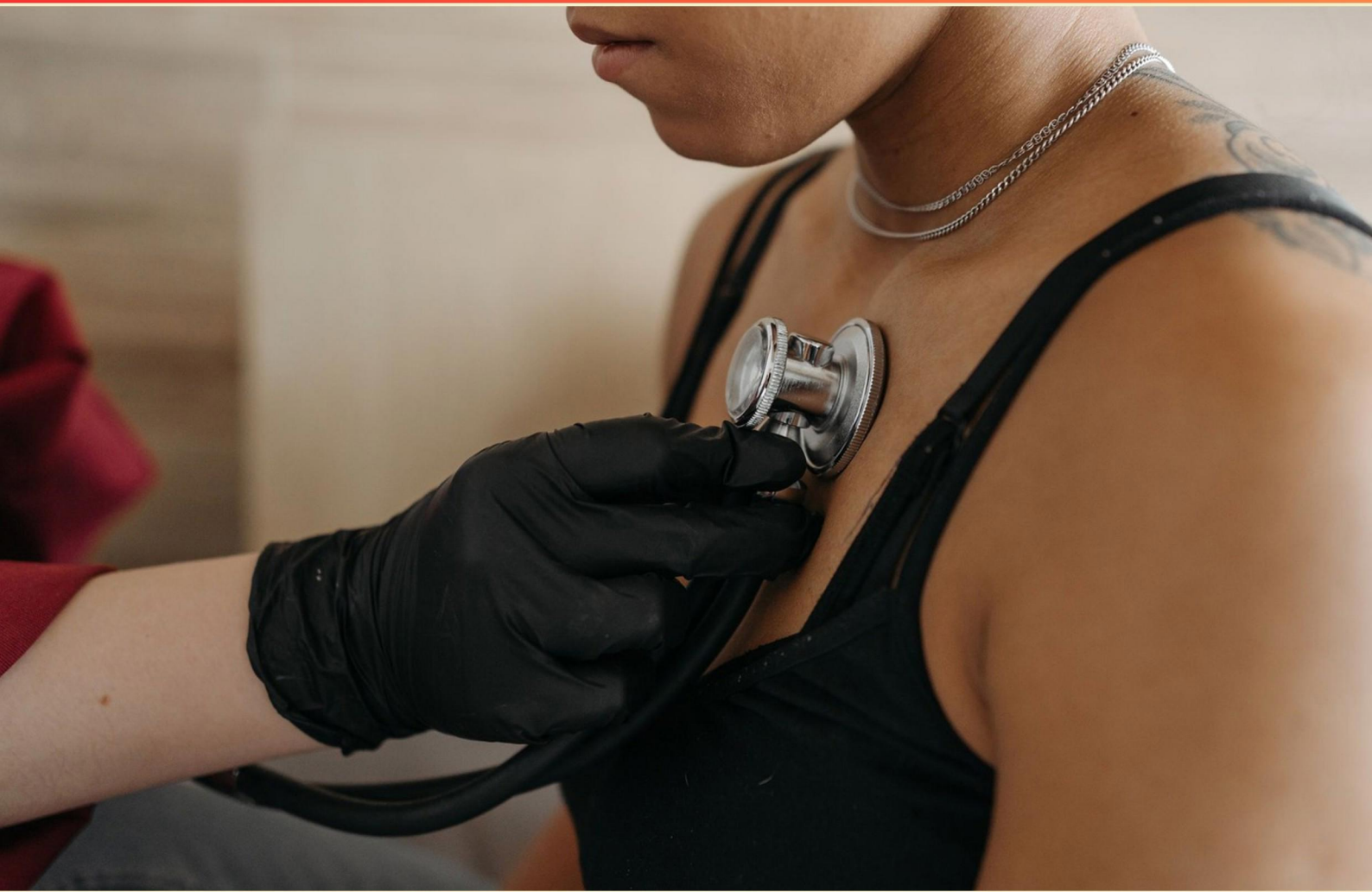


DIAGNOSTIC MEDICAL SONOGRAPHY ASSISTANT (DMSA) 190 PRACTICE TEST (SAMPLE) STUDY GUIDE



SAMPLE STUDY GUIDE WITH LIMITED QUESTIONS

**VISIT US ONLINE FOR
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. Can violators of HIPAA face civil and criminal penalties?**
 - A. Yes, always
 - B. Only civil penalties
 - C. No, not typically
 - D. Only criminal penalties
- 2. Why might a sonographer perform an abdominal ultrasound on an emergency basis?**
 - A. To diagnose chronic liver disease
 - B. To quickly assess for conditions like appendicitis or pancreatitis
 - C. To evaluate heart function
 - D. To monitor fetal growth
- 3. In ultrasound, what does "motion" primarily refer to regarding temporal resolution?**
 - A. the speed of the ultrasound probe
 - B. the movement of the patient
 - C. the visualization of moving structures
 - D. the frequency of the ultrasound
- 4. What control can assist in tissue differentiation or fill in fluid-filled structures in ultrasound imaging?**
 - A. Harmonic imaging
 - B. Color Doppler
 - C. Pulse width
 - D. Gain control
- 5. Which of the following factors can affect ultrasound imaging quality?**
 - A. Patient's hydration levels
 - B. Ultrasound machine manufacturer
 - C. Time of day the ultrasound is performed
 - D. Length of the sonographer's hands

