**Glossary of Analytical Terms**[**[**](http://www.e-missions.net/cybersurgeons/?/glossary/)

**Abdominal—**having to do with the abdomen.

**Adrenal gland—**one of a pair of endocrine organs near the kidneys that produce essential hormones for regulating the metabolism.

**Acromegaly—**a disorder that is caused by chronic overproduction of growth hormone by the pituitary gland.  Acromegaly is characterized by a gradual and permanent enlargement of the flat bones (as the lower jaw) and of the hands and feet, abdominal organs, nose, lips, and tongue.

**Acne—**a disorder of the skin usually found in adolescents caused by inflammation of the skin glands and hair follicles.

**Acro—**refers to an extremity of the body.

**Action potential—**a temporary reversal in the potential difference across a plasma membrane (as of a nerve cell or muscle fiber) that occurs when a cell has been activated by a stimulus.

**All-or-none—**a nervous system response mechanism marked either by complete operation/effect or by none at all.

**Alopecia—**loss of hair.

**Amblyopeia—**alesseningof sight especially in one eye without apparent change in the eye structures (also called lazy-eye).

**Analgesia—**insensitivity to pain without loss of consciousness.

**Anesthesia—**theloss of sensation and usually of consciousness without loss of vital functions.

**Angiospasm—**contraction of the blood vessels with increase in bloodpressure.

**Ankylosis—**stiffness of a joint by disease or surgery.

**Anoxia—**hypoxia (reduced supplies of oxygen to tissues) of such severity as to result in permanent damage.

**Anterior—**relating to or situated near the head.

**Antebrachial—**pertaining to the forearm.

**Antecubital—**the region in front of the elbow joint.

**Arteries—**thick-walled muscular blood vessels that carry oxygenated blood in the route away from the heart.

**Aorta—**the largest artery in the body; carries blood leaving the heart from the left ventricle.

**Antibody—**aprotein of high molecular weight that is produced by specialized β cells in response to an antigen.

**Antigen—**any substance foreign to the body that causes an immune response.

**Anuria—**absence of urine excretion.

**Arthralgia—**pain in one or more joints.

**Artrium—**thin-walled upper chambers of the human heart.

**Autonomic nervous system—**all nerves from the central nervous system to the smooth muscle, cardiac muscle, and glands of internal organs and structures.

**Axon—**a long and single nerve-cell fiber that conducts impulses away from the cell body.

**Arthocentesis—**puncture of a joint cavity to remove fluid.

**Axial—**pertaining to the head, neck and trunk.

**Axillary—**pertaining to the armpit.

**Bile—**fluid secreted by the liver and stored in the gallbladder.

**Blepharitis—** inflammation of the eyelids.

**Blood—**fluid connective tissue of water, solutes and formed elements; transports substances to and from cells.

**Blood pressure—**pressure exerted by the blood upon the walls of the arteries.

**Boil—**a bacterial infection of a hair follicle and/or sebaceous gland.

**Brachial—**pertaining to the arm.

**Bronchus—**tube-like airway that branches from the trachea and leads the lungs.

**Bronchitis—**inflammation of the tubes that lead from the trachea to the lungs.

**Buccal—**pertaining to the mouth and the inner lining of the cheeks.

**Bulbourethral gland—**located beneath the prostate gland, this gland secretes an alkaline fluid which helps the sperm survive the acidic environment of the urethra.

**Capillaries—**the smallest blood vessels in the body; connects arterioles and venules.

**Cardiac cycle—**series of contractions and relaxations that constitutes a complete heartbeat.

**Cardiac muscle—**specialized muscle tissue found only in the heart.

**Cardiovascular—**relating to, or involving the heart and blood vessels.

**Carpal—**a bone in the wrist.

**Celiac—**pertaining to the abdomen.

**Cell—**thesmallest living unit; organized unit with a capacity to survive and reproduce on its own.

**Cell body—**the portion of a nerve cell that includes cytoplasm and a nucleus.

**Cellular respiration—**the process that releases energy from organic compounds.

**Central nervous system—**the brain and the spinal cord.

**Cephalic—**pertaining to the head.

**Cerebellum—**hindbrain regions with reflex centers for maintaining posture and for coordination.

**Cerebrum—**part of the forebrain that controls the sense of smell and motor responses and integrates the rest of the brain.

**Cervical—**pertaining to the neck.

**Cholecystitis—**inflammation of the gall bladder.

**Cholestasis—**a checking or failure of bile flow.

**Circulatory system—**the body system consisting of blood, blood vessels, and the heart that is responsible for transportation of vital substances throughout the body.

