

# What is cerebral palsy (CP)?

Cerebral palsy (CP) is a condition that affects muscle tone, movement and coordination. CP affects about 3 out of every 1,000 babies.

- Cerebral refers to the brain.
- Palsy refers to muscle weakness.

There are 4 types of CP:

- Spastic causes tight, stiff muscles and movement problems.
- **Dyskinetic** (includes athetoid, choreoathetoid and dystonic CP) causes involuntary (unable to control) muscle movement.
- Ataxic affects balance and coordination
- Mixed includes a mix of symptoms from the other 3 types of CP.

#### CP:

- Is chronic (does not go away).
- Is not contagious (cannot spread to others).
- Cannot be cured.

# What causes CP?

CP is caused by a problem when the brain is growing. The exact cause is not known for some children. It may happen in the womb (before birth), after birth or during the first 2 years of life when the brain:

- Does not grow as it should.
- Gets damaged (also known as a brain injury).

Causes of brain injury may include:

- Bleeding in the brain.
- Infections in the brain (from a bacteria or virus).
- Not enough blood flow (from stroke or poor oxygen supply).
- Traumatic brain injury (TBI) or sudden harm to the head from an accident or fall.
- Genetic conditions.

The brain damage associated with CP does not get worse. Problems with muscles, movement and coordination may get worse over time.

## What are the possible symptoms?

Problems with:	Your child may have one or more of these:
Muscles	<ul> <li>Too much tone or too stiff (hypertonia)</li> <li>Too little tone or too floppy (hypotonia)</li> <li>Exaggerated reflexes (hyperreflexia)</li> </ul>
Movement	<ul> <li>Tremors or other involuntary movements</li> <li>Slow, writhing (twisting) movements, often in the hands and arms</li> <li>Problems with: <ul> <li>Pushing up on the arms, crawling or sitting up</li> <li>Using 1 side of the body</li> <li>Holding head up by 3 to 4 months old</li> </ul> </li> </ul>
Coordination	<ul> <li>Drooling</li> <li>Problems with: <ul> <li>Balance</li> <li>Walking</li> <li>Swallowing</li> <li>Sucking or eating</li> <li>Speaking</li> <li>Making small movements, such as picking up a crayon</li> </ul> </li> </ul>

# What other health problems could my child have?

Children with CP could have other health problems. They may include:

- Seeing, hearing or speaking problems
- Convulsions or seizures
- Learning problems
- Behavior problems
- Trouble eating or drinking
- Bladder or bowel control problems
- Abnormal bone growth

- Poor growth over time
- Anxiety or ADHD
- Gastrointestinal (GI) problems like constipation
- Drooling
- Breathing fluids or food into the lungs (aspiration)
- Bedwetting
- Contractures (joints stuck in a position)

Talk with your doctor for more details about your child.

# What tests could my child have?

Your child will need a physical exam. The doctor will ask about birth history. Developmental pediatricians, neurologists and physiatrists may also assess your child.

Your child may have 1 or more of these tests:

- Magnetic resonance imaging (MRI)
- Computed tomography (CT) scan
- Cranial ultrasound
- Blood tests

## What is the treatment?

Your child may need a mix of treatments to help with their symptoms. Some treatments include:

- Medicines to decrease muscle stiffness.
- Physical, occupational or speech therapy (PT, OT or ST).
- Orthotics (splints or braces).
- Evaluation by other specialists in orthopedics, neurosurgery or ophthalmology.
- Surgery.

Surgery may help decrease your child's muscle stiffness and improve their functioning. Some treatments include:

- **Muscle or tendon lengthening:** Your child's doctor lengthens the large muscles or tendons in the back of the leg hip or in the arm or hand.
- Selective dorsal rhizotomy (SDR): Your child's doctor cuts some nerve roots where they leave the spine. This helps stop the nerves from forcing the muscles to be rigid or tight.
- **Intrathecal baclofen:** Your child's doctor puts a pump and catheter into your child's body. The pump sends medicine called baclofen to their spine. The medicine can help decrease spasticity.
- **Botulinum toxin (botox) or phenol treatment:** Your child's doctor injects botox or phenol into the muscles. Botox is a type of protein, and phenol is an anesthetic. These can help decrease muscle tone and loosen large muscle groups.
- **Bone, joint and spine surgery:** Your child's doctor adjusts the bones, joints or spine to improve how those parts of the body move or function.

Talk with the doctor about what treatments are best for your child.

### Does my child need follow-up care?

Yes. Children's works with expert doctors in the care of children with CP. All members of our team see patients with CP in their practices.

To schedule a visit in the Cerebral Palsy Clinic, call 404-785-5437. Locations include:

- Center for Advanced Pediatrics
- Hughes Spalding Hospital
- Northside Professional Center

There are other resources in Atlanta that provide services for patients with CP.

Please talk with your child's primary care doctor to help choose the best location to receive follow-up care.

Some physicians and affiliated healthcare professionals on the Children's Healthcare of Atlanta team are independent providers and are not our employees.

This teaching sheet contains general information only. Talk with your child's doctor or a member of your child's healthcare team about specific care of your child.