**CEREBRAL PARALYSIS**

Definition of terms

* Cerebral refers to the motor area of the brain’s outer layer (called the cerebral cortex), the part of the brain that directs muscle movement.
* Palsy refers to the loss or impairment of motor function.

Cerebral Palsy: Cerebral palsy (CP) is a term used to describe a problem with movement and posture that makes certain activities difficult. Even though someone who has cerebral palsy has problems moving his or her muscles, this is not because there is something wrong with the brain or nerves.These difficulties are caused because of problem in the brain.The patient might have had an in injury in the brain , or had a brain that didn't develop properly. These problems can affect the way the brain controls movement and posture.

There is currently no cure for cerebral palsy. but, there are different treatment options for people who have cerebral palsy. These options include therapy, medications, surgery, education and support. By taking advantage of one or more of these options, people with cerebral palsy can learn to improve their function and the quality of their lives.

**PREVALENCE OF CEREBRAL PARALYSIS**

It is estimated that two out of every 1,000 newborn children will develop cerebral palsy. And approximately 40% of those born with cerebral palsy will have a severe case. Right now, about 10,000 babies and infants are diagnosed with the condition each year. In 2002, the number of cerebral palsy cases in 8-year-old children was found to be one in 278. It is the most common motor disorder in children and is second only to autism as the most common disability in children.

**SIGNS AND SYMPTOMS OF CEREBRAL PALSY**

All people with CP have problems with movement and posture. The symptoms of CP differ in type and severity from one person to the next and may even change over time. Symptoms may vary greatly among individuals, depending on which parts of the brain have been injured.

Children with CP exhibit a wide variety of symptoms and signs including:

* Lack of muscle coordination when performing voluntary movements (ataxia)
* Stiff or tight muscles and exaggerated reflexes (spasticity)
* Weakness in one or more arm or leg
* Walking on the toes, a crouched gait, or a “scissored” gait
* Variations in muscle tone, either too stiff or too floppy
* Shaking (tremor) or random involuntary movements
* Delays in reaching motor skill milestones
* Difficulty with precise movements such as writing or buttoning
* The head lags when you pick them up while they're lying on their back
* They feel stiff
* They feel floppy
* Their legs get stiff and cross or scissor when you pick them up

**CAUSES OF CEREBRAL PALSY**

Cerebral Palsy does not have a single cause like chicken pox or measles. There are many reasons someone might have cerebral palsy. An unborn child might have suffered brain injury, an infection, abnormal development of the brain tissue. These are called "prenatal"causes, meaning they happened before birth.These causes are responsible for about 70% of the cases of cerebral palsy. Another 20% of cerebral palsy cases are caused by a brain injury that takes place during the birthing process. In the United States, about 10% of children who have cerebral palsy got it after they were born. This is called "acquired cerebral palsy."(The figures are higher in underveloped countries.) Acquired cerebral palsy happens when there is brain damage in the first few months of life. This damage can be caused by brain infections like bacterial meningitis or viral encephalitis. It can also be caused by head injury usually from a motor vehicle accident, a fall, a child abuse usually at the first few years of child's life when the brain development is still taking place.

**RISK FACTORS OF CEREBRAL PALSY**

* Premature (early) birth
* Low birth weight
* Blood clothing problems
* Inability of the placenta to provide the developing fetus with oxygen and nutrients
* nervous system
* Bacterial infection of the mother, fetus or infant that directly or indirectly attack the infant's central
* RH or A-B-O blood type incompatibility between mother and infant
* Infection of the mother with German measles or other viral diseases in early pregnancy
* Prolonged loss of oxygen during the birthing process
* Severe jaundice shortly after birth

**TYPES OF CEREBRAL PALSY**

Physiology grouping

**Spasticity**

Spasticity is defined as a velocity-dependent increased muscle tone, determined by passively flexing and extending muscle groups across a joint. A satisfactory, reproducible system of grading muscle tone never been developed, although the Ashworth and Tardieu scales are commonly used in research. Most physicians describe the tone as being normal, increased or decreased. Associated with spasticity are enhanced deep tendon reflexes, usually associated with clonus and extensor plantar responses. However, the latter are sometimes difficult to elicit in the infant and even in the older child with spastic CP.

