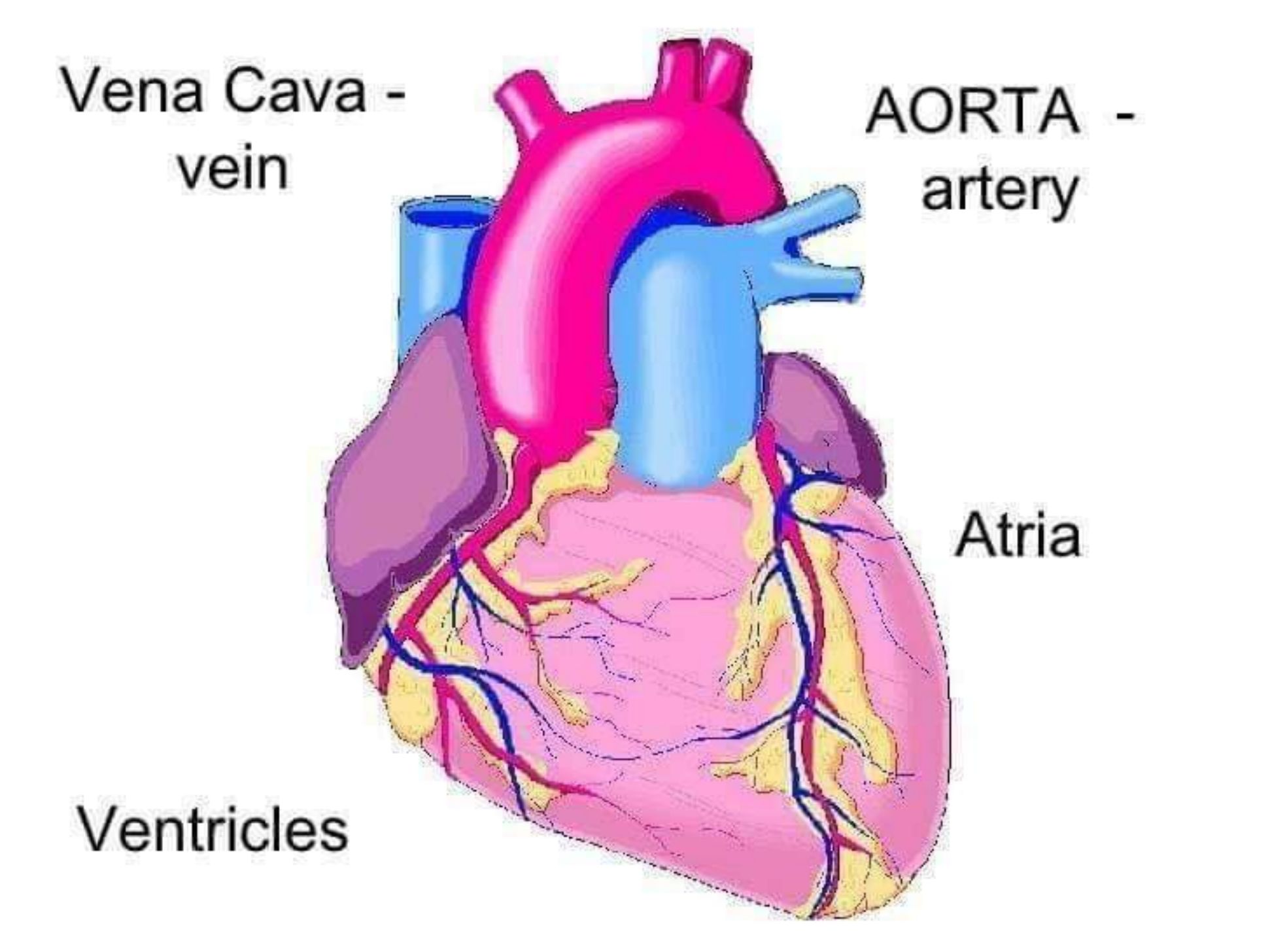
Blood Flow

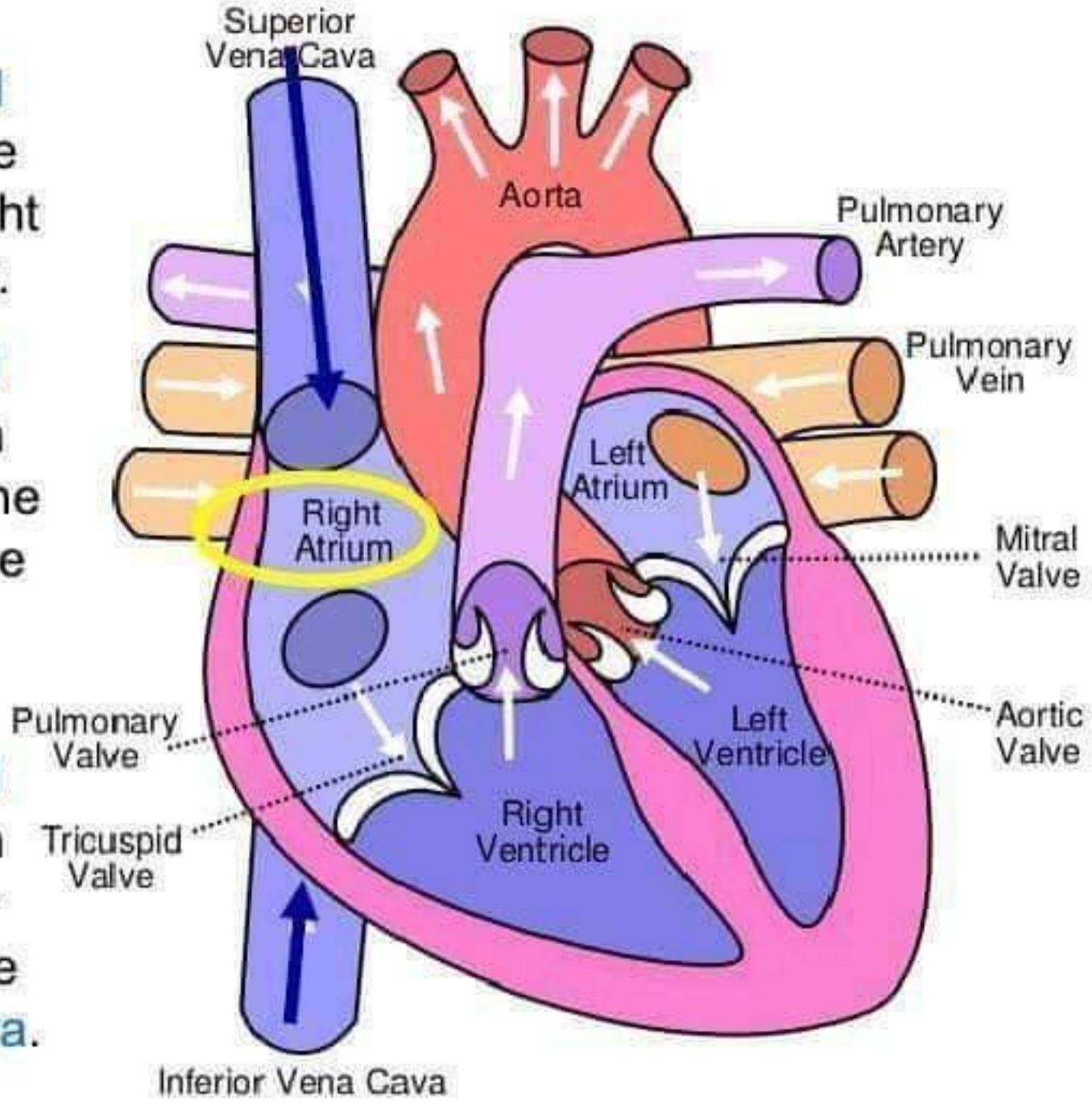
Heart → Lungs →
Heart → Body


Vena Cava -
vein
AORTA -
artery
Atria
Ventricles

