

## Electromedicine for Pain

Over 44 million American households contain at least one member who suffers from chronic pain. <sub>1</sub> Total annual cost in U.S. for healthcare and lost productivity due to pain is nearly \$100 billion. <sub>1</sub>

- Proven and effective pain management treatment for over 20 years
  - Uses electric stimulation to facilitate or inhibit electrical or chemical processes in the human body
- Most popular of these has been the TENS Units (Transcutaneous Electrical Nerve Stimulation)
  - Causes a change in excitable cells by depolarization and repolarization using 1-250 pulses per second
- Newer technology of the <u>NeuroMed</u><sup>©</sup> MATRIX System pulses from 8,300 to as high as 10,000 pulses per second which:
  - Approved by U.S. Food & Drug Administration (FDA)
  - Successful in treating long-term (intractable) pain issues
    - Depolarizes the cells in the nerve responsible for carrying the pain signals
    - Achieves prolonged neuronal hyper stimulation
    - Stops nerve firing completely
    - Results in a significant reduction or total elimination of the pain

## What is the Result?

- Increase local blood circulation
- Maintain/increase range of motion
- Muscle re-education
- Prevent/slowing of disuse atrophy
- Aids in post-surgical calf treatment to avoid venous thrombosis















Turk DC, Swanson K, Efficacy and cost-effectiveness of treatments for chronic pain: an analysis and evidence-based synthesis. In: Schatman M, Gooper A. eds. Multidisciplinary Chronic Pain Management: A Guidebook for Program Development and Excellence of Treatment. New York: Informa Healthcare, 2007:15-38.