

# Glossary

**Abduction** Movement of a body part away from the midline of the body

**Abscess** A pus-filled cavity within tissue

**Accommodation** Focussing adjustment of the eyes to view close objects

**Acid** Substance that releases hydrogen ions in solution

**Acidosis** Situation when blood pH falls below the normal pH range

**Action potential** The electrical current (impulse) conducted along a nerve cell (neurone)

**Active transport** Movement of substances across a cell membrane, up the concentration gradient, and requiring energy

**Acute** Of sudden onset

**Adaptation** Lessening of response by sensory receptors to prolonged stimulation

**Adduction** Movement of a body part towards the midline of the body

**Adenosine triphosphate (ATP)** Molecular store of chemical energy for chemical reactions

**Adhesions** Fusion of two separate tissue layers with fibrous tissue, usually following inflammation

**Adipose tissue** Fat tissue

**Aerobic** Requiring oxygen

**Aetiology** Cause of a disease

**Afferent** Carrying or travelling towards an organ

**Afterload** The resistance to blood flow from the heart, determined mainly by the diameter of the arteries

**Agranulocyte** White blood cell with no granules in its cytoplasm (i.e. lymphocytes and monocytes)

**Alkali** Substances that accept hydrogen ions in water or solution

**Alkalosis** Situation when blood pH rises above the normal pH range

**Allele** The form of a gene carried on a chromosome

**Allergy** Targeting and destruction of harmless antigens by the immune system, often with detrimental effects on normal body tissues

**Alveolar ventilation** The amount of air reaching the alveoli with each breath

**Alveolus (pl. alveoli)** An air sac in the lungs; also the milk secreting sacs in the mammary glands

**Amino acid** The building blocks of protein

**Anabolism** Synthesis of larger molecules from smaller ones

**Anaerobic** Not requiring oxygen

**Anaphase** Third phase of mitosis

**Anaphylaxis** The severest form of allergy, with multiple, potentially fatal, systemic effects

**Anastomosis** The joining of two tubes, e.g. (i) in blood vessels where there are no capillary beds, (ii) following surgery

**Anatomical position** Used to maintain consistency of anatomical descriptions – the body is upright, with the head facing forward, the arms at the sides with the palms of the hands facing forward, and the feet together

