

# CEREBRAL PALSY

## What is it?

Cerebral Palsy (CP) is a non-progressive neurological condition caused by brain injury or abnormal brain growth. The brain injury occurs before or during a child's birth or during the first 3 years of life. It is one of the most common causes of lasting disability in children. CP affects the cells responsible for muscle tone, strength and coordination. Motor disorders are often accompanied by disturbances of sensation, perception, cognition, communication, behavior, and epilepsy. Medical issues that put a child at risk for CP include premature birth, low birth weight, hypoxic event at birth, head injury, bacterial infection and RH incompatibility. However, often times a cause remains unknown.

## What are common effects?

Parents of children with CP are often the first ones to notice the symptoms. Many are not readily seen at birth and will develop within the first 3 to 5 years as the child grows and develops. The symptoms, and intellectual impairment, can widely vary and range from mild to severe.

- Problems with suck and swallow at birth
- Shriill cry
- Unusual body positioning
- Developmental delay
- Vision problems
- Poor facial muscle tone
- Hearing problems related to infections
- Poor facial muscle tone
- Inadequate nutrition related to caloric needs
- Respiratory infection related to aspiration
- Dehydration related to poor swallowing
- Orthopedic problems
- Seizure disorder

## What are the types?

Cerebral palsy can be described by the way it affects people's movement, the part of the body affected and by how severe the affects are. Two common terms used to described CP effects on muscle tone include **hypotonia** (low muscle tone) and **hypertonia** (high muscle tone). Depending on which areas of the brain are affected, one or more movement disorders can occur including **spasticity** (stiff muscles), **dyskinesia** (uncontrollable movements), and/or **ataxia** (poor balance and coordination).

<b>Spastic CP</b>	Most common form, describes tightness or stiffness of muscles, exaggerated or jerky movement, contractures, abnormal gait
<b>Dyskinetic CP</b>	"Non-spastic CP"; involuntary muscle movement in face, torso and limbs; movements are unpredictable movement and can be slow and writhing or rapid and jerky. Present even at rest; often have very weak muscles and can feel floppy when transferred or carried; posture and feeding problems
<b>Ataxic CP</b>	Least common form of CP; issues with voluntary movement; problems with balance and coordination; describes shaky movements or tremors; difficulty speaking
<b>Mixed CP</b>	Symptoms of more than one type of CP; most common type of mixed CP is spastic-dyskinetic CP.



Kennedy Krieger Institute

The **Specialized Health Needs Interagency Collaboration (SHNIC)** program is a collaborative partnership between the Kennedy Krieger Institute and the Maryland State Department of Education.

## Suggested school accommodations

Not every child with CP will have cognitive impairment; sometimes only physical functioning is affected. However about half of those diagnosed with CP will have some degree of cognitive impairment and the brain injury that caused CP is likely the cause. The extent and the nature of the impairment are dependent on the location and severity of the brain injury. Early intervention is key. Supporting students with this condition in the school require educators and parents/guardian to work as a team. Some accommodations to consider for a 504/IEP could include:

- PT/OT/SLP evaluation
- Identify muscle stiffness, muscle tightness
- Monitor poor motor skills
- Monitor visual, hearing, speech impairment
- Use of assistive technology
- Offer clear, concision direction
- Allow time for response
- Allow time for classroom activity transitions
- Consider class locations and distance
- Adaptive PE
- Allow extra time for organization and activities
- Provide support during transitions
- Monitor for anxiety, depression, fatigue
- Teach and involve peers in communication
- Provide a note taker
- Provide copy/outline of notes
- Staff education/training as appropriate
- Transportation accommodations
- Emergency Evacuation Plan (EEP)

## Specific health issues for Individualized Healthcare Plan

- Diagnosis and complete history including type of CP, noting characteristics and affected body parts
- Documentation of associated medical problems including seizures, feeding issues, bowel/bladder, etc.
- Current surgical history
- Note hidden medical devices (ie. baclofen pump)
- Nutrition orders, use of feeding tube and/or tube replacement policy
- Feeding protocol including supervision, safety, positioning
- Calorie count, supplements and snacks if required
- Orders and documentation for fluid intake goal
- Orders for ambulation, orthotics, or adaptive equipment
- Baseline skin assessment and monitoring for breakdown related to positioning and/or orthotics
- Communicate with school staff, parents/guardian, and provider any changes or concerns about the disease
- Emergency Care Plan (ECP) including seizures, medical devices

### Resources & Manuals

**Kennedy Krieger Institute: Phelps Center for Cerebral Palsy and Neurodevelopmental Medicine**

<https://www.kennedykrieger.org/patient-care/centers-and-programs/cerebral-palsy-and-neurodevelopmental-medicine>

**Cerebral Palsy Foundation**

<https://www.yourcpf.org/>

**American Academy for Cerebral Palsy and Developmental Medicine**

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

**CP Alliance– Early School Years Fact Pack, A Guide for School Staff**

[https://worldcpday.org/wp-content/uploads/2015/10/early\\_school\\_years\\_fact\\_pack.pdf](https://worldcpday.org/wp-content/uploads/2015/10/early_school_years_fact_pack.pdf)