**Cirrhosis—**a condition of liver destruction as caused by a number of diseases.

**Colles fracture—**a fracture at the distal (further away) end of the radial bone.

**Coma—**a condition of unconsciousness, as caused by an illness, disease, or poison.

**Congestive heart failure—**a condition when the heart is unable to maintain the circulation of blood throughout the body.

**Conjunctivitis—**inflammation of the conjunctiva (the covering of the eye).

**Cordotomy—**surgical division of a portion of the spinal cord for relief of severe pain..

**Costal—**having to do with a rib.

**Convulsion—**an abnormal contraction of muscles.

**Cranial—**having to do with the skull.

**Craniotomy—**a surgical opening of the skull.

**Cyst—**a fluid-filled growth.

**Cystectomy—**cutting off a cyst; the surgical removal of all or part of the urinary bladder.

**Cystitis—**inflammation of the urinary bladder.

**Dendrite—**a short extension out from the cell body of a neuron.

**Dermatitis—**inflammation of the skin.

**Dermis—**the layer of skin under the epidermis.

**Diastolic pressure—**lowest arterial pressure reached during the relaxation phase of a cardiac cycle; when the heart chamber wall relaxes.

**Digestive—**the system consisting of a tube two openings and specialized regions for ingesting, digesting, and absorbing food, then eliminating undigested material.

**Diplopia—**double vision.

**Distal—**in a position of beingfarther away from a reference point; opposite of proximal.

**Diuresis—**an increased amount of urine.

**Diverticulitis—**inflammation or infection of a diverticulum (an abnormal pouch) of the colon that is characterized by marked by abdominal pain, fever, chills, and cramping.

**Dorsal—**in a position of being on the upper side of an animal; opposite of ventral.

**Dysentery—**in infectious disease characterized by severe diarrhea with mucus and blood.

**Dysphagia—**difficulty in swallowing.

**Dyspnea—**a condition ofhaving difficulty with respiration.

**Eczema—**a noncontagious skin rash that produces itching, blistering, and scaling.

**Electrocardiogram—(EKG or ECG)—**a recording of electrical activity associated with heartbeat.

**Electroencephalogram—(EEG)—**a recording of electrical activity associated the brain.

**Electromyography—**a recording the electrical activity associated with muscles to diagnose possible neuromuscular disorders.

**Embolus—**a blood clot or gas bubble that blocks a blood vessel.

**Embryo—**adeveloping human from the time of implantation in the uterus to the end of the eighth week of the gestational period.

**Encephalitis—**inflammation of the brain.

**Endocrine gland—**a ductless gland that secretes a hormone directly into the blood or body fluids.

**Enucleation—**to remove without cutting into.

**Epidermis—**outer layer of skin.

**Epididymus—**coiled tube in which sperm complete maturation; stores sperm.

**Epilepsy—**one of several disorders characterized by abnormal electrical discharges in the brain and usually involving involuntary movements or convulsions.

**Erythema—**a reddening of the skin due to blood vessels dilating because of an injury or inflammation.

**Esophagus—**tube portion of the digestive tract that leads to the stomach.

**Exocrine gland—**a gland that releases a secretion through a duct.

**Exophthalmos—**abnormal protrusion of the eyeball.

**Femoral—**having to do with the femur or the area around the femur.

**Fibrosis—**a condition marked by increase of interstitial fibrous tissue.

**Follicle—**a small pit or cavity, as around a hair.

**Frontal—**having to do with the forehead.

**Gall bladder—**a muscular sac in which bile from the liver is stored.

**Gamete—**a male or female sex cell; ova (eggs) in females, sperm in males.

**Gastric—**having to do with the stomach.

**Gestational period—**the period of development of young in the uterus from conception until birth.

**Goiter—**an enlargement of the thyroid gland that is sometimes visible as a swelling of the anterior part of the neck; often results from a lack of iodine.

**Hemiplegia—**a condition in which one side of the body becomes paralyzed due to disease or injury to the brain.

**Hemarthrosis—**blood in a joint cavity.

**Homeostasis—**an internal balance within the working systems of the human body necessary for healthy metabolism and cell function.

**Hormones—**a chemical secreted by an endocrine gland that helps regulate metabolism, growth, reproduction, and digestion.

**Hyperglycemia—**too much sugar in the blood.

**Hypertension—**high blood pressure.

**Hyperventilation—**an increase in the rate and depth of respiration that leads to not having enough carbon dioxide in the blood.

**Hypoxia—**when not enough oxygen is reaching body tissues.

**Immunity—**resistance to specific disease-causing agents.

**Immunodefiency—**a deficiency in the ability to produce normal amounts of antibodies against disease.

**Impetigo—**an acute contagious staphylococcal or streptococcal skin disease characterized by vesicles, pustules, and yellowish crusts.

