

Unit 9 – The Cardiovascular System

Reading Assignment:

Chapter 17 – Blood (pages 646-673)

Chapter 18 – The Heart (pages 677-709)

Chapter 19 – Blood Vessels (pages 713-742)

Vocabulary:

Please define the following terms and use them to study for the Unit Quiz. Be prepared to turn in a list of your definitions the day of the quiz. You may use flashcards, list form, Quizlet, or whatever is most practical and useful for you.

Hematocrit	Hemostasis	Pulmonary veins	Systole
Plasma	Vascular spasm	Pulmonary	Diastole
Formed elements	Coagulation	arteries	Arteries
Erythrocytes	Transfusion	Aorta	Veins
Hemoglobin	Mediastinum	Papillary muscles	Lumen
Hematopoiesis	Pericardium	Atrioventricular	Arterioles
Erythropoietin	Parietal layer	(AV) valves	Venules
Anemia	Epicardium	Tricuspid valve	Capillaries
Polycythemia	Visceral layer	Mitral valve	Venous valves
Leukocytes	Pericardial cavity	Chordae	Varicose veins
Granulocytes	Myocardium	tendineae	Blood pressure
Neutrophils	Endocardium	Semilunar valves	Viscosity
Eosinophils	Atria	Cardiac muscle	Systolic pressure
Basophils	Septum	Sinoatrial node	Diastolic pressure
Agranulocytes	Ventricles	Atrioventricular	Hypotension
Lymphocytes	Coronary sulcus	node	Hypertension
Monocytes	Auricles	Bundle of His	Pulse
Macrophages	Superior vena	Purkinje fibers	Diffusion
Leukemia	cava	Electrocardiogram	
Platelets	Inferior vena cava	Heart murmur	

Study Questions:

*Answer the following questions throughout the unit. Be ready to turn in your work the day of the test. Use in class notes, the textbook, and other resources to guide you in writing your **own** original response to the question. Think critically!*

1. Describe the composition and physical characteristics of whole blood. Explain why it is classified as connective tissue.
2. List the functions of blood.
3. List the classes, structural characteristics, and functions of leukocytes. Also describe leukocyte genesis.
4. Describe the ABO and Rh blood groups. Explain the basis of transfusion reactions.
5. Describe the structure and function of each of the three layers of the heart.

Honors Physiology

6. Describe the structure and function of the four chambers of the heart. Name each chamber and provide the name and general route of its associated great vessels.
7. Name the heart valves and describe their location, and mechanism of operation.
8. Trace the pathway of blood through the heart.
9. Describe the structural and functional properties of cardiac muscle, and explain how it differs from skeletal muscle.
10. Describe the three layers that typically form the wall of a blood vessel, and state the function of each.
11. Define vasoconstriction and vasodilation.
12. Describe the structure and function of a capillary bed.
13. Define blood flow, blood pressure, and resistance, and explain the relationships between these factors.
14. Know how to label the heart! (See below!)

