

Free essay on the lymphatic system

[Health & Medicine](#), [Body](#)



INTRODUCTION

Living in the modern era most human beings are more aware of how their bodies work, how to endorse health, or lack thereof, and much more about the toxins, pathogens, and diseases that can destroy their quality and quantity of their lives. Every part of the body and all of the organs within it can be threatened by disease; the lymphatic system is no exception to that foreboding truth. The lymphatic system is made of a “ network” of organs and tissues that participate in protecting the body from invading germs, preventing infections throughout the body, contributes to white blood cell development and maintains the body’s fluids in proper balance (U. S. National Library of Medicine, 2015). That said understanding the functions, contributions and necessities of the lymphatic system is imperative, as well as, comprehending better the conditions and diseases that threaten it is definitely worthwhile.

HISTORY

While the lymphatic system is responsible for relieving the body of toxins, waste, and any other unwanted materials, it accomplishes this through its primary functions, which is the production and transport of the fluid called lymph (McLafferty, Hendry & Farley, 2012). The network of lymphatic vessels, which structured similar to the veins and capillaries in the cardiovascular system, move the lymph through the vessels throughout the body, stopping at the lymph nodes, which are located deep within the body in locales at the heart and lungs but, also, more superficially, like those located in the groin and armpits, to process and filter the lymph fluid

(Zimmerman, 2015). The fluid, vessels and nodes are not the only anatomical structures of the lymphatic system it also includes a number of significant organs.

The spleen, thymus and tonsils are, also, part of the lymphatic system. The tonsils are located under the epithelial lining of the oral and pharyngeal, mouth and throat, including the palatine tonsils, the lingual tonsils on the bottom surface of the tongue and the pharyngeal tonsils, located on the roof of the nasopharynx, also, referred to as adenoids. The spleen, resting behind the stomach and below the diaphragm, is the largest organ in the lymphatic system. In the simplest terms the spleen filters blood the way that the lymph nodes filter the lymph (Zimmerman, 2015). The spleen can produce lymphocytes to repel invasion, attack threats in the blood and aids the liver in eliminating old and damaged cells. The thymus is located in posterior to the sternum; it is large in youth, but after one goes through puberty it reduces in size and becomes small and fatty. The main goal of the thymus is to process and hold T lymphocytes by producing a hormone called thymosin, which stimulates T lymphocyte growth. T lymphocytes do not leave the thymus in reaction to immediate threats of invasion or disease, they wait to mature then travel to different locations within the lymphatic system to bolster their defenses (Buddiga, 2013).

DISCUSSION

When the lymphatic system is working at optimum efficiency then it will perform its functions properly and the individual will live a normal healthy life, at least as it relates to the lymphatic system. However, that is not always the case, again, there are many genetic predispositions, physical

harm, toxins, pathogens and exacerbations of other conditions are all contributory to problems and fallings of a person's lymphatic system (Buddiga, 2013).

Lymphedema:

This is the term for the swelling that occurs when lymph fluid is blocked or escapes a broken vessel and accumulates in nearby tissues. The cause of this can include a reaction to surgery, the removal of existing lymph nodes and the poor circulation as can occur the last terms of a woman's pregnancy or people who are often immobile due to sickness, injury or conditions like morbid obesity (Valliappan, 2015).

Lymphadenitis and Lymphangitis:

When infections enter the blood they are commonly picked up by the lymphatic system. Once they enter the lymph nodes it can lead to inflammation and tenderness in the area of and around the lymph node. This is lymphadenitis, or more commonly and more simply termed, swollen glands. This is generally a temporary occurrence and once the infection is eliminated the nodes return to normal function and appearance.

Lymphangitis occurs when the vessels themselves become infected. Visually the skin will show red streaking indicating the infections spreading through the vessels. It can lead to more serious infections that may lead to fever and chills and require medical intervention (Valliappan, 2015).

