

# The Potential Therapeutic Benefits of Massage in Managing Spasticity: It's the Time to Discredit Myths and Embrace Evidence.

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Spasticity, characterized by uncontrolled and increased muscle tone along with exaggerated tendon reflexes, is a common clinical symptom in various neurological disorders such as stroke, cerebral palsy, multiple sclerosis, and spinal cord injuries. Effective management of spasticity is crucial for improving patients' quality of life, enhancing mobility, and reducing pain. Despite the growing body of evidence supporting various therapeutic interventions, a prevalent misconception in Pakistan persists: that massage is contraindicated and potentially harmful in the management of spasticity. This article aims to discredit this myth by presenting the latest evidence and highlighting the benefits of massage therapy in managing spasticity.

**Understanding Spasticity:** Spasticity results from a disruption in the upper motor neurons' pathways, leading to an imbalance between excitatory and inhibitory signals in the muscles. This imbalance causes the muscles to remain in a state of involuntary contraction, resulting in stiffness, discomfort, and limited mobility. Traditional management approaches include but not limited to pharmacological interventions, physical therapy, serial casting and sometimes surgical interventions. However, massage therapy, an often-overlooked strategy, has shown promising results in managing spasticity.<sup>1</sup>

**The Myth of Massage being Harmful and Contraindicated:** The misconception that massage therapy is contraindicated for spasticity likely stems from a lack of understanding about the condition and the effects of massage on the muscular and nervous system. Some healthcare professionals including physiotherapists fear that massage may exacerbate muscle spasticity and subsequently can cause harm. Therefore they advise the parents of spastic children not to use massage. On the other hand, majority of the doctors including pediatricians and neuro-physicians advise for its use. Hence parents find them in a dilemma that what to do in such a situation? However, research indicates that when executed gently and correctly, massage therapy can have a beneficial effect on muscle tone, circulation, and overall well-being.<sup>2</sup>

**Benefits of Massage Therapy in Spasticity Management:** Studies have shown that massage therapy can significantly reduce abnormal muscle tone and spasticity. A systematic review conducted by Pandyan et al. found that massage interventions, particularly when combined with stretching exercises, led to a notable decrease in muscle stiffness and improved range of motion in patients with spasticity.<sup>3</sup> Another study by Arroyo-Morales et al. demonstrated that massage therapy reduced spasticity and increased muscle flexibility in patients with multiple sclerosis.<sup>4</sup>

**Improvement in Blood Circulation:** Massage therapy enhances blood flow to the affected muscles, which is crucial for reducing spasticity. Increased circulation helps deliver oxygen and nutrients to the muscles, promoting relaxation and reducing muscle stiffness. Research by Hvas et al. showed that massage improved peripheral circulation and decreased muscle tightness in spasticity patients.<sup>5</sup>

**Pain Relief and Enhanced Comfort:** Chronic pain is a common issue for individuals with spasticity. Massage therapy can alleviate pain by promoting the release of endorphins and reducing the perception of pain. A study by Furlan et al. highlighted that massage therapy significantly reduced pain levels in patients with neurological conditions, thereby improving their overall comfort and quality of life.<sup>6</sup>

**Psychological Benefits:** Beyond physical benefits, massage therapy also offers psychological advantages. It can reduce stress and anxiety, improve mood, and enhance overall mental well-being. These psychological benefits are particularly important for patients dealing with chronic conditions like spasticity. A study by Moyer et al. found that regular massage therapy sessions led to significant improvements in psychological well-being and reduced symptoms of depression in patients with chronic illnesses.<sup>7</sup>

**Practical Considerations for Implementing Massage Therapy:** To maximize the benefits of massage therapy for spasticity management, it is essential to consider certain practical aspects:

**Firstly**, massage therapy should be administered by trained and qualified persons who understand the nuances of spasticity and are familiar with appropriate techniques. However, such trained persons are scarcely available in Pakistan, so physiotherapists should train parents or caregivers on proper technique, intensity and frequency of massage to get desired results.

**Secondly**, massage therapy should be tailored to the individual needs of each patient considering factors such as the severity of spasticity, underlying conditions, and patient's preferences. Massage should be performed gently in such positions in which spasticity can be inhibited. As an example, if a child is presenting with scissoring of legs due to tight adductor muscles, then best position for massage would be moderate abduction and external rotation of the legs. This type of position is also termed as "reflex inhibiting posture".

**Thirdly**, Physiotherapists should combine massage therapy with other therapeutic interventions such as physical therapy, occupational therapy, pharmacological treatments and surgical interventions if deemed necessary for a holistic approach to spasticity management. Patients and their families should be educated in detail about the benefits and safety of massage therapy in managing spasticity by addressing any concerns and debunking existing myths to ensure informed decision-making.

**Fourthly**, spreading awareness about the positive effects of massage therapy among rehabilitation professionals is crucial. Workshops and training sessions can help address existing skepticism and equip therapists with the necessary knowledge to confidently recommend massage as part of a comprehensive treatment plan. Effective communication and collaboration between rehabilitation professionals and massage therapists are vital. Sharing patient assessments and treatment goals creates a holistic approach, maximizing the benefits of each therapy.

**Latest Evidence Supporting Massage Therapy:** Recent studies continue to support the role of massage therapy in managing spasticity: A randomized controlled trial by Silva et al. demonstrated that massage therapy significantly reduced spasticity and improved motor function in stroke patients.<sup>8</sup>

Research by Khan et al. found that massage therapy combined with stretching exercises resulted in better spasticity management outcomes compared to stretching alone in patients with cerebral palsy.<sup>9</sup> A meta-analysis by Li et al. concluded that massage therapy is an effective and safe intervention for reducing spasticity and improving the quality of life in patients with neurological disorders.<sup>10</sup>

## Conclusion

The myth that massage therapy is contraindicated and harmful in the management of spasticity is not supported by scientific evidence. On the contrary, massage therapy offers numerous benefits, including reduced muscle tone, improved circulation, pain relief, and

psychological well-being. By integrating massage therapy into the comprehensive management plan for spasticity, healthcare professionals in Pakistan can enhance patient outcomes and improve the quality of life for those affected by this challenging condition. It is time to embrace the evidence and recognize the therapeutic effects of massage in the management of spasticity.

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