

# The Circulatory System

The system that circulates blood

What is the Circulatory system? Emily

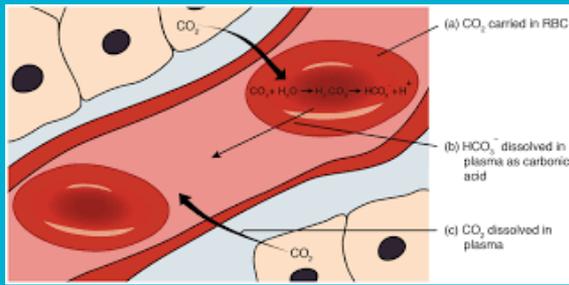


Wikipedia

The organ system that circulates blood through the body

# The purpose of the Circulatory System

Emily



Teachmephysiology.com

Emily

To circulate the oxygenated blood from our lungs to cells around our body and then collect the co2 that we don't need so the lungs can dispose it

# Important things involved in the circulatory system

Emily

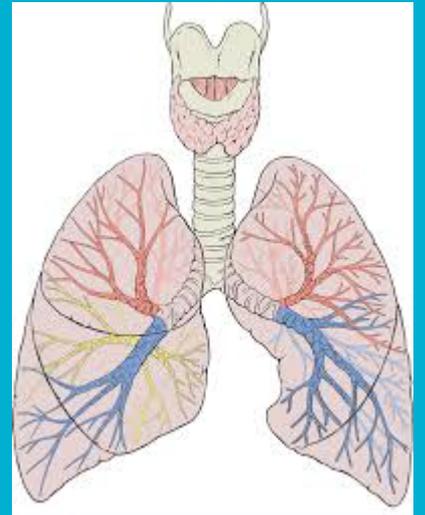
# The Lungs

Emily

The lungs absorb the oxygen we breathe in which gets into our bloodstream

Emily

Wikipedia



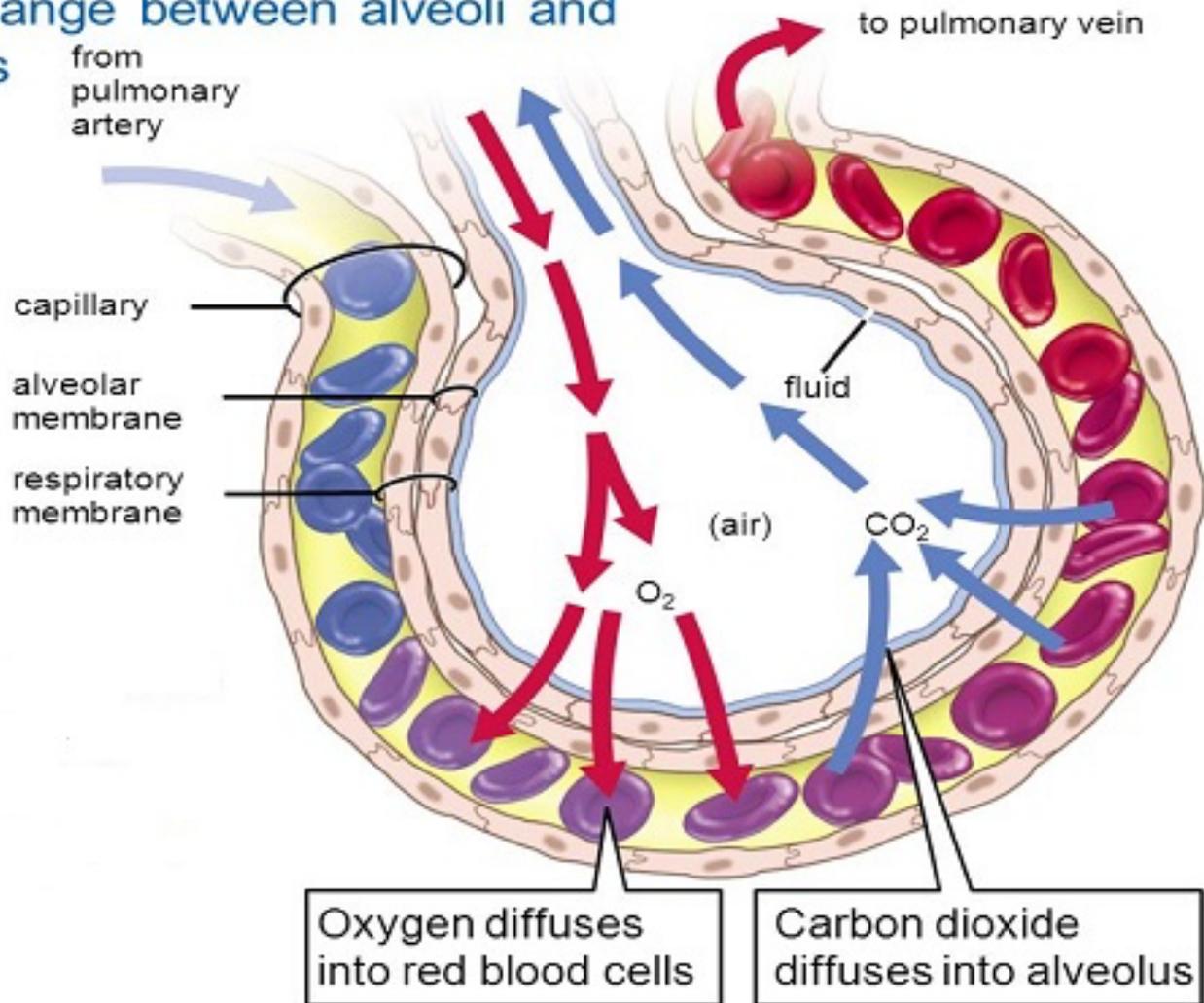
# Aviolis

Sandy

sandy

