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

Answer: C. To allow for exchange of gases, nutrients, and waste products between blood and tissu

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.

Answer: C. Capillaries are smaller and have thinner walls than arteries and veins.

What is the smallest type of blood vessel in the body

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

Answer: C. Capillaries

What is the average diameter of a capillary

- A. 5 micrometers

• B. 8 micrometers

• C. 15 micrometers

• D. 10 micrometers

Answer: B. 8 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

Answer: A. Approximately 10 billion

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

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

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

Answer: 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.

Answer: B. Capillaries help regulate body temperature by constricting or dilating to control blood fl

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

Answer: C. Thin walls for easy diffusion

What factors can affect the permeability of capillary walls

• A. Blood pressure

• B. pH level

• C. Temperature

• D. Amount of oxygen

Answer: A. Blood pressure

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.

Answer: A. Capillary density determines oxygen and nutrient supply to tissues.

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.

Answer: 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

Answer: B. Blood flow through capillaries is slow and single-file

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

Answer: C. Facilitate exchange of nutrients and waste products

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.

Answer: B. Capillaries allow immune cells to leave the bloodstream and reach infected tissues.

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

Answer: 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

Answer: B. Capillaries regulate blood flow

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

Answer: 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

Answer: A. Capillaries may become damaged and leaky

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

Answer: C. It protects the brain from harmful substances