

NREMT AIRWAY, RESPIRATION, AND VENTILATION PRACTICE TEST (SAMPLE)

STUDY GUIDE



SAMPLE STUDY GUIDE WITH LIMITED QUESTIONS

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Introduction

Preparing for a certification exam can feel overwhelming, but with the right tools, it becomes an opportunity to build confidence, sharpen your skills, and move one step closer to your goals. At Examzify, we believe that effective exam preparation isn't just about memorization, it's about understanding the material, identifying knowledge gaps, and building the test-taking strategies that lead to success.

This guide was designed to help you do exactly that.

Whether you're preparing for a licensing exam, professional certification, or entry-level qualification, this book offers structured practice to reinforce key concepts. You'll find a wide range of multiple-choice questions, each followed by clear explanations to help you understand not just the right answer, but why it's correct.

The content in this guide is based on real-world exam objectives and aligned with the types of questions and topics commonly found on official tests. It's ideal for learners who want to:

- Practice answering questions under realistic conditions,
- Improve accuracy and speed,
- Review explanations to strengthen weak areas, and
- Approach the exam with greater confidence.

We recommend using this book not as a stand-alone study tool, but alongside other resources like flashcards, textbooks, or hands-on training. For best results, we recommend working through each question, reflecting on the explanation provided, and revisiting the topics that challenge you most.

Remember: successful test preparation isn't about getting every question right the first time, it's about learning from your mistakes and improving over time. Stay focused, trust the process, and know that every page you turn brings you closer to success.

Let's begin.

How to Use This Guide

This guide is designed to help you study more effectively and approach your exam with confidence. Whether you're reviewing for the first time or doing a final refresh, here's how to get the most out of your Examzify study guide:

1. Start with a Diagnostic Review

Skim through the questions to get a sense of what you know and what you need to focus on. Your goal is to identify knowledge gaps early.

2. Study in Short, Focused Sessions

Break your study time into manageable blocks (e.g. 30 – 45 minutes). Review a handful of questions, reflect on the explanations.

3. Learn from the Explanations

After answering a question, always read the explanation, even if you got it right. It reinforces key points, corrects misunderstandings, and teaches subtle distinctions between similar answers.

4. Track Your Progress

Use bookmarks or notes (if reading digitally) to mark difficult questions. Revisit these regularly and track improvements over time.

5. Simulate the Real Exam

Once you're comfortable, try taking a full set of questions without pausing. Set a timer and simulate test-day conditions to build confidence and time management skills.

6. Repeat and Review

Don't just study once, repetition builds retention. Re-attempt questions after a few days and revisit explanations to reinforce learning. Pair this guide with other Examzify tools like flashcards, and digital practice tests to strengthen your preparation across formats.

There's no single right way to study, but consistent, thoughtful effort always wins. Use this guide flexibly, adapt the tips above to fit your pace and learning style. You've got this!

Questions

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- 1. A febrile 52-year-old female complains of coughing up blood and recent weight loss. What condition should you suspect?**
 - A. Congestive heart failure
 - B. Emphysema
 - C. Chronic bronchitis
 - D. Tuberculosis

- 2. In a case where a 26-year-old male experiences difficulty breathing after basketball, what condition should be suspected?**
 - A. Pleuritis.
 - B. Tension pneumothorax.
 - C. Spontaneous pneumothorax.
 - D. Asthma.

- 3. A 29-year-old female shows signs of difficulty breathing and has manic symptoms due to stress. What condition might be indicated?**
 - A. metabolic alkalosis
 - B. thyroid storm
 - C. decreased systemic vascular resistance
 - D. increased alveolar ventilation

- 4. What is the priority action for a patient showing signs of a tension pneumothorax?**
 - A. Administer oxygen
 - B. Insert a needle decompression
 - C. Assist ventilation
 - D. Transport immediately

- 5. What is the purpose of incentive spirometry in patient care?**
 - A. To decrease lung inflammation
 - B. To prevent atelectasis
 - C. To enhance oxygenation
 - D. To increase tidal volume

