

MISSISSIPPI PROFESSIONAL EXAMINATION STUDY GUIDE

MPE-1 Anatomy/Physiology; Kinesiology; Pathology

CATEGORY: KINESIOLOGY

The knee flexion is the joint that demonstrates a soft end feel.

The biceps brachii is the strongest supinator in the flexed elbow position.

The common attachment site shared by teres major and latissimus dorsi is the lesser tubercle of humerus.

The TFL muscle performs the flexion of the hip and abduction.

Extension increases the angle of the elbow joint.

To locate the supraspinatus belly, you must palpate through the trapezius.

If a muscle lies posterior to the knee joint, its action at the knee is flexion.

The term circumduction means cone-shaped movement.

The pronator quadratus does NOT flex the forearm.

The gluteus maximus rotates the hip laterally as well as extension and abduction of the hip.

The humerus turning in represents a medial rotation.

The pectineus does NOT cross 2 joints.

The extensor hallucis extends the big toe.

The supraspinatus is a rotator cuff muscle that is NOT involved in rotation of the shoulder.

Flexion of the leg could be impaired if the sciatic nerve is injured.

Pronation and supination occur at the radioulnar.

C-1 vertebra does NOT have a spinous process.

Elevating the scapula is an action of the levator scapula.

The sartorius, gracilis and semitendinosus muscles form the pes anserinus tendon.

In order to stretch the gastrocnemius fully, it requires extension of knee and dorsiflexion of ankle.

The anconeus is a synergist to the triceps brachii.

Elbow extension shortens the fibers of the triceps brachii.

Plantar flexion is standing on one's toes.

One attachment site of the pectoralis minor is the coracoid process.

Flexion and abduction is the action of the tensor fascia latae.

The diaphragm is the primary muscle of respiration.

Concentric contraction of the triceps brachii causes an elbow extension.

The biceps brachii assists supination of the forearm.

The rectus femoris extends the knee at the leg.

The rectus abdominis creates the 'washboard' look.

Extension of knee is created by all of the muscles in the quadriceps group.

Extending the shoulder is an action of the teres major.

The biceps femoris flexes the knee and has an attachment site on the fibula.

Retraction is used to contract the rhomboids.

Modified hinge is the type of joint of the tibiofemoral.

If a person has the inability to abduct their shoulder, the deltoid may be damaged.

The levator scapula, sternocleidomastoid and scalene muscles are responsible for the flexion of the neck to the same side.

Contracting the neck flexors bilaterally would result from lifting the head when supine.

Iliopsoas initiates walking.

The gluteus maximus extends the femur.

The gluteus maximus abducts the thigh.

The suprahyoids forms a wall of muscle along the underside of the jaw.

With the client supine and the legs in a lateral rotation, the piriformis is one of the muscles in a contracted state.

The erector spinae is the most superficial muscle of the spine.

The anconeus assists in extension of the elbow.

Flexion of the hip is the main function of the psoas major muscle.

The gracilis is the most medial of the adductors of the thigh.

The sternoclavicular is the single attachment between the axial and appendicular skeletons.

The tibialis anterior dorsiflexes and inverts the foot.

Gracilis is the only adductor to cross the tibiofemoral joint.

Extension of the knee is the main function of the rectus femoris muscle.

The right multifidi and right rotatores muscles cause left trunk rotation.

Iliocostalis is the erector spinae muscle which is the most lateral.

The bilateral neck flexion is not an action of the upper trapezius muscle.

Joints are defined as having two or more bones meeting by way of connective tissue.

The rhomboid muscles lie deep to the trapezius and superficial to the erector spinae muscles.

The scapula is an irregular, triangular shaped bone of the upper back.

The 3 bones that make up the shoulder complex are the scapula, humerus, and clavicle.

The ribs, sternum and coccyx does not belong with the appendicular skeletal system.

The platysma muscle tightens the fascia of the neck.

Abduction is the movement of the appendicular body part away from the midline of the body.

The rectus femoris anteriorly tilt the pelvis.

The hamstrings posteriorly tilt the pelvis.

The teres minor action of shoulder external rotation is an example of concentric contraction.

The levator scapulae muscles cause the head and neck to laterally flex to the same side and rotate to the same side.

The pivot is a type of synovial joints that allows only rotation in the transverse plane.

An example of a long bone is the humerus.

The anterior deltoid muscle performs the following actions: shoulder flexion, shoulder internal rotation, and shoulder horizontal adduction.

The latissimus dorsi action of the shoulder extension is an example of concentric contraction.

An example of a short bone is carpals of the wrist.

