Cerebral Palsy

Definition

- Group of non-progressive neurodevelopmental conditions
- Characterized by impairments in motor function that limit activity
- Caused by a disturbance to developing fetal or infant brain

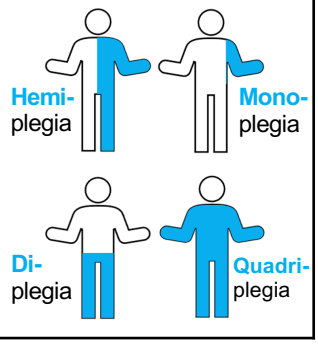
Classification

Gross Motor Function Classification System (GFMCS) Levels:

I. Walk without limitations (least functional impact)
II. Walk with limitations
III. Walk using handheld mobility device
IV. Self-mobility with limitations
V. Manual wheelchair (most functional impact)

Motor Types:
spastic, dyskinetic, ataxic, mixed

Affected Limb(s):



Diagnosis

History

- Inquire about risk factors
- Motor development and milestones
- Comorbidities: epilepsy, learning difficulty, sensory impairments, hip subluxation, scoliosis

Physical Exam

- Hypertonia or hypotonia
- Hyperreflexia
- Persistent primitive reflexes: moro, asymmetric tonic neck
- Spasticity

Investigations

1. Neuroimaging (MRI) for correlation with clinical exam
2. If normal MRI, consider metabolic screen and/or genetic testing

Clinical Red Flags

- Hand preference <12 months
- Stiffness in legs <12 months
- Inability to sit by 9 months
- Makings fists continuously after 4 months
- Other motor or posture delays

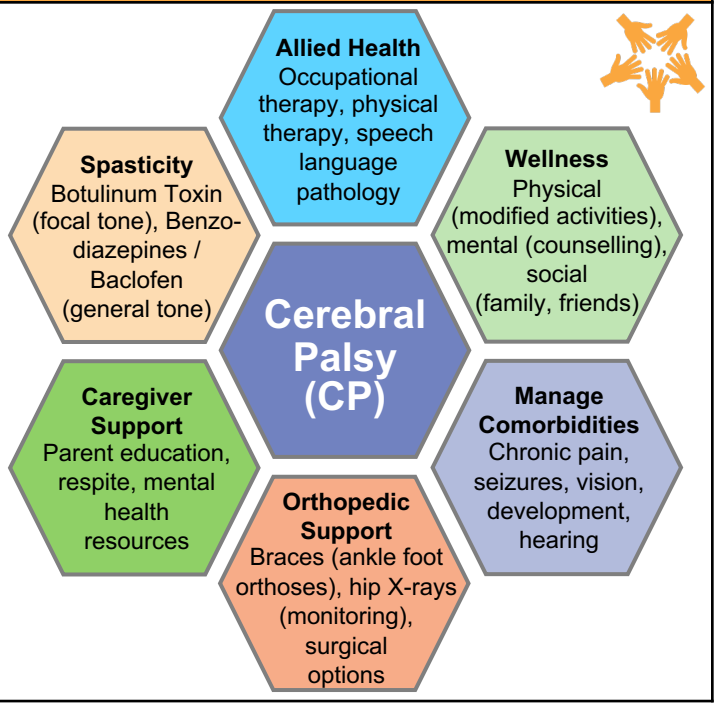
Etiology

- Genetic
- Birth asphyxia (eg. hypoxic ischemic encephalopathy) (≤10%)
- White matter injury
- Intraventricular hemorrhage
- Perinatal stroke
- Infection (TORCH, meningitis)

Significant Risk Factors

- Premature birth
- Low birthweight

Supportive Management



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