

WALT

CORE

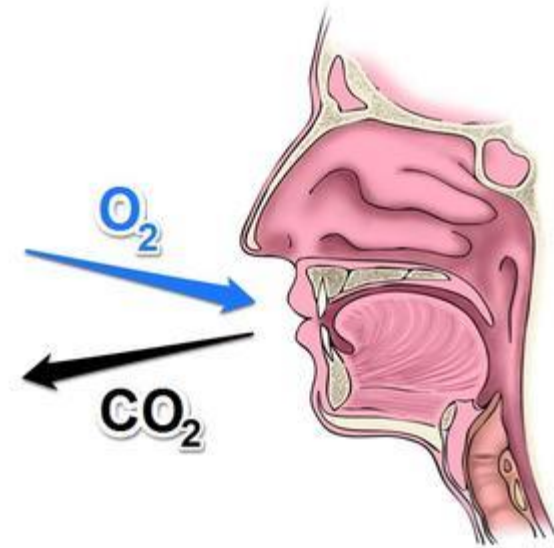
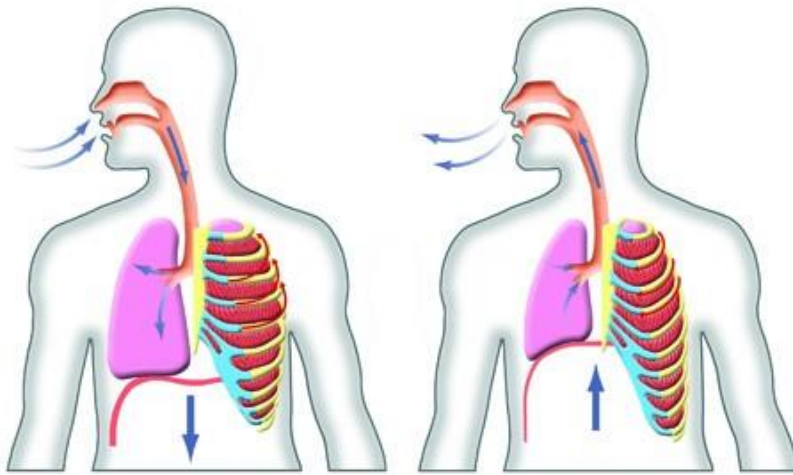
- Identify the components involved in the mechanics of breathing (2-4)

eXtension

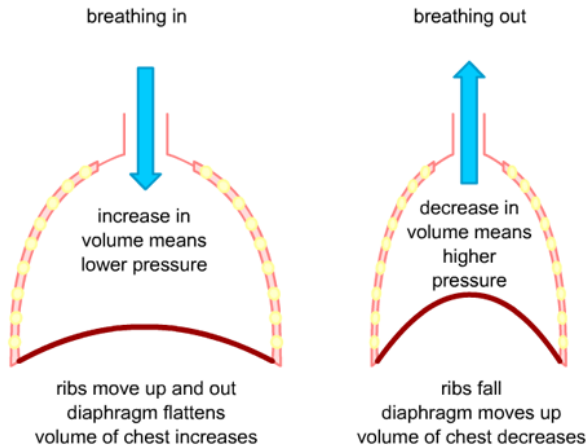
- Describe the process of inspiration and expiration (5-6)

