

**The Science and Clinical Application of Micro-Current Technology:
A Selection of Published Work**

Two papers that suggest that the application of micro-current may have other interesting diversions from the augmentation of biological healing

Keywords: F.F.T, chaos analysis, neuro feedback, micro current M. Heffernan (1996) 'Comparative Effects of Micro current Stimulation on EEG Spectrum and Correlation Dimension'

Integrative and Behavioural Science Vol. 31:

Summary

Thirty (30) subjects were selected for a study comparing the effects of micro-current on smoothing of EEG measurements of the brain. Subjects were randomly assigned to three groups, micro-current (100µA) applied to earlobe, trapezium area of shoulder, and no stimulation. Electrodes were arranged so subjects could not tell which group they were in. Fast Fourier Transform (FFT) and correlation dimension from chaos analysis were used to measure results. The researcher found that micro current applied to the shoulders was markedly more effective in smoothing EEG patterns than earlobe or placebo. "This would represent a possible cost-effective alternative to neuro feedback in treating (anxiety and attention deficit disorders), by raising low regions in the FFT.

Keywords: Trigger points, TP, temporomandibular, conductivity DuPont J (1999) 'Trigger Point Identification and Treatment with Micro Current' *The Journal of Craniomandibular Practice Vol. 17: (4)*

Summary Techniques for locating and stimulating trigger points (TP's) using a micro current stimulator, specifically for the treatment of temporomandibular disorders. Electrical conductivity was highest over trigger points, and galvanic skin response (GSR) testing can be used to locate such points. Probe electrodes are used to treat small TP's, and pad electrodes to treat larger ones.

Probe treatment was delivered @ 0.3 Hz, 20 – 40 µA, with treatment time of 10 – 30 seconds per site. He suggests administering treatment in 24-48 intervals, and states that results should be seen within 2 – 3 treatments.

Glossary of Terms

WH Wound Healing

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ES	Electrical Stimulation
MC	Micro Current
COI	Current of Injury
LIDC	Low Intensity Direct Current
MA	Micro Amp
MA	Milli Amp
-ve	Negative
+ve	Positive
HVPGS	High Voltage Pulsed Galvanic Stimulation
RCT	Randomised Control Trial
PPS	Pulses Per Second
TENS	Transcutaneous Electrical Nerve Stimulation
AC	Alternating Current
DC	Direct Current
PWH	Percentage of Wound Healing

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**Summary of References Relating to the Relationship Between Electrical
Stimulation and Tissue Healing**

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