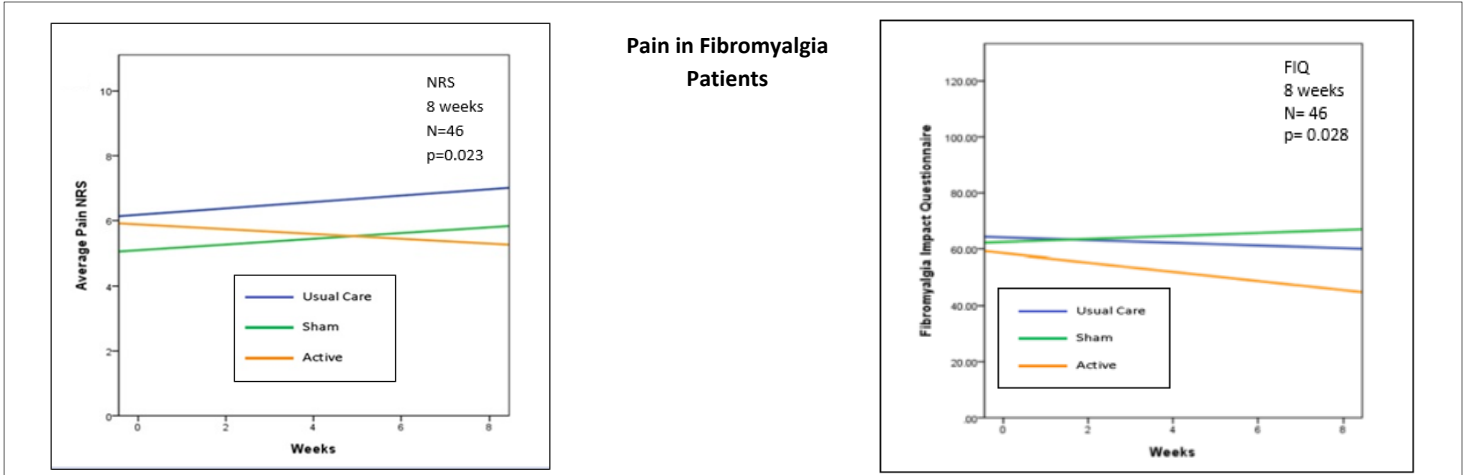
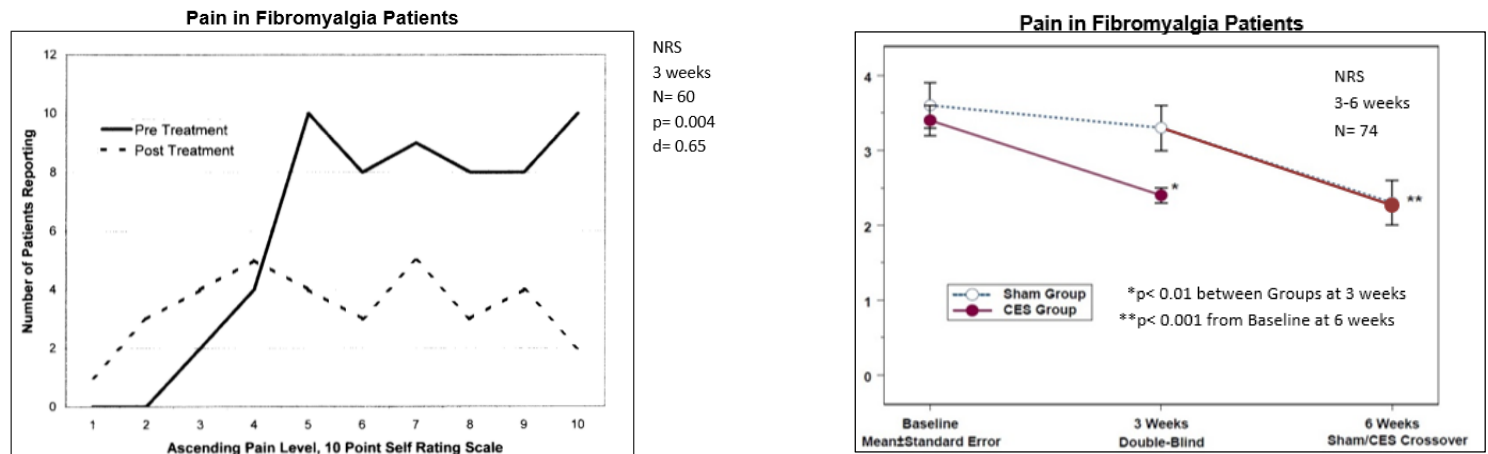