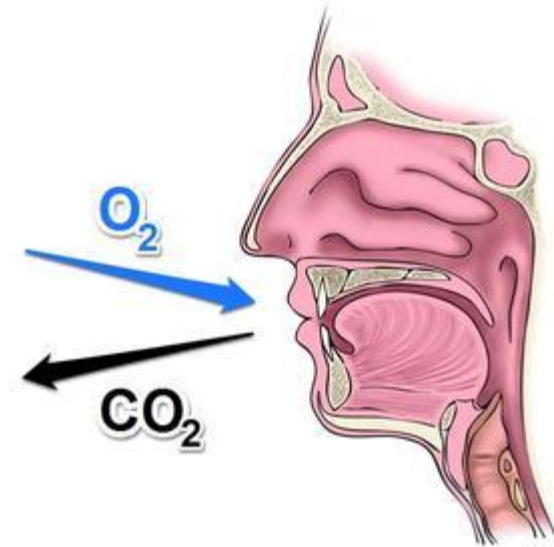
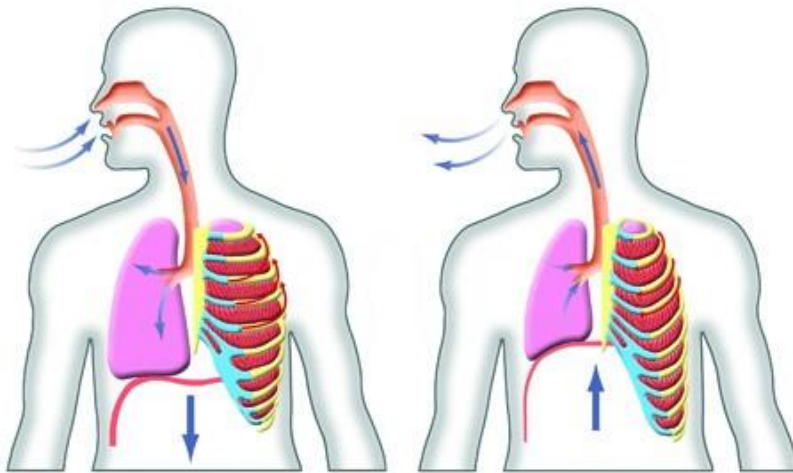
KILLER

- Examine the effects of exercise on inspiration and expiration (7-8)

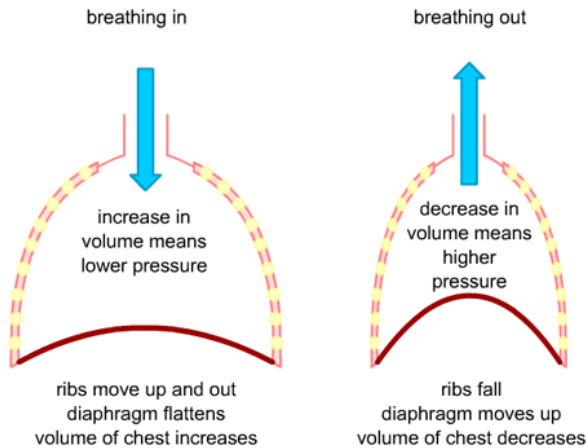


What is today's lesson about?





The mechanics of breathing



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The process of breathing

- When we breathe in it is called inspiration
- When we breathe out it is called expiration

REMEMBER!

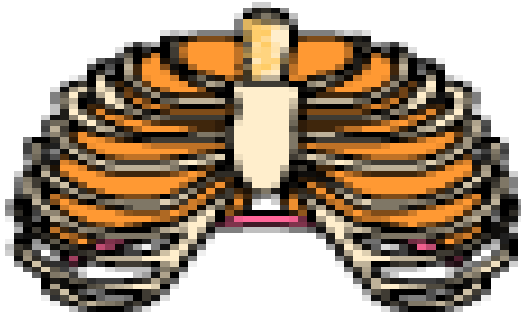
Inspiration = IN

Expiration = EXITING

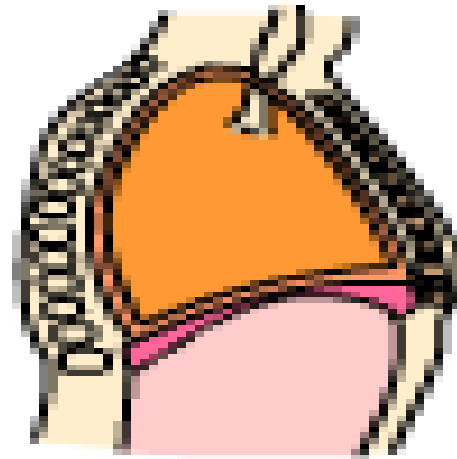


How inspiration looks...

Breathing in



Front view of chest



Side view of chest


Describe the process of inspiration and expiration (5-6)

Inspiration

Breathing is the first stage in supplying oxygen to our body cells.

