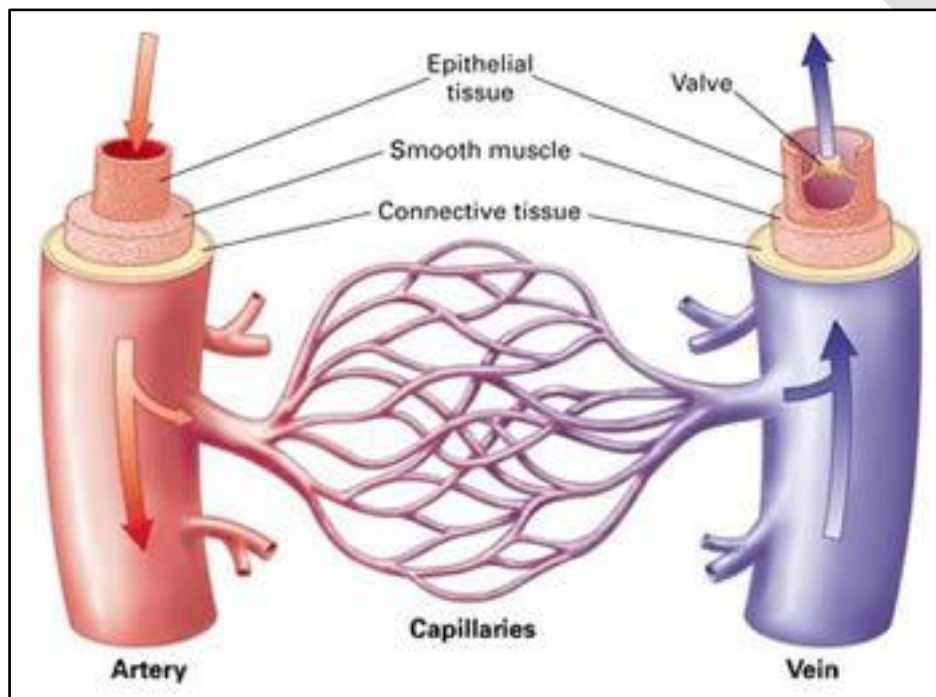


Blood Vessels:

The channels, through which mass flow of blood occurs, are called blood vessels. Blood vessels are of three types. Such as—

- 1) Artery
- 2) Vein
- 3) Capillary



1) Arteries:

Arteries are blood vessels that transport oxygenated blood from the heart to various parts of the body.

- ✓ They are thick, elastic and are divided into a small network of blood vessels called capillaries.
- ✓ The wall of artery is three layered: (1) Tunica externa—made of connective tissues, (2) Tunica media—made of round involuntary muscles and (3) Tunica interna—the innermost layer made of simple endothelial tissue.
- ✓ The walls of the arteries are elastic and thick.
- ✓ The arteries do not have any valves and has narrow passage or lumen.
- ✓ The only exception to this is the pulmonary arteries, which carries deoxygenated blood to the lungs.

2) Veins:

Veins are blood vessels that carry deoxygenated blood towards the heart from various parts of the body.

- ✓ They are present closer to the surface of the skin.
- ✓ They are originated from the capillaries; numerous capillaries together form small veniule.
- ✓ Veins and vena cave open directly into the heart.
- ✓ Veins are also made of three layers, veins are thin walled, less elastic and with less muscles.
- ✓ The veins have valves and wider passage or lumen.
- ✓ Pulmonary and umbilical veins are the only veins that carry oxygenated blood.

Q. Write five differences between artery and vein?

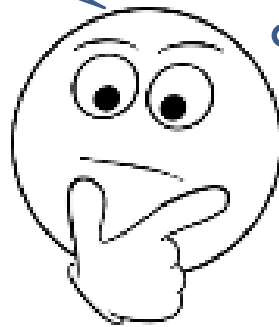
Artery	Vein

3) Capillaries:

The hair like small delicate blood vessels are visible in the muscle fibre, are called blood capillaries.

- ✓ Capillaries connect with smallest artery in one side and vein on the other side.
- ✓ All arteries are divided into secondary and lateral branches and form a fine network.
- ✓ Each cell is surrounded by blood capillaries.
- ✓ The walls of the capillaries are thin. Through this thin layer substances dissolved into the blood diffuse into the cells.

Through which blood vessel do the dissolved substances enter the cell and how?



Facts about our blood vessels:

- Our blood vessels could circle the globe. In fact, if they were laid out in a line, they would measure more than 60,000 miles in length.
- They carry a million barrels of blood in a lifetime.
- Blood vessels work as a team.
- Serious conditions can affect all types of blood vessels.
- Blood vessels act as a force field for the brain.
- Blood vessels are affected by the weather.