

A microscopic view of red blood cells (erythrocytes) in a blood vessel. The cells are biconcave discs, appearing as bright red, oval shapes against a darker red background. They are scattered throughout the frame, with some in sharp focus and others blurred, suggesting movement or depth. The overall color palette is various shades of red, from deep maroon to bright crimson.

**Blood flow**  
through the human  
circulatory system

# God is Life

Throughout the Old Testament God has used the symbol of blood to identify life.

*Leviticus 17:11 – For the life of the flesh is in the blood*

*Exodus 7-12 – When God rescued His people from slavery, he asked them to place blood over the door posts. This was a symbol of life and protection from the angel of death.*

# God is Life

In the New Testament we see that the life blood of Jesus was shed for us to give *us* life.

*Hebrews 13:20 - The blood of Jesus began the agreement that God made with His people.*

*Luke 22:7-20 – The cup of the new covenant in Jesus' blood poured out for us.*

*Ephesians 1:7 - In Him we have redemption through His blood, the forgiveness of our sins, according to the riches of His grace.*



# God is Life

The life blood flowing through the human body is the essence of life. The life blood flowing through the body of Christ, (His children), is Jesus.

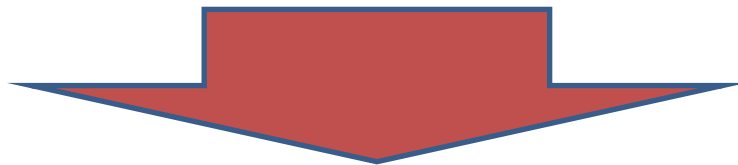
*1 Corinthians 12:12 – Christ is like a single body, which has many parts; it is one body, even though it is made up of different parts, (GNB).*

Superior (from the head)

Inferior (from the body)

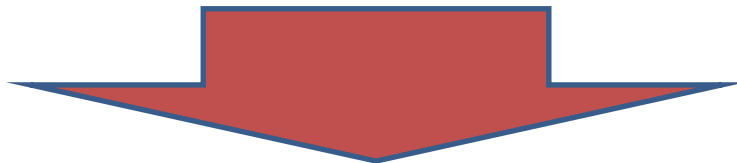
Blood is **deoxygenated**.

Carbon dioxide has been converted to carbonic acid which is less toxic to the body.

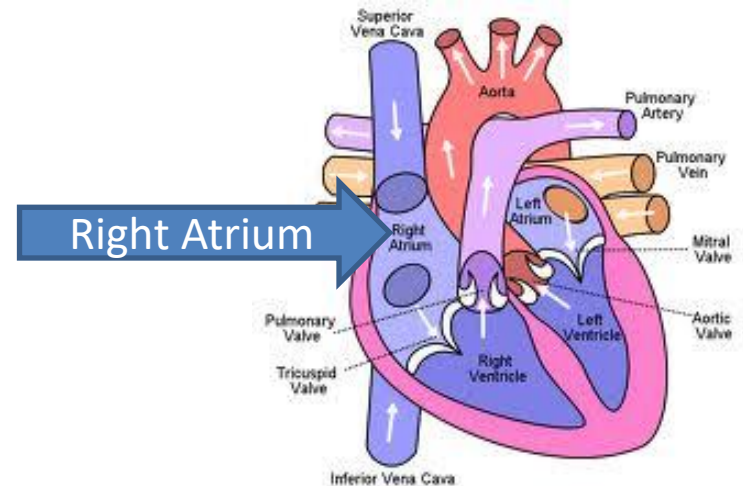
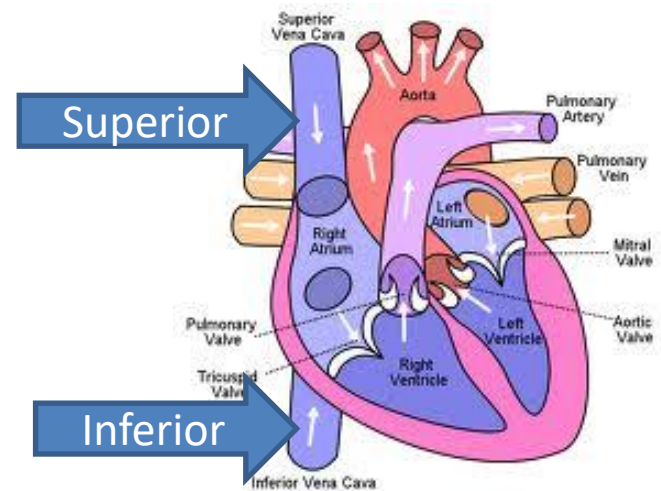


## Right Atrium

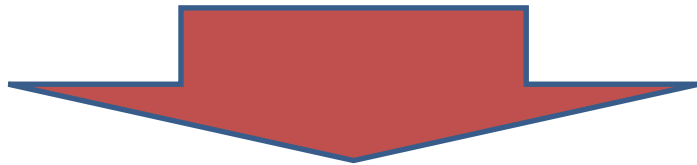
First chamber of the heart that blood enters.



