

Benefits of massage Therapy

A good massage does wonders for the body and the mind, especially when aching muscles are causing pain and discomfort. What many people don't realize is that getting a massage can provide several benefits for the body's organs by improving digestion, blood circulation, and other bodily functions. That's in addition to the benefits that relaxation and wellbeing have on the body.

How does massage therapy affect the body's organ systems?

The human body contains 11 major organ systems; massage can manipulate these systems in differing ways, based on the momentary needs of the individual. Massage therapy uses the power of human touch for therapeutic purposes, as well as pampering and rejuvenation.

Therapeutic benefits for individuals with Cerebral Palsy are wide ranging and include controlling stress levels, reducing pain, releasing muscular tension, improving digestion, stimulating sensory receptors, stimulating circulation, providing flexibility, and enhancing range of motion.

Before the massage session begins, it is important that a massage therapist understand the client's medical health and what the client would like accomplished during the massage. It is also recommended that primary care physicians are aware of the client's intent to pursue massage therapy so they can discuss any concerns they may have that can affect ongoing treatment or health conditions. For instance, under certain circumstances, such as specific stages of pregnancy, massage should be avoided for important medical reasons.

Knowledge of how massage can affect the major organ systems helps clients communicate with their massage therapist.

Following is a list of major organ systems and how massage can assist:

Circulatory System
Endocrine System
Gastrointestinal (Digestive) System
Integumentary System
Lymphatic system
Muscular System
Nervous System
Reproduction System
Respiratory System
Skeletal System
Urinary System

These are detailed below.

Circulatory system

The circulatory system, known also as the cardiovascular system, is responsible for the transport of blood throughout the body, to and from the heart. Blood flows and waste is filtered through this system of arteries, capillaries, heart, liver, lymphatic system, kidneys, spleen, urinary system, and veins. Massage can impact the circulatory system by:

increasing blood flow
increasing oxygen
increasing nutrients
increasing red blood cells
reducing heart rate
lowering blood pressure

Endocrine system

The endocrine system is comprised of glands that produce and secrete hormones released from the endocrine system into the bloodstream to regulate the body's growth, cholesterol, metabolism, mood, temperature, sexuality, diabetic conditions, thyroid, and tissue function. The endocrine system involves the pituitary, thyroid, parathyroid, adrenal, pancreas,

and reproductive glands. The endocrine system can have secondary effects on other organs, like kidney, liver, heart and gonads. Massage helps to balance hormones by regulating or stimulating:

serotonin – impacting irritability, depression, pain and behavior

dopamine – impacting intuition, inspiration, joy, enthusiasm, focus, and attention span

epinephrine – impacting reactions to short-term and long-term stress, fatigue, and drowsiness

oxytocin – impacting attachment and nurturing

cortisol – impacting sleep and immune systems

growth hormone – impacting tissue repair, regeneration, healing, growth and development.

Massage assists the endocrine system in the following ways:

balancing mood

controlling stress levels

reducing cravings

inspiring relaxation

reducing pain

fulfilling the basic need for human touch

rebalancing the hormonal system

increasing desire

Gastrointestinal (digestive) system

The Gastrointestinal system is responsible for the ingestion, digestion, propulsion, absorption and defecation of food and nutrients in the body. This system is comprised of the oral cavity, salivary glands, esophagus,

stomach, intestines, liver, gall bladder and pancreas. Massage releases tension in the abdominal and intestinal muscles, relieves constipation, assists with waste elimination, and stimulates liver and kidney activity.

Massage assists the gastrointestinal system in the following ways:

- releasing tension in the abdominal muscles**
- releasing tension in the intestinal muscles**
- reducing bloat, gas and cramps**
- relieving indigestion**
- improving digestion by stimulating peristalsis**
- releasing digestive enzymes**
- relieving constipation**
- assisting with waste elimination**
- stimulating liver activity**
- stimulating kidney activity**

Integumentary system

The integumentary system consists of the body's skin (epidermis and the dermis), hair follicles, nails and glands. The integumentary system is the largest organ of the body, accounting for 12-15% of the body's weight.

