

Injury, Rehabilitation & Recovery

FACT SHEET 3

About this fact sheet

Massage therapists, remedial massage therapists and myotherapists (massage therapist or therapist), often fill the gap when patients seek alternatives to medications and other therapies because they feel that massage therapy provides a level of relief that is appropriate to their needs.

The following provides information to General Practitioners and other registered health professionals when developing an injury recovery and management plan. As with all health-related therapies, no two people respond in the same way and no two therapists can provide a massage in the same way.

As with all health-related therapies, no two people respond in the same way and no two therapists can provide a massage in the same way. Massage therapy or myotherapy may or may not be right for a patient. Finding professional, qualified therapists that you have confidence in, because they have the appropriate training, experience and skills needed, will assist in developing multidisciplinary patient management plans.

Remedial massage therapy in injury recovery

Effective management of acute pain caused by injury is vital in preventing the transition to a costly chronic state, which has negative outcomes for patients, healthcare systems, employment, and the community.

Massage is recognised in 'real life experience' for its positive role in rehabilitation and recovery.

Massage is used extensively in elite sports, including Australia's Olympic Team¹, and within Australian state-funded work and motor vehicle rehabilitation schemes, such as the NSW SIRA.² Pain relief, and the positive psychological/physiological effects

of touch and human interaction with low risk make massage an attractive and easily used response.^{3,4}

A survey of members by Massage & Myotherapy Australia⁵ found that a large majority of therapists spent 25% of their massage service time on motor accident and rehabilitation, sports injury management and rehabilitation, repetitive strain and rehabilitation, and other acute injuries or pain.

This is not surprising considering that over 87% of Australians aged 15 or over participated in a sport or physical activity in the last 12 months.⁶

Massage is most effective when administered as part of a multidisciplinary approach

Massage is used extensively in sports and rehabilitation as a non-pharmaceutical pain relief, and to assist in mobility and injury recovery.

As a part of a multidisciplinary approach to patient-centred care, interventions such as massage can help to achieve clinically meaningful improvements that include helping patients move more freely, reducing the pain and improving their emotional disposition.

The Australian Institute of Health and Welfare 2018 cites the Australian Physical Activity and Sedentary Behaviour Guidelines recommending that people aged 18 to 64 exercise for at least 150 minutes over 5 sessions per week; and over 65 years, at least 30 minutes per day.

While physical exercise is known to improve mental and physical health, the close associations between limitations in physical functional and psychological distress highlight special needs among individuals experiencing daily functional limitations.⁷

Research indicates that massage can provide a cost-effective bridge to recovery plans involving physical exercise. A 2016⁸

meta-analysis of Randomised Controlled Trials concluded that, based on the evidence, massage therapy, compared to no treatment, should be strongly recommended as a pain management option.

A US econometric analysis⁹ examined how the inclusion of massage therapy services, as part of an integrative care approach, can help lower costs for certain conditions and types of treatments. The 2014 study found that of the 19 outpatient treatments studied, massage was associated with lower overall treatment costs in 16 of these treatments.

Another study¹⁰ found that patients who had a general practitioner with additional complementary and alternative medicine training had lower health care costs and mortality rates than those who did not. Reduced costs come from fewer hospital stays and fewer prescription drugs.

The Canadian Institute of Work and Health concluded that massage was most effective for lower back pain when combined with education and exercise, and when administered by a licensed therapist.¹¹

Injury, Rehabilitation & Recovery

FACT SHEET 3



Limitations in medical research

Massage is never provided in a controlled clinical environment required by a Randomly Controlled Trial (RCT). Hence, achieving high quality research has proved challenging for massage therapy researchers.

For example: of the 3,678 RCT articles reviewed in a 2016¹² study, 67 met the systematic review's inclusion criteria. Of the 980 studies gathered in the 2015¹³ review of natural therapies, Australia's Chief Medical Officer found that only 99 massage studies conformed to the prescribed scope and limitations,

and 17 were regarded as high quality.

Consequently, researchers have developed 'real world' research methodologies to account for the challenges this poses to achieving conclusive results, and some of these studies are furthering our understanding of the efficacy of massage therapy in injury recovery or prevention.

In sports, evidence has long supported the use of massage to reduce the effects of DOMs (Delayed onset muscle soreness) and improve flexibility.^{14,15}

The use of standardised massage modalities can have a positive effect on recovery

In 2021,¹⁶ researchers added another layer of understanding and recorded biological changes in tissues following regular massage. Using a robotic device equipped with real-time force control and compatible with ultrasound imaging for tissue strain analysis, they investigated the hypothesis that specific mechanical loading improves tissue repair by modulating inflammatory responses that regulate skeletal muscle regeneration. They found that cyclic compressive loading within a specific range of forces substantially improves functional recovery of severely injured muscles in mice. This improvement is attributable in part to rapid clearance of neutrophil populations and neutrophil-mediated factors, which otherwise may impede myogenesis.

Other recent studies have shown that standardised massages provided by therapists are capable of reliably inducing physiological and psychological states of relaxation.

In 2020,¹⁷ researchers successfully established two massage protocols focussed on psychophysiological relaxation induced through massage. They measured significant higher effects

because of the two nerve and shoulder massage protocols, compared to the resting control group. Measured effects included significantly improved heart rate variability and subjective relaxation.