} Vena Cavae

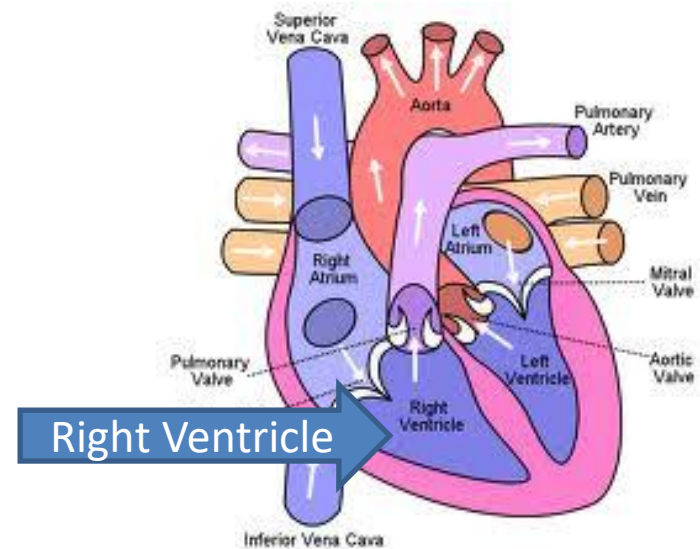
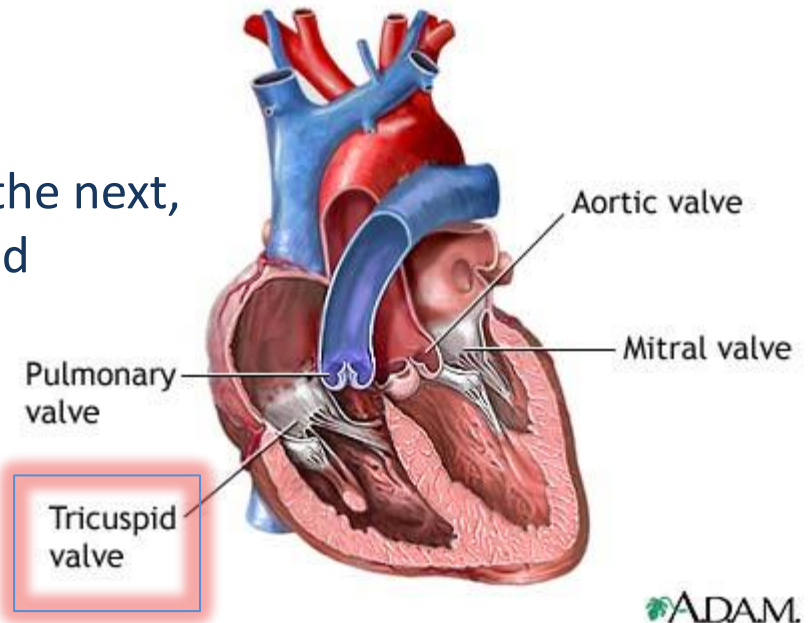
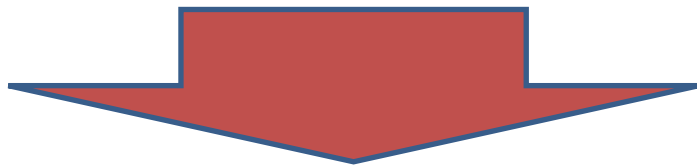


**Valves** prevent the **backflow** of blood. As blood moves from one chamber to the next, the valves push closed behind the blood as it begins to flow back against them.



## Right Ventricle

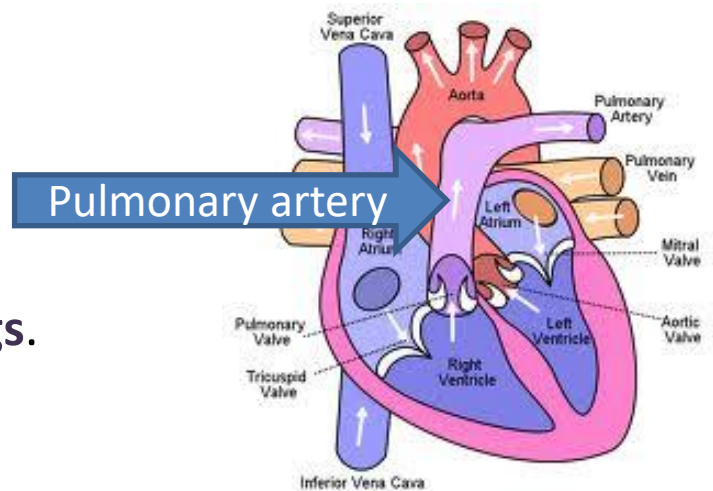
Second chamber of the heart that blood enters.



