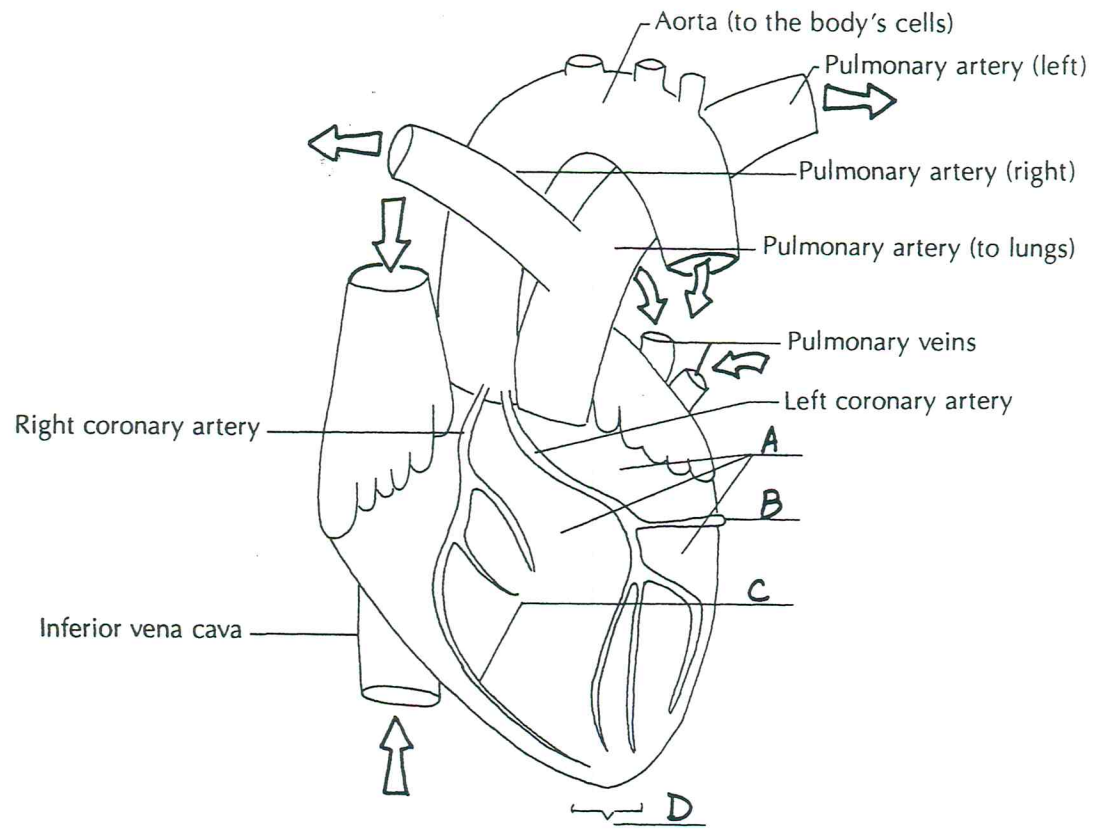


6-4. THE EXTERNAL ANATOMY OF THE HEART

Instructions: (1.) Examine the diagram carefully. (2.) Read the text and the statements. (3.) Use the text, the statements, and the diagram to help you to answer the questions.



Clench your fist. Your heart, which is about the size of your fist, is perfectly designed to pump your blood. To understand how the heart works, you must understand its outside structure.

Statements and Questions

1. The top of your heart, also called the "superior end," has large tubes on it.
 - a. Count the tubes on the superior end of the heart (do not include the branches of these blood vessels). How many tubes are there?
5
2. The tubes that direct blood toward and into the heart are called "veins," and the tubes that direct blood away from the heart are called "arteries." The arrows on the diagram show the direction of the blood flow through these tubes.
 - b. How many veins are on the superior end of the heart? 3
 - c. How many arteries are on the superior end of the heart? 2

6-4. THE EXTERNAL ANATOMY OF THE HEART, continued

- d. The artery that directs blood from the heart to the lungs carries deoxygenated blood (blood that has left its oxygen molecules in many cells so that it is now "oxygen-poor"). Name the artery that carries deoxygenated blood.

Pulmonary Artery

- e. The artery that directs blood to the body's cells carries oxygenated blood (blood that has recently picked up oxygen molecules from the lungs). Name the artery that carries oxygenated blood.

Aorta

3. The bottom or lower part of the heart is called the "inferior end." From the inferior end, a large blood vessel can be seen directing blood toward the heart.

- f. Is the blood vessel on the inferior end of the heart an artery or a vein?

Vein

- g. Name the blood vessel that can be seen on the inferior end.

Inferior Vena Cava

4. The main structure of the heart is made of muscle tissue; in fact, the heart is really one large muscle. The contracting heart muscle provides the force that squeezes the blood through both pumps of the heart.

- h. Which arrow on the diagram points to muscle tissue?

(A) B C D (Circle one.)

- i. What provides the force that squeezes blood through the heart?

the contracting heart muscle

5. Like all other cells of the body, the cells that make up the heart's muscle tissue need substances that are delivered by the blood. The arteries that direct blood to the heart muscle lie on the surface of the heart.

- j. Name the two arteries that direct blood to the heart's muscle tissue.

right and left coronary artery

- k. What large artery do these arteries branch from?

Aorta

6. The circumflex branch of the left coronary artery travels around the heart.

- l. Which arrow points to the circumflex branch of the left coronary artery?

A (B) C D (Circle one.)

7. Arrow C points to the branch of the right coronary artery that directs blood along the lower margin of the heart. This branch is called the "marginal artery."

- m. Why is the branch that arrow C points to called the "marginal artery"?

because it travels along the margin of the heart

8. The inferior (lower) end of the heart is pointed. The pointed end of the heart is called the "apex."

- n. Which arrow points to the apex of the heart? A B C (D) (Circle one.)