Anatomy & Physiology: THE CARDIOVASCULAR SYSTEM

The circulatory system carries nutrients, gases, and hormones in blood throughout the body.

The Circulatory System

- **Aorta**: artery from which oxygenated blood is pumped from the heart to the rest of the body
- **Arteries**: large, firm vessels that transport oxygenated blood throughout the body from the heart
- **Atria**: chambers of the heart that receive the blood
- **Blood**: fluid composed of plasma, red blood cells, white blood cells, and other molecules; delivers nutrients and gases to body locations and removes waste
- **Blood pressure**: pressure exerted on the vessels of the cardiovascular system as the heart pumps blood throughout the body
- **Capillaries**: small vessels where oxygen, nutrients, and other materials are exchanged with tissue
- **Diastole phase**: period of ventricle relaxation
- **Heart**: muscular organ that continuously pumps oxygenated blood throughout the body
- **Left Atrium**: chamber of the heart that receives oxygenated blood from the lungs
- **Left Ventricle**: chamber of the heart that pumps oxygenated blood to the rest of the body
- **Mitral Valve**: separates left atrium from left ventricle
- **Plasma**: fluid that transports red and white blood cells as well as other molecules in the blood
- **Pulmonary Circuit**: term for blood flow from the lungs to the heart
- **Red Blood Cells** (hemoglobin): transport oxygen in the blood
- **Right Atrium**: chamber of the heart that receives oxygen-poor blood from throughout the body
- **Right Ventricle**: chamber of the heart that receives oxygen-poor blood from the right atrium and pumps it out to the lungs
- **Systemic Circuit**: term for blood flow from the heart to the rest of the body
- **Systole phase**: period of ventricle contraction
- **Tricuspid Valve**: separates right atrium from right ventricle
- **Valves**: prevent blood from flowing backwards from the ventricle to the atrium
- **Veins**: vessels that carry deoxygenated blood back to the heart from the rest of the body
- **Ventricles**: chambers of the heart that pump blood to the body and lungs

The Human Heart

- **Superior Vena Cava**: blood from upper body
- **Inferior Vena Cava**: blood from lower body
- **Pulmonary Arteries**: blood from right lung
- **Pulmonary Veins**: blood to right lung
- **Aorta**: blood to upper body
- **Pulmonary Artery**: blood to left lung
- **Pulmonary Veins**: blood from left lung
- **Mitral Valve**: blood from left atrium
- **Aortic Valve**: blood from left ventricle
- **Tricuspid Valve**: blood from right atrium
- **Right Ventricle**: blood to right lung
- **Left Ventricle**: blood to lower body
- **Systemic Circuit**: blood from heart to rest of body
- **Pulmonary Circuit**: blood from lungs to heart

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