

White Blood Cells

by Sophia

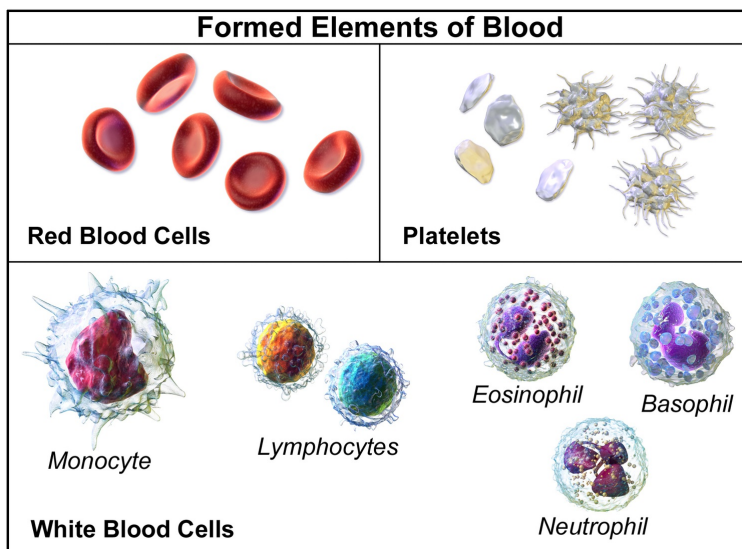


WHAT'S COVERED

In this lesson, you will learn to understand the types of white blood cells and their functions. Specifically, this lesson will cover:

1. Leukocytes

Leukocytes is another word for **white blood cells**. White blood cells are a component of blood that play a role in the body's defense system. Recall that other components of blood are red blood cells and platelets, which play a role in blood clotting.



TERMS TO KNOW

Leukocytes

Leukocytes are the general term for "white blood cells"; these are the immune system/defense cells of the body; there are five major types of leukocytes in the body: neutrophils, eosinophils, basophils, monocytes, lymphocytes.

White Blood Cells

Also called leukocytes, white blood cells are the immune system/defense cells of the body; there are five major types of white blood cells in the body: neutrophils, eosinophils, basophils,

2. Types of Leukocytes

There are five different types of leukocytes, and each has a different role in helping to clean up the body, remove old cells, destroy bacteria, fight infection, et cetera.

They are broken up into two groups of either granulocytes or agranulocytes.

Types of Leukocytes	
Granulocytes Types of white blood cells that have visible granules in their cytoplasm. These granules are a type of enzyme and are visible when the cell is stained.	Basophils: These cells play a role in which the body helps defend itself against certain types of pathogens. When their granules are released from the cell, it contributes to inflammation. Also referred to as mast cells.
	Eosinophils: These cells target parasites too big for phagocytosis. If somebody has a parasite, such as worms, eosinophils are the type of white blood cell that would target those and help to get rid of it.
	Neutrophils: These cells target bacteria and fungi.
Agranulocytes Types of white blood cells that do not have those visible granules in their cytoplasm.	Lymphocytes: These cells are responsible for carrying out specific immune responses and primarily attack cells (for example, attacking cancerous and virus-infected cells). There are two types of lymphocytes, T and B cells.
	Monocytes: These cells develop into macrophages and then engulf microbes.



TERMS TO KNOW

Granulocytes

A term used to classify white blood cells by their visible granules in their cytoplasm.

Basophils

White blood cells that store the chemicals heparin and histamine and are used to promote inflammation (example: allergies). Basophils are distinguished by their s-shaped nucleus and large granules.

Eosinophils

White blood cells that attack parasites that enter the body (example: worms) and are distinguished by their bi-lobed nucleus.

Neutrophils

White blood cells that attack bacteria invaders that enter the body; also called first responder cells. Neutrophils are distinguished by their 3-5 lobed, thin, horseshoe-shaped nucleus.

Lymphocytes

White blood cells responsible for carrying out specific immune responses and primarily attack

cells (for example, attacking cancerous and virus-infected cells). There are two types of lymphocytes, T & B cells.

Monocytes

The largest type of white blood cells and are considered circulating phagocytes. When debris, microbes, or parasites invade the tissues, monocytes attempt to engulf and devour the invaders. Monocytes are classified by their large, horseshoe-shaped nucleus.



MAKE THE CONNECTION

If you're taking the Human Biology Lab course simultaneously with this lecture, it's a good time to try the Hematology: Introduction to Blood Activity in Unit 5 of the Lab course. Good luck!



SUMMARY

Leukocytes, or white blood cells, play a role in the body's defense system. There are five different types of white blood cells, broken down into two groups. The first group, **granulocytes**, are white blood cells that have visible granules in their cytoplasm. Granulocytes include basophils, eosinophils, and neutrophils. The second group, **agranulocytes**, do not have visible granules in their cytoplasm. Agranulocytes include lymphocytes and monocytes.

Keep up the learning and have a great day!



ATTRIBUTIONS

- [Blood Components](#) | Author: Wikipedia | License: Creative Commons



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