

# Treatment of Peripheral Neuropathy With Microcurrent Electro-Acupuncture

By Darren Starwynn, O.M.D.

Peripheral neuropathy (PN) is a painful, disabling disorder of the peripheral nervous system. Initial symptoms include burning pain in the hands and feet, and it often progresses into muscular weakness and gait difficulties. The condition is often precipitated by diabetes and AIDS. In the case of diabetes, there is often more central nervous system degeneration, while AIDS-related PN is usually limited to the peripheral NS. In many cases AIDS-related PN is a side-effect of medications such as stavudine, zalcitabine, didanosine, and zidovudine. Other cases are caused by the disease process itself. Painful peripheral neuropathy in both diabetes mellitus and HIV share a similar pathogenesis of axonal atrophy and demyelination (McReynolds, 1995).

Patients with PN often experience dry, itchy skin, and infections due to scratching it with possible weakened immune response is common.

Current medical treatment for PN includes NSAIDs such as ibuprofen or paracetamol for mild cases, or amitriptylene or other tri-cyclic anti-depressants for more advanced cases. These medications can cause uncomfortable side effects of fatigue, dry mouth and constipation. There is no known medical cure for PN.

Due to the lack of effective medical treatments there has been a great deal of interest in finding alternative medical treatments for PN. One that has shown usefulness is supplementation with carnitine, a naturally occurring substance in the body which plays a role in the conversion of triglycerides in mitochondria and which regulates the metabolism of various tissues, including nerve tissue outside of the central nervous system. HIV-positive individuals have been shown to have a shortage of carnitine.

Microcurrent stimulation has shown great promise in the treatment of PN for pain relief and strengthening of muscles and tendons facilitating improved walking and other common functions. Probe techniques that promote meridian balancing, course the channels, promote normal body polarity and energize key acu-points are very valuable. Pad treatment techniques that flood affected areas with microcurrent are also an important aspect of treatment. Dr. Richard Niemtzwow's protocol below is an innovative use of a "scrambled" polarity placements that he has found very effective that apparently helps the body's central nervous system reset its electrical potentials in some unknown way.

You will also receive another article from me soon about a powerful protocol for treatment of PN and other neuro-degenerative conditions using an innovative system "system overhaul" using color light and microcurrent on Back-Shu, Governing and Conception vessel point sets. (This will also be presented at the upcoming New York seminar on May 31).

The following microcurrent protocols have been contributed by Margaret McReynolds, P.T., and Richard Niemtzwow, M.D.

Study by M. McReynolds, based on 17 cases

Results: "In a prospective study we just completed, microcurrent was found to be significant for pain relief as well as improved gait function. The study includes seven months of treatments, and group, and six controls. In the study we used 8 Hz, negative polarity, burst mode, 100  $\mu$ A intensity, sloped waveform, and timer at 20 minutes."

**Average # of treatments:** 8

**Frequency of treatments:** Three times a week

**Etiology of injury/condition:** Axonal death, symptoms include painful parasthesias, weakness.

**Method:** Microcurrent pad placements: St36 --> BI60, Liver 3 and Kidney 1 for pain from knees to toes. L5 S1 crossing to K<sub>1</sub> (bilateral) then St 36 --> BI 60 for pain extending above knees.

**Settings used:** Suggested microamp pad electrode parameters:

**Intensity:** 100  $\mu$ A

**Hz:** 8.0

**Waveform:** Sloped

**Mode:** Continuous

**Polarity:** Biphasic

**Timer:** 20 minutes

**Adjunctive therapies:** Osseous manipulation, massage, craniosacral techniques. Most patients exhibit down coordination, weakness, and loss of forefoot and ankle flexibility. When these are present we combine massage and friction rub to the feet and ankles, balance and strengthening exercises. Patients often also experience spinal column alignment problems. Neural therapy techniques are used to address these problems.

**Further methods or results:** Most patients are also issued a portable microcurrent to use at home one to two times a day for long term management. Relief is lasting, a few patients require periodic clinical follow ups for one or two sessions.

Protocol from Niemtzw and Starwynn (offered at an East-West Seminars event)

### Peripheral Neuropathy

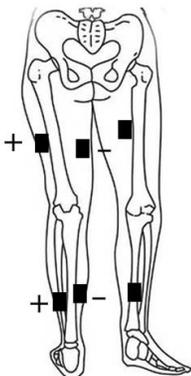
□ Use polarized microcurrent probe electrodes to treat points in sets on affected limbs (first point listed is + polarity, second one listed is – polarity): St 36→St 41, SI joint area→UB 60, Sp 9→Sp 6, Lv 3→K 1, GB 34→GB 41, groin→K 1, etc

□ Use polarized microcurrent pads with asymmetrical polarity pad placements. i.e., left leg, + proximal, - distal, right leg, - proximal, + distal.

□ Pad parameters: 0.6 Hz – 2 Hz, square wave, 25 – 50  $\mu$ A. Treat 20 minutes every other day.

For recalcitrant cases, try alternating microamp with narrow pulse milliamp treatment (high volt galvanic current). Acupuncture needles may be inserted into major Qi circulatory points on the legs in conjunction with the pad electrodes. Useful needling points include GB 31, 34, 40, 41, St 30, 36, 37, Sp 6 + 9, K 2.

Useful Colors of Light - Turquoise (acute alterative), Indigo (sedative for inflammation or restless legs), Yellow if with leg weakness (stimulates the nervous system)



References for this article:

- 1) Lower Limb Presentation of HIV/AIDS by Danii Paterson
- 2) Physical therapy management of HIV disease: a retrospective study, by Galatino, ML and McReynolds MA, Oregon Health Sciences University, Portland, OR , quoted in [J Int Assoc Physicians AIDS Care](#). 1995 Jun;1(5):15-8

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