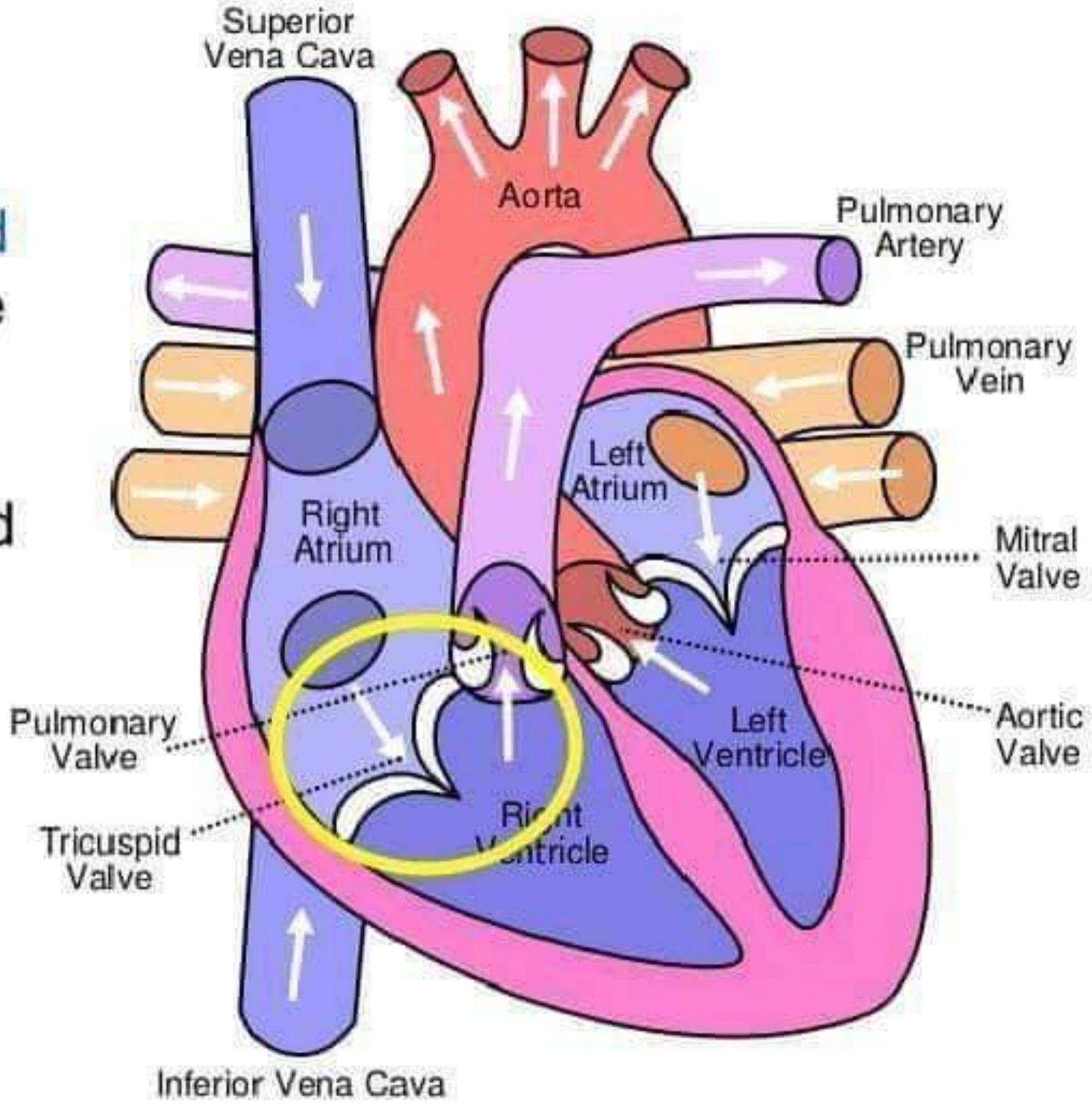
UNoxygenated blood enters the atrium on the right side of the heart.

Unoxygenated blood comes in from the top of the body through the superior vena cava.

