The Immune System - Key terms

IMMUNE SYSTEM:

A network of organs, glands, and tissues that protects the body from foreign substances.

IMMUNITY:

The condition of being able to resist a particular disease, particularly through means that prevent the growth and development or counteract the effects of pathogens.

IMMUNOLOGY:

The study of the immune system, immunity, and immune responses.

TISSUE:

A group of cells, along with the substances that join them, which form part of the structural materials in plants or animals.

GLAND:

A cell or group of cells that filters material from the blood, processes that material, and secretes it either for use again in the body or to be eliminated as waste.

LYMPH:

That portion of the blood that includes white blood cells and plasma but not red blood cells.

LYMPH NODES:

Masses of tissue at certain places in the body that act as filters for blood.

HEMOGLOBIN:

An iron-containing protein in red blood cells that is responsible for transporting oxygen to the tissues and removing carbon dioxide from them. Haemoglobin is known for its deep red colour.

ALLERGY:

A change in bodily reactivity to an antigen as a result of a first exposure. Allergies bring about an exaggerated reaction to substances or physical states that normally would have little significant effect on a healthy person.

WHITE BLOOD CELLS:

Blood cells that are colourless, lack haemoglobin, White blood cell, also called leukocyte or white corpuscle, a cellular component of the blood, is capable of motility, and defends the body against infection and disease by ingesting foreign materials and cellular debris.

In turn, **there** are three **types** of WBC—lymphocytes, monocytes, and granulocytes—and three main **types** of granulocytes (neutrophils, eosinophils, and basophils).

LEUCOCYTE:

a colourless cell which circulates in the blood and body fluids and is involved in counteracting foreign substances and disease; a white (blood) cell. There are several types, all amoeboid cells with a nucleus, including lymphocytes, granulocytes, and monocytes.

LYMPHOCYTE:

A type of white blood cell, varieties of which include B cells and T cells, or B lymphocytes and T lymphocytes.

B CELL:

A type of white blood cell that gives rise to antibodies. Also known as a *B lymphocyte.*

T CELL:

A type of white blood cell, also known as a *T lymphocyte,* that plays a key role in the immune response. T cells include cytotoxic T cells, which destroy virus-infected cells in the cell-mediated immune response; helper T cells, which are key participants in specific immune responses that bind to APCs, activating both the antibody and cell-mediated immune responses; and suppressor T cells, which deactivate T cells and B cells.

MONOCYTE:

A type of white blood cell that phagocytizes (engulfs and digests) foreign microorganisms.

PHAGOCYTE:

A cell that engulfs and digests another cell.

MACROPHAGE:

A type of phagocytic cell derived from monocytes. A type of white blood cell that surrounds and kills microorganisms, removes dead cells, and stimulates the action of other immune system cells.

PATHOGEN:

A disease-carrying parasite, usually a microorganism.

ANTIGEN:

A substance capable of stimulating an immune response or reaction. An antigen is any substance that causes your immune system to produce **antibodies** against it. This means your immune system does not recognize the substance and is trying to fight it off.
An **antigen** may be a substance from the environment, such as chemicals, bacteria, viruses, or pollen.

ANTIBODIES:

Proteins in the human immune system that help fight foreign invaders, especially pathogens and toxins.