# Massage

From Wikipedia, the free encyclopedia

Massage involves working and acting on the body with pressure – structured, unstructured, stationary, or moving – tension, motion, or vibration, done manually or with mechanical aids. Massage can be applied with the hands, fingers, elbows, knees, forearm, feet, or a massage device. Depending on the application and technique used, massage is used to promote relaxation and well-being, [1][2] and is beneficial in treating sports injuries [3] and other problems affecting the musculature of the body such as postural misalignment and many painful conditions. [4] Massage can also be sexual in nature (see Erotic massage).

In professional settings massage clients are treated while lying on a massage table, sitting in a massage chair, or lying on a mat on the floor, while in amateur settings a general purpose surface like a bed or floor

# Massage

NCCIH · Manipulative and body-based methods · Techniques · Professionalized

This article is part of the branches of Complementary and alternative medicine series.

is more common. Aquatic massage and bodywork is performed with recipients submersed or floating in a warm-water therapy pool. The massage subject may be fully or partially clothed or unclothed.

## **Contents**

- 1 Etymology
- 2 History
  - 2.1 Ancient and medieval times
  - 2.2 Modern times
- 3 Types and methods
  - 3.1 Active release technique
  - 3.2 Acupressure
  - 3.3 Aquatic bodywork
  - 3.4 Ashiatsu
  - 3.5 Ayurvedic Massage
  - 3.6 Biodynamic massage
  - 3.7 Craniosacral therapy
  - 3.8 Foot massage
  - 3.9 Lomilomi and indigenous massage of Oceania
  - 3.10 Lymphatic drainage
  - 3.11 Medical massage
  - 3.12 Myofascial release

- 3.13 Shiatsu
- 3.14 Structural Integration
- 3.15 Swedish massage
- 3.16 Thai massage
- 3.17 Traditional Chinese massage
- 3.18 Trigger point therapy
- 3.19 Tui na
- 3.20 Watsu
- 4 Facilities, equipment, and supplies
  - 4.1 Massage tables and chairs
  - 4.2 Warm-water therapy pools
  - 4.3 Dry-water massage tables
  - 4.4 Vichy showers
  - 4.5 Cremes, lotions, gels, and oils
  - 4.6 Massage tools
- 5 Medical and therapeutic use
  - 5.1 Practitioner associations and official recognition of professionals
  - 5.2 Associated methods
  - 5.3 Beneficial effects
    - 5.3.1 Single-dose effects
    - 5.3.2 Multiple-dose effects
    - 5.3.3 Neuromuscular effects
  - 5.4 Massage and proprioception
  - 5.5 Regulations
    - 5.5.1 Canada
    - 5.5.2 China
    - 5.5.3 France
    - 5.5.4 Germany
    - 5.5.5 India
    - 5.5.6 Japan
    - 5.5.7 Mexico
    - 5.5.8 New Zealand
    - 5.5.9 South Africa
    - 5.5.10 South Korea
    - 5.5.11 Thailand
    - 5.5.12 United Kingdom
    - 5.5.13 United States
- 6 See also
- 7 References
- 8 External links

# **Etymology**

The word comes from the French *massage* "friction of kneading", or from Arabic *massa* meaning "to touch, feel" or from Latin *massa* meaning "mass, dough", [5][6] cf. Greek verb  $\mu\acute{\alpha}\sigma\sigma\omega$  (*massō*) "to handle, touch, to work with the hands, to knead dough". In distinction the ancient Greek word for massage was *anatripsis*, [8] and the Latin was *frictio*.

# **History**

#### Ancient and medieval times

Archaeological evidence of massage has been found in many ancient civilizations including China, India, Japan, Korea, Egypt, Rome, Greece, and Mesopotamia.

BC 2330: The Tomb of Akmanthor <sup>[9]</sup> (also known as "The Tomb of the Physician") in Saqqara, Egypt depicts two men having work done on their feet and hands, presumably massage.

BC 722-481: *Huangdi Neijing* is composed during the Chinese Spring and Autumn period (the beginning of recorded history). The Nei-jing is a compilation of medical knowledge known up to that date, and is the foundation of Traditional Chinese Medicine. Massage is referred to in 30 different chapters of the Nei Jing. It specifies the use of different massage techniques and how they should be used in the treatment of specific ailments, and injuries. Also known as "The Yellow Emperor's Inner Canon", the text refers to previous medical knowledge from the time of the Yellow Emperor (approx 2700 BC), misleading some into believing the text itself was written during the time of the Yellow Emperor (which would predate written history). [10][11]



Drawings of accupressure points on Sen lines at Wat Pho temple in Thailand



Akmanthor

BC 700 Bian Que, the earliest known Chinese physician uses massage in medical practice. [12]

BC 500 Jīvaka Komarabhācca, also known as Shivago Komarpaj, the founder of Traditional Thai massage (Nuad Boran) and Thai medicine. According to the Pāli Buddhist Canon, Jivaka was Buddha's physician. He codified a healing system that combines acupressure, reflexology, and assisted yoga postures. Traditional Thai massage is generally based on a combination of Indian and Chinese traditions of medicine. Jivaka is known today as "Father Doctor" in Thailand.

BC 493: A possible biblical reference documents daily "treatments" with oil of myrrh as a part of the beauty regimen of the wives of Xerxes (Esther, 2:12).<sup>[13]</sup>

BC 460: Hippocrates wrote "The physician must be experienced in many things, but assuredly in rubbing".

BC 300 Charaka Samhita believed to be the oldest of the three ancient treatises of Ayurvedic medicine, including massage. Sanskrit records indicate that massage had been practiced in India long before the beginning of recorded history.<sup>[14]</sup>

AD 581: Dr Sun Si Miao introduces ten new massage techniques and systematized the treatment of childhood diseases using massage therapy.

AD 581: China establishes a department of massage therapy within the Office of Imperial Physicians.

Middle-Ages: Medical knowledge, including that of massage, made its way from Rome to Persia in the Middle Ages. Many of Galen's manuscripts, for instance, were collected and translated by Hunayn ibn Ishaq in the 9th century. Later in the 11th century copies were translated back into Latin, and again in the 15th and 16th centuries, when they helped enlighten European scholars as to the achievements of the Ancient Greeks. This renewal of the Galenic tradition during the Renaissance played a very important part in the rise of modern science.

One of the greatest Persian medics was Avicenna, also known as Ibn Sina, who lived from 980AD to 1037AD. He was the foremost philosopher of medieval Islam and also a great philosopher, logician and medic. His works included a comprehensive collection and systematisation of the fragmentary and unorganised Greco-Roman medical literature that had been translated Arabic by that time, augmented by notes from his own experiences. One of his books, *Al-Qānūn fī aṭ-Ṭibb* (The Canon of Medicine) has been called the most famous single book in the history of medicine in both East and West. Avicenna excelled in the logical assessment of conditions and comparison of symptoms and took special note of analgesics and their proper use as well as other methods of relieving pain, including massage.