## Pulmonary Artery

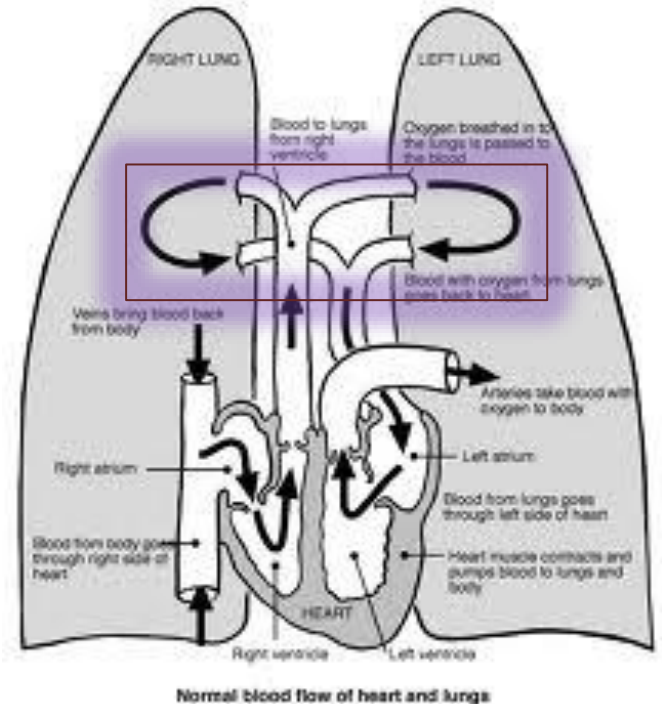
The only artery to carry **deoxygenated** blood.

Blood travels **away from** the heart **to** the lungs.

