

CAMRT Radiography Practice Exam (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 adjustment should be made if the downside pedicle appears posterior to the vertebral body during a lumbar spine radiograph?**
 - A. Decrease rotation of the body**
 - B. Increase the patient's height**
 - C. Use a higher mA setting**
 - D. Position the patient supine**

- 2. What is the primary purpose of beam restriction in imaging?**
 - A. Enhancing image size**
 - B. Reducing patient dose**
 - C. Improving image color**
 - D. Increasing viewer comfort**

- 3. Why is it important to radiograph sinuses with the patient in an upright position?**
 - A. To capture a clearer image in lower resolutions.**
 - B. To show a presence or absence of fluid accurately.**
 - C. To minimize the risk of motion blur.**
 - D. To avoid overlapping images of the sinuses.**

- 4. Which imaging technique uses a 15-degree angle for optimal results?**
 - A. Occipitofrontal projection**
 - B. AP pelvis view**
 - C. Lateral thoracic view**
 - D. Axial skull view**

- 5. What is the result of using a grid in radiography?**
 - A. Increased radiation exposure**
 - B. Improved film development**
 - C. Better image contrast**
 - D. Reduced image resolution**

- 6. What type of fracture might be overlooked if the lateral projection does not capture the top of T1?**
- A. Comminuted fracture**
 - B. Clay shoveler's fracture**
 - C. Oblique fracture**
 - D. Transverse fracture**
- 7. In the right posterior oblique position (RPO), which kidney will be parallel with the plane of the IR?**
- A. Right**
 - B. Left**
 - C. Both kidneys**
 - D. No kidneys**
- 8. What indicates that the patient was excessively rotated in a sternum imaging?**
- A. The sternum is overexposed**
 - B. The sternum is underexposed**
 - C. The sternum is lateral to the expected midpoint**
 - D. The heart shadow is not visible**
- 9. What is the diastolic blood pressure range for an adult?**
- A. 50 - 70 mmHg**
 - B. 60 - 80 mmHg**
 - C. 70 - 90 mmHg**
 - D. 80 - 100 mmHg**
- 10. What does the line focus principle describe?**
- A. The relationship between target angle and effective focal spot size**
 - B. The depth of field in imaging**
 - C. The angle needed for proper exposure**
 - D. The distance between the focal spot and film**

Answers

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

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Explanations

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1. What adjustment should be made if the downside pedicle appears posterior to the vertebral body during a lumbar spine radiograph?

- A. Decrease rotation of the body**
- B. Increase the patient's height**
- C. Use a higher mA setting**
- D. Position the patient supine**

When interpreting lumbar spine radiographs, proper alignment of the vertebral structures is crucial for accurate assessment. If the downside pedicle appears posterior to the vertebral body, this indicates that the patient is likely over-rotated towards the imaging receptor. To correct this positioning artifact, decreasing the rotation of the body is necessary. This adjustment allows the pedicle to be visualized more centrally in relation to the vertebral body. The alignment of the pedicle should ideally be symmetrical; when the pedicle is posterior, this signifies excess rotation that distorts the anatomical relationships seen in the radiograph. Other adjustments, such as increasing the patient's height, using a higher mA setting, or positioning the patient supine, do not directly address the alignment issue caused by over-rotation. Decreasing the rotation results in improved visualization of the lumbar structures and aids in achieving an accurate representation of the anatomy, which is essential for diagnosis and treatment planning.

2. What is the primary purpose of beam restriction in imaging?

- A. Enhancing image size**
- B. Reducing patient dose**
- C. Improving image color**
- D. Increasing viewer comfort**

The primary purpose of beam restriction in imaging is to reduce patient dose. Beam restriction refers to the practice of limiting the x-ray beam to only the area of interest. By narrowing the beam, the amount of radiation exposure to surrounding tissues and organs is minimized. This is important not only for protecting the patient from unnecessary radiation but also for improving the overall safety of radiographic procedures. In addition to reducing dose, beam restriction can help to improve image quality by decreasing the amount of scatter radiation that reaches the image receptor. However, the primary goal remains radiation safety, which is why reducing patient dose is emphasized as the main purpose of this practice. Other options such as enhancing image size, improving image color, and increasing viewer comfort do not align with the fundamental reasons for implementing beam restriction in clinical settings.

