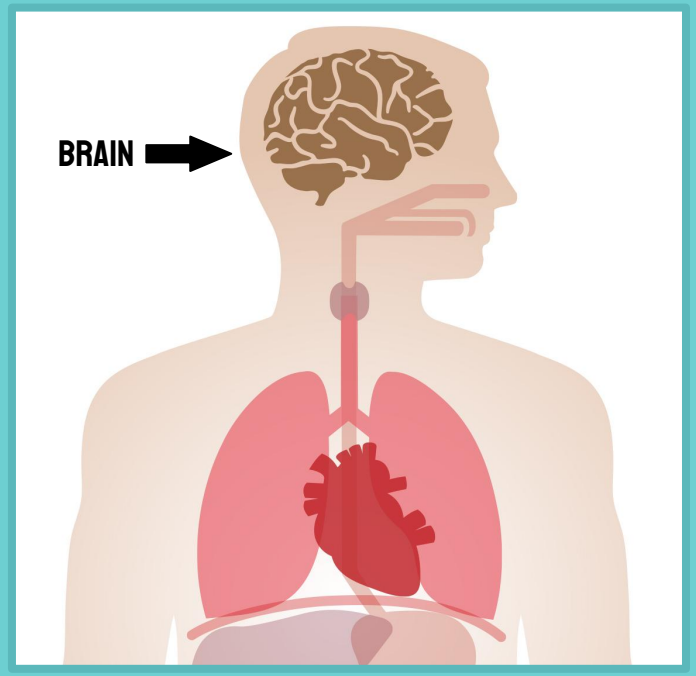
IMPORTANCE OF WATER IN THE HUMAN BODY

WATER AND BRAIN HEALTH

What is the brain?

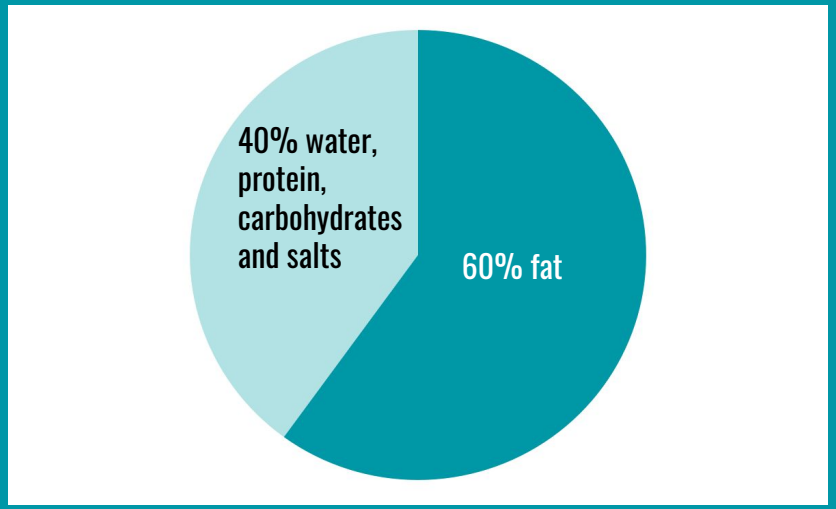
- The ultimate control center of the body
- A complicated organ that controls thought, emotions, touch, movements, vision, breathing, temperature, hunger, and more!

