

## Lesson 4.3 Glossary

### A

**Adrenal glands** – A pair of ductless glands, each located on or adjacent to a kidney, which secrete adrenaline and cortin.

**Adrenaline** – One of the hormones produced by the medulla of the adrenal glands; also called epinephrine; helps in preparing the body for emergency actions.

**Alveolus (alveoli)** – A tiny, thin-walled air sac of the lung, in the walls of which gases are exchanged between the air and the blood.

**Aorta** – The main vessel that carries blood to all bodily organs except the lungs.

**Artery** – A blood vessel that functions in carrying blood from the heart.

**Atrium (atria)** – One of the upper chambers of the heart.

**Autonomic system** – Involuntary portion of the peripheral nervous system.

### B

**Blood pressure** – The pressure of the blood against the inner walls of the blood vessels, varying in different parts of the body during different phases of contraction of the heart and under different conditions of health, exertion.

**Bromthymol blue** – A dye used as an acid-base indicator.

**Bronchiole** – One of many subdivisions of the bronchial tubes within a lung; small branch of the bronchus.

**Bronchus (bronchi)** – A major airway of the respiratory system.

### C

**Capillary** – Extremely narrow, microscopic blood vessel. The presence of blood in capillaries produces the pink color of skin.

**Cardiovascular** – Of, pertaining to, or affecting the heart and blood vessels.

**Cellular respiration** – The oxidation of organic compounds that occurs within cells, producing energy for cellular processes.

**Central nervous system** – The brain and spinal cord in vertebrates, which receive sensory impulses and from which motor impulses issue.

**Circulation** – The pulsatory movement of blood in the body.

### D

**Diaphragm** – The layer or sheet of muscle and connective tissue that forms the wall between the thoracic and abdominal cavities of mammals and aids in the process of breathing.

**Diastolic** – Indicating the arterial pressure during the interval between heartbeats.

**Diffusion** – Process that allows molecules to move across a membrane in an effort to equal concentration.

## E

**Endocrine** – Any gland of the body that secretes a substance or hormone, thereby controlling certain bodily processes: e.g., pituitary, pineal, thyroid, parathyroid, thymus, adrenal, pancreas.

**Excretion** – The act or process of discharging waste matter from the blood, tissues, or organs.

**Exhalation** – The act of exhaling or forcing air from the lungs. Also referred to as expiration.

## H

**Heart** – The organ of the body that by its rhythmical contractions circulates the blood.

**Heart rate** – The number of times the heart beats in a minute.

**Homeostasis** – The tendency of a system, esp. the physiological system of higher animals, to maintain internal stability, owing to the coordinated response of its parts to any situation or stimulus tending to disturb its normal condition or function.

**Hormone** – A chemical substance formed in some organ of the body, secreted directly into the blood, and carried to another organ or tissue, where it produces a specific effect.

## I

**Inhalation** – The act of bringing air into the lungs through the contraction of the diaphragm. Also referred to as inspiration.

## K

**Kidney** – Either of a pair of organs in the back part of the abdominal cavity that form and excrete urine, regulate fluid and electrolyte balance, and act as endocrine glands.

## L

**Larynx** – The upper portion of the trachea.

**Lung** – Either of two spongy, saclike respiratory organs in most vertebrates, occupying the chest cavity together with the heart or functioning to remove carbon dioxide from the blood and provide it with oxygen.

## N

**Nephron** – The filtering and excretory unit of the kidney, consisting of the glomerulus and tubules.

**Nerve** – One or more bundles of fibers forming part of a system that conveys impulses of sensation, motion, etc., between the brain or spinal cord and other parts of the body.

**Neuron** – A nerve cell.

## P

**Parasympathetic system** – Part of the autonomic system that slows the body from the flight-or-flight mode, lowering heart rate and blood pressure.

**Pharynx** – The cavity that connects the mouth and nasal cavity to the throat, a passage common to the digestive and respiratory tracts.

**Physiology** – The science that deals with the function of a plant or animal's body and its organs, systems, tissues, and cells.

**Pituitary gland** – A small endocrine gland located in the lower part of the brain. Among other functions, it secretes hormones into the bloodstream that influence growth of the body, stimulate the thyroid gland, the sex organs, and the mammary gland to initiate the secretion of milk after the birth of the young.

**Pulmonary circulation** – The circulation of blood from the heart to the lungs for oxygenation and back to the heart.

**Pulse** – The expansion and contraction of an artery associated with each heartbeat.

## R

**Receptor** – An end organ or a group of end organs of sensory or afferent neurons, specialized to be sensitive to stimulating agents, as touch or heat.

**Renal** – Of or pertaining to the kidneys or the surrounding regions.

**Respiration** – 1) A chemical process that takes place in living cells whereby food is “burned” to release energy and waste products, mainly carbon dioxide and water. Living things use energy produced through respiration to drive vital life processes such as growth and reproduction. 2) In animals, the act of breathing; the drawing of air into the lungs and its exhalation.

**Respiration rate** – The number of times an organism breathes in one minute.

**Restraint** – A way of limiting, controlling, or stopping an animal.

## S

**Sensory somatic system** – Operates the voluntary motor activity of the body.

**Sphygmomanometer** – An instrument, often attached to an inflatable air-bladder cuff and used with a stethoscope, for measuring blood pressure in an artery.

**Stethoscope** – An instrument used in listening to convey sounds in the chest or other parts of the body to the ear of the examiner.

**Systemic circulation** – The circulatory system excluding the pulmonary circulation.

**Sympathetic system** – The part of the autonomic system that stimulates organs for flight or fight.

**Systolic** – Indicating the maximum arterial pressure occurring during contraction of the left ventricle of the heart.

## T

**Thyroid gland** – A ductless gland situated in the neck of humans and animals, which secretes thyroxin, a hormone that controls the rate of metabolism and has a profound influence on growth and production.

**Titration** – To ascertain the quantity of a given constituent by adding a liquid reagent of known strength and measuring the volume necessary to convert the constituent to another form.

**Trachea** – The windpipe; in mammals, it extends from the throat to the bronchi.

## U

**Urinary system** – The bodily system consisting of the organs that produce, collect, and eliminate urine and including the kidneys, ureters, urinary bladder, and urethra.

## V

**Vena cava** – The large veins that carry blood into the right atrium of the heart.

**Ventricle** – One of the two pumping chambers of the heart.