

# Fundamentals of Nursing - Vital Signs Practice Test (Sample)

## Study Guide



**Everything you need from our exam experts!**

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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. What device estimates arterial blood oxygen saturation noninvasively?**
  - A. Pulse oximeter**
  - B. Blood pressure cuff**
  - C. Thermometer**
  - D. Echocardiogram**
  
- 2. What does apnea refer to in a physiological context?**
  - A. Irregular heartbeats**
  - B. Absence of breathing**
  - C. Increased respiratory rate**
  - D. Normal breathing patterns**
  
- 3. What is an important factor to remember when measuring blood pressure?**
  - A. It should be taken with the patient standing**
  - B. It can be assessed without any previous knowledge**
  - C. It should be done in a quiet environment to ensure accuracy**
  - D. Measurement can occur anytime irrespective of patient condition**
  
- 4. What does a weak or thready pulse indicate?**
  - A. High blood volume**
  - B. Normal circulation**
  - C. Reduced blood flow**
  - D. High blood pressure**
  
- 5. What does the term "bounding pulse" refer to?**
  - A. A weak and almost imperceptible pulse**
  - B. A pulse that is extremely fast**
  - C. A strong and forceful pulse that is easy to palpate**
  - D. A pulse that is irregular and fluctuating**

**6. What is the normal blood pressure range for adults?**

- A. Systolic 80-100 mmHg and Diastolic 40-60 mmHg**
- B. Systolic 90-120 mmHg and Diastolic 60-80 mmHg**
- C. Systolic 100-140 mmHg and Diastolic 70-90 mmHg**
- D. Systolic 120-160 mmHg and Diastolic 80-100 mmHg**

**7. In adults, a heart rate of less than 60 bpm is known as?**

- A. Tachycardia**
- B. Bradycardia**
- C. Normocardia**
- D. Arrhythmia**

**8. What physiological mechanisms contribute to hypothermia?**

- A. Increased heat production**
- B. Inadequate heat production**
- C. Impairment of thermoregulation**
- D. Excessive heat loss**

**9. What condition is arteriosclerosis associated with?**

- A. Increased elasticity of arteries**
- B. Replacement of artery tissues with fibrous tissue**
- C. Improved circulation in older adults**
- D. Regular arterial expansions**

**10. What is an indicator of proper blood volume during pulse assessment?**

- A. Pulsatile differences**
- B. Mechanisms of blood movement**
- C. Stroke volume output**
- D. Diastolic stability**

## **Answers**

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

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## **Explanations**

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**1. What device estimates arterial blood oxygen saturation noninvasively?**

- A. Pulse oximeter**
- B. Blood pressure cuff**
- C. Thermometer**
- D. Echocardiogram**

The pulse oximeter is the device that estimates arterial blood oxygen saturation noninvasively. This compact and easy-to-use device functions by shining light through a transparent area of the body, such as a fingertip or earlobe. Sensors in the pulse oximeter detect changes in light absorption as blood moves through the blood vessels, allowing it to calculate the saturation of oxygen in the hemoglobin. This method of monitoring oxygen saturation is particularly advantageous because it does not require any invasive procedures, such as drawing blood from an artery. The pulse oximeter provides real-time data on a patient's oxygen levels, making it an essential tool in various clinical settings, particularly in respiratory care and during surgeries. In contrast, a blood pressure cuff is designed specifically to measure blood pressure, not oxygen saturation. A thermometer is used to measure body temperature, while an echocardiogram is an imaging test that uses sound waves to visualize the heart's structures and assess its function. Each of these devices serves distinct purposes that do not relate to estimating arterial blood oxygen saturation.

