



# Cerebral Palsy

## Orthopaedic Management

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### **CEREBRAL PALSY (CP)**

#### *Definition*

Brain Lesion (cerebral) Causing Motor Problems (palsy) Occurring in Early Childhood (before Age 2 Or 5)

Brain lesion is static (static encephalopathy)

#### *CP Diagnosis*

1. Documented direct effects of a brain insult
2. Demonstrated to be static
3. Exclusion of other conditions
  - Normal delayed or clumsy child
  - Familial spastic paraplegia
  - Slowly progressive conditions like tumors, leukodystrophy, muscle disease

#### *CP Diagnosis*

There is no imaging or blood test to make the diagnosis

#### *CP Prevalance*

2 Per 1000 children

#### *CP Etiology*

50% - Birth trauma or other anoxic events

#### *CP Etiology*

Historical theories

Little - 1862 promoted birth trauma as the usual cause

#### *CP & Prematurity*

55% of children with CP

-- Have apgar >7 at 1 minute

#### *CP Philosophy*

Make a diagnosis and give a name

#### *CP Philosophy*

Prognostigation:

-- Nobody knows the future

-- Answer parents truthfully

But Find Hope

-- Parents expectations and mine do not have to be the same

-- Parents may be unrealistic if child's current care OK



### ***CP Philosophy***

CP care team

Need a primary physician for well child care

Need a primary therapist to grandmother

### ***CP Impairments***

1. Mental retardation
  - 1/3 normal but with increased Learning Disabilities
  - 1/3 mild to moderate retardation
  - 1/3 severe retardation CP impairments
2. Communication disorder
3. Seizures
4. Visual problems
5. Carious teeth
6. Feeding problems & poor nutrition
7. Drooling
8. Hearing loss
9. Incontinence
10. Premature puberty and growth delay

### ***Orthopedic CP Management***

History

1. What are the parents concerns
2. Confirm the child's current function
3. Confirm that the child is getting
  - Well child care i.e. immunizations
  - Getting routine physical examinations

### ***Orthopedic CP Management***

Physical examination

1. Confirm Functional Level
2. Monitor Weight
3. Monitor Specific Deformities
  - Hips - Check Extended Knee - Extended Hip Abduction Every Six Months
4. Monitor Specific Deformities
  - Knees -
5. Monitor Specific Deformities
  - Ankles - Check
6. Check Wheel Chair Fit
7. Check Braces Fit
8. Observe Gait

### ***Therapy Consultations***

Spasticity Management

Upper Extremity Function

Spinal Deformity

Hip Dislocation

Prevention

Good Outcome

Reconstruction

Painful, Windswept

Disorders Of Gait

### ***Conclusion***

CP Treatment Involves Making Improvements And Managing Deformities