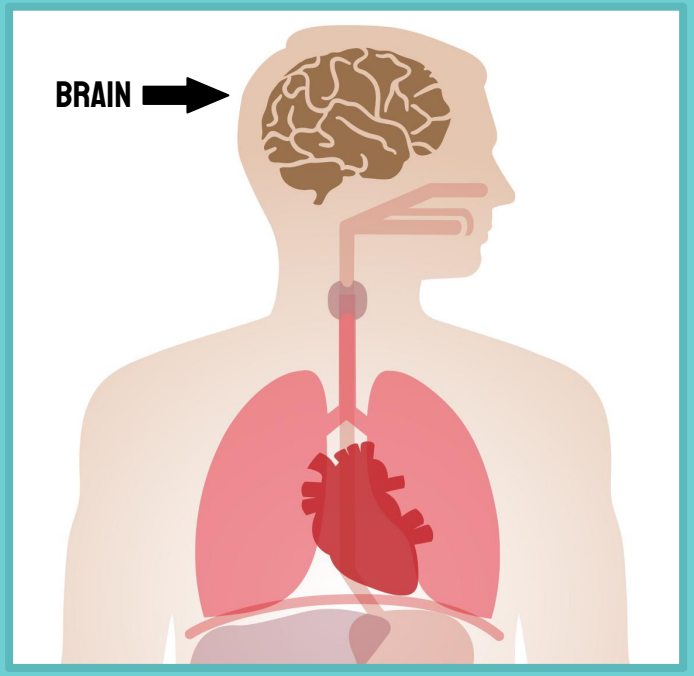
BRAIN



WATER AND BRAIN HEALTH

What is the brain made of?





WATER AND BRAIN HEALTH

How does water help the brain?

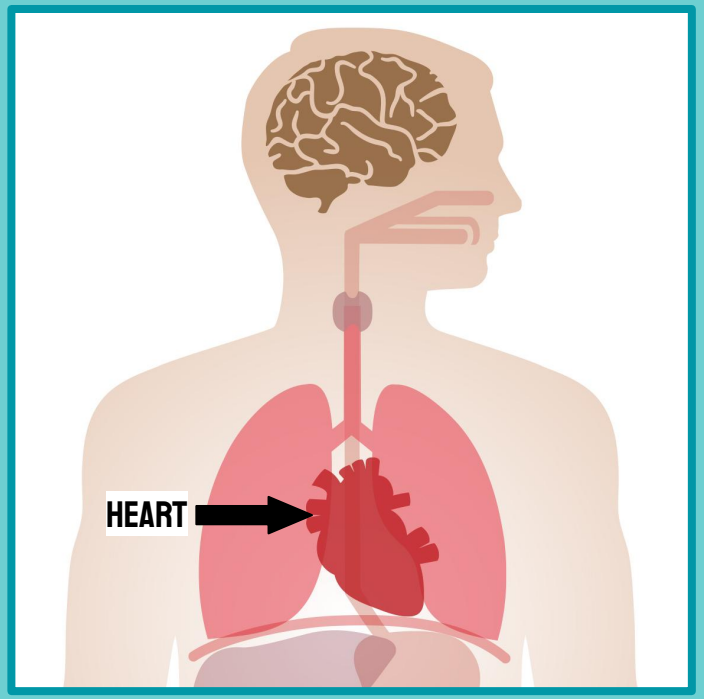
- Drinking LOTS of water is important to keep your brain healthy
- Cells in your brain require a balance between water and other biological molecules like salts and sugars
- When our bodies lose too much water, this balance is thrown off and we may have a harder time thinking!

WATER AND HEART HEALTH

What is the heart?

- An important organ that pumps blood throughout your body to keep you alive
- It is the center of circulatory system that delivers oxygen and nutrients to the rest of your body

Let's try it: Place your hand over the left side of your chest and breathe in deeply. See if you can feel your heartbeat! That's that sound of it pumping blood!



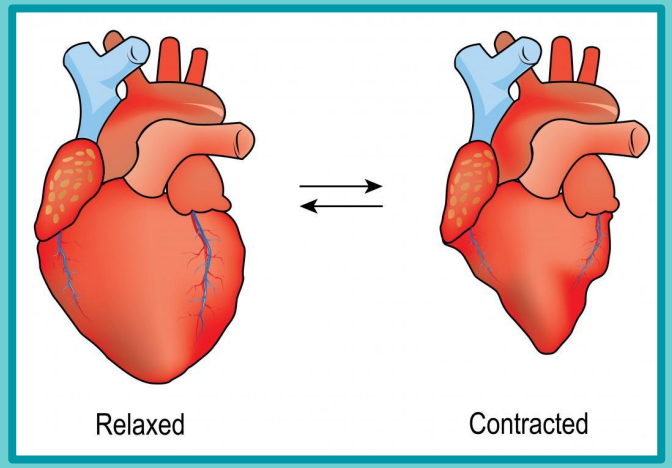
WATER AND HEART HEALTH

What is the heart made of?

- A heart (or cardiac) muscle

How does the heart muscle work?