AD 1150: Evidence of massage abortion, involving the application of pressure to the pregnant abdomen, can be found in one of the bas reliefs decorating the temple of Angkor Wat in Cambodia. It depicts a demon performing such an abortion upon a woman who has been sent to the underworld. This is the oldest known visual representation of abortion.<sup>[15]</sup>

AD 1776: Jean Joseph Marie Amiot, and Pierre-Martial Cibot, French missionaries in China translate summaries of Huangdi Neijing, including a list of medical plants, exercises and elaborate massage techniques, into the French language, thereby introducing Europe to the highly developed Chinese system of medicine, medical-gymnastics, and medical-massage.<sup>[11]</sup>

AD 1776 Pehr Henrik Ling, a Swedish physical therapist, and teacher of medical-gymnastics is born. Ling has often been erroneously credited for having invented "Classic Massage" aka "Swedish Massage", and has been called the "Father of Massage". [16]

AD 1779: Frenchman Pierre-Martial Cibot publishes 'Notice du Cong-fou des Bonzes Tao-see' also known as "The Cong-Fou of the Tao-Tse", a French language summary of medical techniques used by Taoist priests. According to Joseph Needhan, Cibot's work "was intended to present the physicists and physicians of Europe with a sketch of a system of medical gymnastics which they might like to adopt—or if they found it at fault they might be stimulated to invent something better. This work has long been regarded as of cardinal importance in the history of physiotherapy because it almost certainly

influenced the Swedish founder of the modern phase of the art, Per Hendrik Ling. Cibot had studied at least one Chinese book, but also got much from a Christian neophyte who had become expert in the subject before his conversion."<sup>[17]</sup>

AD 1813 The Royal Gymnastic Central Institute for the training of gymnastic instructors was opened in Stockholm, Sweden, with Pehr Henrik Ling appointed as principal. Ling developed what he called the "Swedish Movement Cure." Ling died in 1839, having previously named his pupils as the repositories of his teaching. Ling and his assistants left little proper written account of their methods. [11][18][19]

AD 1878: Dutch massage practitioner Johan Georg Mezger applies French terms to name five basic massage techniques, [16] and coins the phrase "Swedish massage system". These techniques are still known by their French names (effleurage (long, gliding strokes), petrissage (lifting and kneading the muscles), friction (firm, deep, circular rubbing movements), tapotement (brisk tapping or percussive movements), and vibration (rapidly shaking or vibrating specific muscles)).

#### **Modern times**

**China:** Massage has developed continuously in China for over 5000 years. Western ideas are considered within the traditional framework. It is widely practiced and taught in hospital and medical schools and is an essential part of health maintenance and primary healthcare. [20]

**United States:** Massage started to become popular in the United States in the middle part of the 19th century<sup>[13]</sup> and was introduced by two New York physicians based on Per Henrik Ling's techniques developed in Sweden.

During the 1930s and 1940s massage's influence decreased as a result of medical advancements of the time, while in the 1970s massage's influence grew once again with a notable rise among athletes.<sup>[13]</sup> Until the 1970s, nurses used massage to reduce pain and aid sleep.<sup>[21]</sup> The massage therapy industry is continuously increasing, with a projected 19% increase between 2008 and 2009. U.S. consumers spend between \$4 and \$6 billion on visits to massage therapists, as of 2009.<sup>[22]</sup>



A woman gets a massage.

**United Kingdom:** Massage is popular in the United Kingdom today and gaining in popularity. There are many private practitioners working from their own premises as well as those who operate from commercial venues.

Massage in sports, business and organizations: Massage developed alongside athletics in both Ancient China and Ancient Greece. Taoist priests developed massage in concert with their Kung Fu gymnastic movements, while Ancient Greek Olympians used a specific type of trainer ("aleiptes")<sup>[23]</sup> who would rub their muscles with oil. Pehr Ling's introduction to massage also came about directly as a result of his study of gymnastic movements.

The 1984 Summer Olympics in Los Angeles was the first time that massage therapy was televised as it was being performed on the athletes. And then, during the 1996 Summer Olympics in Atlanta massage therapy was finally offered as a core medical service to the US Olympic Team. [24] Massage has been employed



Marathon runners receiving massages at the 2004 ING Taipei International Marathon

by businesses and organizations such as the U.S. Department of Justice, Boeing and Reebok.<sup>[25]</sup> Notable athletes such as Michael Jordan and LeBron James have personal massage therapists that at times even travel with them

# Types and methods

## Active release technique

Active release technique (ART) is a form of deep tissue manipulation patented by P. Michael Leahy in which specified techniques are used to release what are presumed to be soft tissue adhesions. [26]:578

## Acupressure

**Acupressure** [from Latin acus "needle" (see acuity) + pressure (n.)<sup>[27]</sup>] is an alternative medicine technique similar in principle to acupuncture. It is based on the concept of life energy which flows through "meridians" in the body. In treatment, physical pressure is applied to acupuncture points with the aim of clearing blockages in these meridians. Pressure may be applied by hand, by elbow, or with various devices.

Some medical studies have suggested that acupressure may be effective at helping manage nausea and vomiting, for helping lower back pain, tension headaches, stomach ache, among other things, although such studies have been found to have a high likelihood of bias.<sup>[28]</sup>

## **Aquatic bodywork**

Aquatic bodywork comprises a diverse set of massage and bodywork forms performed in water. This includes land-based forms performed in water (e.g., Aquatic Craniosacral Therapy, Aquatic Myofascial Release Therapy, etc.), as well as forms specific to warm water pools (e.g., Aquatic Integration, Dolphin Dance, Healing Dance, Jahara technique, WaterDance, Watsu).<sup>[29]</sup>

#### **Ashiatsu**

In ashiatsu, the practitioner uses their feet to deliver treatment. The name comes from the Japanese, *ashi* for foot and *atsu* for pressure. <sup>[30]</sup> This technique typically uses the heel, sesamoid, arch and/or whole plantar surface of foot, and offers large compression, tension and shear forces with less pressure than an elbow, and is ideal for large muscles, such as in thigh, or for long-duration upper trapezius compressions. <sup>[31]</sup> Other manual therapy techniques using the feet to provide treatment include Keralite, Barefoot Lomi Lomi, Chavutti Thirumal.

#### **Ayurvedic Massage**

Ayurvedic Massage known as *Abhyangam* in Sanskrit is one of the most common and important Ayurvedic therapies. According to the Ayurvedic Classics *Abhayngam* is an important dincharya (Daily Regimen) that is needed for maintaining a healthy lifestyle. The massage technique used during Ayurvedic Massage is known to stimulate the lymphatic system to expel the toxins out from the body. The Ayurvedic Massage also stimulates production of lymphocytes which play a vital role in maintaining the immunity in human body. Thus regular Ayurvedic Massage can lead to better immunity and also help in body de-toxification. The other benefits of regular Ayurvedic Massage include pain relief, reduction of fatigue, prevention of ageing and bestowing longevity. [32][33]

#### Biodynamic massage

Biodynamic massage was created by Gerda Boyesen as part of Biodynamic Psychotherapy. Practised as a stand-alone therapy, it is a combination of physical and energy work and also uses a stethoscope to hear the peristalsis.<sup>[34]</sup>

## Craniosacral therapy

Craniosacral therapy (CST) is a gentle approach that releases tensions deep in the body by applying light touch to the skull, face, spine, and pelvis.<sup>[35]</sup>

## Foot massage

While various types of reflexology related massage styles focus on the feet, massage of (usually) the soles of the feet is often performed purely for relaxation or recreation. It is believed there are some specific points on our feet that correspond to different organs in the body. Stimulation of these points during foot massage can cause significant reduction in pain. Studies also suggest that foot reflexology massage can reduce fatigue and promote better sleep.<sup>[36]</sup>