**Aneurysm** A weakness in the wall of an artery

**Anion** A negatively charged ion

**Anterior (ventral)** Describes a body part nearer the front

**Antibody** Defensive protein synthesised by B-lymphocytes in response to the presence of antigen

**Antigen** A protein that stimulates the body's immunological defences

**Antimicrobial** A substance or mechanism that kills or inhibits growth of micro-organisms

**Appendicular skeleton (cf. axial skeleton)** The shoulder girdle, upper limbs, pelvic girdle and lower limbs

**Arrhythmia** An abnormal heart rhythm

**Arteriole** A small artery

**Artery** A blood vessel that carries blood away from the heart

**Articulation** A joint

**Atrophy** Decrease in cell size resulting in shrinking of an organ or body part

**Auditory** Related to hearing

**Autoimmunity** Targeting and sometimes destruction of one's own or 'self' tissues by the immune system

**Autoregulation** The ability of a tissue to independently control its own blood supply

**Authorhythmicity** The ability of a tissue to generate its own electrical signals

**Autosome** Any one of the chromosomes in pairs 1–22 (i.e. all but the sex chromosomes)

## GLOSSARY

- Axial skeleton (cf. appendicular skeleton)** The skull, vertebral column, sternum (breastbone) and ribs
- Bacterium (pl. bacteria)** Single-celled micro-organism, common in the external environment, some of which can cause disease
- Baroreceptor** Sensory receptor sensitive to pressure (stretch)
- Basal metabolic rate** The energy use of the body when at rest in a warm environment, without having eaten for 12 hours
- Benign** Non-cancerous or a non-serious condition for which treatment may be required
- Blastocyst** The hollow ball of cells that, during fetal development, embeds in the uterine wall
- Blood–brain barrier** The collective term given to the physiological adaptations in the central nervous system that prevents many blood-borne substances from accessing it
- Bradycardia** Abnormally slow heart rate
- Bronchodilation** Widening of the larger airways and bronchioles
- Buffer** A substance that resists a shift in pH of body fluids
- Capacitance vessel** A vessel that can expand to contain large quantities of blood at low pressure (veins)
- Capillary** A tiny blood vessel between an arteriole and a venule, which has leaky walls to allow exchange of substances between the blood and tissues
- Carbohydrate** Group of organic compounds including the sugars and starches
- Carcinogen** A cancer-causing substance
- Carcinoma** A tumour arising from epithelial tissue
- Cardiac** Of the heart
- Cardiac output (CO)** The amount of blood ejected by one ventricle every minute:  $CO = \text{heart rate (HR)} \times \text{stroke volume (SV)}$
- Catabolism** Breaking down of larger molecules into smaller ones
- Catalyst** A substance that speeds up a biochemical reaction without taking part in it
- Cation** A positively charged ion
- Central nervous system** The brain and spinal cord
- Cerebrospinal fluid (CSF)** The fluid bathing the brain and spinal cord
- Chemoreceptor** A sensory receptor sensitive to chemicals in solution
- Chemotaxis** The movement of a cell towards a chemical attractant
- Chondrocyte** Mature cartilage cell
- Chromatin** The uncoiled state of chromosomes during interphase
- Chromosome** Sausage-shaped structure consisting of a tightly coiled molecule of DNA visible at the end of interphase
- Chronic** Long-standing or recurring
- Cilia (sing. cilium)** Microscopic cell extensions for moving materials through the lumen of a tube
- Circadian rhythm** The regular, predictable fluctuation of a physiological function over a 24-hour period
- Circumduction** Movement of a body part to describe a cone shape
- Citric acid cycle** Important sequence of aerobic metabolic reactions in cellular energy production
- Coagulation** Blood clotting
- Co-dominance** The situation when more than one form of a gene is dominant
- Coitus** The act of sexual intercourse
- Commensal** A harmless micro-organism that lives in the body or on its surfaces, which may bring advantages to its host, e.g. by producing vitamins, or by preventing the growth of pathogens
- Communicable (disease)** Transferable from one person to another
- Compliance** The stretchability of a tissue
- Compound** A molecule containing more than one element
- Concentration gradient** Where two areas of, e.g., liquid have different concentrations of a solute
- Congenital** Inherited
- Constriction** Narrowing of a tube or vessel due to contraction of circular muscle in its wall
- Convergence** The turning of the eyes inward to focus on a close object
- Cortex** The outer layer of a gland or structure
- Costal** Related to the ribs
- Cytoplasm** The contents of a cell except the nucleus (i.e. cytosol + organelles)
- Deamination** Removal of the amine group from an amino acid
- Deep** A body structure or part that is not close to the body surface
- Defaecation** Expulsion of faeces from the rectum
- Deglutition** Swallowing
- Dehydration** Excessive loss of body water
- Deoxyribonucleic acid (DNA)** The molecule in which the genetic code is written, and packaged into chromosomes in the nucleus
- Diapedesis** Movement of an independently motile cell from one place to another
- Diaphysis** The shaft of a long bone
- Diastole** Resting period of the heart or its individual chambers

