

## The Circulatory System

### VOCABULARY

**Heart**- the organ in your chest that pumps the blood around your body.

**Blood vessels**- the narrow tubes through which your blood flows include the arteries, veins and capillaries.

**Blood**- this is pumped by the heart and supplies the body with nutrients and oxygen.

**Veins**- blood vessels that carry blood to the heart.

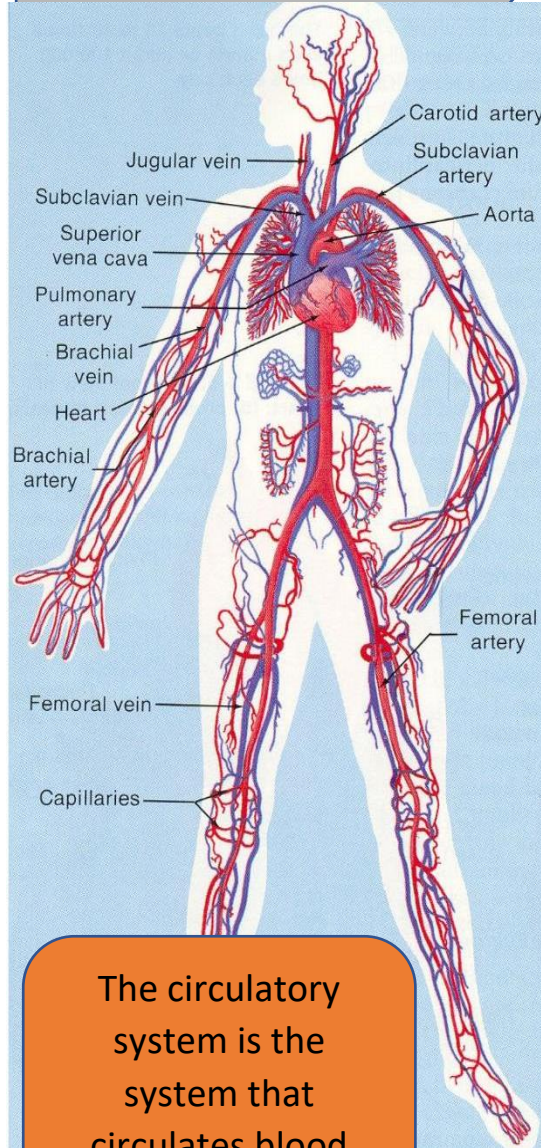
**Arteries**- blood vessels that carry blood away from the heart.

**Capillaries**- microscopic blood vessels found in the muscles and lungs.

**Oxygen**- a colourless gas that exists in large quantities in the air. All plants and animals need oxygen in order to live.

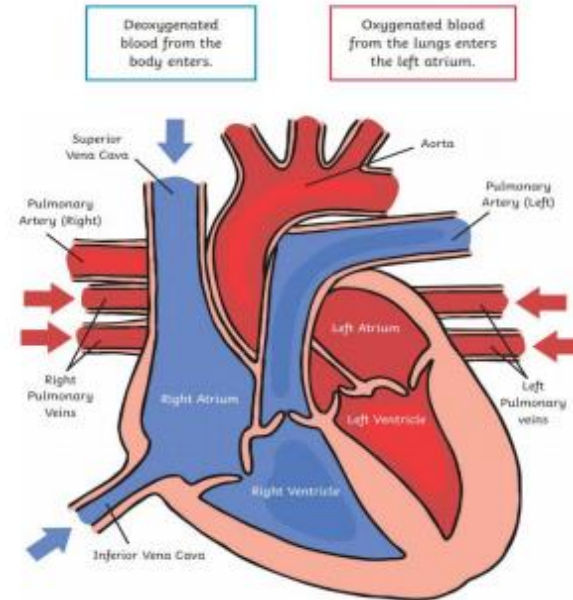
**Lungs**- two spongy organs inside the chest which fill with air when you breathe in.

**Carbon dioxide**- is a gas produced by animals and people breathing out.



The circulatory system is the system that circulates blood through the body.