## Lomilomi and indigenous massage of Oceania

Lomilomi is the traditional massage of Hawaii. As an indigenous practice, it varies by island and by family. The word *lomilomi* also is used for massage in Samoa and East Futuna. In Samoa, it is also known as *lolomi* and *milimili*. In East Futuna, it is also called *milimili*, *fakasolosolo*, *amoamo*, *lusilusi*, *kinikini*, *fai'ua*. The Māori call it *roromi* and *mirimiri*. In Tonga massage is *fotofota*, *tolotolo*, and

*amoamo*. In Tahiti it is *rumirumi*. On Nanumea in Tuvalu, massage is known as *popo*, pressure application is *kukumi*, and heat application is *tutu*. Massage has also been documented in Tikopia in the Solomon Islands, in Rarotonga and in Pukapuka in Western Samoa.<sup>[37]</sup>

## Lymphatic drainage

Manual lymphatic drainage is a technique used to gently work and stimulate the lymphatic system, to assist in reduction of localized swelling. The lymphatic system is a network of slow moving vessels in the body that carries cellular waste toward the heart, to be filtered and removed. Lymph also carries lymphocytes, and other immune system agents. Manual lymphatic drainage claims to improve waste removal and immune function. [38][39][40]



Massage in Tarifa, Spain

## Medical massage

Medical Massage is a controversial term in the massage profession.<sup>[41]</sup> Many use it to describe a specific technique. Others use it to describe a general category of massage and many methods such as deep tissue massage, myofascial release and triggerpoint therapy as well as osteopathic techniques, cranial-sacral techniques and many more can be used to work with various medical conditions.

Massage used in the medical field includes decongestive therapy used for lymphedema<sup>[13]</sup> which can be used in conjunction with the treatment of breast cancer. Light massage is also used in pain management and palliative care. Carotid sinus massage is used to diagnose carotid sinus syncope and is sometimes useful for differentiating supraventricular tachycardia (SVT) from ventricular tachycardia. It, like the valsalva maneuver, is a therapy for SVT.<sup>[42]</sup> However, it is less effective than management of SVT with medications.<sup>[43]</sup>

A 2004 systematic review found single applications of massage therapy "reduced state anxiety, blood pressure, and heart rate but not negative mood, immediate assessment of pain, and cortisol level", while "multiple applications reduced delayed assessment of pain", and found improvements in anxiety and depression similar to effects of psychotherapy. [44] A subsequent systematic review published in 2008 found that there is little evidence supporting the use of massage therapy for depression in high quality studies from randomized controlled trials. [45]

## Myofascial release

Myofascial release refers to the manual massage technique that claims to release adhered fascia and muscles with the goal of eliminating pain, increasing range of motion and equilibrioception. Myofascial release usually involves applying shear compression or tension in various directions, cross fiber friction or by skin rolling.<sup>[46]</sup>

#### Shiatsu

Shiatsu (指圧) (*shi* meaning finger and *atsu* meaning pressure) is a type of alternative medicine consisting of the fingers and palm pressure, stretches, and other massage techniques. There is no convincing data available to suggest that shiatsu is an effective treatment for any medical condition. [47]

#### **Structural Integration**

Structural Integration's aim is to unwind the strain patterns residing in the body's myofascial system, restoring it to its natural balance, alignment, length, and ease. This is accomplished by deep, slow, fascial and myofascial manipulation, coupled with movement reeducation. Various brands of Structural Integration are Rolfing, Hellerwork, Guild for Structural Integration, Aston Patterning, [11] Soma, [48] and Kinesis Myofascial Integration. [49]

#### Swedish massage

The most widely recognized and commonly used category of massage is the Swedish massage. The Swedish massage techniques vary from light to vigorous. [50] Swedish massage uses five styles of strokes. The five basic strokes are effleurage (sliding or gliding), petrissage (kneading), tapotement (rhythmic tapping), friction (cross fiber or with the fibers) and vibration/shaking. [51] Swedish massage has shown to be helpful in reducing pain, joint stiffness, and improving function in patients with osteoarthritis of the knee over a period of eight weeks. [52] The development of Swedish massage is often inaccurately credited to Per Henrik Ling, though the Dutch practitioner Johann Georg Mezger applied the French terms to name the basic strokes. [53] The term "Swedish" massage is actually only recognized in English and Dutch speaking countries, and in Hungary. Elsewhere the style is referred to as "classic massage".

Clinical studies report that Swedish Massage can effectively reduce low back pain and the effectiveness can last for as long as 15 weeks. One study reported that Swedish Massage caused reduction in salivary cortisol indicating its role in management of stress and improvement in mood.<sup>[54][55]</sup>



A hot stone massage



Massage trainer teaches sports students how to do massage (Leipzig, German Democratic Republic)

## Thai massage

Known in Thailand as นวดแผนโบราณ (*Nuat phaen boran*, IPA: [nûət pʰɛ́:n bo:ra:n]), meaning "ancient/traditional massage", Traditional Thai massage (Nuad Boran) is generally based on a combination of Indian and Chinese traditions of medicine.

Thai massage – or Nuat Thai – combines both physical and energetic aspects. It is a deep, full-body massage progressing from the feet up, and focusing on sen or energy lines throughout the body, with the aim of clearing blockages in these lines, and thus stimulating the flow of blood and lymph throughout the body. It draws on voga, acupressure and reflexology.

Thai Massage is a popular massage therapy that is used for management of conditions such as musculoskeletal pain and fatigue. Thai Massage involves a number of stretching movements that improve body flexibility, joint movement and also improve blood circulation throughout the body. In one study



scientists found that Thai Massage showed comparable efficacy as the painkiller ibuprofen in reduction of joint pain caused by osteoarthritis (OA) of the knee. [56]

## **Traditional Chinese massage**

Massage of Chinese Medicine is known as An Mo (按摩, pressing and rubbing) or Qigong Massage, and is the foundation of Japan's Anma. Categories include Pu Tong An Mo (general massage), Tui Na An Mo (pushing and grasping massage), Dian Xue An Mo (cavity pressing massage), and Qi An Mo (energy massage). Tui na (推拿) focuses on pushing, stretching, and kneading muscles, and Zhi Ya (指 壓) focuses on pinching and pressing at acupressure points. Technique such as friction and vibration are used as well [57]

## Trigger point therapy

Sometimes confused with pressure point massage, [13] this involves deactivating trigger points that may cause local pain or refer pain and other sensations, such as headaches, in other parts of the body. Manual pressure, vibration, injection, or other treatment is applied to these points to relieve myofascial pain. Trigger points were first discovered and mapped by Janet G. Travell (President Kennedy's physician) and David Simons. Trigger points have been photomicrographed and measured electrically.<sup>[58]</sup> and in 2007 a paper was presented showing images of Trigger Points using MRI. [59] These points relate to dysfunction in the myoneural junction, also called neuromuscular junction (NMJ), in muscle, and therefore this technique is different from reflexology, acupressure and pressure point massage.

#### Tui na

Tui na is a Chinese manual therapy technique that includes many different types of strokes, aimed to improve the flow of chi through the meridians.

#### Watsu

Watsu, developed by Harold Dull at Harbin Hot Springs, California, is a type of aquatic bodywork performed in near-body-temperature water, and characterized by continuous support by the practitioner and gentle movement, including rocking, stretching of limbs, and massage. The technique combines

hydrotherapy floating and immersion with shiatsu and other massage techniques. Watsu is used as a form of aquatic therapy for deep relaxation and other therapeutic intent. Related forms include WaterDance, Healing Dance, and Jahara technique. [60][61]

# Facilities, equipment, and supplies

#### Massage tables and chairs

Specialized massage tables and chairs are used to position recipients during massages. A typical commercial massage table has an easily cleaned, heavily padded surface, and a horseshoeshaped head support that allows the client to breathe easily while lying face down and can be stationary or portable, while home versions are often lighter weight or designed to fold away easily. An orthopedic pillow or bolster can be used to correct body positioning.

