



N4: Basic Pathophysiology
Second Semester, Academic Year 2022-2023

STUDY GUIDE

TOPIC 6: Alterations in Oxygenation (Respiratory System)

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Introduction

Together with the cardiovascular system, the respiratory system is important in delivering oxygen to the different tissues of the body and in the elimination of carbon dioxide from the body. For this session, we will discuss what will happen to this function in the presence of respiratory disease.

Learning Outcomes

At the end of the session, the student will be able to:

1. Integrate the knowledge from anatomy and physiology in explaining the pathophysiologic mechanisms of common respiratory conditions.
2. Analyze etiologic factors involved in common respiratory diseases.
3. Discuss the pathophysiologic mechanisms in common respiratory diseases and resulting signs and symptoms that affect oxygenation.
4. Explains sequence of pathophysiologic events leading to disease formation.
5. Appreciate the role of social determinants of health as contributory to the development of respiratory diseases.

Before you begin the session, answer the pre-session quiz on the VLE course site. This is to test your prior knowledge about the topic. The quiz has 10 questions. Don't worry. This will not be graded.

ACTIVITY: PRE-SESSION QUIZ

Instructions:

1. Click on the 'Quiz'.
2. Click on the choice that corresponds to your answer.
3. After answering all the questions, click 'Finish'. You will then see your score and feedback on each question.

You may **review your notes on N3 Anatomy and Physiology** about the respiratory system. Having a refresher of the normal anatomy and physiology can help you have a better understanding of the deviations from the normal.

Download and view the lecture slides.

The lecture will be given in a live session and the slides will be uploaded in the VLE:

- Part 1: Review of Respiratory System Concepts
- Part 2: Obstructive and Restrictive Lung Disease
 - Obstructive Lung Disease
 - COPD (Chronic Bronchitis, Emphysema)
 - Bronchial Asthma
 - Restrictive Lung Disease
 - Pneumonia
 - Pulmonary Tuberculosis
 - Pleural Conditions
- Part 3: Vascular-related Disorders
 - Pulmonary Edema
 - Pulmonary Hypertension
 - Cor Pulmonale
 - Pulmonary Embolism

For more information on the topic, you may use this as reference:

Grossman, S. & Porth, C.M. (2014). Porth's Pathophysiology: Concepts of Altered Health States. 9th edition. Philadelphia: Wolters Kluwer Health | Lippincott Williams & Wilkins.

- Unit IX: Disorders of the Respiratory System (pages 898-996)

In case this book is not available, you may use any Pathophysiology book as reference.

If you have any questions, please post them in the discussion forum of the UPM VLE.

Now that you have gone through the lecture materials, **answer the post-session quiz** on the VLE course site to test what you have learned about the topic. The quiz is graded with a minimum pass level of 60%. Should you fail the first attempt, or you are not satisfied with your first score, you can take it up to 3 times. The recorded grade will be the average of all your attempts.

ACTIVITY: POST-SESSION QUIZ (10 items)

Instructions:

1. Click on the 'Quiz'.
2. Click on the choice that corresponds to your answer.
3. After answering all the questions, click 'Finish'.
4. After the quiz, you will be able to see your score and whether your answer is right or wrong.

Congratulations! You have finished Session 5 of N4. You may proceed now to the next topic.

Reference:

Grossman, S. & Porth, C.M. (2014). Porth's Pathophysiology: Concepts of Altered Health States. 9th edition. Philadelphia: Wolters Kluwer Health | Lippincott Williams & Wilkins.

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