



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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Preface

NEUROMUSCULAR TAPING NEW HORIZONS 2021

ONLINE SYMPOSIUM 31 ST JANUARY 2021

NeuroMuscular Taping (NMT) is elastic-decompression methodology

Dear All,

Thankyou all for being present at the **ONLINE** and **LIVE** NeuroMuscular Taping Symposium Indonesia 2021. Special greetings to contributing authors from Indonesia, Malaysia, Malta and Italy with their articles, case studies, experience, expertise and with simply your presence. Your efforts underline your personal and professional involvement with NeuroMuscular taping as a treatment, therapeutic and rehabilitation methodology to assist in the improvement of patients' conditions and well being. NeuroMuscular taping is therapeutic based and consequently covers all aspects of medicine ranging from surgery, orthopedic, neuropathology, sport, vascular and lymphatic areas and involving all professional areas as doctors, physical therapists, nursing, occupational therapists, speech therapists and all areas of health services.



In this symposium have the pleasure of a presentation from a Biologist, **Annamaria Vallelunga**, who will present the latest on analysing MicroRNA as a means of evaluating effective NMT treatment procedures. Following from the first ever publication of its kind in 2017 on the NMT treatment of Multiple Sclerosis showing significant variations of microRNA, Annamaria will present the impact and possibilities for future development of studies specific to diabetic neuropathy and ulcer healing together with possible collaborations with Indonesia. **Carmin Berlingieri** will also present his long term experience with NMT in neurological disorders such as MS, dropped head syndrome, stroke, Parkinsons and others. His treatment and training experience together with hundreds of colleagues in the Venice regione now offer NMT treatment protocols in the national health service. Indeed there is room for continuing studies, better and specific research projects and development of treatment protocols and follow-up to underline the possible implications and prognosis creating application cycles for this non pharmacological treatment modality. **Kshtrashal Singh** from AIMST University Malaysia will take you through 2 recently published articles on lower back pain and neck pain using NMT. His detailed experience in paediatric disorders with NMT will be presented in future symposiums.

In this symposium we also have a presentation from the occupational therapy association in Malta. After concluding several trainings in collaboration with government hospitals we will see possible impacts of NMT for geriatric treatment and management with **Demis Cachia**, Senior Allied Health Practitioner (Occupational Therapist) and President MAOT, Malta.

The most difficult problem with the discussion on "Taping" is its definition. There are many types of taping used in the therapeutic area. Many a similar to simple bandaging techniques or coloured taping techniques. But the fundamental aspect is that all systems are not the same as some want you to believe.



This is why we need to clearly define the methodology. NeuroMuscular Taping is elastic decompressive taping system and it is fundamental that all those trained use correct terminology. NeuroMuscular taping is not just taping!

Other presentations will highly confirm this affirmation. **Amanda Tiksnadi** from Department of Neurology Universitas Indonesia, Jakarta will present her experience from a neurologist pathologist standing. Clinical effectiveness is our ultimate objective. Research will explore the possible reasons for effectiveness and we, as the NMT Institute, are involved in the development and support of research.

Grace Tumbelaka will also give her experience on the NMT treatment protocols for lateral ankle sprain from a sport medical viewpoint. The importance of creating fast track methods of rehabilitation is fundamental in the development of new treatment horizons.

Patient treatment areas also cover the nursing profession. The logical development of treatment protocols for patient quality of life issues together with mobility and care improvements in a nursing profession is certain. **Heri Kristianto** will present various opportunities for the nursing profession using NMT treatment procedures in a recently published article. The work and results developed in the treatment of diabetic ulcer are important forerunners not only for the Indonesian population but also for all of Asia.

Umi Budi Rahaya will present a case report on Bells Palsy - a debilitating and frequent condition in asia, africa and south america. NMT application procedures help to improve treatment options before the condition becomes chronic.

The “NMT Know-How” and the “Intellectual Property NMT” began in 2000 in Italy and consolidated during 2003 together with the creation of both the NMT concept and the NMT Institute. NeuroMuscular Taping refers to a specific decompressive taping application methodology which is characterised by resulting skin wrinkling, skin folds or skin undulations. NMT taping application creates various types of skin, muscle, joint,



sensory, vascular and tactile stimulation under study over the last decade. The application methodology and clarifying terminology is fundamental. If you can see the taping creating typical undulations and wrinkling of the skin it is an evident application of NeuroMuscular taping.

