

NPTE CARDIOPULMONARY PRACTICE TEST (SAMPLE)

STUDY GUIDE



**SAMPLE STUDY GUIDE
WITH LIMITED QUESTIONS**

**VISIT US ONLINE FOR
THE FULL VERSION STUDY GUIDE**

<https://nptecardiopulmonary.examzify.com>



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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. Which heart sound occurs when the aortic and pulmonic valves close at the onset of diastole?**
 - A. S1
 - B. S2
 - C. S3
 - D. S4

- 2. What cardiac risk factor is modifiable through lifestyle changes and medication?**
 - A. Age
 - B. Diabetes
 - C. Hypertension
 - D. Genetics

- 3. Which heart valve prevents systemic blood from returning to the left ventricle?**
 - A. aortic
 - B. mitral
 - C. pulmonic
 - D. tricuspid

- 4. Which pharmacological agent would increase the incidence of first-degree atrioventricular heart block?**
 - A. anticoagulant agents
 - B. digitalis
 - C. diuretics
 - D. mucolytic agents

- 5. Which vital sign is primarily affected in patients with severe respiratory distress?**
 - A. Temperature
 - B. Heart rate
 - C. Respiratory rate
 - D. Blood pressure

- 6. What is the term for the abnormal increase in the production of mucus in the airways?**
- A. Bronchiectasis
 - B. Bronchorrhea
 - C. Hemoptysis
 - D. Emphysema
- 7. Which disease is primarily characterized by reversible airway obstruction?**
- A. Chronic bronchitis
 - B. Emphysema
 - C. Asthma
 - D. Pneumonia
- 8. What should the therapist do if a patient reports chest pain during exercise and remains unchanged after 20 minutes of rest?**
- A. Allow the patient to resume exercise
 - B. Reduce the intensity of the exercise
 - C. Encourage the patient to make an appointment with his physician
 - D. Call an ambulance
- 9. What lung sound is described as high-pitched, whistling, or musical during expiration?**
- A. Rales
 - B. Wheezing
 - C. Rhonchi
 - D. Stridor
- 10. What device is commonly used to monitor heart rhythms?**
- A. Glucose meter
 - B. Pulse oximeter
 - C. Electrocardiogram (ECG)
 - D. Tonometer

Answers

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

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Explanations

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1. Which heart sound occurs when the aortic and pulmonic valves close at the onset of diastole?

- A. S1
- B. S2**
- C. S3
- D. S4

The heart sound that occurs when the aortic and pulmonic valves close at the onset of diastole is known as S2. This sound is a result of the closure of the semilunar valves (aortic and pulmonic) and it marks the end of ventricular systole and the beginning of ventricular diastole. Understanding the timing of heart sounds is crucial in cardiology and physiology. S1 occurs when the mitral and tricuspid valves close at the beginning of ventricular systole, signaling the start of the heartbeat cycle. S3 and S4 are additional heart sounds associated with specific cardiac events; S3 is often associated with rapid ventricular filling and may indicate heart failure in some contexts, while S4 is associated with atrial contraction and is typically seen in conditions of decreased ventricular compliance. Thus, S2 is specifically recognized as the sound of the closure of the aortic and pulmonic valves, clearly defining the transition into diastolic relaxation of the heart.

2. What cardiac risk factor is modifiable through lifestyle changes and medication?

- A. Age
- B. Diabetes
- C. Hypertension**
- D. Genetics

Hypertension is considered a modifiable cardiac risk factor because it can be effectively managed and improved through lifestyle changes as well as medication. Lifestyle modifications may include dietary changes such as reducing sodium intake, increasing physical activity, losing weight, and managing stress. These changes can significantly lower blood pressure and reduce the risk of cardiovascular complications. Additionally, there are various antihypertensive medications available, including diuretics, ACE inhibitors, and beta-blockers, which specifically target and help control high blood pressure. Because hypertension can be actively treated and controlled, it stands in contrast to non-modifiable risk factors such as age and genetics, which cannot be changed. While diabetes management is certainly important and can involve lifestyle changes and medication, it is often viewed as a condition that requires more complex management beyond typical lifestyle adjustments. Hence, hypertension is the most appropriate choice among the options provided.

