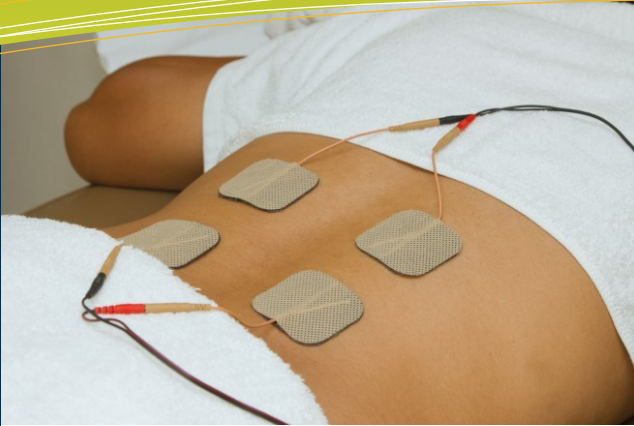




Brostrom Physical Therapy

Quote of the Month:

"Optimism is the faith that leads to achievement. Nothing can be done without hope and confidence."
-- Helen Keller



"Hands-on treatment you need with the care you deserve."

Monthly Newsletter
February 2017

T.E.N.S. Units

From the desk of: Amy Waltz, PT, MPT, CLT

Transcutaneous Electrical Nerve Stimulation, otherwise known as TENS units, are one of many types of electrical stimulation techniques that are used to control pain. TENS units use pulsed electrical current that travels through surface-stimulating electrodes on the skin to depolarize, or stimulate, nerve fibers in order to provide relief of pain.

There are various theories as to how exactly TENS units control pain. One theory is called the Gate Theory. This theory hypothesizes that there is a neural mechanism in our spinal cord that can act as a gate. This gate either opens or closes to allow signals from outside the spinal cord to get to the brain. TENS unit frequencies interfere with these pain signals being sent to the brain via the spinal cord, and this helps to block pain signals from getting to the brain by closing the gate.

A second theory as to how a TENS unit works is called the Endorphin Release Theory. This theory suggests that the TENS unit impulses help to stimulate the production of natural morphine-like substances from the brain called

endorphins. This in turn blocks the pain signals from reaching the brain.

Transcutaneous Electrical Nerve Stimulation was first patented in 1974 and has evolved to become portable, battery operated units with two or more electrodes. The benefits of TENS units is that they are a noninvasive way to control pain and they can be used by individuals at home without side effects and for a relatively low cost. These units allow an individual to change the pulse width, or duration, frequency, and intensity of the signals sent by the TENS unit to appropriately treat different types of pain.

TENS units are safe for most individuals but are not recommended for use by those persons with cardiac pacemakers or pregnant women. It is advised that you seek professional advice, such as from a physical therapist, to learn proper settings, placement of electrodes, and frequency of use in order to optimize the pain relief gained through its use. Some insurance plans do cover the cost of a TENS unit with a valid prescription from a physician.



Brostrom Physical Therapy

22180 Pontiac Trail
Suite E
South Lyon, MI 48178

Phone #: (248) 446-0155

Fax #: (248) 446-0177

Website: brostrompt.com

Email: therapist@brostrompt.com

Our Physical Therapists:



Matthew Brostrom
PT, MPT, Cert. MDT
McKenzie Certified Therapist
LSVT BIG Certified Therapist



Katie Dobbie
PT, DPT
LSVT BIG Certified Therapist



Corey McCue
PT, DPT, CSCS, TPI
Certified Strength and Conditioning
Specialist



Samantha Murray
PT, DPT, Cert. MDT
McKenzie Certified Therapist
LSVT BIG Certified Therapist
Vestibular Certified Therapist



Amy Waltz
PT, MPT, CLT
Certified Lymphedema Therapist

Physical Therapy Fun Facts!

Physical therapy as a profession originated during World War I in response to the need created when soldiers were injured in war

It takes 17 muscles to smile and 43 to frown. Isn't that reason enough to turn your frown upside down?!

If all your muscles pulled in one direction, you could create a force of 25 tons.



The smallest muscles and bones are found in the middle ear—they are responsible for connection to the ear drum and holding your ear together.

About 70% of physical therapists in the United States are women.

You use 200 muscles to take one step... on average, a person takes 10,000 steps a day! That's a lot of work!

According to the 2016 US Census, there are about 229,000 physical therapists practicing in the United States.