

Anatomy and physiology

The assignment will have a list of functions in which the respiratory system undergoes in order to receive oxygen from the external environment. When this happens it would then send it to the internal environment to reach the different cells in the human's body such as red and white blood cells to name a few. The blood cell is one of the most common cells that contain oxygen, which is carried around the body, because it has been always having plasma. The colour of this is a straw colour. The plasma mainly contains water; as well as other variety of substances that move in the blood cells. For example;

- Dissolved gases e.g. oxygen and carbon dioxide
- Nutrients e.g. glucose, amino acid, enzymes and hormones

There are two types of blood, which one is oxygenated blood, and the other blood is deoxygenated. They are arterial blood, this type of blood tends to flow through the arteries, these blood vessels come from the heart, and they usually carry oxygenated blood to the tissues. However the venous blood flows through the veins, these are known as blood vessels, the returning blood to the heart from the tissues, leads to the blood leaving significant amounts of oxygen behind, this then supplies cells this is known as deoxygenated blood.

The respiratory system has tissues, which is called ciliated epithelial tissue. The role of this is;

- **Protect** – the cells from the skin, through protecting the underlying tissue from mechanical injury, harmful chemicals, the invasion of bacteria and from any excessive water loss

- **Sensation** – the sensory stimuli penetrate the specialised epithelial cells, the specialised epithelia tissues contains sensory nerve endings which are found within the skin, eyes, ears, nose and on the tongue
- **Secretion** – within the glands the epithelial tissue is specialised to secrete specific chemical substances e.g. such as enzymes and hormones
- **Absorption** – there are certain epithelial cells within the lining of the small intestine which absorb the nutrients via the digestion of food
- **Excretion** – the epithelia tissues within the kidney excrete any waste products from the body and reabsorb any needed materials from the urine, sweat is also excreted from the body via the epithelia cells within the sweat glands
- **Diffusion** – the simple epithelium promotes diffusion of the gases, liquids and nutrients, as they form such a thin lining, therefore they are ideal for the diffusion of gases
- **Cleaning** – the ciliated epithelium is responsible for assisting within the removal of dust particles and any foreign bodies which may have entered the body through the air passages
- **Reducing Friction** – the smooth epithelia cells which line the entire circulatory system reduce friction between the blood and the walls of the blood vessels
- **Ventilation** – is known to have two phases, which are known as (inhalation) and (exhalation) these movements are effected by the respiratory muscles, which are attached, to the skeleton.

References

Available at <http://www.google.co.uk> (Accessed: 6 April 2010).

Available at <http://www.nhs.direct.co.uk> (Accessed: 6 April 2010).

Available at <http://www.medicine.net> (Accessed: 6 April 2010).