Perspective
Volume 12:S3, 2022

Journal of Blood & Lymph

ISSN: 2165-7831 Open Access

Lymphatic System: Safeguarding the Body against Infectious Agents

Tinny Sohl*

Department of Health Science, University of California, Berkeley, United States

About the Study

The lymphatic system is a network of tissues, vessels, and organs that work together to return lymph, a colorless, watery fluid, to circulatory system. Every day, approximately 20 liters of plasma pass through body's arteries, smaller arteriole blood vessels, and capillaries. After delivering nutrients to the body's cells and tissues and collecting waste products, approximately 17 liters are returned to circulation *via* veins. The remaining three liters seep through the capillaries and into the tissues of human body.

The lymphatic system collects excess fluid, known as lymph, from tissues in the human body transports it until it is eventually returned to the bloodstream. A swelling of a part of the body may occur when the lymphatic system is not properly formed or has been damaged by surgery, radiotherapy, or tissue damage the lymphatic system has many functions like:

Maintains body fluid levels

As previously stated, the lymphatic system collects excess fluid that drains from cells and tissue throughout your body and returns it to your bloodstream, where it is then recirculated throughout body.

Absorbs fats from the digestive tract

Lymph absorbs fats and proteins from intestines and transports them back to blood stream. The lymphatic system, which is part of the immune system, protects body from foreign invaders. It also generates and releases lymphocytes (white blood cells) and other immune cells that detect and destroy foreign invaders such as bacteria, viruses, parasites, and fungi that enter the body.

Lymph: Lymph, also known as lymphatic fluid, is a fluid that drains from cells and tissues but is not reabsorbed by capillaries, as well as other substances. Proteins, minerals, fats, nutrients, damaged cells, cancer cells, and foreign invaders are among the other substances (bacteria, viruses, etc.). Lymph also transports white blood cells that fight infections (lymphocytes).

Lymph nodes: Lymph nodes are bean-shaped glands that monitor and cleanse the lymph as it passes through them. The nodes filter out damaged and cancerous cells. These lymph nodes also generate and store lymphocytes and other immune system cells, which attack and destroy bacteria and other potentially harmful substances in the fluid. There are approximately 600 lymph nodes scattered throughout your body. Some exist as a single node, while others are connected in groups known as chains. Lymph nodes can be found in a variety of locations, including the armpit, groyne, and neck. Lymphatic vessels connect lymph nodes to one another.

Lymphatic vessels: Lymphatic vessels are a network of capillaries (micro vessels) and a large network of tubes that transport lymph away from tissues throughout your body. Lymphatic vessels collect and filter lymph (at nodes) as it moves toward larger vessels known as collecting ducts. These vessels function similarly to your veins in that they operate at very low pressure and contain a series of valves that keep the fluid flowing in one direction.

Collecting ducts: Lymphatic vessels empty their contents into the right and left lymphatic ducts (also called the thoracic duct). These ducts connect to the subclavian vein, which is responsible for returning lymph to the bloodstream. The subclavian vein is located beneath your collarbone. The return of lymph to the bloodstream aids in the maintenance of normal blood volume and pressure. It also prevents the accumulation of fluid around the tissues (called edema).

Spleen: The spleen is the largest lymphatic organ on your left side, beneath your ribs and above your stomach. The spleen filters and stores blood, as well as producing white blood cells to fight infection or disease.

Thymus: The thymus gland is located in the upper chest, beneath the breast bone. It is responsible for the maturation of a specific type of white blood cell that fights off foreign organisms.

Tonsils and adenoid: These lymphoid organs trap pathogens in the food and air. They are the first line of defence for body against foreign invaders.

Bone marrow: The soft, spongy tissue in the center of certain bones, such as the hip bone and breastbone, is known as bone marrow.

Peyer's patches: Peyer's patches are small masses of lymphatic tissue found in the mucous membrane lining the small intestine. These lymphoid cells are responsible for monitoring and killing bacteria in the intestines.

***Address for Correspondence:** Dr. Tinny Sohl, Department of Health Science, University of California, Berkeley, United States; E-mail: tinny.sohl@upf.edu*

Received: 02-Sep-2022, Manuscript No. JBL-22-77254; **Editor assigned:** 07-Sep-2022, Pre QC No. JBL-22-77254 (PQ); **Reviewed:** 15-Sep-2022, QC No. JBL-22-77254; **Revised:** 22-Sep-2022, Manuscript No. JBL-22-77254 (R); **Published:** 03-Oct-2022, DOI: 10.37421/2165-7831.2022.12.013

Appendix: Your appendix contains lymphoid tissue that can kill bacteria before it enters the intestine and breaches the wall during absorption. Scientists believe the appendix also helps to house "good bacteria" and repopulate our gut with good bacteria after an infection has cleared.

Conclusion

Finally, the lymphatic system, which is a component of the immune system, performs a variety of functions. They include safeguarding the body against disease-causing invaders, maintaining body fluid levels, absorbing digestive tract fats, and eliminating cellular waste. Blockages, diseases, and infections can all impair lymphatic system function. Its role in the pathogenesis of chronic intestinal inflammation may lay the groundwork for new therapeutic strategies and improved quality of life.

How to cite this article: Sohl, Tinny "Lymphatic System: Safeguarding the Body against Infectious Agents". *J Blood Lymph* 12 (2022): 013.