

# The Benefits of Massage Therapy for Stroke Patients Sequelae

Beckett Curran\*

Department of Human Movement Sciences, Federal University of Sao Paulo, Butanta, Brazil

## Abstract

Adults with long-term disabilities have the highest risk of stroke. Stroke survivors experience agonist antagonist co-contraction, weakness, spasticity, and lack of coordination as upper motor neuron syndrome signs and symptoms. Stroke survivors experience permanent disability at up to 50%. They all add up to impairments and problems with functioning that could cost a lot of money. Physical therapy can help people with disabilities by improving their disability and quality of life. The most common form of passive physical therapy is manual therapeutic massage, which is one of the oldest forms of medicine known to man and has been used worldwide since antiquity. All back rub controls exert mechanical forces on delicate tissues via "mechanotransduction." Massage may help reduce muscle stiffness and increase muscle compliance by increasing blood flow and muscle temperature. Therapeutic massage comes in many different varieties. In the Western world, Swedish massage is the most common type of massage. Based on Western ideas of anatomy and physiology, one of the most common treatments for athletes who want to improve their performance is massage. In order to achieve or maintain health, it requires the systematic application of manual pressure as well as the movement of soft tissue with rhythmic pressure and stroking.

**Keywords:** Telerehabilitation • Physiotherapy • Musculoskeletal • Therapeutic massage

## Introduction

Another type is the Tuina Chinese massage. This involves a variety of strokes, shaking, stretching, and joint movement along energy channels to restore equilibrium to the body's physical and emotional systems. In Indian massage, the tissues of the body are worked on with the hands (Dalk). Dalk is based on Unani medicine's concepts of tanqiyah (expulsion) and imla (diversion). Last but not least, Thai massage is a kind of deep massage that works on the muscles with light, consistent pressure. Pressure point massage, or Sen Sib, along the body's ten major energy channels, is thought to be able to free up blocked energy, increase awareness, and boost vitality. Therapeutic massage has been shown to effectively improve mood, create a sense of pleasure, and reduce the occurrence of major adverse events and injuries. This includes cancer patients, para-athletes, people with some neurological conditions like Parkinson's disease, dementia, and people who have constipation after a stroke.

## Literature Review

However, there is insufficient scientific evidence to suggest that therapeutic massage can help stroke survivors. Due to the inconsistent reporting of therapeutic massage trends in previous studies, we conducted a meta-analysis and systematic review for evidence-based treatment. As a result, the purpose of this systematic review is to investigate the evidence that therapeutic massage can enhance the quality of life, disability, motor function, spasticity, activities of daily living, anxiety, pain, balance, and gait of adult stroke survivors. Traditional physiotherapy and therapeutic Chinese massage (Tuina) work well to improve motor function and reduce spasticity in stroke survivors, particularly in the subacute stage, according to this systematic review and meta-analysis. Combining acupuncture and Tuina massage also helps alleviate symptoms. The findings of this review are significant because the therapeutic massage

intervention had positive effects on motor function in the upper and lower limbs and was mostly used in the sub acute stage of the stroke. Patients, researchers, and clinicians continue to place a high priority on the restoration of upper limb function [1].

Everyone was surprised to find that only one study used Swedish massage as an intervention in this review. Utilizing it reduced anxiety. Since Swedish massage is currently the most well-known and widely used type of massage in Western countries, this surprised us. We anticipated finding additional studies because other authors had used Swedish massage to improve spasticity and motor function in multiple sclerosis and cerebral palsy. There were no scientific publications in Africa, Australia, Europe, or the United States; They could only be found in Asian countries, especially China.

Although the two are related, motor function in the upper and lower limbs received the most attention, followed by spasticity. Motor impairments in stroke survivors can be described as a cycle of overactivity, contraction, and overactivity. Along with the continuum of paresis, disuse, and cycle, this cycle occurs simultaneously. Both cycles must be disrupted in order to achieve optimal motor recovery and function [2].

In point of fact, motor function is restored more fully when spasticity is absent. It is essential to reduce spasticity before the patient performs voluntary movement in order to obtain a movement of some quality because this will affect the individuals' neuroplasticity and recovery. A number of authors assert that the sensory system is the most significant predictor of severe spasticity and has a significant impact on its reduction. What causes changes in stroke survivors' spastic muscle elastic modulus is still up for debate. One possibility is that the muscle's structure has changed in response to the stroke. It has been discovered that the muscle fascicles in the upper and lower limbs are shorter. These findings suggest that passive stretching may alter the morphology of the paretic muscle, resulting in abnormal elastic properties. Due to damage to the motor cortex and its descending pathways and the subsequent unmasking of inhibition, stroke survivors appear to have an increased excitability of the contralateral side's reticulospinal tract projections. Sensory information is sent to the reticular nuclei by proprioceptors in the neck and periphery.

