

Blood Lab

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Formed Elements in Blood

Red Blood Cells (erythrocytes)


 4 million–6 million per mm³ blood

White Blood Cells (leukocytes)


Granular leukocytes

 20–50 per mm³ blood

- Basophil


 100–400 per mm³ blood

- Eosinophil


 3,000–7,000 per mm³ blood

- Neutrophil

Agranular leukocytes

 1,500–3,000 per mm³ blood

- Lymphocyte

 100–700 per mm³ blood

- Monocyte

Platelets (thrombocytes)

 150,000–300,000 per mm³ blood

- Wright's Blood Smear glass microscope slide
 - Which type of blood cell is most numerous on the slide? _____
 - Draw any WBCs and attempt to identify them
- Red Blood Cell (RBC) model
 - Describe the physical appearance of a RBC _____
 - Is a RBC a deeper pink color in its center or edge? Why?
 - Is a RBC encased by a plasma membrane? Yes/No
 - Does a RBC contain mitochondria and Golgi? Yes/No
- Viewmaster Set 95 Human Blood
Examine the blood cells in this exercise. Drawing optional.
 1. Note the various formed elements
 - Pt platelets
 - R red blood cells
 - Po neutrophils (leukocyte/WBC)
 - L lymphocyte (leukocyte/WBC)
 - Pl plasma
 2. Red Corpuscles (3000X)
A great view of red blood cells
 3. White Corpuscles
Note: E eosinophils
B basophils

M monocytes

4. Phagocytosis
Cell eating in action
5. SKIP
6. Fibrin – washed clot
7. Sickle cells
Note the sickle shape caused by bad hemoglobin combined with stress
8. Infected Blood

Examine the long bone cut in longitudinal section. Draw and identify where hematopoiesis occurs in adults. Where else does blood formation occur in infants?

Examine the full skeleton. Identify the locations where hematopoiesis occurs in an adult. List as many as you can

Typing for ABO and Rh Blood Groups

Should you choose not to check your own blood, be sure to carefully observe the results of an active participant in your group.

Obtain a sectioned disposable plastic slide, toothpick, lancet, and alcohol wipe from the supply area.

Additional instructions will be given in class.