

Board Certified in Therapeutic
Massage & Bodywork

STUDENT GLOSSARY



NCBTMB Mission: To define and advance the highest standards
in the massage therapy and bodywork profession.

VERSION 1.0

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Abdomen: The part of the body of a vertebrate containing the digestive organs; the belly. In humans and other mammals, it is bounded by the diaphragm and the pelvis.

Abdominal-thrust maneuver: Abdominal thrusts, also called the Heimlich maneuver, is a first aid procedure used to treat upper airway obstructions (or choking) by foreign objects. The term Heimlich maneuver is named after Dr. Henry Heimlich, who first described it in 1974.

Abduction: Lateral movement away from the midline of the trunk; motion of a limb away from the midline.

Abrasion: An area damaged by scraping or wearing away.

Abruptio placenta: Premature separation of the placenta from the uterus.

Absorption: The movement of food molecules from the digestive tract to the circulatory or lymphatic systems; the process by which medications travel through body tissues until they reach the bloodstream.

Accessory muscles: The secondary muscles of respiration; including the neck, the chest, and the abdominal muscles.

Accommodation: Adaptation in response to differences or changing needs; adjustment of the eye for seeing objects at a close range.

Accountability: An obligation or willingness to accept responsibility or to account for one's actions and consequences.

Acetabulum: The rounded cavity on the external surface of the coxal bone; the head of the femur articulates with the acetabulum to form the coxal joint; the depression on the lateral pelvis where its three component bones (pubis, ischium, and ilium) join, in which the femoral head fits snugly.

Achilles tendon: The tendon that attaches the calf muscles to the calcaneus, or heel bone; also called the calcaneal tendon.

Acidosis: A condition in which the blood has an excess hydrogen ion concentration and a decreased pH; a pathologic condition that results from the accumulation of acids in the body.

Acne: A chronic inflammation of the sebaceous glands and hair follicles caused by interactions between bacteria, sebum, and sex hormones.

Acromioclavicular (AC) joint: The acromioclavicular joint, or AC joint, is a joint at the top of the shoulder. It is the junction between the acromion (part of the scapula that forms the highest point of the shoulder) and the clavicle. It is a plane synovial joint.

Acromion: A bony process on the scapula (shoulder blade). Together with the coracoid process it extends laterally over the shoulder joint.

Acrosome: An organelle that develops over the anterior half of the head in the spermatozoa (sperm cells) of many animals.

Actin: A protein that forms (together with myosin) the contractile filaments of muscle cells, and is also involved in motion in other types of cells.

Action Potential: The change in electrical potential associated with the passage of an impulse along the membrane of a muscle cell or nerve cell.

Active Immunity: Immunity produced by an encounter with an antigen; provides immunologic memory.

Active Range of Motion: Range of motion that is performed by the client with no help from a device or therapist.

Active transport: The movement of ions or molecules across a cell membrane into a region of higher concentration, assisted by enzymes and requiring energy.

Activities of daily living (ADLs): A term used in healthcare to refer to people's daily self-care activities.

Acupuncture: A system of complementary medicine that involves pricking the skin or tissues with needles, used to alleviate pain and to treat various physical, mental, and emotional conditions. Originating in ancient China, acupuncture is now widely practiced in the West.

Acupressure: A form of therapy of Japanese origin based on the same principles as acupuncture, in which pressure is applied to certain points on the body using the hands.

Acute coronary syndrome: Any condition brought on by sudden, reduced blood flow to the heart.

Acute disease: A disease with a rapid onset, a short course, or both.

Acute myocardial infarction (AMI): Commonly known as a heart attack; occurs when blood flow stops to part of the heart causing damage to the heart muscle.

Acute stress reactions: Psychological condition arising in response to a terrifying or traumatic event.

Acute pain: A type of pain that typically lasts less than 3 to 6 months, or pain that is directly related to soft tissue damage, such as a sprained ankle or a paper cut.

Adam's apple: The projection at the front of the neck formed by the thyroid cartilage of the larynx; often prominent in men.

Adaptation: A change or the process of change by which an organism or species becomes better suited to its environment.

Addiction: The fact or condition of being addicted to a particular substance, thing, or activity.

Adduction: Movement of a limb toward the midline of the body.

Adenosine Triphosphate (ATP): A compound consisting of an adenosine molecule bonded to three phosphate groups, present in all living tissue.

Adhesion: An abnormal union of membranous surfaces due to inflammation or injury.

Adipose: Body tissue used for the storage of fat.

Adolescents: Persons who are 12 to 18 years of age.

Adrenal glands: One of a pair of ductless glands, located above the kidneys, consisting of a cortex, which produces steroidal hormones, and a medulla, which produces epinephrine and norepinephrine.

Adrenergic: Relating to or denoting nerve cells in which epinephrine (adrenaline), norepinephrine (noradrenaline), or a similar substance acts as a neurotransmitter.

Adrenergic fibers: Nerve fibers that transmit nervous impulses to other nerve cells (or smooth muscle or gland cells) by the medium of the adrenaline-like transmitter substance norepinephrine (noradrenaline).

Advance directive: A document by which a person makes provision for health care decisions in the event that, in the future, he/she becomes unable to make those decisions.

Adventitious breath sounds: Abnormal sounds that are heard over a patient's lungs and airways.

Adverse effect: Undesired harmful effect resulting from a medication or other intervention such as surgery.

Aerobic metabolism: Presence and absence of oxygen to maintain life.

Aerobic respiration: The process most living things undergo to use food energy.

Afferent nerves: Carry nerve impulses from receptors or sense organs toward the central nervous system.

Afterload: The end load against which the heart contracts to eject blood.

Agglutination: A reaction in which particles (as red blood cells or bacteria) suspended in a liquid collect into clumps and which occurs especially as a serological response to a specific antibody.

Agglutinins: An antibody, lectin, or other substance that causes agglutination.

Agglutinogens: An antigen that stimulates the production of an agglutinin.

Agonal gasps: Abnormal pattern of breathing and brainstem reflex characterized by gasping, labored breathing, accompanied by strange vocalizations and myoclonus.

Agonist: A muscle whose contraction moves a part of the body directly.

AIDS: A disease in which there is a severe loss of the body's cellular immunity, greatly lowering the resistance to infection and malignancy.

Air embolism: An air bubble or air bubbles enter a vein or artery and block it.

Airborne transmission: Any disease that is caused by pathogens and transmitted through the air.

Airway: The passage by which air reaches a person's lungs.

Airway adjuncts: A medical device called an airway adjunct used to maintain or open a patient's airway.

Albumin: A simple form of protein that is soluble in water and coagulable by heat, such as that found in egg white, milk, and (in particular) blood serum.

Albuminuria: The presence of albumin in the urine, typically as a symptom of kidney disease.

Alexander Technique: The Alexander Technique is a way to feel better, and move in a more relaxed and comfortable way—the way nature intended. An Alexander Technique teacher helps you to identify and lose the harmful habits you have built up over a lifetime of stress and learn to move more freely (www.alexandertechnique.com).

Alimentary canal: The whole passage along which food passes through the body from mouth to anus.

Alkalosis: An excessively alkaline condition of the body fluids or tissues that may cause weakness or cramps.

Allergen: A substance that causes an allergic reaction.

Allergy: A damaging immune response by the body to a substance, especially pollen, fur, a particular food, or dust, to which it has become hypersensitive.

Alopecia: The partial or complete absence of hair from areas of the body where it normally grows; baldness.

Alpha-adrenergic receptors: A site on a cell that, upon interaction with epinephrine or norepinephrine, controls vasoconstriction, intestinal relaxation, pupil dilation, and other physiological processes. Also called alpha-adrenergic receptor.

Altered mental status: A disruption in how the brain works that causes a change in behavior.

Alveolar ventilation: The volume of gas expired from the alveoli to the outside of the body per minute.

Alveolus: Any of the many tiny air sacs in the lungs where the exchange of oxygen and carbon dioxide takes place.

Americans with Disabilities Act (ADA): Legislation passed in 1990 that prohibits discrimination against people with disabilities. Under this Act, discrimination against a disabled person is illegal in employment, transportation, public accommodations, communications and government activities.

Amino acid: A simple organic compound containing both a carboxyl and an amino group.

Amma therapy: A type of massage therapy that is used to balance the flow of energy in a person's body.

Amniotic sac: The fluid-filled sac that contains and protects a fetus in the womb.

Amphiarthrosis: A type of continuous, slightly movable joint.

Amputation: Surgical removal of all or part of a limb or extremity such as an arm, leg, foot, hand, toe, or finger.

Amyotrophic lateral sclerosis (ALS): A progressive degeneration of the motor neurons of the central nervous system, leading to wasting of the muscles and paralysis.

Anabolism: The synthesis of complex molecules in living organisms from simpler ones together with the storage of energy; constructive metabolism.

Anaerobic: Exercise that does not improve or is not intended to improve the efficiency of the body's cardiovascular system in absorbing and transporting oxygen.

Anaerobic metabolism: The metabolism that takes place in the absence of oxygen; the principle product is lactic acid.

Anaphylaxis (anaphylactic shock): An acute allergic reaction to an antigen (e.g., a bee sting) to which the body has become hypersensitive.

Anaplasia: A condition whereby cells lose the morphological characteristics of mature cells and their orientation with respect to each other and to endothelial cells.

Anatomical Position: The erect position of the body with the face directed forward, the arms at the side, and the palms of the hands facing forward, used as a reference in describing the relation of body parts to one another.

Anatomic range of motion (ROM): The measurement of movement around a specific joint or body part.

Anatomy: The branch of science concerned with the bodily structure of humans, animals, and other living organisms, especially as revealed by dissection and the separation of parts.

Androgens: A male sex hormone, such as testosterone.

Anemia: A condition marked by a deficiency of red blood cells or of hemoglobin in the blood, resulting in pallor and weariness.

Aneurysm: An excessive localized enlargement of an artery caused by a weakening of the artery wall.

Angina Pectoris: A condition marked by severe pain in the chest, often also spreading to the shoulders, arms, and neck, caused by an inadequate blood supply to the heart.

Anorexia: An emotional disorder characterized by an obsessive desire to lose weight by refusing to eat.

Anoxia: An absence or deficiency of oxygen reaching the tissues; severe hypoxia.

Antagonist: A muscle whose action counteracts that of another specified muscle.

Antecubital: The cubital fossa or elbow pit is the triangular area on the anterior view of the elbow of a human or other hominid animal.

Anterior: Nearer the front, especially situated in the front of the body.

Anterior pelvis rotation: The front of the pelvis drops and the back of the pelvis rises.

Antibody: A blood protein produced in response to and counteracting a specific antigen.

Antigen: A toxin or other foreign substance that induces an immune response in the body, especially the production of antibodies.

Antivenin: An antiserum containing antibodies against specific poisons, especially those in the venom of snakes, spiders, and scorpions.

Anus: The opening at the end of the alimentary canal through which solid waste matter leaves the body.

Aorta: The main artery of the body, supplying oxygenated blood to the circulatory system.

Aortic aneurysm: A bulge in a section of the aorta, the body's main artery.

Aortic body: One of several small clusters of chemoreceptors, baroreceptors, and supporting cells located along the aortic arch.

Aortic valve: The semilunar valve separating the aorta from the left ventricle that prevents blood from flowing back into the left ventricle.

Apgar score: Measure of the physical condition of a newborn infant.

Aphasia: Loss of ability to understand or express speech, caused by brain damage.

Apical surface: The surface of the plasma membrane that faces inward to the lumen. This is particularly evident in epithelial and endothelial cells, but also describes other polarized cells, such as neurons.

Apnea: Temporary cessation of breathing, especially during sleep.

Apocrine: Relating to or denoting multicellular glands that release some of their cytoplasm in their secretions, especially the sweat glands associated with hair follicles in the armpits and pubic regions.

Apocrine gland: A gland and especially a sweat gland that secretes a viscous fluid into a hair follicle.

Aponeurosis: A sheet of pearly-white fibrous tissue that takes the place of a tendon in sheet like muscles having a wide area of attachment.

Appendage: A projecting part of an invertebrate or other living organism, with a distinct appearance or function.

Appendicitis: A serious medical condition in which the appendix becomes inflamed and painful.

Appendicular skeleton: Formed by the limbs and their attachments.

Appendix: A tube-shaped sac attached to and opening into the lower end of the large intestine in humans and some other mammals.

Applied kinesiology: A technique in alternative medicine claimed to be able to diagnose illness or choose treatment by testing muscles for strength and weakness.

Aqueous humor: The clear fluid filling the space in the front of the eyeball between the lens and the cornea.

Arachnoid mater: A fine, delicate membrane, the middle one of the three membranes or meninges that surrounds the brain and spinal cord, situated between the dura mater and the pia mater.

Areola: A small circular area, in particular the ring of pigmented skin surrounding a nipple.

Arm: Each of the two upper limbs of the human body from the shoulder to the hand.

Aromatherapy: The use of aromatic plant extracts and essential oils in massage or baths.

Arrector pili: Small muscles attached to hair follicles in mammals.

Arrhythmia: A condition in which the heart beats with an irregular or abnormal rhythm.

Arterial air embolism: Pathological condition caused by a gas bubble, or bubbles, in a vascular system although an embolism in a medical context refers to any large moving mass or defect in the blood stream.

Arterioles: A small branch of an artery leading into capillaries.

Arteriosclerosis: The thickening and hardening of the walls of the arteries, occurring typically in old age.

Artery: Any of the muscular-walled tubes forming part of the circulation system by which blood (mainly that which has been oxygenated) is conveyed from the heart to all parts of the body.

Arthritis: Painful inflammation and stiffness of the joints.

Arthrokinematics: The movement of joint surfaces.

Arthrology: The science concerned with the study of anatomy, function, dysfunction and treatment of joints and articulations.

Articular cartilage: The cartilage covering the articular surfaces of the bones forming a synovial joint.

Articulation: An area where two bones are attached for the purpose of motion of body parts.

Articular process: Projections of the vertebra that serve the purpose of fitting with an adjacent vertebra.

Ascending tracts: A nerve pathway that goes down the spinal cord and allows the brain to control movement of the body below the head.

Ascites: The accumulation of fluid in the peritoneal cavity, causing abdominal swelling.

Ashiatsu: A style of massage therapy in which the therapists 'walks' on the client's back, using gravity and their bare feet instead of as well as their hands to apply pressure.

Aspiration: The action or process of drawing breath.

Assessment: The evaluation or estimation of the nature, quality, or ability of someone or something to move or do something requested.

Asthma: A respiratory condition marked by spasms in the bronchi of the lungs, causing difficulty in breathing. It usually results from an allergic reaction or other forms of hypersensitivity.

Astigmatism: A defect in the eye or in a lens caused by a deviation from spherical curvature, which results in distorted images, as light rays are prevented from meeting at a common focus.

Aston-Patterning: An integrated system of movement education, bodywork, ergonomic adjustments, and fitness training that recognizes the relationship between the body and mind for well-being.

Asystole: A state of no cardiac electrical activity, hence no contractions of the myocardium and no cardiac output or blood flow.

Ataxic respirations: An abnormal pattern of breathing characterized by complete irregularity of breathing, with irregular pauses and increasing periods of apnea.

Atelectasis: Partial or complete collapse of the lung.

Atherosclerosis: A disease of the arteries characterized by the deposition of plaques of fatty material on their inner walls.

Atlas: The topmost vertebra of the backbone, articulating with the occipital bone of the skull.

Atom: The basic unit of a chemical element.

Atomic mass: Total number of protons and neutrons (together known as nucleons) in an atomic nucleus.

Atrioventricular node: Electrical relay station, slowing the electrical current sent by the sinoatrial (SA) node before the signal is permitted to pass down through to the ventricles.

Atrium: Each of the two upper cavities of the heart from which blood is passed to the ventricles.

Atrophy: Body tissue or an organ wasting away, typically due to the degeneration of cells, or become vestigial during evolution.

Attachments: The union of a muscle and bone via tendon. Usually referred to as the origin or insertion.

Auditory: Relating to the sense of hearing.

Auditory ossicles: Three bones in either middle ear that are among the smallest bones in the human body.

Auscultation: The action of listening to sounds from the heart, lungs, or other organs, typically with a stethoscope, as a part of medical diagnosis.

Autoimmune disease: An illness that occurs when the body's tissues are attacked by its own immune system.

Automaticity: The ability to do things without occupying the mind with the low-level details required, allowing it to become an automatic response pattern or habit.

Autonomic: Involuntary or unconscious; relating to the autonomic nervous system.

Autonomic nervous system (ANS) - The part of the nervous system responsible for control of the bodily functions not consciously directed, such as breathing, the heartbeat, and digestive processes.

Avulsion: The action of pulling or tearing away.

Axial skeleton: Formed by the vertebral column, rib cage, sternum and skull.

Axilla: The space below the shoulder through which vessels and nerves enter and leave the upper arm; a person's armpit.

Axis: An imaginary line about which a body rotates. Also refer to C2 of the vertebral column.

Axon: The long threadlike part of a nerve cell along which impulses are conducted from the cell body to other cells.

Ayurveda: The traditional Hindu system of medicine, which is based on the idea of balance in bodily systems and uses diet, herbal treatment, and yogic breathing.

B

B cells: A lymphocyte not processed by the thymus gland, and responsible for producing antibodies.

Bacteria: A member of a large group of unicellular microorganisms that have cell walls, but lack organelles and an organized nucleus, including some that can cause disease.

Balance: An even distribution of weight enabling someone or something to remain upright and steady.

Ball-and-socket joint: A natural or manufactured joint or coupling, such as the hip joint, in which a partially spherical end lies in a socket, allowing multidirectional movement and rotation.

Bartering: The exchange (goods or services) for other goods or services without using money.

Bartholin Glands: Two pea-sized compound racemose glands located slightly posterior and to the left and right of the opening of the vagina. They secrete mucus to lubricate the vagina and are homologous to bulbourethral glands in males.

Basal metabolic rate (BMR): The rate at which the body uses energy while at rest to keep vital functions going, such as breathing and keeping warm.

Basal nuclei: Comprise multiple subcortical nuclei, of varied origin, in the brains of vertebrates, which are situated at the base of the forebrain.

Basement membrane: A thin, delicate membrane of protein fibers and glycosaminoglycans separating an epithelium from underlying tissue.

Basic life support (BLS): A level of medical care which is used for victims of life-threatening illnesses or injuries until they can be given full medical care at a hospital.

Basophils: A basophilic white blood cell.

Benign: Noncancerous tumor.

Biceps: A muscle having two points of attachment at one end, in particular.

Bilateral: Having or relating to two sides; affecting both sides.

Bile: A bitter, greenish-brown alkaline fluid that aids digestion and is secreted by the liver and stored in the gallbladder.

Bile ducts: The duct that conveys bile from the liver and the gallbladder to the duodenum.

Bilirubin: An orange-yellow pigment formed in the liver by the breakdown of hemoglobin and excreted in bile.

Biology: The study of living organisms.

Biomechanics: The study of the mechanical laws relating to the movement or structure of living organisms.

Biopsy: An examination of tissue removed from a living body to discover the presence, cause, or extent of a disease.

Birth canal: The passageway from the womb through the cervix, the vagina, and the vulva through which a fetus passes during birth.

Blastocyst: A mammalian blastula in which some differentiation of cells has occurred.

Blood: The red liquid that circulates in the arteries and veins of humans and other vertebrate animals, carrying oxygen to and carbon dioxide from the tissues of the body.

Bloodborne pathogens: Pathogenic microorganisms that are present in human blood and can cause disease in humans. These pathogens include, but are not limited to, hepatitis B virus (HBV) and human immunodeficiency virus (HIV).

Blood pressure: The pressure of the blood in the circulatory system, often measured for diagnosis since it is closely related to the force and rate of the heartbeat and the diameter and elasticity of the arterial walls.