There are lots of them in the lungs so the tiny capillaries covering them can circulate the oxygen they absorb

# Gas exchange between alveoli and capillaries



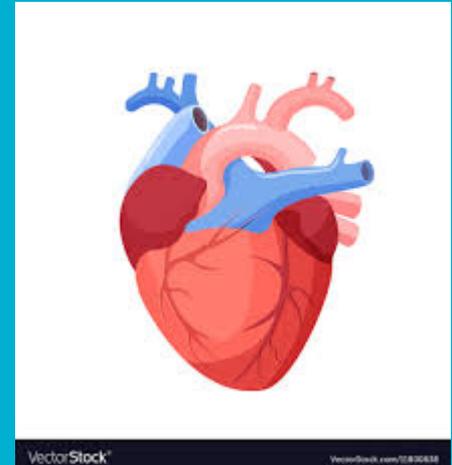
# The heart

Chloe

To pump the oxygenated blood to the upper and lower parts of the body, and to get the deoxygenated blood to the lungs

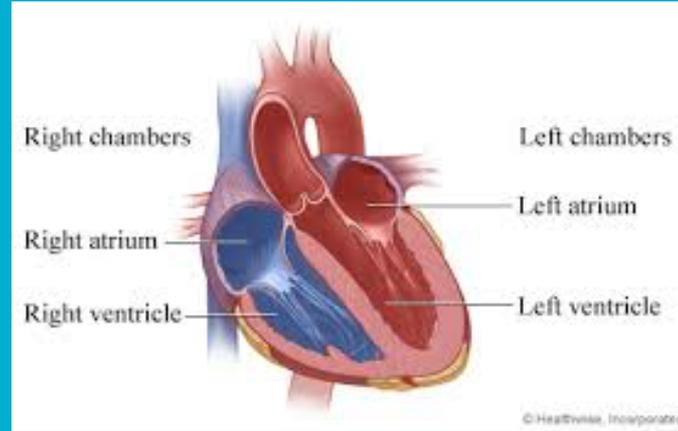
Chloe

Vectorstock.org



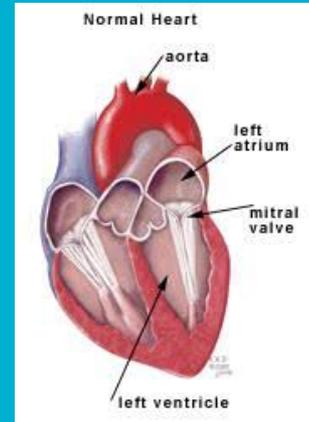
## Four chambers

- ★ the right atrium
- ★ the right ventricle
- ★ the left atrium
- ★ and the left ventricle



chloe

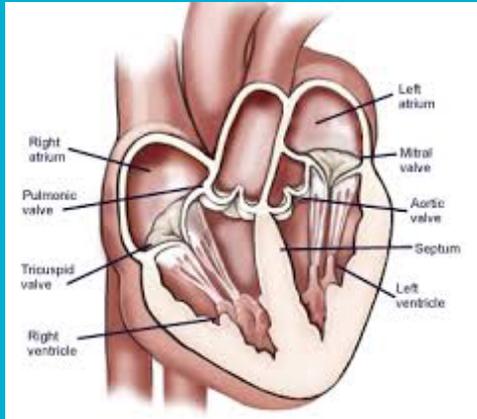
★ The left side of the heart is very muscular and has high pressure in order to get the blood out and not flowing backwards



