

# **Naeser Laser Acupuncture to Treat Paralysis in Stroke**

Naeser MA, Alexander MP, Stiassny-Eder D, Galler V, Hobbs J, Bachman D, Lannin L: Laser Acupuncture in the Treatment of Paralysis in Stroke Patients: A CT Scan Lesion Site Study. American Journal of Acupuncture, 23(1):13-28, 1995.

The laser device, the laser parameters, and the acupuncture points used are provided below. For additional information, see the above-listed article, and more references on the next page.

The chronic stroke patients were treated 2 – 3 times per week, for 3 or 4 months. If they were good candidates (paralysis not too severe), there was improvement of around 15% on isolated active range of motion for knee flexion, knee extension and/or shoulder abduction.

Patients with problems controlling food or liquids in the mouth, may also benefit, if points on the face are treated with laser acupuncture, ST 4, 5, 6, 7; LI 20, SI 18; Joules per cm<sup>2</sup> may vary, from 5 - 50 J/cm<sup>2</sup>, the necessary energy density dosage per point, is uncertain.

## **Laser Parameters used in the above research paper:**

### Laser:

20 mW Gallium Aluminum Arsenide, (780 nm), near infrared, CW, diode laser (Unilaser, Denmark), with 1 mm diameter aperture.

### Treatment Parameters and Energy Density Dosages:

20 Sec. On shallow acupuncture points  
(hands and face) 51 J/cm<sup>2</sup>

40 Sec. On deeper acupuncture points  
(arms and legs) 103 J/cm<sup>2</sup>

## **Acupuncture Points used in the above research paper:**

### Paralyzed Arm:

**LI 4, 11, 15**

**TW 5, 9**

**Three distal Baxie points in web-spaces between fingers**

### Paralyzed Leg:

**ST 31, 36**

**GB 34, 39**

**LIV 3**

### Non-Paralyzed Arm and Leg:

**LI 4**

**ST 36**

### Side of Facial Paralysis:

**ST 4, 6, 7**

**LI 20**

**SI 18**

## Additional References

- Naeser MA: Acupuncture in the Treatment of Paralysis due to Central Nervous System Damage. The Journal of Alternative and Complementary Medicine, 2(1):211-248, 1996.
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- Branco K and Naeser MA: Carpal tunnel syndrome: Clinical outcome after low-level laser acupuncture, microamps transcutaneous electrical nerve stimulation, and other alternative therapies - an open protocol study. The Journal of Alternative and Complementary Medicine, 5(1): 5-26, 1999.
- Naeser MA & Deuel SK: Review of Second Congress, World Association for Laser Therapy Meeting (WALT), September 2-5, 1998, Kansas City, MO, U.S.A. The Journal of Alternative and Complementary Medicine 5(2):177-180, 1999.
- Naeser MA. Acupuncture and Laser Acupuncture to Treat Paralysis in Stroke, Cerebral Palsy, Spinal Cord Injury and Bell's Palsy. Chapter in Claire M. Cassidy (Ed.). Contemporary Chinese Medicine and Acupuncture. Churchill-Livingstone, Philadelphia, PA, 350-372, 2002.
- Naeser MA. Laser Acupuncture to Treat Carpal Tunnel Syndrome Pain and Future Areas for Laser Acupuncture Research. Chapter in E.D. Leskowitz (Ed.), Complementary and Alternative Medicine in Rehabilitation. Churchill Livingstone, St. Louis, MO. 2003, Chapter 33, pp. 382-385.
- Naeser MA, Hahn K-A K, Lieberman BE, Branco KF. Carpal Tunnel Syndrome Pain Treated with Low-Level Laser and Microamps TENS, A Controlled Study. Archives of Physical Medicine and Rehabilitation, 2002;83:978-988.

### Books

- Naeser MA: Outline Guide to Chinese Herbal Patent Medicines in Pill Form - with Sample Pictures of the Boxes. Boston: Boston Chinese Medicine. 1989. mnaeser@bu.edu
- Naeser MA, Wei XB: Laser Acupuncture - An Introductory Textbook for Treatment of Pain, Paralysis, Spasticity and Other Disorders. Clinical and Research Uses of Laser Acupuncture from Around the World. Boston: Boston Chinese Medicine. 1994. mnaeser@bu.edu