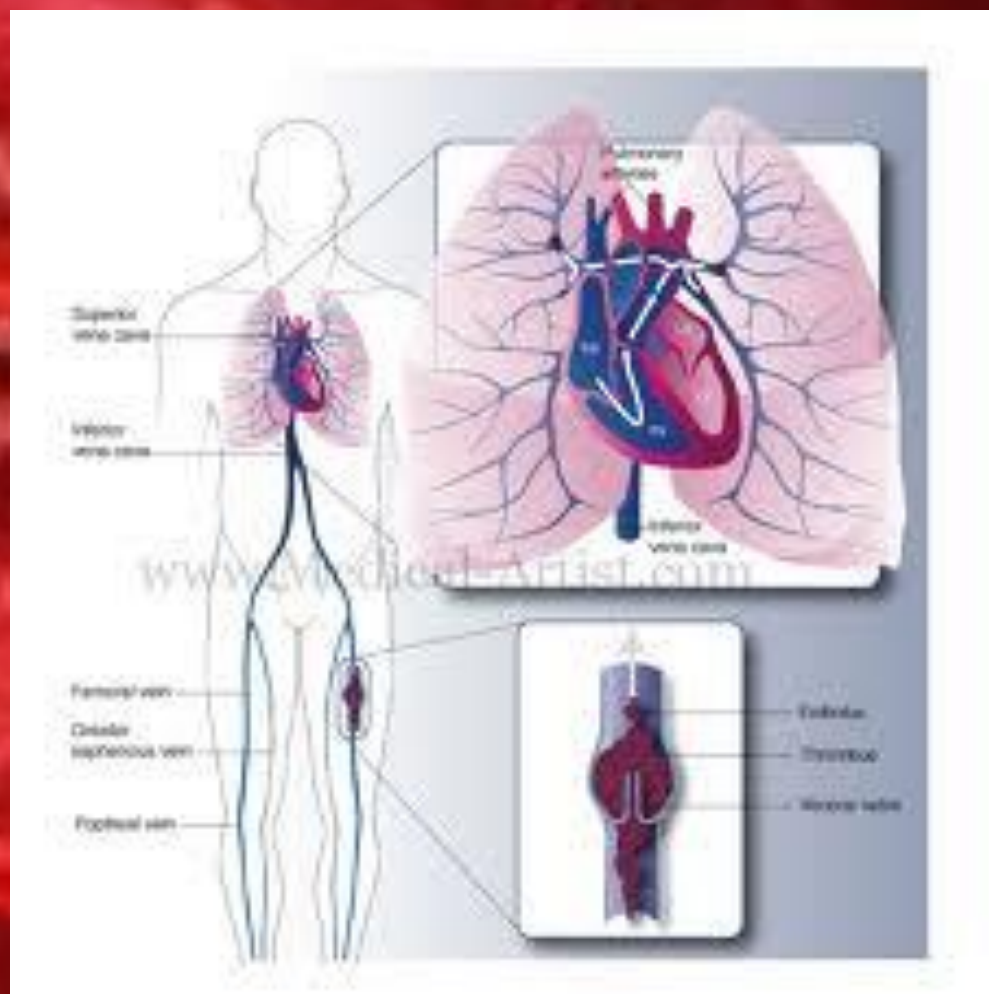


## Lungs

Site of **gaseous exchange**: Blood taken to the lungs has some **CO<sub>2</sub>** **removed by diffusion** and **O<sub>2</sub>** is **diffused into** the blood.







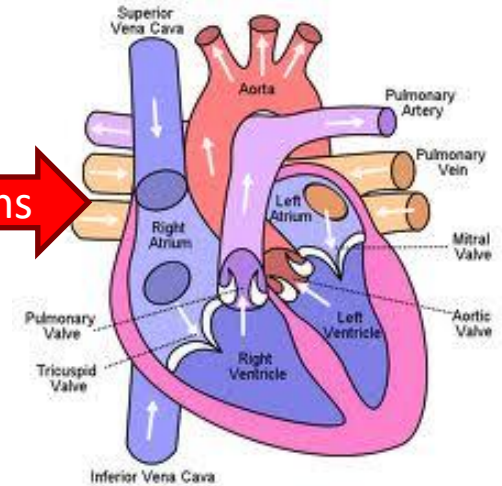


## Pulmonary Vein

The only vein to carry **oxygenated** blood.

Blood travels *away from* the lungs *back to* the heart.

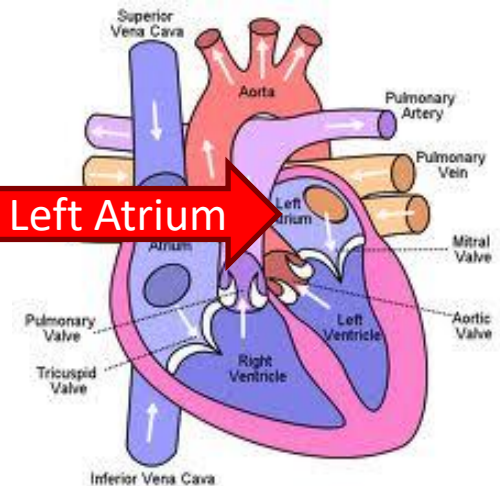
Pulmonary veins



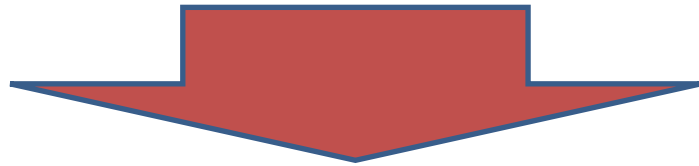
## Left Atrium

The third chamber of the heart that blood enters.

Left Atrium

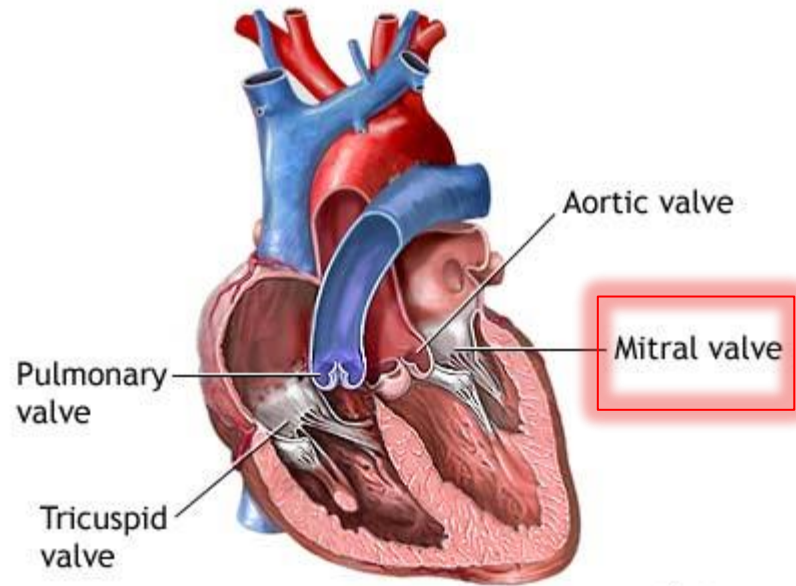
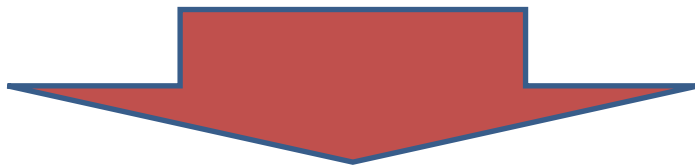


**Valves** prevent the backflow of blood. As blood moves from one chamber to the next, the valves push closed behind the blood as it begins to flow back against them.

