



Cerebral Palsy in Children

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Children with cerebral palsy have trouble controlling their movement. The condition is the most common disability that affects a child's motor control.

Cerebral palsy usually is caused by a brain injury or abnormal brain development before birth or early in life. Genetic causes, although less common, can also play a role.



Here is what families need to know about cerebral palsy and how to help children who have it reach their full potential (</English/news/Pages/updated-guidance-to-help-identify-and-treat-children-with-cerebral-palsy.aspx>).

How does cerebral palsy affect children?

Cerebral palsy can affect children in many ways. Some children who have cerebral palsy will learn to walk and run, but may do so a little later than other kids. Other children with cerebral palsy may need devices, such as a walker or leg braces to walk. Still others may use a wheelchair as their best way to move around. For some children, cerebral palsy makes it difficult to eat or talk, because it is hard for them to control the necessary movements.

The type of cerebral palsy a child has is related to what parts of the brain developed abnormally or were injured early in life.

While cerebral palsy affects motor control, this is different than intelligence or other brain functions. A child may be very bright even though cerebral palsy makes it hard for them to control some movements.

If your child is diagnosed with cerebral palsy, it is important to share their diagnosis with doctors, therapists and school staff. This will help your child get treatments and support to help them.

What are some signs of cerebral palsy in children?

The first clue a child might have cerebral palsy is usually motor delay (</English/MotorDelay/Pages/default.aspx>), such as learning to sit or to walk late. If a child has a known risk for cerebral palsy, special developmental check-ups are sometimes planned to watch for early concerning signs. Sometimes, a child's family or pediatrician might be the first to notice motor delay in a child. If you have any concerns about your child's development, talk to your pediatrician.

Cerebral palsy can show up in a number of ways:

- **Spasticity** is increased muscle tone. This is the abnormal tightness in a child's muscles. The tightness is there even when the muscles are resting. Spasticity can make arms stay tight and close to the body, or make legs stiff and difficult to bend.
- **Hypotonia** is low muscle tone. This may appear as floppiness in the muscles. Children with hypotonia may have trouble sitting up or holding up their head. Hypotonia is different from muscle weakness, which is also common some children with cerebral palsy.



Diplegia is trouble controlling both legs. In some cases, this may make walking difficult.

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- **Hemiplegia** is trouble moving one side of the body. Children with hemiplegic cerebral palsy may have trouble using their arm and leg on either the left or right side.
- **Dystonia** is when muscles contract in an uncontrolled way. This can cause muscle spasms, involuntary movements, or "getting stuck".

What causes cerebral palsy?

Many children diagnosed with cerebral palsy may not have any known risk factors. There are different reasons a child may develop cerebral palsy, including:

- **Premature birth.** Nearly half of people with cerebral palsy are born prematurely. This is the most common cause of cerebral palsy in the United States. However, children born at term may also develop cerebral palsy.
- **Medical problems** during pregnancy or around the time a baby is born.
- **Illnesses or injuries** as a newborn or infant, such as very severe jaundice, strokes, brain infections, and bleeding into brain structures.
- **Genetic conditions.** Recent research suggests that underlying genetic abnormalities may be related to cerebral palsy.

For children with cerebral palsy, an MRI (magnetic resonance image) may be recommended to see if a brain injury is present. Other times, genetic testing may be helpful. Your pediatrician may work with a specialist, such as a developmental pediatrician or pediatric neurologist, to help families plan for these or other tests.

How is cerebral palsy treated?

Cerebral palsy is a chronic, life-long medical problem. There is no cure that can make it go away completely, but there are ways to help a child with cerebral palsy do their best.