3. Which heart valve prevents systemic blood from returning to the left ventricle?

- A. aortic**
- B. mitral
- C. pulmonic
- D. tricuspid

The aortic valve is the structure that prevents systemic blood from returning to the left ventricle. Located between the left ventricle and the aorta, the aortic valve opens to allow oxygenated blood to flow from the heart into the aorta during ventricular contraction. When the left ventricle relaxes, the aortic valve closes to prevent the backflow of blood from the aorta into the left ventricle. This closure ensures that the blood remains in the systemic circulation and maintains proper pressure within the cardiovascular system. Other valves, such as the mitral, pulmonic, and tricuspid valves, serve different functions in the heart. The mitral valve regulates blood flow between the left atrium and left ventricle. The pulmonic valve controls blood flow from the right ventricle to the pulmonary arteries, directing deoxygenated blood to the lungs for gas exchange. The tricuspid valve manages blood flow between the right atrium and right ventricle. While all these valves are crucial for the heart's function, it is the aortic valve specifically that prevents the backflow of systemic blood into the left ventricle.

4. Which pharmacological agent would increase the incidence of first-degree atrioventricular heart block?

- A. anticoagulant agents
- B. digitalis**
- C. diuretics
- D. mucolytic agents

Digitalis is the correct answer because it is known to enhance vagal tone, which slows down conduction through the atrioventricular (AV) node. This effect can lead to an increased incidence of first-degree AV block, characterized by a prolonged PR interval on the electrocardiogram. The mechanism involves the action of digitalis on the heart, where it increases intracellular calcium levels, thereby modifying the conduction properties of the cardiac tissue, particularly affecting the AV node. Other pharmacological agents listed do not have this specific effect on AV conduction. Anticoagulant agents primarily prevent clot formation and do not influence the conduction system directly. Diuretics help manage fluid balance and hypertension but are not associated with AV node conduction abnormalities. Mucolytic agents assist in clearing mucus from the airways and do not impact the electrical conduction within the heart. Thus, digitalis stands out as a drug that can specifically increase the likelihood of developing first-degree AV block.

5. Which vital sign is primarily affected in patients with severe respiratory distress?

- A. Temperature
- B. Heart rate
- C. Respiratory rate**
- D. Blood pressure

In patients experiencing severe respiratory distress, the respiratory rate is the vital sign that is primarily affected. When the body is struggling to breathe effectively due to conditions such as asthma, pneumonia, or chronic obstructive pulmonary disease (COPD), the respiratory system attempts to compensate for decreased oxygenation and inadequate gas exchange by increasing the rate of breathing. This elevated respiratory rate, also known as tachypnea, is a direct response to hypoxia or respiratory failure. In addition to just the rate, the effort of breathing often becomes more pronounced, potentially observable through accessory muscle use and changes in the pattern of breathing. While heart rate, temperature, and blood pressure can also change in response to respiratory distress, the respiratory rate stands out as the most immediate and distinctive sign reflecting the patient's struggle to maintain adequate ventilation. Thus, monitoring this vital sign is crucial in assessing the severity of the respiratory distress and guiding treatment decisions.

6. What is the term for the abnormal increase in the production of mucus in the airways?

- A. Bronchiectasis
- B. Bronchorrhea**
- C. Hemoptysis
- D. Emphysema

The term for the abnormal increase in the production of mucus in the airways is bronchorrhea. This condition is characterized by excessive mucus secretion, leading to a cough that produces large quantities of sputum. It can be associated with various respiratory conditions, such as infections, chronic bronchitis, or asthma exacerbations. In contrast, bronchiectasis refers to the permanent dilation and damage of the airways, often as a result of chronic inflammation or infection, leading to mucus retention but not specifically defined by an increase in mucus production. Hemoptysis is the coughing up of blood, which is distinct from mucus production. Emphysema, on the other hand, involves the destruction of the alveoli in the lungs and is associated with air trapping and difficulty with expiration, but it does not specifically indicate an increase in mucus production. Thus, bronchorrhea accurately describes the condition of having an abnormal increase in mucus in the airways.