Ergonomic chairs serve a similar function as a massage table. Chairs may be either stationary or portable models. Massage chairs are easier to transport than massage tables, and recipients do not need to disrobe to receive a chair massage. Due to these two factors, chair massage is often performed in settings such as corporate offices, outdoor festivals, shopping malls, and other public locations.

## Warm-water therapy pools

Temperature-controlled warm-water therapy pools are used to perform aquatic bodywork. [62] For example, Watsu requires a warm-water therapy pool that is approximately chest deep (depending on height of the therapist) and temperature-controlled to about 35 °C (95 °F). [63]

## **Dry-water massage tables**

A dry-water massage table uses jets of water to perform the massage of the client's muscles. These tables differ from a Vichy shower in that the client usually stays dry. Two common types



A massage table in use.



A massage chair in use

are one in which the client lies on a waterbed-like mattress which contains warm water and jets of water and air bubbles and one in which the client lies on a foam pad and is covered by a plastic sheet and is then sprayed by jets of warm water, similar to a Vichy shower. [64] The first type is sometimes seen available for use in malls and shopping centers for a small fee.

## Vichy showers

A Vichy shower is a form of hydrotherapy which uses a series of shower nozzles which spray large quantities of water over the client while they lie in a shallow wet bed, similar to a massage table, but with drainage for the water. The nozzles may usually be adjusted for height, direction, and temperature to suit the client's needs.

## Cremes, lotions, gels, and oils

Many different types of massage cremes, lotions, gels, and oils are used to lubricate and moisturize the skin and reduce the friction between skin (hands of technician and client). lightly different properties, and the choice depends upon the type of massage and the therapist's preference. Commonly used oils include jojoba oil, fractionated coconut oil, grape seed oil, olive oil, almond oil, macadamia oil, sesame oil, pecan oil, mustard oil<sup>[65]</sup> and (mineral) baby oil.<sup>[66]</sup> Each oil has different properties and serves different purposes. There are different views about the extent to which various oils and other substances are absorbed into the body through the skin.<sup>[67]</sup> Salts are also used in association with oils to remove dry skin.

#### Massage tools

A body rock is a serpentine-shaped tool, usually carved out of stone. It is used to amplify the therapist's strength and focus pressure on certain areas. It can be used directly on the skin with a lubricant such as oil or corn starch or directly over clothing.

Bamboo and rosewood tools are also commonly implemented. They originate from practices in southeast Asia, Thailand, Cambodia, and Burma. Some of them may be heated, oiled, or wrapped in cloth.

# Medical and therapeutic use

The main professionals that provide therapeutic massage are massage therapists, athletic trainers, physical therapists and practitioners of many traditional Chinese and other eastern medicines. Massage practitioners work in a variety of medical settings and may travel to private residences or businesses.<sup>[13]</sup> Contraindications to massage include deep vein thrombosis, bleeding disorders or taking blood thinners such as Warfarin, damaged blood vessels, weakened bones from cancer, osteoporosis, or fractures, bruising, and fever.<sup>[13]</sup>

## Practitioner associations and official recognition of professionals

The US based National Center for Complementary and Alternative Medicine recognizes over eighty different massage techniques.<sup>[13]</sup> The most cited reasons for introducing massage as therapy have been client demand and perceived clinical effectiveness.<sup>[68]</sup>

#### **Associated methods**

Many types of practices are associated with massage and include bodywork, manual therapy, energy medicine, and breathwork. Other names for massage and related practices include hands-on work, body/somatic therapy, and somatic movement education. Body-mind integration techniques stress self-awareness and movement over physical manipulations by a practitioner. Therapies related to movement awareness/education are closer to Dance and movement therapies. Massage can also have connections with the New Age movement and alternative medicine as well as holistice philosophies of preventative medical care, as well as being used by mainstream medical practitioners.

#### **Beneficial effects**

Peer-reviewed medical research has shown that the benefits of massage include pain relief, reduced trait anxiety and depression, and temporarily reduced blood pressure, heart rate, and state of anxiety. [69] Additional testing has shown an immediate increase and expedited recovery periods for muscle performance. Theories behind what massage might do include blocking nociception (gate control theory), activating the parasympathetic nervous system, which may stimulate the release of endorphins and serotonin, preventing fibrosis or scar tissue, increasing the flow of lymph, and improving sleep, [13] but such effects are yet to be supported by well-designed clinical studies.



Le massage: scène au Hammam by Edouard Debat-Ponsan (1883)

Massage is hindered from reaching the gold standard of scientific research, which includes placebo-controlled and double blind clinical trials.<sup>[70][71]</sup> Developing a "sham" manual therapy for massage would be difficult since even light touch massage could not be assumed to be completely devoid of effects on the subject.<sup>[70]</sup> It would also be difficult to find a subject that would not notice that they were getting less of a massage, and it would be impossible to blind the therapist.<sup>[70]</sup> Massage can employ randomized controlled trials, which are published in peer reviewed medical journals.<sup>[70]</sup> This type of study could increase the credibility of the profession because it displays that purported therapeutic effects are reproducible.<sup>[71]</sup>

#### Single-dose effects

- Pain relief: Relief from pain due to musculoskeletal injuries and other causes is cited as a major benefit of massage. [13] Acupressure or pressure point massage may be more beneficial than classic Swedish massage in relieving back pain. [72] However, a meta-study conducted by scientists at the University of Illinois at Urbana-Champaign failed to find a statistically significant reduction in pain immediately following treatment. [69]
- State anxiety: Massage has been shown to reduce state anxiety, a transient measure of anxiety in a given situation.

  [69]



Mechanical massage chairs at VivoCity in Singapore

 Blood pressure and heart rate: Massage has been shown to temporarily reduce blood pressure and heart rate. [69]

#### **Multiple-dose effects**

- **Pain relief:** When combined with education and exercises, massage might help sub-acute, chronic, non-specific low back pain. [72] Furthermore, massage has been shown to reduce pain experienced in the days or weeks after treatment. [69]
- **Trait anxiety:** Massage has been shown to reduce trait anxiety; a person's general susceptibility to anxiety. [69]
- **Depression:** Massage has been shown to reduce subclinical depression. [69]

#### **Neuromuscular effects**

Massage has been shown to reduce neuromuscular excitability by measuring changes in the Hoffman's reflex (H-reflex) amplitude. A decrease in peak-to-peak H-reflex amplitude suggests a decrease in motoneuron excitability.<sup>[73]</sup> Others explain, "H-reflex is considered to be the electrical analogue of the stretch reflex...and the reduction" is due to a decrease in spinal reflex excitability.<sup>[74]</sup> Field (2007) confirms that the inhibitory effects are due to deep tissue receptors and not superficial cutaneous receptors, as there was no decrease in H-reflex when looking at light fingertip pressure massage.<sup>[75]</sup> It has been noted that "the receptors activated during massage are specific to the muscle being massaged", as other muscles did not produce a decrease in H-reflex amplitude.<sup>[73]</sup>

## Massage and proprioception

Proprioceptive studies are much more abundant than massage and proprioception combined, yet researchers are still trying to pinpoint the exact mechanisms and pathways involved to get a fuller understanding.<sup>[76]</sup> Proprioception may be very helpful in rehabilitation, though this is a fairly unknown characteristic of proprioception, and "current exercises aimed at 'improving proprioception' have not been demonstrated to achieve that goal".<sup>[77]</sup> Up until this point, very little has been studied looking into the effects of massage on proprioception. Some researchers believe "documenting what happens under the skin, bioelectrically and biochemically, will be enabled by newer, non-invasive technology such as functional magnetic resonance imaging and continuous plasma sampling".<sup>[75]</sup>

## Regulations

Because the art and science of massage is a globally diverse phenomenon, different legal jurisdictions sometimes recognize and license individuals with titles, while other areas do not. Examples are:

- Registered Massage Therapist (RMT) Canada
- Remedial Massage Therapist (RMT) New Zealand
- Certified Massage Therapist (CMT) New Zealand
- Licensed Massage Practitioner (LMP)
- Licensed Massage Therapist (LMT)

- Licensed Massage and Bodywork Therapist (LMBT) North Carolina
- Therapeutic Massage Therapist (TMT) South Africa

In some jurisdictions, practicing without a license is a crime.