Physical and occupational therapy, medications, and assistive devices such as braces can help a child reach their best potential. Treatment supports the child's overall development, improves their functional ability to participate in family and community activities, and minimize complications. Talk to your pediatrician about different therapy options for your child with cerebral palsy. These may include:

- **Early intervention.** Early intervention programs can help babies who are behind in their development. A team may include behavioral specialists, physical therapists, nurses, social workers, and early childhood educators. Early intervention programs may include feeding therapy as well, however the type of provider (speech language pathologist, occupational therapist), may vary depending on location. The team teaches families strategies and gives them tips to help their baby learn new skills.
- **Physical therapy.** Physical therapists are specialists who work with children on stretching and strengthening exercises. They help a child learn new movements, such as rolling over, sitting, or walking.
- **Occupational therapy.** These specialists help children learn to do day-to-day tasks. They use a combination of exercises, modifying items the child uses every day and figuring out ways to successfully work around challenges to the child's abilities.
- **Speech therapy.** Speech therapists can help children with learning to talk and other ways to communicate.
- **Assistive devices.** Different kinds of equipment may help children with cerebral palsy. Leg braces can support their legs as they learn to walk. Arm braces can support arms or hands in a more functional position. Other types of assistive devices include communication keyboards, special wheelchairs, and chairs to help with sitting.
- **Medications & medical interventions.** These may be recommended when therapies are not enough. They may include medicines to help with general muscle spasticity, or injections to relax particular muscles. This can help a child participate in therapies. In some situations, surgery may also be recommended as part of the child's treatment plan.



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Because so many different causes may result in a diagnosis of cerebral palsy, different children may benefit from different treatments. It is important for parents to talk with their team about the benefits of different traditional and complementary treatments, their frequency, and models of care.

Keeping kids with cerebral palsy healthy

Your pediatrician and care team will also help keep your child healthy by watching out for any medical problems that sometimes go along with cerebral palsy. Ongoing care can also help prevent complications.

- **Routine preventive care.** Children with cerebral palsy should receive the same routine preventive care that all children receive, including immunizations, hearing/vision screening, etc.
- **Specific problems associated with cerebral palsy.** Every child is different. For some children with cerebral palsy, extra check-ups may be needed to look out for problems that can happen along with cerebral palsy. These may include learning problems, seizures/epilepsy, vision difficulties, hearing loss and feeding difficulties. Your pediatrician will help you make a plan for your child.
- **Minimizing joint and bone complications.** Children who do not move much, especially who spend a lot of time in the same position, may develop "contractures." This is when the joints become limited in how much they can move. Stretching can help prevent contractures. Children who do not stand or walk also are at risk of having low bone density (osteopenia) and scoliosis (too much curving of the spine). Your pediatrician and other care team members will help watch for any early problems and help with plans to avoid or treat these complications.
- **Oral hygiene.** As with any other child, dental hygiene is very important. Patients with cerebral palsy might be at higher risk of poor oral hygiene due to oral aversion. This is particularly important in patients with a feeding tube as they are at increased risk for cavities. Make sure to discuss these topics with your child's Pediatrician to ensure he/she is receiving appropriate dental care.
- **Reproductive health.** Youth with cerebral palsy, like all youth, have the right to healthy sexuality (</English/news/Pages/Addressing-Healthy-Sexuality-for-Children-and-Teens-with-Disabilities.aspx>). Children with cerebral palsy are at greater risk for early or late onset puberty, so engaging in early conversations with your pediatrician about puberty and sexuality are encouraged.

Remember

Like all children, kids with cerebral palsy live in dynamic communities and require a combination of medical, environmental and social supports to thrive. Talk to your pediatrician about your child's diagnosis and its impact on the child's function, family, fitness, fun, friends and future.

More information

- [Identifying Cerebral Palsy Early Can Help Children Thrive \(/English/news/Pages/updated-guidance-to-help-identify-and-treat-children-with-cerebral-palsy.aspx\)](/English/news/Pages/updated-guidance-to-help-identify-and-treat-children-with-cerebral-palsy.aspx)
- [What Is Cerebral Palsy? \(https://www.ninds.nih.gov/health-information/disorders/cerebral-palsy\)](https://www.ninds.nih.gov/health-information/disorders/cerebral-palsy) (National Institutes of Neurological Disorders and Stroke)

About Dr. Yang

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