



ANATOMY AND PHYSIOLOGY (N3)
First Semester, Academic Year 2022-2023

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LYMPHATIC SYSTEM AND IMMUNITY
STUDY GUIDE

Introduction

Hello Student Nurses!

Last week, you have learned the structures and the vital functions of the cardiovascular system. The lymphatic system is a drainage system that removes excess fluid from the body tissues and returns it to the bloodstream. The lymphatic system is actually a sub-system of both the circulatory and immune systems. We are always exposed to various pathogens that can make us sick if they manage to break our body defenses. In this module, you will also fully understand how our immune system, through our body's physiologic processes, fights back and destroy pathogens to keep us healthy.

LEARNING OUTCOMES

After studying this module, you should be able to:

- Explain the normal structures and related physiologic processes involved in the lymphatic system.
- Explain the relationship between the lymphatic system and immunity.
- Describe the normal physiologic process involved in specific and non-specific immune defenses.
- Differentiate between active and passive immunity

**PRE-DISCUSSION ACTIVITY:
(ASYNCHRONOUS)**

1. Read about the Lymphatic System and Immunity and make your own notes. Read Chapter 22 of Principles of Anatomy & Physiology book by Tortora, G., & Derrickson, B. pp 808-846.
2. Below is the outline of the lecture for reference.
Lymphatic System and Immunity
 - A. Lymphatic Organs and Tissues
 - B. Lymphatic Vessel and Lymph Circulation
 - C. Concept of Immunity
 - C.1 Innate Immunity



- C.2 Adaptive Immunity
 - C.3 Cell-Mediated Immunity
 - C.4 Antibody-Mediated Immunity
 - D. Self-recognition and Self-tolerance
 - E. Stress and Immunity
3. After you have read about the topic, download, and read the handouts provided and watch the following pre-recorded lecture. This will be posted in the course site.
 4. Be ready for the discussion about the topic during the lecture session.

SYNCHRONOUSSESSION

(Lecture Session)

1. Make sure to log in 15 minutes before the scheduled time.
2. You are asked to participate in an online meeting via Zoom. The meeting link is posted in our VLE course site.
3. This session is allotted for consultation/ feedback as explained in the syllabus. If a student could not join the online meeting, the student must inform the faculty through email or text message.
4. Make sure to take note of your questions and queries.

ASYNCHRONOUS ACTIVITIES

Lecture:

Activity 1: Topic Exercises (Short answers only)

1. Briefly describe the process of inflammation in an area that has been traumatized.
2. Choose one type of Immunity (Innate and Humoral) and explain how its mechanism protects our body.

Activity 2: Reflecting on the lesson

Choose one concept in our lesson today, give a brief explanation about the concept and cite how would you apply this learning in your everyday life.

Activity 3:

Once you have read and viewed the learning materials about the topic, answer the practice and graded quizzes LMS.

Additional Resources:

Watch these additional videos for further explanation of the function of the immune system:

- <https://www.youtube.com/watch?v=cCPyWFK0IKs&t=144s>
- <https://www.youtube.com/watch?v=lxC-3MpIMUo>

Laboratory

1. Download and answer Laboratory Worksheet 14 on Lymphatic System.
2. Submit the completed worksheet on the submission bin found in the VLE.

References:

- Tortora, G., & Derrickson, B. (2014). *Principles of Anatomy & Physiology*. 14th ed. Hoboken, NJ: John Wiley & Sons, Inc.
- J. Gordon Betts, Young, K. A., Wise, J. A., Johnson, E., Poe, B., Kruse, D. H., Korol, Oksana, Johnson, J. E., Womble, Mark, & DeSaix, P. (2013, April 25). *Anatomy and Physiology*. <https://openstax.org/books/anatomy-and-physiology/pages>