

Cerebral Palsy

What is it?

Cerebral Palsy (CP) is defined as a motor dysfunction resulting from a non-progressive brain lesion that occurs before, during or within the first two years of life.

While the lesion doesn't grow, its impact changes over time because it occurs in a developing and immature central nervous system (CNS). The injury to the CNS causes changes to the structure of an infant's brain.

These changes are called static encephalopathy (brain disease), because they seem to stop right after birth. The damaged brain fails to properly regulate the neuromuscular system causing deficiencies in motor functioning.

CP is one of the most common disorders present at birth. In the United States 15- 20 cases are seen in every 10, 000 births. Some of the causes of CP that happen before delivery It is most common for CP to occur before delivery due to infection, stroke, diabetes or hyperthyroidism. During delivery, CP can be caused by a lack of oxygen; just after birth, it can result from a stroke or infection.

What are the symptoms?

While the brain injuries that cause CP do not become worse, the symptoms may develop and change over time. Some symptoms include:

- Unusually weak or tight muscles – As a result of not using both sides equally
- Difficulty with balance
- Poor coordination
- Delay in developing motor skills such as sitting or walking
- In addition, about half of children with CP will develop seizures

The type and severity of abnormal muscle control are used to classify different types of CP:

Contrary to common belief, CP does not always cause a profound handicap. While a child with severe cerebral palsy might be unable to walk and need extensive, lifelong care, a child with mild cerebral palsy might only be slightly awkward and require no special assistance. Cerebral palsy is not contagious, nor is it usually inherited from one generation to the next.

How is it treated?

Cerebral palsy can not be cured, but treatment can often improve and help control a child's symptoms. Physical therapy will help improve the child's ability to move in his or her environment through strengthening and joint mobility.

Other treatment strategies include: medication to control seizures and muscle tone; special orthosis to compensate for muscle imbalance; surgery; mechanical aids assist with mobility; counseling for emotional and psychological needs; and occupational, speech, and behavioral therapy.

As the symptoms of CP vary, so do the treatment strategies. No single treatment plan will work for all patients. Physical therapists first evaluate the child in an individual assessment and then create an individual treatment plan to address specific needs.

The earlier treatment begins, the better chance a child has of overcoming developmental disabilities and of learning new ways to accomplish difficult tasks. If neurological problems are properly managed, many patients can enjoy near-normal lives.

References

Mulliken, Ruth K., John J. Buckley. Assessment of Multihandicapped and Developmentally Disabled Children. London: Aspen, 1983.