



## Blood Vessels

### Blood Vessels: The Transportation Network:

Blood vessels are a network of hollow tubes that transport:

- Blood, nutrients, and other substances throughout the body.

Form an intricate system to ensure efficient distribution.

### Types of Blood Vessels:

#### i. Arteries

Carry blood away from the heart.

Have thick, strong walls to withstand high pressure.

Small arteries are called arterioles.

#### **Largest artery:**

- Aorta – transports oxygen-rich blood from the heart to the body.

#### **Other major arteries:**

- Pulmonary artery – carries oxygen-poor blood to the lungs for oxygenation.
- Carotid artery – carries oxygen-rich blood to the brain.

#### ii. Veins

Carry blood back to the heart from body tissues.

Thinner walls than arteries.

Small veins are called venules.

#### **Largest vein:**

- Vena cava – returns deoxygenated blood to the heart.
- Two sections of the vena cava:
- **Superior vena cava:** Carries blood from the upper body (head, neck, chest) to the heart.
- **Inferior vena cava:** Carries blood from the lower body back to the heart.

Veins have valves to prevent the backflow of blood.



### iii. Capillaries

Smallest blood vessels in the body.

Connect the smallest arteries (arterioles) to the smallest veins (venules).

Allow the exchange of oxygen, nutrients, and waste between blood and tissues.