- Diastolic blood pressure** The pressure recorded in the systemic circulation (often at the arm) when the pressure is at its lowest, corresponding to relaxation of the myocardium; the lower of the two measurements used to denote a blood pressure recording
- Differentiation** The process of cell specialisation
- Diffusion** Movement of substances down a concentration gradient, which does not require energy or presence of a membrane
- Dilation** Widening of a tube or vessel due to relaxation of circular muscle in its wall
- Diploid** A cell with 46 chromosomes, the whole complement of 23 pairs
- Distal** Further from the origin of a body part or point of attachment of a limb
- Diuresis** The passing of urine
- Dominant** In genetics, the preferential expression of one form of a gene over another
- Efferent** Carrying or travelling away from an organ
- Elasticity** The ability of a tissue to stretch and recoil to its original length or shape
- Electrolyte** An inorganic ion in body fluids, which conducts electricity
- Element** A chemical whose atoms are all of the same type
- Embolus** A blood clot or other substance that travels in a blood vessel and may lodge blocking a smaller vessel
- Embryo** In humans, the first eight weeks of development after fertilisation following which it is referred to as the fetus
- Endocrine gland** A ductless gland that secretes a hormone which travels to its target organ in the bloodstream
- Endogenous** Internal, produced by the body
- Endothelium** Epithelium lining blood vessels
- Enzyme** A protein substance that speeds up (catalyses) chemical reactions
- Epidermis** The outermost layer of the skin
- Epinephrine** Another term for adrenaline
- Epiphysis** Each end of a long bone
- Epithelium** Tissue that lines and covers most body organs
- Equilibrium** The state of physiological balance or equivalence
- Erythropoiesis** Production of red blood cells
- Essential nutrient** A nutrient that must be eaten in the diet
- Eversion** Turning the soles of the feet outwards
- Exocrine gland** Gland that secretes its product into ducts for transport
- Exocytosis** Process by which particulate waste is expelled from a cell
- Exogenous** External; not produced by the body
- Expiration (cf. inspiration)** The physical process of breathing out
- Extension** An increase in the angle between two bones, straightening a limb
- External respiration** Exchange of gases in the lungs
- Extracellular** Outside a cell
- Extrinsic pathway** Clotting process triggered by damaged extravascular tissues
- Facilitated diffusion** A form of diffusion that requires carrier proteins for transfer of substances across cell membranes
- Faeces** Waste product of digestion excreted through the anus
- Fascia** Fibrous membrane that supports, covers and separates muscles
- Fertilisation** The penetration of an ovum by a spermatozoon to form a zygote that can grow into a fetus
- Fibre** Muscle cell; in nutrition, the indigestible part of the diet also known as non-starch polysaccharide
- Fibrinolysis** The breakdown of a blood clot
- Fibroblast** Connective tissue cell that produces collagen fibres
- Filtration** The movement of small molecules, by hydrostatic pressure, through a selectively permeable membrane
- Fistula** An abnormal passageway between two organs or an organ and the body surface
- Flagella (sing. flagellum)** Long cell extensions used for cellular propulsion
- Flexion** The reducing of the angle between two bones; straightening a limb
- Follicle** A small secretory gland
- Gamete** An ovum or spermatozoon (reproductive cell)
- Gastric** Of the stomach
- Gene** An area on a chromosome that codes for one particular protein
- Genome** All the genes in a cell
- Genotype** The genetic make-up of an individual
- Gestation** Pregnancy
- Glia** Nervous tissue that supports neurones
- Globulin** One class of plasma protein, including antibodies
- Glucocorticoids** Group of steroid (fat-based) adrenal cortex hormones essential for life
- Gluconeogenesis** The production of glucose from non-carbohydrate molecules
- Glucose** Simple sugar used by cells for energy

## GLOSSARY

**Glycogen** Storage, very high molecular weight form of glucose

**Glycolysis** The anaerobic breakdown of glucose to release some of its stored energy

**Granulation tissue** Newly formed repair tissue following tissue damage

**Granulocyte** General term for a white blood cell without cytoplasmic granules

**Granulopoiesis** The production of white blood cells

**Gustation** Taste

**Haematemesis** Vomiting of blood

**Haemolysis** The breakdown of red blood cells

**Haemopoiesis** The production of blood cells

**Haemorrhage** Profuse blood loss

**Haemostasis** The cessation of blood flow

**Haploid** A cell with 23 chromosomes (half the total chromosome complement)

**Hepatic** Of the liver

**Heterozygous** Genetically, a form of a gene on one chromosome that is different to the form of the same gene on the other chromosome of the pair

**High-density lipoprotein** A lipid/protein complex in the bloodstream important in transporting cholesterol to the liver for disposal

**Hilum** Indented area of an organ where blood vessels, nerves and ducts enter and leave

**Homeostasis** Maintenance of a stable internal environment

**Homozygous** Genetically, a form of a gene on one chromosome that is the same as the form of the same gene on the other chromosome of the pair

