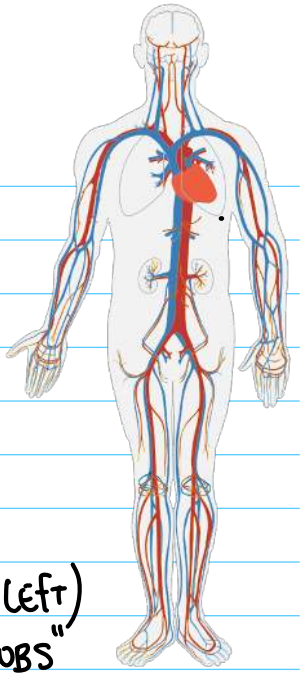
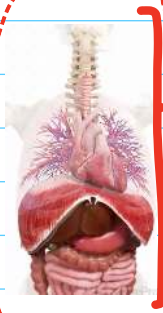
# Circulatory System



The Circulatory System is your body's transportation system

Moves nutrients & oxygen around your body & removes waste.

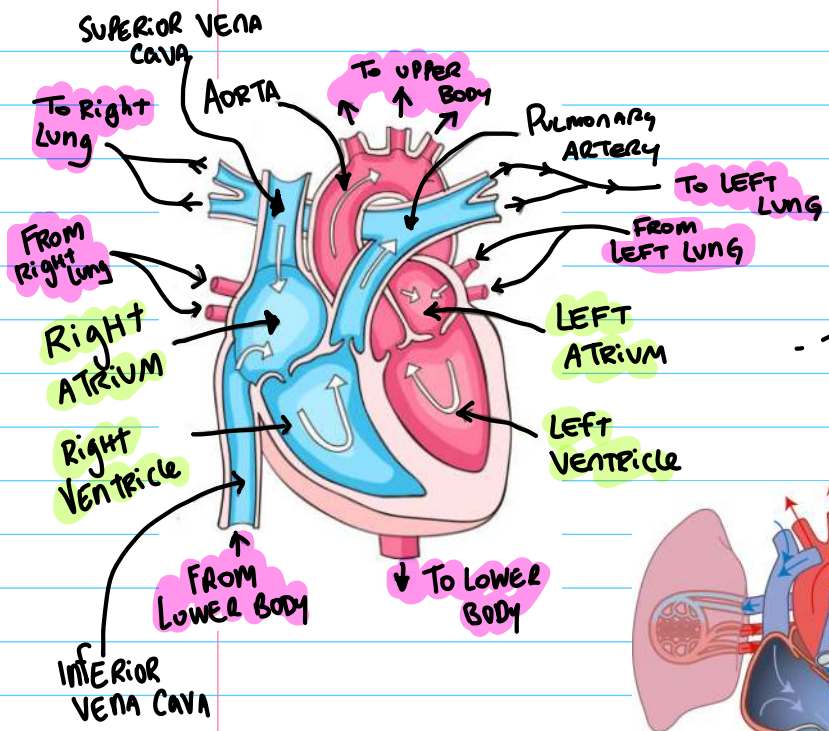


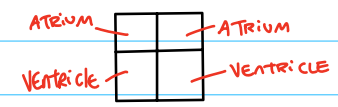
Watch: Circulatory System

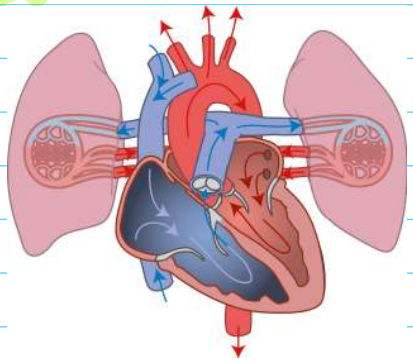
https://drive.google.com/file/d/1eZNWegFxRsnYEN1gBSNfq-eBBm6wNsEN/view?usp=sharing

## The Heart → pumps your blood

- is actually 2 separate pumps (right vs. left) → work together but separate "jobs"
- The right side pumps blood to your lungs.
- The left side receives oxygen rich blood from lungs & pumps it throughout your body.
- Two sides of the heart each have 2 chambers



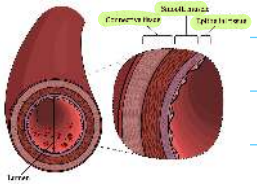


Interactive Circulatory System

https://apps.explorelearning.com/gizmos/launch-gizmo/662

## Arteries, Veins & Capillaries

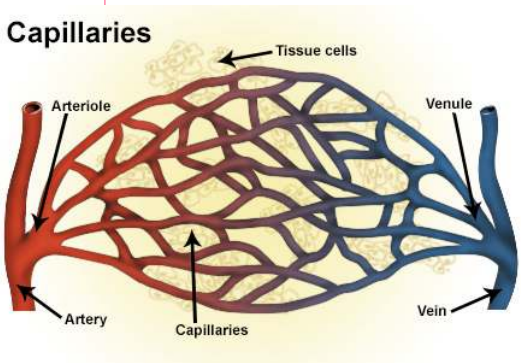
- We have vessels that carry blood throughout our body.



