

## TENS for Neck Pain

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### TENS vs PLACEBO

Maayah and Al-Jarrah<sup>1</sup> randomly allocated 30 people with neck pain to either TENS (n = 15) or placebo (n = 15) and administered TENS for one hour in a single session. 73% (11 subjects) in the experimental group and 43% (7 subjects) in control group demonstrated marked improvement. The study had important findings that TENS was an effective treatment for neck pain, especially in people with mild severity amidst positive effect shown by placebo TENS also.

### TENS vs TRACTION

Myśliwiec *et al.*<sup>2</sup> studied the combined effect of Saunders traction device and transcutaneous electrical nerve stimulation (TENS) cervical spine range of motion in the sagittal, coronal and horizontal planes in 39 chronic neck pain patients. Three experimental groups were employed—first group is traction alone, second group received traction+TENS, and the third group received TENS alone, and 10 treatment sessions were given in 3 days. CROM device identified improvements in lateral flexion, extension and rotation mobility more in the combined treatment group.

Myśliwiec *et al.*<sup>3</sup> evaluated the combined effect of traction and TENS on painless grip and maximum

strength in 45 neck pain patients of whom Saunders traction device was used in the first group, transcutaneous electrical nerve stimulation and traction were applied in the second group, while the patients in the third group received TENS only, for 10 treatment sessions in three days. Traction produced better increase in painless grip than the TENS in their study.

### TENS vs no Treatment

Park *et al.*<sup>4</sup> administered intra-operative TENS for 100 patients with post-operative thyroidectomy-induced posterior neck pain of whom 50 patients received transcutaneous electrical nerve stimulation on the trapezius muscle and 50 patients who acted as controls. The authors assessed the postoperative posterior neck pain and anterior wound pain using an 11-point numerical rating scale at 30 min, 6h, 24h and 48h following surgery. The pain scores were significantly lower in the TENS group versus the control group at all time points. The study proved the efficacy of intra-operative TENS in this population.

Limited evidence existed for TENS and there is need for more studies in this area.

### References

1. Maayah M, Al-Jarrah M. Evaluation of Transcutaneous Electrical Nerve Stimulation as a Treatment of Neck Pain due to Musculoskeletal Disorders. *J Clin Med Res*. 2010;19;2(3):127-36.
2. Myśliwiec A, Saulicz E, Kuszewski M, *et al.* The effect of Saunders traction and transcutaneous electrical nerve stimulation on the cervical spine range of motion in patients reporting neck pain—pilot study. *Ortop Traumatol Rehabil*. 2012;14(6):515-24.

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3. Myśliwiec A, Saulicz E, Kuszewski M, *et al.* Assessment of the influence of Saunders traction and transcutaneous electrical nerve stimulation on hand grip force in patients with neck pain. *Ortop Traumatol Rehabil.* 2011;13(1):37-44.
4. Park C, Choi JB, Lee YS, *et al.* The effect of intra-operative transcutaneous electrical nerve stimulation on posterior neck pain following thyroidectomy. *Anaesthesia.* 2015;70(4):434-9.

