

# Cerebral Palsy

## What is cerebral palsy?

Cerebral palsy (CP) is a term used to describe a group of disorders that cause problems with using your muscles and moving your body. Someone with cerebral palsy may also have seizures, learning problems, mental retardation, or problems with hearing, seeing, or the sense of touch.

## How does it occur?

Damage to the brain before or after birth can affect the parts of the brain that control movement and posture. Most often the brain damage happens before birth. Sometimes it happens during delivery or after birth. Some possible causes of the brain damage are:

- an infection during pregnancy, such as rubella (German measles)
- abnormal development of the brain before birth because of changes (mutations) in the genes) that control brain development
- Rh incompatibility (a problem with different blood types in the mother and baby)
- severe jaundice
- bleeding in the brain
- premature birth
- a lack of oxygen at some time during pregnancy or delivery
- a brain infection, severe convulsions, or a bad head injury.

Often the cause of CP is hard to figure out and may never be known. In the past, if healthcare providers could not find another cause, they concluded that babies born with cerebral palsy had it because problems during labor caused them to not get enough oxygen during birth. However, research has shown that not many babies who experience asphyxia (a lack of oxygen) during birth grow up to have cerebral palsy. Only 5 to 10% of the babies born with cerebral palsy had problems during birth, such as asphyxia.

## What are the symptoms?

CP appears in the first few years of life. CP can be mild, moderate, or severe. The symptoms differ from person to person and may change over time. Some symptoms of CP are:

- stiff muscles that are hard to move
- trouble with fine motor tasks, such as writing or cutting with scissors
- trouble walking normally
- unusual posture
- poor balance or coordination
- shaking of one or more arms and legs that cannot be controlled
- writhing movements
- grimacing or drooling
- trouble with speech
- trouble controlling the bladder and bowels.

Trouble controlling body movements is sometimes called spasticity.

## How is it diagnosed?

There is no specific test for CP. The diagnosis is often made by ruling out other possible medical problems. Cerebral palsy is usually diagnosed during the first 2 years of life from the medical history, symptoms, a physical exam, and observation of the child's motor skills. If a child's symptoms are mild, it can be hard for a doctor to make a reliable diagnosis before the age of 4 or 5. It is especially difficult to tell if a child has CP during the first 6 months of life. But the sooner treatment starts, the better. To look for a cause, scans of the brain may be done, such as:

- computed tomography (CT scan), which uses X-rays and a computer to create a picture of the brain
- magnetic resonance imaging (MRI), which uses a magnetic field and radio waves to produce a picture of the brain
- ultrasound, which uses sound waves to show structures of the brain.

## How is it treated?

Early and ongoing treatment can lessen the effects of CP. Treatment may include therapy, counseling, medicine, equipment aids, and educational programs. Physical therapy, speech therapy, and occupational therapy are very important parts of treatment. A very important part of treatment is therapy for movement, speech, and practical tasks. This may include physical therapy, speech therapy, and occupational therapy. Physical therapy is used for muscle training and exercising. It helps prevent weakening of the muscles from lack of use. It also helps avoid a common and serious problem called contracture. Contracture means the muscles, ligaments, and tendons become fixed in a rigid, abnormal position. Contracture can cause problems with balance and a loss of previous abilities. Contractures can become permanent without timely physical therapy, causing a permanent loss of function, for example, a loss of arm movement or finger movement. Braces can also help, for example, by supporting joints when the muscles aren't strong enough. Speech therapy helps improve speaking and other activities that use the mouth, such as eating, chewing, and swallowing. Special techniques and devices such as computers can help communication with others. Occupational therapy can allow someone with CP to be more self-sufficient and independent. Counseling is helpful for family members, caretakers, and the person with CP. It can be especially helpful for recognizing stress, frustration, depression and other emotions. It is also helpful for learning methods to cope with the emotional stress. Medicine Your healthcare provider may prescribe medicines to treat abnormal muscle movement and help control seizures. Seizures can be dangerous depending on where they occur (for example, in a swimming pool) and untreated prolonged seizures may cause more brain damage. Equipment aids Eye surgery or glasses may help with crossed eyes and vision problems. A hearing aid often helps hearing problems. Often people with CP need help with movement and transportation. This depends on how severe the motor problems are. For example, they may need walkers, wheelchairs, or gadgets that help them get into or stay in certain positions (positioning aids). There are special tools that help people with CP feed themselves. Surgery Sometimes surgery is done to lengthen muscles and tendons. Educational programs If a child is 3 years old or younger, ask your provider about early intervention programs (EIPs). Many states offer EIPs for young children with CP. Some states also offer special education classes for children between the ages of 3 and 5 years who have special needs. For older children ask about special education classes and Individual Education Plans (IEPs). Find out about any special services that may be available to you. Local schools may provide physical, occupational, or speech therapy. It can be helpful for children who have CP to spend time with children who do not have CP as well as children who have CP.

## How long will the effects last?

Cerebral palsy cannot be cured, but usually does not get worse over time. Treatment can help teach skills that will improve everyday life and maximize independence.

## **How can caregivers care for or support someone with cerebral palsy?**

Be sure all medicine prescribed by the healthcare provider is taken. Do what you can to help the person with CP overcome any barriers to learning and having a full life. You can do this by working with a support team of healthcare providers, therapists, social workers, and others. Find out about groups that can provide more information and help.

## **What can be done to help prevent cerebral palsy?**

Some causes of cerebral palsy may be avoided by:

- Preventing head injuries. Use car safety seats when a child is riding in a car and helmets during bicycle rides.
- Treating jaundice in a newborn.
- Preventing Rh incompatibility. Rh-negative women should be given RhoGAM right after every delivery, miscarriage, or induced termination of pregnancy (abortion). Pregnant Rh-negative women should receive RhoGAM after amniocentesis, after any bleeding episodes, and during the seventh month of pregnancy. Check with your healthcare provider about other precautions to take before or during pregnancy.

## **Where can I get more information?**

Some resources are: BRAIN National Institute of Neurological Disorders and Stroke Phone: (800) 352-9424 Web site: <http://www.ninds.nih.gov>. United Cerebral Palsy (UCP) Phone: (800) 872-5827 Web site: <http://www.ucp.org>. You can also check with your healthcare provider, hospital, and local agencies for the handicapped for more information. © Published by RelayHealth.

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