

Electrical Stimulation

Electrical muscle stimulation, often referred to as EMS, is a treatment that utilizes an electrical current to contract either a group of muscles or a single muscle. In this therapy, the physical therapist places electrodes on the skin in specific locations. Generally, these electrodes are strategically placed on the appropriate muscle fibers. Using electrical muscle stimulation to contract the affected muscle helps to strengthen the muscles.

The physical therapist has the capability to change the settings of the electrical current. It is common to start out with gentle contractions and then gradually increase the current for more forceful contractions. These muscle contractions additionally help increase the blood flow to the area and this action promotes healing, while providing increased muscle strength at the same time.

Transcutaneous electrical neuromuscular stimulation or TENS is sometimes used in physical therapy to help decrease pain around injured tissue. Another kind of electrical stimulation used to contract muscles is called neuromuscular electrical stimulation or NMES for short. This particular treatment modality is mainly used to help injured muscles “relearn” how to function correctly.