

INTRODUCTION TO DEVELOPMENTAL DELAY

Introduction and Definition

As a child grows and develops, he learns different skills, such as taking a first step, smiling for the first time, or waving goodbye. These skills are known developmental milestones. A child with a *developmental delay* does not reach these milestones at the same time as other children the same age. There are five main groups of skills that make up the developmental milestones. A child may have a developmental delay in one or more of these areas.

- **Gross motor:** using large groups of muscles to sit, stand, walk, run, etc., keeping balance, and changing positions.
- **Fine motor:** using hands and fingers to be able to eat, draw, dress, play, write, and do many other things.
- **Language:** speaking, using body language and gestures, communicating, and understanding what others say.
- **Cognitive:** Thinking skills including learning, understanding, problem-solving, reasoning, and remembering.
- **Social:** Interacting with others, having relationships with family, friends, and teachers, cooperating, and responding to the feelings of others.

Usually, there is an age range of several months where a child is expected to learn these new skills. Some skills need to be developed before new skills can be learned. For instance, children must learn to crawl before they can walk. If the normal age range for walking is 9 to 15 months, and a child still isn't walking by 20 months, this would be considered a developmental delay. Growth in each area of development is related to growth in the other areas. So if there is a difficulty in speech and language, it is likely to influence development in other areas such as social or cognitive development.

It is important to identify developmental delays early so that treatment can minimize the effects of the problem.

WHO DOES DEVELOPMENTAL DELAY AFFECT?

In the United States, 17% of children – or 1 in 6 -- have a developmental or behavioral disability such as autism, intellectual disability, attention-deficit/hyperactivity disorder (ADHD). These are just some of the conditions that can result in developmental delays. In addition, many children have delays in language or other areas, which also impact school readiness. However, less than 50% of these children are identified as having a problem before starting school, by which time significant delays may have already occurred and opportunities for treatment have been missed.

WHAT CAUSES DEVELOPMENTAL DELAY?

Etiology/Pathogenesis/Risk Factors

Developmental delay can have many different causes, such as genetic causes (like Down syndrome), or complications of pregnancy and birth (like prematurity or infections). Often, however, the specific cause is unknown. Some causes can be easily reversed if caught early enough, such as hearing loss from chronic ear infections.

CAN DEVELOPMENTAL DELAY BE PREVENTED?

Since there are so many different conditions that can lead to developmental delays, there isn't one "right way" to prevent developmental delay. What's important is to be aware of your baby's development and consult your pediatrician if you think there may be a problem. Early intervention is key in helping your child overcome any developmental delays.

WHAT PUTS A CHILD AT RISK FOR DEVELOPMENTAL DELAY?

The risk factors for developmental delays fall into two very broad categories:

- Genetic
 - Genetic or chromosomal abnormalities such as Down syndrome or Fragile X syndrome and other disorders put a child at risk for developmental delays.

- Environmental
 - Exposure to harmful agents before or after birth, such as lead
 - Infections
 - Prematurity
 - Severe poverty
 - Poor nutrition
 - Lack of care

Risk factors have a cumulative impact upon development. As the number of risk factors increases, a child is put at greater risk for developmental delay.

HOW IS DEVELOPMENTAL DELAY DIAGNOSED?

Developmental delay can be difficult to diagnose. There are two types of tests that can be done, developmental screening and developmental evaluation.

Doctors and nurses use *developmental screening* to tell if children are learning basic skills when they should, or if they might have problems. Your child's doctor may ask you questions or talk and play with your child during an exam to see how he or she learns, speaks, behaves, and moves. Since there is no lab or blood test to tell if your child may

have a delay, the developmental screening will help tell if your child needs to see a specialist.

A diagnosis cannot be made simply by using a screening test. If the results of a screening test suggest a child may have a developmental delay, the child should be referred for a developmental evaluation.

A developmental evaluation is a long, in-depth assessment of a child's skills and should be administered by a highly trained professional, such as a psychologist. The results of a developmental evaluation are used to determine if the child is in need of early intervention services and/or a treatment plan.

There are a variety of screening and evaluation tools for professionals to use.

TREATMENT

There is no one treatment that works for every child with a developmental delay. In many cases, the delay can be overcome with the right combination of treatment therapies. Children are unique; they learn and grow and develop in their own way, at their own pace, based on their strengths and weaknesses. Any treatment plan will take this uniqueness into account and be designed to focus on individual needs. Early intervention services are the main theme of treatment, but any underlying conditions that have led to developmental delay will need to be treated as well. Early intervention services may include:

- Speech and language therapy
- Occupational therapy
- Physical therapy
- Sensory integration

In addition, if there are other disabilities present, medical or surgical treatments may be required to manage those conditions.

WHAT HAPPENS OVER TIME TO CHILDREN WITH DEVELOPMENTAL DELAY? WILL THERE BE IMPROVEMENT? DOES IT GET WORSE?

Many developmental delays can be treated early so that by the time a child is in school, he or she has caught up to his or her peers. However, since many delays are not diagnosed until a child is in school, this creates a greater impact on the child since the window for early intervention has been lost. Once a child is diagnosed and a proper treatment plan is in place, many children are still able to overcome the impact of their developmental delays.

Sometimes problems do persist into adulthood, especially if the child has a life-long disability such as Down syndrome. In that case, many times the milestones can be adapted to reflect what should be happening at different stages with a particular individual.

Generally, children who are developmentally delayed can lead independent, productive and full lives as adults.

WHAT QUESTIONS SHOULD I ASK?

How do I know if this is something my child will grow out of?

How does the doctor know if this is a developmental delay?

Where can I contact early intervention services?

Is this developmental delay going to improve with time, get worse or stay the same?

What can I do at home to help my child improve?

WHAT RESOURCES ARE AVAILABLE TO PATIENTS AND FAMILIES?

American Academy of Pediatrics

www.aap.org

Developmental Delay Resources (DDR)

<http://www.devdelay.org/>

First Signs

<http://www.firstsigns.org>

National Center on Birth Defects and Developmental Disabilities

Learn the Signs. Act Early (with checklists for Developmental Milestones)

<http://www.cdc.gov/ncbddd/autism/ActEarly/default.htm>

National Center of Medical Home Initiatives for Children with Special Needs

<http://www.medicalhomeinfo.org/>

Zero to Three

<http://www.zerotothree.org>

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