

# The circulation

[Science](#), [Biology](#)



The Circulation Oxygenated blood from the lungs flows through pulmonary vein to the left atrium. From the left, 70% of the blood then flows through bicuspid valve to the left ventricle when the heart is relaxed. The contraction of the atrium leads to 30% of the remaining blood to flow and fill the left ventricle. After a short period of delay, the left ventricle contracts forcing blood through an opening that leads blood to the largest artery in the body referred to as the aorta. Special valves known as atrio-ventricular valves then close and prevent the flowing back of blood into the atrium (Harvey 2006). The aorta is separated from the aorta by the aortic semilunar valve that allows blood to only flow from the ventricles and not back. Many arteries then branch from the aorta to circulate rich oxygenated blood to all parts of the body. This pathway of blood through blood vessels, body parts, and body organs except the lungs is referred to as systemic circulation. Systemic circulation is responsible for carrying blood to the neck, head, and other organs in the body. It exchanges oxygen in it with carbon dioxide from the body tissues. Blood then flows via atria system and then to the capillaries. Blood flows in a series of veins and eventually flows to the right side of the heart. Two large veins; superior vena cava (drains the upper surface) and inferior vena cava (drains the lower body) collect blood from systemic circulation and dump the deoxygenated blood to the right atrium (Zamir 2006). Blood then passes through the right atrium to the right ventricle through tricuspid valve then out of the right contracting ventricle via pulmonary semilunar valve to a pulmonary artery. The pulmonary artery branches into arteries that carry blood with deficient oxygen to the lungs. Blood with plenty oxygen and reduced carbon dioxide then returns to the left

atrium of the heart repeating the cycle.

#### Reference Lists

Harvey, W 2006, *The Circulation of the Blood*, Cosimo, Inc., New York.

Zamir, M 2006, *The Physics of Coronary Blood Flow*, Springer Science & Business Media, New York.