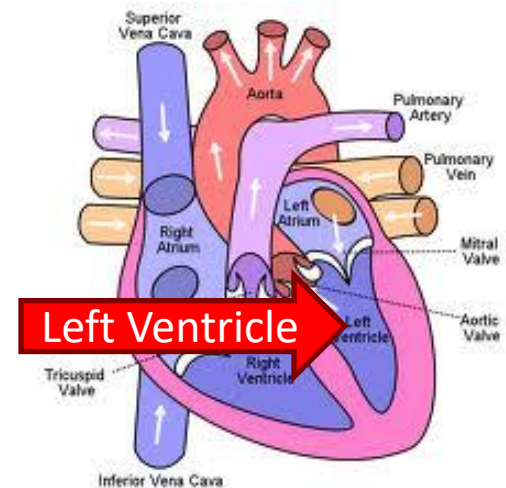


## Left Ventricle

The fourth chamber of the heart that blood enters. This has the **thickest wall** of all chambers in the heart.



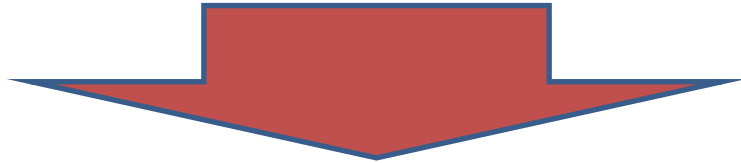
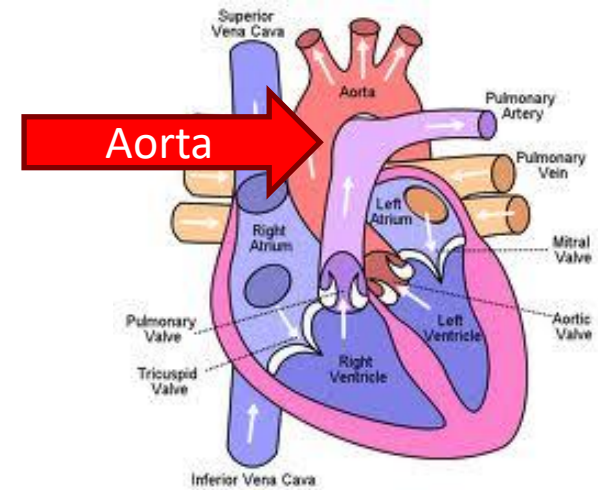
ADAM.



# Aorta

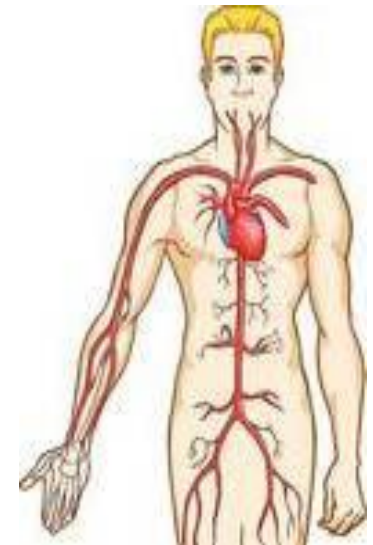
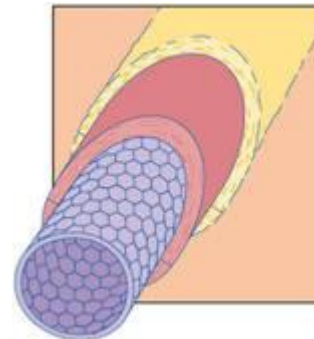
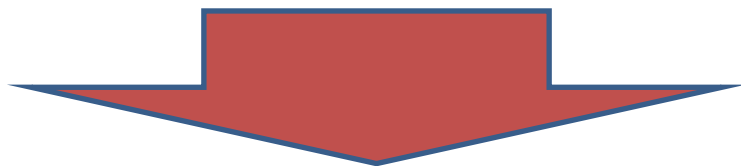
The main artery of the body, taking **oxygenated** blood away from the heart to the head and body.

