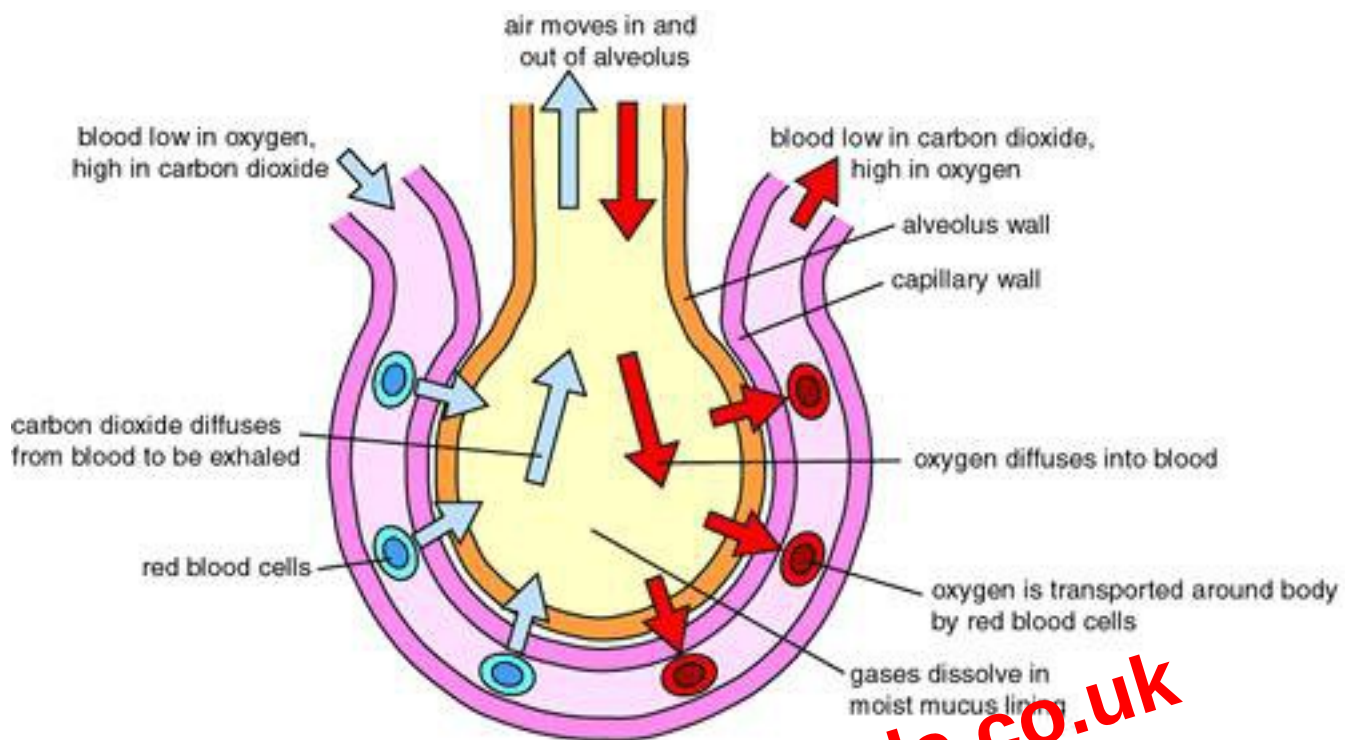




(Source: http://learningon.theloon.school.nz/moodle/pluginfile.php/47536/mod_book/chapter/864/diffusion_alveolus.jpg)

The above diagram shows de-oxygenated blood from the heart passing by an alveoli and becoming oxygenated this is done following the steps listed below:

1. Oxygen passes into the air spaces of the alveolus.
2. The oxygen is then dissolved in the moist lining of the alveolus - the moist lining also protects the alveolus from cracking and drying out.
3. After dissolving into the lining the oxygen is diffused through the alveolus lining and then through the lining of the capillaries.
4. The oxygen then diffuses further into the concave red blood cells in the capillaries and bonds to the haemoglobin.

The outside of the lungs are soft, in contrast the inside of the lungs are spongy with hard patches due to the bronchioles and bronchi.

Other features of the respiratory system:

- Diaphragm - this is a thin muscular sheet that separates the thorax from the abdomen. When exhaling the diaphragm moves upwards as the size of the chest cavity decreases, this is because pressure within the cavity increases and forces the air out.
- Intercostal muscles - these are the set of muscles that sit between the ribs they expand the rib cage when you inhale by pulling it up and outwards.
- Trachea - The trachea is lined with cartilage supports that are C-shaped. These supports hold the trachea up and are flexible enough to allow the trachea to expand when we inhale.