[My.clevelandclinic.org](http://My.clevelandclinic.org)

★ There is also valves in the heart to direct the blood to go the right way

chloe



[My.clevelandclinic.org](http://My.clevelandclinic.org)

# Arteries and veins

Sandy

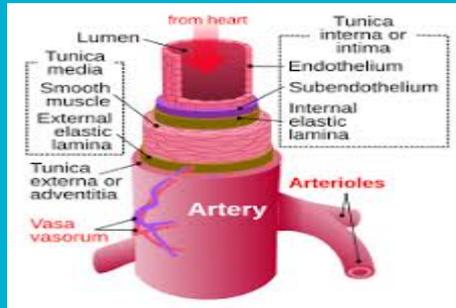
# Arteries vs Veins

Sandy

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Arteries:

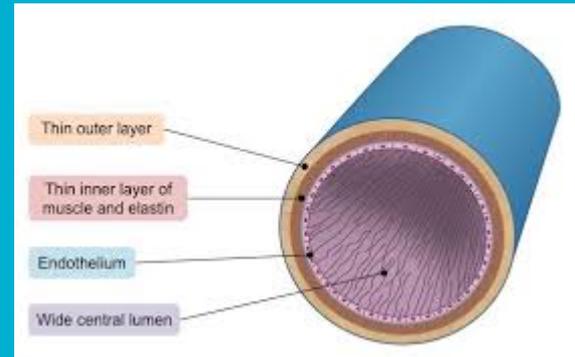
- High pressure
- Thick walls
- Branches off into tiny capillaries
- Collects oxygenated blood



Wikipedia

Veins:

- Has little pressure
- mostly deoxygenated blood
- Collects deoxygenated blood



ib.bioninja.com.au

Blood

chloe

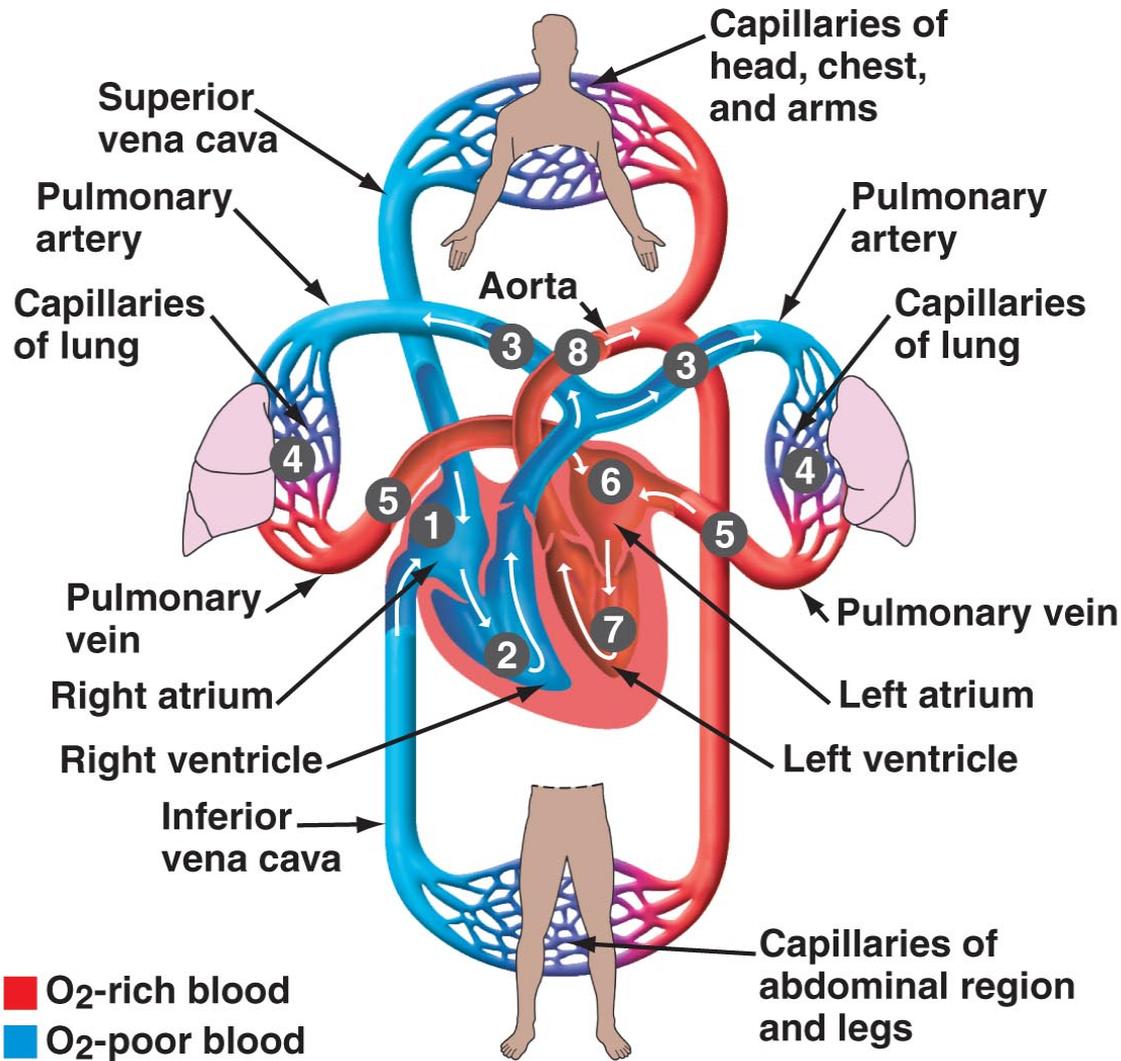


[Calander.stonybrook.edu](http://Calander.stonybrook.edu)

Blood contains plasma, red blood cells, white blood cells, with nutrient, vitamins, waste products and hormones

# Steps to how it works?

Sandy



Step 1. The superior vena cava and the inferior vena cava collect deoxygenated blood from the top and bottom part of the body

Step 2. They all flow to the Right Atrium

Step 3. Because of low pressure, it flows  
right into the right Ventricle

Step 4. The deoxygenated blood goes into the pulmonary arteries to the lungs

Step 5. In the lungs, the blood picks up oxygen from the aviolis.

Step 6. The fresh blood flows into the pulmonary veins back to the heart

Step 7. It enters the left atrium then enters  
the left ventricle

Step 8. Then the heart pumps that oxygenated blood to part of the body and does the cycle over again

# Health and Wellness

NOTE: As long as you take care of yourself, you don't have to worry about the following diseases, especially at a young age.

# High Blood Pressure

What is HBP?

When the pressure is too high is your arteries

Affects the circulation of blood because the high pressure damages the blood vessels

Can cause heart attacks and strokes due to clots in blood vessels

Called the silent killer because the symptoms don't show up until a heart attack occurs or a stroke

symptoms

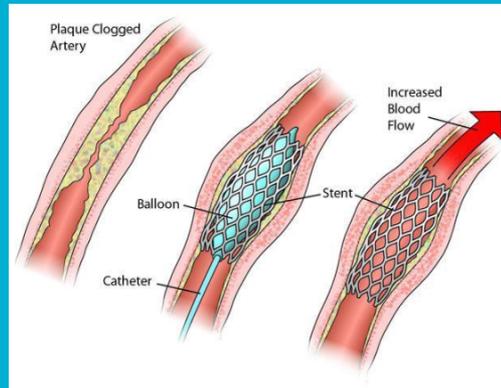
Increase of heart rate

Loss of elasticity in arteries

# How to treat HBP



A thing you could insert your heart and stops it from being clogged





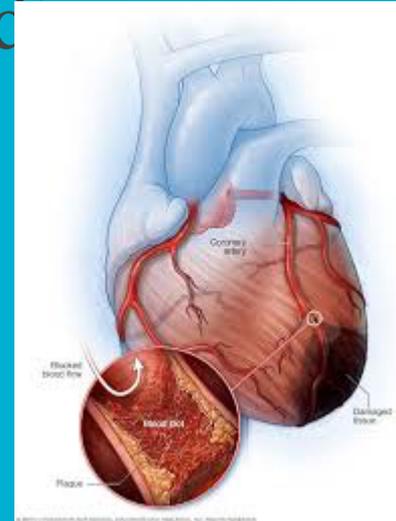
[drmani.com](http://drmani.com)

# Heart Attack

What does it do?