Circular and longitudinal muscles lining the walls ensure **blood pressure** is maintained as blood pulses around the body.



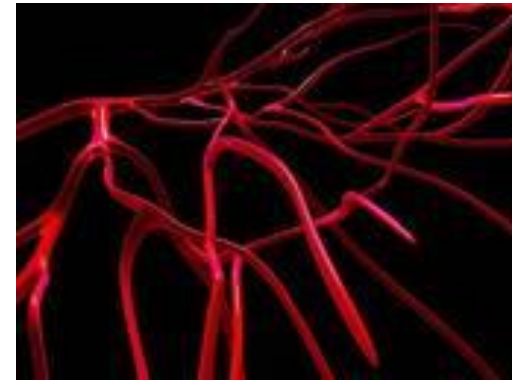
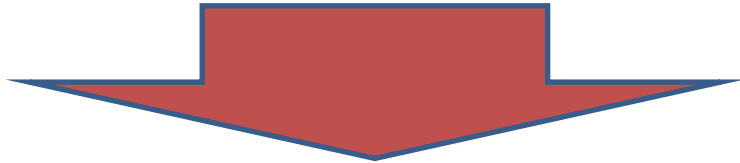
# Arteries

Thick, elastic, muscular walls maintain **high pressure**, as oxygenated blood surges around the body.



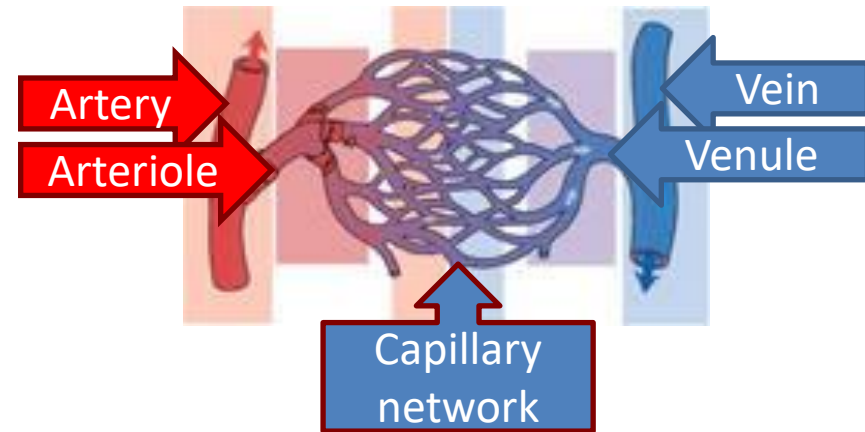
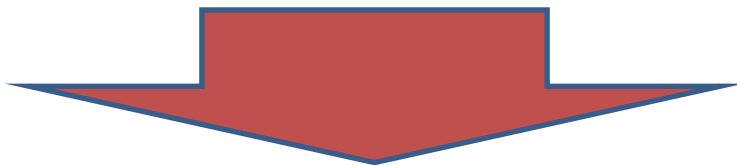
## Arterioles

Small elastic arteries branching from the main arteries, bring **oxygenated** blood **toward** the body cells.



## Capillaries

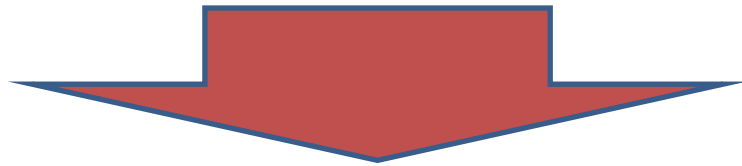
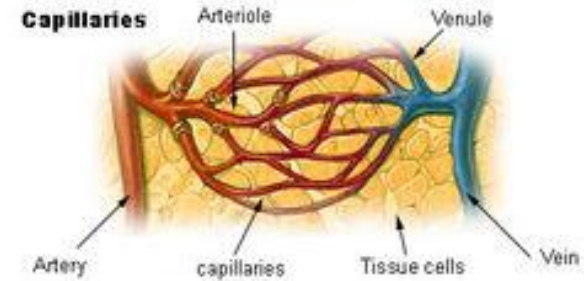
Extremely narrow blood vessels wrap around **major organs** of the body and also weave their way throughout the **body tissues** bringing **O<sub>2</sub>** to the cells and pick up **CO<sub>2</sub>** to be carried back to the lungs to exit the body.