Blowout fracture: A fracture of one or more of the bones surrounding the eye; commonly referred to as an orbital floor fracture.

Blunt trauma: Refers to physical trauma to a body part, either by impact, injury or physical attack. The latter is usually referred to as blunt force trauma.

Board Certification: The highest voluntary credential attainable in most medical and allied healthcare professions, including massage therapy and bodywork.

Body language: The process of communicating nonverbally through conscious or unconscious gestures and movements.

Body mechanics: Use of good posture and position while performing activities of daily living to prevent injury and stress on the body.

Body memories: Hypothesis that the body itself is capable of storing memories, as opposed to only the brain. This is used to explain having memories for events where the brain was not in a position to store memories and is sometimes a catalyst for repressed memory recovery.

Bolus: Chewed up morsel of food ready to be swallowed.

Bone: A type of connective tissue and an organ of the musculoskeletal system.

Bone marrow: Soft tissue found inside cavities in bones.

Botulinum: A rod-shaped bacterium that produces botulin.

Bowman's capsule: A capsule-shaped membranous structure surrounding the glomerulus of each nephron in the kidneys of mammals that extracts wastes, excess salts, and water from the blood.

Brachial: Of or relating to the arm, specifically the upper arm, or an arm-like structure.

Brachial artery: The major blood vessel of the (upper) arm. It is the continuation of the axillary artery beyond the lower margin of teres major muscle. It continues down the ventral surface of the arm until it reaches the cubital fossa at the elbow.

Bradycardia: Abnormally slow heart action.

Bradypnea: Refers to an abnormally slow breathing rate. The rate at which bradypnea is diagnosed depends upon the age of the patient.

Brain: The largest and most complex unit of the nervous system.

Brain stem: The primitive portion of the brain that contains centers for vital functions and reflex actions; consisting of the medulla oblongata, pons, and midbrain, and continuing downward to form the spinal cord.

Breech Presentation: A position of a fetus in which the feet or buttocks appear first during birth.

Bronchial breath sounds: Tubular, hollow sounds which are heard when auscultating over the large airways (e.g. second/third intercostal spaces). They will be louder and higher-pitched than vesicular breath sounds.

Bronchial Tube: A bronchus or a primary branch off of one.

Bronchiole: Any of the minute branches into which a bronchus divides.

Bronchiolitis: Inflammation of the bronchioles.

Bronchitis: Inflammation of the mucous membrane in the bronchial tubes.

Bronchodilators: A drug that causes widening of the bronchi; any taken by inhalation for the alleviation of asthma.

Bronchospasm: Spasm of bronchial smooth muscle producing narrowing of the bronchi.

Bronchus: Any of the major air passages of the lungs that diverge from the windpipe.

Buccal: Of or relating to the cheek.

Bunion: A painful swelling on the first joint of the big toe.

Burns: An injury caused by exposure to heat or flame.

Bursa: A fluid-filled sac or saclike cavity, especially one countering friction at a joint.

Bursitis: Inflammation of a bursa, typically one in the knee, elbow or shoulder.

C

Calcaneus: The large bone forming the heel. It articulates with the cuboid bone of the foot and the talus bone of the ankle, and the Achilles tendon (or tendo calcaneus) is attached to it.

Calcium: The chemical element of atomic number 20; a soft gray metal.

Callus: A thickened and hardened part of the skin or soft tissue, especially in an area that has been subjected to friction.

Calorie: Either of two units of heat energy.

Calyx: A cuplike cavity or structure.

Canaliculus: A small channel or duct.

Cancer: The disease caused by an uncontrolled division of abnormal cells in a part of the body. Malignant, non-encapsulated cells that invade surrounding tissue.

Capillary: Any of the fine branching blood vessels that form a network between the arterioles and venules that allow for the exchange of gases, nutrients and waste products.

Carbon Dioxide: A colorless, odorless gas produced by burning carbon and organic compounds and by respiration. It is naturally present in air (about 0.03 percent) and is absorbed by plants in photosynthesis.

Capsule: A tough sheath or membrane that encloses something in the body, such as a kidney, a lens, or a synovial joint.

Carbohydrates: Any of a large group of organic compounds occurring in foods and living tissues and including sugars, starch, and cellulose.

Carbon monoxide: A colorless, odorless toxic flammable gas formed by incomplete combustion of carbon.

Carcinogen: A substance capable of causing cancer in living tissue.

Carcinoma: A cancer arising in the epithelial tissue of the skin or of the lining of the internal organs.

Cardiac: Of or relating to the heart.

Cardiac arrest: A sudden, sometimes temporary, cessation of function of the heart.

Cardiac cycle: A complete heartbeat from its generation to the beginning of the next beat, and so includes the diastole, the systole, and the intervening pause. The frequency of the cardiac cycle is described by the heart rate, which is typically expressed as beats per minute.

Cardiac muscle: Another term for myocardium; composed of striated, involuntary muscle fibers found in the heart.

Cardiac output: The volume of blood pumped per minute by the left ventricle of the heart.

Cardiac sphincter: Prevents gastric juices and food from reverting back into the esophagus.

Cardiologist: A doctor that specializes in treating diseases of the cardiovascular system.

Cardiomegaly: Abnormally enlarged heart.

Cardiopulmonary resuscitation (CPR): Emergency medical procedures for restoring normal heartbeat and breathing to victims of heart failure, drowning, etc. CPR provides oxygen to the brain, heart, and other vital organs. It should be continued until a medical team can restore normal pulmonary function.

Cardiorrhexis: Ruptured heart.

Cardiovascular system: The system that circulates blood and lymph through the body, consisting of the heart, blood vessels, blood, lymph, and the lymphatic vessels and glands.

Carina: Cartilage situated at the point where the trachea divides into the two bronchi.

Carotene: An orange or red plant pigment found in carrots and many other plant structures. It is a terpenoid hydrocarbon with several isomers, of which one (beta carotene) is important in the diet as a precursor of vitamin A.

Carotid artery: Major blood vessels in the neck that supply blood to the brain, neck, and face. There are two carotid arteries, one on the right and one on the left. In the neck, each carotid artery branches into two divisions: The internal carotid artery supplies blood to the brain.

Carpals: The bones of the wrist.

Carpal tunnel syndrome: A disorder of the wrist and hand, caused by compression of the median nerve as it passes under ligaments of the palm side of the wrist.

Cartilage: Firm, whitish, flexible connective tissue found in various forms in the larynx and respiratory tract, in structures such as the external ear, and in the articulating surfaces of joints. It is more widespread in the infant skeleton, being replaced by bone during growth.

Cartilaginous joint: Joints connected entirely by cartilage (fibrocartilage or hyaline). Also called amphiarthrotic joints.

Catabolism: The breakdown of complex molecules in living organisms to form simpler ones, together with the release of energy; destructive metabolism.

Cataract: A medical condition in which the lens of the eye becomes progressively opaque, resulting in blurred vision.

Catheter: A flexible tube inserted through a narrow opening into a body cavity, particularly the bladder, for removing fluid.

Caudal: At or near the tail or the posterior part of the body.

Cecum: A pouch connected to the junction of the small and large intestines.

Cell: The basic unit of all living things, typically microscopic and consisting of cytoplasm and a nucleus enclosed in a membrane. Microscopic organisms typically consist of a single cell, which is either eukaryotic or prokaryotic.

Cell membrane: The semipermeable membrane surrounding the cytoplasm of a cell.

Cellular immunity: An immune response that does not involve antibodies, but rather involves the activation of phagocytes, antigen-specific cytotoxic T-lymphocytes, and the release of various cytokines in response to an antigen.

Cellular respiration: What cells do to break up sugars into a form that the cell can use as energy. This happens in all forms of life. Cellular respiration takes in food and uses it to create ATP, a chemical which the cell uses for energy.

Center of Gravity: A point from which the weight of a body or system may be considered to act. In uniform gravity it is the same as the center of mass.

Centers for Disease Control and Prevention (CDC): A federal agency that conducts and supports health promotion, prevention and preparedness activities in the United States with the goal of improving overall public health.

Central nervous system (CNS): The complex of nerve tissues that controls the activities of the body. In vertebrates it comprises the brain and spinal cord.

Centriole: A minute cylindrical organelle near the nucleus in animal cells, occurring in pairs and involved in the development of spindle fibers in cell division.

Cephalic: Towards the head.

Cerebellum: The part of the brain at the back of the skull in vertebrates. Its function is to coordinate and regulate muscular activity.

Cerebral edema: Swelling of the brain.

Cerebral palsy: A condition marked by impaired muscle coordination (spastic paralysis) and/or other disabilities, typically caused by damage to the brain before or at birth.

Cerebrospinal fluid (CSF): A clear watery fluid that fills the space between the arachnoid membrane and the pia mater.

Cerebrovascular Accident (CVA): The sudden death of some brain cells due to lack of oxygen when the blood flow to the brain is impaired by blockage or rupture of an artery to the brain.

Cerebrum: The principal and most anterior part of the brain in vertebrates, located in the front area of the skull and consisting of two hemispheres, left and right, separated by a fissure. It is responsible for the integration of complex sensory and neural functions and the initiation and coordination of voluntary activity in the body.

Certification: The act of certifying; the state of being certified; the official approval to do something professionally or legally. Certification programs are fostered or supervised by a certifying agency, such as a professional organization.

Cerumen: The protective yellow waxy substance secreted in the passage of the outer ear.

Ceruminous glands: Simple, coiled, tubular glands made up of an inner secretory layer of cells and an outer myoepithelial layer of cells; classed as Apocrine Glands. The glands drain into larger ducts, which then drain into the guard hairs that reside in the external auditory canal.

Cervical: Of or relating to the neck.

Cervical spine: Also known as the neck; comprised of seven vertebral bodies (C1-C7) that make up the upper most part of the spine. These vertebrae connect the spine to the skull.

Cervix: The narrow neck-like passage forming the lower end of the uterus.

Chi Nei Tsang: A technique of abdominal massage rooted in Taoism, traditional Chinese medicine, and Thai techniques of organ massage. CNT detoxifies and tonifies the internal organs, uncovers repressed emotions, and releases structural tensions.

Chlamydia: A very small parasitic bacterium that, like a virus, requires the biochemical mechanisms of another cell in order to reproduce. Bacteria of this type cause various diseases including trachoma, psittacosis, and nonspecific urethritis.

Cholecystitis: Inflammation of the gallbladder.

Cholecystokinin: A hormone that is secreted by cells in the duodenum and stimulates the release of bile into the intestine and the secretion of enzymes by the pancreas.

Cholesterol: A compound of the sterol type found in most body tissues, including the blood and the nerves. Cholesterol and its derivatives are important constituents of cell membranes and precursors of other steroid compounds, but high concentrations in the blood (mainly derived from animal fats in the diet) are thought to promote atherosclerosis.

Chondrocyte: A cell that has secreted the matrix of cartilage and become embedded in it.

Chordae tendineae: Cord-like tendons that connect the papillary muscles to the tricuspid valve and the mitral valve in the heart.

Choroid: The pigmented vascular layer of the eyeball between the retina and the sclera.

Chromosome: A threadlike structure of nucleic acids and protein found in the nucleus of most living cells, carrying genetic information in the form of genes.

Chronic disease: A disease lasting three months or more, by the definition of the U.S. National Center for Health Statistics. Chronic diseases generally cannot be prevented by vaccines or cured by medication, nor do they just disappear.

Chronic Obstructive Pulmonary Disease (COPD): A chronic inflammatory lung disease that causes obstructed airflow from the lungs.

Chronic pain: Often defined as any pain lasting more than 12 weeks.

Chyme: The semisoft mixture of food that passes from the stomach to the small intestine, consisting of gastric juices and partly digested food.

Chyle: A milky fluid consisting of fat droplets and lymph. It drains from the lacteals of the small intestine into the lymphatic system during digestion.

Cilia: A short, microscopic, hair-like vibrating structure. Cilia occur in large numbers on the surface of certain cells, either causing currents in the surrounding fluid, or, in some protozoans and other small organisms, providing propulsion.

Circulatory system: The system that circulates blood and lymph through the body, consisting of the heart, blood vessels, blood, lymph, and the lymphatic vessels and glands.

Circumduction: A conical movement of a limb extending from the joint (e.g. shoulder or hip) at which the movement is controlled.

Cirrhosis: A chronic disease of the liver marked by degeneration of cells, inflammation, and fibrous thickening of tissue. It is typically a result of alcoholism or hepatitis.

Clavicle: Either of the pair of bones joining the breastbone to the shoulder blades.

Cleavage: Cell division, especially of a fertilized egg cell.

Client-centeredness: A counseling approach that requires the client to take an active role in his or her treatment with the therapist being nondirective and supportive.

Clitoris: A small sensitive and erectile part of the female genitals at the anterior end of the vulva.

Clone: An organism or cell, or group of organisms or cells, produced asexually from one ancestor or stock, to which they are genetically identical.

Closed fracture: A simple fracture with no open skin or wound.

Closed head injury: A trauma in which the brain is injured as a result of a blow to the head, or a sudden, violent motion that causes the brain to knock against the skull.

Closed kinematic chain: The positioning of joints in such a way that motion at one of the joints is accompanied by motion at an adjacent joint.

Coagulate (of a fluid, especially blood): Change to a solid or semisolid state.

Coccyx: A small, triangular bone at the base of the spinal column in humans and some apes, formed of fused vestigial vertebrae.

Cochlea: The spiral cavity of the inner ear containing the organ of Corti, which produces nerve impulses in response to sound vibrations.

Code of Ethics: A guide of principles designed to help professionals conduct business honestly and with integrity.

Collagen: A protein substance composed of small fibrils that combine to create the connective tissue of fasciae, tendons and ligaments.

Colon: The main part of the large intestine, which passes from the cecum to the rectum and absorbs water and electrolytes from food that has remained undigested. Its parts are called the ascending, transverse, descending, and sigmoid colon.

Colostomy: A surgical operation in which a piece of the colon is diverted to an artificial opening in the abdominal wall so as to bypass a damaged part of the colon.

Coma: A state of deep unconsciousness that lasts for a prolonged or indefinite period, caused especially by severe injury or illness.

Common cold: A common viral infection in which the mucous membrane of the nose and throat becomes inflamed, typically causing running at the nose, sneezing, a sore throat, and other similar symptoms.

Communicable disease: An infectious disease transmissible (as from person-to-person) by direct contact with an affected individual or the individual's discharges or by indirect means (as by a vector); compare to contagious disease.

Compact (dense) bone: The compact non-cancellous portion of bone that consists largely of concentric lamellar osteons and interstitial lamellae; also called compact substance.

Compartment syndrome: A condition resulting from increased pressure within a confined body space, especially of the leg or forearm.

Complex Post Traumatic Stress Disorder (CPTSD): A condition that results from chronic or long-term exposure to emotional trauma over which a victim has little or no control and from which there is little or no hope of escape, such as in cases of domestic emotional, physical or sexual abuse.

Concentric contraction: The action of an agonist by which a muscle develops tension as it shortens.

Concussion: Injury to the brain that results from a blow or impact. Results in unconsciousness, dizziness, vomiting, unequal pupil size and shock.

Condyle: A rounded protuberance at the end of some bones, forming an articulation with another bone.

Condylloid (condylar) joint: An ovoid articular surface, or condyle that is received into an elliptical cavity. This permits movement in two planes, allowing flexion, extension, adduction, abduction, and circumduction.

Confidentiality: A set of rules or a promise that limits access or places restrictions on certain types of information.

Congenital: Present from birth (especially of a disease or physical abnormality).

Congestive Heart Failure (CHF): A weakness of the heart that leads to a buildup of fluid in the lungs and surrounding body tissues.

Conjunctiva: The mucous membrane that covers the front of the eye and lines the inside of the eyelids.

Conjunctivitis: Inflammation of the conjunctiva of the eye.

Connecting nerves: A bundle of fibers composed of neurons that connects the body parts and organs to the central nervous system and carries impulses from one part of the body to another.

Connective tissue: Tissue that connects, supports, binds, or separates other tissues or organs, typically having relatively few cells embedded in an amorphous matrix, often with collagen or other fibers, and including cartilaginous, fatty, and elastic tissues.

Consent: Permission for something to happen or agreement to do something.

Consultation: A meeting with an expert or professional, such as a medical doctor, in order to seek advice.

Contagious (of a disease): Spread from one person or organism to another by direct or indirect contact.

Contraception: The deliberate use of artificial methods or other techniques to prevent pregnancy as a consequence of sexual intercourse.

Contractility: The capability or quality of shrinking or contracting; especially the power of muscle fibers of shortening into a more compact form.

Contraction: The process in which a muscle becomes or is made shorter and tighter.

Contracture: A condition of shortening and hardening of muscles, tendons, or other tissue, often leading to deformity and rigidity of joints.

Contraindications: A specific situation in which a drug, procedure, or surgery should not be used because it may be harmful to the person.

Contralateral: Relating to or denoting the side of the body opposite to that on which a particular structure or condition occurs.

Contusion: A region of injured tissue or skin in which blood capillaries have been ruptured; a bruise.

Core temperature: The temperature deep within a living body. Average human core temperature is 98.6.

Cornea: The transparent layer forming the front of the eye.

Coronal plane: Any vertical plane that divides the body into anterior and posterior sections.

Coronary arteries: An artery supplying blood to the heart.

Coronary veins: Any of several veins that drain blood from the heart wall and empty into the coronary sinus.

Corpus: The main body or mass of a structure.

Cortex: The outer layer of the cerebrum (the cerebral cortex), composed of folded gray matter and playing an important role in consciousness.

Costal: Of or relating to the ribs.

Cramp: A painful, involuntary contraction of a muscle or muscles, typically caused by fatigue or strain.

Cranial: Of or relating to the skull or cranium.

Cranial nerves: Each of 12 pairs of nerves that arise directly from the brain, not from the spinal cord, and pass through separate apertures in the skull.

Cranium: The skull.

Creatinine: A waste product of muscle metabolism.

Crepitation: A sound of broken bones rubbing together.

Cretinism: Congenital condition due to a lack of thyroid that may result in arrested physical and mental development.

Cricoid cartilage: The ring-shaped cartilage of the larynx.

Crohn's disease: A form of chronic inflammatory bowel disease affecting the ileum and/or colon

Croup: Acute viral respiratory infection commonly found in infants and young children; characterized by a hoarse cough.

Crural: Of or relating to the leg or the thigh.

Cushing's syndrome: A metabolic disorder caused by overproduction of corticosteroid hormones by the adrenal cortex and often involving obesity and high blood pressure.

Cutaneous: Of, relating to, or affecting the skin.

Cutaneous membrane: The soft outer covering of vertebrates, and guards the underlying muscles, bones, ligaments, and internal organs.

Cyanosis: A bluish discoloration of the skin resulting from poor circulation or inadequate oxygenation of the blood.

Cystic duct: Duct leading from the gallbladder to the common bile duct.

Cystic fibrosis: Hereditary condition causing the exocrine glands to malfunction.

Cystitis: Inflammation of the urinary bladder; often caused by infection and is usually accompanied by frequent, painful urination.

Cytokinesis: The cytoplasmic division of a cell at the end of mitosis or meiosis, bringing about the separation into two daughter cells.

Cytoplasm: The material or protoplasm within a living cell, excluding the nucleus.

Cytoskeleton: A microscopic network of protein filaments and tubules in the cytoplasm of many living cells, giving them shape and coherence.

Cytosol: The aqueous component of the cytoplasm of a cell, within which various organelles and particles are suspended.

D

Debridement: Removal of foreign material and dead or damaged tissue from a wound.

Decompression sickness: A condition that results when sudden decompression causes nitrogen bubbles to form in the tissues of the body. It is suffered particularly by divers (who often call it the bends), and can cause pain in the muscles and joints, cramps, numbness, nausea, and paralysis.

