

## Unit 4 Review: The Cardiovascular System

**Part 1** – Answer the following questions first on your own, and then look up the ones you can not answer.

1. Where is the heart located?
2. What is the apex of the heart?
3. What are the 4 chambers of the heart?
4. What are the 4 valves of the heart?
5. What are the 4 vessels of the heart?
6. What is the *endocardium* and how are endocarditis and thrombosis related to it?
7. What is the *pericardium*?
8. Compare a thrombus, embolus and an embolism.
9. What are the 3 types of embolisms that we have discussed?
10. What is a stenotic valve? What is a valve prolapse?
11. What is the difference between systemic circulation, pulmonary circulation and coronary circulation?
12. What are the technical terms for the following?
  - Heart attack \_\_\_\_\_
  - Stroke \_\_\_\_\_
  - Hardening of the arteries \_\_\_\_\_
  - Chest pain \_\_\_\_\_
  - Enlargement of the heart \_\_\_\_\_
  - Ballooning of a blood vessel \_\_\_\_\_
  - High blood pressure \_\_\_\_\_

13. What is an angioplasty? What is a stent?

14. What is the difference between an artery, capillary and vein?

15. What are the 5 levels of an artery/vein starting from the inside out?

16. What do veins have that arteries do not?

17. Other than the heart pumping, what 2 methods do veins use to help blood go against the force of gravity?

18. What is plaque? What causes it?

19. What is the average blood pressure for adults? What would it have to be to be considered hypertension?

## **Part 2 - LOCATION, SIZE, AND POSITION OF THE HEART ANATOMY OF THE HEART**

Fill in *the* blanks.

1. The system that supplies our cells' transportation needs is the \_\_\_\_\_
2. The \_\_\_\_\_ or blunt point at the lower edge of the heart lies on the diaphragm, pointing to the left.
3. The \_\_\_\_\_ divides the heart into right and left sides between the atria.
4. The \_\_\_\_\_ are the two upper chambers; \_\_\_\_\_ are the two lower chambers
5. The cardiac muscle tissue is referred to as the \_\_\_\_\_
6. Inflammation of the heart lining is \_\_\_\_\_
7. The two AV valves are \_\_\_\_\_ and \_\_\_\_\_
8. The two Semilunar valves are \_\_\_\_\_ and \_\_\_\_\_
9. The \_\_\_\_\_ attach the AV valves to the papillary muscles.
10. The line of arteries and veins that runs vertically on the ventral surface of the heart is known as the \_\_\_\_\_
11. The \_\_\_\_\_ are located between the two ventricular chambers and the large arteries that carry blood away from the heart when contraction occurs.
12. A \_\_\_\_\_ is a condition caused when the flaps of this valve extend back into the left atrium, causing leaking of the valve.
13. \_\_\_\_\_ is cardiac damage resulting from a delayed inflammatory response to streptococcal infection that occurs most often in children.

Select *the best* answer.

- |                          |                         |                    |
|--------------------------|-------------------------|--------------------|
| A. Heart murmur          | E. Angina pectoris      | I. Coronary bypass |
| B. Pulmonary circulation | F. Systemic circulation | J. Pulmonary veins |
| C. Embolism              | G. Atherosclerosis      |                    |
| D. Heart attack          | H. Hypertension         |                    |

- \_\_\_\_\_ 14. Treatment for certain coronary disorders
- \_\_\_\_\_ 15. Movement of blood from the left ventricle through the body
- \_\_\_\_\_ 16. Blood clot
- \_\_\_\_\_ 17. Myocardial infarction
- \_\_\_\_\_ 18. Abnormal heart sound often caused by disorders of the valves
- \_\_\_\_\_ 19. Movement of blood from the right ventricle to the lungs
- \_\_\_\_\_ 20. Hardening of the arteries
- \_\_\_\_\_ 21. Severe chest pain
- \_\_\_\_\_ 22. High blood pressure
- \_\_\_\_\_ 23. Blood returns to the left atrium through these structures