#### Canada

In regulated provinces massage therapists are known as Registered Massage Therapists, in Canada only four provinces regulate massage therapy:<sup>[78]</sup> British Columbia, Ontario, Newfoundland and Labrador, and New Brunswick.<sup>[79]</sup> Regulated provinces have, since 2012, established inter-jurisdiction competency standards. "Inter-Jurisdiction Competency Standards" (PDF). 2012-06-10.

Quebec is not provincially regulated. Massage therapists may obtain a certification with one of various associations operating. There is the Professional Association of Specialized Massage Therapists of Quebec (http://www.monreseauplus.com/en/), also named Mon Réseau Plus, which represents 6,300 massage therapists (including orthotherapists, naturotherapists and others), the Quebec Federation of massage therapists (FMQ), the "Association québécoise des thérapeutes naturels"., however none are regulated by provincial law.

#### China

Most types of massage, with the exception of some traditional Chinese medicine are not regulated in China. Although illegal in China, some of the smaller businesses are fronts for prostitution. [80] These are called falangmei (发廊妹 "hairdressing salon sisters").

#### France

France requires three years of study and two final exams in order to get a license [81]

#### Germany

In Germany massage is regulated by the government on a federal and national level. Only someone who has completed 3,200 hours of training (theoretical and practical) can use the professional title "Masseur und Medizinischer Bademeister" or Medical Masseur and Spa Therapist. This person can prolong his training depending on the length of professional experience to a Physiotherapist (1 year to 18 months additional training). The Masseur is trained in Classical Massage, Myofascial Massage, Exercise and Movement Therapy. During the training they will study: Anatomy, Physiology, Pathology, Gynecology, Podiatry, Psychiatry, Psychology, Surgery, and probably most importantly Dermiatry and Orthopedics. They are trained in Electrotherapy, and Hydrotherapy. Hydrotherapy includes: Kneipp, Wraps, underwater Massage, therapeutic washing, Sauna and Steambath. A small part of their training will include special forms of massage which are decided by the local college, for example: Foot reflex zone massage, Thai Massage etc. Finally a graduate is allowed to treat patients under the direction of a doctor. He is regulated by the professional body which regulates Physiotherapists. This includes the restriction on advertising and oath of confidentiality to clients.

#### India

In India, massage therapy is licensed by The Department of Ayurveda, Yoga & Naturopathy, Unani, Siddha and Homoeopathy (AYUSH) under the Ministry of Health and Family Welfare (India) in March 1995. Massage therapy is based on Ayurveda, the ancient medicinal system that evolved around 600 BC. In ayurveda, massage is part of a set of holistic medicinal practices, contrary to the independent massage system popular in some other systems. In Siddha, Tamil traditional medicine from south India, massage is termed as "Thokkanam" and is classified in to nine types, each for specific variety of disease.

#### Japan

In Japan, shiatsu is regulated but oil massage and Thai massage are not. Although prostitution is illegal, prostitutes posing as massage therapists in fashion health shops and pink salons are fairly common in the larger cities.

#### Mexico

In Mexico massage therapists, called "*sobadores*", combine massage using oil or lotion<sup>[82]</sup> with a form of acupuncture and faith.<sup>[83]</sup> *Sobadores* are used to relieve digestive system problems as well as knee and back pain.<sup>[82][83]</sup> Many of these therapists work out of the back of a truck, with just a curtain for privacy.
<sup>[83]</sup> By learning additional holistic healer's skills in addition to massage, the practitioner may become a *curandero*.<sup>[84]</sup>

In many parts of Mexico prostitution is legal and prostitutes are allowed to sell sexual massage. These businesses are often confined to a specific area of the city, such as the Zona Norte in Tijuana.

#### **New Zealand**

In New Zealand, massage is unregulated. There are two levels of registration with Massage New Zealand, the professional body for massage therapists within New Zealand, although neither of these levels are government recognised. Registration at the Certified Massage Therapist level denotes competency in the practice of relaxation massage. Registration at the Remedial massage therapist denotes competency in the practice of remedial or orthopedic massage. Both levels of registration are defined by agreed minimum competencies and minimum hours.

#### **South Africa**

In South Africa, massage is regulated, but enforcement is poor. The minimum legal requirement to be able to practice as a professional massage therapist is a 2-year diploma in Therapeutic Massage and registration with The Allied Health Professions Council of SA (AHPCSA). The 2 year qualification includes 240 credits, about 80 case studies, and about 100 hours community service.

#### **South Korea**

In South Korea, blind and visually impaired people can become licensed masseurs. [85]

#### **Thailand**

In Thailand, Thai massage is officially listed as one of the branches of traditional Thai medicine, recognized and regulated by the government. It is considered to be a medical discipline in its own right and is used for the treatment of a wide variety of ailments and conditions. Massage schools, centers, therapists, and practitioners are increasingly regulated by the Ministries of Education and Public Health in Thailand. [86][87]

#### **United Kingdom**

There are no national regulations relating to commercial massage or massage therapy in the UK, although various jurisdictions have licensing requirements for businesses performing massage.

#### **United States**

According to research done by the American Massage Therapy Association, as of 2012 in the United States there are between 280,000 and 320,000 massage therapists and massage school students. [88] As of 2011, there were more than 300 accredited massage schools and programs in the United States. [89] Most states have licensing requirements that must be met before a practitioner can use the title "massage therapist", and some states and municipalities require a license to practice any form of massage. If a state does not have any massage laws then a practitioner need not apply for a license with the state. However, the practitioner will need to check whether any local or county laws cover massage therapy. Training programs in the US are typically 500–1000 hours in length, and can award a certificate, diploma, or degree depending on the particular school. [90] There are around 1,300 programs training massage therapists in the country and study will often include anatomy and physiology, kinesiology, massage techniques, first aid and CPR, business, ethical and legal issues, and hands on practice along with continuing education requirements if regulated. [13] The Commission on Massage Therapy Accreditation (COMTA) is one of the organizations that works with massage schools in the U.S. and currently (Aug 2012) there are approximately 300 schools that are accredited through this agency.

