

The Cardiovascular System

Name _____

Period _____

1. What is the protective membrane covering of the heart called? _____
2. Which chambers of the heart receive blood from the veins? _____

3. What chambers of the heart are known as pumping chambers? _____

4. What is the name of the blood vessel that brings venous blood from the head, neck, and arms to the right atrium? _____
5. What is the name of the blood vessel that brings venous blood from the abdomen and legs into the right atrium? _____
6. What is the name of the blood vessels that take deoxygenated blood from the right ventricle to the lungs? _____
7. What is the name of the blood vessels that take oxygenated blood from the lungs to the left atrium? _____
8. The largest artery in the body is the _____.
9. The valves are formed from the most inner heart layer, or the _____.
10. The valve between the right atrium and the right ventricle is known as the _____. The valve between the left atrium and the left ventricle is known as the _____.
11. The valves between the ventricles and blood vessels are known as the _____.
12. Complete flow of blood through the heart. Blood entering the _____ atrium flows through the tricuspid valve and into the _____. From there, the deoxygenated blood flows past the pulmonary semilunar valve and into the ___, and then into the lungs.

Oxygenated blood leaves the lungs through the _____ and enters the _____.

13. What is the semilunar valve? _____.

14. What is the pacemaker of the heart? _____

15. List and describe the heart's cardiac conduction system.

- a. _____
- b. _____
- c. _____
- d. _____

16. a. What is systole? _____
b. What is diastole? _____

17. If the patient has an elevated blood pressure we say they have _____.

18. What is the stroke volume? _____

19. What is cardiac output? _____

20. a. What vessel carries blood away from the heart? _____
b. What vessel carries blood to the heart? _____
c. What vessel is responsible for gas and nutrient exchange within each of the body's cells? _____

21. Describe each of the following vessels:

- a. arteries _____
- b. veins _____
- c. capillaries _____

22. What is a pulse? _____

23. Identify the location of the following pulse points:

- a. What pulse is felt on the upper surface of the foot? _____
- b. What pulse is felt in the antecubital space? _____
- c. What pulse is felt in the groin? _____
- d. What pulse is found in the neck? _____
- e. What pulse is found on the wrist side of the arm? _____

24. Answer the following questions about blood pressure.

- a. What is the first measurement of blood pressure? _____
- b. What does it measure? _____
- c. What is the second measurement of blood pressure? _____
- d. What does it measure? _____

25. a. What circulation route takes deoxygenated blood to the lungs where it can pick up oxygen? _____
- b. What circulation route takes oxygenated blood through the body? _____

WORKSHEET - Cardiovascular Review - KEY

1. What is the protective membrane covering of the heart called? Pericardium
2. What chambers of the heart receive blood from veins? Atria
3. What chambers of the heart are known as pumping chambers? Ventricles
4. What is the name of the blood vessel that brings venous blood from the head, neck, and arms to the right atrium? Superior Vena Cava
5. What is the name of the blood vessel that brings venous blood from the abdomen and legs to the right atrium? Inferior Vena Cava
6. What is the name of the blood vessels that take deoxygenated blood from the right ventricle to the lungs? Pulmonary arteries (which branch from the pulmonary trunk)
7. What is the name of the blood vessels that take oxygenated blood from the lungs to the left atrium? Pulmonary veins
8. The largest artery in the body is the Aorta
9. The valves are formed from the most inner heart layer or the Endocardium.
10. The valve between the right atrium and the right ventricle is known as the Tricuspid Valve. The valve between the left atrium and the left ventricle is known as the Bicuspid Valve (also called the Mitral Valve).
11. The valves between the ventricles and blood vessels are known as the Pulmonary and Aortic Semilunar Valves.
12. Complete flow of blood through the heart. Blood entering the Right atrium flows through the tricuspid valve and into the Right ventricle. From there, the deoxygenated blood flows past the pulmonary semilunar valve and into the Pulmonary Arteries, and then into the lungs. Oxygenated blood leaves the lungs through the Pulmonary Veins and enters the Left atrium of the heart. Blood continues to flow through the Mitral/Bicuspid valve and into the Left ventricle. From there, blood will flow past the aortic semilunar valve and into the Aorta.
13. What is a semilunar valve? Semilunar Valves: 3 half-moon pockets that catch blood and balloon out to close the opening
14. What is the pacemaker of the heart? SA node

15. List and describe the heart's cardiac conduction system.
- SA (sinoatrial) node: known as the pacemaker, located where the superior and inferior vena cava enter the right atrium
 - AV (atrioventricular) node: sends impulses to the ventricles
 - Bundle of His/bundle branches: in the septum
 - Purkinje fibers: in the heart wall to distribute nerve impulses
16. a. What is systole? Maximum pressure formed during a ventricular contraction
b. What is diastole? Minimum pressure during ventricular relaxation (atrial contraction)
17. If the patient has an elevated blood pressure we say they have Hypertension.
18. What is the stroke volume? Stroke volume is the volume of blood, in milliliters (ml), pumped out of the heart with each beat
19. What is cardiac output? Cardiac output is the volume of blood pumped by the heart per minute – the function of heart rate and stroke volume
20. a. What vessel carries blood away from the heart? Arteries
b. What vessel carries blood to the heart? Veins
c. What vessel is responsible for gas and nutrient exchange within each of the body's cells? Capillaries
21. Describe each of the following vessels:
- arteries carry blood away from the heart. Thicker to withstand the pressure exerted during systole. All but the pulmonary arteries carry oxygenated blood
 - veins carry blood toward the heart. All but the pulmonary veins carry deoxygenated blood. Layers are much thinner, less elastic. A series of internal valves that work against the flow of gravity to prevent reflux.
 - capillaries tiny, microscopic vessels. Walls one cell layer thick. Function – to transport and diffuse essential materials to and from the body's cells and the blood
22. What is a pulse? The pressure of the blood pushing against the wall of an artery as the heart beats during systole.
23. Identify the location of the following pulse points:
- What pulse is felt on the upper surface of the foot? Dorsalis pedis
 - What pulse is felt in the antecubital space? Brachial

- c. What pulse is felt in the groin? Femoral
- d. What pulse is found in the neck? Carotid
- e. What pulse is found on the wrist side of the arm? Radial

24. Answer the following questions about blood pressure.

- a. What is the first measurement of blood pressure? Systole
- b. What does it measure? Pressure as the ventricles contract
- c. What is the second measurement of blood pressure? Diastole
- d. What does it measure? Pressure remaining in the artery as the ventricles rest

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- a. What circulation route takes deoxygenated blood to the lungs where it can pick up oxygen? Pulmonary
 - b. What circulation route takes oxygenated blood through the body? Systemic