

Anatomy and Physiology of Blood Notes

General Info:

- 5 liters of blood in body
- Blood: Liquid, w/ cells floating in it
 - Liquid=Plasma
 - Solids(Cells)=RBC, WBC, Platelets ←called “Formed Elements”

Function:

- Transport: Plasma (river); RBC (cargo ship)
- Protection: WBC
- Controls Bleeding: Platelets

PLASMA:

- 55% of blood - 90-92% water
- transports: 8% proteins (antibodies, fibrinogen (clotting factor)),
2% nutrients/electrolytes/hormones/fats (calcium, potassium, glucose, amino acids) & waste products (urea, CO₂)

ERYTHROCYTES:

- 45%
- Contains hemoglobin
 - Gives pigment

- Carries oxygen
- Biconcave disk

LEUKOCYTES:

- 1% of blood
- Protect against pathogens (bacteria, virus)
- Granulocytes have granules in the cytoplasm (goo inside cell)
- Agranulocytes don't have granules

PLATELETS:

- <1%
- Also called a thrombocyte
- When activated, platelets form thrombin, which in turn forms fibrinogen, and in turn that forms fibrin, which makes your clot (scab) and stops the bleeding