Decongestant: Substance that reduces nasal congestion and swelling.

Decubitus ulcers: A sore developed by lying in bed in one position.

Deep: Directional term meaning away from the surface of the body.

Deep fascia: A layer of fibrous connective tissue which can surround individual muscles, and also divide groups of muscles into fascial compartments. This dense fibrous connective tissue interpenetrates and surrounds the muscles, bones, nerves and blood vessels of the body.

Deep venous thrombosis: A blood clot that forms in a vein deep inside a part of the body. It mainly affects the large veins in the lower leg and thigh.

Defecation: The discharge of feces from the body.

Defibrillate: A common treatment for life-threatening cardiac dysrhythmias and ventricular fibrillation; consists of delivering a therapeutic dose of electrical energy to the heart with a device called a defibrillator.

Degenerative joint disease: Degeneration of joint cartilage and the underlying bone, most common from middle age onward; causes pain and stiffness, especially in the hip, knee, and thumb joints.

Dehydration: A condition caused by the excessive loss of water from the body, which causes a rise in blood sodium levels.

Delayed stress reaction: A post-traumatic stress disorder occurring more than six months after the experience of a traumatic event.

Delirium: A state of mental confusion with a lack of orientation to time and place.

Dementia: A chronic or persistent disorder of the mental processes caused by brain disease or injury and marked by memory disorders, personality changes, and impaired reasoning.

Dendrites: A short branched extension of a nerve cell, along which impulses received from other cells at synapses are transmitted to the cell body.

Deoxyribonucleic acid (DNA): A self-replicating material present in nearly all living organisms as the main constituent of chromosomes. It is the carrier of genetic information.

Depression: The action of lowering something or pressing something down.

Dermabrasion: Abrasion or rubbing using wire brushes or sandpaper.

Dermatitis: A condition of the skin in which it becomes red, swollen, and sore, sometimes with small blisters, resulting from direct irritation of the skin by an external agent or an allergic reaction to it.

Dermatologist: A physician specialized in the diagnosis and treatment of diseases of the integumentary system.

Dermatology: The branch of medicine specializing in conditions of the integumentary system.

Dermatome: The lateral wall of each somite in a vertebrate embryo, giving rise to the connective tissue of the skin.

Dermis: The thick layer of living tissue below the epidermis that forms the true skin, containing blood capillaries, nerve endings, sweat glands, hair follicles, and other structures.

Descending tracts: A nerve pathway that goes down the spinal cord and allows the brain to control movement of the body below the head. In contrast, ascending pathways are nerve pathways that go upward from the spinal cord toward the brain carrying sensory information from the body to the brain.

Developmental disability: A diverse group of chronic conditions that are due to mental or physical impairments.

Diabetes mellitus: The most common form of diabetes, caused by a deficiency of the pancreatic hormone insulin, which results in a failure to metabolize sugars and starch. Sugars accumulate in the blood and urine, and the byproducts of alternative fat metabolism disturb the acid–base balance of the blood, causing a risk of convulsions and coma.

Diabetic ketoacidosis (DKA): A life-threatening problem that affects people with *diabetes*. It occurs when the body cannot use sugar (glucose) as a fuel source because there is no insulin or not enough insulin. Fat is used for fuel instead.

Diagnosis: The identification of the nature of an illness or other problem by examination of the symptoms.

Diapedesis: The passage of blood cells through the intact walls of the capillaries, typically accompanying inflammation.

Diaphoretic: Inducing perspiration (chiefly of a drug).

Diaphragm: A dome-shaped, muscular partition separating the thorax from the abdomen in mammals. It plays a major role in breathing, as its contraction increases the volume of the thorax and so inflates the lungs.

Diaphysis: The shaft or central part of a long bone.

Diarthrosis: Articulation that permits free movement.

Diastole: The phase of the heartbeat when the heart muscle relaxes and allows the chambers to fill with blood.

Diastolic pressure: The minimum arterial pressure during relaxation and dilatation of the ventricles of the heart when the ventricles fill with blood. In a blood pressure reading, the diastolic pressure is typically the second number recorded.

Diencephalon: The caudal (posterior) part of the forebrain, containing the epithalamus, thalamus, hypothalamus, and ventral thalamus and the third ventricle.

Diffusion: The intermingling of substances by the natural movement of their particles.

Digestion: The process of breaking down food by mechanical and enzymatic action in the alimentary canal into substances that can be used by the body.

Digestive system: The organs and glands in the body that are responsible for digestion. The digestive system begins with the mouth and extends through the esophagus, stomach, small intestine, and large intestine, ending with the rectum and anus.

Digital: Of or relating to a finger or fingers.

Diphtheria: An acute, highly contagious bacterial disease causing inflammation of the mucous membranes, formation of a false membrane in the throat that hinders breathing and swallowing, and potentially fatal heart and nerve damage by a bacterial toxin in the blood. It is now rare in developed countries because of immunization.

Disease: An abnormality in functions of the body, especially when the abnormality threatens well-being.

Disinfection: An agent that frees from infection; especially a chemical that destroys vegetative forms of harmful microorganisms (as bacteria and fungi) especially on inanimate objects but that may be less effective in destroying spores.

Disk herniation: A condition in which the annulus fibrosus (outer portion) of the vertebral disc is torn, enabling the nucleus (inner portion) to herniate or extrude through the fibers.

Dislocation: Injury or disability caused when the bones in a joint are displaced from their normal alignment.

Distal: Directional term meaning located farthest from the point of attachment.

Diuretic: Substance that increases the excretion of urine.

Diverticulitis: Inflammation of a diverticulum, especially in the colon, causing pain and disturbance of bowel function.

Diverticulum: An abnormal sac or pouch formed at a weak point in the wall of the alimentary tract.

Do Not Resuscitate (DNR): A legal order written either in the hospital or on a legal form to withhold cardiopulmonary resuscitation (CPR) or advanced cardiac life support (ACLS), in respect of the wishes of a patient in case their heart were to stop or they were to stop breathing.

Documentation: Material that provides official information or evidence or that serves as a record.

Dopamine: A compound present in the body as a neurotransmitter and a precursor of other substances including epinephrine.

Dorsal: Directional term meaning near or on the back or spinal cord side of the body.

Dorsal respiratory group (DRG): Located in the dorsomedial region of the medulla, and is composed of cells in the solitary tract nucleus. The DRG is one of two known respiratory neuron localizations, with the other being the ventral respiratory group.

Dorsal root: One of two roots of a spinal nerve that passes dorsally to the spinal cord and consists of sensory fibers.

Dorsalis pedis artery: Blood vessel of the lower limb that carries oxygenated blood to the dorsal surface of the foot. It arises at the anterior aspect of the ankle joint and is a continuation of the anterior tibial artery.

Dorsiflexion (dorsal flexion): Flexion in a dorsal direction; especially flexion of the foot in an upward direction.

Dosha: In Ayurvedic medicine, each of three energies believed to circulate in the body and govern physiological activity.

Down syndrome: A congenital disorder arising from a chromosome defect, causing intellectual impairment and physical abnormalities including short stature and a broad facial profile. It arises from a defect involving chromosome 21, usually an extra copy (trisomy-21).

Duct: Channel or tube for conveying something.

Duodenum: The first part of the small intestine immediately beyond the stomach, leading to the jejunum.

Dura mater: The tough outermost membrane enveloping the brain and spinal cord. Also referred to as "Tough Mother."

Dysarthria: Difficult or unclear articulation of speech that is otherwise linguistically normal.

Dyspnea: Difficult or labored breathing.

E

Early adult: A person in the age range of 20 to 39 (or 40), whereas an adolescent is a person aging from 13 to 19, although definitions and opinions, such as Erik Erikson's stages of human development, vary.

Eccentric contraction: The motion of an active muscle while it is lengthening under load. Eccentric training is repetitively doing eccentric muscle contractions.

Ecchymosis: A discoloration of the skin resulting from bleeding underneath, typically caused by bruising.

Eccrine: Relating to or denoting multicellular glands that do not lose cytoplasm in their secretions, especially the sweat glands found widely distributed on the skin.

ECG: A simple, noninvasive procedure. Electrodes are placed on the skin of the chest and connected in a specific order to a machine that, when turned on, measures electrical activity all over the heart. Output usually appears on a long scroll of paper that displays a printed graph of activity on a computer screen.

Eclampsia: A condition in which one or more convulsions occur in a pregnant woman suffering from high blood pressure, often followed by coma and posing a threat to the health of mother and baby.

Ectopic pregnancy: A pregnancy in which the fetus develops outside the uterus, typically in a Fallopian tube.

Edema: A condition characterized by an excess of watery fluid collecting in the cavities or tissues of the body.

Effector: An organ or cell that acts in response to a stimulus.

Efferent: Conducted or conducting outward or away from something (for nerves, the central nervous system; for blood vessels, the organ supplied).

Efferent nerves: Carry nerve impulses away from the central nervous system to effectors such as muscles or glands (and also inner hair cells of the mammalian inner ear).

Effleurage: A form of massage involving a circular stroking movement made with the palm of the hand.

Elastic fibers: A yellowish fiber composed chiefly of elastin and occurring in networks or sheets that give elasticity to tissues in the body.

Elasticity: The ability of an object or material to resume its normal shape after being stretched or compressed; stretchiness.

Elastin: An elastic, fibrous glycoprotein found in connective tissue.

Electrical conduction system: A group of specialized cardiac muscle cells in the walls of the heart that send signals to the heart muscle causing it to contract. The main components of the cardiac conduction system are the SA node, AV node, bundle of His, bundle branches, and Purkinje fibers.

Electrolyte: The ionized or ionizable constituents of a living cell, blood, or other organic matter.

Electron: A stable subatomic particle with a charge of negative electricity, found in all atoms and acting as the primary carrier of electricity in solids.

Elevation: The action or fact of elevating or being elevated.

Elimination: Removal and release of solid waste products from food that cannot be digested or absorbed.

Embolus: Obstruction of a blood vessel by a blood clot that moves from another area.

Embryo: The term to describe the developing infant from fertilization until the end of the eighth week.

Emmetropia: State of normal vision.

Emphysema: Pulmonary condition that can occur as a result of long-term heavy smoking.

Endocarditis: Inflammation of the endocardium.

Endocardium: The thin, smooth membrane that lines the inside of the chambers of the heart and forms the surface of the valves.

Endocrine glands: Glands of the endocrine system that secrete their products, hormones, directly into the blood rather than through a duct.

Endocrine system: The collection of glands that produce hormones that regulate metabolism, growth and development, tissue function, sexual function, reproduction, sleep, and mood, among other things.

Endometrium: The mucous membrane lining the uterus, which thickens during the menstrual cycle in preparation for possible implantation of an embryo.

Endomysium: Within the muscle, is a wispy layer of areolar connective tissue that ensheaths each individual myocyte (muscle fiber, or muscle cell). It also contains capillaries and nerves. It overlies the muscle fiber's cell membrane, the sarcolemma.

Endoneurium: A layer of delicate connective tissue around the myelin sheath of each myelinated nerve fiber. Its component cells are called endoneurial cells.

Endoplasmic reticulum: A network of membranous tubules within the cytoplasm of a eukaryotic cell, continuous with the nuclear membrane. It usually has ribosomes attached and is involved in protein and lipid synthesis.

Endorphins: Peptide hormones that mainly work like morphine to suppress pain.

Endoskeleton: An internal skeleton, such as the bony or cartilaginous skeleton of vertebrates.

Endosteum: A thin vascular membrane of connective tissue that lines the medullary cavity of long bones.

Endothelium: The tissue that forms a single layer of cells lining various organs and cavities of the body, especially the blood vessels, heart, and lymphatic vessels. It is formed from the embryonic mesoderm.

Endotracheal intubation: A medical procedure in which a tube is placed into the windpipe (trachea) through the mouth or nose. In most emergency situations it is placed through the mouth.

Enzymes: A substance produced by a living organism that acts as a catalyst to bring about a specific biochemical reaction.

Eosinophils: A white blood cell containing granules that destroy parasites and increase during allergic reactions.

Epicardium: A serous membrane that forms the innermost layer of the pericardium and the outer surface of the heart.

Epicondyle: A projection located above or on a condyle.

Epidermis: The superficial layer of skin.

Epididymis: A highly convoluted duct behind the testis, along which sperm passes to the vas deferens.

Epidural hematoma: A type of traumatic brain injury (TBI) in which a buildup of blood occurs between the dura mater (the tough outer membrane of the central nervous system) and the skull.

Epiglottis: A flap of cartilage at the root of the tongue, which is depressed during swallowing to cover the opening of the windpipe.

Epiglottitis: An inflammation of the epiglottis; the flap at the base of the tongue that keeps food from going into the trachea (windpipe).

Epilepsy: A neurological disorder marked by sudden recurrent episodes of sensory disturbance, loss of consciousness, or convulsions, associated with abnormal electrical activity in the brain.

Epimysium: A sheath of fibrous elastic tissue surrounding a muscle.

Epinephrine: A hormone secreted by the adrenal glands, especially in conditions of stress, increasing rates of blood circulation, breathing, and carbohydrate metabolism and preparing muscles for exertion.

Epineurium: The outermost layer of dense irregular connective tissue surrounding a peripheral nerve. It usually surrounds multiple nerve fascicles as well as blood vessels which supply the nerve.

Epi-Pen: An injection containing epinephrine, a chemical that narrows blood vessels and opens airways in the lungs. These effects can reverse severe low blood pressure, wheezing, severe skin itching, hives, and other symptoms of an allergic reaction.

Epiphysis: The end part of a long bone, initially growing separately from the shaft.

Epistaxis: Bleeding from the nose.

Epithelial tissues: Covers the whole surface of the body. It is made up of cells closely packed and ranged in one or more layers. This tissue is specialized to form the covering or lining of all internal and external body surfaces.

Epithelium: The thin tissue forming the outer layer of a body's surface and lining the alimentary canal and other hollow structures.

Equilibrium: A state in which opposing forces or influences are balanced.

Erythrocytes: Red blood cells.

Erythropoiesis: The production of red blood cells.

Esophagus: The part of the alimentary canal that connects the throat to the stomach.

Essential tremor: A nerve disorder characterized by uncontrollable shaking, or "tremors," in different parts and on different sides of the body. Areas affected often include the hands, arms, head, larynx (voice box), tongue, and chin.

Estrogen: One of the two hormones produced by the ovaries that promote the development and maintenance of female characteristics of the body.

Ethics: Moral principles that govern a person's or group's behavior.

Etiology: The cause, set of causes, or manner of causation of a disease or condition.

Eustachian tube: A narrow passage leading from the pharynx to the cavity of the middle ear, permitting the equalization of pressure on each side of the eardrum.

Eversion: Directional term meaning turning outward.

Excitability: The ability of a muscle fiber to respond rapidly to a stimulating agent.

Excretion: The process of eliminating or expelling waste matter.

Exhalation: An expiration of air from the lungs.

Exocrine gland: A gland (as a sweat gland, a salivary gland, or a kidney) that releases a secretion external to or at the surface of an organ by means of a canal or duct—called also gland of external secretion.

Exocytosis: A process by which the contents of a cell vacuole are released to the exterior through fusion of the vacuole membrane with the cell membrane.

Expiration: Exhalation of breath.

Expiratory reserve volume: The additional amount of air that can be expired from the lungs by determined effort after normal expiration; compare inspiratory reserve volume.

Extension: Movement that increase and angle between two bones.

External auditory canal: The auditory canal leading from the opening of the external ear to the eardrum.

External respiration: The exchange of oxygen and carbon dioxide between the lungs and the bloodstream.

External rotation: Turning outwardly or away from the midline of the body, such as when a leg is externally rotated with the toes turned outward or away from the body's midline.

Externship: A temporary training program in a workplace, especially one offered to students as part of a course of study.

Extracellular: Situated or taking place outside a cell or cells.

Extracellular fluid: Usually denotes all body fluid outside of the cells. The remainder is called intracellular fluid. In some animals, including mammals, the extracellular fluid can be divided into two major subcompartments, interstitial fluid and blood plasma.

F

Facet: A small smooth area on a bone or other firm structure, usually an articular surface covered in life with articular cartilage.

Facilitated diffusion: The process of spontaneous passive transport (as opposed to active transport) of molecules or ions across a biological membrane via specific transmembrane integral proteins.

Fallopian tube: Either of a pair of tubes along which eggs travel from the ovaries to the uterus.

Fascia: A thin sheath of fibrous tissue enclosing a muscle or other organ.

Fasciitis: Inflammation of the fascia.

Fascicle: A bundle of structures, such as nerve or muscle fibers or conducting vessels in plants.

Fatty acid: A carboxylic acid consisting of a hydrocarbon chain and a terminal carboxyl group, especially any of those occurring as esters in fats and oils.

Febrile: Having or showing the symptoms of a fever.

Febrile seizures: A convulsion in a child that may be caused by a spike in body temperature, often from an infection.

Feces: Waste matter discharged from the bowels after food has been digested; excrement.

Feldenkrais method: A system designed to promote bodily and mental well-being by conscious analysis of neuromuscular activity via exercises that improve flexibility and coordination and increase ease and range of motion.

Femoral: Of or relating to the femur or thigh.

Femoral artery: A large artery in the thigh and the main arterial supply to the lower limb.

Femoral head: Most proximal round part of the thigh bone (femur) that connects to the acetabulum.

Femur: The upper large bone of the thigh, articulating at the hip and the knee.

Fetus: An unborn offspring of a mammal, in particular an unborn human baby more than eight weeks after conception.

Fibrillation: A muscular twitching involving individual muscle fibers acting without coordination.

Fibrin: An insoluble protein formed from fibrinogen during the clotting of blood. It forms a fibrous mesh that impedes the flow of blood.

Fibrinogen: A soluble protein present in blood plasma, from which fibrin is produced by the action of the enzyme thrombin.

Fibrocartilage: Cartilage that contains fibrous bundles of collagen, such as that of the intervertebral disks in the spinal cord.

Fibromyalgia: A chronic disorder characterized by widespread musculoskeletal pain, fatigue, and tenderness in localized areas.

Fibrous joint: Joints that have no joint cavity and are connected via fibrous connective tissue. The skull bones are connected by fibrous joints; also called synarthrotic joints.

Fibrous protein: Long filamentous protein molecules.

Fibula: The lateral bone between the knee and the ankle.

Filtration: Passage through a filter or other material that prevents passage of certain molecules, particles, or substances.

Fissure: A narrow split or groove that divides an organ such as the brain, lung, or liver into lobes.

Fistula: An abnormal or surgically made passage between a hollow or tubular organ and the body surface, or between two hollow or tubular organs.

Fixator: Muscle that acts as a stabilizer of one part of the body during movement of another part.

Flaccid: A term to describe a muscle with decreased or absent tone.

Flat bone: A type of bone with a thin flattened shape.

Flex: A movement that decreases the angle between two bones.

Flexibility: The range of motion (R.O.M.) in a joint. It varies from joint to joint and is dependent on the surrounding anatomical structure, the extent of the joint's normal use, injury or muscle tightness.

Follicle: Structure in an ovary consisting of a developed egg surrounded by follicle cells.

Fontanel: A space between the bones of the skull in an infant or fetus, where ossification is not complete and the sutures not fully formed. The main one is between the frontal and parietal bones.

Foramen: An opening, hole, or passage, especially in a bone.

Foramen magnum: The hole in the base of the skull through which the spinal cord passes.

Force: Energy or power that which originates or arrests motion or other activity.

Forearm: The part of a person's arm extending from the elbow to the wrist or the fingertips.

Formed elements: One of the red blood cells, white blood cells, or blood platelets as contrasted with the fluid portion of the blood.

Fossa: A shallow depression or hollow.