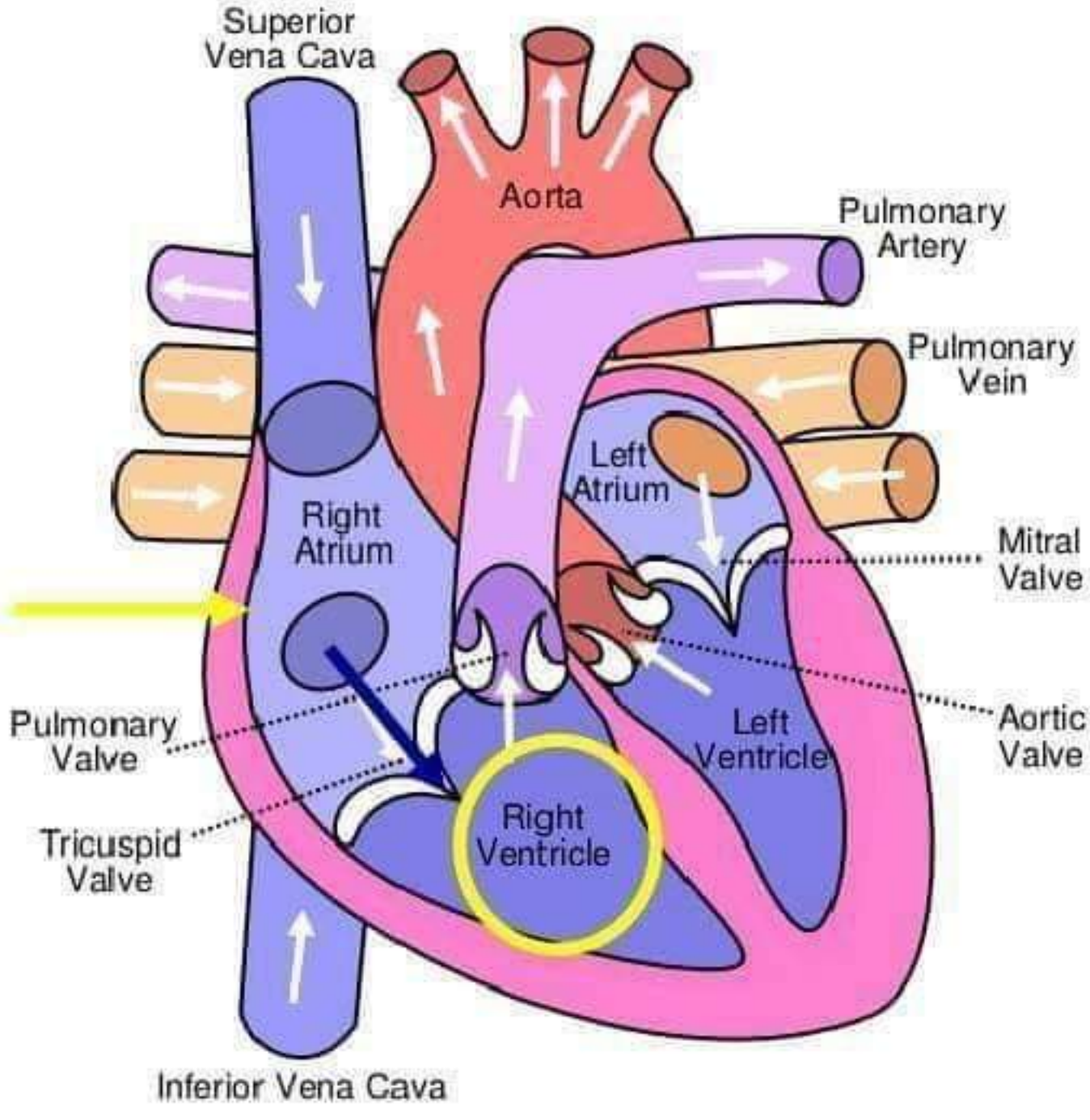
Unoxygenated blood comes in from the lower body though the inferior vena cava.



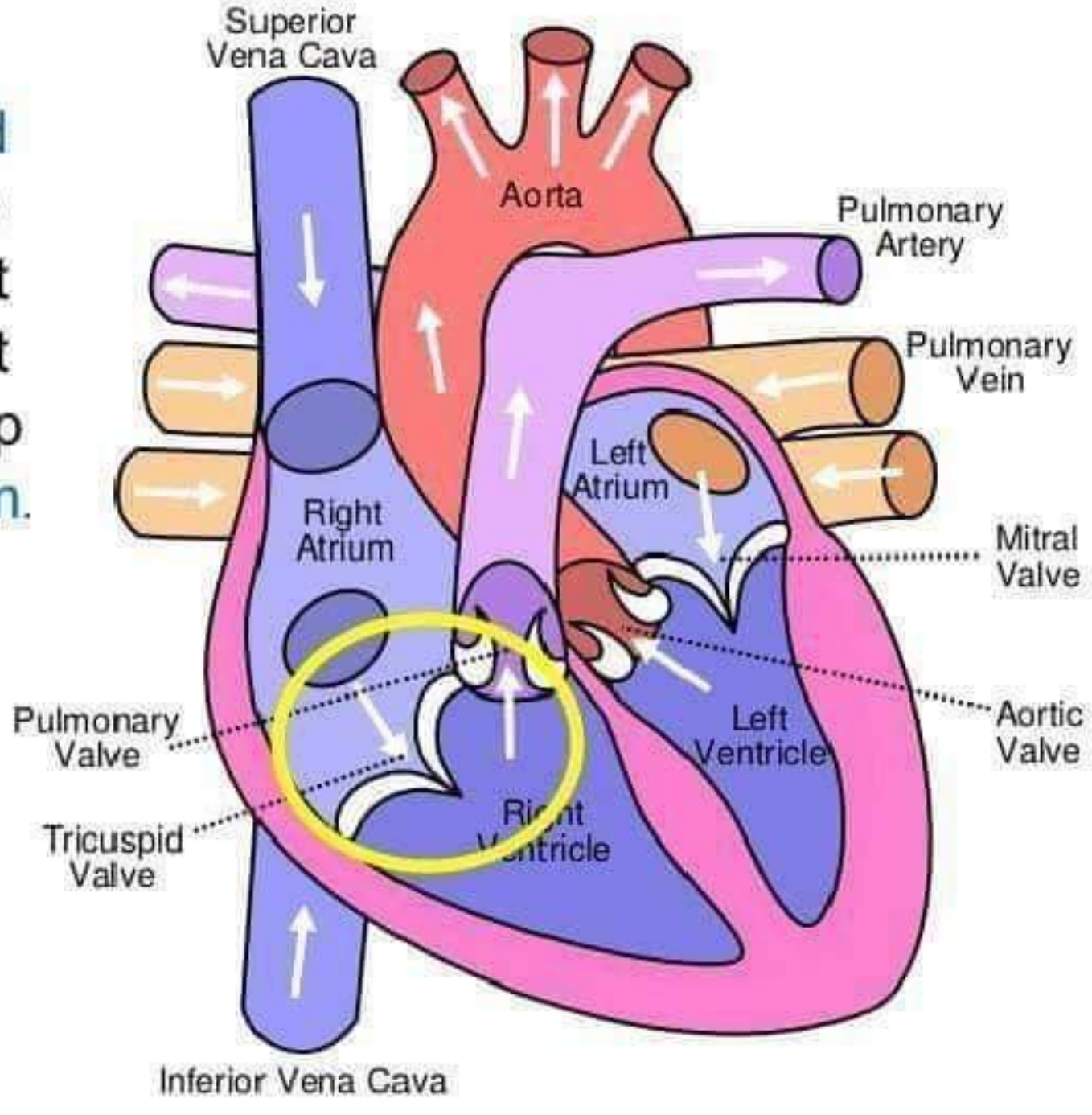
While the unoxygenated blood is in the right atrium, the tricuspid valve is closed to keep the blood from flowing down to the ventricle.



