

HOW DOES MASSAGE THERAPY WORK?

Every year, B.C. doctors make over 200,000 referrals for massage therapy treatments.

Massage Therapy is one of the few forms of medical treatment that can benefit the entire human body. To truly understand how Massage Therapy helps people, you first must appreciate the complex machine that is a human being: 206 bones; an unimaginably complex nervous system that controls all of the muscles; a respiratory system that instantly provides oxygen for life; and a circulatory system that delivers oxygen-filled blood and other nutrients to the billions of cells throughout the body.

Fibrosis and Contracture

Daily massages reduced the pain and stiffness of people with fibromyalgia. (Field, 1996)

One of the most difficult soft tissue disorders to treat is fibrosis. Fibrosis is the abnormal formation of fibrous tissues that may result from an injury, repeated stress and /or lack of activity. Restricted motion can also result in this abnormal connective tissue formation, reducing muscle and tissue flexibility and tone.

By applying specific soft tissue manipulation techniques to the area, a therapist can stretch and soften the abnormal connective tissues and help to prevent further adhesion formation on the tendons, ligaments and muscles. Joint mobilization techniques are also useful in softening the adhesions and stretching muscles and soft tissues that have become dysfunctional.

The prevention and treatment of fibrosis (abnormal formation of collagen tissue) is a primary treatment goal following tissue damage, inflammation or immobilization. Transverse friction, for example, of a torn ligament prevents abnormal adhesion formation to surrounding connective tissue, bones and tendons.

Treatment application of deep friction includes tendonitis, muscular and ligamentous lesions from both recent injury and remaining scar tissue formation from past injury. Other conditions commonly treated for fibrosis and contracture include torticollis, contusions (post-acute), adhesive capsulitis, osteoarthritis and most musculo-skeletal lesions with acute inflammation present.

Beyond softening and preventing adhesions, Massage Therapy can provide a temporary analgesic effect that allows other medical treatments to be provided without pain (Weintraub, 1994). Moving and stretching affected limbs is extremely important to recovery and Massage Therapy can be the key.

Circulation

Human beings, like the earth itself, are mostly made up of water. All life depends on its flow. In the human body, interruptions in the movement of the two principal liquids – lymph and blood – can cause pain, disease and death.

Blood is pumped from the heart through a complex network of arteries, capillaries and back to the heart through veins. It takes 30 seconds for the blood to make one round trip through the body. During that quick excursion, blood delivers oxygen and nutrients to the cells and removes carbon dioxide and other waste materials.

Massage Therapy has been found to be more effective in increasing blood flow than moderate exercise, making it an extremely useful tool in building a healthy lifestyle. Selected Massage Therapy techniques decrease blood pressure and heart rate, making it a recommended treatment for some cardiac and hypertensive patients.

Massage Therapy promoted relaxation among patients between 56 to 96 years of age and reduced blood pressure. (Fakouri and Jones, 1987)

Lymph is the body's police force. Its white blood cells are the human body's defence mechanism that kills bacteria and neutralizes toxins. Massage Therapy is the most effective way to increase the rate at which lymph courses through the body, effectively washing out the fluid between the tissues.

Massage Therapy had positive effects on the immune system and stress levels of people with HIV. (Field, 1996)

Swelling is an excess of fluid in an area of the body. Massage applied above and adjacent to the swollen area moves the extra lymph and other fluids from the tissues into the blood, where it will be delivered to the urinary tract for disposal. By removing the excess fluid around an injured area, Massage Therapy speeds the healing process.

Manual soft tissue treatment increases circulation of the blood and lymph, influencing effective delivery of oxygen and nutrients to cells. Patients with edema and inflammatory conditions may be helped by Massage Therapy.

Skeletal Muscles

Cancer patients who received Massage Therapy experienced less pain, improved mobility and less swelling, (Wilkinson, 1996)

Muscles, like everything else in the body, take orders from the brain. When the brain wants action, it sends a message through the spinal cord and connected nerves to reach the muscle itself. That movement is regulated by signals from the nerves in the muscle, which provides a constant progress report. During various specific soft tissue manipulation techniques used in Massage Therapy, there is a massive increase in the number of messages sent to the brain by the nerves. This sudden deluge of information readjusts muscle tension, increasing their ability to work while preventing injuries.

Massage Therapy can appease many muscle disorders. Muscle spasms, for example, can be eased by certain Massage Therapy techniques because the kneading and stretching of the muscle fibers encourages a relaxation response in the muscle spindle receptors that are maintaining the spasm. Stretching or pressure on tendons can further interrupt the spasm.

In 1988, Baxter Corp., an Ontario pharmaceutical company, implemented a Massage Therapy program for employees. Over the next four years, the time taken off by employees decreased by 25 per cent. Between 1988 and 1990, compensation claims at the company dropped by \$200,000. (Financial Times, 1992)

The neurophysiology of muscle relation responses to manual stimulation involves continuous resetting of resting muscle tone until tonic reflex responses are no longer elicited. Myofascial trigger points respond to a treatment technique producing local tissue ischemic conditions to a hyperirritable area within a tight band of muscle or muscle fascia. Treatment for muscle strain brings about reduction of spasm, metabolic wastes and prevention of fibrosis.

