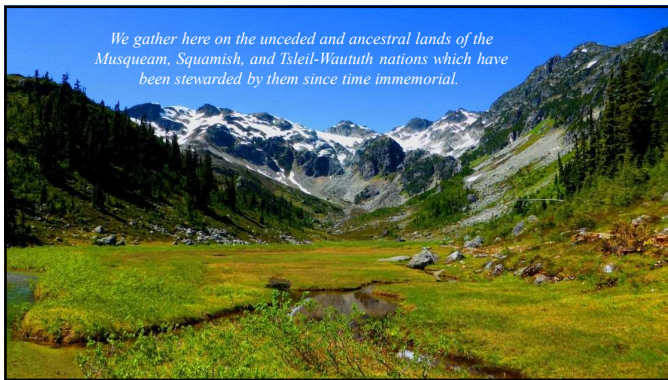


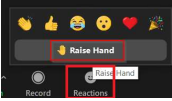
Early Diagnosis of Cerebral Palsy
Part 2: Diagnosis and Beyond
 March 7, 2024

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Before we get started

- This session's presentation sections will be recorded
- Please keep your mics muted
- Click on the [Raise Hands](#) button if you would like to speak or ask a question



- We encourage participants to have their cameras on if possible
- You can also participate by sharing in the Zoom chat

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Disclosure

No conflicts of interest or financial ties to disclose

Early Diagnosis of Cerebral Palsy
Part 2: Diagnosis and Beyond

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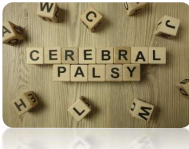
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Physiotherapist
Sunny Hill Health Centre, BC Children's Hospital

Learning Objectives

1	2	3	4
Implement the necessary assessments for CP diagnosis	Apply assessment findings to determine CP diagnosis in children	Communicate a CP diagnosis with parents and caregivers	Utilize resources and supports for CP in children


Cerebral Palsy – Definition





“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**.”


— Rosenbaum et al., 2007

Red flags of CP in infants

- 

1 Demonstrates a hand preference before 12m
- 


2 Demonstrates stiffness or lightness in the legs
- 


3 Demonstrates a persistent head lag beyond 4m of age
- 


4 Keeps their hands fisted (closed/clenched) after the age of 4m


Recommendations from: BC Cerebral Palsy Advisory Committee 2017-2021 and The PROMPT Group 2019


Red flags of CP in infants

- 

5 Demonstrates persistent primitive reflexes, including startle (Moro) reflex beyond 6mo of age, or "Fencer" (ATNR) beyond 4m of age
- 

7 Demonstrates consistent asymmetry of posture and movement after the age of 4m
- 

8 Demonstrates consistent toe-walking or asymmetric-walking beyond 12m of age
- 

6 Not able to sit without support beyond 9m of age
- 

9 Unable to walk by 18m of age

Recommendations from: BC Cerebral Palsy Advisory Committee 2017-2021 and The PROMPT Group 2019

Learning Objectives

<div style="background-color: #0070C0; color: white; border-radius: 50%; width: 30px; height: 30px; margin: 0 auto; display: flex; align-items: center; justify-content: center;">1</div> <p>Implement the necessary assessments for CP diagnosis</p>	<div style="background-color: #0070C0; color: white; border-radius: 50%; width: 30px; height: 30px; margin: 0 auto; display: flex; align-items: center; justify-content: center;">2</div> <p>Apply assessment findings to determine CP diagnosis in children</p>	<div style="background-color: #0070C0; color: white; border-radius: 50%; width: 30px; height: 30px; margin: 0 auto; display: flex; align-items: center; justify-content: center;">3</div> <p>Communicate a CP diagnosis with parents and caregivers</p>	<div style="background-color: #0070C0; color: white; border-radius: 50%; width: 30px; height: 30px; margin: 0 auto; display: flex; align-items: center; justify-content: center;">4</div> <p>Utilize resources and supports for CP in children</p>
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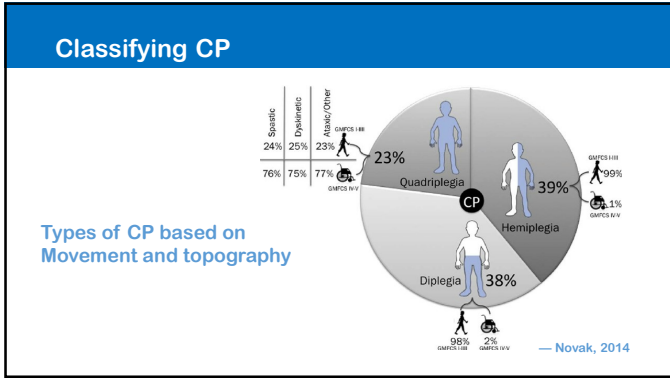
How is CP diagnosed?

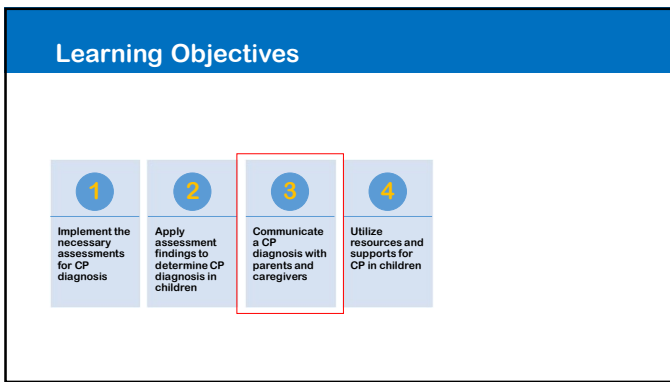
CRITERION	ASSESSMENT STEP
1. History or previous investigations consistent with non-progressive brain disturbance	Full medical and developmental history
2. Sign(s) consistent with a non-progressive brain disturbance (such as but not exclusive to upper motor neuron signs etc.)	Full neurological exam
3. Observation or report of activity limitation due to motor impairment	May be observed, and/or by history (consider their corrected age) Based on the information you have gathered; do you believe the child is limited in the activities they should be able to perform at their developmental stage?