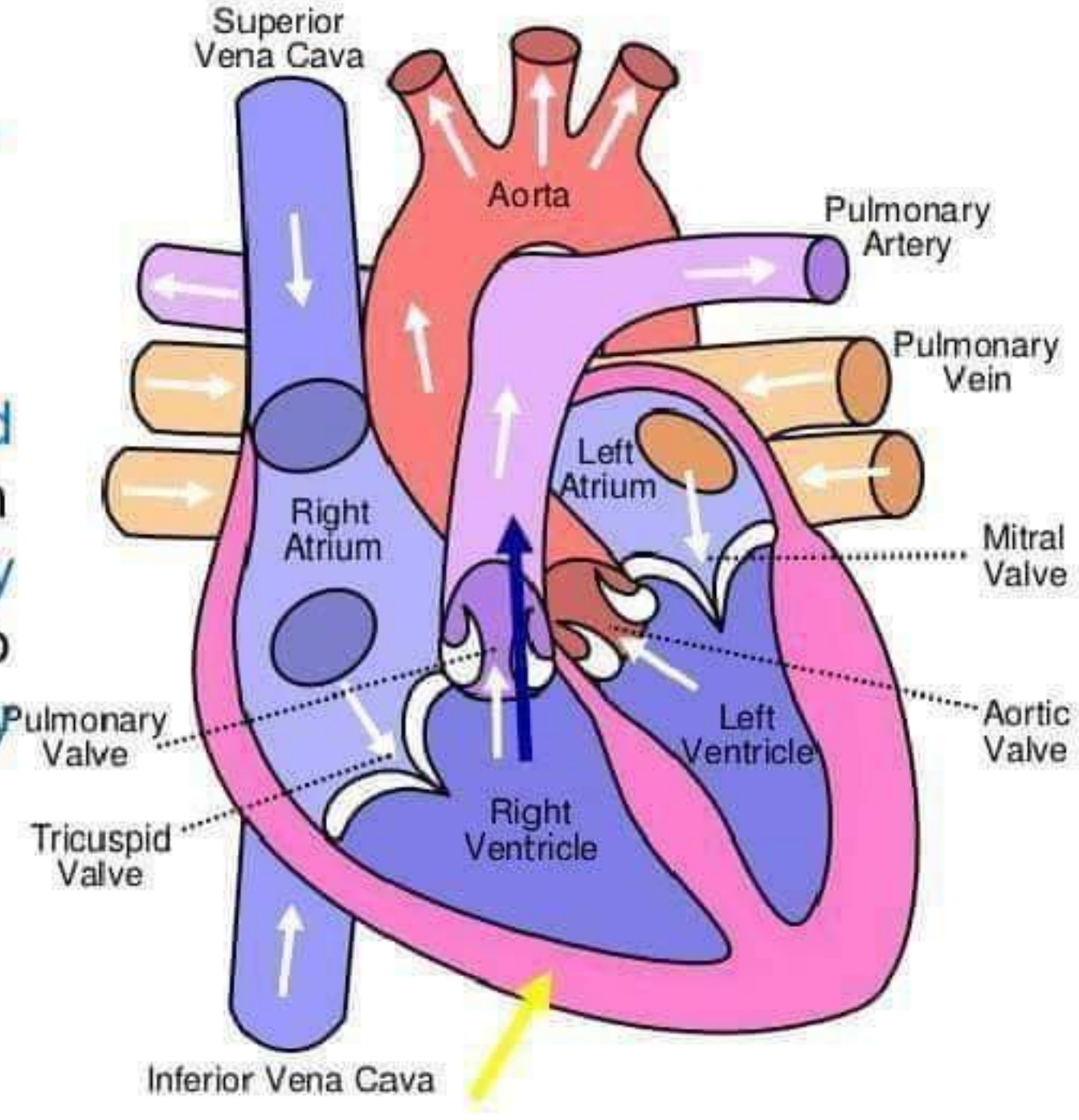
The atrium contracts and the tricuspid valve opens, forcing the blood down into the ventricle.



The tricuspid valve closes again so that blood cannot move back up into the atrium.