**Hormone** A substance secreted by an endocrine gland that is transported in the blood and acts on specific target cells elsewhere in the body

**Hydrophilic** Water loving

**Hydrophobic** Water hating

**Hydrostatic pressure** The pressure exerted by a fluid on the walls of its container, e.g. of blood on the walls of blood vessels

**Hypersecretion** Abnormally high secretion of a body product, e.g. a hormone

**Hypersensitivity** An abnormal immune response directed either against a harmless antigen (allergy) or a 'self' antigen (autoimmunity)

**Hypertension** Abnormally high blood pressure

**Hypertonic** A solution with a solute concentration higher than body fluids

**Hypertrophy** An increase in cell size resulting in enlargement of an organ or body part

**Hyperventilation** Abnormally high respiratory effort, associated with loss of excessive amounts of carbon dioxide

**Hyposecretion** Abnormally low secretion of a body product, e.g. a hormone

**Hypotension** Abnormally low blood pressure

**Hypothermia** An abnormally low body temperature (core temperature <35°C)

**Hypotonic** A solution with a solute concentration lower than body fluids

**Hypoventilation** An abnormally low respiratory effort, associated with retention of carbon dioxide

**Hypoxia** Inadequate levels of oxygen in the tissues

**Iatrogenic** A condition resulting from a healthcare intervention

**Idiopathic** A condition of unknown cause

**Immunity** Body defence mechanisms against a specific disease

**Incontinence** Inability to control the voiding of urine

**Infarction** Death of a region of tissue due to interruption of its blood supply

**Infection** The invasion of body tissues by pathogenic organisms

**Inferior** Structure further from the head

**Inflammation** Non-specific tissue response to damage

**Ingestion** Taking in of substances orally, i.e. through the mouth

**Insensible water loss** Loss of water through the skin and respiratory tract

**Insertion (cf. origin)** The point where a muscle is attached to the bone in moves

**Inspiration (cf. expiration)** The physical process of breathing in

**Integumentary** Of the skin

**Internal respiration** Exchange of gases in the tissues

**Interphase** Phase of the cell cycle when there is no division

**Interstitial fluid** Fluid situated between body cells, also known as tissue fluid

**Intracellular** Inside a cell

**Intrinsic factor** A protein secreted by the stomach required for absorption of vitamin B<sub>12</sub> (the extrinsic factor)

**Intrinsic pathway** Clotting process triggered by damaged blood vessels

**Inversion** The turning of the soles of the feet to face each other

**Involuntary** Not under conscious control

**Ion** A charged atom (which has either lost or acquired electrons)

**Ionising radiation** Radiation that generates ions when it passes through atoms; can damage cells by changing the atoms in the molecules that make up living tissue, e.g. X-rays