When you have a heart attack, oxygen is cut off from the heart and it starts to basically die.

Mayoclinic.org



# Symptoms

Symptoms include

- Chest Pain
- Sweating
- Tiredness
- Nausea
- Trouble Breathing

[heart.org](http://heart.org)



## Common Heart Attack Warning Signs



# Causes

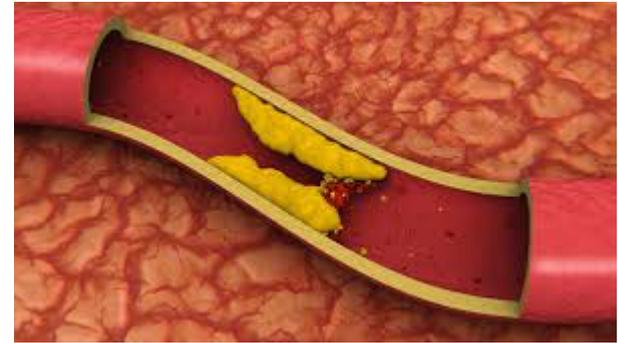
— — —

Plaque buildup in the arteries

Blood clots

Torn blood vessel

Blood vessel spasm

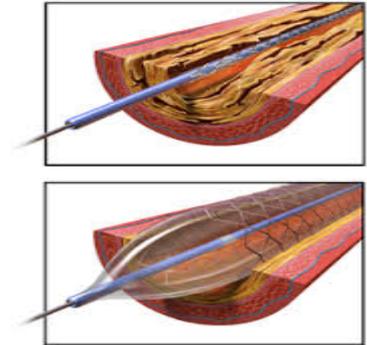


# Treatment

— — —

you need to call 911 immediately and chew aspirin while waiting for help. Insert a balloon to open up the artery.

Wikipedia



# Stroke

What is a stroke?

— — —

Similar to a heart attack, a stroke occurs when blood cannot flow to the brain, causing the cells to die.

# Symptoms

— — —

Weakness or numbness on one side of the body, confusion, vision changes, difficulty balancing, and headache.

NOTE: All of these symptoms will be usually sudden.

# Treatment

— — —

To react, use the FAST method

**F**ace drooping

**A**rm drooping

**S**peech difficulty

**T**ime to call 911!

— — —

If you get to the hospital within three hours, the doctor will give you medication to clear the blood clot.

# Risk Factors

— — —

The following can increase your risk of having a stroke:

- Obesity
- High cholesterol
- Unhealthy diet
- Alcohol and tobacco
- Physical inactivity

# Peripheral Arterial Disease (PAD)

What is PAD?

— — —

PAD is when plaque builds up on vessel walls, making it difficult for blood to flow. It mainly affects legs or feet, although it can happen anywhere.

# Symptoms

— — —

- Calf pain that goes away while resting
- Lower leg and foot numbness
- Injuries in your legs that heal slowly or not at all

# Treatment

— — —

Medicine such as aspirin, and angioplasty.

# Risk factors

— — —

Obesity, smoking, age, high cholesterol, and family history.

# Heart Failure

What is heart failure?

— — —

Heart failure is a condition that prevents the heart from pumping enough blood.

# Symptoms

— — —

- Extreme tiredness
- Sudden weight gain
- Loss of appetite
- Coughing
- Irregular pulse
- “Skipping” heartbeat
- Shortness of breath
- Leg and ankle swelling
- Neck veins that stick out (List from Healthline.com)

# Treatment

— — —

- Medication
- Angioplasty
- Pacemakers (Controls heartbeat)
- Heart transplant

# Risk factors

— — —

- Having diseases such as anemia
- Smoking
- Being inactive
- Being overweight

How to take care of your circulatory system

1. Quit smoking
2. Control the amount of salt taken
3. Regular exercise
4. Eating healthy
5. Reduce stress

[Livewellsd.org](http://Livewellsd.org)

Do all of these and you'll remain heart-healthy!



Sources: [healthline.org](https://www.healthline.org)

Fun fact: Diseases in the circulatory system is the main cause of death in North America

<3 THE END <3