### Part 3 - APPLYING WHAT YOU KNOW

1. Your friend Monique, told you during lunchtime today that she has been diagnosed as having mitral valve prolapse.

a.) Describe this structural abnormality,

b.) What might she experience? (symptoms)

c.) Describe the possible effects on heart function

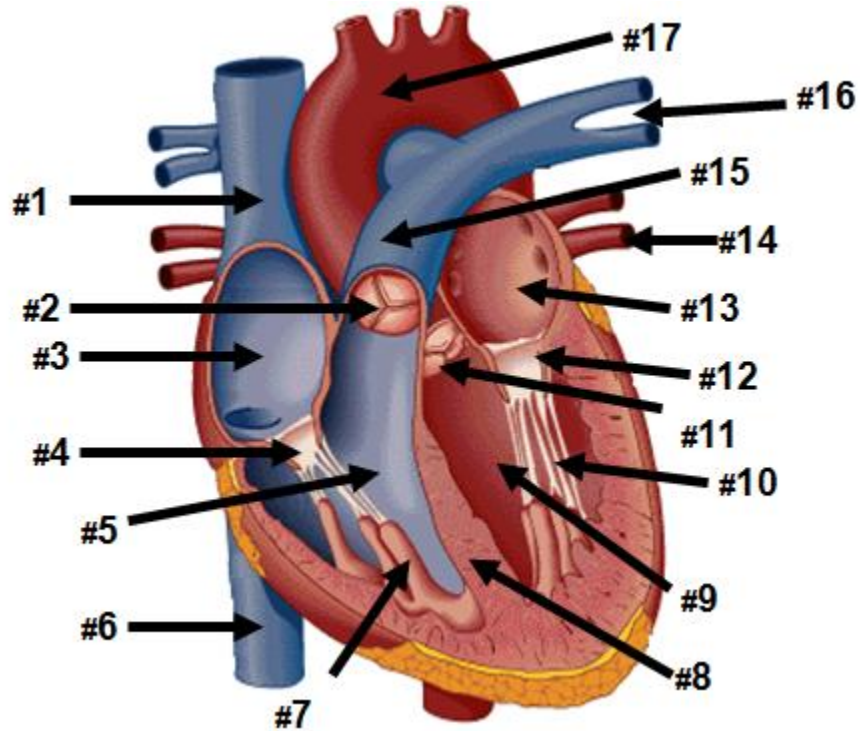
d.) Include what steps the doctors may take if her condition is severe enough.

2. Your Uncle Raul is about to undergo coronary bypass surgery. His surgeon carefully explained Uncle Raul's condition and the surgical procedure to correct it, but your uncle was too upset to pay close attention. Now that he has calmed down a bit, he realizes that he has very little idea of what his "triple bypass surgery" is all about. Since you just studied the heart in your anatomy and physiology class, you decide to describe to your uncle the probable condition of his heart and explain the concept of the planned surgery.

3. Freida's homework assignment was to be able to demonstrate knowledge of the flow of blood through the heart and body. Please help her. Trace the blood flow through the heart and body by numbering the following structures in the correct sequence. Start with number 1 for the right atrium and continue until you have numbered all structures.

- |                            |                                     |                                 |
|----------------------------|-------------------------------------|---------------------------------|
| _____ 1 Right atrium       | _____ Pulmonary veins               | _____ Systemic Arteries         |
| _____ Systemic Veins       | _____ Pulmonary trunk               | _____ Pulmonary semilunar valve |
| _____ Bicuspid valve       | _____ Systemic Venules              | _____ Left ventricle            |
| _____ Systemic Arterioles  | _____ Vena cava (Superior/Inferior) | _____ Pulmonary arteries        |
| _____ Right ventricle      | _____ Left atrium                   | _____ Aortic semilunar valve    |
| _____ Systemic Capillaries | _____ Aorta                         | _____ Tricuspid valve           |

**DRAW AND LABEL THE HEART AND ITS PARTS**



1 \_\_\_\_\_

2 \_\_\_\_\_

3 \_\_\_\_\_

4 \_\_\_\_\_ ( 2 names)

5 \_\_\_\_\_

6 \_\_\_\_\_

7 \_\_\_\_\_

8 \_\_\_\_\_

9 \_\_\_\_\_

10 \_\_\_\_\_

11 \_\_\_\_\_

12 \_\_\_\_\_ ( 3 names)

13 \_\_\_\_\_

14 \_\_\_\_\_

15 \_\_\_\_\_

16 \_\_\_\_\_

17 \_\_\_\_\_