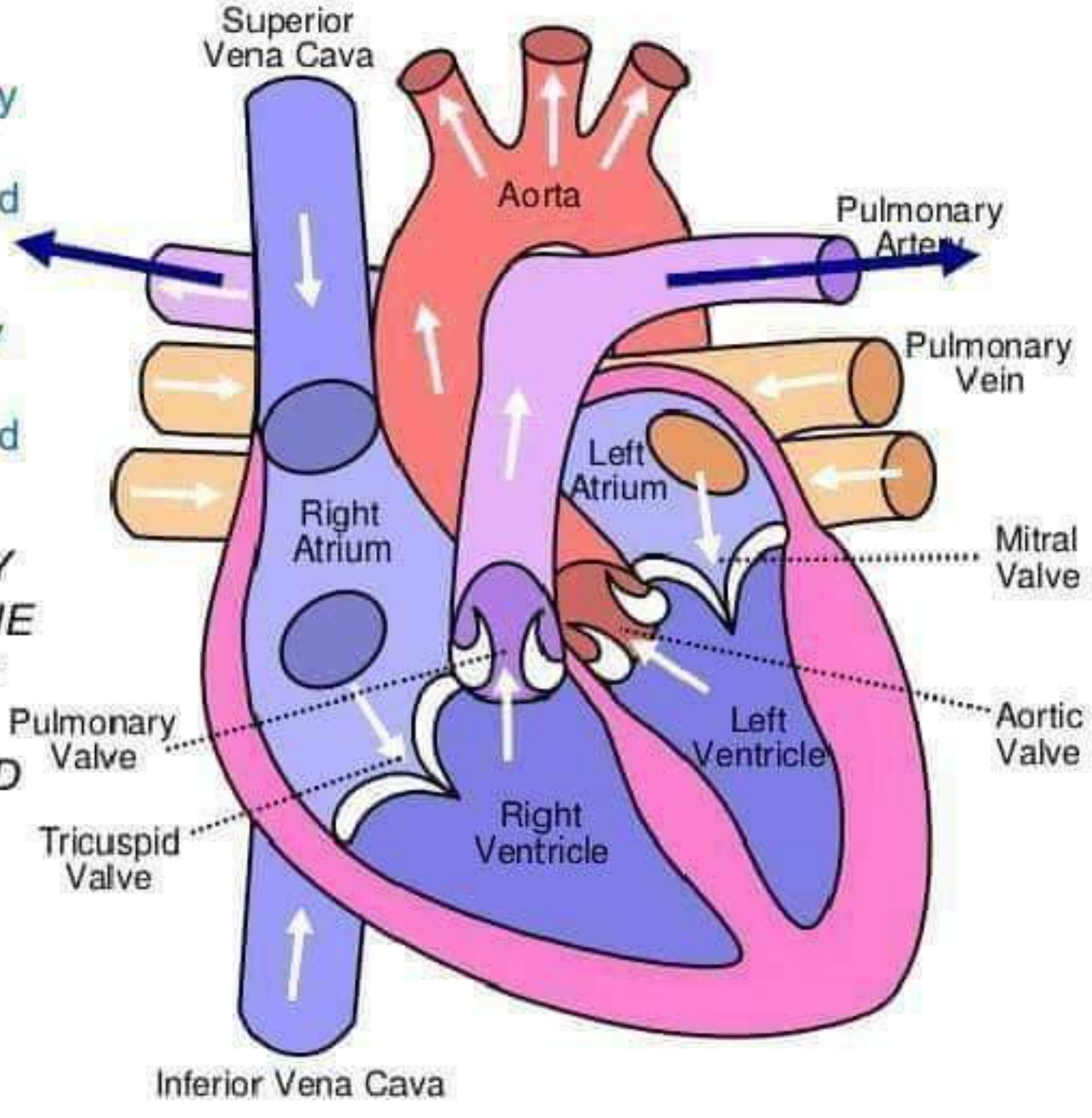
The ventricle contracts. This forces the unoxygenated blood through the pulmonary valve and into the pulmonary arteries.



The right pulmonary artery takes the unoxygenated blood to the right lung.

The left pulmonary artery takes the unoxygenated blood to the left lung.

THE PULMONARY ARTERIES ARE THE ONLY ARTERIES THAT CARRY UNOXYGENEATED BLOOD.

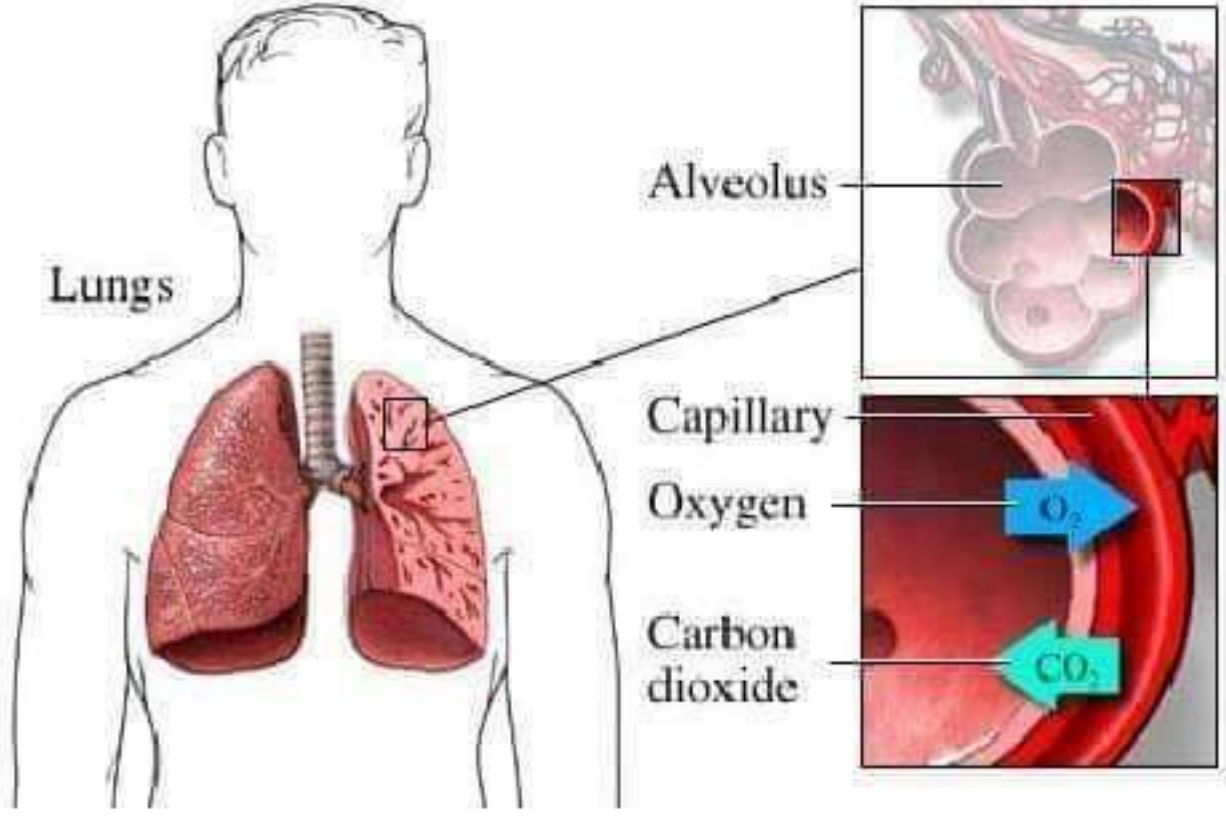


In the lungs, the carbon dioxide in the blood *diffuses* into the alveoli.

The oxygen in the lungs *diffuses* into the blood.

This is called gas exchange.