The primary focus of the integumentary system is to provide the first line of defense between the body and its external environment. The integumentary system provides protection; acts as a sensory receptor; and regulates the body's temperature. As such, the integumentary system:

- protects the body's organs and tissues by encasing them in a protective skin**
- protects against infection, micro-organisms, and foreign materials**
- protects against sunburns**
- regulates body temperature**
- insulates energy**
- excretes perspiration**
- generates vitamin D**
- stores water, fat, glucose and vitamin D**

The skin acts as a sensory receptor by signaling to the brain when the body experiences pain, touch, vibration, and temperature. The brain will then issue the body's response. The skin's sensory mechanisms, hair follicles and glands act as temperature sensors translating heat and cold while providing the body's reaction through the glands, such as perspiration or sweat.

Massage therapy directly stimulates the skin.
Massage assists the integumentary system in the following ways:

- provides overall stimulation and health of the skin**
- stimulates sebaceous glands, which produce sweat**
- improves skin condition, texture and tone**
- stimulates sensory receptors**
- enhances tissue repair**
- enhances healthy scar formation**
- soothes and sedates the body through the power of touch**
- opens the skin's pores assisting with waste elimination**
- removes dead skin**
- moisturizes skin**

Lymphatic system

The lymphatic system is a network of tissues and organs comprising the lymph, the lymph nodes, and the lymph vessels, which carry fluid throughout the body. The lymphatic system wards off germs, infections,

illness and disease while balancing the body fluids. This is an important component of the body's immune system.

The lymphatic system has three main purposes:

lymphatic vessels that carry lymph (clear fluid) which absorbs fluid, waste products, dead cells, bacteria, virus, fats, and proteins from tissues

lymph nodes found in the neck, armpits, and groin filter and remove damaging agents (infection, bacteria, cancer cells) with infection-fighting white blood cells

the lymphatic system absorbs fats and fat-soluble vitamins from the digestive system

Bone marrow, tonsils, adenoids, spleen, lymph nodes (groin, armpits, clavicle, cervical and occipital), and lymphatic vessels are part of the lymphatic system. A lymph massage is believed to reinforce, invigorate and stimulate the lymphatic system and encourages drainage of fluid and waste in the direction of the lymphatic flow.

Massage assists the lymphatic system in the following ways:

**reducing swelling
reducing inflammation
relieving sinus congestion
reducing scar tissue
stimulating circulation
rehabilitating post-injury
rehabilitating post-surgical
complementing some forms of cancer treatments**

Muscular system

The body's muscular system is comprised of over 650 muscles, which provide the body's strength, balance, posture, movement, contraction, joint stability, muscle tone, and muscle metabolism (body temperature). Muscles account for approximately 40% of the body's weight. There are

essentially three types of muscles in the body: skeletal, cardiac and smooth. The cardiac and smooth muscles are part of the autonomic nervous system, which controls involuntary actions, such as heart beats, blood pressure, and rate of breathing.

The skeletal muscles are controlled by the central nervous system for conscious, voluntary control. Each muscle has skeletal muscle, and connective, nerve and vascular tissues. Muscles usually operate in pairs, one responsible for extending, while the other is responsible for bending. Joints, bones and skeletal muscles work together to produce movements like walking, running, facial expressions, breathing, chewing and for fine and gross motor skills. Muscles also provide joint stability for important regions such as knees and shoulders. They also work together to contract, which provides posture (sitting and standing), joint stability and heat production. Muscles provide 85% of the body's heat.

Skeletal muscles can be defined by body group. For instance, the head and neck muscles are known to be some of the strongest muscles in the body, providing speech, eating and expression. The trunk muscles include the vertebral column (erect posture), thoracic (breathing), abdominal (protect internal organs), pelvic (girdle to thighs), and arm/leg (limb movements) muscles. Massage assists the muscular system in the following ways:

stimulating the circulatory system
stimulating the nervous system's sensory neurons
enhancing cell activity
helping to facilitate waste removal in the lymph system
releasing facial constrictions
assisting in reducing connective tissue thickening
providing flexibility
decreasing fibrous adhesions from muscle tissue injury or immobilization
enhancing range of motion
increasing tone
rehabilitating post-operatively
warming-up or warming-down muscles exercise
relaxation
enhancing posture and balance
assisting muscle tone
facilitating movement
releasing facial constrictions
increasing flexibility
managing pain

Nervous system

The nervous system is a complex system that receives and interprets sensory impulses and initiates the body's response through muscles and glands. Sensory impulses are received internally from other organs, or externally through touch, smell, taste, hearing or sight. These impulses are sent from internal and external sources to the brain; then the brain sends the body's reaction back to the organs, glands, and muscles. The nervous system controls both the hormonal glands and the nerve network.