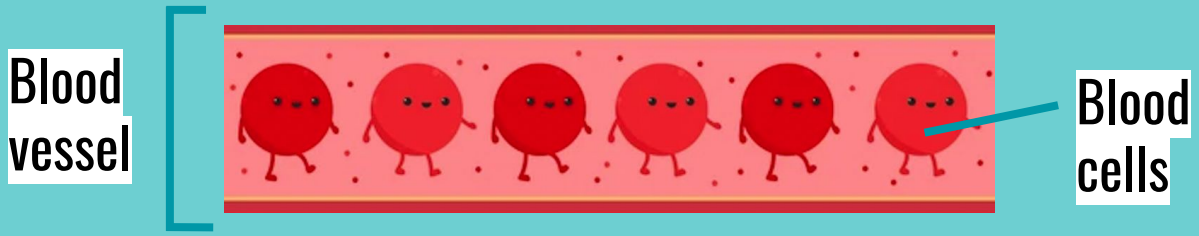
- This muscle squeezes (or contracts) tightly when your heart beats, allowing blood to pump through your body
- Blood is pumped through the circulatory system

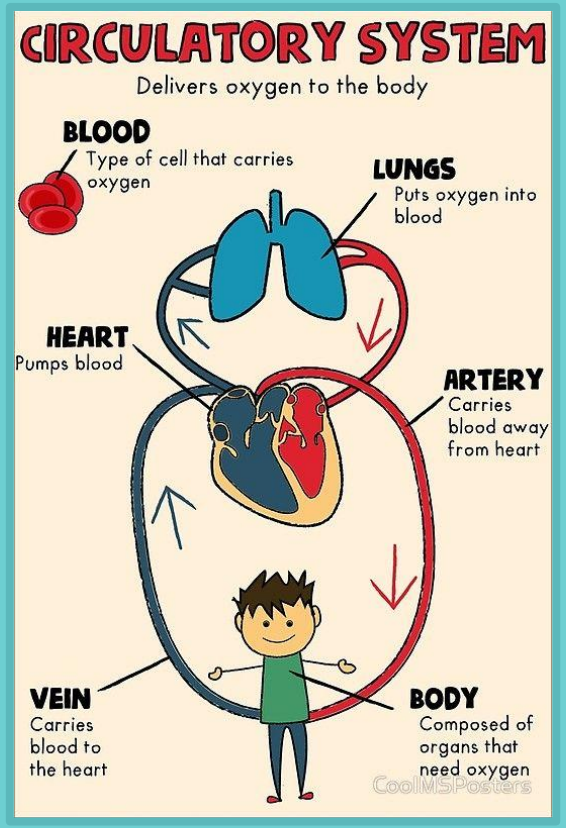


WATER AND HEART HEALTH

What is the circulatory system?

- An important collection of blood vessels made of arteries and veins that transport blood to and from your body's organs
- Think of these blood vessels as "tubes" that carry blood to different parts of your body!