In addition to sensorimotor integration, the reticular formation appears to aid in voluntary movement preparation. Therapeutic massage reduces muscle tension and neuromuscular excitability, stimulates parasympathetic activity, increases blood flow, and releases stress and relaxation hormones. It might lessen the hyperexcitability of the reticulospinal tract. The therapist may discover that the various therapeutic massage modalities are most effective at reducing muscle overactivity to enable other therapeutic interventions. Stroke severity, daily activities, gait, balance, and quality of life outcomes were inconclusive. The trend is positive when Tuina is used in addition to acupuncture or conventional

\*Address for Correspondence: Beckett Curran, Department of Human Movement Sciences, Federal University of Sao Paulo, Butanta, Brazil; E-mail: beckettcurran@outlook.com

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therapy. The literature on pain is consistent with our findings. There is increasing support for the hypothesis that the cutaneous nerves, the neuroendocrine axis, and the immune system are connected by an interconnected network. Therapeutic massage is known to have a number of beneficial effects, including activating the relaxation response, and it has been suggested that oxytocin is the mediator of the growth response.

Massage may be able to alleviate anxiety in stroke patients and help them relax. The positive effects of these reviews were found to have decreased anxiety levels among stroke survivors. It is surprising that no research has examined the significance of range of motion in reducing spasticity. Based on data from functional magnetic resonance imaging, it has been demonstrated that a combination of moderate pressure massage and movement can represent a number of brain regions, including the amygdala, hypothalamus, and anterior cingulate cortex, all of which are involved in stress and emotion regulation. The results of the whole-brain meta-analysis of right-hand tactile stimulation highlight the significance of taking into account bilateral activation, particularly in the secondary somatosensory cortex. The majority of the articles in this systematic review showed that Tuina massage improved outcomes. There are four main subspecialties in traditional Chinese medicine.

## Discussion

However, despite its long history in China, its incorporation into Western culture is still relatively recent. Tuina knead, which originated in China a long time ago, is commonly referred to as "The granddad of all restorative back rub treatments." It works on the organs, energy channels in muscle groups, and points on the body according to the meridian theory using the same principles as acupuncture but without the use of needles. Dredging meridian is achieved by removing pathogenic factors, restoring a harmonious Yin-Yang balance, and combining it with anatomical and pathological diagnosis. Tuina can affect the muscular layer under the skin; improve the metabolism of skin tissue, regulate physiological and pathological states, unblock meridians, and harmonize Qi (the total life energy) by increasing the circulation of local blood and lymph. According to Chinese medicine, imbalances in the Yin and Yang and a disorder of Qi are to blame for imbalances in balance following a stroke. In Western medical terminology, it is also referred to as the "modulation of the imbalance between parasympathetic and sympathetic activity" because it balances the yin and yang as well as qi (energy). An imbalance in the Yin and Yang results in upper and lower limb spasticity, also known as "flaccidity of Yang and spasm of Yin," after a stroke.

Tuina massage incorporates a variety of techniques, including acupressure, myofascial release, reflexology, stretching, and joint mobilizations, as well as round rubbing, holding-twisting, rub rolling, pushing, kneading, rotating, shaking, wiping, and vibrating. These methods are used on particular body points. Tuina is a type of functional massage that sends a lot of proprioceptive sensory impulses to the brain by moving muscles, tendon, and joints [3-6].

## Conclusion

Additional clinical and experimental research is required to compare Swedish massage and therapeutic Chinese massage (Tuina) among stroke survivors. It is surprising that Western stroke management guides do not recommend therapeutic massage. A rehabilitation program that combines Western and Chinese medicine may be beneficial to stroke survivors. Last but not least, touch therapy can be extremely beneficial to a patient. The current review has a few restrictions. To begin, the majority of the patients included in this review are Asian. Second, only one article was found that dealt with Swedish massage for stroke survivors. It is unknown whether Westerners will benefit from Tuina massage.

## Acknowledgement

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## Conflict of Interest

None.

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