

FUNCTIONS OF THE LYMPHOID ORGANS

FADZILAH AG KANAK

Introduction

This article aims to summarize the functions of lymphoid organs [Figure 1]. These organs are important to build up and provide immunity for the human body. The lymphoid organs are redbone marrow, thymus, spleen, and lymph nodes. They have different functional roles that systematically deliver immunity [1].

REDBONE MARROW

Redbone marrow can be found in the central cavity of a long bone such as thigh bone and arm bone. Blood cells and immune cells are produced in the bone marrow. These blood cells are known as erythrocytes, leucocytes, and platelets [1].

THYMUS

The thymus is located at the center of the chest, just above the heart. The inner medulla of the thymus serves as a site for the maturation of T-cells. The maturation process of T-cells is regulated by the thymosin hormone. Matured T-cells then exit the thymus into the bloodstream and enter other lymphoid organs such as lymph nodes and spleen [1].

SPLEEN

The spleen is found in the abdominal cavity of the body, and it is a major secondary lymphoid organ. The spleen's functions include filtering old blood cells, destroying, removing pathogens i.e., bacteria, and storing platelets [1].

References:

- [1] Nigam, Y., & Knight, J. (2020). The lymphatic system 2: structure and function of the lymphoid organs. *Nursing Times*, 44-48.
- [2] Parker, S. *The concise human body book*. (2009). London: Dorling Kindersley Limited.

AUTHOR

Fadzilah is a lecturer in biological science at the Preparatory Centre for Science and Technology, Universiti Malaysia Sabah. Cat owner.

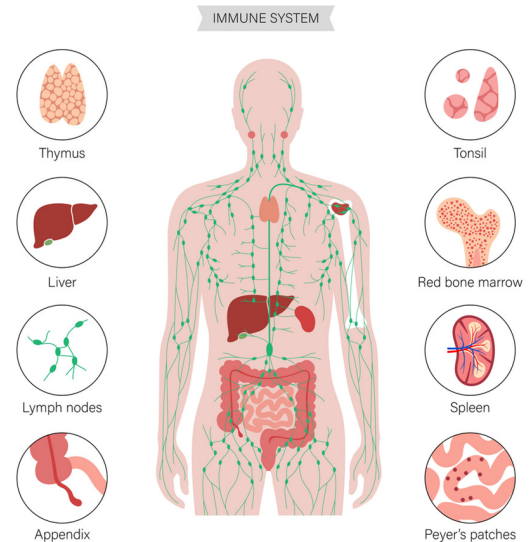


Figure 1: The lymphoid organs (Pic from VectorStock)

LYMPH NODES

The lymph is a major part of the lymphatic system. It is a colourless fluid that originates from spaces between the cells. The lymph nodes harbour lymphocytes and these lymphocytes protect the body against pathogens. When the vigorous infection is present, the lymph nodes become more active, and it could result in swollen nodes and fever. Swollen nodes and fever are indicators that effective and vigorous immune response against the invading pathogens [1, 2].

DISCLAIMER:
THIS ARTICLE IS WRITTEN FOR
SB0024 COURSE STUDENTS
(FOUNDATION IN SCIENCE)