Heart Anatomy and Physiology Worksheet

Instructions: Answer the following questions based on your knowledge of the anatomy and physiology of the heart. Use the images provided to assist in answering the questions.

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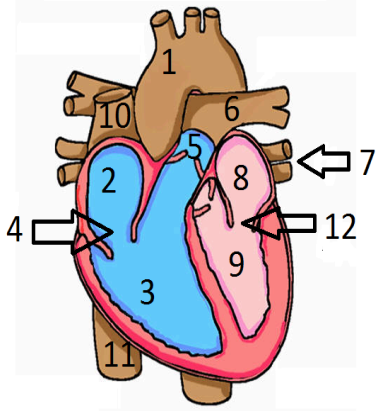
1. Label the following parts on the heart diagram:



Right Atrium __

Left Atrium __

Right Ventricle __

Left Ventricle __

Aorta __

Pulmonary Artery __

Pulmonary Vein __

Superior Vena Cava __

Inferior Vena Cava __

True/False Questions

The left ventricle pumps blood to the lungs.

True

False

The tricuspid valve is located between the left atrium and the left ventricle.

True

False

The sinoatrial (SA) node is known as the heart's natural pacemaker.

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True
False

The aortic valve is found between the left atrium and left ventricle.

True

False

During diastole, the heart muscle contracts to pump blood out.

True

False

The interventricular septum separates the left and right atria.

True

False

The pulmonary veins carry deoxygenated blood to the left atrium.

True

False

The right atrium receives blood from the pulmonary veins.

True

False

The mitral valve is also known as the tricuspid valve.

True

False

The coronary arteries supply blood to the heart muscle itself.

True

False

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Multiple Choice Questions

Which valve is located between the right atrium and the right ventricle?

A) Mitral Valve

B) Aortic Valve

C) Tricuspid Valve

D) Pulmonary Valve

Which of the following carries oxygenated blood?

A) Pulmonary Artery

B) Superior Vena Cava

C) Pulmonary Vein

D) Inferior Vena Cava

What is the primary role of the coronary sinus?

A) To carry oxygenated blood to the heart

B) To collect deoxygenated blood from the heart muscle

C) To separate the ventricles

D) To regulate heart rate

What is the name of the muscle layer of the heart?

A) Endocardium

B) Myocardium

C) Epicardium

D) Pericardium

Which part of the heart receives blood from the superior and inferior vena cava?

A) Left Ventricle

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B) Right Ventricle

C) Left Atrium

D) Right Atrium

What does the term “cardiac output” refer to?

A) The volume of blood in the heart's chambers

B) The rate of electrical impulses in the heart

C) The amount of blood pumped by the heart per minute

D) The pressure in the arteries

Which structure prevents backflow of blood into the left atrium?

A) Tricuspid Valve

B) Pulmonary Valve

C) Mitral Valve

D) Aortic Valve

Which of the following structures is responsible for the delay in electrical conduction between the atria and ventricles?

A) SA Node

B) AV Node

C) Bundle of His

D) Purkinje Fibers

The heart's ability to pump blood effectively is primarily dependent on which factor?

A) Blood volume

B) Heart rate

C) Cardiac muscle strength

D) All of the above

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What is the purpose of the papillary muscles and chordae tendineae?

A) To open and close the heart valves

B) To ensure the correct timing of the heartbeat

C) To prevent the backflow of blood through the valves

D) To control heart rate

21. What is the primary function of the heart?

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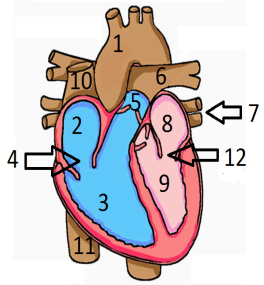
22. What is the name of the valve located between the right atrium and the right ventricle (# 4)?



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23. Which valve prevents backflow of blood from the left ventricle into the left atrium (#12)?

_____

24. Identify and describe the function of the semilunar valves.

_____

25. What is the name of the heart's pacemaker, and where is it located?

_____

26. What is the purpose of the coronary arteries?

_____

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27. Describe the pathway of blood through the heart, starting from the right atrium.

28. What is systole, and how does it differ from diastole?

29. What role do the atrioventricular (AV) nodes play in heart function?

30. Which part of the heart receives deoxygenated blood from the body?

31. Which part of the heart receives oxygenated blood from the lungs?

32. Name the two main branches of the aorta.

33. What is the significance of the foramen ovale in fetal circulation?

34. How does the structure of the left ventricle differ from the right ventricle?

35. What is the role of the papillary muscles and chordae tendineae?

36. What causes the “lub-dub” sounds of the heart?

37. How does exercise affect heart rate and blood flow?