

### The Diagnostic Detective: Cerebral Palsy

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#### The Following May Be Factors in Causing Cerebral Palsy

- Genetic disorders
- Congenital brain anomaly
- Congenital infection
- Substance abuse (Cocaine)
- Prematurity and low birthweight
- Perinatal asphyxia in full-term infants
- Infection
- Birth trauma
- Hyperbilirubinemia

#### Recognizing Cerebral Palsy

Some parents and their pediatricians are aware early in a child's life of the possibility that the newborn could have brain damage, due to identifiable causes such as prematurity or trauma at birth. They will therefore be on the alert for symptoms of cerebral palsy. For many other children, however, there may be no identifiable cause. In these cases the realization of difficulties may come much more gradually. The presence of primitive reflexes and responses for a newborn baby, which typically disappear after a few weeks, may indicate the presence of cerebral palsy if they continue to be present beyond 5-6 months of age. Some signs which could indicate cerebral palsy, in a one-month to six-month old baby or older, include:

- Does not kick
- Seems stiff or floppy
- More active on one side of the body than the other
- Takes a long time to feed, poor sucking reflex
- Does not smile by 8-10 weeks
- Does not make eye contact with mother
- Does not follow objects with eyes held 6 inches away and moved horizontally
- Unable to hold up head
- Does not put hand to mouth
- Limbs seem very stiff and tight, or very floppy
- Head thrown back
- Feet turning out
- Legs crossing in scissor action
- Pointed toes
- Tendency to curl into fetal position
- Eyes rolling backwards or sideways
- Not turning to sound
- Extra-sensitivity, crying on physical contact

## **Developmental Disabilities: Faces, Patterns, Possibilities**

- Does not reach for objects
- Does not roll over from side to side
- Unable to lift head when on stomach

### **Health Problems Commonly Seen in Individuals with Cerebral Palsy**

- Seizures
- Vision impairment, such as strabismus (crossed eyes), cortical blindness
- Dysphagia and eating problems (eating ,drinking, chewing, swallowing)
- Dental problems, such as gingivitis, caries, chipped teeth, malalignment, and overbite
- Otitis Media and other ear problems
- Gastrointestinal problems, such as gastroesophageal reflux (GER), esophagitis and gastritis, constipation, underweight
- Respiratory problems, such as frequent upper respiratory infections, pneumonia, reactive airway disease
- Skeletal problems, such as scoliosis, deformities of the knees, wrists, ankles, or hips, hip subluxation and/or dislocation
- Skin problems, such as decubitus (skin sores)
- Genito/Urinary problems, such as spastic bladder, urinary tract infections

### **Examples of Equipment Used by People with Cerebral Palsy**

#### **Adaptive Aids for Activities of Daily Living**

Special handles, grips, or other adaptations may be added to everyday items like pencils, feeding equipment (spoons, forks, non-skid or lipped dishes), adaptive bathing equipment (bath chairs, handles, hose extensions), etc., to make it easier for a person with cerebral palsy to use the item.

#### **Ambulation and Standing Devices**

For an individual who is able to walk but has poor balance, aids such as braces, canes, ankle and foot orthoses (AFO's) and walkers can be selected to stimulate or support walking movements, improve opportunities for socialization, and assist with stability, positioning and balance.

#### **Communication Aids**

When a child or adult does not have speech, or speech is difficult to understand by those who do not know him, communication aids, such as photo boards, photo books, or alphabet books may be used to point or spell out the desired message. Computerized aids can be used to "voice" the message selected by the individual.

#### **Computer Aids**

Depending upon the type and location of an individual's motor abilities, specialized keyboards, mice, headpointers, mouthsticks, switches, and mounts, to provide access to use of computers.

## **Developmental Disabilities: Faces, Patterns, Possibilities**

### **Switches**

To make adaptations for physical limitations, an adaptive switch or button enables a child or adult to operate a toy or equipment, using their hand, foot, head, chin, etc.

### **Transfer Equipment**

Simple aids, such as boards, belts, handles, lift cushions, modified seats, etc., as well as more sophisticated motorized lifts are available to assist an individual to self-transfer in and out of beds, vans, bathtub, etc, or enable a caregiver to lift and transfer more safely and easily.

### **Wheelchairs and Strollers**

Provides support, correct body alignment, and mobility to a child or an adult who is unable to stand or walk on their own; additional supports are added for stability and positioning as needed. Motorized wheelchairs are controlled with a "joystick" type of steering mechanism.

### **Examples of Medications Used by Individuals with Cerebral Palsy**

#### **Anticonvulsants**

Such as Phenobarbital, Tegretol, Depakene, Lamotrigine

#### **Muscle Relaxants**

Such as Baclofen, Valium/Diazepam, Dantrium/Dantrolene Sodium

#### **Medications to Reduce Gastroesophageal Reflux**

(Reduce production of HCL, aid digestion), such as Tagamet/Cimetidine, Zantac/Ranitidine, Reglan/Metoclopramide

#### **Laxatives**

Such as Dulcolax/Bisacodyl, Citrona/Magnesium Citrate

#### **Stool Softeners**

Such as DSS or Colace/ Docusate Sodium, Metamucil/Psyllium Muciloid

### **Examples of Surgical Interventions Used for People with Cerebral Palsy**

Tendon Releases, Tendon Transfers, and Tendon Lengthening, such as Heelcord/Achilles Tendon lengthening: When the heelcord is tight, the child walks on his toes. This surgery is done in order to lengthen the heelcord and permit a more flat-footed gait.

Adductor Tenotomy and Obturator Neurectomy: This operation is done to reduce the scissoring caused by tightness of the adductor muscles in the thighs.