3. Why is it important to radiograph sinuses with the patient in an upright position?

- A. To capture a clearer image in lower resolutions.**
- B. To show a presence or absence of fluid accurately.**
- C. To minimize the risk of motion blur.**
- D. To avoid overlapping images of the sinuses.**

Radiographing the sinuses with the patient in an upright position is crucial because it allows for accurate assessment of the presence or absence of fluid within the sinus cavities. When a patient is upright, any fluid—such as that resulting from sinusitis or infection—will gravitate to the most dependent part of the sinus cavity. This positioning provides a clear distinction between air and fluid levels, making it easier for healthcare professionals to diagnose conditions affecting the sinuses effectively. Additionally, an upright position enhances the visualization of anatomical structures and pathology without the interference of overlapping images that can occur when the patient is laying down. This accuracy is vital for patient management and treatment planning.

4. Which imaging technique uses a 15-degree angle for optimal results?

- A. Occipitofrontal projection**
- B. AP pelvis view**
- C. Lateral thoracic view**
- D. Axial skull view**

The occipitofrontal projection is designed to visualize the skull, particularly the frontal and occipital regions, while minimizing distortion and maximizing clarity of the cerebral structures. Using a 15-degree angle for this projection helps achieve optimal visualization by angling the X-ray beam adequately to capture the necessary anatomical details of the skull while reducing overlapping structures that could obscure important features. In other imaging techniques, different angles are utilized to suit their specific anatomical targets and requirements. For instance, the AP pelvis view typically utilizes a perpendicular beam to focus on the pelvic structures without angling to avoid distortions. The lateral thoracic view employs a lateral positioning of the patient with a horizontal beam to assess the thoracic cavity and surrounding structures. The axial skull view also generally involves an angle but often varies depending on the specific structures being targeted, not strictly tied to the 15-degree standard of the occipitofrontal projection. Each imaging technique has its unique requirements to ensure adequate visualization and diagnostic efficacy, making the specific angle used in the occipitofrontal projection critical for obtaining high-quality images.

5. What is the result of using a grid in radiography?

- A. Increased radiation exposure
- B. Improved film development
- C. Better image contrast**
- D. Reduced image resolution

Using a grid in radiography primarily results in improved image contrast. Grids are designed to absorb scattered radiation that commonly occurs when x-rays pass through thicker body structures. This scattered radiation can degrade the quality of an image by reducing the overall contrast, making it harder to distinguish between different tissues or abnormalities. By incorporating a grid, only the primary radiation that contributes to the formation of a clear image is allowed to reach the image receptor, while the unwanted scatter is reduced. This selective filtering improves the contrast of the radiographic image, making features more distinguishable and enhancing diagnostic accuracy. Regarding other possibilities: while increased radiation exposure can occur when using a grid due to the need for a higher dose to compensate for the attenuation of primary radiation, this is not the primary purpose of the grid. Film development improvement relates to processing techniques rather than the physical effects of using a grid. Lastly, reduced image resolution is not a direct result of grid use; instead, the resolution can remain stable or vary based on other factors like the imaging system and technique quality.

6. What type of fracture might be overlooked if the lateral projection does not capture the top of T1?

- A. Comminuted fracture
- B. Clay shoveler's fracture**
- C. Oblique fracture
- D. Transverse fracture

A clay shoveler's fracture is a specific type of fracture that typically occurs in the lower cervical or upper thoracic spine, often at the spinous process of C7 or T1. This fracture is associated with avulsion injuries due to the force exerted on the muscle attachments, commonly seen in individuals who perform heavy lifting or experience trauma to the upper back and neck. In the context of imaging, if the lateral projection does not adequately capture the top of T1, there is a significant risk of missing this type of fracture. Since the injury often occurs at or near T1, an incomplete view can lead to a misdiagnosis or overlook the injury altogether. In contrast, while other fractures such as comminuted, oblique, and transverse fractures could occur in the spine, they are not specifically associated with the upper thoracic region and would require different imaging considerations. Therefore, capturing the entire T1 area is particularly crucial for diagnosing a clay shoveler's fracture, as it directly relates to this location and mechanism of injury.