**2. What does apnea refer to in a physiological context?**

- A. Irregular heartbeats**
- B. Absence of breathing**
- C. Increased respiratory rate**
- D. Normal breathing patterns**

Apnea refers specifically to the absence of breathing. In a physiological context, this condition can occur for various reasons, including sleep disorders, respiratory issues, or neurological problems. During an episode of apnea, there is a complete stoppage of airflow into and out of the lungs, which can last for a few seconds to minutes, and it can pose significant health risks due to inadequate oxygenation of the body. Understanding apnea is essential, particularly in nursing, because monitoring a patient's respiratory status is critical for assessing their overall health and for identifying potential emergencies.

### 3. What is an important factor to remember when measuring blood pressure?

- A. It should be taken with the patient standing
- B. It can be assessed without any previous knowledge
- C. It should be done in a quiet environment to ensure accuracy**
- D. Measurement can occur anytime irrespective of patient condition

When measuring blood pressure, conducting the assessment in a quiet environment is crucial for ensuring accurate readings. External noise can distract both the patient and the clinician, potentially leading to misinterpretation of sounds during the measurement, such as the Korotkoff sounds which indicate systolic and diastolic pressure. A calm, quiet setting minimizes the risk of factors that could influence readings, such as patient anxiety or the presence of excessive ambient noise, which could result in errors. A steady, serene atmosphere allows the patient to remain relaxed, which is essential, as stress or movement can often lead to elevated blood pressure readings. Therefore, creating an optimal environment significantly contributes to the reliability of the blood pressure measurements obtained.

### 4. What does a weak or thready pulse indicate?

- A. High blood volume
- B. Normal circulation
- C. Reduced blood flow**
- D. High blood pressure

A weak or thready pulse indicates reduced blood flow through the arteries. This can occur due to various conditions that affect the heart's ability to pump blood effectively or cause changes in blood volume. For example, factors such as shock, dehydration, or heart failure can lead to a reduced volume of blood circulating, making the pulse less forceful. When the pulse feels weak or thready, it is often a sign that the body is not getting adequate perfusion, which is critical for delivering oxygen and nutrients to tissues. Monitoring the characteristics of the pulse can provide important insights into a patient's cardiovascular status, guiding further assessment and interventions.

## 5. What does the term "bounding pulse" refer to?

- A. A weak and almost imperceptible pulse
- B. A pulse that is extremely fast
- C. A strong and forceful pulse that is easy to palpate**
- D. A pulse that is irregular and fluctuating

The term "bounding pulse" specifically refers to a pulse that is strong, forceful, and easy to palpate. This characteristic makes it distinct from other types of pulses. When assessing a bounding pulse, it is typically described as one that can be felt with considerable strength, often indicating an increased stroke volume or heightened cardiac output. This may occur during situations such as fever, anxiety, or conditions leading to fluid overload. In contrast, a weak pulse would feel diminished or difficult to detect, indicating reduced blood flow or volume. An extremely fast pulse, often referred to as tachycardia, pertains to the rate of the heartbeat rather than the strength or quality of the pulse. An irregular pulse denotes variability in rhythm or strength and is not characterized by consistent force. Understanding the definition and implications of a bounding pulse is essential in nursing assessments and can provide insights into a patient's overall cardiovascular health.

## 6. What is the normal blood pressure range for adults?

- A. Systolic 80-100 mmHg and Diastolic 40-60 mmHg
- B. Systolic 90-120 mmHg and Diastolic 60-80 mmHg**
- C. Systolic 100-140 mmHg and Diastolic 70-90 mmHg
- D. Systolic 120-160 mmHg and Diastolic 80-100 mmHg

The normal blood pressure range for adults is defined by the American Heart Association as a systolic pressure between 90-120 mmHg and a diastolic pressure between 60-80 mmHg. This range is considered optimal for maintaining good health and reducing the risk of cardiovascular problems. Systolic pressure measures the force of blood against the artery walls when the heart beats, while diastolic pressure measures the same force when the heart is at rest between beats. Keeping blood pressure within these range levels is crucial since levels above can indicate hypertension, which poses health risks, and levels below can lead to hypotension, which can result in insufficient blood flow to organs. This choice reflects the guidelines provided by health authorities and is critical for assessing overall cardiovascular health. Understanding these ranges helps nursing professionals in monitoring and managing patients' health effectively.