# Graphic Summary of Alpha-Stim CES Pain Studies



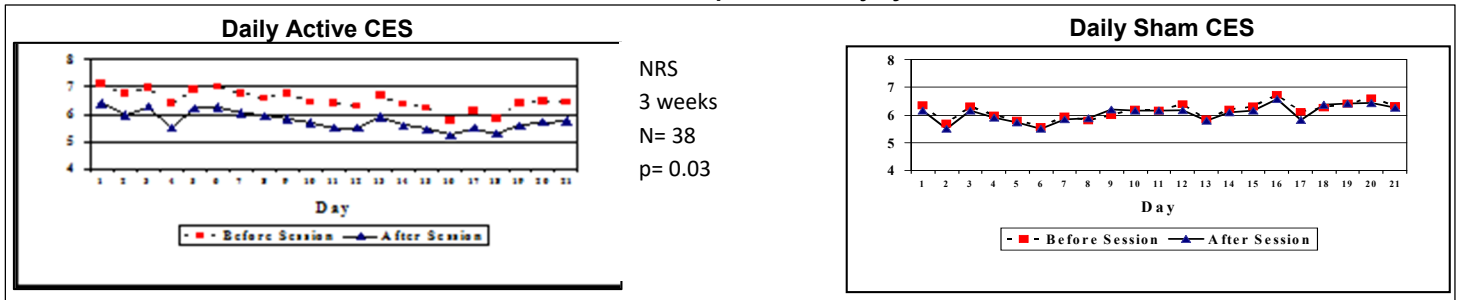
Taylor AG, Anderson JG, Riedel SL, Lewis JE, et al. A randomized, controlled, double-blind pilot study of the effects of cranial electrical stimulation on activity in brain pain processing regions in individuals with fibromyalgia. *Explore*. 2013; 9(1): 32-40.



Lichtbroun, Alan S., Raicer, Mei-Ming C. and Smith, Ray B. The treatment of fibromyalgia with cranial electrotherapy stimulation. *Journal of Clinical Rheumatology*. 2001; 7(2): 72-78.

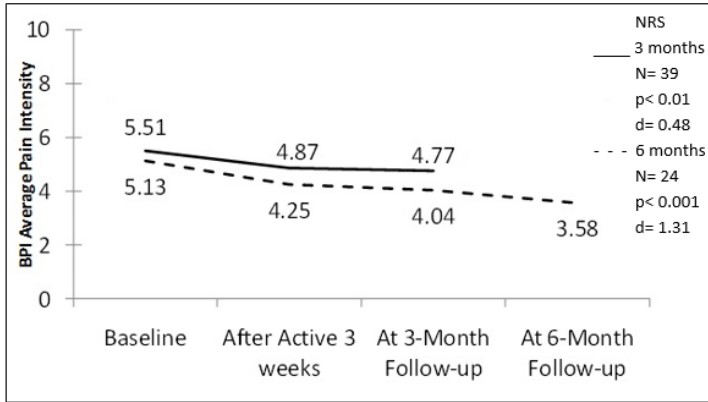
Cork, Randall C., Wood, Patrick, Ming, Norbert, Shepherd, Clifton, Eddy, James and Price, Larry. The effect of cranial electrotherapy stimulation (CES) on pain associated with fibromyalgia. *The Internet Journal of Anesthesiology*. 2004; 8(2).