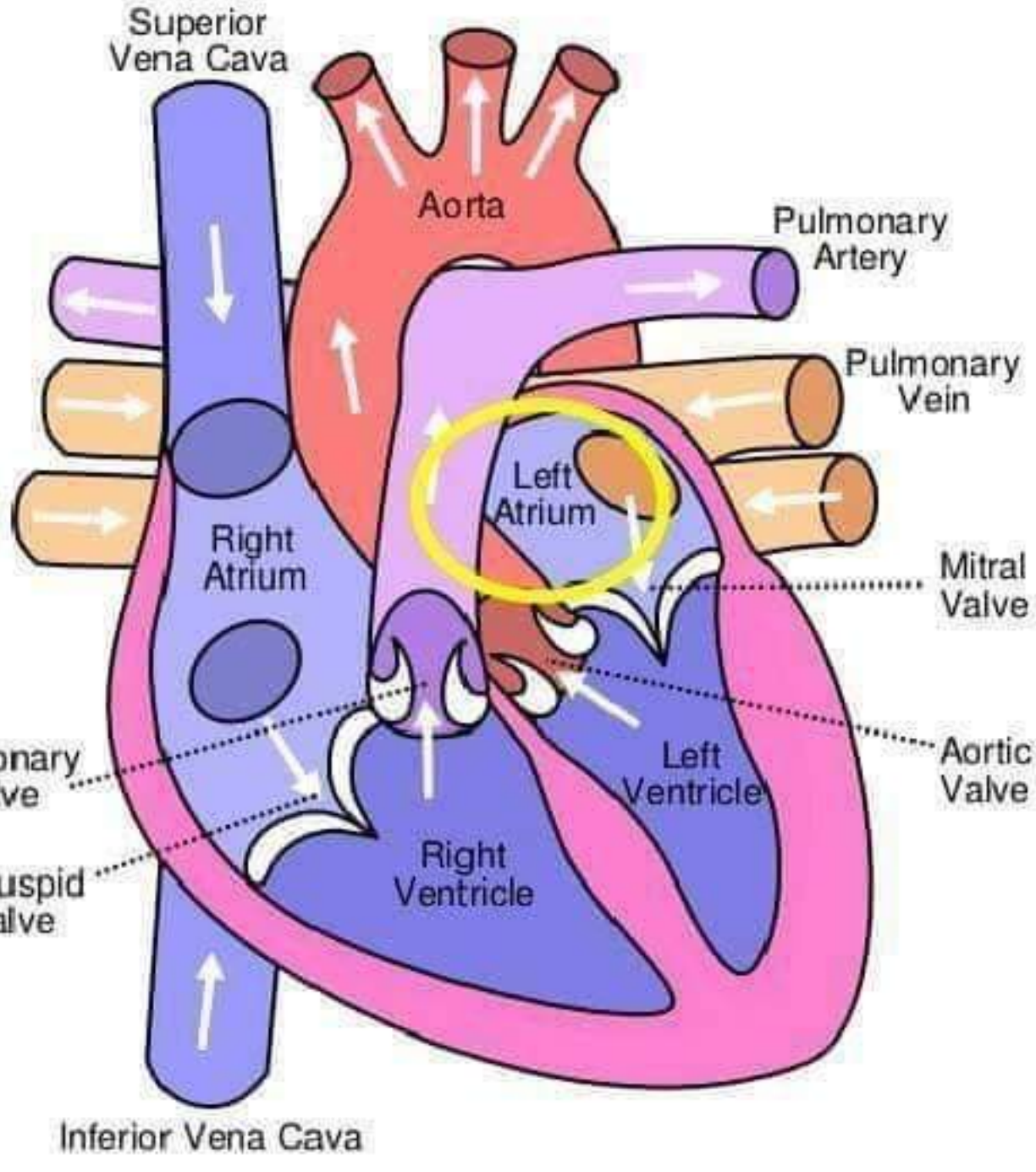
Gas exchange in the lungs



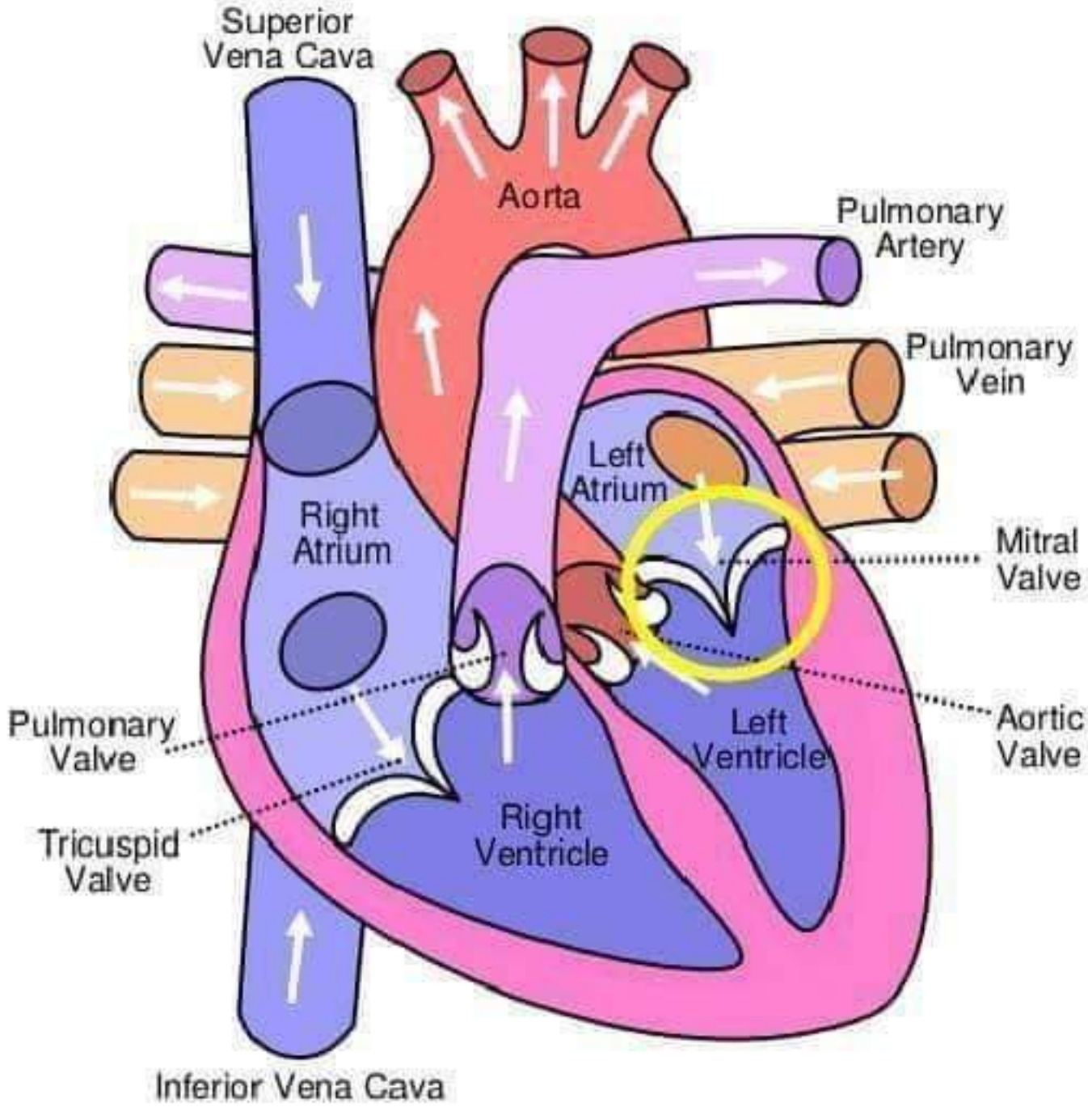
http://www.webmd.com/hw/health_guide_atoz/tp10237.asp