- 6. Are exam presets helpful in optimizing images during an ultrasound exam?**
- A. True
 - B. False
 - C. Only for certain exams
 - D. Depends on the ultrasound machine
- 7. What is the order of the speed of sound in various materials from slowest to fastest?**
- A. solids, liquids, gases, soft tissue
 - B. gases, liquids, soft tissue, solids
 - C. liquids, soft tissue, gases, solids
 - D. soft tissue, gases, solids, liquids
- 8. What does WRMSD stand for?**
- A. Work-related muscular system disorder
 - B. Work-related musculoskeletal disorder
 - C. Work-related medical service disorder
 - D. None of the above
- 9. What term describes a sonographic appearance with fluid and solid areas within the same mass?**
- A. Complex
 - B. Isoechoic
 - C. Hypoechoic
 - D. Hyperechoic
- 10. True or False: Continuous repetitive motion can contribute to WRMSD.**
- A. True
 - B. False
 - C. Only in older workers
 - D. Only in manual labor jobs

Answers

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

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Explanations

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1. Can violators of HIPAA face civil and criminal penalties?

- A. Yes, always
- B. Only civil penalties
- C. No, not typically
- D. Only criminal penalties

Violators of the Health Insurance Portability and Accountability Act (HIPAA) can indeed face both civil and criminal penalties, which is why the answer is accurate. HIPAA was established to protect patient information and impose strict regulations on how healthcare entities handle and safeguard that data. Civil penalties can be levied against violators for things such as failure to comply with administrative simplification provisions. These penalties can reach up to several thousand dollars per violation, depending on the level of negligence involved. In addition to civil penalties, individuals or entities that commit willful violations of HIPAA can also face criminal penalties. These can include fines and even imprisonment for serious infractions, particularly if there is a breach that involves intentional wrongdoing or malicious behavior regarding protected health information. By understanding that both civil and criminal penalties exist, it becomes clear that adherence to HIPAA regulations is critical for healthcare providers and related entities to avoid significant legal repercussions.

2. Why might a sonographer perform an abdominal ultrasound on an emergency basis?

- A. To diagnose chronic liver disease
- B. To quickly assess for conditions like appendicitis or pancreatitis
- C. To evaluate heart function
- D. To monitor fetal growth

Performing an abdominal ultrasound on an emergency basis is often necessary to quickly assess conditions that can lead to severe health complications, such as appendicitis or pancreatitis. These conditions can present with acute abdominal pain and require prompt diagnosis to guide treatment decisions effectively. An abdominal ultrasound is a non-invasive imaging modality that can provide immediate insights into the status of abdominal organs, helping to identify inflammation, fluid accumulation, or organ enlargement indicative of these conditions. In contrast, chronic liver disease, while important for evaluation, typically does not require immediate imaging unless there is a sudden change in the patient's condition. Evaluating heart function generally involves cardiac ultrasound (echocardiography) rather than abdominal ultrasound. Monitoring fetal growth, while vital in obstetric care, is usually not an urgent requirement in the context of acute abdominal issues and is performed specifically during prenatal visits. Thus, the focus in an emergency scenario is primarily on conditions that necessitate rapid diagnosis and intervention, which is why the appropriate choice relates to evaluating acute conditions rather than chronic issues or non-abdominal organ assessments.

3. In ultrasound, what does "motion" primarily refer to regarding temporal resolution?

- A. the speed of the ultrasound probe
- B. the movement of the patient
- C. the visualization of moving structures**
- D. the frequency of the ultrasound

Temporal resolution in ultrasound primarily refers to the system's capability to accurately display moving structures, which is crucial for assessing dynamic processes in the body. When discussing "motion," it is about the ability of the ultrasound to capture changes over time, such as the movement of blood through vessels or the motion of the heart walls. High temporal resolution allows for clearer visualization of these movements and better assessment of physiological functions. In this context, while the speed of the ultrasound probe or the movement of the patient can influence the quality of the imaging, they do not define what "motion" represents in terms of temporal resolution. Similarly, frequency relates more to the resolution and penetration capabilities of the ultrasound rather than the temporal aspect of representation. Therefore, the correct focus on "motion" in this instance is the visualization of moving structures, which is integral to analyzing and interpreting ultrasound results effectively.

4. What control can assist in tissue differentiation or fill in fluid-filled structures in ultrasound imaging?

- A. Harmonic imaging**
- B. Color Doppler
- C. Pulse width
- D. Gain control

Harmonic imaging is the correct choice because it enhances tissue differentiation and improves the visualization of structures in ultrasound imaging. This technique works by using higher frequency sound waves, which can lead to clearer images with a better signal-to-noise ratio. As ultrasound waves travel through the body, they may generate harmonic frequencies that provide additional information about the tissue characteristics. This results in improved resolution of the images, making it easier to differentiate between various types of tissues and to more effectively visualize fluid-filled structures, such as cysts or vessels, within the body. In contrast, color Doppler is primarily used to evaluate blood flow and does not specifically enhance tissue differentiation. Pulse width refers to the duration of the ultrasound pulse, which can influence temporal resolution but does not directly impact tissue differentiation. Gain control is utilized to adjust the overall brightness of the ultrasound image but does not inherently change the quality of tissue differentiation or visualization of specific structures.

