

State of Evidence

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A large body of empirical evidence supports the established effects of massage therapy for the following conditions and populations:

Cancer

Over the last five years, evidence for the positive effects of massage therapy in the management of cancer patients has continued to burgeon, with many new Level 1 and 2 studies being published. Although massage therapy is clearly not a treatment for cancer itself, it is effective in the management of symptom distress and palliation. It can also ameliorate the mood effects of a cancer diagnosis, such as stress and depression.

A substantial body of systematic reviews supports the efficacy of massage therapy in treating the side effects of cancer, including a Cochrane Systematic Review in 2004, which was updated in 2008.¹

The largest single study of massage and cancer was conducted at the Memorial Sloan-Kettering Cancer Centre, where 1290 patients were treated with massage therapy over a three-year period.²

The most recent systematic review and meta-analysis of massage and cancer pain populations concluded that massage therapy appears to be promising for reducing pain intensity/severity, fatigue and anxiety in cancer populations compared to the active comparators evaluated. The authors concluded that patients should consider massage therapy as a therapeutic option to help manage their cancer pain.³

A 2015 Cochrane review found manual lymphatic drainage (MLD) was well tolerated and safe for individuals with breast-cancer related lymphoedema. The authors concluded MLD may offer additional benefit to compression bandaging for swelling reduction, with those experiencing mild to moderate lymphoedema benefitting most from adding MLD to an intensive course of treatment with compression bandaging.⁴

Musculoskeletal pain, including low back pain

A significant body of evidence, including systematic reviews, supports the effectiveness of massage therapy in the treatment of a range of musculoskeletal presentations.

There are five systematic reviews of massage and low back pain, including a Cochrane Systematic Review in 2008, which was updated in 2009.⁵ The most recent review, published by the Ottawa Panel in 2012, concluded that massage interventions provide short-term improvement of sub-acute and chronic low back pain symptoms and decrease disability at immediate post-treatment. Massage therapy provides short-term relief when combined with therapeutic exercise and education.⁶

There are five systematic reviews of neck and shoulder pain, including a Cochrane Systematic Review in 2012 which concluded that massage therapy provides short-term relief of mechanical neck pain.⁷ A systematic review published by the Ottawa Panel in 2012 reached a similar conclusion.⁸

A 2013 meta-analysis and systematic review also showed massage therapy to be an effective intervention that may provide immediate relief of neck and shoulder pain.⁹

A 2014 systematic review found moderate evidence of massage therapy on improving pain in patients with neck pain compared with inactive therapies but no evidence of improvement in dysfunction.¹⁰

There is also modest evidence for the effectiveness of massage therapy in ameliorating the symptoms of fibromyalgia. A 2010 review revealed short-term benefits, with one single arm study reporting longer-term effects.¹¹

A 2015 meta-analysis examined trial data to assess the effectiveness of various styles of massage therapy for relief of fibromyalgia symptoms. This review showed most styles of massage therapy consistently improved the quality of life of fibromyalgia patients, with some styles having superior effects.¹²

The most recent systematic review and meta-analysis of massage therapy for pain examined 67 articles published between 1999 – 2013, investigating the use of massage therapy on musculoskeletal pain, headache, visceral pain, chronic pain, including fibromyalgia, spinal cord pain, and venous insufficiency populations. The results demonstrate that massage therapy effectively treats pain compared to sham treatment, no treatment and active comparators. Compared to active comparators, massage therapy was also beneficial for treating anxiety and health-related quality of life.¹³

Mood

Anxiety reduction is one of the most well established effects of massage therapy with evidence for this crossing multiple presenting conditions and populations. In a 2004 meta-analysis of 37 studies, reductions in trait anxiety and depression were identified as massage therapy's largest effects.¹⁴ A number of studies also show massage therapy increases oxytocin, which may be one of the mechanisms by which it mediates anxiety.

A 2011 quantitative review debunked the hypothesis that massage therapy reduces cortisol. It found massage therapy's effect on cortisol is generally very small and, in most cases, not statistically distinguishable from zero. The authors concluded cortisol reduction cannot be the cause of the well-established and statistically larger beneficial effects of massage on anxiety, depression and pain.¹⁵

Pre/Post operative

A significant body of RCTs demonstrate the efficacy of massage in the management of pre- and post-operative pain, anxiety and tension and post-operative nausea. A 2009 Cochrane Systematic Review found acupressure stimulation of the P6 acupoint significantly reduced post-operative nausea and vomiting and the need for antiemetics.¹⁶