Oxygenated blood from the lungs enters the heart through the left atrium.

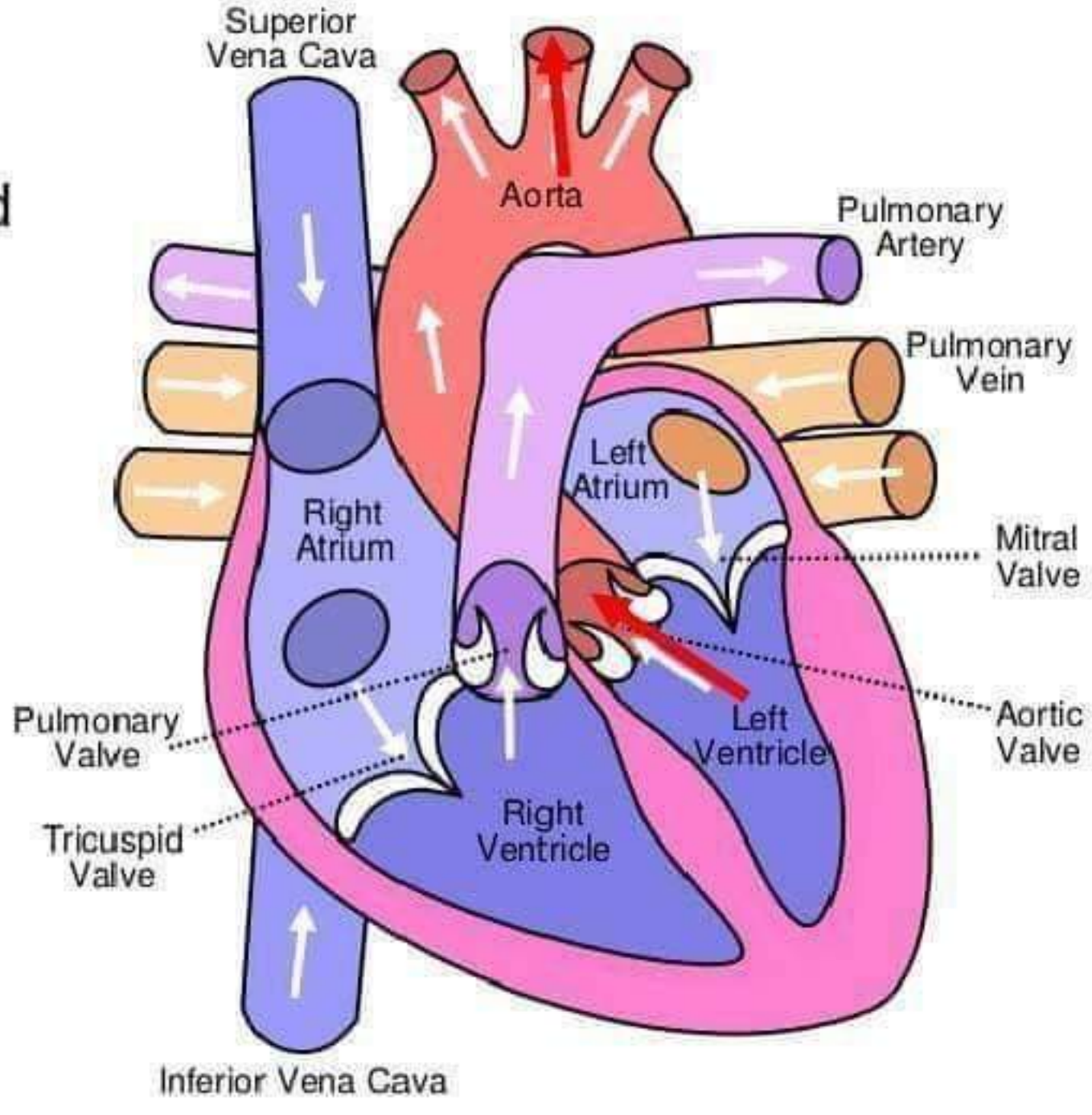
The mitral valve is closed to keep the blood from going into the ventricle.



The mitral valve closes again. This keeps the oxygenated blood from moving back up into the atrium.