**Infection—**having a condition caused by invasion of a disease-causing organism.

**Inguinal—**situated near the groin area.

**Integumentary system—**the body system that consists of protective coverings of cell, tissues, and organs.

**Interneuron—**a type of nerve cell that connects sensory and motor neurons and interprets an impulse; found only in the brain and spinal cord.

**Iridectomy—**the surgical removal of part of the iris of the eye.

**Keloid—**a thick scar resulting from excessive growth of fibrous tissue and occurring especially after burns or radiation injury.

**Keratitis—**any inflammation of the cornea of the eye characterized by burning, blurring of vision, and sensitivity to light.

**Kidney—**filters liquid wastes from the blood and produces urine.

**Laminectomy—**surgical removal of part of a vertebrae.

**Lateral—**toward the side.

**Liver—**the largest gland in the body;produces bile which helps digest fats, helps to detoxify the blood of alcohol, filters out inferior red blood cells, and aids in glycogen storage.

**Lungs—**organs responsible for exchange of gases; site for the uptake of oxygen and the release of waste carbon dioxide

**Lymph—**a clear fluid in the intercellular spaces of tissues containing white blood cells (especially lymphocytes) and filtered by lymph glands.

**Medial—**toward the middle.

**Muscular dystrophy—**a group of different hereditary diseases all marked by a progressive deterioration of muscles.

**Myelin sheath—**the sheath around many sensory and motor neurons.

**Myocardium—**the middle layer of heart muscle.

**Motor neuron—**type of neuron that carries impulses from the brain and spinal cord to muscles or glands.

**Muscle tissue—**tissue with cells able to contract and lengthen for movement.

**Myalgia—**muscle pain.

**Mycology—**the study of fungi.

**Myopathy—**a disease condition of muscle fibers.

**Nasal—**having to do with the nose.

**Negative feedback mechanism—**a mechanism of the endocrine system that chemically corrects an imbalance; called “negative feedback” because when the level of the imbalance decreases, the feedback stops the correcting effects.

**Nephron—**the functional unit of the kidney which filters out liquid wastes from the blood.

**Neuron—**a nerve cell.

**Nervous system—**the body system that allows sensing, response, and motor control.

**Neurotransmitters—**chemicals secreted by the axon that help pass along an impulse.

**Occipital lobe—**the part of the brain that responsible for visual interpretations and for combining visual images with recognition.

**Oral—**having to do with the mouth.

**Orbital—**a bony cavity that encloses and protects the eye; the eye socket.

**Organ—**a structure consisting of a group of tissues working together to perform a specific function.

**Orthopedic—**a medical specialty that prevents, diagnoses, and treats diseases and abnormalities on the skeletal and muscular systems.

**Ostealgia—**pain in a bone.

**Osteochondritis—**inflammation of bone and cartilage.

**Osteoma—**a bone tumor.

**Osteomalacia—**a softening of adult bone due to a disorder in calcium or phosphorus metabolism, usually caused by vitamin D deficiency**.**

**Osteomyelitis—**bone inflammation cause by a reaction to bacterial or fungal infection.

**Osteonecrosis—**death of bone tissue; occurs frequently in elderly people when blood supplies to the bone being reduced due to obstructed arteries; usually occurs in the femoral head.

**Osteopathology—**the study of bone diseases.

**Osteotomy—**cutting a bone.

**Otic—**having to do with the eye.

**Ovary—**the primary female reproductive organ; produces eggs.

**Ova—**female reproductive cells; eggs.

**Oviduct—**the tube that leads from an ovary with the uterus; also called fallopian tube

**Pancreas—**digestive gland which secretes enzymes for digestion of carbohydrates, fats, and proteins; secretes insulin which regulates blood sugar.

**Parathyroid gland—**an endocrine gland embedded in the thyroid gland thatincreases blood calcium levels, decreases blood phosphate levels, affects the bones, kidneys, and intestines.

**Patella—**the knee bone.

**Pathogen—**any organism that causes disease.

**Pediculosis—**disease caused by lice infestation.

**Pericardium—**the protective covering tissue over the heart.

**Peripheral nervous system—**all the nerves leading into and out of the spinal cord and brain; includes the ganglia of those nerves.

**Peristalsis—**recurring waves of contraction and relaxation of muscles in the wall of a tubular or saclike organ.

**Pharynx—**part of the digestive tract between the mouth and the esophagus.

**Phlebitis—**inflammation of a vein.

**Pituitary gland—**endocrine gland that, with the hypothalamus, controls many metabolic functions, including activity of many other endocrine glands.

