

# **MASSAGE THERAPY**

## **A QUICK REVIEW ON THE AVAILABLE EVIDENCE**

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# Massage Therapy: a quick review on the available evidence.

## 1. Introduction.

Massage is a simple way of easing pain as well as aiding relaxation, promoting a feeling of well being and a sense of receiving good care. It is thought to improve physiological and clinical outcomes by offering symptomatic relief of pain through physical and mental relaxation. Massage is also thought to increase the threshold of pain through the release of endorphin. As such, massage therapy is defined as the manipulation of soft tissue of whole body areas to bring about generalized improvement in health (e.g. relaxation or improved sleep) or specific physical benefits (e.g. relief of muscular ache and pain)<sup>(1,2,3)</sup>.

Almost every culture in the world has developed some type of massage. Massage plays an important part in traditional Chinese and Indian medicine. European massage, also known as Swedish massage, was developed/systematized by Per Henrik Ling in the early 18<sup>th</sup> century. There are several different techniques being employed in delivering massage therapy. These techniques include a gentle stroking along the length of a muscle (effleurage), applying pressure across the width of a muscle (petrissage), a deep massage applied by circular motions of the thumbs or fingertips (friction), squessing across the width of a muscle (kneading) and lights slaps or karate chops applied to the muscles (hacking). There is also massage technique that is more of a 'touch based' technique. The touch based technique includes Rolfing, Structural Integration, Hellerwork, Alexander, Feldenkrais, Bioenergetics and Bodywork.

Beside manipulation of soft tissue, there are also several other techniques that are considered as part of massage therapy family. These techniques include reflexology, acupressure and aromatherapy. Massage can be delivered by hand or by employing devices.

Massage is recognized as a safe treatment modality without risk or side effects. However, there are contra-indications for massage therapy. These conditions include applying massage over an area with acute inflammation, skin infection, non-consolidating fracture, burn area, deep vein thrombosis and over sites of active cancer tumor<sup>(2)</sup>.

In the pain area, massage has been investigated for its efficacy in relieving headache, post-exercise muscle pain, cancer pain and mechanical neck pain. However these primary studies have shown no or little evidence on the efficacy of massage therapy in relieving pain on these conditions<sup>(4)</sup>.

The efficacy of massage therapy has also been investigated in the area of chronic fatigue syndrome<sup>(5)</sup>, fibromyalgia<sup>(6)</sup>, myofascial trigger point pain<sup>(7)</sup>, chronic constipation<sup>(8)</sup>, post burn itching<sup>(9)</sup>, hypertrophic scars<sup>(10)</sup>, smoking cessation<sup>(11)</sup>, burn injuries<sup>(12)</sup>, post-operative pain<sup>(13)</sup>, job stress reduction<sup>(14)</sup> and among AIDS patients<sup>(15)</sup>. However, there are a lot of problems surrounding the methodology of these primary researches on massage therapy<sup>(16)</sup>.

The purpose of this paper is to provide a quick review on the available evidence on the effectiveness of massage therapy. As such, the available evidence is primarily based on the available systematic reviews from well-established organization i.e. Cochrane Library. There are 2 massage therapy reviews available on Cochrane Library, i.e. on low back pain<sup>(17)</sup> and tendinitis<sup>(18)</sup>. The outcomes of these 2 reviews are summarized below.

## 2. Massage for Low Back Pain<sup>(17)</sup>.

### a) **Massage vs. other treatment modalities.**

- **Massage vs. placebo**

Massage was significantly better than sham laser treatment in short and long term measurements of function and measurements of pain

- **Massage vs. spinal manipulation**

Right after the 1<sup>st</sup> session: Spinal manipulation is better than massage in term of relieving pain and improving activity.

During the course of treatment: Moderate evidence that spinal manipulation is maintained for functional outcome only. Moderate evidence that spinal manipulation and massage have equal effect on pain, ROM and fatigue.

End of treatment up to 3 weeks post treatment: Limited evidence that both produce same effect on the above outcomes.

- **Massage vs. electrical stimulation**

- Massage vs. TENS: Moderate evidence that TENS is better than massage in relieving pain and improving ROM during the course of treatment.

- Massage vs. faradic current: Limited evidence that massage and faradic current are equally effective at the end of treatment.

- Massage vs. transcutaneous muscular stimulation: Moderate evidence that both are equally effective during the course of treatment.

- **Massage vs. corset**

Moderate evidence corset is better in improving function. Both have equal effect in term of pain, ROM or muscle fatigue.

- **Massage vs. exercise**

Moderate evidence that massage is better in term of short term functional outcome. No different in term of pain both for short and long term outcome.

- **Massage vs. relaxation therapy**

Limited evidence that both group reported less pain after treatment.

- **Massage vs. acupuncture**

Moderate evidence that massage is better in term of functional measurement (short and long term) and symptoms (long term, incl. pain, numbness and tingling).

- **Massage vs. self-care education.**

Moderate evidence. Short term, massage is better in term of pain and function. 52 weeks follow-up no different because the self-care group was gaining substantial improvement.

b) **Massage as a component of combined treatment.**

Moderate evidence that massage combined with exercises and education is better than exercise alone, massage alone or sham laser treatment in term of pain and functional outcome.

c) **Different technique of massage and the experience of the therapist.**

- Acupressure is better than Swedish massage in term of pain and function
- No different whether massage is delivered by hands or using devices
- Moderate evidence: Most significant benefits from massage were observed when the treatment was delivered by trained massage therapist with years of experience or a licensed massage therapist.
- No conclusion with regards to number and duration of sessions due to lack of data and heterogeneity on the primary studies.

d) **Acute, sub-acute and chronic low back pain.**

- Lack of evidence on the benefit of massage therapy for acute LBP
- Moderate evidence on the benefit of massage therapy for sub-acute or early chronic LBP. The effects were similar with the effects from exercise and spinal manipulation
- Moderate evidence on the effectiveness of massage in reducing pain and improving function among those with chronic LBP. The effect is lower than TENS but better than relaxation, acupuncture or self-care education.

**Conclusion:**

Massage may be beneficial for patients with sub-acute and chronic non-specific LBP especially when combined with exercises and education. The evidence suggested that acupressure is more effective than classic massage.

### **3. Massage for treating tendinitis<sup>(18)</sup>.**

Lack of evidence in the effectiveness of deep transverse friction massage combined with other physiotherapy modalities in term of pain, grip strength and functional status for patients with iliotibial band friction syndrome or lateral epicondylitis.

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