The serratus anterior is the muscle that lies along the posterior and lateral rib cage.

The ribs, sternum and coccyx belong with the axial skeletal system.

Another name for the lateral border of the scapula is called the axillary border.

Subscapularis is the rotator cuff muscle that inserts on the lesser tubercle.

A small, rounded process is called a tubercle.

The ball and socket is classified as a freely moveable joint.

The deltoid tuberosity is the insertion of the deltoid muscle.

The subscapularis is the rotator cuff muscle involved in internal rotation.

Rotator cuff muscles are supraspinatus, infraspinatus, teres minor, subscapularis.

The posterior deltoid muscle performs the following actions: shoulder extension, shoulder external rotation, shoulder horizontal abduction.

Rotation occurs in the transverse plane.

Trochanter is one of two large bony processes found only on the femur.

The synovial joint is classified as a joint by structure.

Flexion is the movement that bends and closes the angle of a joint.

CATEGORY: PATHOLOGY

In the tinea corporis (contagious fungal infection) condition, massage is locally contraindicated.

Irregular and changing moles are the MOST dangerous.

A skin disease characterized by the appearance of comedos, papules, and pustules, especially during adolescence is called acne vulgaris.

Cold sores and fever blisters are caused by viruses.

Urine does NOT transmit HIV.

The pathology that causes numbness and weakness of the hand due to compression of the median nerve is called carpal tunnel syndrome.

Avascular osteonecrosis is type of bone disorder which leads to the disintegration of bone tissue and blood vessels.

Osteoarthritis is a condition in which synovial joints lose healthy cartilage. It is also called degenerative joint disease.

Poliomyelitis is caused by a virus.

A partial or incomplete dislocation is referred to as subluxation.

Disease that is distributed throughout the body is called systemic.

Paralysis of the tibialis anterior causes drop foot.

Observable indications such as abnormal pulse rate, fever, abnormal skin color, or physical irregularities are known as symptoms.

The most common cause of encephalitis is viral infection.

Menopause is the cessation of menstruation in the human female.

The study of disease is pathology, which could include any deviation from a normal, healthy condition.

If a person has diabetes and mellitus, a symptom would be glycosuria.

Atherosclerosis is the accumulation of plaque in the walls of the arteries.

Hyperlordosis is an exaggeration of the lumbar curve of the vertebral column.

Shin splint syndrome affects the periosteum around the tibia.

If a client has scaly plaques and excessive rate of epithelial cell growth, it is known as psoriasis.

Osteoarthritis deals with degenerative changes in the bone.

Torticollis is associated with the neck.

A cerebrovascular accident could give a patient hemiplegia.

A local dilation of an artery due to a weakening of its wall is/are called an aneurysm.

Fibromyalgia syndrome is a chronic pain syndrome with the development of a predictable pattern of tender point in muscles and other soft tissues.

Bulimia is known as the binge and purge condition.

Alzheimer disease is a degenerative disorder involving plaques and neurofibrillary tangles.

The word chronic means prolonged, long-term and gradual onset.

The loss of voluntary muscular control and sensation on one side of the body only is called hemiplegia.

Loss of breath, sweating and wheezing are symptoms of asthma.

Stimulating the peristaltic contraction of the large intestine is the BEST course of action to assist a client who is experiencing chronic constipation.

Congenital disorder characterized by progressive bilateral wasting of skeletal muscles is called Duchene's muscular dystrophy.

If a client exhibits the major signs of an encephalitis infection, especially headache and fever, massage is systemically contraindicated.

When treating a client with pes planus, use deep gliding, kneading and friction on the calf muscles.

Athlete's foot is a contagious skin condition.

A disease of unknown origin is an idiopathic disease.

Varicose veins are due to dilated veins, causing their valves to become incompetent.

Osteoporosis is a condition characterized by loss of normal bone density and subsequent increased susceptibility of fractures.

When a client has fibromyalgia, it is best to assess the 'tender points' and tailor the treatment.

A pathogen is any disease-causing organism.

Rigorous circulatory massage is contraindicated for clients who tend to form clots.

The facial nerve can be affected when a person has excessive tearing from one eye and drooping from one side of the mouth.

Massage for clients with Alzheimer disease can improve quality of life while not affecting the disease process.

Multiple sclerosis is degeneration of myelin sheath.

A hiatal hernia involves esophagus and stomach.

A genetic disorder that impairs blood-clotting mechanisms and may result in excessive bruising is called hemophilia.

Verruca is a wart.

Rheumatoid arthritis is an autoimmune, inflammatory joint condition.