**Ischaemia** Impaired blood supply to a body part

- Isometric** Muscle work where the tension in the muscle rises but the muscle does not shorten, e.g. if trying to lift a weight that is too heavy to move
- Isotonic** Muscle work where the muscle shortens as the tension rises, allowing, e.g., a load to be lifted by the arm; in chemistry, solutions with a solute concentration the same as body tissues
- Isotope** A form of an element that has a different number of neutrons from the principal form
- Karyotype** Photographic presentation of a cell's chromosomes as matched pairs in descending order of size
- Lactation** Production of breast milk
- Lateral** Structure further from the midline or at the side of the body
- Leukocyte** General term for a white blood cell
- Leukopenia** A low blood white cell count
- Ligament** Band of connective tissue that binds one bone to another
- Lipase** Enzyme that breaks down fat
- Lipid** The general term for any substance that does not dissolve in water but dissolves in non-polar solvents like alcohol
- Lipolysis** Breakdown of fat
- Low-density lipoprotein** A lipid/protein complex in the bloodstream associated with deposition of cholesterol in arterial walls
- Lumen** The central passageway within an internal tube or duct
- Lymph** Watery fluid drained by the lymphatic system from the tissue spaces
- Lysis** Destruction of a cell, e.g. haemolysis
- Lysozyme** An antimicrobial enzyme present in some body fluids
- Macrophage** A phagocytic cell usually found in connective tissue
- Malignant** Cancerous
- Mastication** Chewing
- Meatus** An opening into a passage
- Medial** Structure that is nearer to the midline
- Median plane** An imaginary line that divides the body longitudinally into right and left halves
- Mediastinum** The region between the lungs, containing the heart, great vessels, trachea and other important structures
- Medulla** The inner layer of a gland or structure
- Meiosis** Process of cell division by which gametes are formed
- Melaena** Blood in the faeces
- Menarche** The onset of puberty in females, marked by the start of menstruation
- Menopause** Time of the female life span when reproductive function ceases
- Menstruation (menses)** Regular shedding of uterine lining, usually monthly, during the reproductive period of the female life span
- Metabolic pathway** Sequence of metabolic steps in cellular biochemistry
- Metabolism** All the chemical reaction that take place within the body
- Metaphase** Second phase of mitosis
- Metastasis (pl. metastases)** Secondary deposits from a primary malignant tumour
- Microbe** Micro-organism, e.g. a fungus, bacterium or virus
- Micturition** Passing urine
- Mitosis** Cell division giving two identical daughter cells
- Mole** In chemistry, the quantity of a substance representing its molecular weight in grams
- Motor nerve or neurone** An efferent nerve that carries impulses from the central nervous system to muscles or glands
- Mucosa** Lining of body tracts (also mucous membrane)
- Mutagen** Any substance that causes mutation
- Mutation** A genetic change that arises during cell division
- Myelin** A fatty substance that surrounds the axons of myelinated nerves
- Myofilaments** Intracellular protein threads within muscle cells, made either of actin or myosin, responsible for muscle cell contraction
- Necrosis** Cell death caused by an injury or a pathological condition
- Negative feedback (cf. positive feedback)** Any control mechanism that resists and reverses any change from normal in a physiological system
- Neoplasm** A new growth which may be benign or malignant
- Nephron** The structure in the kidneys responsible for the formation of urine
- Neuromuscular junction** The synapse between a motor nerve and a skeletal muscle cell
- Neurone** Nerve cell
- Neurotransmitter** Chemical that transmits an impulse between one nerve and the next, or between a nerve and the neuromuscular junction
- Non-specific defence** The defence mechanisms of the body that are effective against different types of threat, e.g. the skin, inflammation, complement
- Norepinephrine** Alternative name for noradrenaline
- Nucleotide** Building block of nucleic acids
- Nutrient** Any substance that is digested, absorbed and used to promote body function
- Oedema** Tissue swelling due to collection of fluid in the intercellular spaces

