



What is
Cerebral
Palsy

What is CP?

Cerebral Palsy or (CP) refers to a group of disorders that occur in infancy, affecting a person's muscular and nervous systems. CP is not a disease or illness, but rather a broad term that describes a group of non- progressive brain disturbances that impair the developing brain's ability to control some muscles, especially those affecting movement and posture.

What do the words “Cerebral Palsy” mean?

“Cerebral” refers to the brain, and “palsy” to any disorder that impairs control of body movement.

There are many types and causes of CP, some of them overlapping, and many degrees of impairment.

What causes CP?

CP can develop when an infant's developing brain is injured either before or during birth or in the early months of life when the brain is still being formed. It occurs in about one in 400 births worldwide.

Many contributing factors, or a series of factors, may interact to cause brain damage leading to CP.

Some of these factors include:

- Abnormal fetal development which can affect the birth process.
- Mother's exposure to harmful substances like drugs or alcohol or to infections such as German Measles during pregnancy.
- Injury to the developing brain
- Infections such as meningitis or encephalitis that affect the central nervous system.
- Low birth weight due to premature birth and multiple births.
- Brain hemorrhage in very premature infants
- Interrupted oxygen flow to the brain during a difficult birth or up to three years after birth due to trauma to the head, poisoning or accidents like near drowning.

CP is caused by physical damage to the brain, so it is not contagious and very rarely hereditary. But as with most brain damage, it is a permanent condition for which there is no "cure". There are however, many therapies, treatments and evolving technologies, adaptive equipment and even surgery that can help children manage CP's effects and thus maximize their abilities. Visit our website at www.ofcp.ca for some real life examples.

CP can range from very mild, such as a slight weakness on one side of the body, to more severe limitations such as the inability to speak or use one's arms or legs, requiring personal care attendants to help with daily living.

Each area of the brain controls specific functions that can be disrupted by injury. Depending on which areas of the brain have been affected, and how severely, persons with CP may have one or more of the following challenges:

- Muscle tightness, stiffness or spasm
- Difficulty chewing and swallowing
- Hearing, visual or speech impairment
- Problems with social skills and language development
- Learning and/or intellectual disabilities
- Sensory and perception problems (such as inability to determine distance)
- Jerky, awkward and involuntary movement
- Unsteady gait and tremors
- Seizures/epilepsy/autism
- Behavioural disturbances
- Musculoskeletal problems secondary to muscle imbalances

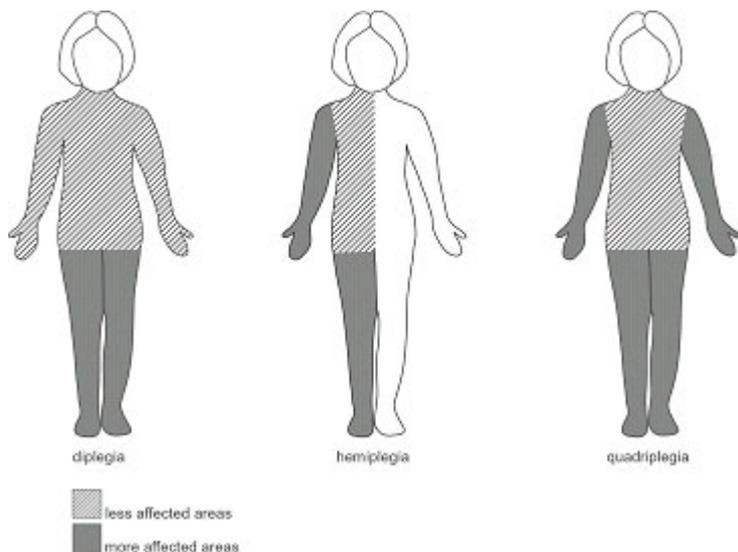
Each child will have their own unique symptoms and problems.

With proper treatment and therapy, many children with CP – including some with very severe CP – go on to obtain a good education, enjoy satisfying careers and have a healthy, meaningful social and family life.

Types of CP:

There are three main types of CP:

- 1) **Spastic** (stiff or tight muscles, jerky movement)
- 2) **Dyskinetic** (involuntary and uncontrolled movement)
- 3) **Ataxic** (disturbed sense of balance and depth perception)



These terms are labels that define a pattern of physical difficulties only. They do not define the person. Each person will be affected differently depending on the type and extent of CP they have.

1) Spastic CP

- Causes muscles to become tight and stiff, especially when a lot of effort is being used, making movement jerky, awkward and difficult or sometimes impossible to perform.
- Is caused by damage to the parts of the brain that affect control of movement. This “muddles” the messages from the brain to the muscles “confusing” their efforts to do what they want and need to do.
- Is the most common type of CP (70%-80% of all cases)

Spastic CP can affect different parts of a person’s body.

- 1) Both legs are affected significantly more than the arms (Diplegia, most common in premature babies).

2)The leg and arm on one side of the body are affected (Hemiplegia, occurs in babies who have had a stroke or trauma to one side of the brain).

3)The entire body is affected including all four limbs. The muscles of the torso, face and mouth may also be affected (Quadriplegia, most common in babies who have experienced oxygen deprivation to the brain).

2) **Dyskinetic CP**

- Often results in children having very weak muscles or to feel “floppy” when carried.
- Causes the individual to make involuntary and unpredictable movements especially in the arms, hands, torso and face (involuntary grimacing, tongue thrusting and squirming) that can interfere with speaking, feeding, swallowing, reaching and grasping.
- Is caused by damage to the basal ganglia, the parts of the brain that regulate smooth coordinated movements and body posture.
- Emotional stress or the effort to do things can aggravate the involuntary movements, which often disappear during sleep.
- Occurs in 10 to 20 percent of people with CP.

3) **Ataxic CP**

- Causes the person to be very unsteady and shaky or have tremors when trying to hold a small object, making writing or eating difficult.
- Affects balance when walking, resulting in a wide, unsteady gait.

- Affects depth perception and coordination.
- Is caused by damage to the cerebellum (the part of the brain responsible for balance and the coordination of voluntary movement).
- Is the least common type of CP affecting 5 to 10 percent of children with CP.

Some people may have more than one of these types of CP because of the nature of the injuries to the brain. The most common combination is spastic (tight, stiff muscles) and dyskinesic (involuntary movements).

While individuals with CP face many challenges, great strides have been made in treatments, technical aids to promote function, and in how we view people with CP.

Medications like botulinum toxin (Botox), for instance, help in the control of muscle spasticity.

New ideas today focus on function and participation, rather than on trying to make children do things “normally”. The emphasis now includes a multidisciplinary and multidimensional approach to modifying the environment and the task rather than the child.

The approach is much more family-centred today than in the past. Health professionals now recognize that the well-being of the family has a big impact on the well-being of the child. And health professionals also now recognize that parents know their child better than anyone. They are the “experts” on their child’s condition and that must be taken into account when it comes to treating the child with CP.

Contact Us

Phone: 416.244.9686
Fax: 416.244.6543
Toll Free: 1.877.244.9686

Email: info@ofcp.ca
Website: www.ofcp.ca
Facebook: www.facebook.com/OntarioFederationforCerebralPalsy
Twitter: [@OntarioFCP](https://twitter.com/OntarioFCP)

Address: 104 - 1630 Lawrence Ave. West
Toronto, Ontario, M6L 1C5
Canada



© Copyright 2015 by
Ontario Federation for Cerebral Palsy