to involve them in working on their weaknesses while using their strengths. Involve children in tasks that they enjoy.
 - Read! Research shows that children who are read to have a larger vocabulary than other children. Reading also promotes positive interactions between adults and children.
 - Use some simple approaches to help the child learn how to behave. These include providing consistent structure and consistent rules. Consistently reward wanted behaviors, and ignore or give logical consequences for unwanted behaviors.

What are some resources?

- American Academy of Pediatrics HealthyChildren.org: “Assessing Developmental Delays” (Web page), www.healthychildren.org/English/ages-stages/toddler/Pages/Assessing-Developmental-Delays.aspx
- Center for Parent Information and Resources: “Developmental Delay” (Web page), <http://parentcenterhub.org/dd>
- Center on the Social and Emotional Foundations for Early Learning: “Resources: Practical Strategies for Teachers/Caregivers” (Web page), <http://csefel.vanderbilt.edu/resources/strategies.html>
- Centers for Disease Control and Prevention: “Developmental Disabilities: Facts About Developmental Disabilities” (Web page), www.cdc.gov/ncbddd/developmentaldisabilities/facts.html