When a person injures a ligament, they have suffered a sprain.

A person suffering from severe allergies could best be treated by an administration of glucocorticoids.

When the heart of a person stops, this is called myocardial infarction or cardiac arrest.

High blood pressure is also called hypertension.

A contagious disease affecting the global population is a pandemic.

Carcinoma is a cancer that begins in the epithelium of the body.

Impetigo is a contagious skin pathology.

Rheumatoid arthritis is described as being an autoimmune disease and could be considered to be contraindicated for some massage techniques, excluding cryotherapy.

If a client has cystitis they will probably urinate frequently.

The facial nerve is affected when a client has Bell's palsy.

Gout is a type of arthritis that is caused by accumulation of uric acid in the blood.

An acute inflammatory eruption of highly painful vesicles on the trunk of the body is called herpes zoster.

If a person experiences weight gain, fatigue, cold intolerance, depression, and dry skin, they could be diagnosed with hypothyroidism.

A chronic, progressive nervous disease characterized by the destruction of the myelin sheath is called multiple sclerosis.

Edema due to post-acute musculoskeletal injury indicates circulatory massage.

Arteriosclerosis may be caused by high fat diets, smoking, and genetic predisposition.

Hemorrhage, embolism and thrombosis may be etiologic factors of a stroke.

Urticaria would be caused from allergens.

Idiopathic stands for no known cause.

Rheumatoid arthritis is autoimmune and has no specific cause of origin.

Causative factors or origins of disease are its etiology.

A chronic brain disorder characterized by recurring attacks of abnormal sensory, motor, and psychological activity is called epilepsy.

Endometriosis is characterized by painful menstruation due to endometrial tissue outside the uterus.

Bell's Palsy affects the face.

A contagious superficial skin infection marked by vesicles or bullae that becomes pustular is called impetigo.

Hemorrhoids can best be described as varicose veins in the rectum.

Good practices for a massage therapist includes hand washing with soap and water to get rid of dirt and transient bacteria, creating an environment where nothing that one client touches directly or indirectly is touched by another client, and cleaning and caring for surfaces and equipment appropriately.

Herpes is considered a contagious disease.

Diabetes insipidus is a result of low antidiuretic hormone levels.

Cancer is the uncontrolled replication of malignant cells into tumors.

The median nerve is affected in carpal tunnel syndrome.

Psoriasis is indicated for massage when not acutely inflamed.

A client has several raised, red rings on his trunk. They are paler in the middle. He reports they are mildly itchy. This is tinea corporis, a contagious fungal infection.

Systemic and contagious infections contraindicate massage.

A chronic nervous system disease characterized by progressive muscle rigidity and involuntary tremors is Parkinson's disease.

Malignant melanoma are skin cancers that exhibits lesions having irregular borders and a diversity of colors.

Fever is contraindicated for massage.

Out of the types of hepatitis common to the United States, Type A is the least fatal.

The arthritic phase of Lyme disease involves severe inflammation of joints. During this acute inflammation phase, massage is contraindicated.

If a pigmented fleshy growth of skin is noted in a client, you should avoid the area.

Parkinson's disease affects basal ganglia.

Massage for a client with psoriasis is indicated and may benefit the client from the use of a highly emollient cream such as shea or cocoa butter.

Osgood-Schlatter disease occurs in the tibia.

A condition of the heart produced by a lack of oxygen (ischemia), which does not actually kill cells is called angina pectoris

A fracture is NOT a type of arthritis.

Headaches are NOT a warning sign of cancer.

A chronic non-contagious, autoimmune skin disorder BEST defines psoriasis.

Cellulitis is a systemic streptococcal infection that begins in a skin wound or boil.

The synarthrotic joint classifies as a joint of function.

Another word for the long bone is the shaft of the diaphysis.

A bundle of muscle fibers is called fascicle.

The articular cartilage is located at the contacting surfaces of the bones.

Osteoporosis is the condition marked by the removal of calcium deposits from the bones faster than it can be replaced.

You are at the finish line of a 10K on a hot, humid day. The athlete on your table is having a cramp in her calf. The best strategy is to apply firm pressure (compression) on the belly of the muscle.

Osteoporosis cannot be controlled by age, gender and ethnicity.

An over-exaggerated lumbar curve is called hyperlordosis.

Another name for adhesive capsulitis is frozen shoulder.

Your client comes in for his massage and this morning he woke up with one foot visibly swollen, red and extremely painful to the touch. Your best course of action is to reschedule his massage and encourage him to see a primary care doctor as soon as possible.

Another term for joint replacement surgery is arthroplasty.