6. What action should be taken for an unresponsive elderly male with diminished lung sounds?
- A. Apply CPAP
 - B. Assist his ventilation
 - C. Administer oxygen by non-rebreather mask
 - D. Perform chest compressions
7. Which class of medication can help improve alveolar ventilation in a patient experiencing an asthma attack?
- A. Beta2 antagonist
 - B. Beta1 antagonist
 - C. Beta2 agonist
 - D. Beta1 agonist
8. What route of exposure is suspected when a child experiences dyspnea from mixing bleach with another cleaner?
- A. Absorption
 - B. Injection
 - C. Ingestion
 - D. Inhalation
9. What happens to intrathoracic pressure when squeezing a bag-valve-mask during ventilation?
- A. Decreases airway pressure and increases intrathoracic pressure
 - B. Increases airway and intrathoracic pressures
 - C. Decreases airway and intrathoracic pressures
 - D. Increases airway pressure and decreases intrathoracic pressure
10. For a 65-year-old male in respiratory distress with a history of congestive heart failure, what is the first priority?
- A. Apply CPAP.
 - B. Assess his vital signs.
 - C. Administer oxygen by non-rebreather mask.
 - D. Assist his ventilation.

Answers

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1. D
2. D
3. D
4. B
5. B
6. B
7. C
8. D
9. B
10. D

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Explanations

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1. A febrile 52-year-old female complains of coughing up blood and recent weight loss. What condition should you suspect?

- A. Congestive heart failure
- B. Emphysema
- C. Chronic bronchitis

D. Tuberculosis

In this scenario, the clinical presentation of a febrile 52-year-old female who is coughing up blood and has experienced recent weight loss aligns most closely with tuberculosis (TB). Tuberculosis is known for causing chronic cough, hemoptysis (coughing up blood), fever, night sweats, and weight loss due to the body's prolonged immune response against the infection. The fever indicates that there is likely an ongoing infectious process, and the combination of hemoptysis and significant weight loss suggests a chronic and potentially severe condition like TB, which affects the lungs most commonly and can lead to severe respiratory symptoms. Other conditions listed do not typically present in this specific way or are associated with other more characteristic symptoms. For instance, congestive heart failure primarily leads to dyspnea and fluid retention rather than hemoptysis and significant weight loss. Emphysema is characterized by progressive dyspnea and is more associated with chronic cough but usually does not result in hemoptysis. Chronic bronchitis, while it can involve a productive cough, is less associated with systemic symptoms like fever and significant weight loss unless there are complicating factors. Hence, tuberculosis is the most likely condition given the combination of symptoms.

2. In a case where a 26-year-old male experiences difficulty breathing after basketball, what condition should be suspected?

- A. Pleuritis.
- B. Tension pneumothorax.
- C. Spontaneous pneumothorax.

D. Asthma.

In this scenario, the most appropriate condition to suspect is asthma. Asthma is a chronic respiratory condition characterized by inflammation and narrowing of the airways, which can lead to sudden episodes of wheezing, coughing, chest tightness, and difficulty breathing. Physical activities like playing basketball can trigger these symptoms in susceptible individuals, especially if they have a history of asthma or exercise-induced bronchoconstriction. Symptoms occurring after vigorous activity suggest that the airways may be reacting to exertion. Key indicators of asthma include the presence of wheezing, especially during expiration, and a reduction in airflow that can lead to shortness of breath. Other conditions, such as pleuritis, tension pneumothorax, and spontaneous pneumothorax, may also present with difficulty breathing, but they typically have different underlying mechanisms and clinical presentations. For instance, pleuritis often involves sharp chest pain with breathing, while tension pneumothorax leads to rapid deterioration and requires immediate intervention. Spontaneous pneumothorax usually presents with sudden sharp pain and may also involve decreased breath sounds on one side upon examination. In this case, the history of recent exertion and difficulty breathing aligns closely with asthma symptoms.

3. A 29-year-old female shows signs of difficulty breathing and has manic symptoms due to stress. What condition might be indicated?

- A. metabolic alkalosis
- B. thyroid storm
- C. decreased systemic vascular resistance
- D. increased alveolar ventilation**

In the context of a 29-year-old female exhibiting difficulty breathing and manic symptoms due to stress, increased alveolar ventilation is a key factor that might indicate a hyperventilation scenario. When an individual is experiencing stress or anxiety, it is common for them to hyperventilate, which means they are breathing at an increased rate and depth. This leads to a higher level of carbon dioxide being expelled from the body and can result in respiratory alkalosis. Increased alveolar ventilation signifies that more air is being moved in and out of the lungs than what is typical, which can effectively reduce carbon dioxide levels in the bloodstream. This can further contribute to feelings of lightheadedness, tingling, or other symptoms that may be confused with other medical conditions but fundamentally are a response to hyperventilation often triggered by stress. Understanding the physiological response to stress involves recognizing how the body reacts not just emotionally but also in terms of respiratory function. In this case, the manic symptoms possibly arise from an overstimulation of the nervous system combined with the physiological changes associated with rapid breathing. Thus, recognizing increased alveolar ventilation as a relevant response to stress and difficulty breathing links directly to the symptoms presented in this scenario, making it a key indicator of the underlying issues at play

