

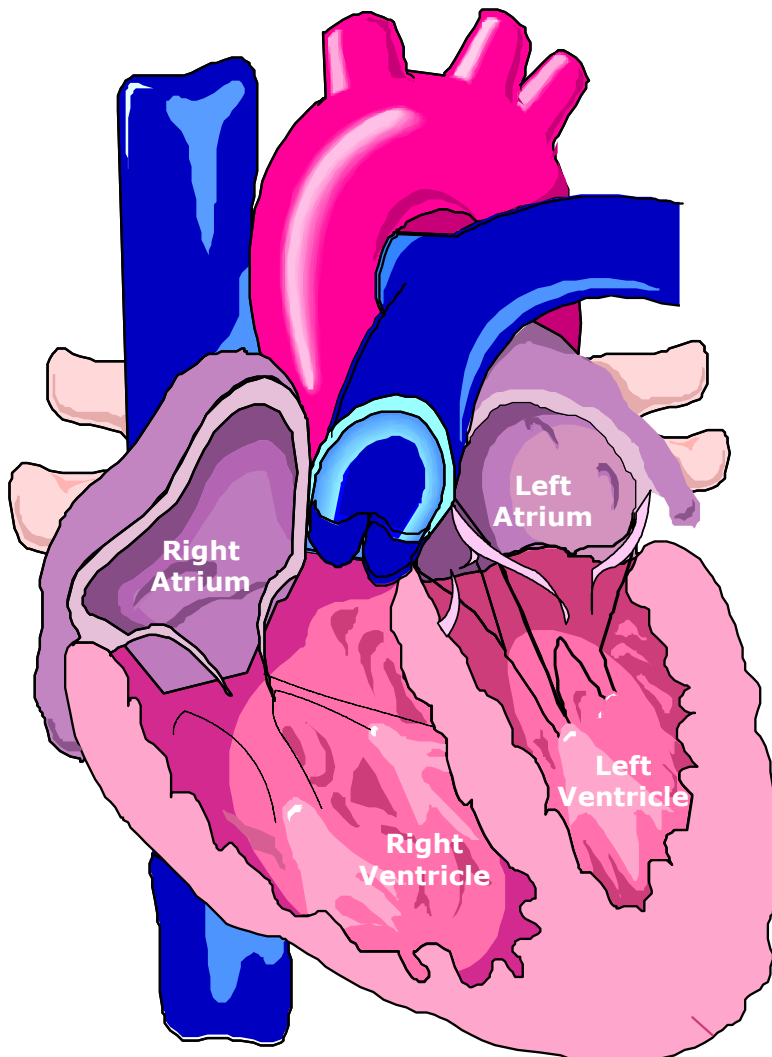
How the Heart Works

- compiled by Matt Nilsen

What Is the Heart?

The heart is basically a large and efficient pump that constantly circulates blood throughout your body. The heart has four chambers:

- The right atrium
- The left atrium
- The right ventricle
- The left ventricle



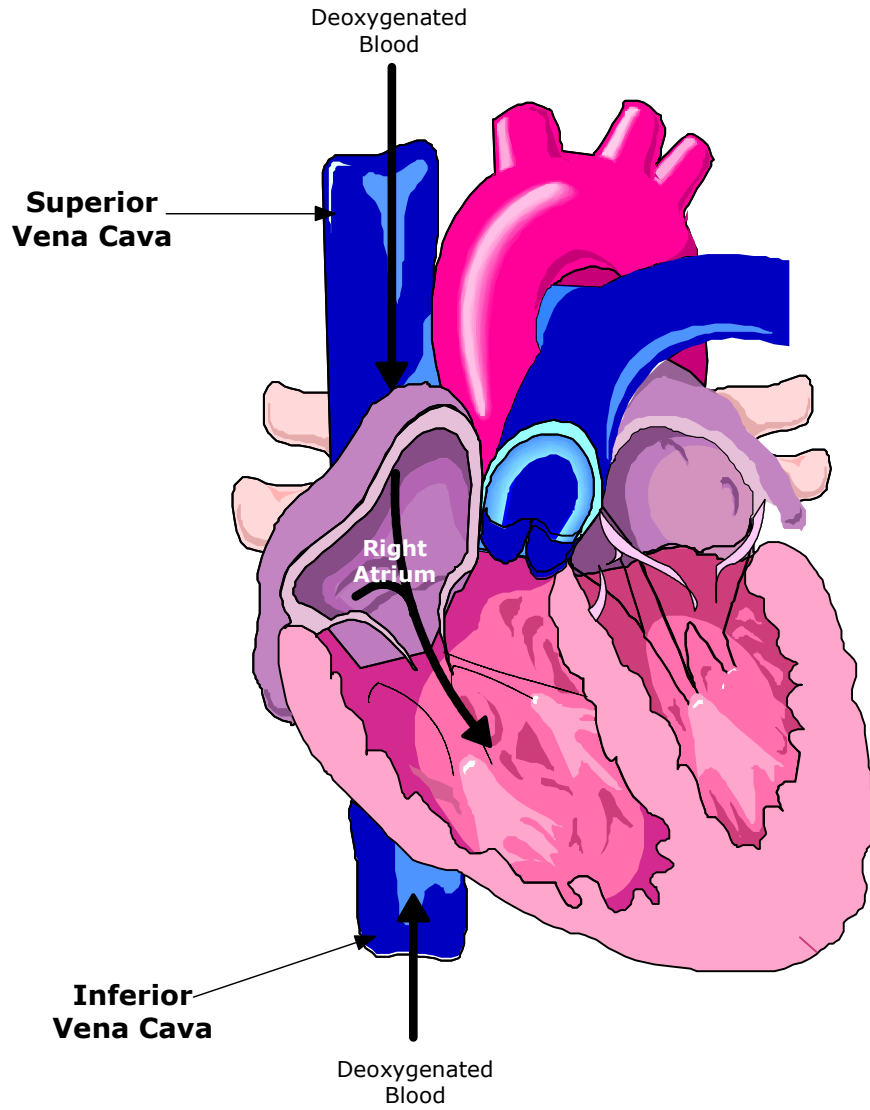
Connected to the heart are some of the main blood vessels—arteries and veins—that make up your blood circulatory system.

The ventricle on the right side of your heart pumps blood from the heart to your lungs. When you breathe air in, oxygen passes from your lungs through blood vessels where it's added to your blood. Carbon dioxide, a waste product, is passed from your blood through blood vessels to your lungs and is removed from your body when you breathe air out.

