Biology 20

Unit D: Human body systems

Blood and lymph

Three shapes in one liquid

- The red cell is a pale disc, and the white cell shows a nucleus.
- Tiny platelets sit nearby in the same plasma.

Capillaries exchange materials with tissues

- Erythrocytes carry oxygen, and plasma carries dissolved loads.
- Capillaries serve the gut, lungs, kidneys, and muscles.
- The lymphatic system returns fluid that capillaries leave in the tissues.

Key terms

erythrocyte

A red blood cell, shaped like a biconcave disc, that carries oxygen.

lymphatic system

The vessels that collect leftover fluid from tissues and return it toward the blood.

plasma

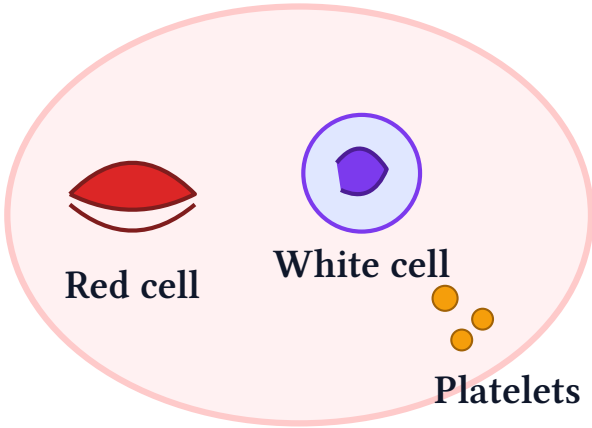
The pale liquid of blood that carries cells, nutrients, wastes, and heat.

platelet

A cell fragment that helps blood clot at a break in a vessel.

Cell shapes and jobs

- The disc is the erythrocyte that carries oxygen.
- The cell with a nucleus is a leucocyte.
- The fragments are platelets, and the liquid is plasma.



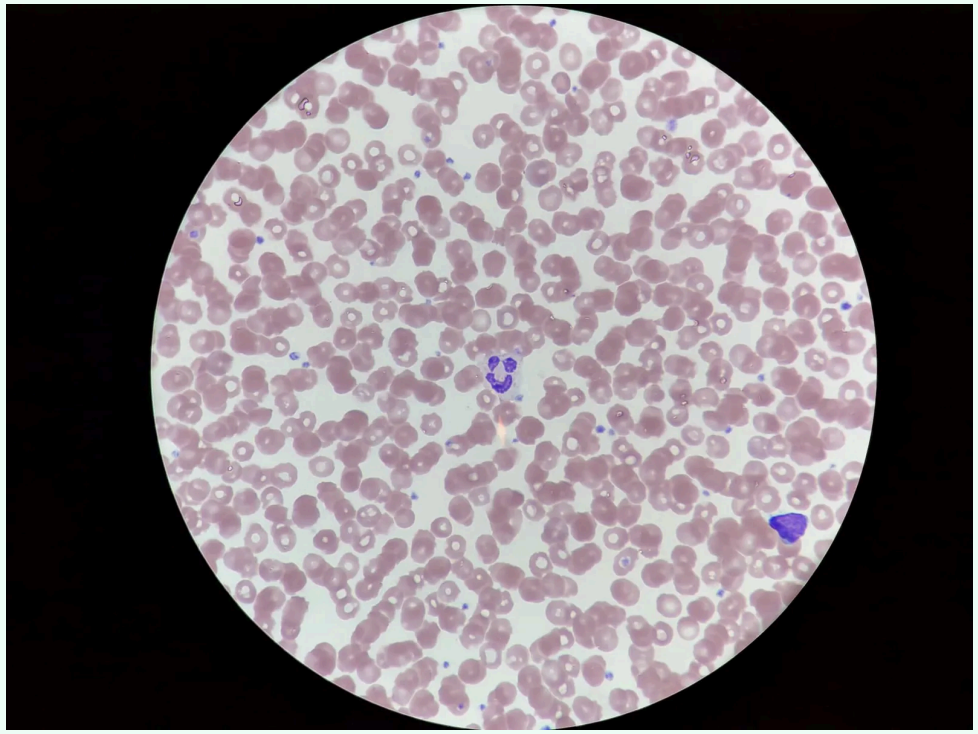
The pale liquid around them is plasma

Four organs, four exchanges

- The lung capillary loads oxygen and unloads carbon dioxide.
- The gut capillary loads nutrients from absorption.

A blood smear

- Red discs should far outnumber white cells on a typical smear.
- A field of mostly white cells is a reason to check the slide region.



Cells and exchange

- Name the four main parts of blood and one job each.
- Describe one capillary exchange and the lymph return.

White cells have specialties

- The nucleated cell in the smear is the start of a larger defence team.
- Blood types are a label on the red cells.

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