7. Which disease is primarily characterized by reversible airway obstruction?

- A. Chronic bronchitis
- B. Emphysema
- C. Asthma**
- D. Pneumonia

Asthma is the disease primarily characterized by reversible airway obstruction. This condition results from inflammation, bronchoconstriction, and increased mucus production, leading to difficulty in breathing. The hallmark of asthma is the ability to reverse this obstruction, typically through the use of bronchodilators or naturally, over time, as the precipitating factors are resolved. In asthma, episodes of wheezing, coughing, and shortness of breath can occur due to triggers such as allergens, exercise, or irritants, but these symptoms can improve significantly with treatment. The reversibility is crucial because it differentiates asthma from other respiratory conditions like chronic bronchitis or emphysema, where airway obstruction tends to be more permanent and progressive. Pneumonia, on the other hand, is an infection that primarily affects the lungs, causing consolidation and impaired gas exchange, but it does not primarily feature reversible airway obstruction as a defining characteristic. Understanding the nature of these conditions helps clarify why asthma is the correct choice in this context.

8. What should the therapist do if a patient reports chest pain during exercise and remains unchanged after 20 minutes of rest?

- A. Allow the patient to resume exercise
- B. Reduce the intensity of the exercise
- C. Encourage the patient to make an appointment with his physician
- D. Call an ambulance**

In cases where a patient reports chest pain during exercise that does not resolve after 20 minutes of rest, it is critical to prioritize the patient's safety and well-being. When chest pain is persistent, it can be a sign of a serious underlying condition, such as cardiac issues, which may require immediate medical attention. Calling an ambulance ensures that the patient can receive prompt medical evaluation and intervention if necessary. Emergency services are equipped to assess the patient's condition rapidly and can provide critical care en route to the hospital. This option reflects an understanding of the potential severity of the symptoms and the need for professional medical assessment. While other responses, like allowing exercise resumption or reducing exercise intensity, may seem reasonable in a general context, they could pose serious risks in the presence of unexplained chest pain that hasn't resolved, as these actions fail to address the potential immediacy of a cardiac event. Encouraging a physician appointment also does not provide the urgent care required in this situation since it delays assessment and treatment. Hence, the decision to call an ambulance is the most appropriate and safe action to take in this scenario.

9. What lung sound is described as high-pitched, whistling, or musical during expiration?

- A. Rales
- B. Wheezing**
- C. Rhonchi
- D. Stridor

Wheezing is characterized by a high-pitched, whistling, or musical sound, particularly prominent during expiration. This sound occurs when air flows through narrowed or obstructed airways, which can happen in conditions such as asthma, bronchitis, or any other situation that leads to bronchial constriction or inflammation. The whistling nature of wheezing is primarily due to the turbulent airflow through the constricted passages, producing the distinct sound that healthcare providers listen for during auscultation. Recognizing wheezing is important for diagnosing and monitoring respiratory conditions where airway obstruction is involved. Understanding this lung sound can significantly impact patient management and treatment strategies in cardiopulmonary care.

10. What device is commonly used to monitor heart rhythms?

- A. Glucose meter
- B. Pulse oximeter
- C. Electrocardiogram (ECG)**
- D. Tonometer

The electrocardiogram (ECG) is a crucial device in cardiopulmonary care, designed specifically to monitor heart rhythms. It works by recording the electrical activity of the heart, providing detailed representations of heartbeats over time, which allows healthcare providers to identify irregularities such as arrhythmias, ischemic heart disease, and other cardiac conditions. By interpreting the electrical signals, clinicians can assess heart health, monitor treatment outcomes, and guide further management decisions. In contrast, other devices mentioned serve different purposes: a glucose meter measures blood sugar levels, a pulse oximeter monitors oxygen saturation in the blood, and a tonometer measures intraocular pressure in the eyes. Each of these devices is important in their own right but does not provide information specifically about heart rhythms. Thus, the ECG stands out as the primary tool for this purpose.

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:

<https://nptecardiopulmonary.examzify.com>

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

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