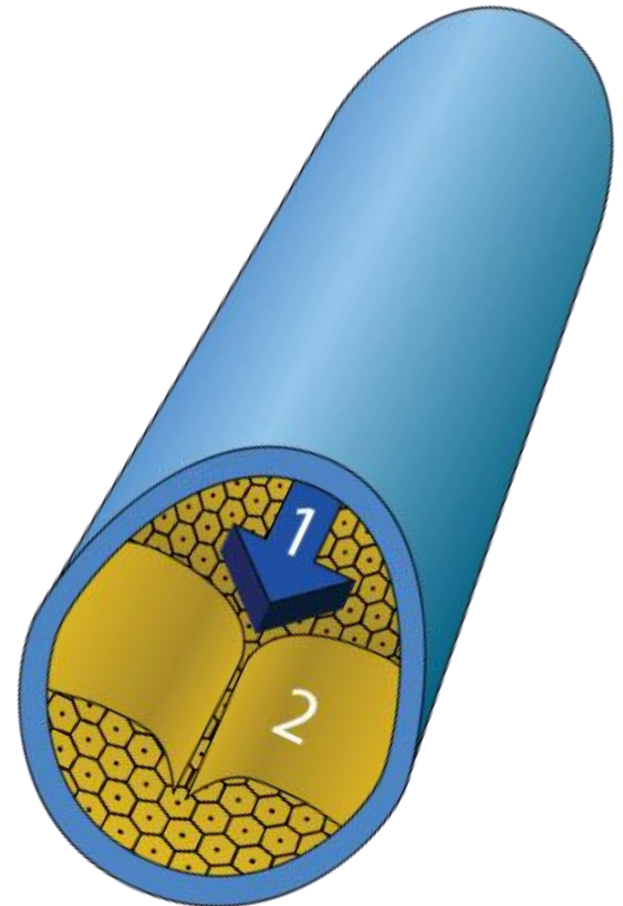
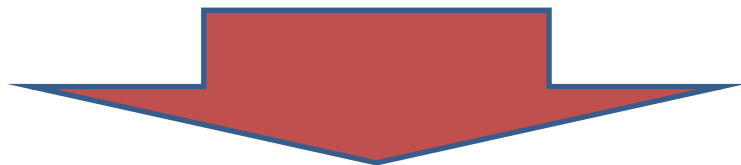
## Venules

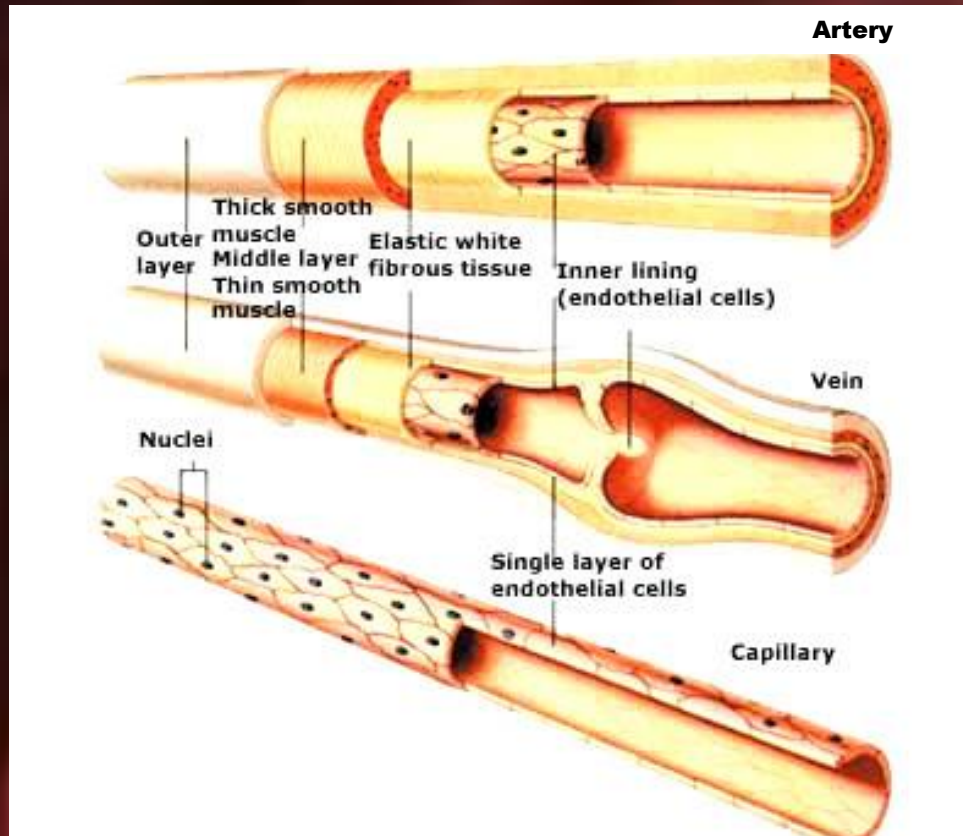
Fine veins take **deoxygenated** blood away from the capillary beds and direct blood **toward the heart**.