Fovea: A small depression in the retina of the eye where visual acuity is highest. The center of the field of vision is focused in this region, where retinal cones are particularly concentrated.

Fracture: A break in bone or cartilage.

Free nerve endings: An unspecialized, afferent nerve ending, meaning it brings information from the body's periphery toward the brain. They function as cutaneous receptors and are essentially used by vertebrates to detect pain.

Frontal (coronal) plane: Any vertical plane that divides the body into anterior and posterior sections.

Frostbite: Injury to body tissues caused by exposure to extreme cold, typically affecting the nose, fingers, or toes and sometimes resulting in gangrene.

Fundus: The part of a hollow organ (such as the uterus or the gallbladder) that is farthest from the opening.

Fungi: Organism that are capable of causing diseases such as yeast infections or histoplasmosis.

Fusion: The process or result of joining two or more things together to form a single entity.

G

Gag reflex: A contraction of the back of the throat triggered by an object touching the roof of your mouth, the back of your tongue, the area around your tonsils, or the back of your throat.

Gait: A person's manner of walking.

Gait cycle: The time period or sequence of events or movements during locomotion in which one foot contacts the ground to when that same foot again contacts the ground, and involves forward propulsion of the center of gravity.

Gallbladder: The small sac-shaped organ beneath the liver, in which bile is stored after secretion by the liver and before release into the intestine.

Gallstones: A small, hard crystalline mass formed abnormally in the gallbladder or bile ducts from bile pigments, cholesterol, and calcium salts. Gallstones can cause severe pain and blockage of the bile duct.

Gamete: A mature haploid male or female germ cell that is able to unite with another of the opposite sex in sexual reproduction to form a zygote.

Gametogenesis: The process in which cells undergo meiosis to form gametes.

Ganglion: A structure containing a number of nerve cell bodies, typically linked by synapses, and often forming a swelling on a nerve fiber.

Gastric: Pertaining to the stomach.

Gastric carcinoma: Cancerous tumor of the stomach.

Gastric distention: A complication of extreme binge eating causing extreme enlargement of the stomach (gastric dilation). In emaciated patients, there is delayed gastric emptying leading to complaints of stomach bloating.

Gastric tube: A tube inserted through the abdomen that delivers nutrition directly to the stomach. It's one of the ways doctors can make sure kids with trouble eating get the fluid and calories they need to grow.

Gastrin: A hormone that stimulates secretion of gastric juice, and is secreted into the bloodstream by the stomach wall in response to the presence of food.

Gastritis: Inflammation of the stomach.

Gastrointestinal system: The system that digests food and absorbs nutrients.

Gastrointestinal tract: The continuous tube that extends from mouth to the anus.

Gene: A unit of heredity that is transferred from a parent to offspring and is held to determine some characteristic of the offspring.

General adaptation syndrome: The predictable way the body responds to stress as described by Hans Selye.

Generalized seizure: Features a loss of consciousness and violent muscle contractions.

Generalized tonic-clonic seizure: A type of generalized seizure that affects the entire brain. Tonic-clonic seizures are the seizure type most commonly associated with epilepsy and seizures in general.

Genetics: The study of heredity and the variation of inherited characteristics.

Genitalia: The genitals.

Genu valgum: A condition in which the knees angle in and touch one another when the legs are straightened.

Genu Varum: A physical deformity marked by (outward) bowing of the lower leg in relation to the thigh, giving the appearance of an archer's bow.

Geriatrics: The branch of medicine or social science dealing with the health and care of old people.

Germ layers: Each of the three layers of cells (ectoderm, mesoderm, and endoderm) that are formed in the early embryo.

Germinal layer: A layer of cells from which new tissue is constantly formed.

Gestation: The process of carrying or being carried in the womb between conception and birth.

Gestational diabetes: Develops during pregnancy (gestation). Like other types of diabetes, gestational diabetes affects how your cells use sugar (glucose).

Gingiva: The gums.

Gland: An organ that secretes particular chemical substances for use in the body or for discharge into the surroundings.

Glaucoma: A condition of increased pressure within the eyeball, causing gradual loss of sight.

Glenoid fossa: A shallow depression on a bone into which another bone fits to form a joint, especially that on the scapula into which the head of the humerus fits.

Gliding joints: A common type of synovial joint formed between bones that meet at flat or nearly flat articular surfaces.

Globular protein: Spherical ("globe-like") proteins and are one of the common protein types (the others being fibrous, disordered and membrane proteins).

Glomerular capsule: A cup-like sac at the beginning of the tubular component of a nephron in the mammalian kidney that performs the first step in the filtration of blood to form urine.

Glomerulus: A cluster of nerve endings, spores, or small blood vessels, in particular.

Glottis: The part of the larynx consisting of the vocal cords and the slit-like opening between them. It affects voice modulation through expansion or contraction.

Glucose: A simple sugar that is an important energy source in living organisms and is a component of many carbohydrates.

Glycogen: A substance deposited in bodily tissues as a store of carbohydrates. It is a polysaccharide that forms glucose on hydrolysis.

Glycogenesis: The formation of glycogen from sugar.

Glycolysis: The breakdown of glucose by enzymes, releasing energy and pyruvic acid.

Goblet cells: A column-shaped cell found in the respiratory and intestinal tracts, which secretes the main component of mucus.

Goiter: A swelling of the neck resulting from enlargement of the thyroid gland.

Gonads: An organ that produces gametes; a testis or ovary.

Gonorrhea: A venereal disease involving inflammatory discharge from the urethra or vagina.

Graafian follicle: A fluid-filled structure in the mammalian ovary within which an ovum develops before ovulation.

Gray matter: The darker tissue of the brain and spinal cord, consisting mainly of nerve cell bodies and branching dendrites.

Greater trochanter: Of the femur is a large, irregular, quadrilateral eminence and a part of the skeletal system. It is directed lateral and slightly posterior. In the adult it is about 1 cm lower than the head.

Groin: The area between the abdomen and the thigh on either side of the body.

Gross anatomy: The branch of anatomy that deals with the structure of organs and tissues that are visible to the naked eye.

Gyrus: A ridge or fold between two clefts on the cerebral surface in the brain.

H

Hair follicles: Cavities in the dermis that contain the hair root.

Hashimoto's disease: Chronic form of thyroiditis.

Hay fever: An allergy caused by pollen or dust in which the mucous membranes of the eyes and nose are itchy and inflamed, causing a runny nose and watery eyes.

Head: The large ball-shaped end of a bone.

Healing Touch: A therapy that helps to restore and balance energy that has been depleted due to stress, illness, injury, grief, medical conditions, surgery or medical treatments such as chemotherapy and radiation.

Healthy: The state of being free from illness or injury.

Health Insurance Portability and Accountability Act (HIPAA): The primary goal of the law is to make it easier for people to keep health insurance, protect the confidentiality and security of healthcare information and help the healthcare industry control administrative costs.

Heart: A hollow muscular organ that pumps the blood through the circulatory system by rhythmic contraction and dilation. There are four chambers with two atria and two ventricles.

Heart murmur: Sounds during your heartbeat cycle, such as whooshing or swishing, made by turbulent blood in or near your heart. These sounds can be heard with a stethoscope.

Heart rate: The number of heartbeats per unit of time, usually per minute. The heart rate is based on the number of contractions of the ventricles (the lower chambers of the heart).

Heart valves: Any of the valves that control blood flow to and from the heart and that include the atrioventricular valves, the aortic valve, and the pulmonary valve—called also cardiac valve.

Heat cramps: Painful, brief muscle cramps that occur during or after exercise or work in a hot environment. Muscles may spasm or jerk involuntarily.

Heat exhaustion: A condition whose symptoms may include heavy sweating and a rapid pulse, a result of your body overheating.

Heatstroke: A condition marked by fever and often by unconsciousness, caused by failure of the body's temperature-regulating mechanism when exposed to excessively high temperatures.

Heat syncope: A mild form of heat illness that often results from physical exertion when it is hot.

Heimlich maneuver: A first-aid procedure for dislodging an obstruction from a person's windpipe in which a sudden strong pressure is applied on the abdomen, between the navel and the rib cage.

Helper T cells: The type of a T-cell that influences or controls the differentiation or activity of other cells of the immune system.

Hematemesis: The vomiting of blood.

Hematocrit: The ratio of the volume of red blood cells to the total volume of blood.

Hematology: The study of the physiology of the blood.

Hematoma: A solid swelling of clotted blood within the tissues.

Hematopoiesis: The production of blood cells and platelets, which occurs in the bone marrow.

Hematuria: The presence of blood in urine.

Hemiplegia: Paralysis of one side of the body.

Hemocytoblasts: A stem cell for blood-cellular elements; especially one considered competent to produce all types of blood cells; also called lymphoidocyte.

Hemoglobin: A red protein responsible for transporting oxygen in the blood. Its molecule comprises four subunits, each containing an iron atom bound to a heme group.

Hemolysis: The rupture or destruction of red blood cells.

Hemolytic crisis: The rapid destruction of large numbers of red blood cells (hemolysis). The destruction occurs much faster than the body can produce new red blood cells.

Hemophilia: A medical condition in which the ability of the blood to clot is severely reduced, causing the sufferer to bleed severely from even a slight injury. The condition is typically caused by a hereditary lack of a coagulation factor, most often factor VIII.

Hemopneumothorax: A medical term describing the combination of two conditions: pneumothorax, or air in the chest cavity, and hemothorax (also called hæmothorax), or blood in the chest cavity. A hemothorax, pneumothorax or both can occur if the chest wall is punctured.

Hemoptysis: The coughing up of blood.

Hemorrhage: An escape of blood from a ruptured blood vessel, especially when profuse.

Hemorrhagic stroke: Result of a weakened vessel that ruptures and bleeds into the surrounding brain.

Hemothorax: A type of pleural effusion in which blood accumulates in the pleural cavity.

Hepatic portal system: The system of veins comprising the hepatic portal vein and its tributaries.

Hepatitis: A disease characterized by inflammation of the liver.

Hering-Breuer reflex: A reflex triggered to prevent over-inflation of the lung. Pulmonary stretch receptors present in the smooth muscle of the airways respond to excessive stretching of the lung during large inspirations.

Hernia: A condition in which part of an organ is displaced and protrudes through the wall of the cavity containing it (often involving the intestine at a weak point in the abdominal wall).

Herpes simplex: A viral infection caused by a group of herpes viruses that may produce cold sores, genital inflammation, or conjunctivitis.

Hilum/Hilus: The controlled entry/exit point of an organ such as the kidney or lung.

Hinge joint: A common class of synovial joint that includes the elbow and knee joints. Hinge joints are formed between two or more bones where the bones can only move along one axis to flex or extend.

Histamine: A compound that is released by cells in response to injury and in allergic and inflammatory reactions, causing contraction of smooth muscle and dilation of capillaries.

Histology: The study of the microscopic structure of tissues.

Hollow organs: A visceral organ that is a hollow tube or pouch (as the stomach or intestine) or that includes a cavity (as of the heart or bladder) which subserves a vital function.

Homeostasis: Steady state or state of balance within the body.

Horizontal Abduction: Movement away the midline of the body in the transverse plane. Shoulder, wrist, hip movement.

Horizontal Adduction: A transverse-plane, movement toward the midline of the body. Motion that the arm moves horizontally forward and inward from a starting position of 90° of shoulder abduction.

Hormones: A regulatory substance produced in an organism and transported in tissue fluids such as blood or sap to stimulate specific cells or tissues into action.

Hospice: An organized group of healthcare workers who provide supportive treatment to dying patients and their families.

Host: An animal or plant on or in which a parasite or commensal organism lives.

Human Immunodeficiency Virus (HIV): A virus that attacks the immune system, the body's natural defense system. Without a strong immune system, the body has trouble fighting off disease. Both the virus and the infection it causes are called HIV.

Humerus: The bone of the upper arm or forelimb, forming joints at the shoulder and the elbow.

Humoral immunity: Also called the antibody-mediated beta cellularis immune system, is the aspect of immunity that is mediated by macromolecules (opposed to cell mediated immunity) found in extracellular fluids such as secreted antibodies, complement proteins and certain antimicrobial peptides.

Hyaline cartilage: A translucent bluish-white type of cartilage present in the joints, the respiratory tract, and the immature skeleton.

Hydrochloric acid: A strongly acidic solution of the gas hydrogen chloride in water.

Hydrogen bond: A weak bond between two molecules resulting from an electrostatic attraction between a proton in one molecule and an electronegative atom in the other.

Hydrolysis: The chemical breakdown of a compound due to reaction with water.

Hydrostatic pressure: The pressure exerted by a fluid at equilibrium at a given point within the fluid, due to the force of gravity. Hydrostatic pressure increases in proportion to depth measured from the surface because of the increasing weight of fluid exerting downward force from above.

Hyperalgesia: Abnormally heightened sensitivity to pain.

Hypercarbia: A condition of abnormally elevated carbon dioxide (CO₂) levels in the blood.

Hyperextension: To extend so that the angle between bones of a joint is greater than normal.

Hyperglycemia: An excess of glucose in the bloodstream, often associated with diabetes mellitus.

Hypermobility: A common benign childhood condition involving hypermobile joints (that can move beyond the normal range of motion). Symptoms include pains in knees, fingers, hips, and elbows. The affected joints may sprain or dislocate.

Hyperopia: Farsightedness.

Hyperplasia: The enlargement of an organ or tissue caused by an increase in the reproduction rate of its cells, often as an initial stage in the development of cancer.

Hypersecretion: Excessive production of a bodily secretion.

Hypertension: Abnormally high blood pressure.

Hyperthermia: The condition of having a body temperature greatly above normal.

Hypertonic: Having increased pressure or tone, in particular.

Hypertrophy: The enlargement of an organ or tissue from the increase in size of its cells.

Hyperventilation: A condition in which you suddenly start to breathe very quickly.

Hypervigilance: An enhanced state of sensory sensitivity accompanied by an exaggerated intensity of behaviors whose purpose is to detect threats.

Hypogastric: Pertaining to below the stomach.

Hypoglycemia: Deficiency of glucose in the bloodstream.

Hypoperfusion: The inadequate perfusion of body tissues, resulting inadequate supply of oxygen and nutrients.

Hypomobility: A decrease in the normal movement of a joint or body part.

Hyposecretion: Production of a bodily secretion at an abnormally slow rate or in abnormally small quantities.

Hypotension: Abnormally low blood pressure.

Hypothalamus: A region of the forebrain below the thalamus that coordinates both the autonomic nervous system and the activity of the pituitary, controlling body temperature, thirst, hunger, and other homeostatic systems, and involved in sleep and emotional activity.

Hypothermia: The condition of having an abnormally low body temperature, typically one that is dangerously low.

Hypotonic: Having reduced pressure or tone, in particular.

Hypoxia: Deficiency in the amount of oxygen reaching the tissues.

I

Ileal: Pertaining to the ileum.

Ileocecal valve: Sphincter between the ileum and the cecum.

Ileostomy: A surgical operation in which a piece of the ileum is diverted to an artificial opening in the abdominal wall.

Ileum: The third portion of the small intestine, between the jejunum and the cecum.

Ileus: A painful obstruction of the ileum or other part of the intestine.

Ilium: The large broad bone forming the upper part of each half of the pelvis.

Immune: Resistant to a particular infection or toxin owing to the presence of specific antibodies or sensitized white blood cells.

Immune response: The reaction of the cells and fluids of the body to the presence of a substance that is not recognized as a constituent of the body itself.

Immune system: The body's defense against infectious organisms and other invaders. Through a series of steps called the immune response, the immune system attacks organisms and substances that invade body systems and cause disease.

Immunity: The ability of an organism to resist a particular infection or toxin by the action of specific antibodies or sensitized white blood cells.

Immunology: The branch of medicine and biology concerned with immunity.

Immunocompetence: The ability of the body to produce a normal immune response following exposure to an antigen.

Immunodeficiency disease: A state in which the immune system's ability to fight infectious disease is compromised or entirely absent.

Immunoglobulin: Any of a class of proteins present in the serum and cells of the immune system that function as antibodies.

Impetigo: A highly contagious staphylococcal skin infection, most commonly occurring on the faces of children.

Impingement: An encroachment on the space occupied by soft tissue, such as nerve or muscle.

Implant: Prosthetic device placed in the jaw or which a tooth or denture may be anchored.

Incision: A surgical cut made in skin or flesh.

Incontinence: Inability of the body to control the evacuative functions of urination.

Incubation: The process of incubating eggs, cells, bacteria, a disease, etc.

Incus: One of the three ossicles of the middle ear.

Indications: A symptom that suggests certain medical treatment is necessary.

Inertia: A property of matter by which it continues in its existing state of rest or uniform motion in a straight line, unless that state is changed by an external force.

Infancy: The early stage in the development or growth of something.

Infants: A very young child or baby.

Infarct: A small localized area of dead tissue resulting from failure of blood supply.

Infection: The process of infecting or the state of being infected.

Infectious disease: Disorders caused by organisms, such as bacteria, viruses, fungi or parasites. Many organisms live in and on our bodies.

Inferior: Directional term meaning toward the feet or below.

Inferior vena cava: A large vein carrying deoxygenated blood into the heart. There are two, the inferior vena cava (carrying blood from the lower body) and the superior vena cava (carrying blood from the head, arms, and upper body).

Inflammation: A localized physical condition in which part of the body becomes reddened, swollen, hot, and often painful, especially as a reaction to injury or infection.

Inflammatory response: A fundamental type of response by the body to disease and injury, a response characterized by the classical signs of "dolor, calor, rubor, and tumor" -- pain, heat (localized warmth), redness, and swelling.

Influenza: A viral infection of the respiratory system characterized by chills, fever, body aches and fatigue.

Informed consent: Permission granted in the knowledge of the possible consequences, typically that which is given by a patient to a doctor for treatment with full knowledge of the possible risks and benefits.

Ingestion: The consumption of a substance by an organism such as through eating or drinking.

Inguinal: Of the groin.

Inhalation: The action of inhaling or breathing in.

Innervation: To supply with nerves.

Insertion: The point or mode of attachment of a skeletal muscle to the bone or other body part that it moves.

Inspiratory reserve volume: The maximal volume of air that can be inhaled after a normal inspiration.

Insulin: A hormone produced in the pancreas by the islets of Langerhans that regulates the amount of glucose in the blood. The lack of insulin causes a form of diabetes.

Integumentary system: The organ system that protects the body from various kinds of damage, such as loss of water or abrasion from outside. The system comprises the skin and its appendages (including hair, scales, feathers, hooves, and nails).

Intercellular: A solution that bathes and surrounds the tissue cells of multicellular animals.

Internal rotation: The turning of a limb about its axis of rotation toward the midline of the body.

Interstitial fluid: A solution that bathes and surrounds the tissue cells of body. It is the main component of the extracellular fluid, which also includes plasma and transcellular fluid.

Intervertebral discs/disk: Lies between adjacent vertebrae in the vertebral column. Each disc forms a fibrocartilaginous joint (a symphysis), to allow slight movement of the vertebrae, and acts as a ligament to hold the vertebrae together.

Intracellular: Located or occurring within a cell or cells.

Intracellular fluid: Cells are bathed in fluids both inside the cell and outside of it. The water that is inside the cell makes up about 42% of the total body weight. The water inside the cell is called intracellular fluid (ICF).

Intracerebral hematoma: A type of stroke caused by bleeding within the brain tissue itself; a very life-threatening situation.

Intracranial pressure (ICP): The pressure inside the skull and thus in the brain tissue and cerebrospinal fluid (CSF).

Intractable pain: A severe, constant pain that is not curable by any known means and which causes a bed or house-bound state and early death if not adequately treated, usually with opioids and/or interventional procedures.

Inversion: Refers to movements that tilt the sole of the foot towards the midline of the body.