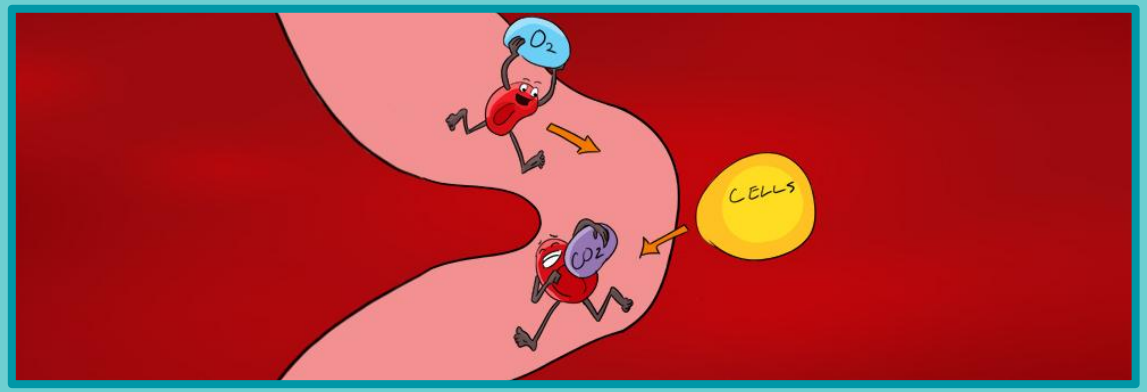


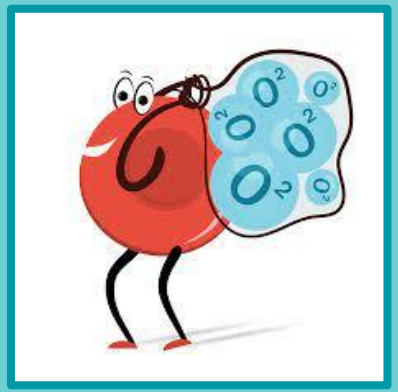


WATER AND HEART HEALTH

Why do our body parts need blood?

- Blood pumped from the heart carries oxygen (from the air you breathe in) and other nutrients to keep your body healthy
- The blood that travels in these tubes also carry carbon dioxide to your lungs so you can breathe it out

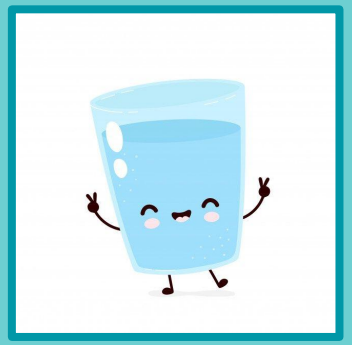




WATER AND HEART HEALTH

How does water help the heart?

- Drinking water helps our heart to pump blood to different parts of our body easier
- Drinking water helps prevent heart damage and heart disease (when there are problems with the heart and it's blood vessels)



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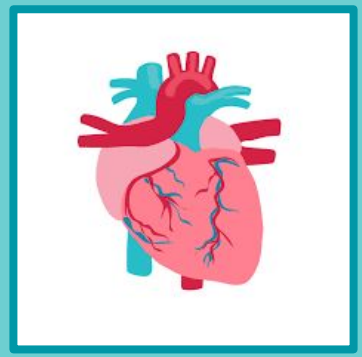
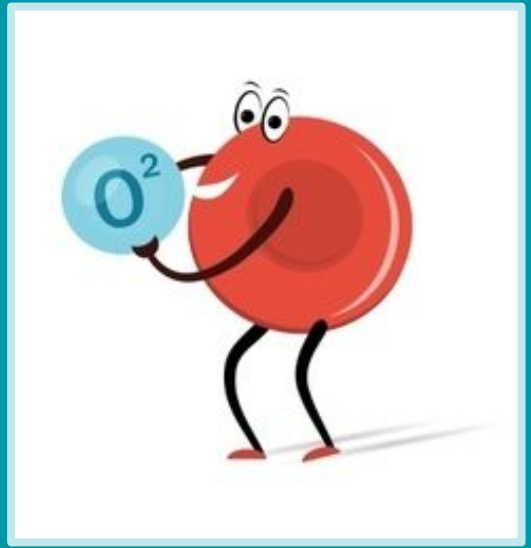


ACTIVITY

Let's try to find your pulse!

- Your pulse is the movement of your arteries (a type of blood vessel) as your heart pumps blood through them!
  - As this happens, blood carries oxygen to parts of your body!
- When you exercise, your body use a lot of energy and oxygen



ACTIVITY

Let's try to find your pulse!

- Do you think your pulse will be faster (increase), slower (decrease), or stay the same after you exercise?
  - Record your hypothesis below

Hypothesis: I think my pulse will be _____ because _____.

ACTIVITY

Let's try to find your pulse!

- Let's test your hypothesis!
  - Find a big artery by copying the picture to the right!
  - Press down gently
  - Can you feel your pulse: *Thump...thump...thump*

ACTIVITY

Let's try to find your pulse!

- Now let's count your pulse!
  - Watch a clock for 6 seconds and count how many thumps you feel for that time
  - Now multiply that number by ten to find how many thumps there are in a full minute (60 seconds)

___ x 10 = _____ beats per minute (bpm)

ACTIVITY

Does your pulse change when you exercise?

- Now let's exercise and count your pulse again!
  - Stand up and do 20 jumping jacks
  - Count your pulse again for 6 seconds and multiply by 10

___ x 10 = _____ beats per minute (bpm)

My pulse **increased** / **decreased** / **stayed the same** (circle one) because _____.