

Cardiovascular System: The Blood

1. Look at the blood smear and identify:
 - a. erythrocytes
 - b. neutrophil
 - c. eosinophil
 - d. basophil
 - e. lymphocyte
 - f. monocyte
 - g. platelets

Each student is responsible for handling and disposing of any blood products and their lancets. These must be disposed of in the sharpies container or the red bag.

Hematocrit:

1. Wash hands thoroughly with soap and water and dry them before cleansing with cotton soaked in 70% alcohol and let the finger air dry.
2. Remove the lancet without touching the sharp end.
3. Puncture the skin of a finger with the lancet and dispose of the lancet in the sharpies container.
4. Fill capillary tube as demonstrated by the instructor. Plug the end of the tube and place in tube of centrifuge.
5. After tube is centrifuged, use a ruler to measure the height of the rbc's. Measure the total volume of blood. Your hematocrit is calculated by using the following equation:

$$\frac{\text{rbc measurement in mm}}{\text{total blood measurement in mm}} \times 100\%$$

Hemoglobin:

1. While your finger is still bleeding, dab a drop of your blood on the Tallquist paper and compare the color of your blood to the Tallquist scale chart in the back of the book.

ABO Blood Typing:

1. Obtain a microscopic slide, anti-A, anti-B and antiRh antisera, and three toothpicks.
2. Place one drop of each antisera on the slide and mix each with a drop of your own blood.
3. Use a different toothpick to mix each antisera with the drop of blood that was placed in it.
4. Agglutination indicates the presence of that protein on your rbc's.

Reactions to ABO sera:

Anti-A	Anti-B	Blood Type
clumping	no clumping	A
no clumping	clumping	B
clumping	clumping	AB
no clumping	no clumping	O

Discussion Topics:

Blood typing and transfusions
Erythroblastosis fetalis
Anemias