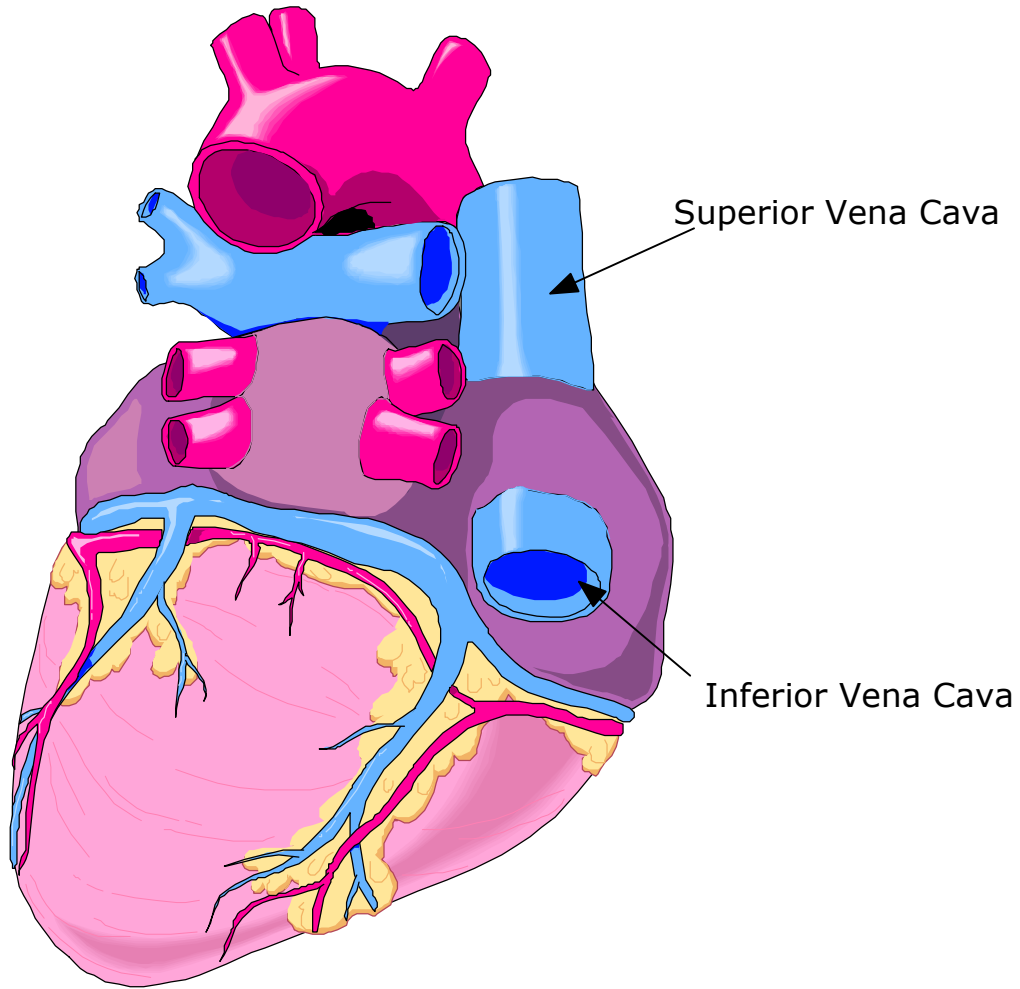
The atrium on the left side of your heart receives oxygen-rich blood from the lungs. The pumping action of your left ventricle sends this oxygen-rich blood through the aorta (a main artery) to the rest of your body.