Lymphoma:

Lymphoma is a type of cancer that has infected the lymph nodes in the body. This may be specific to the nodes, like non-Hodgkin's Lymphoma, or

may have metastasized from another infected location, like the breast or colon (Valliappan, 2015).

Cattleman's Disease:

This is an inflammatory disorder that can cause enlargement of the lymph nodes and that can lead to a great deal of dysfunction of the organs within the lymphatic system, but, also, organs in other systems, as well (Zimmerman, 2015).

Lymphangiomas:

Much rarer than many of these conditions, lymphangiomas is, likely, caused by a genetic mutation allows cysts and or lesions to erupt in the lymphatic vessels (Zimmerman, 2015).

Structural and Functional Conditions:

There are very rare instances where a child is born having malformed lymphatic vessels making the proper transport of the needed lymph throughout the body difficult. Any structural damages that cause the lymph to backup within the vessels can lead to a ballooning effect and then rupture; this leads to the leaking of lymph. If the body does not properly produce lymph and the needed immune cells they transport then it can leave the body highly open to infections. If this becomes chronic the patient may be diagnosed as having an immunodeficiency disorder. This can cause a condition as common as the cold to be life-threatening. This sort of malfunction can be genetic in nature or acquired as in HIV/AIDS (Valliappan, 2015).

Treatments for these conditions are as varying as the causes and symptoms

of the conditions and diseases. In many cases, with a physician's assistance most of the conditions, disorders and disease can be treated and, even, eliminated altogether (Zimmerman, 2015). However, in the case of more severe conditions, like immunodeficiency issues and, of course, a cancer diagnosis require much more aggressive interventions and treatments. In the former it is a matter of repairing, stabilizing and stimulating immune response and the other may require, both, chemotherapy and radiation treatments (Simon, 2013). The lymphatic system is an essential aspect of the human life, without its function human beings would be without any protection from invading foreign bodies and a means to fight off pathogens. Maintaining the understanding and health of the lymphatic system is essential to the maintaining of the quality and quantity of human life.

CONCLUSION

In the end, the lymphatic system performs an absolutely necessary and beneficial function. In a modern era where there seems to be an unending list of conditions, diseases, and toxins that can cause great sickness and sometimes death, it is important for people to know that it is their lymphatic systems that is standing in the way of that sickness and death.

Understanding the lymphatic system is incredibly essential to the future of human health and understanding it and maintaining it should be endorsed by healthcare providers and other professionals. Greater comprehension of the lymphatic system is essential, as is the greater knowledge of diseases may pose the greatest threat to it is, both, mandatory and worthwhile.

REFERENCES

Buddiga, P.(2013). Lymphatic system anatomy. Medscape. 1. Retrieved July 21, 2015, from

<http://emedicine.medscape.com/article/1899053-overview>

McLafferty, E, Hendry, C & Farley, A. (2012). The lymphatic system. Nursing Standard.(27)18. 38-42. Print.

Simon, H. (2013). Acute lymphocytic leukemia. University of Maryland Medical Center.

1. Retrieved July 21, 2015, from [http://umm.](http://umm.edu/health/medical/reports/articles/acute-lymphocytic-leukemia)

[edu/health/medical/reports/articles/acute-lymphocytic-leukemia](http://umm.edu/health/medical/reports/articles/acute-lymphocytic-leukemia)

Valliappan, S. C. (2015). List of lymphatic diseases. Live Strong Magazine. 1. Retrieved July 21,

2015, from <http://www.livestrong.com/article/78779-list-lymphatic-diseases/>

Zimmerman, K. A. (2015). Lymphatic system: Facts, functions & diseases. Live Science. 1.

Retrieved July 21, 2015, from <http://www.livescience.com/26983-lymphatic-system.html>

U. S. National Library of Medicine. (2015). Lymphatic diseases. Medline Plus. 1. Retrieved July

21, 2015, from <http://www.nlm.nih.gov/medlineplus/lymphaticdiseases.html>