

Chapter 32

Circulation

32.1 What Are the Major Features and Functions of Circulatory Systems?

- All circulatory systems have three major parts
 - A pump, the **heart**, that keeps the blood circulating
 - A liquid, **blood**, that serves as a medium of transport
 - A system of tubes, **blood vessels**, that conduct the blood throughout the body

- The vertebrate circulatory system of humans and other vertebrates has diverse functions
 - Transport of O_2 from the lungs or gills to the tissues, and transport of CO_2 from the tissues to the lungs or gills
 - Distribution of nutrients from the digestive system to all body cells
 - Transport of waste products and toxic substances to the liver, where many of them are detoxified, and to the kidneys for excretion