Hips, shoulders, and knees are the most frequently surgically replaced joints.

Osteoarthritis is most likely to be the result of age, repetitive pounding stress and being overweight.

Stretching and ripping of fibers is what happens when a person sustains a strain.

Pain, heat, redness, swelling, loss of joint function are the major signs and symptoms of sprains.

Compartment syndrome develops when the pressure inside a fascial partition of the lower leg rises to the point that tissue can be damaged.

Mild or sharp pain at the site and a palpable bulge near the groin are major signs and symptoms of an inguinal hernia.

Plantar fasciitis is usually most painful with the first few steps after a period of rest.

Carpal tunnel syndrome is signs and symptoms brought about by entrapment of the median nerve.

Lifting with your back and twisting is most likely to cause a back injury.

Injured discs protrude posteriorly.

A client has many trigger points, so many that they cannot function well. They have pain and weakness in affected muscles and they are prone to injury. Fibromyalgia syndrome may be present.

Bursitis is usually due to repetitive stress.

Stress fractures are when the bone develops many tiny hairline cracks from repetitive percussive force.

Whiplash is a collection of injuries associated with a trauma that causes the head to whip back and forth.

Efferent neurons in the dorsal horn of the spinal cord are NOT part of the reflex arc.

Euphoria is NOT a major caution when dealing with patients with a neurological disorder.

The purpose of myelin is to speed nerve conduction and provide electrical insulation.

State of constant euphoria is NOT a characteristic of clients with Alzheimer's.

A consequence of the nervous system damage that occurs with ALS is atrophy of skeletal muscles.

The most common primary symptoms of Parkinson's disease are resting tremor, bradykinesia, and rigidity.

Tremors usually affect the hands, face, and head.

Psychotic, seasonal, premenstrual and postpartum are different forms of depression.

A stroke can display hemiplegia, numbness, and visual field loss.

A stroke is also called a brain attack or CVA, which is damage to brain cells due to oxygen deprivation.

Anorexia and bulimia affect women the most.

Oxygen shortage to the brain can be due to blockage or bleeding of an artery.

When a person has a spinal cord injury, they are likely to have some motor and sensory paralysis anywhere below the level of the injury.

Spastic paralysis is a sign of injury to central (upper) motor neurons.

In an ischemic stroke a blood clot forms in an artery, then fragments get caught downstream, depriving brain tissue of oxygen.

Spina bifida is a neural tube defect that leads to a failure of the vertebral arch to close at one or more levels.

Insufficient access to oxygen is a contributor to cerebral palsy that occurs at birth.

Seizure disorder involves uncontrolled neuronal activity leading to increasing electrical discharge in the brain.

Benign paroxysmal positional vertigo (BPPV) involves tiny crystals that should be in the vestibule of the inner ear fall out of place, causing the vestibular nerve to misfire, triggering extreme vertigo.

CATEGORY: ANATOMY AND PHYSIOLOGY

120 systolic/80 diastolic would indicate “normal” blood pressure.

Fascia does NOT go in a vertical direction only.

Exchange of gases is the function of the alveolus.

The mitral valve is also known as the bicuspid valve.

Thin-walled upper heart cavities that receive blood from veins are called atria.

The ‘master gland’ of the endocrine system is the pituitary.

Fascia is the name of the loose connective tissue that is around every muscle fiber.

The breaking of foods into smaller molecules with the release of energy is called catabolism.

The kidneys control the composition and volume of blood.

The thumb is a type of saddle articulation.

The “pacemaker” of the heart is the SA node.

The pulmonary vein takes blood from the lungs back to the heart.

Blood type AB is termed the ‘universal recipient.’”

The structures found between a tendon and a bone are called bursae.

The parasympathetic system is stimulated when doing meditation.

Pivoting is a type of movement present in the proximal radio-ulnar joint.

The hepatic artery takes blood to the liver.

A small flat process is facet.

Meninges are connective tissues that contain cerebrospinal fluid.

The common peroneal nerve is a branch of the sciatic nerve.

Connective tissue is the most abundant tissue in the body.

Gas exchange between blood and the tissue is called internal respiration.

The larynx is also known as the voice box.

Anaerobic metabolism does NOT use oxygen.

The correct order from superficial to deep layers of the skin is epidermis, dermis, and subcutaneous layer.

The subscapularis muscle is mostly involved in the condition of frozen shoulder.

Conductivity is NOT a characteristic of skeletal muscle.

The name of the process in which substances move from an area of high concentration to an area of low concentration is called diffusion.

When a person has wrist drop, the radial nerve is injured.