**Dyskinesia**

Dyskinesia is defined as abnormal motor movements that become obvious when the patient initiates a movement. When the patient is totally relaxed, usually in the supine position, a full range of motion and decreased muscle tone may be found. Dyskinetic patients are subdivided into two subgroups.

* The hyperkinetic or choreo-athetoid children show purposeless, often massive involuntary movements with motor overflow, that is, the initiation of a movement of one extremity leads to movement of other muscle groups.
* The dystonic group manifest abnormal shifts of general muscle tone induced by movement.Typically, these children assume and retain abnormal and distorted postures in a stereotyped pattern. Both types of dyskinesia may occur in the same patient. Simply stated, spasticity you feel; dystonia you see.

Others include:

* Ataxias
* Diplegia ( anatomy grouping)
* Quadriplegia and
* Hemiplegia

**COMMON HEALTH PROBLEMS ASSOCIATED WITH CEREBRAL PALSY**

**Drooling**

Excessive drooling can make it hard for a child to swallow(Senner et al., 2004) and treating this problem significant. Surgery may be an option and Botox therapy may also offer relief (Suskind and Tilton, 2002; can be difficult (Blasco, 2002). Medication can help but unfortunately the side effects of medicine can be Van der Burg et al., 2006).

**Nutrition**

Poor nutrition is also associated with serious health problems in children with cerebral palsy (Patrick et al.,1986; Shapiro et al., 1986; Waterman et al., 1992). Chewing difficulties, which occur in about one-third of all cases, are most responsible for the problem. And unfortunately, few medical treatments have been proven to be effective. (Rogers, 2004). However, feeding through the stomach has lead to significant improvements in height and weight. This type of treatment can potentially cause problems if the child becomes overweight. It’s important to note that there is no evidence that shows that improving nutrition improves the child’s function. (Calis EAC et al., 2007).

**Constipation**

Constipation is a common condition that must be monitored by a doctor. This problem happens because th**e** child with cerebral palsy is unable to control the abdominal muscles that push stool out of the body. Medical treatment may be needed to help with constipation.

**Bladder dysfunction**

Bladder dysfunction can also be a serious health problem for children with cerebral palsy. and may require treatment from a physician who specializes in these conditions. Bed wetting, stress incontinence and dribbling are all associated with this condition. (McNeal et al., 1983).

**Other problems include:**

* Muscle and skeletal problems
* Feeding, bladder and bowel control problems
* Skin disorders from pressure sores
* Breathing problems
* Epilepsy
* Sight, hearing or speech problems
* Behavior difficulties
* Seizures
* Learning disabilities

**DIETARY MANAGEMENT OF CEREBRAL PALSY**

(a) Calcium, a mineral stored in bones and teeth. Best sources of this include milk, yogurt, cheese, and calcium-fortified juices

(B) Vitamin D, which helps the body absorb calcium from food and supplements. It's found in some fish, such as salmon and tuna, fish liver oil, and in the US, fortified products like milk, orange juice, and cereal. Our bodies also make vitamin D when skin that is not protected by clothes or sunscreen is exposed to the sun.

(C) Phosphorus, a mineral that plays a role in the growth of bones and teeth. It's found in milk, dairy products, meat, fish, eggs, poultry, nuts, seeds, and whole grains.Vegetables and fruits that are rich in vitamins and minerals.

(D) Other important vitamins and minerals for bone health include vitamin C, vitamin K, magnesium, copper, zinc, and manganese. These are found in beans, vegetables, and a variety of other foods.

**Other dietary management include:**

In some cases, food and drinks may need to be provided through a feeding tube that may be placed through the nose to reach the stomach for short-term feeding support, or directly through a port in the belly and into the stomach (gastrostomy) for long-term feeding needs.