## GLOSSARY

- Olfaction** Sense of smell
- Oncogenic** Cancer-causing
- Organ** Body part, composed of different tissues, that carries out a specific body function
- Organelle** Intracellular structure that carries out a specific function
- Organic** A molecule or substance containing carbon
- Origin** Point of attachment of a muscle to a bone that moves least during muscle contraction
- Osteoid** The organic constituent of bone tissue
- Osteon** Structural unit of compact bone
- Osteopenia** Age-related bone degeneration
- Osmoreceptors** Specialised sensory receptors sensitive to solute concentration
- Osmosis** Movement of water down its concentration gradient across a semipermeable membrane
- Osmotic pressure** The pressure exerted by water in a solution
- Ossicles** Bones of the middle ear: hammer, anvil and stirrup
- Ossification** The production of bone tissue
- Ovulation** The release of a mature ovum from the ovary
- Oxidative phosphorylation** The aerobic high energy-generating metabolic process of cellular respiration
- Oxyhaemoglobin** The oxygenated form of haemoglobin
- Parasympathetic nervous system** Division of the autonomic nervous system that prepares the body for 'rest and repair'
- Parietal layer** A layer of serous membrane lining a body cavity (cf. visceral layer)
- Parturition** Childbirth
- Passive transport** Any form of transport within the body that does not require the use of energy
- Pathogen** Micro-organism capable of causing disease
- Peptidase** An enzyme that breaks down protein
- Peripheral nervous system** Nervous tissue that is not part of the brain or spinal cord
- Peripheral resistance** The force against which the blood has to push to move through the arterial circulation, determined mainly by the diameter of the arterioles
- Peristalsis** Rhythmical contraction of smooth muscle in the walls of hollow organs and tubes, e.g. the alimentary canal
- pH scale** Scale of measurement of acidity or alkalinity
- Phagocytosis** Defence mechanism by which body cells consume and destroy foreign materials, 'cell eating'
- Phenotype** The expression of the genes in an individual, e.g. hair colour, height, etc.
- Phospholipid** Fat-based molecule containing phosphate, essential to the structure of the cell membrane
- Pinocytosis** Ingestion of small vacuoles into a cell, 'cell drinking'
- Plasma** Clear, straw coloured liquid portion of the blood
- Plasma protein** Any one of a group of important proteins synthesised by the liver and carried in the plasma, with diverse physiological functions, e.g. as antibodies or clotting proteins
- Platelet (thrombocyte)** Small cell fragments involved in blood clotting
- Pleural** Related to the lungs
- Plexus** A network formed by a collection of nerves or blood vessels
- Polymorphonuclear leukocyte** A general term for a white blood cell with an irregular nucleus (i.e. basophils, eosinophils and neutrophils)
- Polyuria** Production of large quantities of urine
- Positive feedback (cf. negative feedback)** A control mechanism that increases and accelerates any change from normal in a physiological system; much rarer than negative feedback control
- Posterior (dorsal)** Lying to the back of the body
- Preload** The amount of blood in the ventricle just prior to ventricular contraction, determined mainly by venous return
- Presbycusis** Irreversible hearing loss, usually due to ageing, which results from degeneration of the cochlea and begins with an inability to hear high pitched sounds
- Presbyopia** Stiffening of the lens, usually due to ageing, which impairs the ability of the eye to change focus (accommodate)
- Pressure ulcer** Damage to superficial tissues caused by prolonged pressure and interrupted blood supply, usually over a bony prominence
- Primary wound healing** Simple repair of relatively minor tissue damage
- Prognosis** Likely outcome of a disease
- Prophase** First phase of mitosis
- Pronation** The turning of the palms to face backwards
- Protein** A large polypeptide
- Proximal** Nearer the origin of a body part or point of attachment of a limb
- Puberty** The stage of life in males or females where reproductive maturity is achieved
- Pulmonary** Of the lungs
- Pulse** The pressure wave generated by the heart, felt along an arterial wall where that artery lies close to the body surface

