

NATIONAL BOARD CERTIFICATION ORTHOPEDIC TECHNOLOGIST PRACTICE EXAM (SAMPLE)

STUDY GUIDE



SAMPLE STUDY GUIDE WITH LIMITED QUESTIONS

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THE FULL VERSION STUDY GUIDE

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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 is the primary role of anti-inflammatory medications in orthopedic care?**
 - A. To promote faster healing of fractures
 - B. To reduce pain and inflammation in injuries
 - C. To prevent muscle spasms
 - D. To improve bone density
- 2. What is the proximal end of the humerus called?**
 - A. Neck of the humerus
 - B. Head of the humerus
 - C. Trochlea
 - D. Capitulum
- 3. What is the ridge of the Ilium called?**
 - A. Iliac crest
 - B. Pubic symphysis
 - C. Sacrum
 - D. Ilium tuberosity
- 4. What is the small bony projection of the hamate called?**
 - A. Hamulus
 - B. Scaphoid
 - C. Capitate
 - D. Trapezium
- 5. How many fused vertebrae comprise the coccyx?**
 - A. 2
 - B. 3
 - C. 4
 - D. 5

- 6. What role do home safety modifications play in preventing falls among older adults?**
- A. They have no impact on fall prevention
 - B. They can create an unsafe environment
 - C. They help create a safer living space
 - D. They are only necessary for individuals with disabilities
- 7. What is a common indication for shoulder surgery?**
- A. Frozen shoulder
 - B. Rotator cuff tears
 - C. Biceps tendonitis
 - D. Shoulder dislocation
- 8. What are the two categories in the classification system for fractures based on displacement?**
- A. Open and closed fractures
 - B. Incomplete and complete fractures
 - C. Displaced and non-displaced fractures
 - D. Simple and complex fractures
- 9. What are the key components of a proper orthopedic assessment?**
- A. Medical history and prescription medications
 - B. History, physical examination, and diagnostic imaging
 - C. Patient age, lifestyle, and medical history
 - D. Physical examination and lab results
- 10. What is the primary goal of orthopedic splinting?**
- A. To fully immobilize the limb
 - B. To enhance blood flow
 - C. To stabilize and support the injured area
 - D. To prevent swelling

Answers

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

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Explanations

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1. What is the primary role of anti-inflammatory medications in orthopedic care?

- A. To promote faster healing of fractures
- B. To reduce pain and inflammation in injuries**
- C. To prevent muscle spasms
- D. To improve bone density

The primary role of anti-inflammatory medications in orthopedic care is to reduce pain and inflammation in injuries. In orthopedic settings, these medications are commonly used to alleviate discomfort and swelling that accompany various musculoskeletal injuries, such as sprains, strains, and fractures. By decreasing inflammation, anti-inflammatory medications help improve the patient's comfort level, facilitate movement, and enhance participation in rehabilitation activities. The focus of these medications is on managing symptoms rather than directly influencing the healing process or the structural aspects of bone or muscle. While they may contribute indirectly to faster function recovery by alleviating pain, their main function is symptom relief, allowing patients to engage in physical therapy or other healing modalities more effectively. This understanding is critical for orthopedic technologists working with patients to ensure comprehensive care and management of musculoskeletal issues.

2. What is the proximal end of the humerus called?

- A. Neck of the humerus
- B. Head of the humerus**
- C. Trochlea
- D. Capitulum

The proximal end of the humerus is referred to as the head of the humerus. This part of the bone is rounded and articulates with the glenoid cavity of the scapula, forming the shoulder joint. The head plays a crucial role in mobility and stability within the shoulder girdle, allowing for a wide range of movements. The neck of the humerus, found just below the head, is a narrower region that connects the head to the shaft. The trochlea and capitulum are located at the distal end of the humerus and are involved in articulating with the forearm bones, specifically the ulna and radius. The distinct features of the proximal end of the humerus are what set the head apart from these other parts, making it the defining term for that section of the bone.

3. What is the ridge of the Ilium called?

- A. Iliac crest**
- B. Pubic symphysis
- C. Sacrum
- D. Ilium tuberosity

The ridge of the ilium is termed the iliac crest. This structure forms the superior border of the ilium, which is the largest of the three bones that make up the hip bone (pelvis). The iliac crest is notable for several reasons: it serves as an important landmark in anatomy, providing attachment points for muscles and ligaments, and is easily palpable on a physical examination. Its prominence also assists in the diagnosis of various conditions and injuries related to the pelvis and the lower back. Understanding the anatomy of the iliac crest is essential for orthopedic technologists, as both clinical practices and surgical procedures may involve this area. The other terms listed, while related to the pelvis and hip anatomy, refer to distinct structures that do not specifically denote the ridge of the ilium. For instance, the pubic symphysis is a cartilaginous joint located between the left and right pubic bones, the sacrum is a triangular bone at the base of the spine, and the ilium tuberosity refers to a different area of the ilium that serves as an attachment for ligaments rather than being a prominent ridge.

4. What is the small bony projection of the hamate called?

- A. Hamulus
- B. Scaphoid
- C. Capitate
- D. Trapezium

The small bony projection of the hamate is known as the hamulus. This structure extends from the palmar aspect of the hamate bone and serves as an important anatomical landmark for various ligaments and tendons in the wrist. The hamulus plays a crucial role in the function of the wrist by providing attachment points for structures such as the flexor retinaculum and the hypothenar muscles. Understanding the anatomy of the carpal bones and their projections is vital for anyone studying orthopedic technology, as it directly relates to the diagnosis and treatment of wrist injuries. The other options are names of different carpal bones, but they do not pertain to the specific bony projection associated with the hamate. Thus, the hamulus is accurately identified as the correct answer in this context.