Forty-three states, the District of Columbia and five Canadian provinces currently offer some type of credential to professionals in the massage and bodywork field---usually licensure, certification or registration. [68][91] Thirty-eight states and the District of Columbia require some type of licensing for massage therapists. [92] In the US, 39 states use the National Certification Board for Therapeutic Massage and Bodywork's certification program as a basis for granting licenses either by rule or statute. [93] The National Board grants the designation Nationally Certified in Therapeutic Massage and Bodywork (NCTMB). There are two tests available and one can become certified through a portfolio process with equivalent training and experience. [94] Between 10% and 20% of towns or counties regulate the profession. [79] The National Certification offered by the NCBTMB does not mean that you can practice massage in any state. [95] These local regulations can range from prohibition on opposite sex massage, fingerprinting and venereal checks from a doctor, to prohibition on house calls because of concern regarding sale of sexual services. [79][96]

In the US, licensure is the highest level of regulation and this restricts anyone without a license from practicing massage therapy or by calling themselves that protected title. Certification allows only those who meet certain educational criteria to use the protected title and registration only requires a listing of therapists who apply and meet an educational requirement. [96] It is important to note that a massage therapist may be certified, but not licensed. Licensing requirements vary per state, and often require additional criteria be met in addition to attending an accredited massage therapy school and passing a required state specified exam (basically the certification requirements in many states). In the US, most certifications are locally based. [97] However, as of March 2014, some states still do not require a license or a certification. However, this is thought to change eventually as more regulatory bodies governing the profession of massage are established in each state. Furthermore, some states allow license reciprocity where massage therapists who relocate can relatively easily obtain a license in their new state. Not all states provide this option. [98]

In late 2007, the Federation of State Massage Therapy Boards launched a new certification exam titled the MBLEx. Currently, 40 states have accepted this certification exam, along with the District of Columbia, Puerto Rico and the US Virgin Islands.

In 1997 there were an estimated 114 million visits to massage therapists in the US.<sup>[90]</sup> Massage therapy is the most used type of alternative medicine in hospitals in the United States.<sup>[68]</sup> Between July 2010 and July 2011 roughly 38 million adult Americans (18 percent) had a massage at least once.<sup>[99]</sup>

People state that they use massage because they believe that it relieves pain from musculoskeletal injuries and other causes of pain, reduces stress and enhances relaxation, rehabilitates sports injuries, decreases feelings of anxiety and depression, and increases general well being.<sup>[13]</sup>

In a poll of 25- to 35-year-olds, 79% said they would like their health insurance plan to cover massage. <sup>[24]</sup> Companies that offer massage to their employees include Allstate, Best Buy, Cisco Systems, FedEx, Gannett (publisher of *USA Today*), General Electric, Google, Hewlett-Packard, Home Depot, JC Penney, Kimberly-Clark, Texas Instruments, and Yahoo!. In 2006 Duke University Health System opened up a center to integrate medical disciplines with CAM disciplines such as massage therapy and acupuncture. <sup>[100]</sup> There were 15,500 spas in the United States in 2007 with about a third of the visitors being men. <sup>[92]</sup>

The number of visits rose from 91 million in 1999 to 136 million in 2003, generating a revenue that equals \$11 billion. [101] Job outlook for massage therapists is also projected to grow at 20% between 2010 and 2020 by the Bureau of Labor Statistics, or faster than average. [102]

## See also

- Erotic massage
- Massage chair
- Orgasmatron (massage device)
- Spa

## References

- 1. "Definition of "massage", Prescottlmt.com". Medterms.com. 2012-03-19. Retrieved 2013-02-26.
- 2. "What is Massage Therapy?". Altmedicine.about.com. Retrieved 2015-08-10.
- 3. Brummitt, Jason (2008-02-01). "The Role of Massage in Sports Performance and Rehabilitation: Current Evidence and Future Direction". *North American Journal of Sports Physical Therapy: NAJSPT.* **3** (1): 7–21. ISSN 1558-6162. PMC 2953308 PMID 21509135.
- 4. Services, Department of Health & Human. "Massage". Retrieved 2016-07-25.
- 5. "Online Etymology Dictionary, massage". Etymonline.com. Retrieved 2013-02-26.
- 6. "Merriam Webster Dictionary Online, massage". M-w.com. 2012-08-31. Retrieved 2013-02-26.
- μάσσω (http://www.perseus.tufts.edu/hopper/text?doc=Perseus%3Atext%3A1999.04.0057%3Aentry%3Dma%2Fssw), Henry George Liddell, Robert Scott, A Greek-English Lexicon, on Perseus
- 8. Calvert, R. (2002-04-01). *The History of Massage: An Illustrated Survey from Around the World.* Healing Arts Press.
- 9. "File: Akmanthor.jpg Wikimedia Commons". Commons.wikimedia.org. Retrieved 2012-08-15.
- 10. 1895: "The art of massage" By J.H. Kellogg MD (page 9). 2002: "The History of Massage" By Robert Noah Calvert (page 35). 2003: "Careers in Alternative Medicine" By Alan Steinfeld (page 48).
- 11. Claire, Thomas (1995). *Bodywork: What Type of Massage to Get and How to Make the Most of It.* William Morrow and Co. pp. 40–56. ISBN 978-1591202325.
- 12. "Bian Que: A Legendary Doctor". www.english.eastday.com/. Retrieved 5 August 2014.
- 13. "Massage Therapy as CAM". The National Center for Complementary and Integrative Health (NCCIH). 2006-09-01. Retrieved 2007-09-26.
- 14. "Ayurveda, History of Ayurveda". www.britannica.com. Encyclopaedia Britannica. Retrieved 5 August 2014.
- 15. Potts, Malcolm, & Campbell, Martha. (2002). History of contraception (http://big.berkeley.edu/ifplp.history.pdf). *Gynecology and Obstetrics*, vol.6, ch.8. Archived (https://web.archive.org/web/20081217025152/http://big.berkeley.edu/ifplp.history.pdf) December 17, 2008, at the Wayback Machine.
- 16. Calvert, Robert Noah. "Swedish Massage". Massage Magazine. Retrieved 15 June 2013.
- 17. Science and Civilization in China by Joseph Needham, Vol. 5, page 17
- 18. 1886: Chamber's Journal of Popular Literature, Science and Arts, Volume 3 By William Chambers, Robert Chambers (page 594).
- 19. Ottosson, A (2010). "The first historical movements of kinesiology: scientification in the borderline between physical culture and medicine around 1850.". *Int J Hist Sport.* **27** (11): 1892–1919. doi:10.1080/09523367.2010.491618. PMID 20653114.
- 20. "What is Traditional Chinese Massage?". 365tcm.com. 2008-10-17. Retrieved 2013-02-26.
- 21. MacGregor, H. (2004-12-28). "Hospitals Getting a Grip: Massage Therapy Finds Place in Patient Care for FM and More". Los Angeles Times. Retrieved 2007-08-31.
- 22. "The Growing Massage Therapy Industry". Central Maryland School of Massage. Retrieved 8 July 2013.
- 23. "CTCWeb Glossary: A (abnocto to aveste)". Ablemedia.com. Retrieved 2012-08-15.
- 24. "Massage Facts". National Certification Board for Therapeutic Massage & Bodywork. Retrieved 2007-09-27.
- 25. Goodman, T. (2000-12-28). "Massage craze: Hands-on therapy attracting more patients". CNN. Archived from the original on June 16, 2006. Retrieved 2007-08-31.
- Peter A. Huijbregts. Manual Therapy, Pages 573-596 in Pain Procedures in Clinical Practice, 3rd Ed. eds Lennard, Ted A; Vivian, David G; Walkowski, Stevan DOW; Singla, Aneesh K. Elsevier Inc 2011. ISBN 9781416037798
- 27. Acupressure (http://www.etymonline.com/index.php?search=Acupressure) Online Etymology Dictionary
- 28. Lee, Eun Jin; Frazier, Susan K. (2011). "The Efficacy of Acupressure for Symptom Management: A Systematic Review". *Journal of Pain and Symptom Management*. **42** (4): 589–603. doi:10.1016/j.jpainsymman.2011.01.007. PMC 3154967 a. PMID 21531533.
- 29. Osborn K. 2005. Aquatic bodywork-water-based therapies are growing in popularity. Massage and Bodywork 20(5):18.
- 30. Capellini, Steve (2009). *The Complete Spa Book for Massage Therapists*. Cengage Learning. p. 400. ISBN 9781133416517.

