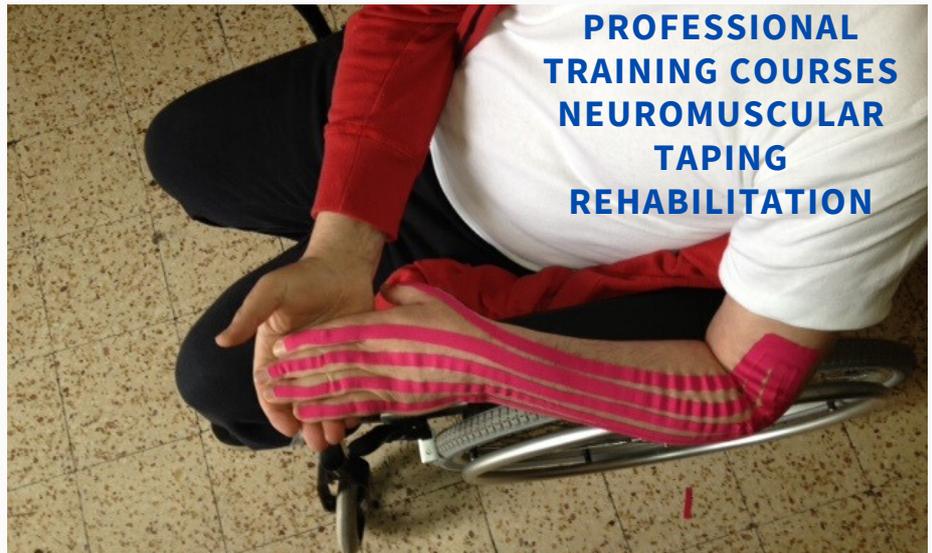




# EBM NEWSLETTER

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## **EFFECTIVENESS OF NEUROMUSCULAR TAPING ON PAINFUL HEMIPLEGIC SHOULDER: A RANDOMISED CLINICAL TRIAL.**

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### **Abstract**

The purpose of this trial was to investigate changes in pain, the range of motion (ROM) and spasticity in people with painful hemiplegic shoulder (PHS) after the application of an upper limb neuromuscular taping (NMT). We conducted a randomised clinical trial. The study included 32 people, 31% female (mean±SD age: 66±9 years), with PHS after stroke with pain at rest and during functional movements. The experimental group received the application of NMT and a standard physical therapy programme (SPTP), whereas the control group received SPTP. The groups received four 45-minute long sessions over four weeks.

## Evidence Based Research and Clinical Effectiveness

The Research & Development aspect of the NMT institute is based upon the creation of clinical experiences and controlled treatment trials leading to research projects that eventually modify how we treat our patients.

## PROFESSIONAL TRAINING IN HEALTH CARE

All training courses in the medical and health area of the NeuroMuscular Taping Institute are certified by Continuing Education Credits in the country where they are held.

NeuroMuscular Taping Institute is an activity of Savà rehabilitation LINK.



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The VAS, ROM and spasticity were assessed before and after the intervention with follow-up at four weeks. The experimental group had a greater reduction in pain compared to the control group at the end of the intervention, as well as at one month after the intervention (p<0.001; all the group differences were greater than 4.5!cm, which is greater than the minimal clinically important difference of 2.0!cm). The experimental group had a significantly higher (i.e. better) ROM, by 30.0°, than the control group in shoulder flexion (95% CI: 37.3-22.7) at 4 weeks and by 24.8° (95% CI: 32.1-17.6) at 8 weeks as well as in abduction by 30.6° (95% CI: 37.5-23.7) at 4 weeks and 25.1° (95% CI: 33.8-16.3) at 8 weeks.

Our study demonstrates that NMT decreases pain and increases the ROM in subjects with shoulder pain after a stroke. Implications for Rehabilitation Painful hemiplegic shoulder is a frequent complication after stroke with negative impacts on functional activities and on quality of life of people, moreover restricts rehabilitation intervention. Neuromuscular taping is a technique introduced by David Blow for the treatment of neuromusculoskeletal problems. This study shows the reduction of pain and the improvement of range of motion after the application of an upper limb neuromuscular taping. Rehabilitation professionals who are involved in the management of painful hemiplegic shoulder may like to consider the benefits that neuromuscular taping can produce on upper limb.