5. How many fused vertebrae comprise the coccyx?

- A. 2
- B. 3
- C. 4
- D. 5

The coccyx, commonly known as the tailbone, is formed by the fusion of four vertebrae. This coccygeal structure typically consists of several segments that fuse together during development, resulting in a single, solid bone by adulthood. The four fused vertebrae of the coccyx serve multiple functions, including providing attachment points for various muscles, tendons, and ligaments, and playing a role in weight-bearing when a person is seated. Understanding the anatomy of the coccyx is fundamental in orthopedic contexts, particularly when addressing issues related to trauma, pain, or surgery in that area. The other options do not reflect the typical anatomy of the coccyx in humans, as it is well-established that there are four fused vertebrae in this particular region of the spine.

6. What role do home safety modifications play in preventing falls among older adults?

- A. They have no impact on fall prevention
- B. They can create an unsafe environment
- C. They help create a safer living space
- D. They are only necessary for individuals with disabilities

Home safety modifications play a crucial role in fall prevention among older adults by helping to create a safer living space. As individuals age, their risk of falling increases due to factors such as decreased strength, balance, and vision. Modifications made to the home, such as installing grab bars in bathrooms, removing tripping hazards, ensuring adequate lighting, and using non-slip mats, can significantly reduce the risk of falls. These changes aim to address the common hazards present in many homes, enabling older adults to maintain their independence while ensuring a safer environment. Effective home safety modifications not only support fall prevention but also enhance the overall quality of life for older adults by reducing the fear of falling and encouraging them to remain active and engaged in their daily activities. This proactive approach demonstrates an understanding of the risks older adults face, ultimately fostering a more secure living environment.

7. What is a common indication for shoulder surgery?

- A. Frozen shoulder
- B. Rotator cuff tears**
- C. Biceps tendonitis
- D. Shoulder dislocation

Rotator cuff tears are a common indication for shoulder surgery due to the critical role that the rotator cuff plays in shoulder stability and function. The rotator cuff is a group of muscles and tendons that stabilize the shoulder joint and allow for a wide range of motion. When tears occur, they can significantly impair shoulder movement, create pain, and limit daily activities. Surgical intervention may be necessary to repair the torn tendons, alleviate pain, restore function, and improve the overall quality of life for the patient. Shoulder surgery might also be indicated for other conditions mentioned, such as frozen shoulder, biceps tendonitis, and shoulder dislocation. However, rotator cuff tears often require surgical repair, especially in cases where conservative treatments like physical therapy and medication are unsuccessful or in cases involving significant tearing. This makes it a particularly prevalent reason for surgical intervention in the shoulder.

8. What are the two categories in the classification system for fractures based on displacement?

- A. Open and closed fractures
- B. Incomplete and complete fractures
- C. Displaced and non-displaced fractures**
- D. Simple and complex fractures

The classification of fractures based on displacement is indeed focused on whether the bone fragments have moved from their original position following the fracture. The two categories recognized are displaced fractures, where the bone ends are not aligned and have shifted from their normal anatomical position, and non-displaced fractures, where the bone fragments remain together or in close alignment despite the fracture. Displaced fractures often result in more extensive damage to surrounding soft tissue and may require surgical intervention to restore proper alignment, while non-displaced fractures usually can be managed with immobilization and may heal without surgical correction. Understanding this classification is crucial for determining appropriate treatment strategies and anticipating potential complications associated with each type of fracture.

9. What are the key components of a proper orthopedic assessment?

- A. Medical history and prescription medications
- B. History, physical examination, and diagnostic imaging**
- C. Patient age, lifestyle, and medical history
- D. Physical examination and lab results

The choice that outlines the key components of a proper orthopedic assessment includes a thorough history, physical examination, and diagnostic imaging. In orthopedic practice, gathering a comprehensive history is essential for understanding the patient's symptoms, prior injuries, and medical background, which aids in forming a diagnostic impression. This history should encompass not only the current concern but also any relevant past medical history, surgeries, and family history of orthopedic issues. The physical examination follows, during which the clinician assesses the affected area, checking for range of motion, strength, tenderness, and other functional aspects. This hands-on evaluation is crucial to identify any abnormalities that may not be apparent from the history alone. Diagnostic imaging, such as X-rays, MRIs, or CT scans, is often employed to visualize the internal structures and confirm or further investigate the findings from the history and physical examination. Imaging can provide critical insights into the condition of bones, joints, and soft tissues, helping to establish an accurate diagnosis. Together, these components create a thorough assessment that is necessary for effective treatment planning and patient care in orthopedics.

10. What is the primary goal of orthopedic splinting?

- A. To fully immobilize the limb
- B. To enhance blood flow
- C. To stabilize and support the injured area**
- D. To prevent swelling

The primary goal of orthopedic splinting is to stabilize and support the injured area. This stabilization is crucial as it helps prevent further injury by restricting movement around the affected site, which is essential in the healing process. By providing support, a splint allows the body to naturally heal by maintaining the alignment of bones or joints that may have been affected by trauma or injury. Splints are designed to hold the injured part in a fixed position to reduce pain and prevent complications. This is particularly vital in cases where fractures, sprains, or strains occur, as improper movement could worsen the injury. While immobilization is important to some degree, the goal is not necessarily to achieve full immobilization but to create a balance between support and some degree of mobility to promote healing. Enhancing blood flow and preventing swelling are secondary benefits of correct splint application but are not the primary goals. The focus is primarily on stabilization and support, which serves as the foundation for effective treatment of orthopedic injuries.

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://natlboardorthotech.examzify.com>

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

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