



EVALUATING AND DIAGNOSING THE CHILD WITH CEREBRAL PALSY

Cerebral palsy (CP) is a common childhood neurological disorder. It is a disorder of movement and posture. Most children with CP develop symptoms as infants or toddlers. This condition appears early in life because of an abnormality in the developing brain. This brain abnormality may occur at any time between pregnancy and early childhood.

CP is a brain disorder that will not worsen as time passes. In fact, most children with CP improve as they become older. With modern technology it is often possible to tell parents of a child with CP why the child has this condition.

CP can become a concern when the child's motor-skill progress does not match up to other children their age. Motor-skills include abilities such as:

- Getting to a sitting position and sitting up without support
- Picking up small objects using his or her fingers
- Pulling up into a standing position
- Walking

If your doctor suspects your child may have CP, he or she may want to perform a few tests. These tests help diagnose CP and can find out reasons for your child's problem. These tests may also determine what other health issues your child may cope with in the future.

America's physicians specializing in diseases of the nervous system, who make up the American Academy of Neurology and the Child Neurology Society, think you should know about and understand the medical tests your child may face. A group of doctors studied current research to determine the best types of tests for a child with possible CP. In addition, they looked at other common health issues in children with CP. Information in this tool comes from the best scientific evidence available.

You may have questions about CP such as:

- How will the doctor diagnose my child?
- How will this disorder affect my child?

How will the doctor diagnose my child?

First, the doctor will take a medical history. He or she will want to be sure that the child does not have another medical condition. In addition, the doctor will perform a neurological examination. These two examinations will determine the child's level of motor-skills. The doctor may need to do several exams to make the diagnosis of CP.

After the doctor has gathered these pieces of information, he or she may order further medical tests. The tests ordered might include:

Neuroimaging (CT and MRI)

Neuroimaging tests provide pictures of the brain and spinal cord and may show an area of damage or abnormal development.

- *Magnetic resonance imaging test (MRI)* takes detailed pictures of tissues without using X-rays. The people who studied the data learned that MRI is better at finding out causes for CP than CT scanning.
- *Computed tomography (CT) scan* takes a picture of the brain that is more detailed than a normal X-ray, but less detailed than a MRI. On the other hand, it may show certain conditions better, it is faster, and CT is easier to do than MRI.
- *Genetic and metabolic tests*
In some cases, MRI tests or CT scans do not find the reason for CP. Your doctor may then order additional tests to see if your child's CP is due to genetic or inherited causes. However, your doctor might not need to order these tests in order to evaluate a child with CP.

- *Genetic testing* is a blood test that can provide information about the inherited problems, genetic defects, and any nervous system abnormalities your child may have.
- *Metabolic tests* are urine and blood tests that can spot important inherited disorders. Sometimes if these disorders go unnoticed, they can lead to serious health problems.
- *Coagulation tests*
For some children, CP is caused by a stroke. Your doctor may consider performing coagulation tests if your child has this type of CP.

How will this disorder affect my child?

Children with CP may have related conditions such as mental retardation, seizures, vision and hearing impairment, and speech and language deficits. Because of the motor difficulties from CP, these conditions may go unnoticed. Screening for these conditions should be part of the medical exam.

Your doctor may continue to monitor your child's nutrition, growth, and ability to swallow.

Talk to a doctor or a child neurologist

Together you and your child's doctor can choose the tests that work best for you and your child, based on the information you want and need. A child neurologist can provide more information and resources to help patients and caregivers make the best choices.

This is an evidence-based educational service of the American Academy of Neurology. It is designed to provide members with evidence-based guideline recommendations to assist with decision-making in patient care. It is based on an assessment of current scientific and clinical information, and is not intended to exclude any reasonable alternative methodologies. The AAN recognizes that specific patient care decisions are the prerogative of the patient and the physician caring for the patient, based on the circumstances involved. Physicians are encouraged to carefully review the full AAN guidelines so they understand all recommendations associated with care of these patients.



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