- 3 diff. tissues: ① connective on outside ② muscle in middle ③ epithelial on inside

- VESSELS CARRYING BLOOD AWAY FROM HEART → ARTERIES
  - HAVE A THICKER MUSCLE LAYER IN MIDDLE THAT CONTRACTS & EXPANDS TO HELP PUSH BLOOD ALONG.
  - THIS EXPANSION IS WHAT YOU FEEL WHEN YOU FEEL YOUR PULSE

- VESSELS CARRYING BLOOD TO YOUR HEART → VEINS
  - THINNER & HAVE VALVES TO STOP BLOOD FROM FLOWING BACKWARD



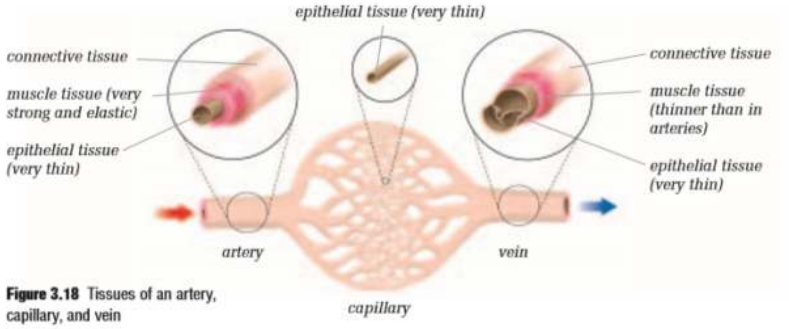



Figure 3.18 Tissues of an artery, capillary, and vein

**BLOOD** → 2ND LARGEST EXAMPLE of CONNECTIVE TISSUE AFTER BONES

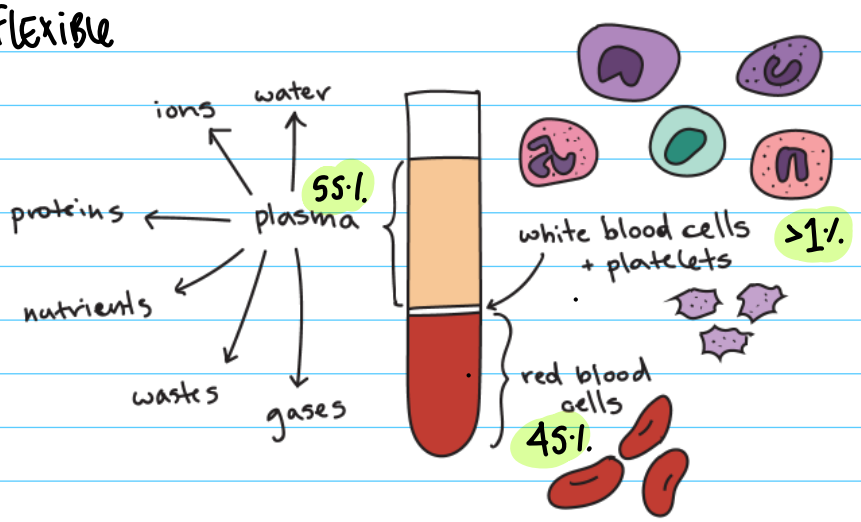
↳ CONTAINS:

**RED BLOOD CELLS**
- CARRY OXYGEN
- HAVE NO NUCLEUS to CARRY AS MUCH $O_2$ as POSSIBLE
- VERY FLEXIBLE

**WHITE BLOOD CELLS**
- FIGHT INFECTIONS

**PLATELETS**
- CELLS THAT HELP TO STOP THE BLEEDING @ CUTS

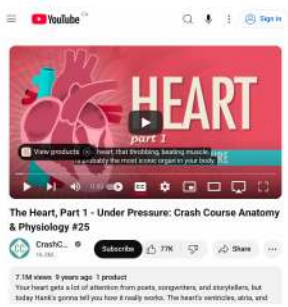
**PLASMA**
- LIQUID PORTION of BLOOD
- TRANSPORTS NUTRIENTS, CARRIES $CO_2$



## Heart and Blood Vessel Disorders (10)



- Arterial Pulse
- Atrial Fibrillation
- Branches of the Abdominal Aorta
- Cardiac Conduction System
- Cardiovascular System
- Left-Sided Heart Failure: Pulmonary Edema
- Pulmonary Artery Catheterization
- Ruptured Atheroma and Blood Clot
- The Coronary Arteries
- Ventricular Fibrillation




WATCH: CRASH COURSE THE HEART

https://www.youtube.com/watch?v=X9ZZ6tcxArI




WATCH: SCIENCE TREK - IT'S BLOOD

https://www.pbslearningmedia.org/resource/idptv11.sci.life.reg.basic.d4kbld/blood/?student=true