BC Cerebral Palsy Community Diagnostic Care Pathway

If medical risk factor(s) is present, and no early motor screening has been done before, consider using this pathway.

Clinical red flag(s)¹ identified by parent or caregiver, primary care provider (PCP)

Note: A single risk factor or red flag is enough to initiate the algorithm.

PCP to refer to:

- General pediatrician or pediatric neurologist
- ☐ Infant Development Program (IDP) or a child development centre (CDC) for early intervention if parents have not already self-referred

Pediatric provider to perform a comprehensive assessment including

- ☐ Full medical and developmental history
- □ Full neurological exam

Suggested supportive tools for diagnosis Other motor function assessments

GMA* (<5 months) HINE* (<2 years) Brain MRI TIMP* (<4 months)
AIMS* (<18 months)
DAYC* (<6 years)

*These assessments can be completed by allied health professionals in the community (occupational therapist or physiotherapist).

Level of evidence² STRONG WEAK

Subspecialist consultation as

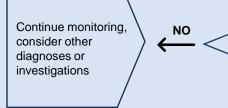
needed, e.g.,

Service

Neuromotor Physician-

Children's Hospital

to-Physician Consult



NO Meets criteria for CP** diagnosis?

YES OR HIGH RISK

- □ Communicate diagnosis to caregivers
- Referral to appropriate interventions & supports
- ☐ Screen for developmental and medical co-occurring conditions common in CP
- ☐ Follow up and re-assess depending on clinical presentation

**Criteria for CP

Sign(s) consistent with a non-progressive brain disturbance (such as but not exclusive to upper motor neuron signs etc.)

AND

History or investigations consistent with early non-progressive brain disturbance

AND

Observation or report of activity limitation due to motor impairment (including delay in or not achieving milestones)

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Definitions

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Cerebral palsy	Cerebral palsy is a group of permanent disorders of the development of movement and posture, causing activity limitation, that are attributed to non-progressive disturbances that occurred in the developing fetal or infant brain. ³
GMA	General Movement Assessment
HINE	Hammersmith Infant Neurological Exam
TIMP	Test of Infant Motor Performance
AIMS	Alberta Infant Motor Scale
DAYC	Developmental Assessment of Young Children

Medical Risk Factors¹

- Prematurity <32 weeks
- Very Low birth weight <1500 g
- Cystic Periventricular Leukomalacia (PVL)
- Intraventricular Hemorrhage (IVH) Grade III-IV
- Moderate to severe neonatal Encephalopathy (including, but not restricted to: HIE, infectious encephalopathy)
- Neonatal meningitis
- · Congenital CNS defects
- Severe traumatic brain injury requiring hospitalization or rehab, or any history of hospitalization due to encephalitis or bacterial meningitis, before the age of two years
- Postnatal meningitis
- · Genetic abnormality associated with CP
- Placental abruption
- Apgar <7 at age 5 minutes
- History of stroke in child

Clinical/Developmental Red Flags¹

- Child demonstrates a hand preference before 12mo of age
- Child is not able to sit without support beyond 9mo of age
- Child demonstrates stiffness or tightness in the leas
- Child keeps their hands fisted (closed/clenched) after the age of 4mo
- Child demonstrates a persistent head lag beyond 4mo of age
- Child demonstrates consistent asymmetry of posture and movement after the age of 4mo
- Child demonstrates persistent primitive reflexes, including startle (Moro) reflex beyond 6mo of age, or "Fencer" (ATNR) beyond 4mo of age
- Child demonstrates consistent toe-walking or asymmetric-walking beyond 12mo of age
- Unable to walk by 18mo of age

References

- 1. BC Cerebral Palsy Advisory Committee. Executive Summary and Final Report Evidence Informed Care for Children with Cerebral Palsy in British Columbia. 2021.
- 2. Novak I, Morgan C, Adde L, et al. Early, Accurate Diagnosis and Early Intervention in Cerebral Palsy: Advances in Diagnosis and Treatment. JAMA Pediatr. 2017;171(9):897. doi:10.1001/jamapediatrics.2017.1689
- 3. Rosenbaum P, Paneth N, Leviton A, et al. A report: the definition and classification of cerebral palsy April 2006. Dev Med Child Neurol Suppl. 2007;109:8-14.
- 4. American Academy for Cerebral Palsy and Developmental Medicine Early Detection of Cerebral Palsy Care Pathway Team. Early Detection of Cerebral Palsy Care Pathway. 2020. https://www.aacpdm.org/publications/care-pathways/early-detection-of-cerebral-palsy

Authors: The CP Early Diagnosis Team, Sunny Hill Health Centre at BC Children's Hospital (Ram Mishal, MD, Mor Cohen-Eilig, MD, Anamaria Richardson, MD, Vivian Wong, Olivia Scoten, Keith O'Connor B.Sc OT, MScR, Nandy Fajardo, B.Sc PT)

For more clinician resources on early diagnosis of CP, visit https://ubccpd.ca/cp-resources