A recent systematic review and meta-analysis found massage therapy as a non-pharmacological strategy applied in the early days of postoperative cardiac surgery in patients in the intensive care unit was associated with reduction in pain and anxiety.¹⁷ A 2015 systematic review of research studies published between 2000 and 2015 also found six studies

reporting that massage therapy improves the post-operative outcomes in patients after cardiac surgery.¹⁸

Pregnancy/Labour/Post-natal

A significant body of evidence supports the efficacy of massage, particularly during labour. A 2012 Cochrane Systematic Review found evidence that massage improves the management of labour pain with few adverse side effects.¹⁹ Another 2012 Cochrane review found that massage may have a role in reducing pain and improving women's emotional experience of labour.²⁰

However, a 2016 systematic review of manual therapies for pregnancy-related back and pelvic pain found positive effects for manual therapy (mainly massage therapy and osteopathy) on pain intensity when compared to usual care and relaxation but not when compared to sham interventions. There is currently limited evidence to support the use of complementary manual therapies as an option for managing low back and pelvic pain during pregnancy.²¹

Infant/Paediatric

A 2004 Cochrane Systematic Review found that massage of pre-term or low-weight infants improved daily weight gain by 5.1 grams and appeared to reduce the length of hospital stay by 4.5 days.²² A 2006 Cochrane review also found evidence of benefits in connection with mother-infant interaction, sleeping and crying and on hormones influencing stress levels.²³ A 2013 meta-analysis concluded massage therapy may be a safe and cost-effective practice to improve weight gain and decrease the hospital stay of clinically stable pre-term infants.²⁴

A 2007 review established the efficacy of paediatric massage for a range of conditions, however, significant reductions in state anxiety were identified as one of the strongest effects.²⁵

Older adults

A body of RCT evidence supports the efficacy of massage in treating a range of conditions associated with aging. A Cochrane Database Review of massage and touch for dementia found massage therapy may serve as an alternative or complement to other therapies for the management of behavioural, emotional and other conditions associated with dementia.²⁶

Athletes/Sports/Exercise

There is some evidence from systematic reviews that massage therapy is effective in reducing delayed onset muscle soreness and enhancing recovery after strenuous exercise.²⁷

A number of RCTs have also shown positive effects of massage on pain and recovery after strenuous exercise.

However, a recent systematic review found the effects of massage on performance recovery are rather small and partly unclear but can be relevant under appropriate circumstances (for example, short-term recovery after intensive mixed training). The review concluded it is questionable whether the limited effects justify the widespread use of massage as a recovery intervention in competitive athletes.²⁸

Strong preliminary evidence also points toward the clinical efficacy of massage therapy in the treatment of the following conditions:

Headache and migraine

A 2011 systematic review of manual therapies for migraine found massage therapy, physiotherapy, relaxation and chiropractic spinal manipulative therapy might be as effective as propranolol and topiramate in the prophylactic management of migraine.²⁹ A number of RCTs investigating headache and migraine also report positive results for massage.

Arthritis

A number of promising RCTs support the efficacy of massage therapy in treating both osteo and rheumatoid arthritis. A 2012 RCT of Swedish massage for osteoarthritis of the knee revealed significant improvements across a range of measures compared to usual care.³⁰

This dose-finding study built on an earlier study that produced similar results.³¹

A study released in 2013 found twice weekly, self-massage of the quadriceps muscle improved pain, stiffness, physical function and knee range of motion in adults with diagnosed knee osteoarthritis.³²

Hypertension

Some preliminary evidence, based principally on case series, indicates massage has a moderating effect on blood pressure and heart rate. One specific study provides evidence that the style of massage therapy can influence blood pressure, with increases in blood pressure noted for potentially painful massage techniques.³³

A 2015 meta-analysis demonstrated that massage combined with antihypertensive drugs may be more effective than antihypertensive drugs alone in lowering both systolic and diastolic blood pressure. The reviewers also concluded that massage appears beneficial for reducing systolic blood pressure for hypertensive patients as compared with antihypertensive drugs.³⁴

A 2015 scoping review summarises the current knowledge of the mechanisms of action of massage therapy on blood pressure. Six potential blood pressure mediating pathways were identified, with current theories suggesting massage therapy exerts sympatholytic effects through physiologic and psychological mechanisms, improves hypothalamus–pituitary–adrenocortical axis function, and increases in blood flow, which may improve endothelial function.³⁵

HIV

A 2010 Cochrane Review found evidence to support the use of massage therapy to improve the quality of life of people living with AIDS/HIV.³⁶ A 2013 clinical trial showed massage therapy to be effective in the treatment of depression in HIV patients.³⁷

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