During 2017,¹⁸ researchers investigated the efficacy of massage and other nonpharmacological treatments for chronic low back pain in 'real world' primary healthcare. Participants completed questionnaires regarding their reported or perceived health, pain severity, function ability, and pain-related medications. At 12 and 24 weeks of massage treatments, participants reported measured improvement across all areas. Of those with clinically improved disability at 12 weeks, 75% were still clinically improved at 24 weeks. Those with physical disability and related emotional and mental health symptoms showed clinically meaningful improvement at 12 weeks, and 46.1% and 30.3% at 24 weeks. For bodily pain, 49.4% were clinically improved at 12 weeks and 40% at 24 weeks. Adults older than 49 years had better pain and disability outcomes than younger adults.

More information:

- » [Australian Massage Directory](#) – find a professional qualified local therapist
- » [Massage & Myotherapy Australia](#) website – consumer section
- » [Australian Government Health Directory](#) – free health advice
- » [US Department of Health and Services](#) – massage therapy – what you need to know.



Endnotes

1. Stuart Hinds NAT Instructor www.nielasher.com/pages/nat-instructors-stuart-hinds
2. NSW Government State Insurance Regulator www.sira.nsw.gov.au
3. JOUR Moyer, Christopher; Rounds, James; Hannum, James, 2004/02/01, 'A meta-analysis of massage therapy research', VL 130 DO 10.1037/0033-2909.130.1.3 JO, *Psychological bulletin*.
4. Crawford C, Boyd C, Paat C F et al., 'The impact of massage therapy on function in pain populations—A systematic review and meta-analysis of randomized controlled trials: Part I, Patients experiencing pain in the general population', *Pain Med*. 2016;17(7):1353-1375. doi:10.1093/pm/pnw099.
5. Australian Association of Massage Therapists: *Practitioner Survey Final Report*, January 25, 2013.
6. Australian Government, Australian Sports Commission, AusPlay, **Participation data for the sport sector. Summary of key national findings**, October 2015 to September 2016 data.
7. Backe I F, Patil G G, Nes R B, Clench-Aas J, 'The relationship between physical functional limitations, and psychological distress: Considering a possible mediating role of pain, social support and sense of mastery', *SSM Popul Health*. 2017;4:153-163, published 2017 Dec 22. doi:10.1016/j.ssmph.2017.12.005.
8. Crawford C, Boyd C, Paat C F et al., 'The impact of massage therapy on function in pain populations – A systematic review and meta-analysis of randomized controlled trials: Part I, Patients experiencing pain in the general population', *Pain Med*. 2016;17(7):1353-1375. doi:10.1093/pm/pnw099.
9. The American Massage Therapy Association **The Value and Efficacy of Massage Therapy in Integrated Healthcare**, 2014.
10. Kooreman P, Baars, E W, 'Patients whose GP knows complementary medicine tend to have lower costs and live longer', *European Journal of Health Economics*, 2012, 13(6):769-776.
11. Marta Imamura, MD, PhD, Andrea D., Furlan, MD, PhD, Trish Dryden, RMT, Med Emma Irvin, **Evidence-informed management of chronic low back pain with massage** BA DOI:<https://doi.org/10.1016/j.spinee.2007.10.016> PlumX Metrics.
12. Boyd C, Crawford C, Paat C F et al., 'The impact of massage therapy on function in pain populations—A systematic review and meta-analysis of randomized controlled trials: Part II, Cancer pain populations', *Pain Med*. 2016;17(8):1553-1568. doi:10.1093/pm/pnw100.
13. The 2015 **Review of the Australian Government Rebate on Private Health Insurance for Natural Therapies**.
14. JOUR Davis, Holly Louisa, Alabed, Samer, Chico, Timothy James Ainsley, 'Effect of sports massage on performance and recovery: a systematic review and meta-analysis', *BMJ Open Sport & amp; amp; Exercise Medicine* JO - BMJ OPEN SP EX MED DO - 10.1136/bmjsem-2019-000614 VL - 6 IS - 1 SP - e000614, 2020/05/01.
15. 1. SørnesFysioterapi.dk. 2. Physioblog Andreas Bjerregaard 3. Sørnesfysioterapi 'Sports massage: A comprehensive review', A Moraska, *Journal of Sports Medicine and Physical Fitness*; Sep 2005.
16. Seo B R, Payne C J, McNamara S L, Freedman B R, Kwee B J, Nam S, de Lázaro I, Darnell M, Alvarez J T, Dellacherie M O, Vandenburg H H, Walsh C J, Mooney D J. 'Skeletal muscle regeneration with robotic actuation-mediated clearance of neutrophils', *Sci Transl Med*. 2021 Oct 6;13(614): eabe8868. doi:10.1126/scitranslmed.abe8868. Epub 2021 Oct 6. PMID: 34613813.
17. Meier, M, Unternaehrer, E, Dimitroff, S J et al., 'Standardized massage interventions as protocols for the induction of psychophysiological relaxation in the laboratory: a block randomized, controlled trial', *Sci Rep* 10, 14774 (2020). <https://doi.org/10.1038/s41598-020-71173-w>.
18. Elder W G, Munk N, Love M M, Bruckner G G, Stewart K E, Pearce K, 'Real-world massage therapy produces meaningful effectiveness signal for primary care patients with chronic low back pain: Results of a repeated measures cohort study', *Pain Med*. 2017;18(7):1394-1405. doi:10.1093/pm/pnw347.