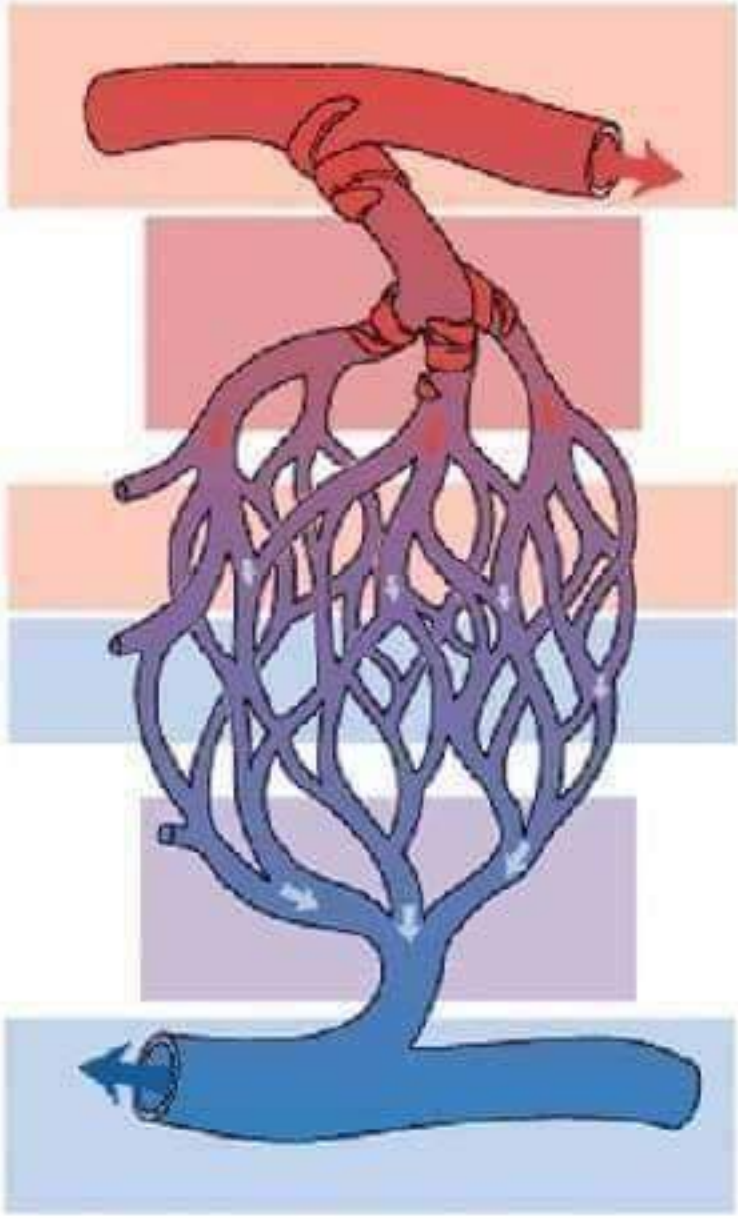


Oxygenated blood is forced into the aorta to be carried to the rest of the body.

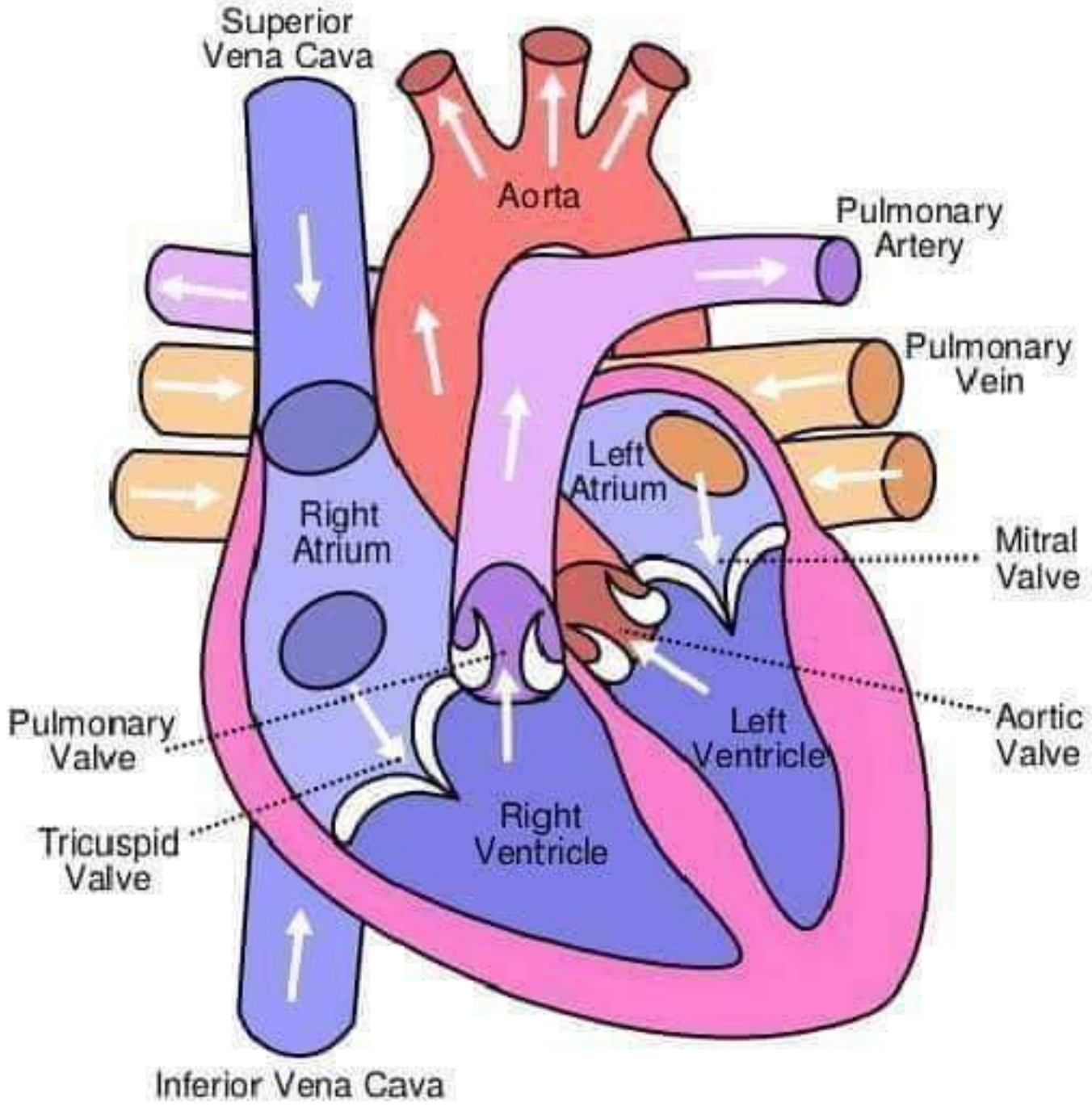


Oxygenated blood is carried to all body cells where oxygen *diffuses* into the cells and carbon dioxide *diffuses* into the blood.

Blood carrying carbon dioxide then returns to the heart.



And the cycle begins again.



Meanwhile…

While the blood is moving oxygen and carbon dioxide around, it is ***also*** moving nutrients, other wastes, hormones, and antibodies at the same time.