

Cerebral Palsy Symptoms and Effects

Cerebral palsy affects the areas of the brain that control muscle tone, movement, balance and coordination. As a result, all people who have cerebral palsy experience some degree of difficulty making smooth, deliberate movements. Some people who have cerebral palsy have cognitive impairments, while others are only affected physically.

Watch this video to learn more about the symptoms of cerebral palsy.

Effects of Cerebral Palsy

The symptoms and effects of cerebral palsy vary, depending on the location and extent of the injury to the brain. Your child might have normal intelligence, or have learning difficulties. Your child might have mild difficulties with movement, or be unable to control their limbs. Despite the variations in symptoms, certain effects are common among people who have cerebral palsy.

Primary Physical Effects of Cerebral Palsy

Typical cerebral palsy symptoms include:

- Abnormal muscle tone (muscles with too much or too little tone).
- Muscles that pull unevenly on the joints.
- Abnormal reflexes (the persistence of primitive reflexes that people normally outgrow during infancy).
- Balance and movement problems.

Primary effects of cerebral palsy may improve with some [treatments](#).

Secondary Physical Effects of Cerebral Palsy

As your child grows and develops, the primary effects of cerebral palsy can lead to secondary effects, including:

- Inadequate muscle growth, which causes shortening of muscles and tendons (called contractures).
- Bone deformities.
- Misalignment of the joints.
- Excessive fatigue with movement and walking.
- Pain.

[Treatments](#) can often slow or correct secondary effects of cerebral palsy.

Other Physical Effects of Cerebral Palsy

The primary and secondary effects of cerebral palsy can lead your child to adopt “coping responses”—ways of moving that compensate for challenges. For example, abnormal muscle tone in the legs can result in stiff knees that make walking difficult. Your child might compensate for this challenge by swinging their legs in a circle rather than a straight line when walking.

These effects typically improve [following treatment](#) of primary and secondary effects, especially if patients undergo rehabilitation therapy as part of a treatment plan.

Possible Associated Effects

Depending on how much and where the brain is injured, a child who has cerebral palsy might experience additional health, thinking and learning challenges like:

- Breathing difficulties.
- Depression, anxiety and mental health disorders.
- Feeding and swallowing disorders (like dysphagia).
- Hearing loss and vision problems.
- Learning disabilities or cognitive impairment.
- Seizures and epilepsy.
- Sensory issues.
- [Sleep disorders.](#)
- Speech and language difficulties.

Age-Related Effects

The brain-related issues that cause cerebral palsy don't get worse over time. However, the effects of cerebral palsy often progress as people get older—especially without adequate treatment. For example, muscles that can support your 40-pound child might be too weak to support your child as a 130-pound adult. In addition, atypical muscle tone causes atypical stress on the joints, which can wear out or become painful.

That's why children who have cerebral palsy sometimes lose abilities—such as walking—when they grow older. People who have cerebral palsy might begin noticing the effects of aging in early adulthood. Cerebral palsy requires a lifetime of expert medical care. Learn about services for teens and adults at [Gillette Children's Specialty Healthcare adult clinic](#).

Life Expectancy

Most people who have cerebral palsy can live long, fulfilling and happy lives. Although cerebral palsy is a condition that doesn't progress, other health issues—known as associate conditions that aren't caused by the same brain

injury—might change over time and affect both life expectancy and quality of life. Since it is a health condition that doesn't affect every person the same way, it's difficult to predict life expectancy for a person who has cerebral palsy.

Cerebral Palsy Classification Levels

To classify how cerebral palsy affects your child's physical abilities, we most often use these scales:

1. The Gross Motor Function Classification System – Expanded & Revised (GMFCS–E&R) includes categories that describe ability to walk, run and perform other large motor skills. The higher the GMFCS level, the more difficulty your child has performing such skills.

2. The Manual Ability Classification System (MACS) includes categories that describe ability to manipulate objects with the hands. The higher the MACS level, the more difficulty your child has performing such skills.

Gross Motor Function Classification System – Expanded & Revised (GMFCS–E&R)

The GMFCS uses five classification levels to describe gross motor function of kids and teens who have cerebral palsy. The criteria for being classified within a particular level are based on functional abilities and depend on your child's age—in general, classification is determined by the primary method of mobility your child uses after age 6. These are the descriptions for ages 12 to 18:

Level I

- Walk at home, school, outdoors and in the community.
- Able to climb curbs and stairs without physical assistance or a railing.
- Can run and jump but speed, balance and coordination are limited.

Level II

- Walk in most settings but environmental factors and personal choice influence mobility choices.
- Might require a hand-held mobility device for safety at school or work and climb stairs holding onto a railing.
- Might use wheeled mobility when traveling long distances outdoors and in the community.

Level III

- Capable of walking using a hand-held mobility device.

- Might climb stairs holding onto a railing with supervision or assistance.
- Might self-propel a manual wheelchair or use powered mobility at school.
- Use powered mobility or be transported in a wheelchair outdoors and in the community.

Level IV

- Use wheeled mobility in most settings.
- Require physical assistance from one to two people for transfers
- Might walk short distances indoors with physical assistance; use wheeled mobility or a body-support walker when positioned.
- Might operate a powered chair, otherwise are transported in a manual wheelchair.

Level V

- Are transported in a manual wheelchair in all settings.
- Limited in ability to maintain antigravity head and trunk postures and control leg and arm movements.
- Self-mobility is severely limited, even with the use of orthotics, prosthetics and seating.

Visit CanChild Centre for Childhood Disability Research for more information about the GMFCS.

Manual Ability Classification System (MACS)

The MACS includes five levels that describe the ability of children (ages 4 to 18) to use their hands and handle objects.

Level I

- Handles objects easily and successfully.
- Experiences limitation in performing manual tasks requiring speed and accuracy. (These limitations don't interfere with independence in daily activities.)

Level II

- Handles most objects, but with a reduced quality and/or speed in achieving tasks and activities.
- Struggles with some activities; might need alternative ways of doing tasks. (These limitations usually don't interfere with independence in daily activities.)

Level III

Handles objects with difficulty.

- Needs help to prepare or adapt activities.
- Does tasks slowly.
- Experiences limited success regarding quality and quantity of tasks and activities.
- Performs activities independently only if they have been set up or adapted.

Level IV

- Handles a limited selection of easily managed objects in adapted situations.
- Performs only parts of activities with effort and limited success.
- Requires continuous assistance and/or adapted equipment to attempt an activity.

Level V

- Cannot handle objects.
- Experiences severely limited ability to perform even simple actions.
- Requires total assistance.

Visit the MACS online resource site for more information.

Explore Cerebral Palsy Resources

Cerebral Palsy Road Map

What to expect as your child grows.

[Download the PDF](#)

Cerebral Palsy Resource Group on Facebook

This community forum is the perfect place to ask questions, share your experiences and receive support from the community.

[Join Today](#)

Cerebral Palsy Research at Gillette

Our research efforts help to improve treatment for children around the world who have cerebral palsy.

[Learn More](#)

Join Us in Raising Cerebral Palsy Awareness

Read and share infographics about cerebral palsy or update your social media profiles.

[Learn More](#)

Make An Appointment

[651-290-8707](#)

Refer a Patient

[651-325-2200](#)

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If you are a Gillette patient with urgent questions or concerns, please contact Telehealth Nursing at [651-229-3890](#).