

Research Citations

on the Efficacy of Massage

A growing body of research confirms the efficacy of massage for a variety of illnesses and ailments. Massage has been shown to reduce blood pressure and heart rate; increase cytotoxic capacity (activity level of the body's natural "killer cells") and decrease T-cells; enhance weight gain in pre-term infants; increase lymph flow and reduce edema; relieve and reduce certain types of back pain; and, reduce anxiety and relieve stress.



We're with you all the way.

Circulatory & Respiratory Systems

- a. Beeken, J., et. al. Effectiveness of Neuromuscular Release Massage Therapy on Chronic Obstructive Lung Disease. *Clin. Nurs. Research*. 7(3): 309-325; Augt 1998.

Massage increases thoracic gas volume, peak flow and forced vital capacity.

- b. Cady, S.H., Jones, G.E. Massage Therapy as a Workplace Intervention for Reduction of Stress. *Perceptual and Motor Skills*. 84(1): 157-158; Feb 1997.

Massage reduces systolic and diastolic blood pressure.

- c. Curtis, M. The Use of Massage in Restoring Cardiac Rhythm. *Nurs. Times (England)*. 90 (38): 36-37; Sept 21-27, 1994.

Massage reduces heart rate.

- d. Fakouri, C., Jones, P. Relaxation Rx: Slow Stroke Back Rub. *J. of Geron. Nurs.* 13 (2): 32-35; Feb 1987.

Massage reduces blood pressure and heart rate.

Immune Function

- a. Field, T., Hernandez-Reif, M., Ironson, G. Massage Therapy Effects on Breast Cancer. (*unpublished*); 1998.
- b. Ironson, G., Field, T., et.al. Massage Therapy is Associated with Enhancement of the Immune System's Cytotoxic Capacity. *Intern. J. Neuroscience*. 84:205-217; 1996.
- c. Zeitlin, D., et.al. Immunological Effects of Massage Therapy During Academic Stress. *Psychosomatic Medicine*. 62:83-87; Jan/Feb 2000.

These three studies show that massage increases cytotoxic capacity (activity level of the body's natural "killer cells") and decreases T-cells. The studies demonstrate consistent findings across different populations.

Infants and Children

- a. Field, T. Massage Therapy for Infants and Children. *J. Dev. Behav. Pediatr.* 16 (2): 105-111; Apr 1995.

Demonstrates clinical improvement of infants and children with a variety of medical conditions.

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- b. Field, T., Morrow, C., Valdeon C., Larson, S., Kuhm, C., Schanberg, S. Massage Reduced Anxiety in Child and Adolescent Psychiatric Patients. *J. Am. Acad. Child Adolesc. Psychiatry.* 31 (1): 125-31; Jan 1992.
- c. Scafidi, F.A., Field, T., Schanberg, S.M. Factors that Predict Which Preterm Infants Benefit Most From Massage Therapy. *J. Dev. Behav. Pediatr.* 14 (3): 176-80; Jn 1993.

Massage therapy enhances weight gain in preterm infants.

Lymph

General

- a. Drinker, C.K., Yoffey, J.M. Lymphatics, Lymph and Lymphoid Tissue: Their Physiological and Clinical Significance. *Cambridge: Harvard University Press;* 1941.

Base study demonstrated in dogs that lymph flow can be sustained indefinitely by massage.
- b. Elkins, E.C., Herrick, J.F., Grindlay, J.H., et. al. Effects of Various Procedures on the Flow of Lymph. *Arch. Phys. Med.* 34: 31; 1953.

Massage increases lymph flow rate by seven to nine times.

- c. Mortimer, P.S., Simmonds, R., Rezvani, M., et.al. The Measurement of Skin Lymph Flow by Isotope Clearance — Reliability, Reproducibility, Injection Dynamics, and the Effect of Massage. *J. Invest. Derm.* 95: 766-682; 1990.

Massage strongly influences lymph flow.

Reduction of Lymphedema

- a. Badger, C. The Swollen Limb. *Nurs. Times* (England). 82 (31): 40-41; 1986.