4. What is the priority action for a patient showing signs of a tension pneumothorax?

- A. Administer oxygen
- B. Insert a needle decompression**
- C. Assist ventilation
- D. Transport immediately

A tension pneumothorax occurs when air enters the pleural space and cannot escape, leading to increasing pressure that collapses the lung on the affected side and can compress the mediastinum, impairing cardiovascular function. In this critical situation, immediate intervention is necessary to relieve the pressure and restore normal function. Performing a needle decompression is the priority action as it provides rapid relief of the pressure in the thoracic cavity. By using a large-bore needle to decompress the chest, you allow trapped air to escape, which can quickly restore respiratory mechanics and improve oxygenation. This intervention is essential to prevent serious complications, including cardiovascular collapse and respiratory failure. Other actions, such as administering oxygen, assisting with ventilation, or transporting the patient, may be important components of overall care but do not address the immediate life-threatening condition of tension pneumothorax. These actions may follow once the tension pneumothorax has been resolved. Therefore, needle decompression is the crucial first step in managing this emergency.

5. What is the purpose of incentive spirometry in patient care?

- A. To decrease lung inflammation
- B. To prevent atelectasis**
- C. To enhance oxygenation
- D. To increase tidal volume

Incentive spirometry is primarily utilized to prevent atelectasis, which is the collapse or closure of a lung or part of a lung, resulting in reduced gas exchange and impaired pulmonary function. The incentive spirometer encourages patients to take slow, deep breaths, which helps to expand the alveoli in the lungs. This expansion reduces the risk of atelectasis by ensuring that the air sacs within the lungs remain open and fully inflated, thus improving overall lung function. The use of this device is particularly beneficial postoperatively or in patients who have limited mobility, as these conditions are associated with a higher risk of atelectasis due to shallow breathing patterns. By promoting deeper breaths, incentive spirometry aids in the mobilization of secretions, promotes effective gas exchange, and helps maintain airway patency, ultimately contributing to better respiratory health.

6. What action should be taken for an unresponsive elderly male with diminished lung sounds?

- A. Apply CPAP
- B. Assist his ventilation**
- C. Administer oxygen by non-rebreather mask
- D. Perform chest compressions

Assisting ventilation is the most appropriate action for an unresponsive elderly male with diminished lung sounds. In this scenario, the individual's unresponsiveness and the indication of diminished lung sounds suggest that he is not adequately breathing on his own, which can lead to inadequate oxygenation and ventilation. When a patient is unresponsive, they may not have the ability to maintain a patent airway or effectively ventilate themselves. Assisting ventilation helps ensure that oxygen is being delivered to the lungs, thereby improving gas exchange and preventing hypoxia. This can be accomplished using a bag-valve-mask (BVM) technique if the patient's airway is secured. While the other interventions might be considered in different circumstances, they are not as immediately appropriate in this given situation. For instance, applying CPAP is meant for patients with certain respiratory conditions who can still participate in their own ventilation but can be difficult for an unresponsive patient. Administering oxygen via a non-rebreather mask, while beneficial for some patients in respiratory distress, would be ineffective in this unresponsive scenario because the patient may not be able to breathe effectively. Performing chest compressions, usually reserved for cases of cardiac arrest, is not indicated here as the primary issue appears to be related to inadequate ventilation rather than cardiac

7. Which class of medication can help improve alveolar ventilation in a patient experiencing an asthma attack?

- A. Beta2 antagonist
- B. Beta1 antagonist
- C. Beta2 agonist**
- D. Beta1 agonist

In the context of an asthma attack, a beta2 agonist is the correct class of medication that can help improve alveolar ventilation. Beta2 agonists work by stimulating beta-adrenergic receptors in the bronchial smooth muscle. This stimulation leads to bronchodilation, which opens up the airways, reducing airway resistance and improving the flow of air into the alveoli. As a result, the patient experiences improved ventilation, facilitating better oxygenation and carbon dioxide removal. Beta2 agonists are crucial in the management of asthma because they act quickly to relax tight respiratory muscles during an acute exacerbation, allowing patients to breathe more easily. This rapid action is particularly beneficial in emergency situations. Other classes of medications mentioned do not offer the same benefits for asthma. For instance, beta1 antagonists primarily impact the heart and are not used for respiratory issues, while beta2 antagonists and beta1 agonists do not have a role in improving airway patency during an asthma attack. Thus, recognizing the role of beta2 agonists in enhancing alveolar ventilation is essential for effective asthma management.