- 31. Fix Pain: Bodywork Protocols for Myofascial Pain Syndromes Author: John Harris, Fred Kenyon ISBN 978-0-9665843-1-8 Publication Date: 2002
- 32. Devi AS, Malagi KJ (2013). "A prospective single arm open clinical pilot trial to study the antioxidant property of Ayurvedic massage therapy in healthy individuals.". *Int J Pharmacol and Clin Sci.*
- 33. Aggarwal BB, Garodia P (2007). "From Ancient Medicine to Modern Medicine: Ayurvedic Concepts of Health and Their Role in Inflammation and Cancer.". *J Soc Integr Oncol.* **5**: 25–37. PMID 17309811.
- 34. Stauffer, Kathrin A. (2010). *Anatomy & physiology for psychotherapists : connecting body and soul* (1st ed.). New York: W.W. Norton. p. 130. ISBN 978-0-393-70604-8.
- 35. Upledger, JE (1995). "Craniosacral therapy". Physical Therapy. 75 (4): 328–30. PMID 7899490.
- 36. Han M, Lee J (2011). "Effects of foot reflexology on fatigue, sleep and pain: a systematic review and meta-analysis.". *J Korean Acad Nurs.* **41**: 821–33. doi:10.4040/jkan.2011.41.6.821. PMID 22310867.
- 37. Chai, R. Makana Risser, ed. *Na Mo'olelo Lomilomi: Traditions of Hawaiian Massage and Healing*, Bishop Museum, 2005; Parsons, Claire D. F., ed. *Healing Practices in the South Pacific*, 1985, The Institute for Polynesian Studies; Tregear, Edward. *Maori-Polynesian Comparative Dictionary*. Lyon and Blair, Wellington NZ, 1891
- 38. Milady's Guide to Lymph Drainage Massage; Ramona Moody French; Delmar/Cengage; 2004
- 39. Stillerman, Elaine (2009). Modalities for Massage and Bodywork. Mosby. pp. 129–143. ISBN 032305255X.
- 40. Levine, Andrew (1998). *The Bodywork and Massage Sourcebook*. Lowell House. pp. 173–84. ISBN 9780737300987.
- 41. "Medical Massage Controversy". Massage-career-guides.com. 2013-02-06. Archived from the original on November 1, 2012. Retrieved 2013-02-26.
- 42. Lim SH, Anantharaman V, Teo WS, Goh PP, Tan AT (January 1998). "Comparison of treatment of supraventricular tachycardia by Valsalva maneuver and carotid sinus massage". *Ann Emerg Med.* **31** (1): 30 –5. doi:10.1016/S0196-0644(98)70277-X. PMID 9437338.
- 43. Ballo P, Bernabò D, Faraguti SA (August 2004). "Heart rate is a predictor of success in the treatment of adults with symptomatic paroxysmal supraventricular tachycardia". *Eur. Heart J.* **25** (15): 1310–7. doi:10.1016/j.ehj.2004.05.011. PMID 15288158.
- 44. Moyer, CA; Rounds, J; Hannum, JW (January 2004). "A meta-analysis of massage therapy research.". *Psychological Bulletin.* **130** (1): 3–18. doi:10.1037/0033-2909.130.1.3. PMID 14717648.
- 45. Coelho, HF; Boddy, K; Ernst, E (February 2008). "Massage therapy for the treatment of depression: a systematic review.". *International journal of clinical practice*. **62** (2): 325–33. doi:10.1111/j.1742-1241.2007.01553.x. PMID 18081800.
- 46. Spinaris T, DiGiovanna EL (2005). *Chapter 12: Myofascial release. An Osteopathic Approach to Diagnosis and Treatment* (3rd ed.). Lippincott Williams & Wilkins. pp. 80–82. ISBN 978-0-7817-4293-1.
- 47. Ernst, Edzard; Pittler, Max H; Wider, Barbara; Boddy, Kate (2008). *Oxford Handbook of Complementary Medicine*. doi:10.1093/med/9780199206773.001.0001. ISBN 9780199206773.
- 48. Knaster, Mirka (1996). Discovering the Body's Wisdom: A Comprehensive Guide to More Than Fifty Mind-Body Practices. Bantam. pp. 195–208. ISBN 9780307575500.
- 49. Myers, Thomas W. (LMT.) (19 September 2001). *Anatomy Trains: Myofascial Meridians for Manual and Movement Therapists*. Elsevier Health Sciences. ISBN 978-0-443-06351-0.
- 50. Braun, Mary Beth. Introduction to Massage Therapy (Third Edition). Lippincott Williams & Wilkins. p. 16.
- 51. "Swedish Massage". Massagereister.com. Retrieved 2013-10-18.
- 52. Robertshawe P. (June 2007). "Massage for Osteoarthritis of the Knee". *Journal of the Australian Traditional-Medicine Society*. **13** (2): 87.
- 53. Calver, R. "Pages from history: Swedish massage". Massage Magazine. Retrieved 2006-12-25.
- 54. Lafferty D, Hodgson NA (2012). "Reflexology versus Swedish Massage to Reduce Physiologic Stress and Pain and Improve Mood in Nursing Home Residents with Cancer: A Pilot Trial". *Evid Based Complement Alternat Med.* **2012**: 456897. doi:10.1155/2012/456897. PMC 34095453. PMID 22888364.
- 55. O'Dwyer S, Sritoomma N (2014). "The effectiveness of Swedish massage with aromatic ginger oil in treating chronic low back pain in older adults: a randomized controlled trial". *Complement Ther Med.* **22**: 26–33. doi:10.1016/j.ctim.2013.11.002. PMID 24559813.
- 56. Teekachunhatean S, Chiranthanut N (2014). "Thai massage, and Thai herbal compress versus oral ibuprofen in symptomatic treatment of osteoarthritis of the knee: a randomized controlled trial.". *Biomed Res Int.* **2014**: 490512. doi:10.1155/2014/490512. PMC 4165631 ... PMID 25254207.

