

Neuromuscular electrical stimulation

What is neuromuscular electrical stimulation?

Neuromuscular electrical stimulation (NMES) is a treatment using electricity to stimulate muscles and nerves. It helps improve flexibility, strength, and movement.

Our bodies normally use electrical stimulation: the muscles in our body are turned on and off by small electrical impulses in our nervous system. For example, when we pick up a glass of water, our brain sends an electrical message along our nerves to the muscles in our arm and hand. This message tells the muscles to “turn on” so we can squeeze the glass and pick it up for a drink.

How does NMES work?

A neuromuscular stimulator is used during therapy activities to teach children how to use their muscles more effectively or to help strengthen muscles.

The neuromuscular stimulator is a device that produces a small electrical current to activate muscles. The therapist puts electrodes (small sticky patches) on the skin over the muscles that need to be stimulated. The electrodes are then connected to the stimulator. The therapist helps your child do activities involving those specific muscles while they are being stimulated.

What will my child feel during treatment?

Your child should not feel pain. The electrical stimulation causes a slight tingling feeling in the stimulated muscles. This helps your child to know what muscles to use and when to use them.

What else do I need to know?

There are no known risks or side effects of NMES. Redness at the electrode sites is normal and should go away within 20 minutes after they are removed.

For this treatment to be successful, the child must be able to work with the therapist and be motivated to move. It is required that you help your child do exercises at home to get the most benefit from this treatment.

Questions?

This sheet is not specific to your child, but provides general information. If you have any questions, please call your therapist in the Developmental and Rehabilitation Services Department:

Minneapolis	612-813-6709
Maple Grove	763-416-8700
Minnetonka	952-930-8630
Roseville	651-638-1670
St. Paul	651-220-6880
Woodwinds	651-232-6860