**7. In adults, a heart rate of less than 60 bpm is known as?**

- A. Tachycardia**
- B. Bradycardia**
- C. Normocardia**
- D. Arrhythmia**

A heart rate of less than 60 beats per minute (bpm) is known as bradycardia. This condition is characterized by a slower than normal heart rate, which can occur during sleep, in well-trained athletes, or in response to certain medications, medical conditions, or heart issues. Bradycardia is significant because it can lead to insufficient blood flow and oxygen delivery to the body's organs, depending on the individual's baseline heart rate and overall health. In adults, normal resting heart rates typically range from 60 to 100 bpm. When the heart rate drops below this threshold, it can indicate an abnormal physiological state, necessitating evaluation to determine underlying causes or potential interventions. Understanding bradycardia and its implications is essential for nursing practice and patient care management.

**8. What physiological mechanisms contribute to hypothermia?**

- A. Increased heat production**
- B. Inadequate heat production**
- C. Impairment of thermoregulation**
- D. Excessive heat loss**

Hypothermia occurs when the body loses heat faster than it can produce it, leading to a dangerous drop in core body temperature. Excessive heat loss is a critical factor in this condition, as it disrupts the body's ability to maintain a stable internal temperature, especially in cold environments or due to prolonged exposure to cold water or wind. When heat is lost at a rate that surpasses the heat production capabilities of the body, it can lead to lower temperatures that affect bodily functions. This increased loss can be due to factors such as wet clothing, high winds, or immersion in cold water. Under these conditions, the body's thermal regulation mechanisms, which normally help maintain a stable internal temperature, are overwhelmed, making it difficult to prevent hypothermia from developing. Understanding the importance of managing heat loss is vital in preventing hypothermia, especially in vulnerable populations and during activities exposed to cold conditions.

## 9. What condition is arteriosclerosis associated with?

- A. Increased elasticity of arteries
- B. Replacement of artery tissues with fibrous tissue**
- C. Improved circulation in older adults
- D. Regular arterial expansions

Arteriosclerosis is a condition characterized by the thickening and hardening of the arterial walls, primarily due to the replacement of normal elastic tissues in the artery walls with fibrous tissue. This process leads to a loss of elasticity and a narrowing of the arteries, which can significantly impede blood flow. The buildup of fibrous tissue contributes to the overall stiffness of the arteries, making it more difficult for them to expand and contract with each heartbeat. As a result, this decreased elasticity can lead to increased blood pressure and a higher risk of cardiovascular events such as heart attacks and strokes. Understanding the pathophysiological changes in arteriosclerosis helps highlight the importance of maintaining vascular health through lifestyle choices and medical management.

## 10. What is an indicator of proper blood volume during pulse assessment?

- A. Pulsatile differences
- B. Mechanisms of blood movement
- C. Stroke volume output**
- D. Diastolic stability

The correct answer focuses on stroke volume output as an indicator of proper blood volume during pulse assessment. Stroke volume refers to the amount of blood ejected by the heart's left ventricle with each contraction. When assessing pulses, healthcare professionals evaluate the strength and character of the pulse. A strong, regular pulse typically indicates adequate stroke volume, which suggests that the body has a proper blood volume to maintain circulation effectively. When the stroke volume is sufficient, it creates a palpable pulse that is reflective of a well-functioning cardiovascular system. If blood volume is low, either due to dehydration, blood loss, or other factors, the stroke volume may decrease, leading to a weakened or thready pulse, which could indicate potential health problems. By monitoring stroke volume output during a pulse assessment, nurses and healthcare providers can gather vital information regarding a patient's hemodynamic status, allowing for timely interventions if necessary. This correlation makes stroke volume output a reliable indicator of blood volume.

# 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](mailto:hello@examzify.com).**

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

**<https://fundofnursingvitalsigns.examzify.com>**

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

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