Involuntary muscle: A muscle that contracts without conscious control and found in walls of internal organs such as stomach and intestine and bladder and blood vessels (excluding the heart) smooth muscle.

Ion: An atom or molecule which has gained or lost one or more of its valence electrons, giving it a net positive or negative electrical charge.

Ion pump: A transmembrane protein that moves ions across a plasma membrane against their concentration gradient, in contrast to ion channels, where ions go through passive transport.

Ionic bond: The electrostatic force of attraction between two oppositely charged ions.

Ipsilateral: Belonging to or occurring on the same side of the body.

Iris: A flat, colored, ring-shaped membrane behind the cornea of the eye, with an adjustable circular opening (pupil) in the center.

Ischemia: An inadequate blood supply to an organ or part of the body, especially the heart muscles.

Ischemic stroke: One of the two main types of stroke; occurs when blood flow to a particular part of the brain is cut off by a blockage (e.g., a clot) inside a blood vessel.

Ischium: The curved bone forming the base of each half of the pelvis.

Isometric contraction: The action of the prime mover that occurs when tension develops within the muscle but no change occurs in the joint angle or length of the muscle.

Isotonic contraction: The action of the prime mover that occurs when tension develops in the muscle while it shortens or lengthens.

Isotope: Each of two or more forms of the same element that contain equal numbers of protons but different numbers of neutrons in their nuclei, and hence differ in relative atomic mass but not in chemical properties; in particular, a radioactive form of an element.

J-K

Jaundice: A medical condition with yellowing of the skin or whites of the eyes, arising from excess of the pigment bilirubin and typically caused by obstruction of the bile duct, by liver disease, or by excessive breakdown of red blood cells.

Jejunum: The part of the small intestine between the duodenum and ileum.

Jin Shin Do: A therapeutic massage technique developed in the 1970s by Iona Marsaa Teegarden derived from Jin Shin Jyutsu.

Joint: Where two bones meet.

Joint capsule: A ligamentous sac that surrounds the articular cavity of a freely movable joint, is attached to the bones, completely encloses the joint, and is composed of an outer fibrous membrane and an inner synovial membrane—called also articular capsule, capsular ligament.

Jugular vein: Any of several large veins in the neck, carrying blood from the head and face.

Kaposi's sarcoma: Form of skin cancer frequently seen in acquired immunodeficiency syndrome patients.

Keloid: Formation of a scar after an injury or surgery that results in a raised, thickened red area.

Keratin: A fibrous protein forming the main structural constituent of hair and nails.

Kidney stones: A hard mass formed in the kidneys, typically consisting of insoluble calcium compounds; a renal calculus.

Kidneys: A pair of organs located in the lumbar region of the back behind the parietal peritoneum. They excrete urine.

Killer T-cell: A T-cell that functions in cell-mediated immunity by destroying a cell (as one infected with a virus) having specific antigenic molecules on its surface; also called a cytotoxic T cell.

Kinematics: The branch of mechanics concerned with the motion of objects without reference to the forces that cause the motion.

Kinesiology: The study of the mechanics of body movements.

Kinetic chain: A term used by most sports medicine and exercise science professionals to describe a sequence or a chain of events.

Kinetic energy: Energy that a body possesses by virtue of being in motion.

Kinetics: The branch of chemistry or biochemistry concerned with measuring and studying the rates of reactions.

Kinins: Any of a group of substances formed in body tissue in response to injury. They are polypeptides and cause vasodilation and smooth muscle contraction.

Kyphosis: Excessive outward curvature of the thoracic spine, causing hunching of the back.

L

Labia: The inner and outer folds of the vulva, at either side of the vagina.

Labia majora: The larger outer folds of the vulva.

Labia minora: The smaller inner folds of the vulva.

Labored breathing: An abnormal respiration characterized by evidence of increased effort to breathe, including the use of accessory muscles of respiration, stridor, grunting, or nasal flaring.

Labyrinth: A complex structure in the inner ear that contains the organs of hearing and balance. It consists of bony cavities (the bony labyrinth) filled with fluid and lined with sensitive membranes (the membranous labyrinth).

Laceration: A deep cut or tear in skin or flesh.

Lacrimal glands: Paired almond-shaped glands, one for each eye, that secrete the aqueous layer of the tear film.

Lactation: The secretion of milk by the mammary glands.

Lacteal: The lymphatic vessels of the small intestine that absorb digested fats.

Lactic acid: A colorless syrupy organic acid formed in sour milk and produced in the muscle tissues during strenuous exercise.

Lacuna: A cavity or depression, especially in bone.

Lamina: A thin layer, plate, or scale of sedimentary rock, organic tissue, or other material.

Large intestine: Pertains to the cecum, colon, and rectum.

Laryngitis: Inflammation of the larynx, typically resulting in huskiness or loss of the voice, harsh breathing, and a painful cough.

Larynx: The hollow muscular organ forming an air passage to the lungs and holding the vocal cords in humans and other mammals; the voice box.

Lateral: Directional term meaning to the side or away from midline.

Lateral flexion (side bending): Bending body sideways (frontal plane).

Lateral recumbency (side lying): Lying on the side of the body.

Laws: The system of rules that a particular country or community recognizes as regulating the actions of its members and may enforce by the imposition of penalties.

Leg: Each of the limbs on which a person walks and stands.

Legionnaire's disease: A severe, often fatal disease characterized by pneumonia and gastrointestinal symptoms.

Lesion: A region in an organ or tissue that has suffered damage through injury or disease, such as a wound, ulcer, abscess, tumor, etc.

Lesser trochanter: A pyramidal prominence that projects from the proximal and medial part of the shaft of the femur.

Leukemia: A malignant progressive disease in which the bone marrow and other blood-forming organs produce increased numbers of immature or abnormal leukocytes.

Leukocytes: White blood cells involved in counteracting foreign substances and disease.

Licensure: The granting or regulation of licenses, as for professionals.

Ligament: A short band of tough, flexible, fibrous connective tissue that connects two bones or cartilages or holds together a joint.

Linear skull fractures: A break in a cranial bone resembling a thin line, without splintering, depression, or distortion of bone. A depressed skull fracture is a break in a cranial bone (or "crushed" portion of skull) with depression of the bone in toward the brain.

Lipids: Any of a class of organic compounds that are fatty acids or their derivatives and are insoluble in water but soluble in organic solvents.

Lipocytes: Fat cells.

Lipoma: Fatty tumor.

Lithotomy: Surgical incision to remove kidney stones.

Lithotripsy: Destroying or crushing kidney stones in the bladder or urethra with a device called a lithotripter.

Liver: A large lobed glandular organ in the abdomen of vertebrates, involved in many metabolic processes. It processes bile and absorbs nutrients, detoxifying the body from harmful substances.

Long bones: Type of bone that is longer than it is wide.

Loop of Henle: A portion of the renal tubule.

Loose-packed position: A position of a joint in which the joint surfaces are not congruent and the joint capsule is lax.

Lordosis: Excessive inward curvature of the lumbar spine.

Lower respiratory tract: The larynx, trachea, bronchi, and alveoli.

Lumbar spine: The part of the spine comprised of five vertebral bodies (L1-L5) that extend from the lower thoracic spine to the sacrum (bottom of the spine).

Lumen: The space, cavity or channel within a tube or tubular organ or structure in the body.

Lungs: Each of the pair of organs situated within the rib cage, consisting of elastic sacs with branching passages into which air is drawn, so that oxygen can pass into the blood and carbon dioxide be removed.

Luteinizing hormone: A hormone secreted by the anterior pituitary.

Lymph: A colorless fluid containing white blood cells that bathes the tissues and drains through the lymphatic system into the bloodstream.

Lymph nodes: Each of a number of small swellings in the lymphatic system where lymph is filtered and lymphocytes are formed.

Lymphadenitis: Inflammation of the lymph glands.

Lymphatic: A vein-like vessel conveying lymph in the body.

Lymphatic capillaries: The smallest lymph vessels.

Lymphatic ducts: The two largest vessels in the lymphatic system.

Lymphatic system: The network of vessels through which lymph drains from the tissues into the blood.

Lymphocytes: A form of small leukocyte (white blood cell) with a single round nucleus, occurring especially in the lymphatic system.

Lymphoid organs: Concentrated in the lymph nodes. The spleen and the thymus are also lymphoid organs of the immune system.

Lymphokines: A substance produced by lymphocytes, such as interferon, that acts upon other cells of the immune system, e.g., by activating macrophages.

Lymphoma: A tumor of lymphatic tissue.

Lysosome: An organelle in the cytoplasm of eukaryotic cells containing degradative enzymes enclosed in a membrane.

Lysozyme: An enzyme that catalyzes the destruction of the cell walls of certain bacteria, occurring notably in tears and egg white.

M

Macrobiotic Shiatsu: A preventive holistic healthcare system developed by S Yamamoto (who also developed Barefoot Shiatsu™) as a means of “balancing” the individual through health-promoting lifestyle changes.

Macrophage: A large phagocytic cell found in stationary form in the tissues or as a mobile white blood cell, especially at sites of infection.

Macule: A flat, discolored area that is flush with the skin surface.

Malignant: A tumor that is cancerous.

Malignant melanoma: Malignant, darkly pigmented tumor or mole of the skin.

Mammary glands: The milk-producing gland of women or other female mammals.

Mandible: The jaw or a jawbone.

Massage: Manual manipulation of soft tissue.

Manubrium: The broad upper part of the sternum, with which the clavicles and first ribs articulate.

Mastectomy: Excision of the breast.

Mastication: To grind, crush, and chew (food) with or as if with the teeth in preparation for swallowing.

Mastoid Process: A conical prominence of the temporal bone behind the ear, to which neck muscles are attached, and which has air spaces linked to the middle ear.

Matrix: The material (or tissue), in which more specialized structures are embedded, and a specific part of the mitochondrion that is the site of oxidation of organic molecules. The internal structure of connective tissues is an extracellular matrix.

Matter: Physical substance in general, as distinct from mind and spirit; (in physics) that which occupies space and possesses rest mass, especially as distinct from energy.

Maxilla: The jaw or jawbone, specifically the upper jaw.

Meatus: The passage leading into the ear.

Mechanical receptors: A sensory receptor that responds to mechanical pressure or distortion. Normally there are four main types in glabrous skin: Pacinian corpuscles, Meissner's corpuscles, Merkel's discs, and Ruffini endings.

Mechanism of Injury (MOI): The circumstance in which an injury occurs, for example, sudden deceleration, wounding by a projectile, or crushing by a heavy object.

Mechanoreceptors: A sensory organ or cell that responds to mechanical stimuli such as touch or sound.

Medial: Directional term meaning to the middle or near the middle of the body or the structure.

Mediastinum: A membranous partition between two body cavities or two parts of an organ, especially that between the lungs.

Medical Qigong: An ancient Chinese healing art involving meditation, controlled breathing, and movement exercises designed to improve physical and mental well-being and prevent disease—called also chi kung, ch'i kung.

Medication: A substance used for medical treatment, especially a medicine or drug.

Medulla: The inner region of an organ or tissue, especially when it is distinguishable from the outer region or cortex (as in a kidney, an adrenal gland, or hair).

Medulla oblongata: The continuation of the spinal cord within the skull, forming the lowest part of the brainstem and containing control centers for the heart and lungs.

Meiosis: A type of cell division that results in four daughter cells each with half the number of chromosomes of the parent cell, as in the production of gametes and plant spores.

Melanin: A dark brown to black pigment occurring in the hair, skin, and iris of the eye in people and animals. It is responsible for tanning of skin exposed to sunlight.

Melanocyte: Special cells of the epidermis that contain the black pigment melanin that gives skin its color and protects against the ultraviolet rays of the sun.

Melanoma: A form of skin cancer caused by an overgrowth of melanin in a melanocyte.

Melatonin: A hormone secreted by the pineal gland.

Memory cell: A long-lived lymphocyte capable of responding to a particular antigen on its reintroduction, long after the exposure that prompted its production.

Membrane: A pliable sheet-like structure acting as a boundary, lining, or partition in an organism.

Menarche: The first occurrence of menstruation.

Meninges: The three membranes (the dura mater, arachnoid, and pia mater) that line the skull and vertebral canal and enclose the brain and spinal cord.

Meningitis: Inflammation of the meninges caused by viral or bacterial infection and marked by intense headache and fever, sensitivity to light, and muscular rigidity, leading (in severe cases) to convulsions, delirium, and death.

Menopause: The ceasing of menstruation.

Menses: Blood and other matter discharged from the uterus at menstruation.

Menstruation: The process in a woman of discharging blood and other materials from the lining of the uterus at intervals of about one lunar month from puberty until menopause, except during pregnancy.

Mesentery: A fold of the peritoneum that attaches the stomach, small intestine, pancreas, spleen, and other organs to the posterior wall of the abdomen.

Metabolic rate: The rate at which metabolism occurs in a living organism.

Metabolism (cellular respiration): The chemical processes that occur within a living organism in order to maintain life.

Metabolites: A substance formed in or necessary for metabolism.

Metacarpals: The five longer bones of the hand.

Metastasis: The development of secondary malignant growths at a distance from a primary site of cancer.

Metatarsals: The five longer bones of the foot.

Microorganisms: A microscopic organism, especially a bacterium, virus, or fungus.

Microvilli: Each of a large number of minute projections from the surface of some cells.

Micturition: Contraction of the walls of the bladder and relaxation of the trigone and urethral sphincter in response to a rise in pressure within the bladder. The reflex can be voluntarily inhibited and the inhibition readily abolished to control micturition.

Midbrain: A small central part of the brainstem, developing from the middle of the primitive or embryonic brain.

Midsagittal plane (midline): Used to describe the sagittal plane as it bisects the body vertically through the midline marked by the navel, dividing the body exactly in left and right side.

Migraine: A specific type of headache characterized by severe head pain, photophobia, vertigo and nausea.

Minute ventilation: The volume of gas inhaled (inhaled minute volume) or exhaled (exhaled minute volume) from a person's lungs per minute. It is an important parameter in respiratory medicine due to its relationship with blood carbon dioxide levels.

Minute volume: The volume of gas inhaled (inhaled minute volume) or exhaled (exhaled minute volume) from a person's lungs per minute. It is an important parameter in respiratory medicine due to its relationship with blood carbon dioxide levels.

Miosis: Excessive constriction of the pupil of the eye.

Miscarriage: The expulsion of a fetus from the womb before it is able to survive independently, especially spontaneously or as the result of accident.

Mitochondria: An organelle found in large numbers in most cells, in which the biochemical processes of respiration and energy production occur. It has a double membrane, the inner layer being folded inward to form layers (cristae).

Mitosis: A type of cell division that results in two daughter cells each having the same number and kind of chromosomes as the parent nucleus, typical of ordinary tissue growth.

Mitral valve: A valve between the left atrium and ventricle in the heart.

Mixed nerves: Contain both afferent and efferent axons, and thus conduct both incoming sensory information and outgoing muscle commands in the same bundle.

Mobility: The state of having normal movement of all body parts.

Mobilization: Treatments used to restore movement to joints.

Mole: A small, often slightly raised blemish on the skin made dark by a high concentration of melanin.

Molecule: A group of atoms bonded together, representing the smallest fundamental unit of a chemical compound that can take part in a chemical reaction.

Monoclonal antibodies: An antibody produced by a single clone of cells or cell line and consisting of identical antibody molecules.

Monocyte: A large phagocytic white blood cell with a simple oval nucleus and clear, grayish cytoplasm.

Mononucleosis: Acute infectious disease with a large number of atypical lymphocytes.

Monosaccharide: Any of the class of sugars (e.g., glucose) that cannot be hydrolyzed to give a simpler sugar.

Monoplegia: Paralysis restricted to one limb or region of the body.

Mons pubis: The rounded mass of fatty tissue lying over the joint of the pubic bones, in women typically more prominent and also called the mons veneris.

Morbidity: Number that represents the number of sick persons in a particular population.

Mortality: Number that represents the number of deaths in a particular population.

Motor nerves: A nerve carrying impulses from the brain or spinal cord to a muscle or gland.

Motor point: A point on the skin overlying the endplates of an underlying muscle; the application of an electrical stimulus, using an electrode, will cause contraction of the muscle.

Motor unit: Made up of a motor neuron and the skeletal muscle fibers innervated by that motor neuron's axonal terminals.

Mucous membrane (mucosa): An epithelial tissue that secretes mucus and that lines many body cavities and tubular organs including the gut and respiratory passages.

Mucus: A slimy substance, typically not miscible with water, secreted by mucous membranes and glands for lubrication, protection, etc.

Multigravida: A woman who is or has been pregnant for at least a second time.

Multipara: A woman who has given birth to more than one child.

Multiple sclerosis: Inflammatory disease of the central nervous system.

Muscle: A band or bundle of fibrous tissue in a human or animal body that has the ability to contract, producing movement in or maintaining the position of parts of the body.

Murmur: An abnormal heart sound, such as a soft blowing sound or harsh click.

Muscle: Bundles of parallel muscle tissue fibers.

Muscle contraction: The activation of tension-generating sites within muscle fibers. In physiology, muscle contraction does not mean muscle shortening because muscle tension can be produced without changes in muscle length such as holding a heavy book or a dumbbell at the same position.

Muscle fibers: A cylindrical, multinucleate cell composed of numerous myofibrils that contracts when stimulated causing movement.

Muscle spasticity: A feature of altered skeletal muscle performance with a combination of paralysis, increased tendon reflex activity and hypertonia. It is also colloquially referred to as an unusual "tightness", stiffness, or "pull" of muscles.

Muscle spastic paresis: A feature of altered skeletal muscle performance with a combination of paralysis, increased tendon reflex activity and hypertonia.

Muscle spindle: Sensory receptors within the belly of a muscle that primarily detect changes in the length of this muscle.

Muscle stiffness: A condition in which muscles feel tight and contracted rather than the usual supple state of muscles at rest.

Muscle tissue: A tissue composed of cells or fibers, the contraction of which produces movement in the body.

Muscle tone: The continuous and passive part contraction of the muscles, or the muscle's resistance to passive stretch during resting state.

Muscle twitch: A small, local, involuntary muscle contraction and relaxation which may be visible under the skin.

Muscular dystrophy: A hereditary condition marked by progressive weakening and wasting of the muscles.

Musculoskeletal system: The combination of the muscular and skeletal systems working together and includes the bones, muscles, tendons and ligaments of the body.

Mutation: Change or transformation from the original.

Mutagen: An agent, such as radiation or a chemical substance, that causes genetic mutation.

Myalgia: Pain in the muscle.

Myasthenia gravis: A condition causing abnormal weakness of certain muscles.

Myelin: A mixture of proteins and phospholipids forming a whitish insulating sheath around many nerve fibers, increasing the speed at which impulses are conducted.

Myocardial contractility: A measure of cardiac pump performance, the degree to which muscle fibers can shorten when activated by a stimulus independent of preload and afterload.

Myocardial contusion: A term for a bruise (contusion) to the heart after an injury. It is usually a consequence of blunt trauma to the anterior chest wall, and the right heart is thought to be most commonly affected due to its anatomic location as the most anterior surface of the heart.

Myocardial Infraction (MI): Commonly known as a heart attack; occurs when blood flow stops to a part of the heart causing damage to the heart muscle.

Myocardium: The muscular tissue of the heart.

Myofascial Release: A manipulative treatment that attempts to release tension in the fascia due to trauma, posture, or inflammation. Connective tissues called fascia surround the muscles, bones, nerves, and organs of the body.

Myofibrils: Any of the elongated contractile threads found in striated muscle cells.

Myofilament: The filaments of myofibrils, constructed from proteins, principally myosin or actin.

Myometrium: The smooth muscle tissue of the uterus.

Myopia: Nearsightedness.

Myosin: A fibrous protein that forms (together with actin) the contractile filaments of muscle cells and is also involved in motion in other types of cells.

