

The Circulatory System Study Guide

The circulatory system is also known as the cardiovascular system.

The cardiovascular system carries needed substances to cells, such as oxygen. It also carries wastes products away from cells. Blood contains cells that fight diseases.

The heart is the main organ of the circulatory system

The heart is made of **cardiac muscle**. **The average resting heart rate is 60-80 BPM.**

Oxygen is carried by the blood from the lungs to your body's cells.

Carbon dioxide and other waste products pass from cells into blood and are then carried to the lungs where they will be exhaled.

Be sure to look at the diagram of the heart you colored and labeled.

The parts are:

the four chambers: right and left atria, right and left ventricles (blood is pumped out of the ventricles when the heart contracts)

four valves: aortic, pulmonary, tricuspid, mitral

main arteries leaving the heart: aorta, pulmonary

main veins entering the heart: superior and inferior vena cava, pulmonary

Vocabulary:

Arteries- carry blood **away** from the heart

Capillaries- oxygen, carbon dioxide, and wastes are exchanged between blood and body cells (approximate blood pressure is 20 mm Hg)

Veins- carry blood back to heart, this can be oxygen rich and poor blood; they use the skeletal muscle, valves and breathing movements to overcome gravity

Valves- stops blood from flowing backwards

Pulse- when you count the number of times your artery pulses beneath your finger, you are counting your heartbeats.

The best place to find your pulse is in the large arteries.

Atherosclerosis- Thickening of artery wall due to buildup of fatty materials.

Hypertension- also known as high blood pressure; when someone's blood pressure is **constantly** higher than normal.

A sphygmomanometer is used to measure blood pressure.

Exercise causes the heart rate to increase (go up).

To improve your cardiovascular health: exercise, eat right, and do not smoke

