

Cerebral Palsy (CP)

Cerebral palsy is a group of disorders that affects muscle tone, coordination, and movement. It happens when signals from the brain don't get to the muscles correctly. This can make learning how to move more difficult. There are many types and severities of CP. Some children have only mild symptoms while others have more significant symptoms.

Causes

CP is caused by changes in the brain while it is developing. Most often happens due to a brain injury from lack of oxygen (hypoxic-ischemic encephalopathy), infection, stroke, bleeding, or trauma. CP may also be passed down in a family (genetic) and affects how the brain develops or functions. Sometimes the cause is not known.

Types of CP

CP can be described by which parts of the body are affected and how the body moves. In **bilateral CP**, both sides of the body are affected. In **unilateral CP**, either the left or right side is affected.

Bilateral CP



Quadriplegia



Triplegia



Diplegia

Unilateral CP



Hemiplegia



Muscle tone – how stiff or loose a muscle is. Ways to describe muscle tone and movements include:

- **Spasticity** – arms or legs may feel tight or stiff (high muscle tone).
- **Hypotonia** – trunk or limbs may seem floppy (low muscle tone).
- **Dystonia/athetosis** – involuntary, twisting body movements.

Most children with CP have symptoms that overlap. For example, a child with spastic CP may have high muscle tone in the arms and legs but low muscle tone in the neck. Symptoms and severity vary. Symptoms can also change over time.

Diagnosis

Delayed motor milestones may be the first sign of CP. The diagnosis is made based on your child's medical history and a physical exam. They may also need a magnetic resonance image (MRI) study to look at their brain or genetic testing. Their doctor or health care provider may diagnose CP or refer you to a specialist.

The diagnosis is based on changes in muscle tone and movement. However, children with CP can also have problems with seizures, behavior, learning difficulties, hearing, vision, speech, communication, feeding, sleep, bones, and joints.

Treatment

Treatment is based on your child's individual needs. There is no cure for CP, but there are therapies and equipment to help your child grow and develop. Their health care team will guide you in the best treatment for them.

- **Therapy** – Physical, occupational, and speech therapy are often recommended to help your child achieve new developmental skills.
- **Home exercises and stretching** – Stretching helps muscles relax and move.
- **Equipment**
 - **Braces** support and position a joint. They help keep joints aligned to prevent injury.
 - **Standers, gait trainers, and walkers** help with weight bearing and walking.
 - **Wheelchairs** make getting around easier.
- **Medicine** – Most medicines treat high tone. Examples include baclofen, diazepam, and botulinum toxin.
- **Surgery** – Can help with joint or spine problems and spasticity.

Many people will help take care of your child based on their needs. This may include a care coordinator, nurses, nutritionists, occupational and physical therapists, orthopedic surgeons, pediatricians, psychiatrists, social workers, and speech language therapists.