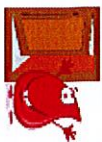


THE CIRCULATORY AND RESPIRATORY SYSTEM

Red blood cells are pushed around your body by your heart, which acts like a pump, beating about 100,000 times a day!



As the blood cells reach your heart, they pass through valves, which are like doors and only open one way, keeping blood pumping in the same direction.

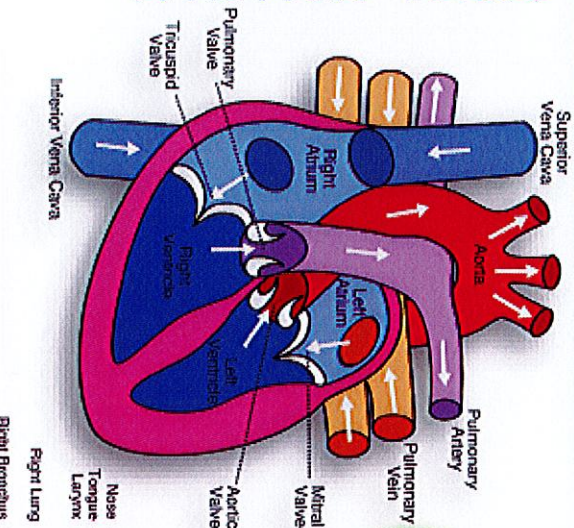


Blood is pumped to the lungs to pick up oxygen (O₂) which has been inhaled (breathing in). It then goes back to the heart to get pumped to every other part of the body.

As it drops off oxygen around the body, it picks up carbon dioxide (CO₂) to take back to the lungs for the lungs to exhale (breathing out).

Nutrients
Made from eating carbohydrates, fats and proteins allow your body to perform daily activities.

Enzymes help break food down in the digestive system and they become usable nutrients, which are absorbed into your bloodstream and passed to parts of your body through the capillaries.



If someone loses a lot of blood, they can have a transfusion when blood from others can be pumped in. There are 4 main blood groups: A, B, AB and O.

Blood Vessels
1) **Arteries** - Take blood AWAY from the heart to the body organs and tissues. When blood is pumped through these, you can feel your pulse.
2) **Veins** - Take blood TOWARDS the heart from body organs and tissues.
3) **Capillaries** - Tiny blood vessels which take the blood into organs and tissues.

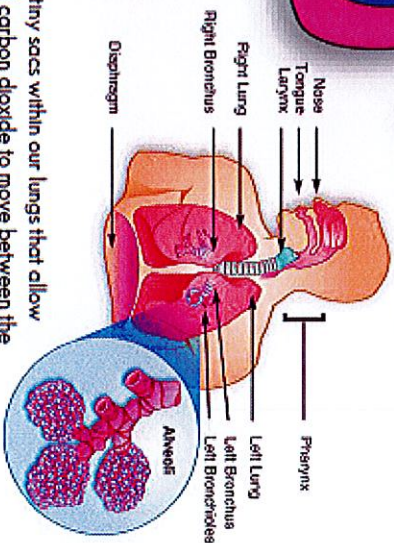


STAYING HEALTHY



Cigarettes contain huge amounts of chemicals which can cause lung damage and lung cancer.

Fatty foods can clog blood vessels and cause a heart attack.



Alveoli are tiny sacs within our lungs that allow oxygen and carbon dioxide to move between the lungs and the bloodstream.