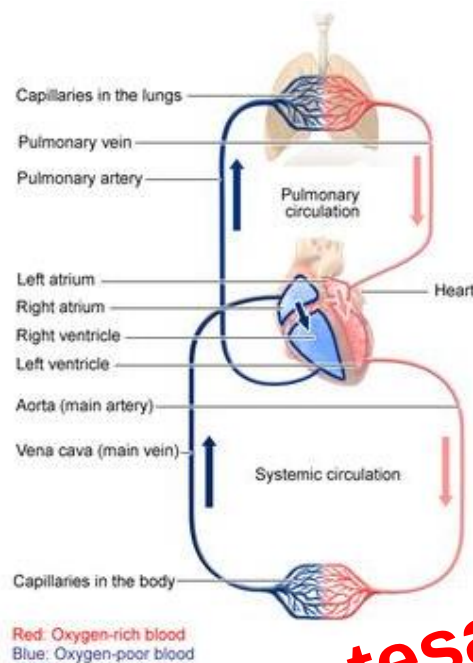


Systemic circulation

- In the systemic circulation the heart is pumping oxygenated blood away from the heart to the body and collect deoxygenated blood in return.



Pulmonary circulation is also known as the external respiration (CO_2 swapped for O_2)

Systemic circulation is also known as the internal respiration (O_2 swapped for CO_2)

Systemic circulation is the movement of blood from the heart through the body to provide oxygen and nutrients and bring deoxygenated blood back to the heart. Oxygenated blood from the lungs leaves the pulmonary circulation when it enters the left atrium through the pulmonary veins. The blood is then pumped through the mitral valve into the left ventricle.

From the left ventricle, blood is pumped through the aortic valve and into the aorta, the body's largest artery. The aorta arches and branches into major arteries to the upper body before passing through the diaphragm, where it branches further into arteries which supply the lower parts of the body.

The arteries branch into small arteries, arterioles, and then capillaries. Waste and carbon dioxide diffuse out of the cell into the blood, while oxygen in the blood diffuses out of the blood and into the cell. The deoxygenated blood continues through the capillaries which merge into venules, then vein and then finally the vena cava, which drains into the right atrium of the heart.

From the right atrium, the blood will travel through the pulmonary circulation to be oxygenated before returning to the systemic circulation.