The body's nervous system is comprised of two parts: the central nervous system (CNS) and the peripheral nervous system (PNS).

The central nervous system (CNS)

The central nervous system consists of the brain and the spinal cord and is considered the body's processing command center for the nervous system to control all body functions. The CNS receives and interprets sensory impulses, then initiates a response through the body's muscles and glands. The brain has three basic units: the forebrain, the midbrain and the hindbrain. Within each of these areas are many important components responsible for body functioning, some include:

cerebellum – resides in the hindbrain and controls respiration, heart rate and movement.

cerebral cortex – responsible for processing information, memory, attention, perception, thought, language and consciousness. The cerebral cortex has two main areas, the sensory area and the motor area.

motor cortex – part of the cerebral cortex that plans, controls and executes voluntary motor functions.

sensory cortex – responsible for receiving and processing information from the senses.

cerebrum – resides in the forebrain and is considered the largest part of the brain responsible for intelligence, initiates motor function, controls emotions, processes thought, and holds memory.

hypothalamus – resides in the midbrain and regulates sleep, awake, adrenaline, and emotional levels. It also controls hormonal secretions from pituitary glands responsible for influencing eating, drinking, growth and sexual functioning.

hippocampus – induces long-term memory and instantaneous retrieval

basal ganglia – initiates and integrates movement

medulla – regulates blood pressure and breathing

occipital lobe – processes vision.

association cortex – controls thought process and memories

speech centers – provides ability to speak and to understand what is being said

angular gyrus – responsible for ability to read and write

The peripheral nervous system (PNS)

The peripheral nervous system resides outside of the brain and spinal column and consists of nerves and ganglia (groups of nerve cells) that

connect the central nervous system to organs, muscles, blood vessels and glands. The peripheral nervous system has two main components: the sensory nervous cells and the motor nervous cells. The sensory nervous cells sense environmental conditions from the environment outside of the human body and delivers that information back to the CNS. After the CNS interprets the data, it reacts through the PNS' motor nervous cells by carrying information to organs, muscles and glands to respond appropriately to the situations. Within the motor nervous cells, there are voluntary muscle movement and involuntary muscle response, as well as activities that increase or conserve energy expenditure.

Sensory-somatic nervous system – connects the brain with the external environment. Monitors and regulates voluntary conditions in the external environment, such as keeping the body in touch with its surroundings through the senses via touch, smell, taste, hearing and sight.

Autonomic nervous system (ANS) – connects the brain with internal organs and glands. Monitors and regulates involuntary conditions in internal body functions, including digestion, heart function, blood flow, and gland activity.

Parasympathetic nervous system – responsible for internal organ and gland regulation (salivation, tears, urination, digestion, and defecation). The parasympathetic nervous system consists of the nerves or glands of the eye, nasal cavity, face, ear, esophagus, pancreas, kidneys, liver, gall bladder, and stomach.

Sympathetic nervous system – responsible for the reaction to stress, known as the fight-or-flight response. This system accelerates heart rate, dilates bronchial passages, decreases movement of large intestine, constricts blood vessels, increases esophagus peristalsis, causes dilation of the pupils, signals goose bumps, regulates perspiration levels, and raises blood pressure, to name a few. The sympathetic nervous system carries hot, cold and pain sensations.

Enteric nervous system – secretes enzymes such as acetylcholine (transmits information between two nerve cells), dopamine (transmits adrenalin controlling emotional response such as pleasure and pain) and serotonin (transmits mood, sexual desire, appetite, sleep, memory,

social behavior and temperature regulation). The enteric nervous system influences the digestion process, secreting enzymes, monitoring pressure, detecting nutrients, measuring acids and salts, and progressing digestion. It also impacts sexual performance. Massage assists the nervous system in the following ways:

decreasing heart rate

lowering blood pressure

constricting pupils

stimulating blood flow

regulating digestion

reducing inflammation

enhancing release of endorphins

regulating mood

influencing dopamine to control movement and elicit emotional responses such as pleasure and pain

stimulating the senses (touch, hear, smell, see, and feel)

assisting digestive movement and secretions

assisting body functioning, such as respiration, perspiration, and body temperature

Reproductive system

The reproductive system is the body's system to ensure survival of the species. The system consists of hormones (progesterone, estrogen and testosterone), pheromones, genitalia, gonads and breasts. The organs work together for attraction and interest in another of the same mammary glands, species, as well as for fertilization, gestation, pregnancy, birth, and breast feeding. Barriers to properly functioning reproductive systems include congenital abnormalities, cancers, sexually transmitted diseases, dysfunction, infertility, and other relevant problems.