7. In the right posterior oblique position (RPO), which kidney will be parallel with the plane of the IR?

- A. Right**
- B. Left**
- C. Both kidneys**
- D. No kidneys**

In the right posterior oblique position (RPO), the left kidney comes into alignment parallel with the plane of the image receptor (IR). This positioning is significant in radiography as it helps to minimize distortion and improve the visualization of the kidneys. When in RPO, the right side of the body is rotated posteriorly, which elevates the left kidney and creates a direct pathway for x-ray beams to interact with the left kidney more effectively. As a consequence, this positioning allows for better diagnostic imaging of the left kidney, showcasing its structure and potential pathologies more clearly while also providing a clearer separation from surrounding structures like the right kidney and the spine. To clarify the reasoning regarding the alternatives provided: the right kidney would be less parallel to the IR due to its relative position in this oblique view, which is angled away from the receptor. In contrast, stating that both kidneys or no kidneys are parallel would not accurately describe the anatomical alignment achieved in this specific position.

8. What indicates that the patient was excessively rotated in a sternum imaging?

- A. The sternum is overexposed**
- B. The sternum is underexposed**
- C. The sternum is lateral to the expected midpoint**
- D. The heart shadow is not visible**

When assessing whether a patient has been excessively rotated during sternum imaging, the key indicator is that the sternum appears lateral to the expected midpoint. In a properly positioned patient, the sternum should align with the midline of the thorax. If there is excessive rotation, the sternum will shift laterally, indicating that the patient has been rotated away from the ideal position. The relationship to the midline is crucial because it directly impacts the visualization of the relevant anatomy. Proper alignment ensures that the sternum is clearly seen in relation to other structures, such as the heart and lungs. Therefore, when the sternum is observed to be lateral, it signifies a positioning error, emphasizing the necessity for correct patient alignment in thoracic imaging to obtain accurate and diagnostically useful images. Other options, such as exposure-related problems (overexposure or underexposure), and the visibility of the heart shadow are related to different technical issues and do not specifically indicate a problem with the patient's rotational position. These factors would not directly provide the same information regarding the axial alignment of the sternum.

9. What is the diastolic blood pressure range for an adult?

- A. 50 - 70 mmHg
- B. 60 - 80 mmHg**
- C. 70 - 90 mmHg
- D. 80 - 100 mmHg

The diastolic blood pressure range for an adult is generally considered to be between 60 and 80 mmHg. This measurement indicates the pressure in the arteries when the heart is at rest between beats. A diastolic blood pressure below 60 mmHg may be regarded as low and can lead to inadequate blood flow to vital organs, while values above 80 mmHg can signal elevated blood pressure, contributing to various cardiovascular risks. Blood pressure categories are significant in clinical practice, helping healthcare professionals assess a patient's cardiovascular health and make informed decisions regarding treatment and lifestyle modifications. Thus, a diastolic range of 60 - 80 mmHg is what is recognized as normal and desirable for adults.

10. What does the line focus principle describe?

- A. The relationship between target angle and effective focal spot size**
- B. The depth of field in imaging
- C. The angle needed for proper exposure
- D. The distance between the focal spot and film

The line focus principle is fundamentally about the geometry of the x-ray tube and how the target angle affects the effective focal spot size. When x-rays are produced, they emanate from a focal spot on the anode. If the target angle of the anode is relatively steep, it allows for a smaller effective focal spot size in the direction of the imaging receptor, which enhances image resolution. This principle is crucial in radiography because it helps to optimize image quality. A smaller effective focal spot size improves spatial resolution, allowing for clearer images of structures within the body. Conversely, a larger target angle can increase the size of the effective focal spot, potentially compromising image resolution but allowing for higher heat dissipation. Understanding the relationship between the target angle and the effective focal spot size is essential for radiographers to produce high-quality images while ensuring patient safety through optimized exposure parameters. This insight into beam geometry directly influences equipment choice and imaging techniques in clinical practice.

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://camrtradiography.examzify.com>

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

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