A blood clot that is moving through the body is called embolus.

Nephron and renal tubules are NOT a part of the digestive system.

You should be careful with the musculocutaneous nerve when working with the axillary region and are between biceps and triceps.

Ischemic is the name given to an area that is lacking blood because of constriction of muscles to the blood vessels.

Circumduction movement is sometimes described as being "cone-like."

The upper extremity is NOT a component of the axial subdivision of the body.

When massaging the thigh in the supine position, quadriceps are involved.

The phrenic nerve innervates the diaphragm.

Fascia is a connective type of tissue.

The kidneys rid the body of urea, uric acid, and ammonia.

The order of muscles from superficial to deep in the posterior lower cervical and upper thoracic regions is trapezius, rhomboids, serratus posterior and erector spinae.

Intercostals muscles are associated with ribs.

When the ventricles of the heart relaxes, it is called diastolic.

Vitamin A helps with vision.

Lactic acid is the metabolic waste that is produced in muscles that can irritate nerve endings and cause pain.

Sciatic nerve goes between the greater trochanter and ischial tuberosity.

Bronchioles are the smaller air passages that branch out from bronchi and into the segments of each lobe of the lungs.

The frontal body plane divided the body into anterior and posterior portions.

The calcaneal tendon is the strongest tendon in your body.

The nephron is the functional unit of the kidney.

The structure that carries urine from the kidney to the urinary bladder is called the ureter.

The axis is the name given to the second cervical vertebra.

Cardiac muscle is said to be striated and involuntary.

The medial plantar nerve is a branch of the sciatic nerve.

The superior vena cava carries blood to the right atrium.

Glucagon and cortisol are responsible for increasing sugar levels in your bloodstream.

Leukocytes are characterized by an ability to fight infection and they are produced in myeloid and lymphatic tissues.

Compensation is when the muscles have to take over for an injured or overworked muscle.

The portion of the alimentary canal that receives secretions from the liver and pancreas, and uses these secretions to digest all types of food is the small intestine.

The passage of food throughout the intestinal tract is possible because of peristalsis.

Components of the cardiovascular system that carry blood away from the heart are called arteries.

The correct order of the meninges from superficial to deep is dura mater, arachnoid mater, and pia mater.

The descending colon is found in the left lower quadrant or hypochondriac region.

The cerebellum of the brain controls equilibrium and balance.

The flexors of the wrist have the medial epicondyle of the humerus as their common origin.

An acidic pH is 6.

The primary function of the hemoglobin is to carry oxygen.

The cephalic vein is found between the anterior deltoid and pectoralis major muscle.

Peroneal nerve damage diminishes the ability to evert the foot.

A client comes in complaining of neck pain from a car wreck they had yesterday. They have not seen a doctor and they have a terrible headache with dizziness. You should refer them to their doctor or emergency room and reschedule the massage.

The "vital centers" are located in the medulla.

Emesis is vomiting.

Renal corpuscle and renal tubules are found inside the nephron which is the function unit of the kidney.

The semitendinosus crosses two joints.

Phalanges are classified as long bones.

Lymphocytes are also known as B cells and T cells.

Fascia is made up of collagen, elastin, and ground substance.

An anatomical structure that is part of both the digestive and respiratory systems is the pharynx.

The ileocecal valve is between the small and large intestines.

Damage to the femoral nerve could impair extension of the knee.

Fascia is so flexible because it has more ground substance than collagen.

Epithelial, nervous, connective and muscle are the 4 types of tissue.

Hypothalamus functions in mood and emotions (body/mind connection), hunger/thirst, rage and fear, temperature control and has neurons that functions as ductless (endocrine) glands.

The limbic system affects oxytocin.

Chronic muscle tension can affect the body by shortening tendons and ligaments, causing muscle pains, and causing headaches.

When a stethoscope is placed on the anterior chest wall, rhythmical sounds described as lub dub are heard
This represents the closure of the AV and semilunar valves.

The femoral artery is found passing under the inguinal ligament.

The primary sex organs of the male reproductive system are the testes.

The glenoid fossa is a part of or located on the scapula.

Most of the exchange that occurs between the blood and the interstitial fluid occurs at the capillaries.

The liver breaks down fats.

When applying pressure to the client, the therapist should penetrate the tissue gradually and release gradually, keep the thumbs in alignment with the wrists, and apply pressure from the body weight.

Veins carry the blood back to the heart.

The ischial tuberosity and greater trochanter are used to serve to locate the trunk of the sciatic nerve.

