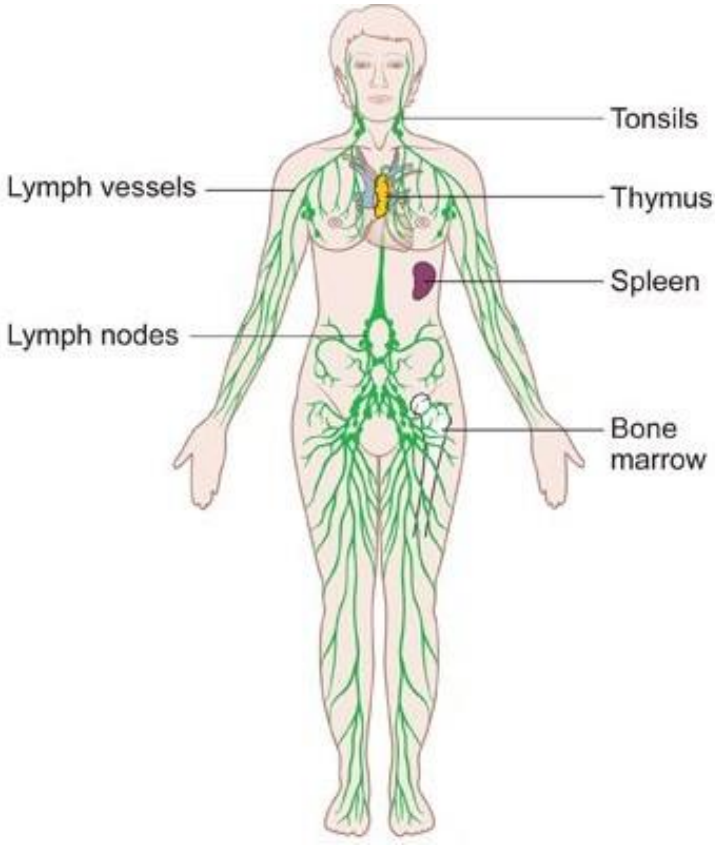
LYMPHATIC SYSTEM

It is a system of lymphatic capillaries, vessels and nodes that collect and transport lymph, which is a clear to slightly yellowish fluid which comes from blood plasma that leaks out of capillaries and washes the most of the tissues of our body.



The main functions of the lymphatic system:

- helps in maintaining body fluid balance
- works along with the rest of the immune system to fight infections
- helps in some of the fats transportation

The lymphatic system is similar to the blood circulation. The lymph vessels branch through all parts of the body like the arteries and veins that carry blood. But the lymphatic system tubes are much finer and carry a colourless liquid called lymph. Lymph contains a high number of a type of white blood cells called lymphocytes that fight infection and destroy damaged or abnormal cells.

As the blood circulates around the body, fluid leaks out from the blood vessels into the body tissues. This fluid carries food to the cells and bathes the body tissues to form tissue fluid. The fluid then collects waste products, bacteria, and damaged cells. It also collects any cancer cells if these are present. This fluid then drains into the lymph vessels.

The lymph then flows through the lymph vessels into the lymph glands, which filter out any bacteria and damaged cells.

From the lymph glands, the lymph moves into larger lymphatic vessels that join up. These eventually reach a very large lymph vessel at the base of the neck called the thoracic duct. The thoracic duct then empties the lymph back into the blood circulation.

The lymph glands are small bean shaped structures, also called lymph nodes.

There are lymph nodes in many parts of the body including:

in the armpits, in each groin, in the neck, in the abdomen, pelvis, chest.

The lymph nodes filter the lymph fluid as it passes through them. White blood cells attack any bacteria or viruses they find in the lymph. If cancer cells break away from a tumour, they may become stuck in one or more of the nearest lymph nodes. So doctors check the lymph nodes first when they are working out how far a cancer has grown or spread.

Other lymphatic system organs include the spleen, the thymus, the tonsils and the adenoids.

The spleen is under your ribs on the left side of your body. It has two main different types of tissue, red pulp and white pulp.

The red pulp filters worn out and damaged red blood cells from the blood and recycles them.

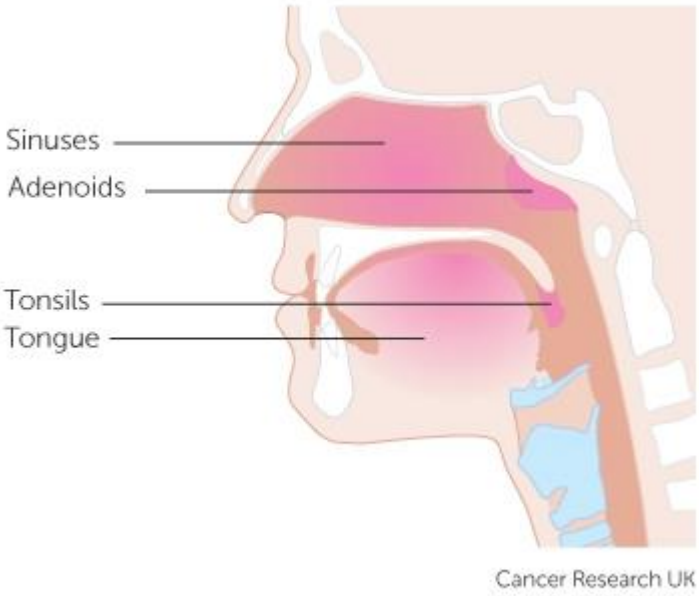
The white pulp contains many B lymphocytes and T lymphocytes. These are white blood cells that are very important for fighting infection. As blood passes through the spleen, these blood cells pick up on any sign of infection or illness and begin to fight it.

The thymus is a small gland under your breast bone. It helps to produce white blood cells to fight infection. It is usually most active in teenagers and shrinks in adulthood.

The tonsils are two glands in the back of your throat.

The adenoids are glands at the back of your nose, where it meets the back of your throat. The adenoids are also called the nasopharyngeal tonsils.

The tonsils and adenoids help to protect the entrance to the digestive system and the lungs from bacteria and viruses.



http://www.cancerresearchuk.org/about-cancer/what-is-cancer/body-systems-and-cancer/the-lymphatic-system-and-cancer#lGUL82s4WWodpy0p.99