

Cerebral Palsy

What is it?

Cerebral palsy, also referred to as CP, is a term used to describe a group of chronic conditions affecting body movement and muscle coordination. It is caused by damage to one or more specific areas of the brain, usually occurring during fetal development; before, during, or shortly after birth; or during infancy. Thus, these disorders are not caused by problems in the muscles or nerves. Instead, faulty development or damage to motor areas in the brain disrupt the brain's ability to adequately control movement and posture.

"Cerebral" refers to the brain and "palsy" to muscle weakness/poor control. Cerebral palsy itself is not progressive (i.e., brain damage does not get worse); however, secondary conditions, such as muscle spasticity, can develop, which may get better over time, get worse, or remain the same. Cerebral palsy is not communicable. It is not a disease and should not be referred to as such. Although cerebral palsy is not "curable" in the accepted sense, training and therapy can help improve function.

Contrary to common belief, CP does not always cause a profound handicap. It is an "umbrella" diagnosis encompassing everything from mild movement and balance problems that are barely perceptible to the untrained eye, to severe involvement making it difficult for a child to develop something as basic as head control and everything in between. 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.

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 due to spasticity, dystonia or hypotonicity
 - Difficulty with balance.
 - Poor coordination.
 - Delay in developing motor skills such as sitting or walking.
- In addition, about 25% of children with CP will develop seizures.

The type and severity of abnormal muscle control are used to classify different types of CP using the Gross Motor Function Measure (GMFCS) which you can read about in detail here:

https://canchild.ca/system/tenon/assets/attachments/000/000/058/original/GMFCS-ER_English.pdf

How is it treated?

Cerebral palsy cannot be cured, but treatment can often improve and help control a child's symptoms. Physical, occupational and speech and language/oralmotor therapy may all be recommended depending on the type and severity of cerebral palsy. Physical and occupational therapy will help improve the child's ability to move in his or her environment through strengthening, joint mobility and facilitation of typical movement patterns. Physical therapy tends to address issues related to acquisition of gross motor skills, while occupational therapy will focus on fine motor skills. In addition, occupational therapy will also assess and provide intervention for sensorimotor issues that also may be related to cerebral palsy.

Speech and language/oralmotor therapy will provide "physical therapy" for the oral structures required to suck, swallow, chew and talk by activating and strengthening oral motor musculature. In addition, they will assess any needs for augmentative communication.

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.

As the symptoms of CP vary, so do the treatment strategies. No single treatment plan will work for all patients. Each therapist first evaluates the child within their specialty and then creates 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