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# KITSAP COUNTY CHILD HEALTH NOTES

Promoting early identification and partnerships between families, primary health care providers & the community.

Distributed by: (2)

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## CEREBRAL PALSY (CP)

- Non-progressive condition affecting control of posture and movement, resulting from a static lesion to motor areas of the developing central nervous system (CNS)
  - Most commonly, the injury has occurred pre- or perinatally, with the majority of cases thought to be caused prenatally
  - Occasionally due to brain injury occurring in early childhood
- U.S. incidence remains stable at 2-2.5 cases per 1000 live births.
- Classified by
  - number of limbs affected: quadriplegia, diplegia, hemiplegia, triplegia
  - movement/muscle tone disturbance
    - Spastic type – the most common form - from lesions of motor cortex or pyramidal tracts
    - Dyskinetic type (athetosis, ataxia, dystonia) from extrapyramidal lesions
      - ◆ Inadequately treated hyperbilirubinemia can still cause kernicterus and athetosis
  - gross motor function (see classification system at CP website #1 listed on back)

### Diagnostic considerations (more info at CP websites #2, 3, 4 listed on back):

- CP presents as a disturbance of muscle tone and movement coordination, with motor delay.
- CP is a clinical diagnosis usually made by 12-18 months of age.
- Clumsiness or poor coordination may technically be “minimal CP”, reflecting motor control problems from static injury to the brain, however the diagnosis of CP is usually reserved for more disabling manifestations.
- The diagnosis of CP should be followed by a *search for the etiology*.
  - A careful history, including a three-generation family history, is essential.
  - **Brain MRI** can support the diagnosis of CP in most cases and should be seriously considered.
  - EEG’s, EMG’s, muscle biopsy, metabolic screening, routine genetic tests (such as chromosomes) are not useful in diagnosing CP but may be indicated when one suspects specific progressive disorders presenting with similar symptoms.
- **Associated CNS impairments** may occur but are not present in all children.
  - Examples: strabismus, seizure disorder, learning disability, mental retardation, speech disorder

### Management considerations (more info at CP websites #5, 6, 7 listed on back):

- Currently no “cure”
- Goal is to maximize function and prevent secondary impairment and disability by:
  - monitoring growth and nutrition
  - referring to habilitative therapy (PT, OT, SLP)
  - getting A-P hip X-rays at ~18-24 months in spastic diplegia or quadriplegia to rule out hip subluxation
- Consultation with an experienced, interdisciplinary team recommended at regular intervals
  - Medical/neurosurgical therapy may help in select cases (oral medications, intrathecal baclofen, botulinum toxin injections, dorsal rhizotomy)
  - Orthopedic surgery for correction of contractures and deformities
- There are many unproven, alternative treatments with new ones appearing regularly.

### (3) COUNTY RESOURCES FOR DEVELOPMENTAL SCREENING AND ASSESSMENT

For children under age three:	Holly Ridge Center	360-373-2536
	Mary Bridge Development Services	253-403-4437
	Seattle Children's Parent Support	206-987-2201
For children aged three to five	Early Head Start/Head Start	360-478-6889
	Kitsap Community Resources (KCR)	360-473-2075

### SPECIAL NEEDS INFORMATION AND RESOURCES:

CP Websites:	1) Gross Motor Function Classification System (GMFCS)	<a href="https://cerebralpalsy.org.au/our-research/about-cerebral-palsy/what-is-cerebral-palsy/severity-of-cerebral-palsy/gross-motor-function-classification-system/">https://cerebralpalsy.org.au/our-research/about-cerebral-palsy/what-is-cerebral-palsy/severity-of-cerebral-palsy/gross-motor-function-classification-system/</a>
	2) Diagnostic Assessment of the Child with CP	<a href="https://n.neurology.org/content/99/7/283">https://n.neurology.org/content/99/7/283</a>
	3) Development Surveillance and Screening	<a href="http://www.medicalhome.org/physicians">www.medicalhome.org/physicians</a>
	4) Cerebral Palsy Fact Sheet	<a href="https://www.cdc.gov/ncbddd/cp/index.html">https://www.cdc.gov/ncbddd/cp/index.html</a>
	5) Critical Elements of Care for CP	<a href="https://depts.washington.edu/dbpeds/Cerebral%20Palsy_Critical%20Elements%20of%20Care%206_2011.pdf">https://depts.washington.edu/dbpeds/Cerebral%20Palsy_Critical%20Elements%20of%20Care%206_2011.pdf</a>
	6) Guidelines for the Care of Children and Adolescents with Cerebral Palsy	<a href="https://www.mdedge.com/pediatrics/article/259731/neurology/aap-issues-clinical-update-cerebral-palsy-guidelines">https://www.mdedge.com/pediatrics/article/259731/neurology/aap-issues-clinical-update-cerebral-palsy-guidelines</a>
	7) WA State Medical Home Website – CP page	<a href="https://medicalhome.org/physicians/">https://medicalhome.org/physicians/</a>
Regional:	Infant Toddler Early Intervention Program	<a href="https://wapave.org/early-intervention-how-to-access-services-for-children-birth-to-3-in-washington/">https://wapave.org/early-intervention-how-to-access-services-for-children-birth-to-3-in-washington/</a>
	Parent to Parent Support Programs of Washington	1-800-821-5927
	Washington State Fathers Network	425-747-4004 ext. 4286 <a href="http://www.fathersnetwork.org/">www.fathersnetwork.org/</a>
	Within Reach Family Health Hotline	1-800-322-2588 1-800-833-6388 TTD <a href="http://www.withinreachwa.org">www.withinreachwa.org</a>