What Is Cerebral Palsy?

Cerebral palsy describes a group of disorders that affect a person’s ability to move and maintain balance and posture. Cerebral palsy is caused by brain injury or atypical brain development that happens around the time of birth or early in life.

In some infants, symptoms are evident soon after birth. In others, diagnosis comes in later infancy or toddlerhood. Cerebral palsy is a permanent condition, meaning the injury to the brain doesn’t change, however, the effects of cerebral palsy often progress as people get older.

If your child has been diagnosed with cerebral palsy, you have time to learn how cerebral palsy will affect them. Every child who has cerebral palsy has a unique combination of strengths and challenges. No one can predict where your child will fall within this diagnosis. Having cerebral palsy doesn’t mean your child will have cognitive impairment. Only 30 to 50 percent of children who have cerebral palsy have some level of cognitive impairment, ranging from mild to severe.

Most people who have cerebral palsy live long, fulfilling and active lives. Early intervention and appropriate treatment can help your child improve their abilities and ease cerebral palsy symptoms.

Gillette Children’s Specialty Healthcare is here to help. At Gillette you’ll find a broad range of physicians and other health care professionals who work together to make sure you and your family have the support you need. Explore cerebral palsy diagnosis and treatment options.

Watch this video to understand the definition, causes and types of cerebral palsy.
https://www.youtube.com/watch?v=UMe4qvbcO6Q

How often does cerebral palsy occur?

The Centers for Disease Control and Prevention report that an average of one in 323 children in the U.S. have cerebral palsy, making it the most common motor disability in childhood. You’re not alone.

Types of Cerebral Palsy
There are three common types of cerebral palsy, depending on what part of the brain is affected:

Spastic Cerebral Palsy

Spastic cerebral palsy is often associated with injury to or developmental differences in the part of the brain called the cerebral cortex. People who have spastic cerebral palsy experience unusually tight and stiff muscles, which can affect movement and growth. Spastic cerebral palsy accounts for about 80 percent of all cases of cerebral palsy.

Spastic cerebral palsy affects different areas of the body:

- **Diplegia** affects the legs more than the arms. This type of cerebral palsy is most common in premature babies.
- **Hemiplegia** affects one side of the body. This type of cerebral palsy is most common in babies who've experienced strokes or traumatic brain injuries.
- **Quadriplegia** affects the entire body—the legs and the arms. This type of cerebral palsy is most common in babies who experience a lack of oxygen.

Dyskinetic Cerebral Palsy

Dyskinetic cerebral palsy is often associated with damage to the parts of the brain called the basal ganglia and the cerebellum. People who have dyskinetic cerebral palsy experience involuntary movements, such as tremors, or have difficulty balancing and making coordinated movements. They might also experience other types of complex movement disorders.

Mixed Presentation

Mixed cerebral palsy describes people who experience features of spastic and dyskinetic cerebral palsy. This type of cerebral palsy is associated with damage to multiple areas of the brain.

**What Causes Cerebral Palsy?**

Developing fetuses and infants up to age 1 can develop cerebral palsy if they experience brain injury or disruptions in brain development caused by:

- Bleeding in the brain before, during or after birth.
- Infections of the brain, including meningitis or encephalitis.
- Shock—a state in which organs and tissues don’t receive adequate blood flow.
- Traumatic brain injuries.
• Seizures at birth or in the first month following birth.
• Certain genetic conditions.

In some cases, health care providers are unable to determine the precise cause of a child's cerebral palsy.

Older children can develop symptoms similar to those of cerebral palsy if they sustain traumatic brain injuries, experience a lack of oxygen, or contract an infection such as meningitis. Children whose injuries occur when they are older receive a diagnosis of **brain injury** rather than cerebral palsy.

**Risk Factors**

Cerebral palsy occurs in 1.5 to more than 4 of every 1,000 infants born alive. Many factors—such as premature birth and serious illnesses—increase an infant's risk of having cerebral palsy. In some cases, infants who are born at typical weights and experience no known brain injuries can still have cerebral palsy.

**Premature Birth and Low Birth Weight**

A typical pregnancy lasts 40 weeks. Babies born before 37 weeks have a greater risk of having cerebral palsy. The risk increases the earlier a baby is born and the lower the baby's birth weight. Twins and other multiple-birth siblings are at particular risk because they tend to be born earlier and at lower birth weights.

**Serious Illness, Stroke or Infection in Baby**

Infants who experience serious illnesses, strokes or seizures around the time of birth are at greater risk of also having cerebral palsy. Such illnesses might include:

• Severe jaundice (kernicterus).
• Seizures during the 48 hours after birth.
• Infections of the brain, such as meningitis or encephalitis.
• Strokes caused by broken or clogged blood vessels or abnormal blood cells.

**Serious Illness, Stroke or Infection in Mother**

Cerebral palsy is more common in children whose mothers:

• Experience certain viral and bacterial infections and/or high fevers during pregnancy.
• Have coagulation (clotting) disorders or experience blood clots during pregnancy.
• Receive excessive exposure to harmful substances during pregnancy.
• Have thyroid problems, seizure disorders or other serious health concerns.

Pregnancy and Birth Complications

Difficulties during pregnancy and birth—including not enough nutrition through the placenta or a lack of oxygen during labor and birth—can increase the risk of cerebral palsy. Cerebral palsy also is more common when babies and mothers have incompatible blood types (the mother is Rh positive and the baby is Rh negative, or vice versa).

Genetic and Developmental Issues

Some cases of cerebral palsy are genetic. Genetic conditions can affect development of the brain or other vital organs, such as the heart. Infants who have genetic and developmental issues are more likely to develop cerebral palsy.

Related Risk Factors

Infants who are later diagnosed with cerebral palsy often:

• Show atypical results during a neurological exam in the hours or days after birth.
• Have an Apgar score of less than three (at five minutes after birth).
• Require a mechanical ventilator to breathe.
• Have abnormal MRI scans.

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