When breathing in (inspiration):

The intercostal muscles contract, lifting the ribs upwards and outwards causing the chest to expand.



The diaphragm contracts. It pulls down and flattens out the floor of the rib cage.



The lungs increase in size as the chest expands.

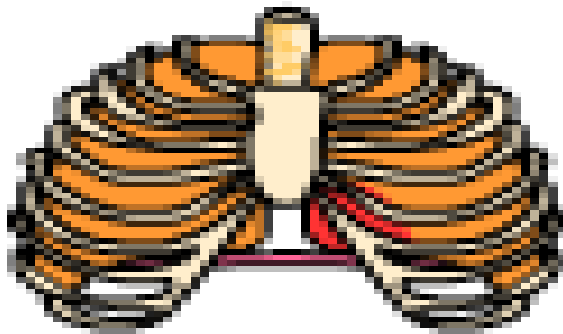


The pressure inside our lungs falls as they expand. The higher pressure of air outside means air is now sucked into the lungs through the nose and mouth.

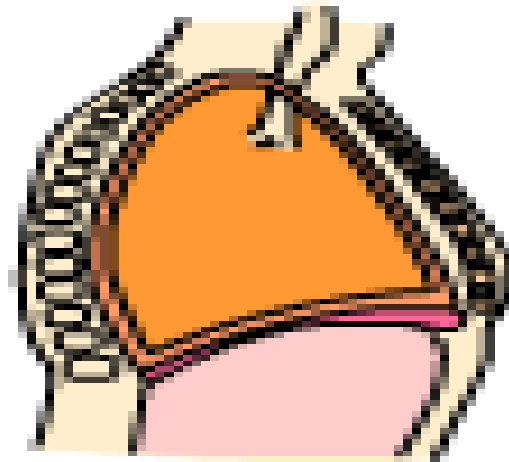
Describe the process of inspiration and expiration (5-6)

How expiration looks...

Breathing out



Front view of chest




Side view of chest

Describe the process of inspiration and expiration (5-6)


Expiration

When breathing out (expiration):


The intercostal muscles relax. The ribs move downwards and inwards under their own weight. The chest gets smaller.



The diaphragm relaxes. It is pushed back into a domed position by the organs underneath it.



The lungs decrease in size as the chest gets smaller. They are squeezed by the ribs and diaphragm.

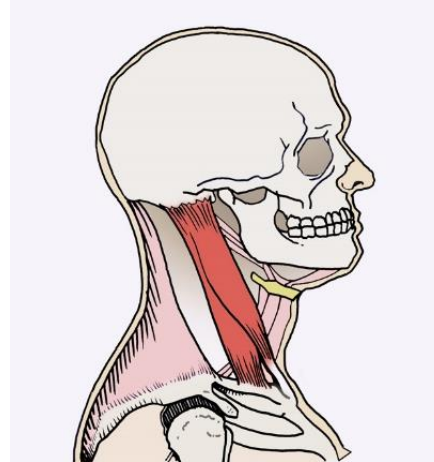
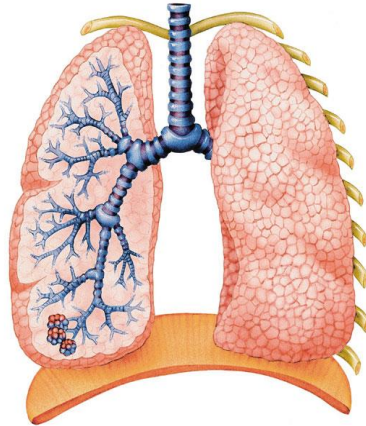


The pressure inside the lungs increases as they get smaller. The air pressure outside is now lower than in our lungs. Air is forced out of the lungs through the nose and mouth.

Describe the process of inspiration and expiration (5-6)

The effects of exercise on breathing

The lungs can expand more during inspiration due to the use of the **pectoral** muscles and **sternocleidomastoid** in the neck.



During expiration is aided by the abdominals which help to push the **diaphragm** up, pushing more air out.



Examine the effects of exercise on inspiration and expiration (7-8)