An increase in muscle size due to prolonged physical exercise, as in weight lifting, is due to an increase in muscle cell size.

The Agonist muscle is the muscle that is concentrically contracted.

During isometric exercises, muscle length remains the same.

The primary function of a ligament is to stabilize a joint.

When a muscle is injured, surrounding muscles will tighten up to support the injured tissue and this is called splinting.

The stratum basale is the deepest layer of the epidermis where cells are produced by mitosis.

The small intestine exhibits plicae.

The endomysium, perimysium and epimysium help to form muscle.

Theoretically, a person with Type AB blood could receive a transfusion from a person with Type A, Type B, and Type O blood.

When the ventricles of the heart contract, this is called ventricular systole.

Psoas Major initiates walking.

Sensory neurons send impulses from the skin to the brain or spinal cord.

Deep tissue work is NOT appropriate for everyone.

A client experiences discomfort in the sigmoid part of the alimentary canal if they are constipated.

A cyst is a fluid-filled sac.

Mucous lines the digestive tract.

Scalenes can be responsible for entrapping the nerves of the brachial plexus.

Skeletal muscle contraction that is restimulated before the relaxation phase is completed is known as tetany.

Cross fiber friction is applied in the perpendicular direction on the tissue.

The tricuspid valve is found between the right atrium and right ventricle.

The anterior inferior iliac spine is the origin of the rectus femoris muscle.

Areolar is considered connective tissue.

When working the anterior neck, the carotid artery, internal jugular vein and vagus nerves should be avoided.

If the right side of the body is injured the left side can go out of balance. This is called structural compensation.

A valve that permits blood flow from the right ventricle into the pulmonary artery is called the pulmonary semilunar valve.

The process in which muscle tissue is being replaced by fibrous connective tissue is called myofibrosis.

Thrombocytes aid in the clotting mechanism.

Rectus capitus posterior major, obliquus capitus superior, and obliquus capitus inferior are muscles located in the sub occipital triangle.

Difficulty with the Rh blood factor could arise when an Rh-negative woman and a Rh-positive man produce an offspring.

When tissue is injured, collagen could form a scar.

The dendrite carries impulses toward the cell body.

Thixotropy is used to describe the softening of the ground substance within fascia.

The clavicle and scapula form the shoulder girdle.

A heart condition can be contraindicated for deep tissue work.

The liver drains into the hepatic portal vein.

Ribosomes are responsible for synthesis of proteins.

Myofascial release is a technique that is applied by prolonged, light pressure. It often uses skin rolling to prepare the tissue, warms the tissue, and releases restrictions between layers of connective tissue.

Most of the heat derived from muscle contraction is used to heat the body,

Bile plays an important part in the digestion of fat.

The term that describes the origin of a structure or point of attachment nearest the trunk is called proximal.

Another name given to a broad, flat tendon is aponeurosis.

The external ear and the epiglottis are examples of elastic cartilage in your body.

Plasma constitutes 55% of the blood.

A decrease in estrogen occurs in women when they reach menopause.

The scalene muscle contracts in forceful inspiration and assists neck flexion.

Redness, heat, swelling and pain are cardinal signs of inflammation.

If you notice a bump in the anterior triangle of the neck, it could be the thyroid cartilage, lymph node or submandibular gland.

The mental foramen is found on the mandible.

It is important to flush the tissue following deep tissue work with stretches.

When performing deep tissue techniques on a client, be sure and work within the pain tolerance of the client using an agreed upon method and pressure.

The skin is the largest organ in the body.

The chemical messengers of the endocrine system are the hormones.

The growth hormone stimulates protein synthesis for muscle and bone growth and it is used for maintenance and repair.

The thyroid stimulating hormone prods the thyroid gland to secrete its hormones, T3 and T4 reverses the original stimulus, stabilizing physiologic function.

Negative feedback is a response to a stimulus that moves something in the opposite or negative direction.

The testes are the male version of the gonads, which are endocrine glands.

The parathyroid hormone increases blood calcium levels by stimulating osteoclast activity, which decreases calcium storage in bone.

The adrenal gland is the endocrine gland which has an inner and outer region and is located superior to the kidneys.

The beta cells of the islets of Langerhans in the pancreas secrete insulin.

Hypoglycemia is the term used for low blood glucose.

Hyperglycemia is the term used for high blood glucose.

The heart has 4 chambers.

The heart wall has 3 layers and the thick muscular layer is called the myocardium.

Oxygenated blood from the left ventricle gets pumped into the aorta.

The right side of the heart pumps deoxygenated blood.

Bradycardia is the term used when a heart rate is less than 60.

