

Cerebral Palsy

Early Identification and Management



FAST FACTS

most common

physical disability of childhood

1 in 323

children in the US are affected by CP

as early as 3 months of age

CP can be reliably diagnosed through valid assessment tools and brain imaging

Cerebral palsy (CP) is a lifelong motor disorder caused by early (generally under age 2 years) insult to the developing brain. Causing problems with movement and posture, and impacting children with various impairments and severity, CP is not progressive or degenerative. Resulting from various problems including prematurity, genetics, stroke, brain tumor, trauma or infection, CP is a broad diagnostic category. Early, skilled intervention and expert, interdisciplinary management through the child's lifespan can improve outcomes.

ASSESSMENT

Perform a standard history and physical exam (HPE) at all well-child visits.

Evaluate using standardized assessments through a trained therapist or specialized physician (rehabilitation physician, neurologist or neonatologist). Specific evaluations of infants showing motor issues can help diagnose CP or, at minimum, flag a child as "high risk for CP." Consider brain imaging (MRI) as well. Standardized assessments include: General Movements Assessment (especially in premature infants), Hammersmith Infant Neurological Evaluation, Developmental Assessment of Young Children, and others.

HPE RED FLAGS

If evident, the following signs indicate risk for CP any age 4–24 months:

- Asymmetry in movement
- Persistent head lag
- Abnormal muscle tone
- Delayed motor milestones

MANAGEMENT/TREATMENT

The complex care for a child with CP should be managed, if at all possible, in a specialty multidisciplinary clinic such as Cincinnati Children's Cerebral Palsy Clinic. Infants should be referred to skilled, evidence-based therapy to receive the most useful interventions as soon as possible. CP-specific early intervention using intense motor-learning, task-specific approaches and environmental enrichment together optimize natural plasticity and improve motor and cognitive outcomes.

As soon as CP is suspected or diagnosed, your role will include support and education for the family about the child's condition. You can help the family evaluate the quality of services available and help them access needed interventions comfortably.

WHEN TO REFER

Refer to Cincinnati Children's Infant Motor Evaluation Clinic (IMEC) whenever any child 0–23 months shows motor concerns to ensure evaluation through standardized assessments by a pediatric neurologist, physiatrist, and therapist. The IMEC will also provide support, education and referrals as indicated for the family. Families can reach out for information at 513-803-GoCP (4627).

If you observe weakness (inability to lift arms and legs off mat in supine position) at any age, refer to Cincinnati Children's Neurology.

If you would like additional copies of this tool, or would like more information, please contact the Physician Outreach and Engagement team at Cincinnati Children's.

If you have clinical questions, contact a Pediatric Rehabilitation physician through Physician Priority Link 513-636-7997 or 1-888-987-7997.

Cerebral Palsy

Inclusion Criteria

Infants/toddlers ages 2–24 months at routine well-child visits

Patient Presents

Standard History and Physical Exam

- Patient Medical History
- Family History
- Physical Exam

HPE RED FLAGS

- Asymmetry in movement prior to 24 months, including early handedness
- Persistent head lag
- Abnormal muscle tone
- Delayed motor milestones (shown below)

Refer to PT

Any gross motor concern at all

Refer to both PT and IMEC

- Persistent hand fisting or head lag at 4 months
- Not sitting without support at 9 months
- Lower extremity spasticity at 6–12 months
- Asymmetry especially early handedness at any age

Urgent Neuro Referral Needed

All infants with significant weakness especially when unable to lift arms and legs off the bed in supine position