The Right Side of Your Heart

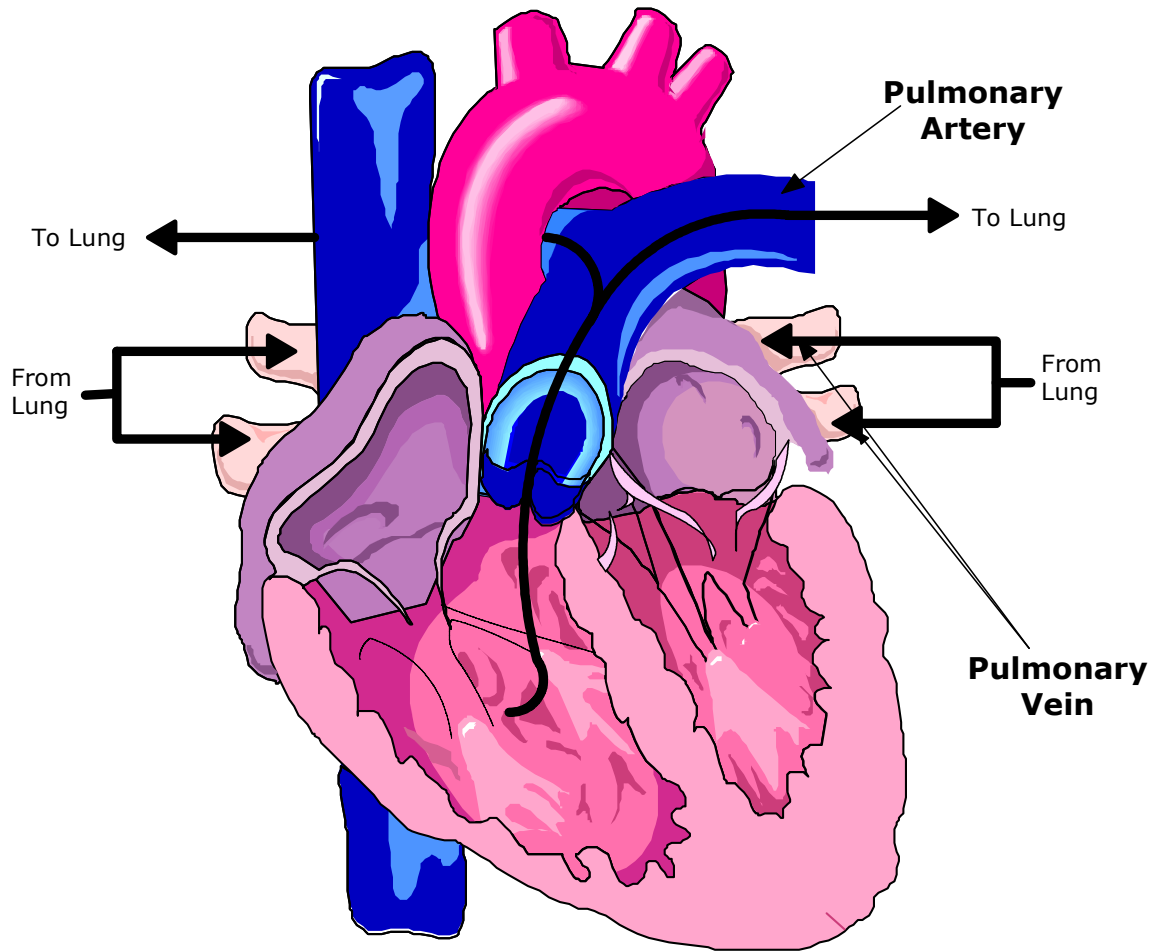
The superior and inferior vena cavae are clearly labeled on the picture. These veins are the largest veins in your body. They carry deoxygenated (oxygen-poor) blood to the right atrium of your heart. Deoxygenated blood has had its oxygen removed and used by your body's organs and tissues. The superior vena cava carries used blood from the upper parts of your body, including your head, chest, arms, and neck. The inferior vena cava carries used blood from the lower parts of your body.



Let's rotate our picture of the heart look at the backside of it to see the vena cavae that lead you're your heart.