With the objective of sustaining pioneering research, a large scale **Indonesian lower back pain treatment project** using NMT has started in January 2021. All of you NMT certified in this symposium are invited to join this multi-center research project offering your treatment results using a standardised NMT treatment protocol. The study will be over 12 months covering all of 2021. The project is an acknowledgment of our collective commitment to find better solutions for the many health difficulties that we have day to day. If you are interested then please contact the organisers.

Our philosophy is based on the use of **“Clear and comprehensive educational programs”** capable of offering NeuroMuscular Taping as a flexible technique that can be integrated with all rehabilitative therapies and professions. The R&D 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 the primary objective to all training in medicine. Our role is to ensure that the NMT Know-How created over the last 20 years becomes solid and reproducible medical intelligence.

Recent health developments have created new opportunities and comprehensive online **NMT e-learning programs** will shortly be available for university students and working professionals.

A recent publication on the use of NMT protocol in the treatment of post knee replacement surgery has shown significant reduction of pain and edema with activation of neuroplasticity mechanisms. This study indicates that patients with a specific NMT knee application have improved their



collaboration in post surgery rehab. Current research indicates that mainstream physical therapy is effective but there are continuing difficulties in patient collaboration after invasive surgery. In this study we have shown how patients are more compliant with treatment. I'm 100% sure that this is also your results. Your patients, during NMT treatments, have reported to you that they feel better, feel lighter, they have less difficulty, less pain and especially less FEAR. All creating an improved **FAST TRACK** treatment concept.

NEUROMUSCULAR TAPING (NMT) AND NEUROPLASTICITY: NMT Reduces Pain, Edema and Influences Proprioceptive Cognitive Strategies During Total Knee Arthroplasty Rehabilitation. Research Article Journal of Medical Research and Case Reports. Volume 2 • Issue 3 • 2020; DOI: 110.5281/zenodo.3934948. Albizzati Erica, Trotti Claudio, Forte Fabiana and Blow David

Abstract: The objective of this study is to propose new integrative strategies to enhance fast-track recovery after TKA surgery. Twenty patients underwent total knee replacement arthroplasty surgery (TKA) were randomly grouped into an experimental rehabilitation group using physical therapy and application of a standardised decompression NeuroMuscular Taping (NMT) protocol on the operated knee (n° patients: 11) and a control group using physical therapy and an application of a standardised compression sham taping application on the operated knee (n° patients: 9). Each patient was asked to perform active mobilisation on the operated knee in a sitting position of (3 sets of 5 repetitions) while wearing a BCI MindWave device (NeuroSky®). The aim of the study was to assess whether the NMT application induces changes in frontal cortex neuronal activity, where cognitive and attentional processes are elaborated. In addition to assess the efficacy of NMT for treating edema and pain secondary to a total knee replacement surgery; patient evaluation items included: lower limb size, range of motion (ROM) and pain (Numerical Rating Scale NRS).

Results: Over the treatment period we observed that the experimental group had a statistically significant reduction of edema ($p < 0,01$), statistically significant reduction of pain ($p < 0,01$) than the control group. Conversely, there were no significant differences between the groups regarding ROM. We recorded a statistically significant improvement in cognitive performance and activation of frontal cortex in patients who carried out attentional feedback exercises with decompressive NMT on their operated knee ($p < 0.01$).

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Evaluation of EEG wave amplitude showed a greater cognitive activation for the experimental group's patients: total average amplitudes of alpha, beta and gamma waves were higher and statistically significant ($p < 0.05$) in patients with decompressive NMT. While total average frequencies of alpha, beta and gamma waves did increase all together they did not show a significant variation across all three.

Conclusion: The objective of this study was to investigate treatment options for improving post surgical rehabilitation creating faster track protocols for an ever increasing joint prosthetic population. This study has underlined significantly improved reduction of edema and pain in a rehabilitation context and allowed us to hypothesise the effects generated by a decompressive tape application (NMT) upon circuits delegated to the cognitive-attentional processing of stimuli.

Keywords: Total knee arthroplasty TKA, Brain Computer Interface, NeuroMuscular Taping, postoperative rehabilitation, Physical therapy, Physiotherapy.

Special thanks to all those who have contributed to the organisation and development of NMT Institute activities in Indonesia since 2015 such as the many course participants, universities, hospitals, teaching core group and Sertipro which governs the Indonesian certification process.

Help us **SHARE NMT KNOW-HOW, MOVE AHEAD** and **NEVER LOOSE HOPE!**

Looking forward to seeing you all in the near future.

Best regards,
David Blow
Founder NeuroMuscular Taping Institute
Indonesia 31st January 2021