# **The Circulatory System Comprehension Check**

For questions 1-4, match each component of blood to its function:

|  |  |
| --- | --- |
| 1. Plasma | a. a cell that stops bleeding by sticking to others to form a clot |
| 2. Red Blood Cell | b. a cell that helps protect the body from diseases |
| 3. Platelet | c. a cell that carries oxygen from the lungs to the body tissues |
| 4. White Blood Cell | d. a clear liquid that makes up over half of blood, carries the other components through the blood vessels |

1. Plasma –
2. Red Blood Cell –
3. Platelet –
4. White Blood Cell –
5. Consider how blood moves through the circulatory system. Once oxygen-rich blood is pumped out of the heart, it is sent throughout the body. How does the oxygen then travel from the red blood cells into the tissue cells?
6. What is carbon dioxide?
7. What roles do the small intestine and the liver play in the circulatory system?
8. What does it mean for your circulatory system to regulate your body temperature and why is that important?
9. What is hypertension and what can it cause?
10. What is the main function of the circulatory system?

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1. Plasma – d
2. Red Blood Cell – c
3. Platelet – a
4. White Blood Cell – b
5. Consider how blood moves through the circulatory system. Once oxygen-rich blood is pumped out of the heart, it is sent throughout the body. How does the oxygen then travel from the red blood cells into the tissue cells?
   1. Oxygen-rich blood leaves the heart and travels through the aorta into one of several major arteries. From there, the arteries become smaller and branch into blood vessels and into even smaller capillaries. The oxygen leaves the blood and enters the tissues through the thin capillary walls.
6. What is carbon dioxide?
   1. Carbon dioxide is a waste gas that cells produce when they work. In large amounts, carbon dioxide can be toxic or poisonous to the human body. Because of this, your blood transports waste carbon dioxide from your cells to your lungs so you can exhale it out of your body.
7. What roles do the small intestine and the liver play in the circulatory system?
   1. The small intestine and the liver both play a major role in delivering and storing the nutrients your cells need to function and survive. Nutrients enter the blood through capillaries in the small intestine, an organ that breaks down and absorbs food. The liver stores nutrients for when the body needs them. In addition, the liver acts like a chemical factory by changing some nutrients into other substances needed throughout the body.
8. What does it mean for your circulatory system to regulate your body temperature and why is that important?
   1. Regulating body temperature means the circulatory system works to make sure your body temperature is steady and doesn’t get too hot or too cold. This is important because it helps make sure your organs can work to the best of their ability and makes sure to keep away harmful invaders that might cause illness.
9. What is hypertension and what can it cause?
   1. Hypertension is also known as high blood pressure. This means your blood is pushing hard on the walls of your arteries. This can cause damage to your arteries, which are important structures in your circulatory system.

1. What is the main function of the circulatory system?
   1. The heart works to pump blood through your blood vessels in order to carry oxygen, nutrients, and other needed substances to all the other cells in your body. In addition, the circulatory system is responsible for using the same process to transport waste from cells out of your body.