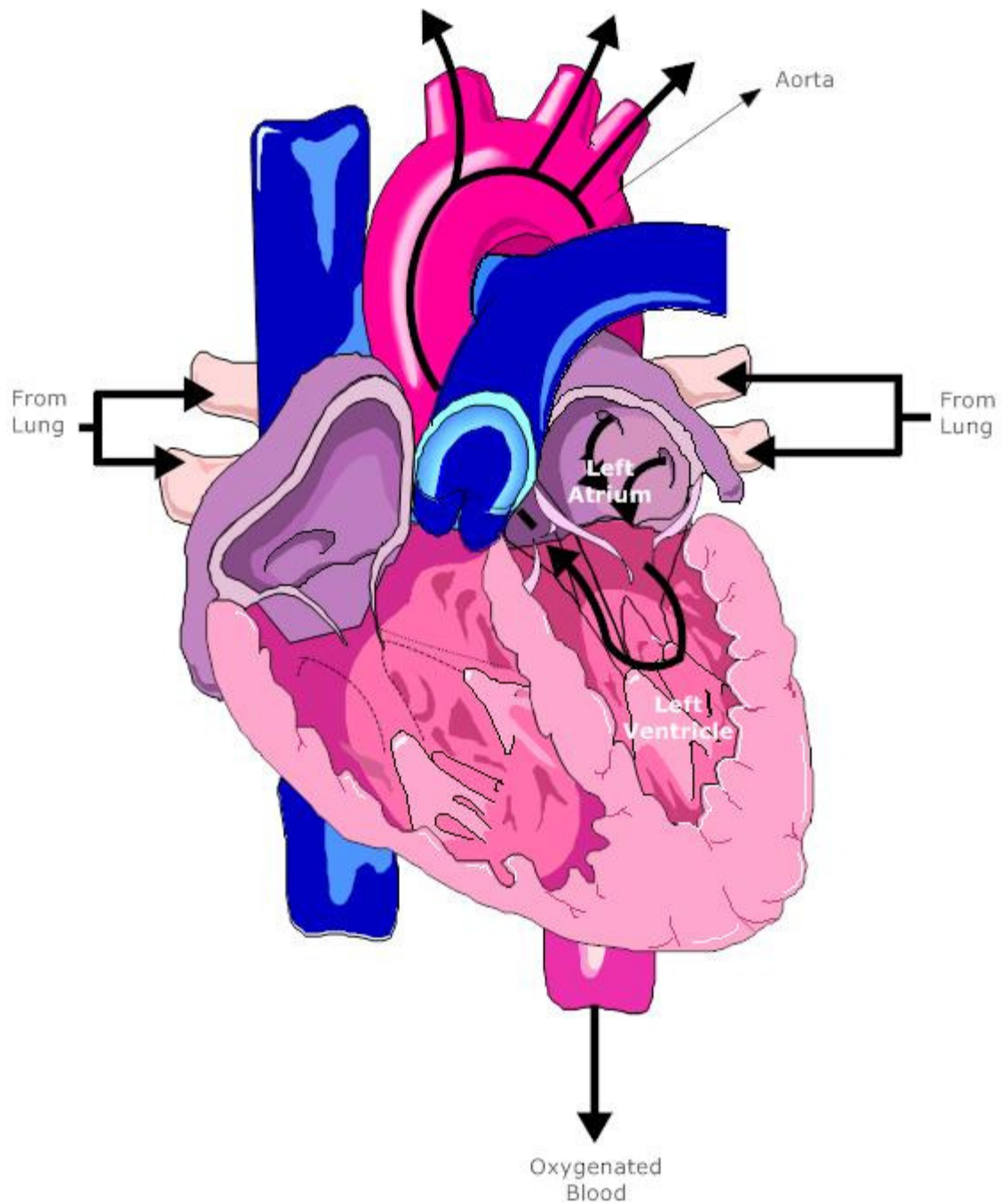
The used blood from the vena cavae flows into your heart's right atrium and then on to the right ventricle. From the right ventricle, the used blood is pumped through the pulmonary (PULL-mun-ary) arteries to your lungs.



Here, through many small, thin blood vessels called capillaries, your blood picks up oxygen needed by all the areas of your body. The oxygen-rich blood passes from your lungs back to your heart through the pulmonary veins.