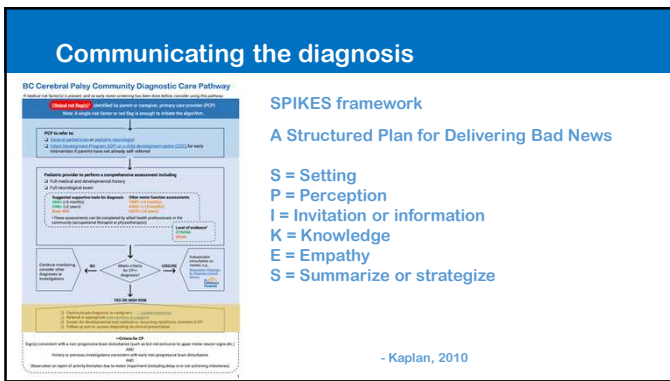
How is CP diagnosed?

Do findings meet criteria for CP diagnosis?

✓ A group of permanent disorders of the development of movement and posture	Sign(s) consistent with a non-progressive brain disturbance (such as but not exclusive to upper motor neuron signs etc.) <p style="text-align: center; color: #0070C0;">AND</p>
✓ attributed to non-progressive disturbances that occurred in the developing fetal or infant brain	History or investigations consistent with early non-progressive brain disturbance <p style="text-align: center; color: #0070C0;">AND</p>
✓ causes activity limitation	Observation or report of activity limitation due to motor impairment (including delay in or not achieving milestones)







Communicating the diagnosis

BC Cerebral Palsy Community Diagnostic Care Pathway
 Aims to help parents understand what to expect from the diagnostic process for their child with Cerebral Palsy (CP).
Overall Aims: To provide a clear, timely, and consistent PDI; to help parents understand what to expect from the diagnostic process; to help parents understand what to expect from the diagnostic process.

What to expect from the diagnostic process:

- Clear and consistent information
- Clear and consistent information
- Clear and consistent information

Parents provide to parents a comprehensive assessment including:


- Full medical and developmental history
- Full neurological exam
- Supportive investigations for parents
- Clear and consistent information

Key ingredients for a supportive diagnosis conversation:

- Well-planned
- Compassion

- Adapted SPIKES protocol, Novak et al, 2019

Communicating the diagnosis



Hope and realism: hope springs eternal
- Kaye et al., 2020

Key ingredients for a supportive diagnosis conversation:

Well-planned
+
Compassion

- Adapted SPIKES protocol, Novak et al, 2019

Communicating the diagnosis

How did you find out about your son's CP diagnosis?

Learning Objectives

1

Implement the necessary assessments for CP diagnosis

2

Apply assessment findings to determine CP diagnosis in children

3

Communicate a CP diagnosis with parents and caregivers

4

Utilize resources and supports for CP in children

Post-diagnosis best practice

Identify red flags: Identified by parent or caregiver, primary care provider (PCP), or other health care provider (HCP) or other health care provider (OHC) for early intervention if parents have not already self-referred.

PCP to refer to:

- General pediatrician or pediatric neurologist
- Child Development Program (CDP) or child development center (CDC) for early intervention if parents have not already self-referred

Referrals to early intervention and supports

- IDP/CDC (specify OT/PT/SLP/Rec Therapy)
- BC Hip Surveillance Program
- At Home Program
- Disability Tax Credit if appropriate
- Parking pass

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Screen for developmental and medical co-occurring conditions in CP


- Vision and hearing impairments
- Cognitive, learning, and attention impairments
- Seizures
- Musculoskeletal concerns
- Pain
- Sleep
- Feeding and swallowing
- Speech and language delay
- Bowel and Bladder

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CASE STUDY

Please select a breakout room based on your discipline and have the case study ready.



If you need a copy let us know in the chat!


Questions and discussion




Type your question in the chat or click the 'raise hand' button to speak

Further Learning and Resources

Sunny Hill Neuromotor Physician to Physician consult




- Virtual consults available with developmental pediatricians
- 15-20 min appointments available
- Download booking form online – Sunny Hill Website




Further Learning and Resources


General Movement Assessment
<https://general-movements-trust.info/5/home>

Hammersmith Infant Neurological Exam
<https://hollandbloorview.ca/our-services/programs-services/neuromotor-services/hammersmith-infant-neurological-examination-hine>

 All these resources can be found in one hub
<https://ubccpd.ca/cp-resources>




Further Learning and Resources

 Pathways™

Request an account and find all the resources mentioned in one hub
<https://pathwaysbc.ca/login>

UBC CPD
<https://ubccpd.ca/cp-resources>

Your role as a community provider



Community providers have a pivotal role in the diagnosis of CP.
Find and get to know PT/OTs allies in your communities!

Acknowledgements

Many thanks to our project team

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Nanay Fajardo, Physiotherapist, Sunny Hill Health Centre
Cynthia Vallance, Patient and Family Engagement Advisor
Carol Lai, Project Manager, Sunny Hill Health Centre
Carolyn Chowne, Nurse Clinician, Sunny Hill Health Centre

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**Thank you
for attending.**



Please complete our post-workshop evaluation!