Following strenuous exercise, many people experience severe muscular discomfort immediately or even 24 to 48 hours later. The muscle soreness is caused by a lack of oxygen and a build up of waste products that can result in

muscle spasms, damaged muscle fibres and/or tendons. Whether a muscle is denervated and paralyzed or more commonly having spasms and myofascial pain, manual soft tissue treatment has proven effects. It also functions in the treatment of hypertonic muscles.

A test comparing Massage Therapy, hydrotherapy, vitamins, pharmaceuticals and sauna found that Massage Therapy was the most effective treatment for restoring muscles following an athletic competition. (Vasilieva, 1993)

Control of Pain

Massage Therapy is the most frequently used therapy for musculoskeletal problems, and is particularly useful in controlling pain. (Quebec Task Force on Spinal Disorders, 1987)

Pain, like a fire alarm in an office building, is a way of communicating that something is wrong. When a muscle contracts beyond its normal state, as a response to injury, for a prolonged period of time, it compresses blood vessels and reduces blood flow. This results in a lack of oxygen that can cause the nerve endings to send pain messages to the brain. The brain responds by increasing muscle tension further in an effort to immobilize the area, starting a vicious pathological cycle.

Children with rheumatoid arthritis who were given Massage Therapy treatments had much greater reduction in pain than those involved in progressive muscle relaxation therapy. (Field et al, 1996)

The effectiveness of massage therapy in pain control is widely recognized*. It can directly act on the pain receptors, either at a peripheral or central nervous system level. Studies have shown that ice massage therapy, for example, shares the same neural mechanism involving the gating of pain within the spinal cord as transcutaneous electrical nerve stimulation (TENS) and acupuncture do.

*For more information on how massage therapy can be used to treat different conditions, see "A Physician's Guide to therapeutic massage- Physiological effects and Treatment applications" by Dr. John Yates, PhD. Copies available by calling the Massage Therapists' Association of British Columbia at (604) 873-4467.

98 per cent of patients believe that massage therapy is effective treatment for their medical conditions. (Patient Survey, 1997)

The therapeutic effects of soft tissue manipulation are concerned with breaking the pain-contraction cycle, and affecting the source of pain. Pain relief can also be obtained by the increase of circulation (decrease of congestion), increase of range motion (ROM), and releasing myofascial trigger points. Pain management by massage therapy may be indicated for post-trauma, post-surgical and palliative care (e.g. terminal illness) as well as muscular lesions, arthritis, neuritis and inflammatory conditions.

Female patients suffering from chronic tension headaches who received 10 Massage Therapy treatments in two-and-a-half weeks experienced a significant long-term improvement of their headaches and moods. (Puusjarvi et al, 1990)

Respiratory Function

Asthma sufferers who received weekly 15-minute Massage Therapy treatments reported reduced chest tightness, wheezing, physical pain and fatigue. (Munson and Yekyal, 1995)

For people with respiratory problems, Massage Therapy is an ideal treatment. Percussion, drainage of fluids through changes in posture, soft tissue manipulation and joint mobilizations, can give people much needed relief from their symptoms.

Chronic lung disease can cause other problems such as decreased rib cage mobility and neck problems. Because other muscles, besides the primary respiratory muscles, are being used to breath, the muscles in the neck and elsewhere become overtaxed as they compensate for the lack of normal movement in the rib cage in order to get oxygen to the lungs. As well, people suffering from this disorder generally have high tension and stress levels.

Massage therapy has been commonly used for respiratory diseases as part of their treatment. Patients with chronic obstructive pulmonary diseases (COPD); emphysema, bronchitis, asthma – where necessary breathing muscles are taxed and rib cage mobility is decreased, have benefited from manual therapy treatment to where there is improved forced vital capacity, respiratory rate and chest expansion. Techniques used for COPD include postural drainage, manipulation of respiratory muscles combined with chest percussion and exercises for breathing and trunk mobilization.

Psychological State

Young Psychiatric patients who underwent Massage Therapy had lower stress hormone levels, better sleep patterns and less anxiety. (Field, 1996)

The brain controls all functions of the body – from pumping blood to reaching for that first cup of coffee in the morning. With the million things your brain has to remember to do everyday, it's no surprise that Massage Therapy can help ease the mind.

Employees who were given a 15 minute massage twice-a-week for five weeks were more alert and exhibited positive changes in brain waves. (Field, 1996)

One of the most remarkable discoveries in recent years has been that babies who receive Massage Therapy gain weight faster simply because they benefit from touch. These positive effects could arise because the skin is the largest and most sensitive organ in the human body. The skin's condition can affect everything, from the nervous system to blood pressure and ultimately, our moods and how we behave.

Massage Therapy resulted in lower anxiety and stress among children with conditions ranging from autism to those who had been victims of physical and sexual abuse. (Field, 1996)

Some people who suffer from chronic anxiety reduce their medication after discovering how Massage Therapy can help them. More and more research suggests that Massage Therapy can be of great assistance in treating many psychological problems (Field, 1996).

Young girls suffering from bulimia had lower depression scores, lower stress hormone levels and improved attitudes about eating and their bodies following ten Massage Therapy treatments over five weeks. (Field et al, 1996)

All of the above information was prepared, written or reprinted and submitted by John W. Reimer, RMT with references from: MTABC publications "Registered Massage Therapists: Working for British Columbians", August 2000 edition and "In Touch – The Practice of Massage Therapy in British Columbia".