N

Nasal: Of, for, or relating to the nose.

Necrosis: The death of most or all of the cells in an organ or tissue due to disease, injury, or failure of the blood supply.

Neoplasm: A new and abnormal growth of tissue in some part of the body, especially as a characteristic of cancer.

Nephrons: Each of the functional units in the kidney, consisting of a glomerulus and its associated tubule, through which the glomerular filtrate passes before emerging as urine.

Nerve: A bundle of fibers composed of neurons that connects the body parts and organs to the central nervous system and carries impulses from one part of the body to another.

Nerve fiber: A threadlike extension of a nerve cell and consists of an axon and myelin sheath (if present) in the nervous system. There are nerve fibers in the central nervous system and peripheral nervous system. A nerve fiber may be myelinated and/or unmyelinated.

Nerve impulse: An electrical signal that travels along an axon.

Nervous system: The system that coordinates all the conscious and subconscious activities of the body.

Nervous tissue: The main component of the two parts of the nervous system; the brain and spinal cord of the central nervous system (CNS), and the branching peripheral nerves of the peripheral nervous system (PNS), which regulates and controls bodily functions and activity.

Neural: Pertaining to nerves.

Neuralgia: Nerve pain.

Neurilemma: The outer cell membrane of a Schwann cell that is essential in the regeneration of injured axons.

Neurogenic shock: Can result from severe central nervous system damage (brain injury, cervical or high thoracic spinal cord).

Neuroglia: Quite different from nerve cells. The major distinction is that glia do not participate directly in synaptic interactions and electrical signaling, although their supportive functions help define synaptic contacts and maintain the signaling abilities of neurons.

Neurologist: Physician who specializes in the nervous system.

Neuromuscular junction: A synapse between a motor neuron and skeletal muscle.

Neurons: A specialized cell transmitting nerve impulses; a nerve cell.

Neuropathy: Disease or dysfunction of one or more peripheral nerves, typically causing numbness or weakness.

Neurotoxins: A poison that acts on the nervous system.

Neurotransmitters: A chemical substance that is released at the end of a nerve fiber by the arrival of a nerve impulse and, by diffusing across the synapse or junction, causes the transfer of the impulse to another nerve fiber, a muscle fiber, or some other structure.

Neutron: A subatomic particle of about the same mass as a proton but without an electric charge, present in all atomic nuclei except those of ordinary hydrogen.

Neutrophils: White blood cells that are important to phagocytosis.

Nevus: Pigmented congenital skin blemish, birthmark or mole.

Nociceptors: A sensory receptor for painful stimuli.

Nocturia: Excessive urination during the night.

Nodule: Solid, raised group of cells.

Non-displaced fracture: The bone cracks either part or all of the way through, but does move and maintains its proper alignment.

Non-Hodgkins Lymphoma: Cancer of the lymphatic tissues.

Non-insulin-dependent (diabetes mellitus): Type 2 diabetes mellitus that develops later in life when the pancreas produces insufficient insulin.

Nonsteroidal anti-inflammatory drugs: Drugs, including aspirin and ibuprofen, that provide mild pain relief and anti-inflammatory benefits.

Norepinephrine: A hormone that is released by the adrenal medulla and by the sympathetic nerves and functions as a neurotransmitter. It is also used as a drug to raise blood pressure.

Normal sinus rhythm: The characteristic rhythm of the healthy human heart. NSR is the rhythm that originates from the sinus node. The rate in NSR is generally regular but will vary depending on autonomic inputs into the sinus node.

Nosocomial infection: An infection acquired as a result of hospital exposure.

Nuchal cord: Occurs when the umbilical cord becomes wrapped around the fetal neck 360 degrees.

Nucleoli: A small dense spherical structure in the nucleus of a cell during interphase.

Nucleotide: A compound consisting of a nucleoside linked to a phosphate group. Nucleotides form the basic structural unit of nucleic acids such as DNA.

Nuclear medicine: Use of radioactive substances to diagnose diseases.

Nucleus: Organelle of the cell that contains the DNA.

Nutrients: A substance that provides nourishment essential for growth and the maintenance of life.

Nutrition: The process of providing or obtaining the food necessary for health and growth.

O

Obesity: The condition of being grossly fat or overweight.

Oblique fracture: A fracture at an angle to the bone.

Oblique muscles: Muscles that run in a slanted direction.

Obsessive-compulsive disorder: A type of anxiety disorder in which the person performs repetitive rituals in order to reduce anxiety.

Obstetrics: Branch of medicine that treats women during pregnancy and childbirth.

Obstructive shock: A form of shock associated with physical obstruction of the great vessels or the heart itself.

Occipital: Of, relating to, or located within or near the occiput or the occipital bone.

Occipital lobe: The posterior lobe of the brain that controls eyesight.

Occiput: The bony prominence on the back of the occipital bone.

Occlusion: The blockage or closing of a blood vessel or hollow organ.

Occupational Safety and Health Administration (OSHA): A federal organization (part of the Department of Labor) that ensures safe and healthy working conditions for Americans by enforcing standards and providing workplace safety training.

Ocular: Pertaining to the eye.

Odontoid process (Dens): A tooth-like projection from the second cervical vertebra on which the first vertebra pivots.

Oligomenorrhea: Scanty menstrual flow.

Oligouria: Condition of scanty amount of urine.

Olfaction: The action or capacity of smelling; the sense of smell.

Oncology: The branch of medicine that deals with cancer.

Oncotic pressure: A form of osmotic pressure exerted by proteins, notably albumin, in a blood vessel's plasma (blood/liquid) that usually tends to pull water into the circulatory system.

Oogenesis: The production or development of an ovum.

Open fracture: If the bone breaks in such a way that bone fragments stick out through the skin or a wound penetrates down to the broken bone, the fracture is called an "open" or compound fracture.

Open head injury: A head injury in which the dura mater, the outer layer of the meninges, is breached.

Open injuries: An injury involving an external or internal break in body tissue, usually involving the skin.

Open Kinematic chain: A position in which the ends of the limbs or parts of the body are free to move without causing motion at another joint.

Ophthalmic: Of or relating to the eye and its diseases.

Ophthalmology: Branch of medicine specializing in the eye.

Opportunistic pathogens: An infection caused by bacterial, viral, fungal, or protozoan pathogens that take advantage of a host with a weakened immune system or an altered microbiota (such as a disrupted gut flora).

Opposition: The relation between the thumb and the other digits of the hand for the purpose of grasping objects between the thumb and fingers.

Optic: Of or relating to the eye or vision.

Optic nerve: Each of the second pair of cranial nerves, transmitting impulses to the brain from the retina at the back of the eye.

Oral: Of or relating to the mouth.

Orbit: The cavity or socket of the skull in which the eye and its appendages are situated.

Organ: A group of different types of tissue coming together to perform special functions, such as the heart or liver in humans.

Organ system: A group of organs that work together to perform one or more functions.

Organelles: The basic components of a cell that perform specific functions within the cell.

Organism: An individual animal, plant, or single-celled life form.

Origin: The attachment of a skeletal muscle to the less movable bone in the joint.

Osmosis: A process by which molecules of a solvent tend to pass through a semipermeable membrane from a less concentrated solution into a more concentrated one, thus equalizing the concentrations on each side of the membrane.

Osseous tissue: Bone tissue.

Ossicles: A very small bone, especially one of those in the middle ear.

Ossification: The process of bone formation.

Osteoarthritis: Non-inflammatory type of arthritis resulting in degeneration of the bones and joints.

Osteoblasts: A cell that secretes the matrix for bone formation.

Osteoclasts: A large multinucleate bone cell that absorbs bone tissue during growth and healing.

Osteocyte: Mature bone cells.

Osteokinematics: The general term for the specific movements of joint surfaces.

Osteomalacia: Softening of the bones caused by a deficiency of phosphorus or calcium.

Osteomyelitis: Inflammation of the bone and bone marrow due to infection.

Osteon: The fundamental functional unit of much compact bone. Osteons are roughly cylindrical structures that are typically several millimeters long and around 0.2mm in diameter.

Osteopathy: Form of medicine that places great emphasis on the musculoskeletal system and the body system as a whole.

Osteoporosis: A medical condition in which the bones become brittle and fragile from loss of tissue, typically as a result of hormonal changes, or deficiency of calcium or vitamin D.

Osteotomy: Incision into a bone.

Otic: Pertaining to the ear.

Otitis: Ear inflammation.

Otolith: Each of three small oval calcareous bodies in the inner ear of vertebrates, involved in sensing gravity and movement.

Otologist: A physician specialized in the diagnosis and treatment of diseases of the ear.

Otorhinolaryngology: Branch of medicine that treats diseases of the ears, nose, and throat.

Ova: Female sex cells or gametes.

Ovarian cycle: The normal sex cycle that includes development of an ovarian (graafian) follicle, rupture of the follicle with discharge of the ovum, and formation and regression of a corpus luteum.

Ovary: A female reproductive organ in which ova or eggs are produced, present in humans and other vertebrates as a pair.

Ovulation: One part of the female menstrual cycle whereby a mature ovarian follicle (part of the ovary) discharges an egg (also known as an ovum, oocyte, or female gamete).

Ovum: A mature female reproductive cell, especially of a human or other animal, that can divide to give rise to an embryo usually only after fertilization by a male cell.

Oxidation: The process or result of oxidizing or being oxidized.

Oxygen: A colorless, odorless reactive gas, the chemical element of atomic number 8 and the life-supporting component of the air.

Oxygenation: The addition of oxygen to any system, including the human body.

Oxyhemoglobin: A bright red substance formed by the combination of hemoglobin with oxygen, present in oxygenated blood.

Oxytocin: A hormone secreted by the posterior pituitary that stimulates uterine contractions during labor.

P

Paget's disease: A metabolic disease of the bone from unknown causes.

Pain: An unpleasant sensation complete with a complex, private experience with physiologic, psychologic, and social aspects.

Palate: The roof of the mouth, separating the cavities of the nose and the mouth.

Palliative therapy: Treatment designed to reduce the intensity of painful symptoms, but not to produce a cure.

Pallor: Abnormal paleness of the skin.

Palmar: Of, relating to, or involving the palm of the hand.

Palpable: Able to be touched or felt.

Palpation: Examination with the hands, feeling for organs, masses, or infiltration of a part of the body; feeling the heart or pulse beat, or vibrations in the chest.

Palpitation: Pounding, racing heartbeat.

Pancreas: A large gland behind the stomach that secretes digestive enzymes into the duodenum. Embedded in the pancreas are the islets of Langerhans, which secrete into the blood the hormones insulin and glucagon.

Pancreatic juice: The clear alkaline digestive fluid secreted by the pancreas.

Pancreatitis: Inflammation of the pancreas.

Papillary muscles: Located in the ventricles of the heart; muscles attach to the cusps of the atrioventricular valves (also known as the mitral and tricuspid valves) via the chordae tendineae and contract to prevent inversion or prolapse of these valves on systole (or ventricular contraction).

Paralysis: The loss of the ability to move (and sometimes to feel anything) in part or most of the body, typically as a result of illness, poison, or injury.

Paraplegia: Paralysis of the legs and lower body, typically caused by spinal injury or disease.

Parasympathetic nervous system (PNS): The part of the involuntary nervous system that serves to slow the heart rate, increase intestinal and glandular activity, and relax the sphincter muscles.

Parathyroid glands: Small endocrine glands in the neck that produce parathyroid hormone.

Parathyroid hormone (PTH): A gland next to the thyroid that secretes a hormone (parathyroid hormone) that regulates calcium levels in a person's body.

Parietal bone: The very anterior bone of the skull.

Parietal pleura: The outer membrane, which is attached to the inner surface of the thoracic cavity.

Parkinson's disease: Chronic disorder of the nervous system with fine tremors, muscular weakness, rigidity and a shuffling gait.

Parotid glands: A pair of salivary glands located in front of the ears.

Partial seizure: Seizures which affect initially only one hemisphere of the brain.

Passive immunity: Short-term immunity that results from the introduction of antibodies from another person.

Passive range of motion (PROM): Therapist moves the client's joints with no help from the client.

Passive transport: A movement of biochemicals and other atomic or molecular substances across cell membranes without need of energy input.

Patella: The kneecap.

Patellar: Of or pertaining to the kneecap.

Pathogenesis: The manner of development of a disease.

Pathogenicity: Refers to the ability of an organism to cause disease (i.e. harm the host).

Pathogens: Bacterium, virus, or other microorganism that can cause disease.

Pathologic range of motion: A barrier may involve a single joint or spinal segment, or it may cross over more than one joint or spinal segment causing loss of ROM.

Pathologist: A physician who specializes in evaluating the causes and effects of diseases.

Pathology: The science of the causes and effects of diseases; the branch of medicine that deals with the laboratory examination of samples of body tissue for diagnostic purposes.

Pathophysiology: The disorder of the physiological processes associated with disease or injury.

Pectoral: Of or relating to the breast or chest.

Pectoral girdle: Consists of the clavicle and scapula.

Pediatrics: The branch of medicine dealing with children and their diseases.

Pelvic girdle: Consists of the ilium, ischium, and pubis and functions to attach the lower extremity to the axial skeleton.

Pelvic Inflammatory Disease (PID): Inflammation of the female genital tract, accompanied by fever and lower abdominal pain.

Pepsin: The chief digestive enzyme in the stomach, which breaks down proteins into polypeptides.

Peptic ulcer disease: Refers to painful sores or ulcers in the lining of the stomach or first part of the small intestine, called the duodenum.

Percussion: Use of the fingertips or palms to tap the body lightly and sharply.

Pericarditis: Inflammatory process or disease of the pericardium.

Pericardium: The membrane enclosing the heart, consisting of an outer fibrous layer and an inner double layer of serous membrane.

Perimysium: The sheath of connective tissue surrounding a bundle of muscle fibers.

Perineum: The area between the anus and the scrotum or vulva.

Perineurium: The sheath of connective tissue surrounding a bundle (fascicle) of nerve fibers within a nerve.

Periosteum: A dense layer of vascular connective tissue enveloping the bones except at the surfaces of the joints.

Peripheral nervous system (PNS): The portion of the nervous system that contains the cranial and spinal nerves.

Peripheral neuropathy: Damage to the nerves in the lower legs and hands as a result of diabetes mellitus.

Peripheral resistance: Vascular resistance to the flow of blood in peripheral arterial vessels that is typically a function of the internal vessel diameter, vessel length, and blood viscosity.

Peristalsis: The involuntary constriction and relaxation of the muscles of the intestine or another canal, creating wavelike movements that push the contents of the canal forward.

Peritoneal cavity: A potential space between the parietal peritoneum and visceral peritoneum that is the two membranes that separate the organs in the abdominal cavity from the abdominal wall.

Peritoneum: The serous membrane lining the cavity of the abdomen and covering the abdominal organs.

Peritonitis: Inflammation of the peritoneum, typically caused by bacterial infection either via the blood or after rupture of an abdominal organ.

Permeability: The state or quality of a material or membrane that causes it to allow liquids or gases to pass through it.

Peroneal: Relating to or situated in the outer side of the calf of the leg.

Perspiration: A term for sweating.

Pertussis: Medical term for whooping cough; a contagious bacterial infection of the larynx, trachea, and bronchi characterized by coughing attacks that end with a whooping sound.

Petrissage: A massage technique that involves kneading the body.

Phagocyte: A type of cell within the body capable of engulfing and absorbing bacteria and other small cells and particles.

Phagocytosis: The ingestion of bacteria or other material by phagocytes and amoeboid protozoans.

Phalanges: Pertaining to the small bones in the fingers and toes. Fingers and toes two through five have three phalanges each; each thumb and great toe has two phalanges.

Phantom pain: Pain that feels like it's coming from a body part that is no longer there. Doctors once believed this post-amputation phenomenon was a psychological problem, but experts now recognize that these real sensations originate in the spinal cord and brain.

Pharmacology: The branch of medicine concerned with the uses, effects, and modes of action of drugs.

Pharyngitis: Inflammation of the mucous membrane of the pharynx.

Pharynx: The membrane-lined cavity behind the nose and mouth, connecting them to the esophagus.

Phlebitis: Inflammation of the walls of a vein.

Phlegm: Thick mucus secreted by the membranes that line the respiratory tract.

Phrenic nerve: The nerve that originates in the neck (C3-C5) and passes down between the lung and heart to reach the diaphragm. It is important for breathing, as it passes motor information to the diaphragm and receives sensory information from it.

Physiology: The study of the processes and functions of the body involved in supporting life.

Pia mater: The thin innermost meninges layer that is applied directly to the surface of the brain.

Pineal gland: A gland in the endocrine system that produces a hormone called melatonin.

Pinna: The external part of the ear in humans and other mammals; the auricle.

Pituitary gland: The major endocrine gland; a pea-sized body attached to the base of the brain, behind the optic nerve. It controls the functions of many other endocrine glands and is divided into two lobes: anterior and posterior. The anterior lobe secretes hormones that aid in controlling growth and stimulating the thyroid gland, sexual glands and the adrenal cortex. The posterior lobe is responsible for the antidiuretic hormone and oxytocin.

Pivot joint: A type of diarthrosis. In pivot joints, the axis of a convex articular surface is parallel with the longitudinal axis of the bone.

Placenta: An organ attached to the uterine wall that is composed of maternal and fetal tissues.

Placenta Previa: A condition in which the placenta partially or wholly blocks the neck of the uterus, thus interfering with normal delivery of a baby.

Plantar: Of or relating to the sole of the foot.

Plantar flexion: The movement which decreases the angle between the sole of the foot and the back of the leg.

Plasma: The colorless fluid part of blood, lymph, or milk, in which corpuscles or fat globules are suspended.

Plasma cell: A fully differentiated B cell that produces a single type of antibody.

Plasma membrane: A microscopic membrane of lipids and proteins that forms the external boundary of the cytoplasm of a cell or encloses a vacuole, and that regulates the passage of molecules in and out of the cytoplasm.

Platelets: Cells responsible for the coagulation of blood; also called thrombocytes.

Pleura: Each of a pair of serous membranes lining the thorax and enveloping the lungs in humans and other mammals.

Pleural space: The tiny area between the two layers of the pleura (the thin covering that protects and cushions the lungs) between the lungs and chest cavity.

Pleurisy: Inflammation of the pleurae, which impairs their lubricating function and causes pain when breathing. It is caused by pneumonia and other diseases of the chest or abdomen.

Plexus: A network of nerves or vessels in the body.

Pneumonia: Lung inflammation caused by bacterial or viral infection, in which the air sacs fill with pus and may become solid. Inflammation may affect both lungs (double pneumonia), one lung (single pneumonia), or only certain lobes (lobar pneumonia).

Pneumonic plague: A contagious bacterial disease characterized by fever and delirium, typically with the formation of buboes (see bubonic plague) and sometimes infection of the lungs (pneumonic plague).

Pneumonitis: Inflammation of the walls of the alveoli in the lungs, usually caused by a virus.

Pneumothorax: The presence of air or gas in the cavity between the lungs and the chest wall, causing collapse of the lung.

Polarity Therapy: A system of treatment used in alternative medicine intended to restore a balanced distribution of the body's energy, incorporating manipulation, exercise, and dietary restrictions.

Polio (poliomyelitis): An infectious viral disease that causes an inflammation of the gray matter of the spinal cord, resulting in paralysis in some cases.

Polycythemia: An abnormally increased concentration of hemoglobin in the blood, through either reduction of plasma volume or increase in red cell numbers. It may be a primary disease of unknown cause, or a secondary condition linked to respiratory or circulatory disorder or cancer.

Polydipsia: Abnormally great thirst as a symptom of disease (such as diabetes) or psychological disturbance.

Polyp: Small tumor with a pedicle or stem attachment usually found in the nose, uterus and rectum.