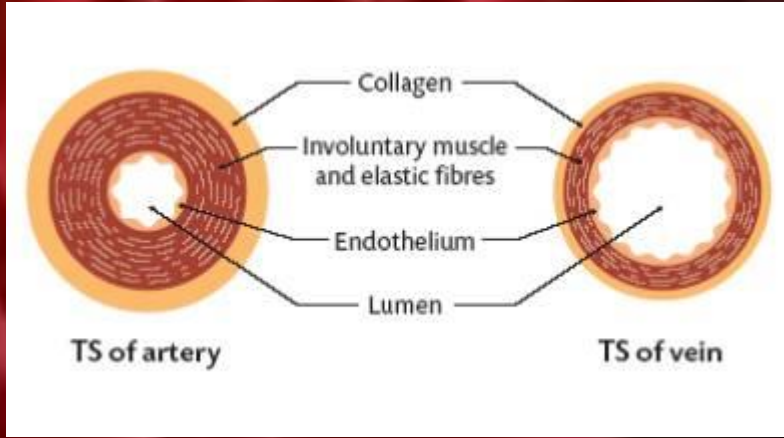
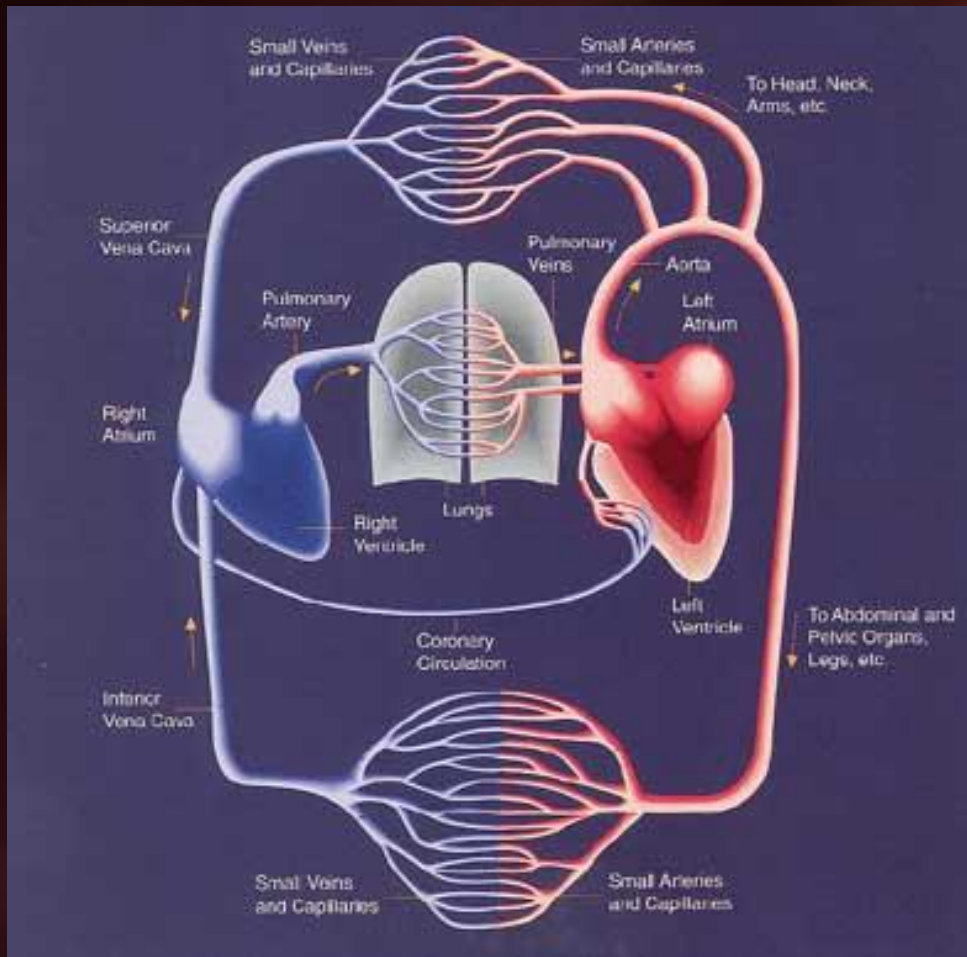
## Veins

Thin walled vessels, containing **valves** – to prevent backflow of blood – continue the journey of **deoxygenated** blood back toward the heart culminating in the vena cavae.





Comparison of the three types of blood vessels





## References:

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