The Left Side of Your Heart

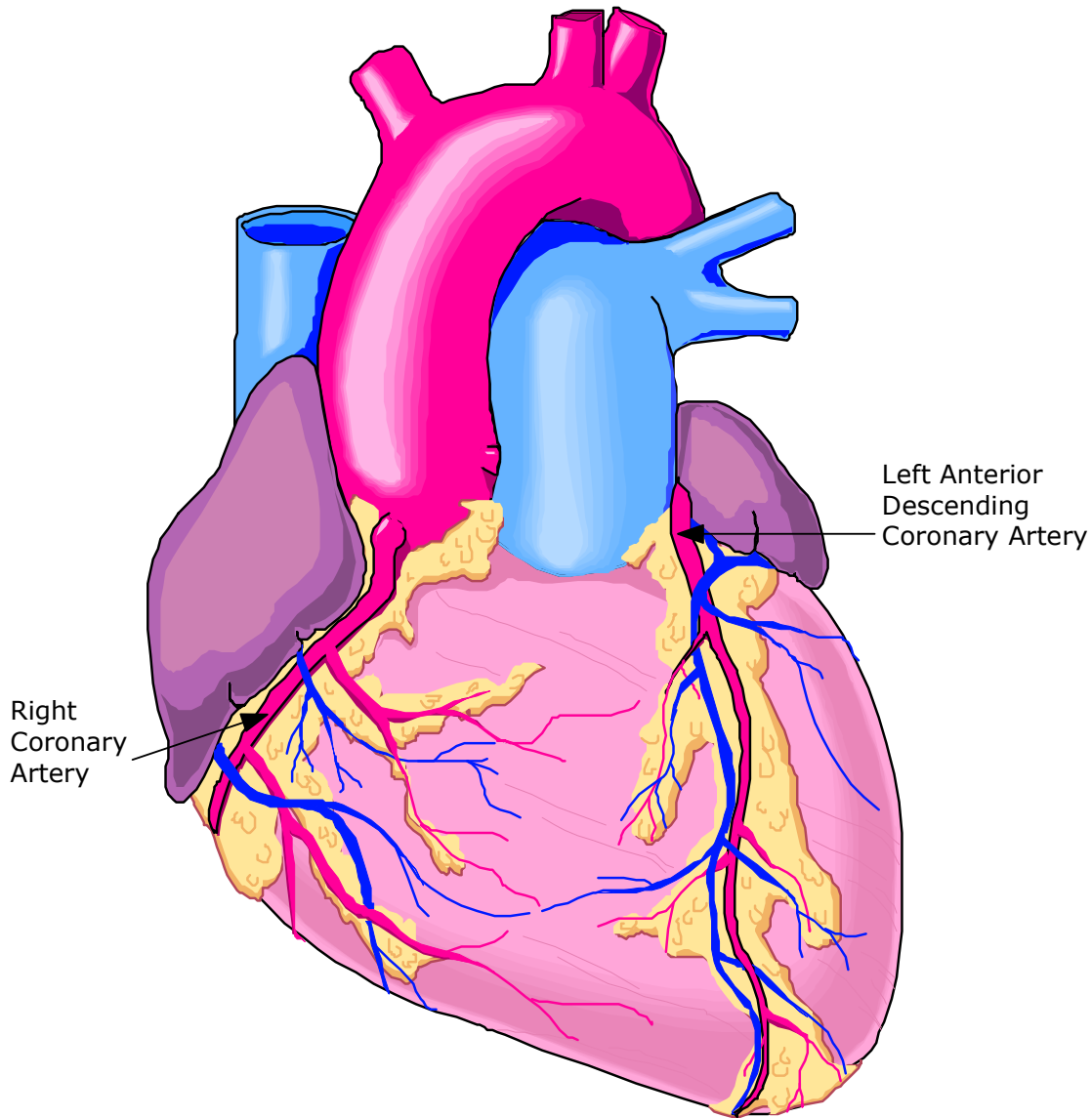
Oxygen-rich blood from your lungs passes through the pulmonary veins. It enters the left atrium and is pumped into the left ventricle. From the left ventricle, your blood is pumped to the rest of your body through the aorta.



Blood flow to your heart

Like all of your organs, your heart needs blood rich with oxygen. This oxygen is supplied through the coronary arteries as it's pumped out of your heart's left ventricle. Your coronary arteries are located on your heart's surface at the beginning of the

aorta. Your coronary arteries (shown in red in the drawing) carry oxygen-rich blood to all parts of your heart.



Heart Disease

Your heart is made up of many parts working together to pump blood. In a healthy heart, all the parts work well so that your heart pumps blood normally. Then all parts of your body that depend on the heart to deliver blood also stay healthy.

Heart disease can disrupt a heart's normal pumping functions. Diseases and conditions of the heart's muscle make it difficult for your heart to pump blood normally. Damaged or diseased blood vessels make the heart work harder than normal. Problems with the heart's electrical system, called arrhythmias, can make it difficult for the heart to pump blood efficiently. My Healthy Heart Info exists to help people avoid heart disease or reverse it as much as possible. We hope that you will consider the wisdom that we pass along from reputable sources. We hope that it contributes to your well-being and helps you gain more assurance about your health.

Source: National Institutes of Health, National Heart Lung and Blood Institute