## Pain in Veterans from Spinal Cord Injury



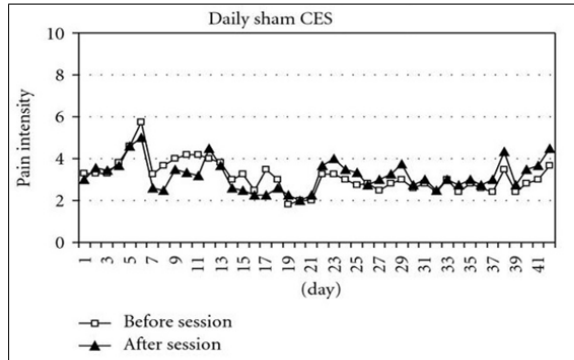
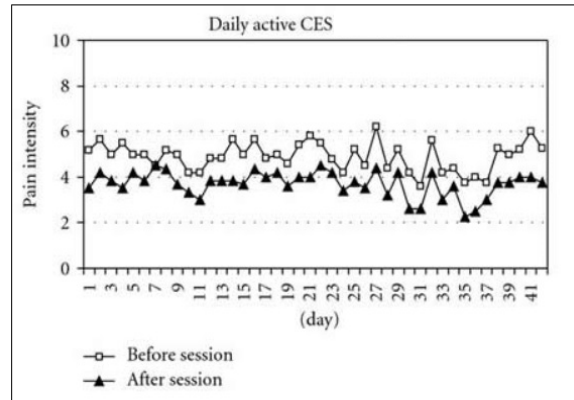
Tan G, Rintala D, Herrington R, Yang J, Wade W, Vasilev C. and Shanti BF. Treating spinal cord injury pain with cranial electrotherapy stimulation. *Journal of Spinal Cord Medicine*. 2003; 26(3). Herrington R, Yang J, Wade W, Vasilev C. and Shanti BF. Treating spinal cord injury pain with cranial electrotherapy stimulation. *Journal of Spinal Cord Medicine*. 2003; 26(3).

### Pain from Spinal Cord Injuries



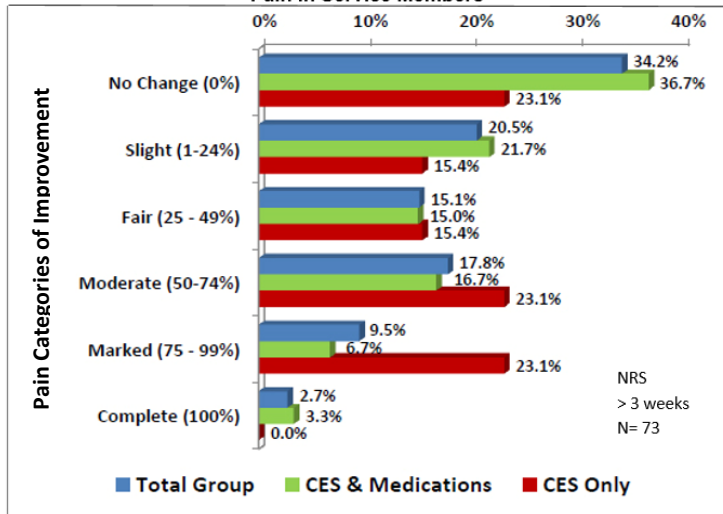
Tan, Gabriel, Rintala, Diana, Jensen, Mark P., Richards, J. Scott, Holmes, Sally Ann, Parachuri, Rama, Lashgari-Saegh, Shamsi and Price, Larry R. Efficacy of cranial electrotherapy stimulation for neuropathic pain following spinal cord injury: a multi-site randomized controlled trial with a secondary 6-month open-label phase. *The Journal of Spinal Cord Medicine*. 2011; 34(3): 285-296.

### Pain in Parkinson's Patients



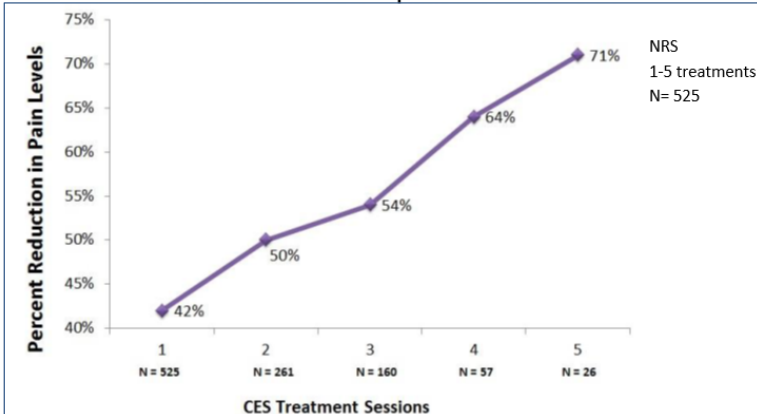
Rintala, Diana H., Tan, Gabriel, Willson, Pamela, Bryant, Mon S. and Lai, Eugene C. H. Feasibility of using cranial electrotherapy stimulation for pain in persons with Parkinson's disease. *Parkinson's Disease*. 2010; 8 pages.

