DOI: 10.7860/JCDR/2025/80478.21649

Neuromuscular Taping Techniques in Neurological Rehabilitation: A Review

Falak Naaz, BPT, Department of Physiotherapy, Maharishi Markandeshwar Institute of Physiotherapy and Rehabilitation, Maharishi Markandeshwar (Deemed to be University), Mullana, Ambala, Haryana, India.
Rittu Sharma, Assistant Professor, Department of Physiotherapy, Maharishi Markandeshwar Institute of Physiotherapy and Rehabilitation, Maharishi Markandeshwar (Deemed to be University), Mullana, Ambala, Haryana, India.
Kanika, Assistant Professor, Department of Physiotherapy, Maharishi Markandeshwar Institute of Physiotherapy and Rehabilitation, Maharishi Markandeshwar (Deemed to be University), Mullana, Ambala, Haryana, India.

NAME, ADDRESS, E-MAIL ID OF THE CORRESPONDING AUTHOR:

Kanika,

Assistant Professor, Department of Physiotherapy, Maharishi Markandeshwar Institute of Physiotherapy and Rehabilitation, Maharishi Markandeshwar (Deemed to be University), Mullana, Ambala, Haryana, India.

E-mail: kanika.k160@gmail.com

ABSTRACT

Neuromuscular Taping (NMT) is a modern advancement in taping techniques. NMT involves applying elasticadhesive tape to the skin without any tension over the target area which willcreate wrinkles in skin causing dilation effect on the underlying body tissue. It aids in restoring normal muscle function, improving vascular and lymphatic flow, alleviating pain, strengthening weak muscles, supporting postural alignment, and relaxing overused muscles. Pain relief is believed to result from the stimulation or activation of cutaneous mechanoreceptors. As this approach gains worldwide popularity, researchers are investigating its effects on various conditions. However, there is no comprehensive study that reviews all existing research to assess its impact on different neurological conditions. This review aimed to compile existing literature on NMT for the rehabilitation of neurological conditions. An electronic search was conducted using databases such as PubMed, Medline, Ovid, Scopus, Google Scholar, and the Physiotherapy Evidence Database (PEDro) for studies published between 2018 and 2025. Searches were limited to Randomised Controlled Trials, pilot trials, case series, and case reports published in English in peer-reviewed journals. Boolean operators "OR" and "AND" were used with keywords including “Neuromuscular Taping,” “Neurological conditions,” “Stroke,” “Hemiplegia,” “Cerebral Palsy,” “Multiple Sclerosis,” “Diabetes Mellitus,” “Diabetic Peripheral Neuropathy,” “Balance,” and “Proprioception.”From the initial search, 21 full-text articles were identified. After screening titles, abstracts, and removing duplicates, 15 articles were included in the review. NMT was shown to be effective in improving upper limb and hand function in systemic sclerosis and cerebral palsy, reducing pain in multiple sclerosis, enhancing balance, improving microcirculation in diabetes mellitus, aiding stance phase recovery in stroke patients, managing phantom pain post-amputation, and alleviating musculoskeletal impairments such as hemiplegic shoulder pain and diabetic peripheralneuropathy. The review highlights the potential of NMT as a versatile therapeutic intervention for neurological rehabilitation. While the findings suggest promising benefits across various conditions, the limited number of high-quality studies underscores the need for further research. Future investigations should focus on standardised protocols, larger sample sizes, and robust methodologies to validate and expand the clinical applications of NMT.

Keywords: Cerebral palsy, Diabetic peripheral neuropathy, Hemiplegia, Multiple sclerosis.