The pericardium is the double layered sac that surrounds the heart.

Inflammation is the body's response to injury, irritation or infection.

The largest lymphatic organ is the spleen and lies within the left lateral rib cage.

The lymph is derived from interstitial fluid.

The lymph nodes are the bean shaped structures located along the lymphatic chain.

B cells mature in the bone marrow.

Gas exchange, olfaction and sound production are functions of the respiratory system.

The upper respiratory tract includes the nasal cavity, the pharynx and the larynx; however, does not include the lungs.

The vocal cords are located in the larynx.

The main muscle of respiration is the diaphragm.

Bronchitis is inflammation of the bronchial mucosa with resultant swelling and mucus hypersecretion.

The functions of the digestive system are digestion, absorption, and elimination.

The duodenum is the first section of the small intestine. The liver, gallbladder and pancreas have ducts located in the duodenum.

The filtering units of the kidneys are nephrons.

Renal calculi are characterized by stones in the kidneys.

A muscle that is located on the lateral side of the lower leg is called the peroneus longus.

The tibialis anterior is the muscle that acts as an antagonist to the gastrocnemius during plantar flexion.

The extensor digitorum longus is the muscle that acts as a synergist with peroneus longus during eversion of the foot.

The extensor digitorum brevis is the muscle that acts as an antagonist to the flexor digitorum longus during flexion of the second through fifth toes.

Capillaries are vessels which serve as nutrient and waste exchange sites between the body's tissues and the blood.

The lymphatic system carries fats from the intestines to the bloodstream in addition to helping the immune system.

The axial skeleton includes the vertebral column and ribs.

The synovial joint contains a joint cavity.

A hinge joint allows flexion and extension movements.

An ellipsoid joint can be found at the wrist (radiocarpal).

The type of joint that is found between the carpals, as well as the tarsals, is a gliding joint.

The saddle joint is an example of the articulation between the trapezium and the first metacarpal of the thumb.

The long head of the biceps brachii passes through the intertubercular groove.

The biceps brachii is the strongest muscle of supination, when the elbow is flexed.

Pronation of the forearm would lengthen the fibers of the biceps brachii when the elbow is flexed.

As you follow the biceps brachii belly proximally, it becomes deep to deltoid.

The origin of the biceps brachii's short head is the coracoid process of scapula.

The insertion of the biceps brachii is the radial tuberosity and bicipital aponeurosis.

Flexing the elbow is an action of the biceps brachii.

Bicipital aponeurosis is the thin sheet of fascia extending off the distal tendon of the biceps brachii.

The three bones that make up the shoulder complex are the clavicle, scapula and humerus.

Both sternoclavicular and acromioclavicular are synovial type of joints.

The glenohumeral joint is formed where the humerus and scapula meet.

The clavicle bone of the shoulder region is the last of the skeletal system to completely develop.

The medial border of the scapula serves as an attachment site for both the rhomboids and serratus anterior.

A “winged scapula” often indicates a weakness in the serratus anterior.

To locate the superior angle of the scapula, you must palpate deep to the trapezius.

The infraglenoid tubercle serves as an attachment site for the long head of triceps brachii.

The lateral border of the scapula serves as an attachment site for teres major and teres minor.

The infraspinous scapular fossa can be isolated by placing your fingers on the spine of the scapula, the medial border and lateral border.

The supraspinous fossa is located just superior to the spine of the scapula.

Palpating laterally along the supraspinous fossa, your fingers will bump into the acromion and clavicle.

Three of the scapular fossae contain infraspinatus, supraspinatus and subscapularis.

The anterior surface of the medial border of the scapula serves as an attachment site for the serratus anterior.

To locate the subscapular fossa when your partner is in a sidelying position, you slowly sink your thumb under the lateral border of the fossa’s surface. Your other hand can maneuver the client’s arm and scapula in a way that allows the thumb to sink in further to help access the fossa.

The trapezius and deltoid muscle have the acromion in common as an attachment site.

When palpating the clavicle, you will feel the sternal end curving inferiorly.

You are likely to find the coracoid process along the deltopectoral groove.

The deltoid tuberosity is located on the lateral side of the mid-humeral shaft.

The biceps brachii and coracobrachialis muscles share the coracoid process as a common attachment site.

The greater tubercle serves as an attachment site for three of the four rotator cuff muscles.

The lesser tubercle serves as an attachment site for the subscapularis.

A tendon of the biceps brachii lies within the intertubercular groove.

The greater tubercle can be located by sliding off the acromion, inferiorly and laterally, approximately one inch.