### Pain in Service Members



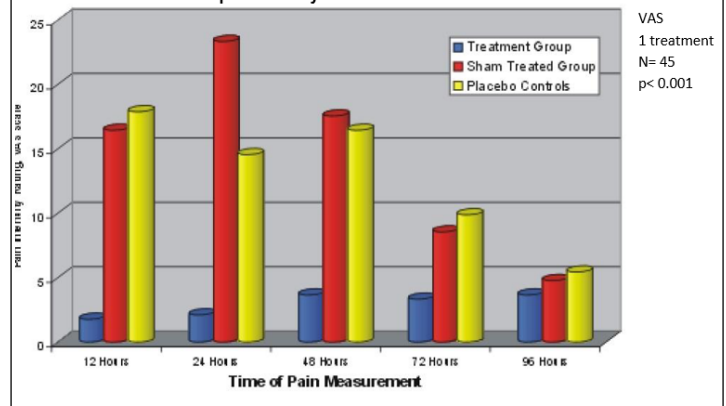
Kirsch DL, Price LR, Nichols F, Marksberry JA and Platoni KT. Cranial electrotherapy stimulation: treatment of pain and headache in a military population. *Practical Pain Management*. 2015; 15(8): 57-64.

### Cumulative Decrease in Pain after 1-5 Alpha-Stim CES Treatments



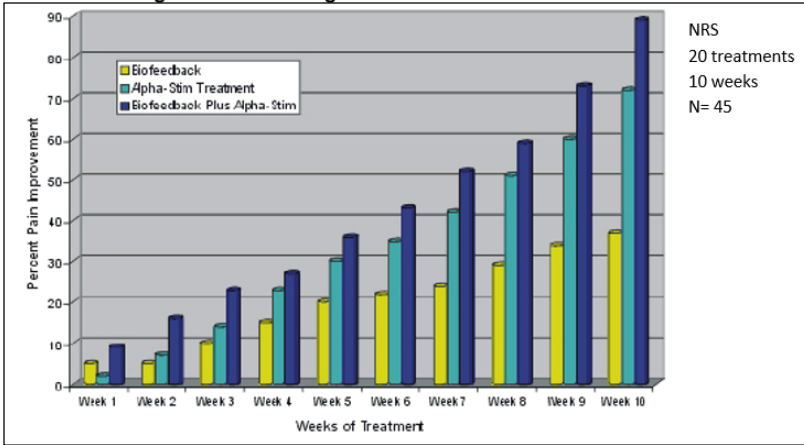
Holubec, Jerry T. Cumulative response from cranial electrotherapy stimulation (CES) for chronic pain. *Practical Pain Management*. 2009; 9(9): 80-83.

### The Effect of One, 20 Minute Alpha-Stim MET Treatment on Experimentally Induced Dental Pain



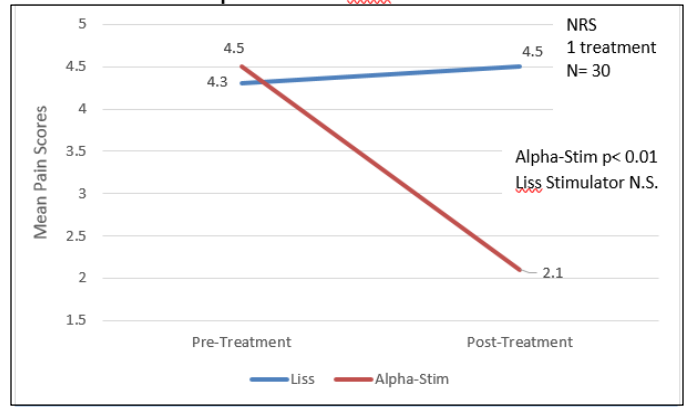
Roth, Peter M and Thrash, William J. Effect of transcutaneous electrical nerve stimulation for controlling pain associated with orthodontic tooth movement. *American Journal of Orthodontics*. 1986; 90(2): 132-138.

**Comparison of Biofeedback, Alpha-Stim Microcurrent Stimulation, and Both Together in Reducing Pain in Chronic Back Pain Patients**



Zimmerman, Stephen I and Lerner, Fred N. Biofeedback and electromedicine reduce the cycle of pain spasm pain in low back patients. *Medical Electronics*. June 1989; 117: 108-120.

**Pain in Degenerative Joint Disease Alpha-Stim vs. Liss Stimulator**



Heffernan, Michael. The effect of variable microcurrents on EEG spectrum and pain control. *Canadian Journal of Clinical Medicine*. 1997; 4(10): 4-11.