Polyphagia: A medical sign meaning excessive hunger and abnormally large intake of solids by mouth.

Polysaccharide: A carbohydrate (e.g., starch, cellulose, or glycogen) whose molecules consist of a number of sugar molecules bonded together.

Polyuria: Production of abnormally large volumes of dilute urine.

Pons: The part of the brainstem that links the medulla oblongata and the thalamus.

Posterior: Directional term referring to the back side.

Posterior pelvic rotation: Posterior movement of the upper pelvis; the iliac crest tilts backward in the sagittal plane.

Posterior tilt of pelvis: When the front of the pelvis rises and the back of the pelvis drops.

Post-Traumatic Stress Disorder (PTSD): A condition of persistent mental and emotional stress occurring as a result of injury or severe psychological shock, typically involving disturbance of sleep and constant vivid recall of the experience, with dulled responses to others and to the outside world.

Potential energy: The energy possessed by a body by virtue of its position relative to others, stresses within itself, electric charge, and other factors.

Preeclampsia: A condition in pregnancy characterized by high blood pressure, sometimes with fluid retention and proteinuria.

Preganglionic (presynaptic) neuron: A motor neuron having a cell body located in the brain or spinal cord and a myelinated axon that travels out of the central nervous system as part of a cranial or spinal nerve before separating and extending into the autonomic ganglion.

Pregnancy-induced hypertension: A form of high blood pressure in pregnancy.

Presbycusis: The cumulative effect of aging on hearing. It is a progressive bilateral symmetrical age-related sensorineural hearing loss. The hearing loss is most marked at higher frequencies.

Pressoreceptor: Sensory nerve ending in the wall of the atrium of the heart, vena cava, aortic arch, and carotid sinus, sensitive to stretching of the wall resulting from increased pressure from within and functioning as the receptor of central reflex mechanisms that tend to reduce that pressure.

Primary assessment: The first evaluation of the patient in the field, conducted after it is clear that the scene is safe.

Prime mover: The muscle that is primarily responsible for the movement described.

Primigravida: A woman who is pregnant for the first time.

Prolapse of the umbilical cord: A complication that occurs prior to or during delivery of the baby. In a prolapse, the umbilical cord drops (prolapses) through the open cervix into the vagina ahead of the baby.

Pronation: Rotation of the hand and forearm so that the palm faces backwards or downwards.

Prone: Lying flat, facing downward.

Proprioceptors: A sensory receptor that receives stimuli from within the body, especially one that responds to position and movement.

Prostate gland: A gland in the male reproductive system that produces fluids that nourish the sperm.

Proteins: Any of a class of nitrogenous organic compounds that consist of large molecules composed of one or more long chains of amino acids and are an essential part of all living organisms, especially as structural components of body tissues such as muscle, hair, collagen, etc., and as enzymes and antibodies.

Proteinuria: The presence of abnormal quantities of protein in the urine, which may indicate damage to the kidneys.

Protraction: Movement of a body part in the anterior direction (i.e. being drawn forward).

Proton: A stable subatomic particle occurring in all atomic nuclei, with a positive electric charge equal in magnitude to that of an electron, but of opposite sign.

Protozoans: Single-celled organisms that can infect the body.

Proximal: Directional term meaning nearer to the center of the body or the point of attachment.

Psoriasis: An inflammatory skin disease marked by red, itchy, scaly patches.

Psychosis: A severe mental disorder in which thought and emotions are so impaired that contact is lost with external reality.

Psychotherapy: The treatment of mental disorder by psychological rather than medical means.

Puberty: The period during which adolescents reach sexual maturity and become capable of reproduction.

Pubic: Of or relating to the pubes or pubis.

Pubic symphysis: The firm fibrocartilaginous joint in the median plane between the two opposing surfaces of the pubic bones which are united by an interpubic disc of fibrocartilage, as well as the superior and arcuate pubic ligaments.

Pubis: Either of a pair of bones forming the two sides of the pelvis.

Pulmonary: Of or relating to the lungs.

Pulmonary artery: The artery carrying blood from the right ventricle of the heart to the lungs for oxygenation.

Pulmonary edema: An abnormal buildup of fluid in the lungs.

Pulmonary embolism: A sudden blockage in a lung artery.

Pulmonary trunk: The large artery that carries blood to the lungs to release carbon dioxide and take in oxygen.

Pulmonary veins: A vein carrying oxygenated blood from the lungs to the left atrium of the heart.

Pulse: A rhythmical throbbing of the arteries as blood is propelled through them, typically as felt in the wrists or neck.

Pupil: The hole in the center of the eye.

Purkinje fibers: Part of the conduction system of the heart.

Purulent: Pus-filled sputum, usually the result of an infection.

Pus: A thick yellowish or greenish opaque liquid produced in infected tissue, consisting of dead white blood cells and bacteria with tissue debris and serum.

Pustule: Raised spot on the skin containing pus.

Pyelonephritis: Inflammation of the renal pelvis and the kidney as a result of bacterial infection.

Pyloric: Pertaining to the pylorus.

Pyloric sphincter: Sphincter at the distal end of the stomach.

Pyrosis: Heartburn.

Pyuria: Presence of pus in the urine.

Q-R

Qi: The circulating life force, whose existence and properties are the basis of much Chinese philosophy and medicine.

Quadrants: Each of four parts of a plane, sphere, space, or body divided by two lines or planes at right angles.

Quadriplegia: Paralysis of all four limbs.

Radial: Pertaining to the radius.

Radial artery: A major artery in the forearm.

Radiculitis: Nerve root inflammation.

Radiculopathy: Disease of the nerve root that results in pain.

Radiology: The branch of medicine that uses radioactive substances such as X-rays, isotopes, and radiation to prevent, diagnose and treat diseases.

Radius: The thicker, lateral, shorter of the two bones in the forearm.

Rales: An abnormal rattling sound heard when examining unhealthy lungs with a stethoscope.

Ramus: An arm or branch of a bone; in particular, those of the ischium and pubes or of the jawbone.

Range of motion: The measurement of movement around a specific joint or body part.

Raynaud's phenomenon: Periodic ischemic attacks affecting the extremities of the body, especially the fingers, toes, ears and nose.

Receptor: An organ or cell able to respond to light, heat, or other external stimulus and transmit a signal to a sensory nerve.

Reciprocal inhibition: Describes the process of muscles on one side of a joint relaxing to accommodate contraction on the other side of that joint.

Reciprocal innervation: The contraction of a muscle or set of muscles (as of a joint) is accompanied by the simultaneous inhibition of an antagonistic muscle or set of muscles.

Recovery: A return to a normal state of health, mind, or strength.

Recovery position: Refers to one of a series of variations on a lateral recumbent, or three-quarters prone position of the body, in to which an unconscious but breathing casualty can be placed as part of first aid treatment.

Rectum: The final section of the large intestine, terminating at the anus.

Red blood cells: Also called erythrocytes; contains the pigment hemoglobin, which imparts the red color to blood, and transport oxygen and carbon dioxide to and from the tissues.

Red bone marrow: Tissue that manufactures most of the blood cells.

Reduction: Correcting a fracture by realigning the bone fragments.

Referred pain: Pain felt in a part of the body other than its actual source.

Reflex arc: The pathway that a nerve impulse follows in a reflex action.

Regional anatomy: An approach to anatomic study based on regions, parts, or divisions of the body (the foot or the inguinal region), emphasizing the relationships of various systemic structures (muscles, nerves, and arteries) within that area.

Regurgitation: To flow backwards.

Rehabilitation: Process of treatment and exercise that can help a person with a disability attain maximum function and well-being.

Reiki: A healing technique based on the principle that the therapist can channel energy into the patient by means of touch to activate the natural healing processes of the patient's body, and restore physical and emotional well-being.

Remission: Period during which the symptoms of a disease or disorder leave.

Renal: Of or relating to the kidneys.

Renal calculus: A hard mass formed in the kidneys, typically consisting of insoluble calcium compounds.

Renal pelvis: Large collecting site for urine within the kidney.

Renal tubule: Network of tubes found in the nephron.

Renal vein: Vein that carries blood away from the kidneys.

Reproductive system: The organs and glands in the body that aid in the production of new individuals.

Residual volume: The volume of air still remaining in the lungs after forced exhalation.

Respiration: The act of breathing.

Respiratory rate: The number of breaths in one minute.

Respiratory Syncytial Virus (RSV): A paramyxovirus that causes disease of the respiratory tract. It is a major cause of bronchiolitis and pneumonia in young children and may be a contributing factor in sudden infant death syndrome.

Respiratory system: The set of organs that allows a person to breathe and exchange oxygen and carbon dioxide throughout the body.

Reticular fibers: Connective tissue fibers that occur in networks and support small structures such as capillaries and nerve fibers.

Retina: A layer at the back of the eyeball containing cells that are sensitive to light and that trigger nerve impulses that pass via the optic nerve to the brain, where a visual image is formed.

Retinaculum: Refers to any region on the body in which tendon groups from different muscles pass under one connective tissue band; wrist retinacula include the flexor and the extensor retinacula of the hand.

Retraction: Backward movement.

Reye's syndrome: A brain inflammation that occurs in children following a viral infection, usually the flu or chickenpox.

Rh factor: An antigen marker found on erythrocytes of persons with RH+ blood.

Rhinitis: Inflammation of the nose.

Rhonchi: Rattling, continuous, and low-pitched breath sounds that are often heard to be like snoring.

Rheumatoid arthritis: A chronic form of arthritis with inflammation of the joints, swelling, stiffness, pain and changes in the cartilage that can result in crippling deformities.

Ribonucleic acid (RNA): A nucleic acid present in all living cells. Its principal role is to act as a messenger carrying instructions from DNA for controlling the synthesis of proteins, although in some viruses RNA rather than DNA carries the genetic information.

Ribosomes: A minute particle consisting of RNA and associated proteins, found in large numbers in the cytoplasm of living cells.

Ricin: A highly toxic protein obtained from the pressed seeds of the castor-oil plant.

Rickets: Deficiency in calcium and vitamin D; typically found in early childhood that results in bone deformities, especially bowed legs.

Rigor mortis: Stiffening of the joints and muscles of a body a few hours after death, usually lasting from one to four days.

Rods: Photoreceptor cells in the retina of the eye that can function in less intense light than the other type of visual photoreceptor, cone cells.

Rolfing: A massage technique aimed at the vertical realignment of the body, and therefore deep enough to release muscular tension at skeletal level. It can contribute to the relief of long-standing tension and neuroses.

Rotation: The process of turning around an axis.

Rosen method bodywork: A type of complementary and alternative medicine. This bodywork, described as "psycho-somatic," claims to help integrate one's bodily and emotional/mental experience while identifying unconscious patterns of muscular holding, feeling, and behavior.

Rubella: Contagious viral skin infection; the "German measles."

Rugae: A term used in anatomy that refers to a series of ridges produced by folding of the wall of an organ.

Rupture: The tearing or disruption of connective tissue fibers that takes place when they exceed the limits of flexibility.

S

Sacral: Of or relating to the sacrum.

Sacroiliac joint: The joint in the pelvis between the sacrum and the ilium which are joined by strong ligaments.

Sacrum: A triangular bone in the lower back formed from fused vertebrae and situated between the two hipbones of the pelvis.

Saddle joint: A joint (as in the carpometacarpal joint of the thumb) with saddle-shaped articular surfaces that are convex in one direction and concave in another, and that permit movements in all directions except axial rotation.

Sagittal axis: The line around which the working condyle rotates in the frontal plane during mandibular movement.

Sagittal plane: A vertical plane which passes from anterior to posterior, dividing the body into right and left halves.

Saliva: Watery liquid secreted into the mouth by salivary glands, providing lubrication for chewing and swallowing, and aiding digestion.

Salivary glands: Exocrine glands that discharge a fluid secretion (especially saliva) into the mouth cavity; comprise large compound racemose glands including the parotid glands, the sublingual glands, and the submandibular glands.

Sarcomere: A structural unit of a myofibril in striated muscle, consisting of a dark band and the nearer half of each adjacent pale band.

Scabies: Contagious skin disease caused by an egg-laying mite that causes intense itching.

Scalp: The skin covering the head, excluding the face.

Scapula: Either of the large, flat, triangular bones that lie against the ribs in the upper back and provide attachments for the bone and muscles of the upper arm.

Schwann cell: A cell that forms spiral layers around a myelinated nerve fiber between two nodes of Ranvier and forms the myelin sheath consisting of the inner spiral layers from which the protoplasm has been squeezed out.

Sciatic nerve: A major nerve extending from the lower end of the spinal cord down the back of the thigh, and dividing above the knee joint. It is the nerve with the largest diameter in the human body.

Sclera: The white outer layer of the eyeball. At the front of the eye it is continuous with the cornea.

Scoliosis: Abnormal lateral curvature of the spine.

Scope of practice: Describes the procedures, actions, and processes that a healthcare practitioner is permitted to undertake in keeping with the terms of their professional license.

Sebaceous cyst: A sac under the skin filled with sebum or oil from a sebaceous gland.

Sebaceous glands: A small gland in the skin which secretes a lubricating oily matter (sebum) into the hair follicles to lubricate the skin and hair.

Sebum: An oily secretion of the sebaceous glands.

Secretion: A process by which substances are produced and discharged from a cell, gland, or organ for a particular function in the organism or for excretion.

Seizure: A sudden attack muscular contraction associated with loss of consciousness, especially a stroke or an epileptic fit.

Semen: The male reproductive fluid, containing spermatozoa in suspension.

Semilunar valves: Each of a pair of valves in the heart, at the bases of the aorta and the pulmonary artery, consisting of three cusps or flaps that prevent the flow of blood back into the heart.

Seminal vesicles: Each of a pair of glands that open into the vas deferens near its junction with the urethra, and secrete many of the components of semen.

Seminiferous tubules: The site of the germination, maturation, and transportation of the sperm cells within the male testes.

Sensitization: A non-associative learning process in which repeated administrations of a stimulus results in the progressive amplification of a response.

Sensory neurons: Nerves that carry sensory information from sensory receptors to the brain.

Sensory receptors: Nerve fibers located directly under the surface of the skin that detect temperature, pain, touch, and pressure.

Septicemia: Having bacteria in the blood stream.

Serotonin: A compound present in blood platelets and serum that constricts the blood vessels and acts as a neurotransmitter.

Serous fluid: Used for various bodily fluids that are typically pale yellow and transparent, and of a benign nature, that fill the inside of body cavities.

Serous membrane: A mesothelial tissue that lines certain internal cavities of the body, forming a smooth, transparent, two-layered membrane lubricated by a fluid derived from serum. The peritoneum, pericardium, and pleura are serous membranes.

Serum: Clear, sticky fluid that remains after the blood has clotted.

Sesamoid bones: Round bones that are often embedded in tendons and joint capsules.

Severe Acute Respiratory Syndrome (SARS): An infection caused by a virus. It causes fever, cough, and other symptoms.

Sex chromosomes: A chromosome involved with determining the sex of an organism, typically one of two kinds.

Shiatsu: A form of therapy of Japanese origin based on the same principles as acupuncture, in which pressure is applied to certain points on the body using the hands.

Shingles: Eruption of vesicles along a nerve, causing a rash and pain.

Shock: An inadequate blood supply to vital organs, causing reduced function.

Shoulder girdle: The set of bones which connects the upper limb to the axial skeleton on each side.

Sickle cell anemia: Severe, chronic, incurable disorder that results in anemia and causes joint pain, chronic weakness, and infections.

Side effects: A secondary, typically undesirable effect, of a drug or medical treatment.

Sigmoid colon: The final section of the colon.

Signs: Objective changes that someone other than the client of patient can observe and measure.

Sinoatrial node: A small body of specialized muscle tissue in the wall of the right atrium of the heart that acts as a pacemaker by producing a contractile signal at regular intervals.

Sinus: A cavity within a bone or other tissue, especially one in the bones of the face or skull connecting with the nasal cavities.

Sinus bradycardia: A sinus rhythm with a rate that is lower than normal.

Skeletal muscle: A voluntary muscle that is connected to the skeleton to form part of the mechanical system that moves the limbs and other parts of the body.

Skeletal system: The framework of the body, consisting of bones and other connective tissues, which protects and supports the body tissues and internal organs. The human skeleton contains 206 bones, 6 of which are the tiny bones of the middle ear (3 in each ear) that function in hearing.

Skeleton: Of, relating to, or functioning as a skeleton.

Skin: The major organ of the integumentary system.

Skull: A framework of bone or cartilage enclosing the brain of a vertebrate; the skeleton of a person's or animal's head.

Small intestine: The part of the intestine that runs between the stomach and the large intestine; the duodenum, jejunum, and ileum collectively.

Smallpox: An acute contagious viral disease, with fever and pustules usually leaving permanent scars. It was effectively eradicated through vaccination by 1979.

Smooth muscle fibers : Involuntary muscle tissue in the walls of viscera and blood vessels, consisting of nonstriated, spindle-shaped cells.

SOAP notes: A method of documentation employed by health care providers to write out notes in a patient's chart, along with other common formats, such as the admission note.

Somatic nerves: Nerves that serve the skin and skeletal muscles and are mainly involved with the conscious and voluntary activities of the body.

Somatic pain: Pain that arises from the body as opposed to the viscera.

Spasm: A sudden, involuntary, strong muscle contraction.

Spastic: Term used to describe a muscle with excessive tone.

Sperm: Male sex cell.

Spermatogenesis: The production or development of mature spermatozoa.

Sphenoid bone: A cranial bone.

Sphincter: A ring of muscle surrounding and serving to guard or close an opening or tube, such as the anus or the openings of the stomach.

Sphygmomanometer: An instrument for measuring blood pressure, typically consisting of an inflatable rubber cuff that is applied to the arm and connected to a column of mercury next to a graduated scale, enabling the determination of systolic and diastolic blood pressure by increasing and gradually releasing the pressure in the cuff.

Spina bifida: A congenital defect of the spine in which part of the spinal cord and its meninges are exposed through a gap in the backbone.

Spinal cord: Portion of the central nervous system that exits the skull into the vertebral column.

Spinal nerves: Any of the paired nerves which leave the spinal cord of a craniate vertebrate, supply muscles of the trunk and limbs, and connect with the nerves of the sympathetic nervous system, which arise by a short motor ventral root and a short sensory dorsal root; there are 31 pairs in humans.

Spinal stenosis: Narrowing of the spinal canal causing pressure on the cord and nerves.

Spiral fracture: Fracture in an S-shaped spiral caused by twisting.

Spleen: Organ in the lymphatic system that filters microorganisms and old red blood cells from the blood.

Spongy (cancellous) bone: The bony tissue found inside a bone that contains cavities that hold red bone marrow.

Sprain: Wrench or twist the ligaments of a joint that causes pain, swelling and tearing.

Sputum: Mucus or phlegm that is coughed up from the lining of the respiratory tract.

Squamous: Relating to, consisting of, or denoting a layer of epithelium that consists of very thin flattened cells

Standards of Practice: Guidelines used to determine what a nurse should or should not do.

Standard Precautions: Safety measures are a set of infection control practices used to prevent transmission of diseases that can be acquired by contact with blood, body fluids, non-intact skin (including rashes), and mucous membranes.

Stapes: One of the three ossicles of the middle ear.

Static force: The friction that exists between a stationary object and the surface on which it's resting.

Stenosis: The abnormal narrowing of a passage in the body.

Sternal: Of or relating to the sternum.

Sternocleidomastoid (SCM) muscles: A pair of long muscles that connect the sternum, clavicle, and mastoid process of the temporal bone and serve to turn and nod the head.

Sternum: A bone or series of bones extending along the middle line of the ventral portion of the body of most vertebrates, consisting in humans of a flat, narrow bone connected with the clavicles and the true ribs; breastbone.

Stoma: An artificial opening made into a hollow organ, especially one on the surface of the body leading to the gut or trachea.