In anatomical position, the coracobrachialis is deep to the pectoralis major and anterior deltoid.

Shoulder abduction would lengthen the fibers of the coracobrachialis.

To locate the belly of the coracobrachialis with your partner in a supine position, you slide off the pectoralis major and into the axilla.

The coracoid process of scapula is the origin of the coracobrachialis.

The medial surface of the mid-humeral shaft is the insertion of the coracobrachialis.

Flexing the shoulder is an action of the coracobrachialis.

The origin of the deltoid is identical to the insertion of the trapezius.

You can ask your partner to perform abduction at the shoulder in order to contract the entire deltoid.

The anterior fibers of the deltoid do NOT horizontally abduct the shoulder.

An extension of the shoulder would lengthen the anterior fibers of the deltoid.

Lateral one-third of clavicle, acromion and spine of scapula is the origin of the deltoid.

The deltoid tuberosity is the insertion of the deltoid.

Abduction of the shoulder is an action of all fibers of the deltoid.

The middle portion of the latissimus dorsi, next to the lateral border is easiest to grasp.

The teres major is a complete synergist with the latissimus dorsi and is sometimes called "lat's little helper."

Lateral rotation of the shoulder is NOT an action created by contracting the latissimus dorsi.

Abduction would lengthen the fibers of the latissimus dorsi.

Adduction would shorten the fibers of the teres major.

The thoracolumbar aponeurosis is one origin of the latissimus dorsi.

The intertubercular groove of the humerus is the insertion of the latissimus dorsi.

Medially rotating the shoulder is an action of the latissimus dorsi.

The lower half of the lateral border of the scapula is the origin of the teres major.

The crest of the lesser tubercle of the humerus is the insertion of the teres major.

Extending the shoulder is an action of the teres major.

With your partner in a prone position, resisted medial rotation of the shoulder can be performed to create a strong contraction of the latissimus dorsi.

The lateral border of the scapula can help distinguish the teres major from the latissimus dorsi fiber.

Rotation of the neck to the left would lengthen the fibers of levator scapula on the right side of the body.

Transverse processes of 1st – 4th cervical vertebrae is the origin of the levator scapula.

The medial border of scapula, between superior angle and superior portion of spine of scapula is the insertion of the levator scapula.

Elevating the scapula is an action of the levator scapula.

You can ask your partner to elevate the scapula to enable you to feel the levator scapula contract.

The levator scapula is situated between the splenius capitis and posterior scalene muscles on the lateral side of the neck.

With your partner in a supine position, rotate his head 45 degrees away from the side you're palpating to make the levator scapula more accessible.

When exploring the origin attachment site of the levator scapula, there is potential to create nerve compression.

The deltoid is completely superficial.

The pectoralis major (lower fibers) act as an antagonist to the biceps brachii during shoulder flexion.

The infraspinatus acts as a synergist with teres minor during lateral rotation of the shoulder.

The rhomboid major acts as an antagonist to the lower fibers of the trapezius during depression of the scapula.

The serratus anterior acts as a synergist with the pectoralis minor during abduction of the scapula.

The levator scapula helps to create downward rotation of the scapula.

The pectoralis major is divided into three segments: clavicular, sternal and costal.

The pectoralis major is an antagonist to itself.

The medial half of clavicle and sternum is a part of the origin of the pectoralis major.

The crest of the greater tubercle of humerus is the insertion of the pectoralis major.

Horizontally adduct the shoulder is an action of the pectoralis major's upper fibers.

Communication is the MOST important aspect of your approach to palpating near breast tissue.

If you follow the pectoralis major laterally, it runs deep to the fibers of the deltoid.

The pectoralis minor could create a neurovascular compression on the axillary artery, brachial plexus, and axillary vein.

The pectoralis minor is located deep to the pectoralis major.

The pectoralis minor attaches to the coracoid process.

Abduction of the scapula would shorten the fibers of pectoralis minor.

The third, fourth and fifth ribs are the origin of the pectoralis minor.

The medial surface of coracoid process of scapula is the insertion of the pectoralis minor.

Abduction of the scapula is an action of the pectoralis minor.

The rhomboids are located in the space between the vertebral column and scapula.

The rhomboids are superficial to the erector spinae and deep to the trapezius.

In adduction of the scapula, the rhomboids and trapezius always act as synergists.

Depression of the scapula would lengthen the fibers of rhomboids major and minor.

Adduction of the scapula is an action of the rhomboid major.

The upper portion of medial border of scapula, across from spine of scapula is the insertion of the rhomboid minor.

Elevating the scapula is an action of the rhomboid minor.