**KEY WORDS:** Taping neuromuscular, Pain; shoulder; stroke

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David Blow, 2018 Aug 30;10:1603-6. doi: 10.2195/09060208.2018.1107031. Epub 2018 Dec 1. [View full text](#)

**Effectiveness of neuromuscular taping on painful hemiplegic shoulder: a randomised clinical trial.**

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**Abstract**

**PURPOSE:** The purpose of this trial was to investigate changes in pain, the range of motion (ROM) and spasticity in people with painful hemiplegic shoulder (PHS) after the application of an upper limb neuromuscular taping (NMT).

**METHODS:** We conducted a randomised clinical trial. The study included 32 people, 31% female (mean ± SD age: 66 ± 9 years), with PHS after stroke with pain at rest and during functional movements. The experimental group received the application of NMT and a standard physical therapy programme (SPTP), whereas the control group received SPTP. The groups received four 45-minute long sessions over four weeks. The VAS, ROM and spasticity were assessed before and after the intervention with follow-up at four weeks.

**RESULTS:** The experimental group had a greater reduction in pain compared to the control group at the end of the intervention, as well as at one month after the intervention (p < 0.001; all the group differences were greater than 4.5 cm, which is greater than the minimal clinically important difference of 2.0 cm). The experimental group had a significantly higher (i.e. better) ROM, by 30.0°, than the control group in shoulder flexion (95% CI: 37.3-22.7) at 4 weeks and by 24.8° (95% CI: 32.1-17.6) at 8 weeks as well as in abduction by 30.6° (95% CI: 37.5-23.7) at 4 weeks and 25.1° (95% CI: 33.8-16.3) at 8 weeks.

**CONCLUSION:** Our study demonstrates that NMT decreases pain and increases the ROM in subjects with shoulder pain after a stroke. Implications for Rehabilitation Painful hemiplegic shoulder is a frequent complication after stroke with negative impacts on functional activities and on quality of life of people, moreover restricts rehabilitation intervention. Neuromuscular taping is a technique introduced by David Blow for the treatment of neuromusculoskeletal problems. This study shows the reduction of pain and the improvement of range of motion after the application of an upper limb neuromuscular taping. Rehabilitation professionals who are involved in the management of painful hemiplegic shoulder may like to consider the benefits that neuromuscular taping can produce on upper limb.



## Evidence Based Research and Clinical Effectiveness

### Research and Clinical Effectiveness

The Research & Development aspect of the NMT institute is based upon the creation of clinical experiences and controlled treatment trials leading to research projects that eventually modify how we treat our patients. A good idea is not enough – it has to be substantiated using correct and precise treatment methodology. The role of the NMT Institute is to create correct and duplicable training which is the basis to all continuing education and primary objective to all training in medicine. Our role is to ensure that the Know-How created over the last 20 years becomes solid and reproducible medical intelligence.

The EB selection of clinical papers is an international open access to all areas in medicine and rehabilitation that underline possible advances in basic and advanced clinical medical research. Our objective is to create a platform for sharing correct NMT treatment methodology and result reciprocity which is the basis to all “good quality” evidence based research and clinical trials. This ongoing NeuroMuscular Taping EB selection newsletter will present research articles, reviews, short communications, patient testimonials and case reports which have been published and available from independent sources. Authors and trained NMT specialists are encouraged to publish their personal experience. Only through your personal effort to share your consolidated and sometimes experimental results you are able to positively influence “how we treat our patients” and to increase our understanding of fundamental principles in the treatment and rehabilitation progression.

**Help us share your professional KNOW-HOW to others.**

Regards, David Blow



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Rehabilitation specific Research Projects. The NMT Institute is committed to creating innovative and continuous training programs to help medical treatment rehabilitation services offer the best therapy possible and offer increasingly updated therapy.

The goal of the NMT Institute is to improve the overall results of patients' rehabilitation treatment and their quality of life by using standardized therapeutic protocols. The use of the technique allows you to reduce both pain and recovery times so that patients can quickly achieve psycho-motor health and well-being.

The NMT Institute's goal is to improve patients' overall treatment results and quality of life by using our treatment protocols to maximize patients' rehabilitation time, reduce pain, and enable patients to achieve active and healthy lifestyles. The comprehensive medical rehabilitation education program maintains high quality standards that will guide medical and rehabilitation staff in gaining new treatment skills to improve short and long-term rehabilitative care.

The NMT Volunteer Projects has the overall objective of breaking the vicious circle of poverty/disability, which is established in not only third world countries but in all countries, through protocols and research programs intended for local specialists who operate in the area.

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