Hypotonia

Hypotonia is decreased muscle tone. Muscle tone is the amount of tension or resistance to movement in a muscle while at rest. It is different from muscle strength which is how much force a muscle can apply. For example, you may be able to do sit-ups which are a measure of abdominal muscle strength but if the belly is not firm then there is low muscle tone. Many people with hypotonia also have muscle weakness. Hypotonic infants are also called "floppy infants" because the low muscle tone and decreased strength of the neck and trunk muscles make the children floppy like a rag doll.

CAUSES

Hypotonia is caused by a problem in one of the following areas of the body:

- Brain.
- Spinal cord.
- Nerves.
- Junction between the nerves and muscle.
- Muscle.

SYMPTOMS IN FLOPPY INFANTS

- Delay in motor skills and development.
- Shortness of breath or fast shallow breaths.
- Poor sucking ability leading to poor weight gain.
- Decreased alertness.
- Joints can be bent further than expected due to ligament and joint laxity.
- Hypotonia may be associated with disorders that can affect intellect and learning.

SYMPTOMS IN OLDER CHILDREN / ADULTS

- Low muscle tone and/or weakness which may be over the entire body or affect only a specific region.
- Fluctuating muscle strength.
- Weight loss due to fatigue during eating.
- Double vision due to weakness of the eye muscles.
- Decreased energy.

DIAGNOSIS

Depending upon how and at what age the patient develops hypotonia, the pattern of weakness, and physical examination, your physician may order the following tests to find out which part of the area of the body is involved :

- Magnetic Resonance Imaging (MRI) of the Brain and/or Spinal Cord – a way to look at the structure of the brain and spinal cord without radiation.
- Electromyogram with Nerve Conduction Studies (EMG with NCS) – a way to evaluate the function of the nerves, junction between the nerves and muscle and muscle. This test may be painful, but it is the only way to test for many different diseases.
- Based on the above tests, further testing may be done to narrow down the exact cause of why that part of the body is not working properly. Depending on the cause, the hypotonia may be a short term problem that is treatable or a life-long problem that is untreatable or something in-between.

TREATMENT

Treatment will be based on the disease that caused the hypotonia first. This is accompanied by symptomatic and supportive therapy for the hypotonia. Physical therapy can improve fine and movement (*gross motor*) control and overall body strength. Occupational therapy focuses on fine motor skills and basic skills for life. Speech therapy focuses on speech and swallowing difficulties.

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