What is the main function of capillaries in the body

- A. To produce red blood cells
- B. To regulate body temperature
- C. To allow for exchange of gases, nutrients, and waste products between blood and tissues
- D. To transport hormones throughout the body

How do capillaries differ in structure from arteries and veins

- A. Capillaries carry oxygenated blood while arteries and veins carry deoxygenated blood.
- B. Capillaries are larger and have thicker walls than arteries and veins.
- C. Capillaries are smaller and have thinner walls than arteries and veins.
- D. Capillaries have valves like veins do, unlike arteries.

What is the smallest type of blood vessel in the body

- A. Arteries
- B. Veins
- C. Capillaries
- D. Venules

What is the average diameter of a capillary

- A. 5 micrometers
- B. 8 micrometers
- C. 15 micrometers
- D. 10 micrometers

How many capillaries are estimated to be in the human body

- A. Approximately 10 billion

• B. 50 billion

• C. 1 trillion

• D. 100 million

What is the primary purpose of capillaries in gas exchange

• A. To produce energy

• B. To transport nutrients to cells

• C. To facilitate the exchange of gases between blood and tissues

• D. To regulate blood pressure

What is the name of the process by which nutrients and oxygen are exchanged betw

• A. Nutrient absorption

• B. Blood circulation

• C. Oxygenation

• D. Capillary exchange

What is the role of capillaries in the regulation of body temperature

• A. Capillaries regulate blood pressure.

• B. Capillaries help regulate body temperature by constricting or dilating to control blood flow and heat exchange.

• C. Capillaries produce hormones.

• D. Capillaries transport nutrients to cells.

How are capillaries adapted for their function in nutrient exchange

• A. Valves for preventing backflow

• B. Muscular walls for pumping blood

• C. Thin walls for easy diffusion

- D. Large surface area for absorption

What factors can affect the permeability of capillary walls

- A. Blood pressure
- B. pH level
- C. Temperature
- D. Amount of oxygen

What is the significance of capillary density in different tissues

- A. Capillary density determines oxygen and nutrient supply to tissues.
- B. Capillary density determines tissue flexibility.
- C. Capillary density affects muscle strength.
- D. Capillary density is related to tissue color.

What is the relationship between capillaries and lymphatic vessels

- A. Capillaries and lymphatic vessels are not related.
- B. Lymphatic vessels transport oxygen in the body.
- C. Capillaries are part of the circulatory system.
- D. Capillaries allow fluid to enter lymphatic vessels.

How does blood flow through capillaries differ from blood flow through arteries and

- A. Blood flow through capillaries is continuous like in arteries
- B. Blood flow through capillaries is slow and single-file
- C. Blood flow through capillaries is bidirectional like in veins
- D. Blood flow through capillaries is fast and turbulent

What is the importance of capillary beds in the circulatory system

- A. To produce red blood cells
- B. To regulate blood pressure
- C. Facilitate exchange of nutrients and waste products
- D. To store excess blood

How are capillaries involved in the immune response

- A. Capillaries create a barrier to protect the body from pathogens.
- B. Capillaries allow immune cells to leave the bloodstream and reach infected tissues.
- C. Capillaries store excess immune cells.
- D. Capillaries carry oxygen to the immune system.

What are the different types of capillaries found in the body

- A. Smooth, rough, bumpy
- B. Red, blue, green
- C. Round, square, triangle
- D. Continuous, fenestrated, sinusoidal

How do capillaries contribute to the maintenance of blood pressure

- A. Capillaries produce hormones
- B. Capillaries regulate blood flow
- C. Capillaries store excess blood
- D. Capillaries control heart rate

What role do capillaries play in the removal of waste products from tissues

- A. Capillaries store waste products in tissues
- B. Capillaries produce waste products in tissues
- C. Capillaries have no role in waste removal

• D. Capillaries help transport waste products away from tissues

How are capillaries affected by conditions such as hypertension and diabetes

• A. Capillaries may become damaged and leaky

• B. Capillaries become stronger

• C. Capillaries shrink

• D. Capillaries expand

What is the significance of the blood-brain barrier in relation to capillaries

• A. It is only present in arteries

• B. It allows easy passage of toxins into the brain

• C. It protects the brain from harmful substances

• D. It regulates blood flow in the brain