- Pulse pressure** Diastolic blood pressure subtracted from the systolic value
- Pyrexia** Fever
- Pyrogen** A substance that causes fever
- Radiation** The transmission of energy in waves
- Receptor** A molecule, usually on the cell surface, that detects and responds to chemicals in the cell's external environment, e.g. a neurotransmitter. Also, a sensory nerve ending that detects physical changes in the local environment, e.g. a baroreceptor measuring pressure
- Recessive** Genetically, a form of a gene that can only be expressed if it is present as two identical forms on the chromosome pair
- Refraction** The bending of light rays as they pass through a lens, e.g. the lens of the eye
- Renal** Of the kidneys
- Resistance vessel** A blood vessel, usually an arteriole, with a thick layer of smooth muscle in its tunica media, that constricts or dilates to regulate blood flow and blood pressure
- Reticulocyte** Immature red blood cell
- Retroperitoneal** Lying behind the peritoneum
- Ribonucleic acid (RNA)** Molecule used to transfer genetic instructions from DNA to cytoplasmic ribosomes
- Rotation** The movement of a body part around its long axis
- Rugae** Folds in the internal surface of a hollow organ when the organ is relaxed
- Sagittal plane** An imaginary vertical line dividing the body into right and left halves either down the midline (midsagittal) or on either side of the midline (sagittal)
- Salt** The product of a reaction between an acid and a base
- Saltatory conduction** The 'jumping' of a nerve impulse along a myelinated nerve axon, from one node of Ranvier to the next
- Scar tissue** The nonfunctional tissue that replaces damaged tissue
- Secondary wound healing** Repair of tissue after extensive damage; a more complex and intense process than primary wound healing
- Semipermeability (selective permeability)** A property of cell membranes that allows passage of some substances but not others
- Senescence** Cell ageing and the decline in function that accompanies it
- Sensory nerve or neurone** An afferent nerve that carries impulses to the central nervous system
- Serous fluid** The general term for protein-containing fluid secreted by certain membranes, e.g. serous pericardium and visceral pleura
- Sex chromosome** The X or Y chromosome (pair 23)
- Sign** An abnormality observed by people other than a patient
- Simple propagation** The continuous conduction of an impulse along an non-myelinated nerve fibre
- Sliding filament theory** The accepted mechanism by which actin and myosin filaments within muscle cells slide over one another to permit muscle shortening (contraction)
- Specific defence mechanisms** Immunity; body's protective mechanisms raised against a specific threat or antigen
- Sphincter** Circle of muscle surrounding an internal passageway or orifice, used to regulate passage through the opening
- Spinal reflex** Involuntary, usually protective, action controlled at the level of the spinal cord (i.e. independent of the brain)
- Squamous** Flattened (epithelial cells)
- Stratified** Of tissues, having several cell layers
- Striated** The microscopic appearance of a striped pattern on skeletal and cardiac muscle cells
- Stroke volume** The volume of blood ejected by the ventricle when it contracts
- Superficial** Near the body surface
- Superior** Towards the upper part of the body
- Supination** Turning the palm to face forwards
- Sympathetic nervous system** Division of the autonomic nervous system that prepares the body for 'fight or flight'
- Symptom** An abnormality described by a patient
- Synapse** The junction between a nerve and the cell it supplies
- Syndrome** A collection of signs and symptoms that tend to occur together
- Systemic circulation** The blood supply to all body organs except for the pulmonary arteries and veins
- Systole** Contraction period of the heart or its individual chambers
- Systolic blood pressure** The pressure recorded in the systemic circulation (often at the arm) when the pressure is at its highest, immediately following ventricular contraction; the higher of the two measurements used to denote a blood pressure recording
- Tachycardia** Abnormally fast heart rate
- Telophase** Fourth (final) phase of mitosis
- Telomere** Non-coding sections of DNA that cap and protect the ends of each chromosome
- Tendon** A band of fibrous tissue connecting muscle to bone
- Teratogen** Any substance or agent known to cause abnormal fetal development

## GLOSSARY

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**Thrombosis** The inappropriate, pathological formation of stationary blood clots within blood vessels

**Thrombus (pl. thrombi)** Stationary blood clot (clots)

**Tissue fluid** Fluid between body cells, also known as interstitial fluid

**Tolerance** The ability of the immune system and its defensive cells and mechanisms to identify, and not attack, 'self' tissues

**Tract** A bundle of axons in the central nervous system

**Transcription** Production of mRNA from DNA

**Translation** Production of protein from mRNA

**Transverse plane** An imaginary line slicing the body into an upper and a lower part

**Trophic hormone** Hormone released that causes the release of a second hormone

**Trophoblast** Outer cell layer of the blastocyst that forms the placenta

**Tumour** Mass of cells growing outwith the body's normal control mechanisms

**Tunica adventitia** The outer, supportive lining of blood vessels

**Tunica intima** The lining of blood vessels (also called endothelium)

**Tunica media** The middle layer of tissue in larger blood vessels

**Urine** Liquid waste product made in the kidneys

**Vasoconstriction** Decrease in diameter (narrowing) of a blood vessel

**Vasodilation** Increase in diameter (widening) of a blood vessel

**Vein** A blood vessel that carries blood towards the heart

**Venule** A small vein

**Virus** Non-living particle, which may be capable of causing disease

**Visceral layer** A layer of serous membrane covering a body organ

**Voluntary control** Conscious control of a body function

**Zygote** Fertilised egg formed by fusion of an ovum and spermatozoon