Professionally licensed massage therapists are not permitted to massage a person's genitalia. During some phases of pregnancy, massage is not recommended as it can interfere with the gestation process, and as always a primary care physician should be consulted prior to contracting a massage.

Massage assists the reproductive system in the following ways:

- promotes general breast health**
- promotes relaxation**
- reduces blood pressure**
- loosens lower back muscles**
- assists prostrate treatments**
- reduces menstrual cramps**
- provides feeling of wellness**

Respiratory system

The respiratory system delivers oxygen and dispenses carbon dioxide through the body's blood. When inhaling, oxygen enters through the nose or mouth. The oxygen then travels through the larynx, trachea, bronchi, bronchial tubes, and then the lungs. It then diffuses through capillaries into the blood supply. In a reverse fashion, the body will then dispense carbon dioxide as a person exhales. Muscles in the chest cavity, known as the diaphragm, expand and contract to facilitate the breathing process. The diaphragm is the main muscle used for breathing, and requires intercostal muscle, abdominal, and neck muscles. Massage therapy can facilitate efficient breathing. Massage also assists the respiratory system in the following ways:

- deepens massage**
- improves lung capacity**
- relaxes tight, stiff or spastic muscles**
- reduce respiration rate**
- increasing blood circulation**
- increasing pulmonary functioning**
- promote expansion and contraction of the diaphragm muscles**
- deepens the breathing pattern releasing tension in the chest cavity**
- relieves lung congestion**
- stimulates blood flow**
- lower the respiratory rate**

Skeletal system

The skeletal system is the body's structure that protects the body's internal organs and soft tissue. For instance, the skull protects the brain, the sternum and rib cage protects the heart and lungs, and the vertebral column protects the spine. The skeletal system works closely with the muscular system to provide body movement and stability. Muscles attach to the bone in a manner that allows a person to have control over their posture and their movements, such as walking, standing, sitting, and crawling. A person is born with approximately 300 bones, but by the time they become adults are left with 206 bones, since some bones have merged and grown together. There are essentially four types of bones in the human body:

short bones

long bones

flat bones

irregular bones

The skeletal system is composed of:

bones – the framework of the human skeleton

ligaments – the connective tissue that connects two bones

joints – the mechanical support for two or more bones to connect to allow motion

tendons – the tissue where muscle attaches to the bone

cartilage – connective tissue found in joints and support tissue that cannot rejuvenate and does not contain blood vessels

bone marrow – flexible tissue located in the interior of the bone where blood cells are produced
Massage assists the skeletal system in the following ways:

improves posture

facilitates body alignment

improves stiff joints

reduces inflammation

increases range of motion

relaxes tight muscles and tendons

improves soreness and fatigue

increases flexibility

reduces the number of and intensity of muscle spasms

improves muscle tone

facilitates mineral retention

Massage is also thought to assist during the injury healing phase, some injuries that may benefit from massage are:

muscle strains
tendinitis
arthritis
fractures
ligament sprains

Urinary system

The urinary system is responsible for removing urea, a type of waste found in your blood. The body absorbs nutrients from food intake. When foods containing protein and some vegetables are broken down by the body, urea is produced and carried through the bloodstream to the kidneys. The kidney filters the urea, while allowing the blood to keep glucose, salts and minerals. The filtered urea is then mixed with water, excess salts and organic material to become urine. The kidneys then send the urine through ureter tubes to the bladder. Muscles in the ureter contract and relax to facilitate urine movement into the bladder. The bladder then stores the urine. The body's sphincter muscles keep the urine from leaking until the body is signaled to eliminate it.

Massage therapy activates the urinary system. Fluids in the muscles are pushed into the lymphatic system, which is then filtered and excreted via the urinary system. After a massage, the massage therapist will likely urge the client to drink lots of clear fluids to assist in flushing the built-up waste, toxins and debris from the body.

Massage assists the urinary system in the following ways:

aids in increasing urinary output

reduces fluid retention

stimulates the digestive system

promotes better elimination of wastes

increases the efficiency of the liver

increases the efficiency of the kidneys

assists toxins stored in the muscles to be released

Massage therapy is applied in a painless and comforting way to treat, heal and balance the mind, body and soul. Those pursuing massage do so as a complement to conventional medicine, as an alternative intervention, or for well-being.

