

The facts about **CEREBRAL PALSY**

What is Cerebral Palsy?

Cerebral Palsy (CP) is the term used for several neurological disorders that affect muscle coordination and body movement. *Cerebral* refers to the brain and *palsy* refers to the loss of motor function. The condition is not caused by damage to the muscles or nerves, but rather it is the result of a brain injury or improper brain development. Three distinct types of CP have been defined.⁽¹⁾

- Spastic – This is the most common type, affecting about 80% of the pediatric cases. It is characterized by one or more tight muscle groups which cause jerky movements and difficulty in moving from one position to another.
- Athetoid – Children with this type of cerebral palsy have damage to the portion of the brain that orchestrates smooth, coordinated movement. They exhibit involuntary, purposeless movements which can interfere with normal activities such as feeding, speaking, reaching, etc.
- Ataxic – This type of cerebral palsy involves low muscle tone and causes the child to be unstable which affects the sense of balance. In addition, they have poor coordination and shaky movements.

It is also possible for a child to have a mixed form of cerebral palsy that combines the different types. For example, a combination of tight muscle tone (spastic) and involuntary movements (athetoid) is seen in about 10% of children with cerebral palsy.

CP is not attributed to one single cause. A number of problems or events can result in brain damage affecting motor function. Circumstances such as abnormal brain development, problems during pregnancy or birth, infection, or head injury can cause CP.

Symptoms

The classic signs of cerebral palsy will vary according to the type and severity in the child. Some common symptoms include:

- Involuntary movement
- Problems with speech
- Difficulty swallowing
- Difficulty with fine motor skills, such as buttoning
- Muscle stiffness
- Poor coordination
- Instability in balance
- Difficulty with mobility
- Bladder and bowel control problems
- Retention of the Moro reflex after 6 months⁽²⁾

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Treatment Options

Although cerebral palsy does not worsen over time, complications related to low muscle tone and joint problems can have negative effects on motor skills. Therefore, physical therapy programs target muscle training and strengthening exercises that improve muscle tone. Medications may be used to reduce tightness and spasms in the muscles. Therapists may also determine that a child would benefit from orthotic devices, such as leg braces, to improve balance and stability. In some cases, surgery may be performed to correct problems such as curvature of the spine, uneven leg growth, and other skeletal issues that can arise as a result the muscle tightness associated with CP.

Limitations in speech and motor skills can lead to frustration and contribute to behavior issues in young children with physical disabilities. Behavior management strategies and visual support tools can be used to promote communication and self control. As children get older, their dependence on parents and the potential difficulty in cultivating relationships among peers can contribute to their attitudes and conduct. Many resources are available to give parents a better understanding of the challenges their children face and provide strategies that will help their children handle feelings of frustration or disappointment.

Family members and professionals must work together to understand the child's unique strengths and weaknesses and determine the most appropriate treatment program. It is also important for parents to incorporate therapeutic techniques and strengthening activities into daily life so that treatment can continue outside of regular therapy sessions.

Next Steps

Good health care and support from family, friends and the community enable children with cerebral palsy to reach their full potential. In addition to caring for their child's physical needs, parents should also focus their efforts on promoting the child's independence and social development.

According to IDEA, children with a disability that adversely affects educational experience are eligible to receive special education services. To learn more about services available to their children, parents should contact the appropriate local agency. For children birth through two years of age, the state early intervention agency can provide more information on eligibility and services. For a child three years and older, the child's local educational system work with parents through the eligibility process.

Looking to the Future

Siskin Children's Institute is here to serve as a resource to families as they learn about their child's diagnosis. Please contact our Outreach and Research Center to learn more about Cerebral Palsy and take advantage of the resources, referrals, and training programs that we can provide to your family.

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Lending Library Resources on CP

Parent's Resources:

- Cerebral Palsy: A Complete Guide for Caregiving (Miller, Bachrach)
- Children with Cerebral Palsy: A Parent's Guide
- Handling the Young Child with Cerebral Palsy at Home (Finnie)
- Positive Perspectives for Cerebral Palsy: A Practical Guide for Physicians, Nurses, Families, and Caregivers (Taft, ed.)
- Teaching Motor Skills to Children with Cerebral Palsy and Similar Movement Disorders: A Guide for Parents and Professionals (Martin)

Children's Books:

- Ballerina Dreams: A True Story (Thompson)
- Nathan's Wish: A Story about Cerebral Palsy (Lears)
- Kids with Differences [DVD]

Helpful Websites

- American Academy of Cerebral Palsy and Developmental Medicine (www.aacpdm.org)
- Centers for Disease Control and Prevention (www.cdc.gov)
- Kennedy Krieger Institute Phelps Center for Cerebral Palsy (www.kennedykrieger.org)
- National Information Center for Children and Youth with Disabilities (www.nichcy.org)
- National Institute of Neurological disorders and Stroke (www.ninds.nih.gov)
- Reaching for the Stars (www.reachingforthestars.org)
- United Cerebral Palsy (www.ucp.org)
- Unique Community Programs for Kids (www.ucppittsburgh.org)

1. United Cerebral Palsy Organization
2. The Moro reflex is a standard reflex found in all newborns. When a newborn baby is held on its back and tilted so the legs are above its head, the baby will automatically extend its arm in a gesture that looks like an embrace.