Strain: A stretching or tearing of ligaments.

Stratum corneum layer: The outermost layer of the epidermis, consisting of dead cells (corneocytes).

Stress: Any a state of mental or emotional strain or tension resulting from adverse or very demanding circumstances.

Stressors: A chemical or biological agent, environmental condition, external stimulus or an event that causes stress to an organism.

Striated muscle: Muscle tissue in which the contractile fibrils in the cells are aligned in parallel bundles, so that their different regions form stripes visible in a microscope.

Stroke: The sudden death of brain cells in a localized area due to inadequate blood flow.

Stroke volume (SV): The volume of blood pumped from the left ventricle of the heart per beat; calculated using measurements of ventricle volumes from an echocardiogram and subtracting the volume of the blood in the ventricle at the end of a beat (called end-systolic volume) from the volume of blood just prior to the beat (called end-diastolic volume).

Subacute (of a condition): Between acute and chronic.

Subarachnoid hemorrhage: Bleeding in the area between the brain and the thin tissues that cover the brain.

Subcutaneous: Situated or applied under the skin.

Subcutaneous emphysema: When gas or air is in the layer under the skin.

Subcutaneous tissue: The lowermost layer of the integumentary system in vertebrates.

Subdural hematoma: A collection of blood outside the brain.

Sublingual (SL): Situated or applied under the tongue.

Subluxation: A partial dislocation.

Sudden Infant Death Syndrome (SIDS): The death of a seemingly healthy baby in its sleep, due to an apparent spontaneous cessation of breathing.

Sudoriferous glands: Small tubular structures situated within and under the skin (in the subcutaneous tissue).

Sulcus: A groove or furrow, especially one on the surface of the brain.

Superficial (external): Existing or occurring at or on the surface.

Superficial (first-degree): Burns affect only the epidermis, or outer layer of skin.

Superficial fascia: The thin layer of loose fatty connective tissue underlying the skin and binding it to the parts beneath—called also hypodermis, tela subcutanea; compare deep fascia.

Superior: The head end of the body is referred to as the superior end (Latin superior: "above"), while the feet end is the inferior end (Latin inferior: "below").

Superior vena cava: A large vein carrying deoxygenated blood into the heart. There are two in humans: the inferior vena cava (carrying blood from the lower body), and the superior vena cava (carrying blood from the head, arms, and upper body).

Supination: Rotation of the forearm and hand so that the palm faces forward or upward; also a corresponding movement of the foot and leg in which the foot rolls outward with an elevated arch.

Supine (of a person): Lying face upward.

Suppressor T cells: A lymphocyte that can suppress antibody production by other lymphoid cells.

Surface anatomy: The study of the external features of the body. It deals with anatomical features that can be studied by sight, without dissection. As such, it is a branch of gross anatomy, along with endoscopic and radiological anatomy.

Sutures: A stitch or row of stitches holding together the edges of a wound or surgical incision.

Sweat Gland: A small gland that secretes sweat, situated in the dermis of the skin. Such glands are found over most of the body, and have a simple coiled tubular structure.

Sympathetic division: A part of the nervous system that serves to accelerate the heart rate, constrict blood vessels, and raise blood pressure.

Sympathetic nervous system (SNS): The part of the autonomic nervous system that contains chiefly adrenergic fibers and tends to depress secretion, decrease the tone and contractility of smooth muscle, and increase heart rate (compare parasympathetic nervous system).

Symphysis: A place where two bones are closely joined, either forming an immovable joint (as between the pubic bones in the center of the pelvis) or completely fused (as at the midline of the lower jaw).

Symptoms: A physical or mental feature that is regarded as indicating a condition of disease, particularly such a feature that is apparent to the patient.

Synapse: A junction between two nerve cells, consisting of a minute gap across which impulses pass by diffusion of a neurotransmitter.

Synarthrosis: An immovably fixed joint between bones connected by fibrous tissue (for example, the sutures of the skull).

Synchondrosis: An almost immovable joint between bones bound by a layer of cartilage, as in the vertebrae.

Syndesmosis: An immovable joint in which bones are joined by connective tissue (e.g., between the fibula and tibia at the ankle).

Syndrome: A group of symptoms that consistently occur together or a condition characterized by a set of associated symptoms.

Synergist: A substance, organ, or other agent that participates in an effect of synergy.

Synovial fluid: A transparent viscid lubricating fluid secreted by a membrane of an articulation, bursa, or tendon sheath; also called joint fluid, synovia.

Synovial joint: The most common and most movable type of joint in the body of a mammal.

Synovial membrane: The soft tissue found between the articular capsule (joint capsule) and the joint cavity of synovial joints.

Systole: The phase of the heartbeat when the heart muscle contracts and pumps blood from the chambers into the arteries.

Systolic pressure: The highest arterial blood pressure of a cardiac cycle occurring immediately after systole of the left ventricle of the heart; also called systolic pressure; compare diastolic blood pressure.

T

T cells: A lymphocyte of a type produced or processed by the thymus gland, and actively participating in the immune response.

T lymphocytes: A type of lymphocyte involved with producing cells that physically attack and destroy pathogens.

Tachycardia: An abnormally rapid heart rate.

Tachypnea: Abnormally rapid breathing.

Tactile: Of or connected with the sense of touch.

Tarsals: Bones of the ankle.

Taste buds: Any of the clusters of bulbous nerve endings on the tongue and in the lining of the mouth that provide the sense of taste.

Temporal lobe: The area of the brain that controls hearing and smell.

Temporal regions: Region of the temples.

Temporomandibular joint (TMJ): The hinge joint between the temporal bone and the mandible.

Tendon: A flexible but inelastic cord of strong fibrous collagen tissue attaching a muscle to a bone.

Tendonitis: Inflammation of a tendon, most commonly from overuse but also from infection or rheumatic disease.

Tenosynovitis: Inflammation and swelling of a tendon, typically in the wrist, often caused by repetitive movements, such as typing.

Testicle: Either of the two oval organs that produce sperm in men, enclosed in the scrotum behind the penis.

Testis: An organ that produces spermatozoa (male reproductive cells).

Testosterone: A steroid hormone that stimulates development of male secondary sexual characteristics, produced mainly in the testes, but also in the ovaries and adrenal cortex.

Tetany: A condition that results from a calcium deficiency in the blood, characterized by muscle twitches, cramps and spasms.

Thalamus: A portion of the diencephalon, composed of gray matter and acts as a center for relaying impulses from the eyes ears and skin to the cerebrum.

Thermal receptors: Specialized nerve cells that detect differences in temperature.

Thermotherapy: Applying heat to the body for therapeutic purposes.

Thigh: The part of the human leg between the hip and the knee.

Thoracic cage: The structure formed by the thoracic vertebrae and ribs, the sternum (breastbone), and the costal cartilages (that attach the ribs to the sternum).

Thoracic cavity: The chamber that is protected by the thoracic wall (rib cage and associated skin, muscle, and fascia).

Thoracic spine: The twelve vertebral segments (T1-T-12) that make up the thoracic spine.

Thorax: The part of the body between the neck and the abdomen, including the cavity enclosed by the ribs, breastbone, and dorsal vertebrae, and containing the chief organs of circulation and respiration; the chest.

Thrombocytes: Platelets that play part in the blood-clotting process.

Thrombocytosis: Too many platelets.

Thromboembolism: Obstruction of a blood vessel by a blood clot that has become dislodged from another site in the circulation.

Thrombopenia: Too few clotting cells in an area.

Thrombophilia: An abnormality of blood coagulation that increases the risk of thrombosis (blood clots in blood vessels).

Thrombophlebitis: Inflammation of the wall of a vein with associated thrombosis, often occurring in the legs during pregnancy.

Thrombopoiesis: To produce new blood clotting cells.

Thrombosis: Local coagulation or clotting of the blood in a part of the circulatory system.

Thrombus: A blood clot formed within the vascular system of the body and impeding blood flow.

Thymus gland: A lymphoid organ situated in the neck that produces T cells for the immune system.

Thyroid cartilage: A piece of cartilage associated with the larynx. It is commonly called the Adam's apple.

Thyroid gland: A large ductless gland, shaped as a butterfly, in the neck that secretes hormones regulating growth and development through the rate of metabolism.

Thyroid stimulating hormone (TSH): A hormone secreted by the anterior pituitary to regulate the function of the thyroid gland.

Tibia: The anterior, medial, and typically larger of the two bones between the knee and the ankle.

Tidal volume: The volume of air inspired or expired in a single breath during regular breathing.

Tinea: Fungal skin disease resulting in itching, scaling lesions.

Tinea capitis: Fungal infection of the scalp.

Tinea pedis: Fungal infection of the foot (athlete's foot).

Tissue: Cells formed of the same type, grouped to perform one activity.

Tone: The state of tension in resting muscles.

Tonic-clonic seizure: A type of generalized seizure that affects the entire brain; the seizure type most commonly associated with epilepsy and seizures in general, though there is a misconception that they are the only type.

Tonsillitis: Inflammation of the tonsils.

Tonsils: The collections of lymphatic tissue located in the pharynx to combat microorganisms entering the body through the nose or mouth.

Topical: Applied directly to the skin or mucous membranes.

Torso: The trunk of the body.

Torticollis: Severe neck spasms pulling the head to one side.

Touch: Come into contact with another object.

Toxic shock syndrome: A rare and sometimes fatal staphylococcus infection that generally occurs in menstruating women.

Toxicity: Extent or degree to which a substance is poisonous.

Toxins: An antigenic poison or venom of plant or animal origin, especially one produced by or derived from microorganisms, and causing disease when present at low concentration in the body.

Trabeculae: Each of a series or group of partitions formed by bands or columns of connective tissue, especially a plate of the calcareous tissue forming cancellous bone.

Trachea: The large membranous tube reinforced by rings of cartilage, extending from the larynx to the bronchial tubes and conveying air to and from the lungs; the windpipe.

Tracheotomy: Surgical incision into the trachea to provide an airway.

Tract: A bundle of fibers located within the CNS.

Traction: The use of a pulling force to treat muscle and skeleton disorders.

Traditional Thai Bodywork (Nuad Bo 'Rarn): An ancient healing art form practiced in Thailand.

Trager approach: A form of somatic education. Proponents claim the Trager Approach helps release deep-seated physical and mental patterns and facilitates deep relaxation, increased physical mobility, and mental clarity.

Tragus: A prominence on the inner side of the external ear, in front of and partly closing the passage to the organs of hearing.

Transient Ischemic Attack (TIA): A brief episode of neurological dysfunction resulting from an interruption in the blood supply to the brain or the eye, sometimes as a precursor to a stroke.

Transmission: A passage or transfer, as of a disease from one individual to another, or of neural impulses from one neuron to another.

Transverse colon: The section of the colon that crosses the upper abdomen and connects the ascending colon with the descending colon.

Transverse fracture: Complete fracture that is straight across the bone at right angles to the long axis of the bone.

Transverse (axial) plane: An imaginary plane that divides the body into superior and inferior parts. It is perpendicular to the coronal and sagittal planes.

Trauma: Physical injury.

Traumatic Brain Injury (TBI): A non-degenerative, non-congenital insult to the brain from an external mechanical force, possibly leading to permanent or temporary impairment of cognitive, physical, and psychosocial functions, with an associated diminished or altered state of consciousness.

Triceps: Any of several muscles having three points of attachment at one end, particularly also triceps brachii the large muscle at the back of the upper arm.

Tricuspid valve: A valve between the right atrium and the ventricle of the heart.

Trigger points: Hyperirritable area within a taut band of skeletal muscle associated with skeletal muscle or fascia.

Triglycerides: An ester formed from glycerol and three fatty acid groups; the main constituents of natural fats and oils, and high concentrations in the blood indicate an elevated risk of stroke.

Trochanter: Two bony protuberances by which muscles are attached to the upper part of the thigh bone, i.e. the greater and lesser trochanter of the femur.

Tropic (or trophic) hormones: A hormone that stimulates an endocrine gland to grow and secrete its hormones.

Tubercle: A small rounded process on a bone.

Tuberculosis (TB): An infectious bacterial disease characterized by the growth of nodules (tubercles) in the tissues, especially the lungs.

Tuberosity: A large rounded protuberance on a bone.

Tuina: A form of Chinese manipulative therapy often used in conjunction with acupuncture, moxibustion, fire cupping, Chinese herbalism, t'ai chi, and qigong.

Tumor: A growth of new tissue. It may be benign or malignant.

Tunica: A membranous sheath enveloping or lining an organ.

Turbinates: Each of three thin curved shelves of bone in the sides of the nasal cavity covered in mucous membrane.

Tympanic membrane: The eardrum.

Type 1 diabetes: An autoimmune disease that occurs when T cells attack and destroy most of the beta cells in the pancreas that are needed to produce insulin; therefore, the pancreas produces too little insulin (or no insulin).

Type 2 diabetes: The type of diabetes in which the beta cells of the pancreas produce insulin, but the body is unable to use it effectively because the cells of the body are resistant to the action of insulin.

Ulcer: An open sore on an external or internal surface of the body, caused by a break in the skin or mucous membrane that fails to heal.

Ulna: The thinner and longer of the two bones in the forearm, on the pinky side of the forearm.

Umbilical cord: A flexible cordlike structure containing blood vessels and attaching a human or other mammalian fetus to the placenta during gestation.

Umbilicus: Of, relating to, or resembling a navel or an umbilical cord.

Unconscious: Condition or state of being unaware of surroundings.

Unilateral: Relating to, occurring on, or affecting only one side of an organ or structure, or of the body.

Upper respiratory tract: The part of the respiratory system including the nose, nasal passages, and nasopharynx (compare lower respiratory tract).

Upward rotation: Scapular motion that moves the inferior angle superiorly and laterally away from the spinal column.

Urea: A colorless crystalline compound that is the main nitrogenous breakdown product of protein metabolism; excreted in urine.

Uremia: A raised level in the blood of urea and other nitrogenous waste compounds that are normally eliminated by the kidneys.

Ureters: The duct by which urine passes from the kidney to the bladder or cloaca.

Urethra: The duct by which urine is conveyed out of the body from the bladder, and which in males also conveys semen.

Urinary bladder: A membranous sac that serves for the temporary retention of urine and discharges by the urethra.

Urinary system: The organs of the urinary tract comprising the kidneys, ureters, urinary bladder, and urethra.

Urinary Tract Infection (UTI): An infection of the kidney, ureter, bladder, or urethra.

Urine: A watery, typically yellowish fluid stored in the bladder and discharged through the urethra.

Urologist: A physician specialized in treating conditions of the urinary and male reproductive systems.

Urticaria: A rash of round, red welts on the skin that itch intensely, sometimes with dangerous swelling, caused by an allergic reaction, typically to specific foods.

Uterine tube: One of a pair of long, slender ducts in the female abdomen that transport ova from the ovary to the uterus and, in fertilization, transport sperm cells from the uterus to the released ova.

Uterus: The organ in the lower body of a woman where offspring are conceived and in which they gestate before birth; the womb.

Uvula: A fleshy hanging structure in any organ of the body, particularly one at the opening of the bladder.

Vagina: The muscular tube leading from the external genitals to the cervix of the uterus in women.

Vaginitis: Inflammation of the vagina.

Varicose veins: Swollen and distended veins, usually found in the legs.

Vas deferens: A long, straight tube that carries sperm from the epididymis up to the pelvic cavity, and empties into the urethra.

Vasectomy: The removal of a segment or all of the vas deferens to prevent sperm from leaving the male body.

Vascular: Of, relating to, affecting, or consisting of a vessel or vessels, especially those that carry blood.

Vasoconstriction: The constriction of blood vessels, which increases blood pressure.

Vasodilation: The dilatation of blood vessels, which decreases blood pressure.

Veins: Any of the tubes forming part of the blood circulation system of the body, carrying in most cases oxygen-depleted blood toward the heart.

Vena cava: A large vein carrying deoxygenated blood into the heart.

Ventral: Of, on, or relating to the front or belly side.

Ventral root: One of the two roots of a spinal nerve that passes anteriorly from the spinal cord, separating the anterior and lateral funiculi and that consists of motor fibers; also called anterior root (compare dorsal root).

Ventricle(s): The two lower chambers of the heart.

Ventricular Fibrillation (VF or V-Fib): A condition in which there is uncoordinated contraction of the cardiac muscle of the ventricles in the heart, making them quiver rather than contract properly.

Ventricular tachycardia: A type of tachycardia, or a rapid heartbeat that arises from improper electrical activity of the heart presenting as a rapid heart rhythm; starts in the bottom chambers of the heart, called the ventricles.

Venules: A very small vein, especially one collecting blood from the capillaries.

Vertebrae: Each of the series of small bones forming the backbone, having several projections for articulation and muscle attachment, and a hole through which the spinal cord passes.

Vertebral column: The spine; the backbone.

Vertigo: Dizziness.

Vesicle: Small, fluid-filled raised spot on the skin.

Villi: Any of numerous minute elongated projections set closely together on a surface, typically increasing its surface area for the absorption of substances.

Virulence: A harmful quality possessed by microorganisms that can cause disease.

Virulent (of a disease or poison): Extremely severe or harmful in its effects.

Viruses: An infective agent that typically consists of a nucleic acid molecule in a protein coat, is too small to be seen by light microscopy, and is able to multiply only within the living cells of a host.

Viscera: The internal organs in the main cavities of the body, especially those in the abdomen, e.g., the intestines.

Visceral: The internal part of a structure or the internal organs.

Visceral pain: Pain that results from the activation of nociceptors of the thoracic, pelvic, or abdominal viscera (organs).

Visceral pleura: The delicate serous membrane that covers the surface of each lung and dips into the fissures between the lobes.

Vital capacity: The greatest volume of air that can be expelled from the lungs after taking the deepest possible breath.

Vital signs: Clinical measurements, specifically pulse rate, temperature, respiration rate, and blood pressure that indicate the state of a patient's essential body functions.

Vitamins: Any of a group of organic compounds that are essential for normal growth and nutrition and are required in small quantities in the diet because they cannot be synthesized by the body.

Vitiligo: Disappearance of pigment from the skin in patches.

Vocal cords: Folds of membranous tissue that project inward from the sides of the larynx to form a slit across the glottis in the throat; the edges vibrate in the airstream to produce the voice.

Voiding: A form of urination.

Voluntary activities: Actions that we consciously perform, in which sensory input or conscious thought determines a specific muscular activity.

Voluntary muscle: Muscle whose action is normally controlled by an individual's will; mainly skeletal muscle, composed of parallel bundles of striated, multinucleate fibers.

Vomit: Matter that has been vomited.

Vulva: The female external genitals.

Wheal: A red, swollen mark left on flesh by a blow or pressure.

Wheezes: Breathes with a whistling or rattling sound in the chest, as a result of obstruction in the air passages.

Whiplash: Injury caused by a severe jerk to the head, typically in a motor-vehicle accident.

White blood cells: A colorless cell that circulates in the blood and body fluids and is involved in counteracting foreign substances and disease; a white (blood) cell.

White matter: The paler tissue of the brain and spinal cord, consisting mainly of nerve fibers with their myelin sheaths.

Xiphoid process: The cartilaginous section at the lower end of the sternum, which is not attached to any ribs and gradually ossifies during adult life.

Yellow elastic cartilage: A type of cartilage present in the outer ear, Eustachian tube, and epiglottis.

Yin/yang: Two principles, one negative, dark, and feminine (yin) and one positive, bright, and masculine (yang) whose interaction influences the destinies of creatures and things.

Zen Shiatsu: A derivative form of the Japanese therapy Shiatsu based on the principles of Traditional Chinese Medicine.

Zygomax: A slender bony process of the zygomatic arch.

Zygote: A diploid cell resulting from the fusion of two haploid gametes; a fertilized ovum.



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