- 57. Jwing-Ming, Yang. 2005. Qigong massage: fundamental techniques for health and relaxation, 2nd ed. Ymaa Publication Center. ISBN 978-1594390487.
- 58. David G Simons, Siegfried Mense and IJ Russell, Muscle Pain: Understanding Its Nature, Diagnosis and Treatment Chapter: Myofascial Pain Caused by Trigger Points p.205–288 (1st hardcover edition), 2000, Lippincott Williams & Wilkins
- 59. Chen et al., p.2 2007, Archives of Physical Medicine and Rehabilitation
- 60. Schoedinger, P. 2011. Watsu in aquatic rehabilitation. In: Becker, BE and Cole, AJ (eds). Comprehensive aquatic therapy, 3rd edition. Washington State University Press. ISBN 978-0615365671. http://www.comprehensiveaquatictherapy.com/CAT3/Home Page.html
- 61. Dull, H. 2008. Watsu: freeing the body in water, 4th edition. Watsu Publishing. ISBN 978-1605853710.
- 62. Osinski, A. 2011. Facility design and water management. Chapter 18 In: Becker, BE and Cole, AJ (eds). Comprehensive aquatic therapy, 3rd edition. Washington State University Press. ISBN 978-0615365671.
- 63. Blessing A and Blessing H. 2008. Watsu pool design and care. pp 186-193, Appendix G In: Dull, H. Watsu: freeing the body in water, 4th edition. Watsu Publishing. ISBN 978-1605853710.
- 64. "Using a Water Massage Machine". Circlesoflight.com. 2007-03-16. Retrieved 2013-02-26.
- 65. Wong, Kathy (19 September 2011). "Which Massage Oil is Best?".
- 66. "Oils for baby massage". Babycentre.co.uk. Retrieved 2012-08-15.
- 67. Watt, Martin. "Essential Oils Lack Of Skin Absorption". Aromamedical.org. Retrieved 2012-08-15.
- 68. "Policy for Therapeutic Massage in an Academic Health Center: A Model for Standard Policy Development". The Journal of Alternative and Complementary Medicine. 2007. Retrieved 2007-09-26.13 (4) pp.471-475
- 69. "A Meta-Analysis of Massage Therapy Research" (PDF). Psychological Bulletin. 2004. Retrieved 2008-01-12.
- 70. Evans, R. (2006). "What Does the Research Say?". Regents of the University of Minnesota. Retrieved 2007-12-06.
- 71. Muscolino, J. (2004). "Anatomy Of A Research Article" (PDF). Massage Therapy Foundation. Archived from the original (PDF) on February 16, 2008. Retrieved 2007-12-06.
- 72. Furlan AD, Imamura M, Dryden T, Irvin E (2008). Furlan, Andrea D, ed. "Massage for low-back pain". *Cochrane Database Syst Rev* (4): CD001929. doi:10.1002/14651858.CD001929.pub2. PMID 18843627.
- 73. Goldberg, J; Sullivan, SJ; Seaborne, DE (1992). "The effect of two intensities of massage on H-reflex amplitude". *Physical therapy.* **72** (6): 449–57. PMID 1589464.
- 74. Weerapong, Pornratshanee; Hume, Kolt (2005). "The Mechanisms of Massage and Effects on Performance, Muscle Recovery and Injury Prevention". *Sports Medicine*. **35** (3): 235–256. doi:10.2165/00007256-200535030-00004. PMID 15730338.
- 75. Field, Tiffany; Diego, Miguel; Hernandez-Reif, Maria (2007). "Massage therapy research". *Developmental Review.* **27**: 75–89. doi:10.1016/j.dr.2005.12.002.
- 76. Proske, U; Gandevia, SC (2009). "The kinaesthetic senses". *The Journal of Physiology*. **587** (Pt 17): 4139 –46. doi:10.1113/jphysiol.2009.175372. PMC 2754351 ... PMID 19581378.
- 77. Ashton-Miller, JA; Wojtys, EM; Huston, LJ; Fry-Welch, D (2001). "Can proprioception really be improved by exercises?". *Knee Surgery, Sports Traumatology, Arthroscopy.* **9** (3): 128–36. doi:10.1007/s001670100208. PMID 11420785.
- 78. Verhoef, M. (2005-06-10). "Overview of Manual Therapy in Canada". The National Center for Complementary and Integrative Health (NCCIH). Retrieved 2007-09-26.
- 79. "Massage Therapy Law and Licensure and States Regulating Massage". Natural Healers. Retrieved 2007-09-27.
- 80. "About.com Traveler Warning: Prostitution in China". Gochina.about.com. 2012-04-10. Retrieved 2013-02-26.
- 81. "Décret n° 2009-494 du 29 avril 2009 relatif aux études préparatoires et au diplôme d'Etat de masseur-kinésithérapeute" (in French). Legifrance. Retrieved 2013-02-26.
- 82. Howard, Christopher (2010-05-24). "What the heck are sobadores and pegas?". Liveincostarica.com. Retrieved 2013-02-26.
- 83. Associated, The (2009-03-24). "Mexican tradition of massage lives on in Tijuana". Nydailynews.com. Retrieved 2013-02-26.
- 84. Vanderbilt, Shirley. "Curanderismo: Mexican Folk Healers". Massagetherapy.com. Retrieved 2013-02-26.
- 85. "Blind S Korea masseurs win case". BBC News. 2008-10-30. Retrieved 2010-04-05.

- 86. "Only in Thailand... You can get a Thai massage for under \$5". Chiangrai Bulletin. Retrieved 2013-10-18.
- 87. "Contemplating Thai Massage Regulation". Massagetoday.com. 2013-01-21. Retrieved 2013-10-18.
- 88. "2012 Massage Therapy Industry Fact Sheet" (PDF). American Massage Therapy Association. Retrieved 17 July 2012.
- 89. "2011 Massage Firms To Aid Aching Area Economy" (PDF). American Massage Therapy Association, Massage Envy, Bee Research. Retrieved 27 February 2011.
- 90. Sherman, K. (2005-07-14). "A survey of training and practice patterns of massage therapists in two US states". *BMC Complement Altern Med.* **5**: 13. doi:10.1186/1472-6882-5-13. PMC 1182347 ... PMID 15955245.
- 91. "Massage License Requirements". Massageregister.com. Retrieved 2013-02-26.
- 92. Stellin, S. (2007-07-15). "Beyond the Body Wrap: What Makes a Spa Stand Out?". New York Times. Retrieved 2007-09-20.
- 93. "States that require NCBTMB exams". National Certification Board for Therapeutic Massage and Bodywork. Retrieved 2007-09-27.
- 94. "What you need to know". National Certification Board for Therapeutic Massage and Bodywork. Retrieved 2007-09-27.
- 95. "Massage Therapy Certification in the US". Massage-career-guides.com. Archived from the original on August 29, 2011. Retrieved 2012-08-15.
- 96. Walsh, K. "Massage craze: Hands-on therapy attracting more patients". Massage Magazine. Archived from the original on August 7, 2007. Retrieved 2007-08-31.
- 97. "Massage Certification". Red Bamboo Medi-Spa. Retrieved 25 July 2014.
- 98. Lyons, Neal. "MTSI Institute". MTSI. Retrieved 2013-08-03.
- 99. "2012 Massage Therapy Industry Fact Sheet American Massage Therapy Association" (PDF). Amtamassage.org. 2012-02-17. Retrieved 2013-10-18.
- 100. "First-of-its-Kind Center Treats the Whole Person". Massage Magazine. January 2007. Retrieved 2007-09-27.
- 101. Ellin, A. (2005-07-21). "Now Let Us All Contemplate Our Own Financial Navels". New York Times. Retrieved 2007-09-20.
- 102. "Massage Therapists". Bureau of Labor Stats. Retrieved 8 July 2013.

## **External links**

• Shadwell, Arthur (1911). "Massage". *Encyclopædia Britannica* (11th ed.).

Retrieved from "https://en.wikipedia.org/w/index.php? title=Massage&oldid=754957464"

Categories: Massage | Massage therapy | Manual therapy | Mind–body interventions





Look up *massage* in Wiktionary, the free dictionary.

- This page was last modified on 15 December 2016, at 12:36.
- Text is available under the Creative Commons Attribution-ShareAlike License; additional terms may apply. By using this site, you agree to the Terms of Use and Privacy Policy. Wikipedia® is a registered trademark of the Wikimedia Foundation, Inc., a non-profit organization.