**Pineal gland—**a small endocrine gland in the brain that produces melatonin.

**Posterior—**located toward the back.

**Primary sex characteristics—**the reproductive organs, such as the testes in males, and the ovaries in females.

**Prostate gland—**a gland located near the top of the male urethra that releases an alkaline fluid that helps the sperm move.

**Proximal—**in a position of beingcloser to the truck; opposite of distal.

**Pruritus—**an itch.

**Puberty—**a stage in development when the reproductive organs mature

**Pustule—**pus-filled area on the skin.

**Pyorrhea—**an inflammation of the sockets of the teeth leading usually to loosening of the teeth.

**Quadriplegia—**having a paralysis of all four limbs.

**Reflex arc—**a pathway by which an impulse does not have to travel to the brain in order to be interpreted, allowing for a very quick response.

**Respiratory system—**the body system responsible for the exchange of gases between the environment and the blood; consists of the lungs, airways, and the muscles that work to bring air into and out of the body.

**Rhinitis—**inflammation of the mucous membranes of the nose characterized by congestions, itching, and sneezing.

**Sacrum—**five fused vertebraeof the lower part of the spinal column that form the dorsal (back) wall of the pelvis.

**Sagittal—**a median plane of the body that divides the body into unequal right and left parts.

**Scabies—**a disease resulting from a mite infection.

**Scrotum—**the sac outside the body cavity that houses the testes.

**Sebaceous gland—**a small gland embedded in the layers of skin that secrete an oily substance which lubricates the hair and skin.

**Secondary sex characteristics—**physical characteristics, other than the sex organs, that are associated with being distinctly male or distinctly female, such as a deepening of the voice in males or the development of breasts in females.

**Semen—**fluid containing sperm and fluid secreted by glands along the male reproductive tract.

**Seminal vesicles—**gland at the base of the male urinary bladder that releases a fluid high in fructose that provides energy for sperm as they move along from the epididymus .

**Sensory neuron—**a type of nerve cell in a sense organ that receives impulses and carries them to the brain or spinal cord.

**Skeletal system—**the body system made up primarily of bones that provides support, protection and shape to the body, and allows the body to store minerals, make blood cells, and grow.

**Skeletal muscle—**a type of muscle cell attached to bones that can be controlled (also called voluntary).

**Sinusitis—**inflammation of a sinus cavity of the skull.

**Small intestine—**the part of the digestive system between the stomach and large intestine responsible for a major portion of chemical digestion and the absorption of nutrients into the blood.

**Smooth muscle—**a type of muscle cell that lines the walls in organs and blood vessels (also called involuntary muscle)

**Spinal cord—**a bundle of nerves extending from the brain that transmitted impulses from the brain to the rest of the body.

**Spleen—**an organ that filters out red blood cells and stores blood.

**Stomach—**a muscular organ of the digestive system that stores food,secretes chemicals that help break the food into more digestible forms, and controls the passage of food into the small intestine.

**Synapse—**the space in between nerve cells.

**System—**a group of organs working together to do a specific function.

**Testes—**the primary male reproductive organ, produces sperm.

**Thoracic—**pertaining to the chest.

**Thyroid—**an endocrine gland in the neck thatincreases energy release from cells, increases growth rate, and stimulates nervous system.

**Tinnitis—**having a ringing in the ears or head.

**Tissue—**a group of cells working together to perform a specific function.

**Trachea—**the windpipe.

**Tracheotomy—**a surgical procedure that consists of cutting into the trachea in order to achieve an airway for the patient.

**Transfusion—**the replacing of blood or blood components.

**Uremia—**blood in the urine.

**Ureter—**muscular tube that carries urine from the kidneys to the urinary bladder.

**Urethra—**tube that carries urine from the bladder to the outside of the body.

**Urinary bladder—**a sac that holds and stores urine for excretion.

**Uterus—**a muscular, hollow organ in which embryos develop.

**Valve—**any body structure that closes off a passage or allows movement of a fluid in only one direction.

**Vagina—**tube that leads from the uterus to the outside of the body.

**Vas deferens—**ducts through which sperm move from the epididymus to the urethra.

**Ventral—**in a position of being on the lower side of an animal; opposite of dorsal.

**Ventricle—**thick-walled, muscular pumping chambers of the heart.

**Vertebrae—**bones that make up the spinal columnand protect the spinal cord.

**Vertebral—**of, relating to, or being vertebrae or the spinal column

**Vertigo—**a disordered state associated with disorders of the inner ear and characterized by dizziness

**Wart—**a flesh-colored, raised area caused by a virus