Discusses the treatment of lymphedema due to cancer surgery or radiotherapy. Treatment with diuretics has declined and the use of mechanical compression devices and/or massage has become more prevalent.
- b. Brennan, M.J. and Weitz, J. Lymphedema 30 Years After Radical Mastectomy. *Am. J. Phys. Med. Rehabil.* 71: 12-14; 1992.

- c. Bunce, I.H., Mirolo, B.R., Hennessy, J.M., et. al. Post-mastectomy Lymphedema Treatment and Measurement. *Med. J. Aust.* 161: 125-28; 1994.

Massage therapy reduces lymphedema.

- d. Zanolta, R., Monzeglio, C., Balzarini, A., et. al. Evaluation of the Results of Three Different Methods of Postmastectomy Lymphedema Treatment. *J. Surg Oncol.* 26: 210-13; 1984.

Demonstrated reduced edema with manual lymphatic massage and with uniform-pressure pneumatic massage.

Musculoskeletal

- a. Baumann, J.U. Effect of Manual Medicine in the Treatment of Cerebral Palsy. *Manuelle Medizin* (Berlin). 34:127-133; 1996.

Pilot study involving myofascial release, massage, craniocervical manipulation, and physiotherapy shows marked improvements in gait, range of motion and foot-to-floor force.

- b. Danneskiold-Samsøe, B., Christiansen, E., Anderson, R.B. Myofascial Pain and the Role of Myoglobin. *Scand J. Rheumatol* (Stockholm). 15: 174-78; 1986.

Massage produces an increase in plasma myoglobin and helps decrease muscle tension and pain after repeated treatments.

- c. Hammer, W.I. The Use of Transverse Friction Massage in the Management of Chronic Bursitis of the Hip and Shoulder. *J. Manip. & Phys. Therap.* 16(2): 107-111; 1993.

Massage is beneficial for adhesions in chronic bursitis.

- d. Sunshine, W., Field, T., et. al. Fibromyalgia Benefits From Massage Therapy and Transcutaneous Electrical Stimulation. *J. Clin. Rheum.* 2(1): 18-22; Feb 1996.

Massage reduces pain, lessens stiffness and fatigue.

Pain Treatment

Back Pain

- a. Cherkin, D.C., Eisenberg, D., et.al. Randomized Trial Comparing Traditional Chinese Medical Acupuncture, Therapeutic Massage, and Self-care Education for Chronic Low Back Pain. *Arch Intern Med.* 161(8):1081-8; Apr 23, 2001.

Massage is more effective for treating chronic back pain.

- b. Preyde, M. Effectiveness of Massage Therapy for Subacute Low-back Pain: A Randomized Controlled Trial. *CMAJ.* 162(13):1815-20; Jun 27, 2000.

Massage is effective in relieving and controlling subacute low-back pain.

Cancer

- a. Ferrell-Torry, A.T. and Glick, O.J. The Use of Therapeutic Massage as a Nursing Intervention to Modify Anxiety and the Perception of Cancer Pain. *Cancer Nurs.* 16 (2): 93-101; Apr 1993.

Therapeutic massage is a beneficial nursing intervention that promotes relaxation and alleviates the perception of pain and anxiety in hospitalized cancer patients.

- b. Wilkinson, S. Aromatherapy and Massage in Palliative Care. *Int. J. Palliat. Nurs.* 1 (1): 21-30; Jan/Mar 1995.

Cancer patient post-test scores on the Rotterdam Symptom Checklist and the State-Trait Anxiety Inventory improved. Massage reduces anxiety, tension, pain, and depression.

Headache

- a. Jensen, O.K., Neilsen, F.F., Vosmar, L. An Open Study Comparing Manual Therapy with the Use of Cold Packs in the Treatment of Post-traumatic Headache. *Cephalalgia* (Norway). 10 (5): 241-50; Oct 1990.

