

Supporting the Lymphatic System

Foods to consider adding to your diet for supporting the immune system are:

Foods containing a good balance of vitamins, minerals, essential fatty acids and amino acids. These include a diet rich in fresh vegetables, leafy greens, fruit, nuts, grains and seeds.

Herbs that can be beneficial for the immune and lymphatic systems are:

Astragalus, echinacea, burdock, buckthorn, Oregon grape and red clover.

Often there is more than one issue going on in the body at any one time. Everything is connected and sometimes the body needs to work in a prioritizing sequence. Don't be alarmed if multiple supplements are suggested. It can be very beneficial to support several different systems and organs of the body as we assist it to heal.

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So what does
my
Lymphatic
System do?

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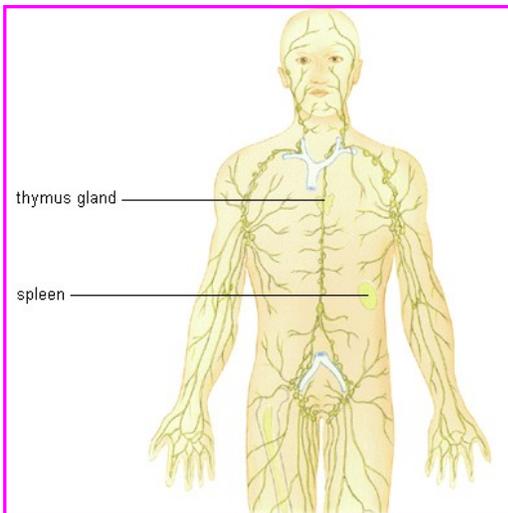
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Lymphatic System

Where is it and what does it do?

At any given moment throughout life, our body is exposed to a large number of damaging influences such as radiation, toxins and microorganisms such as bacteria and viruses. A further danger is posed by diseased or deformed cells of the body itself. To combat these influences, the body has defense systems designed to protect it. An important component of the immune defense system is the lymphatic system. It is a vast and complex network that circulates the fluids around the entire body. The body fluid transported through this system, the lymph, is rich in lymphocytes and proteins and is quite similar to blood plasma.

The lymphocytes produce anti-bodies and activate the immune system. Large concentrations of these cells are found in the lymph nodes. In case of an infection, their level of activity is raised. They proliferate and enter the bloodstream in higher numbers. External evidence of this process is observed in swollen



lymph nodes (glands).

The lymphatic vessels also transport substances that should not or cannot enter the bloodstream, for example fat from foods and particles that cannot penetrate capillary walls such as bacteria, tumor cells, toxins and waste products.

Even before birth, the body has a number of defense mechanisms to protect itself from these dangers. The resistance to toxins is based on natural protective mechanisms such as skin and mucous membranes as well as cellular defenses in the form of various "defense cells." The immune defenses of the body can be weakened by external stressors such as exhaustion, a poor diet or stress, etc.

The lymphatic organs consist of a network of lymph capillaries. These form lymphatic vessels, which run parallel to the veins, transporting lymph in collective vessels. The lymph consists of some blood and other body fluids and is a cloudy, milky liquid. There are numerous lymph nodes interspersed throughout the lymphatic system that act as filters. They retain any infiltrated bacteria. Lymph nodes, which have a round or bean-shaped appearance, not only filter the lymph, they also form the lymphocytes (white blood cells). Lymph nodes are found in the neck, groin and hollow of the knee.

The lymphatic system is comprised of several organs. They are divided into primary and secondary lymphatic organs, depending on their function. The primary organs include the thymus and the bone marrow, because they are responsible for the formation, development and maturing process of the immune cells. The secondary organs refer to the lymph nodes, lymphatic tissue of the mucous membranes, the tonsils, intestines, appendix and the spleen.

Thymus

The thymus is a primary lymphatic organ. It is a two-lobed organ behind the sternum and extends down to the pericardium.

The thymus is particularly well developed in the newborn and growing adolescents and is most active up to the end of puberty, after which it recedes and degenerates. During its active phase, the thymus is approx. 2 inches long and 1 inch wide.

The T-lymphocytes, which constitute 75% of the blood lymphocytes, are formed in the thymus. The T-lymphocytes are the carriers of the cellular immune system, i.e. the body's defense against mutated cells (tumors), exogenous cells (transplants) and viral, bacterial and fungal infections. The blood transports the T-lymphocytes to the secondary lymphatic organs (spleen, tonsils, lymph nodes), where they perform their intended tasks in the immune system.

The Lymph Nodes

The task of the lymph nodes is to control the lymph passing through them. They function as filters, restraining or destroying any bacteria arriving with the lymph. Each lymph node has a bean-like shape and is only a few millimeters in diameter. Inside the lymphatic tissue, there are not only lymphocytes, but also phagocytes. When lymph passes through the lymphatic vessels into the lymph nodes and lymphatic tissue, any foreign bodies such as bacteria or un-dissolved substances in the lymph are destroyed by the phagocytes. In addition, the phagocytes stimulate the lymphocytes to produce anti-bodies against the invading substances. The anti-bodies then flow into the lymphatic vessels and are transported around the body to the lymph nodes.