8. What route of exposure is suspected when a child experiences dyspnea from mixing bleach with another cleaner?

- A. Absorption
- B. Injection
- C. Ingestion
- D. Inhalation**

When a child experiences dyspnea, or difficulty breathing, after mixing bleach with another cleaner, inhalation is the most likely route of exposure. Mixing certain chemicals, like bleach and ammonia, can produce toxic gases such as chloramine vapors, which can irritate the respiratory tract and lead to respiratory distress. Inhalation exposure occurs when vapors or aerosols enter the lungs through breathing. Given that the child is experiencing respiratory symptoms, it strongly indicates that the harmful gases produced by the chemical reaction were inhaled. This contrasts with other routes such as absorption, which would involve skin contact; injection, which generally pertains to substances entering the body via a needle; or ingestion, which would involve swallowing the substance. In this scenario, the presence of dyspnea suggests that the respiratory system was the primary entry point, confirming inhalation as the route of exposure.

9. What happens to intrathoracic pressure when squeezing a bag-valve-mask during ventilation?

- A. Decreases airway pressure and increases intrathoracic pressure
- B. Increases airway and intrathoracic pressures**
- C. Decreases airway and intrathoracic pressures
- D. Increases airway pressure and decreases intrathoracic pressure

When squeezing a bag-valve-mask (BVM) during ventilation, the mechanism involved creates an increase in both airway pressure and intrathoracic pressure. This occurs as a result of the positive pressure generated by the bag. As the bag is compressed, it forces air into the patient's lungs through the mask, which leads to a rise in airway pressure. This is necessary to open the airway and allow for the effective movement of air into the lungs. Additionally, because the chest cavity is a closed system and the lungs expand due to the influx of air, the intrathoracic pressure also increases. This increase in intrathoracic pressure can impact venous return to the heart and intrapleural pressure, although the primary focus here is on how both pressures rise with effective BVM ventilation. Understanding this principle is essential for effective ventilation strategies and ensuring that adequate air exchange occurs during resuscitation efforts or in patients who are unable to breathe adequately on their own.

10. For a 65-year-old male in respiratory distress with a history of congestive heart failure, what is the first priority?

- A. Apply CPAP.
- B. Assess his vital signs.
- C. Administer oxygen by non-rebreather mask.
- D. Assist his ventilation.**

In this scenario involving a 65-year-old male in respiratory distress with a history of congestive heart failure, the priority is to assist his ventilation. This is critical because the patient is already experiencing respiratory distress, which suggests that he may not be able to effectively breathe on his own. By assisting his ventilation, you are aiming to ensure that he receives adequate oxygen and that carbon dioxide is being expelled properly, helping to stabilize his condition and prevent further deterioration. In cases of respiratory distress, particularly in patients with a history of heart failure, the respiratory system may not function optimally, resulting in either hypoxia or hypercapnia. By focusing on assisting ventilation right away, you're addressing the urgent need for adequate respiratory support. While applying CPAP and administering oxygen are also important interventions for such patients, they are typically secondary to directly assisting with ventilation. Assessing vital signs is essential for understanding the overall condition but does not provide immediate relief to the patient's respiratory distress. Thus, assisting ventilation is the most critical first step in managing this patient's immediate needs.

Next Steps

Congratulations on reaching the final section of this guide. You've taken a meaningful step toward passing your certification exam and advancing your career.

As you continue preparing, remember that consistent practice, review, and self-reflection are key to success. Make time to revisit difficult topics, simulate exam conditions, and track your progress along the way.

If you need help, have suggestions, or want to share feedback, we'd love to hear from you. Reach out to our team at hello@examzify.com.

Or visit your dedicated course page for more study tools and resources:

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We wish you the very best on your exam journey. You've got this!

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