## The Heart



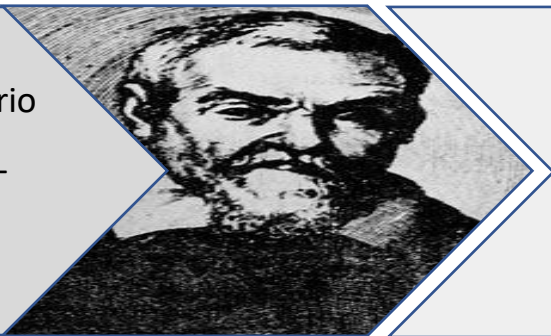
It is about the size of your fist and located in the front and middle of your chest,

It works as a pump forcing blood around the body. The heart is mainly muscle and it works from the moment you are born until death. It works harder when you exercise. Deoxygenated blood flows into the heart from the body through veins. This blood is pumped out to the lungs through the pulmonary artery. Blood returns to the heart through the pulmonary vein. The oxygenated blood is then pumped out of the heart through the aorta. The blood travels around the body delivering oxygen and nutrients to the organs.



Santorio Santorio

29. 03.1561 –  
22.02.1636



Italian physiologist,  
physician and  
professor who was  
the inventor of many  
medical devices. He  
invented the clinical  
thermometer in

We measure our heart  
rate through our pulse.  
We record this at beats  
per minute.



## Medicines and Drugs



## Diet and Lifestyle

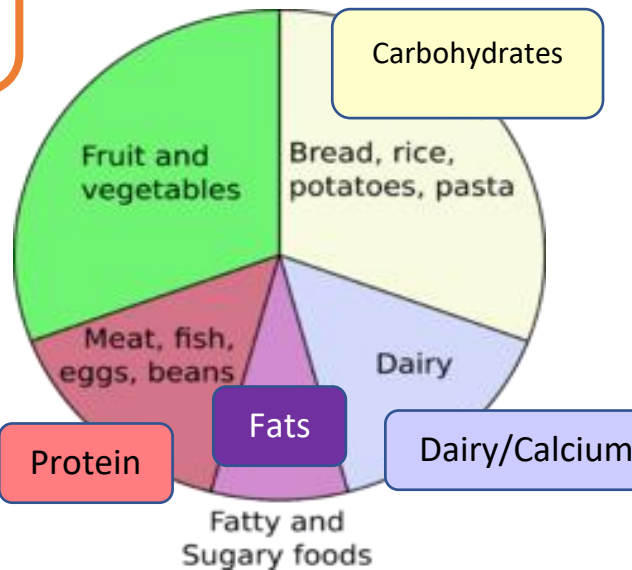
Fatty rich foods can clog arteries  
and veins, preventing blood  
from delivering what is needed.

Vitamins and minerals

Carbohydrates

Eating a balanced

Eating a balanced diet is  
important. Our diet is  
made up of five food  
groups; vitamins and  
minerals, carbohydrates,  
protein, dairy and calcium  
and fats. Eating too much  
or too little of a food  
group can make us ill.



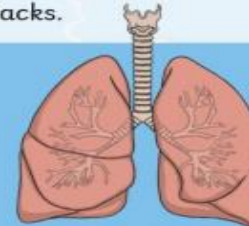
## How Does Smoking Affect the Heart and Lungs?

As there is less oxygen in the blood, the heart starts to beat faster to  
create more oxygen to pump round the body.

This means that the heart is working harder than it  
normally does (sometimes up to 30% harder).



The longer a person smokes, the more fatty deposits build  
up in their blood vessels. This can cause problems like  
heart attacks.



The poisons and smoke in cigarettes  
also cause problems for the lungs.  
These problems can be as simple as a  
chesty cough or as serious as cancer.

Exercise, taking  
the correct  
medication, water,  
hygiene and sleep  
are all important  
for maintaining a  
healthy lifestyle.

**Alcohol and other drugs** (not prescribed by the  
doctor) can affect the way the brain works. These  
disruptions can affect mood and behaviour and make  
it harder to think clearly and move with coordination.  
Alcohol goes straight into the blood stream and  
travels to your kidneys, lungs and liver.