A controlled trial on specific manual therapy on the neck to reduce headache as compared with cold pack treatments on the neck. The type of manual therapy used has a specific effect in reducing post-traumatic headache.

- b. Puustjarvi, K., Airaksinen, O., Pontinen, P.J. The Effects of Massage in Patients with Chronic Tension Headache. *Acupunct. Electrother. Res.* 15 (2): 159-62; 1990.

Confirms clinical and physiological effects of massage.

General

- a. Kaard, B., Tostinbo, O. Increase of Plasma Beta Endorphins in a Connective Tissue Massage. *Gen. Pharm.* 20 (4): 487-89; 1989.

Massage stimulates the brain to produce endorphins, the body's natural pain control.

- b. Mobily, P.R., Herr, K.A., Nicholson, A.C. Validation of Cutaneous Stimulation Interventions for Pain Management. *Int. J. Nurs. Stud.* 31 (6): 533-44; Dec 1994.

Identifies and validates specific activities considered important in the implementation of selected cutaneous stimulation pain management. These included heat and cold application, massage, and Transcutaneous Electrical Nerve Stimulation (TENS).

- c. Weintraub, M. Shiatsu, Swedish Muscle Massage and Trigger Point Suppression in Spinal Pain Syndrome. *Am. J. Pain Man.* 2 (2): 74-78; Apr 1992.

Massage reduces acute and chronic pain and increases muscle flexibility and tone.

Pregnancy

- a. Dundee, J.W., Sourial, F.B., Ghaly, R.G., Bell, P.F. P6 Acupressure Reduces Morning Sickness. *J. The Royal Soc. of Med.* 81 (8): 456-57; Aug 1988.

Massage reduces morning sickness.

- b. Field, T., Hernandez-Reif, et.al. Labor Pain is Reduced by Massage Therapy. *J. Psychosomatic Obs. and Gyn.* 18: 286-291; 1997.

Massage reduces duration of labor, hospital stay and post-partum depression.

Psychological/Emotional

- a. Culpepper-Richards, K., Effect of a Back Massage and Relaxation Intervention on Sleep in Critically Ill Patients. *Am. J. Crit. Care.* 7(4): 288-299; Jul 1998.

Back massage, as an alternative or adjunct to pharmacological treatment, is a clinically effective nursing intervention for the promotion of sleep.

- b. Meek, S.S. Effects of Slow Stroke Back Massage on Relaxation in Hospice Clients. *Image. J. Nurs. Sch.* 25 (1): 17-21; Spring 1993.

Examines the effects of slow stroke back massage (SSBM) on systolic and diastolic blood pressure, heart rate, and skin temperature. SSBM was associated with decreases in blood pressure and heart rate, an increase in skin temperature, and vital signs indicating relaxation.

- c. Shulman, K.R., Jones, G.E. The Effectiveness of Massage Therapy Intervention on Reducing Anxiety in the Workplace. *J. Applied Behav. Sc.* 32(2): 160-173; Jn 1996.

Chair Massage reduces anxiety levels for employees.

Sports Medicine

- a. Goats, G.C. Massage—The Scientific Basis of an Ancient Art: Parts 1 and 2. *Br. J. Sports Med* (UK). 28 (3): 149-52 & 153-56; Sept 1994.

Reviews techniques and previous research on effects of massage on blood flow and composition, edema, connective tissue, muscle and the nervous system. Massage in sports medicine is justified.

- b. Smith, L.L., et.al. The Effects of Athletic Massage on Delayed Onset Muscle Soreness, Creatine Kinase, and Neutrophil Count: A Preliminary Report. *J. Orthop Sports Phys. Ther.* 19 (2): 93-99; Feb 1994.

Suggests that sports massage reduces delayed onset muscle soreness and creatine kinase when administered two hours after the termination of eccentric exercise.

This is a sample of research on the efficacy of massage. The AMTA Foundation will provide a searchable online database of scientific research citations relevant to massage and bodywork by October 31, 2001. The database will be available at no charge through the AMTA Foundation Web site: www.amtamassage.org/foundation.