5. Which of the following factors can affect ultrasound imaging quality?

- A. Patient's hydration levels**
- B. Ultrasound machine manufacturer
- C. Time of day the ultrasound is performed
- D. Length of the sonographer's hands

The hydration levels of a patient play a crucial role in ultrasound imaging quality due to their impact on the acoustic properties of the tissues being imaged. Proper hydration helps to ensure that the tissues are adequately distended and that there is optimal fluid presence in the body. When a patient is well-hydrated, it enhances the transmission of ultrasound waves through the body, providing clearer images. Conversely, dehydration can result in reduced sound transmission, leading to lower-quality images that may be less informative or more difficult to interpret. Other factors, while potentially influencing the imaging process, do not have the same direct physiological impact on the quality of the ultrasound images as hydration levels do. For example, the manufacturer of an ultrasound machine may affect overall functionality and available features, but it does not directly correlate to the immediate quality of images obtained from a specific patient at a given time. The time of day when the ultrasound is performed generally does not have a tangible effect on the imaging quality, and the length of a sonographer's hands is irrelevant to the technical aspects of conducting an ultrasound. Therefore, patient hydration is the most critical factor among the options listed that directly influences the clarity and diagnostic value of ultrasound images.

6. Are exam presets helpful in optimizing images during an ultrasound exam?

- A. True
- B. False**
- C. Only for certain exams
- D. Depends on the ultrasound machine

Exam presets are indeed helpful in optimizing images during an ultrasound exam. These presets are pre-configured settings on ultrasound machines designed to enhance image quality for specific types of examinations or anatomical regions. By selecting a preset tailored for a particular focus, the operator can streamline the process of achieving high-quality images without needing to manually adjust numerous parameters each time. While there may be debate surrounding the extent of usefulness or flexibility of presets in varying situations, they fundamentally serve to optimize the imaging process. For example, a preset for abdominal scans might enhance contrast and detail for soft tissue, while a different preset could emphasize vascular structures. Each patient's anatomy can present unique challenges, and having the option to use presets generally leads to improved efficiency and effectiveness in image acquisition. Therefore, the notion that exam presets are helpful in image optimization during ultrasounds stands clear, making the assertion that they are not beneficial inaccurate.

7. What is the order of the speed of sound in various materials from slowest to fastest?

- A. solids, liquids, gases, soft tissue
- B. gases, liquids, soft tissue, solids**
- C. liquids, soft tissue, gases, solids
- D. soft tissue, gases, solids, liquids

In the context of sound transmission, the speed of sound varies significantly across different materials due to their physical properties, including density and elasticity. Typically, sound travels the slowest in gases, faster in liquids, and the fastest in solids. Gases have the lowest density and are compressible, which allows sound waves to travel more slowly compared to other states of matter. In liquids, the molecules are more closely packed than in gases, allowing sound to travel faster than in gas but still slower than in solids. When we consider soft tissue, which is primarily made up of liquid and solid components, the speed of sound in soft tissue is generally faster than in gases and slower than in solids. Finally, solids possess the highest density and elasticity, enabling sound to travel at the highest speeds in these materials. The correct order from slowest to fastest is, therefore, gases, liquids, soft tissue, and then solids, accurately represented by the answer provided.

8. What does WRMSD stand for?

- A. Work-related muscular system disorder
- B. Work-related musculoskeletal disorder**
- C. Work-related medical service disorder
- D. None of the above

Work-related musculoskeletal disorder (WRMSD) is a term specifically used to describe conditions that affect the muscles, bones, tendons, ligaments, and nerves, typically resulting from repetitive stress or strain, awkward posture, or excessive force during work-related activities. This term emphasizes the connection between workplace activities and injuries affecting the musculoskeletal system, which can lead to pain and functional impairment. Understanding WRMSDs is critical in fields such as diagnostic medical sonography, where practitioners often perform repetitive tasks or work in positions that may strain their bodies. Recognizing the importance of proper ergonomic practices and taking preventive measures can help mitigate these risks in the workplace, ultimately leading to better health outcomes for professionals in this field. Other choices do not accurately define the term in the context of occupational health, thus reinforcing the significance of the correct answer.

9. What term describes a sonographic appearance with fluid and solid areas within the same mass?

- A. Complex**
- B. Isoechoic
- C. Hypoechoic
- D. Hyperechoic

The term that describes a sonographic appearance with both fluid and solid areas within the same mass is "complex." In the context of sonography, when a mass exhibits both cystic (fluid-filled) and solid components, it is referred to as complex. This appearance is significant because it can influence the diagnostic considerations and potential management of the mass. In contrast, the other terms describe different echogenicity characteristics. Isoechoic refers to a mass that has similar echogenicity to the surrounding tissue, making it difficult to distinguish. Hypoechoic indicates that a structure reflects fewer ultrasound waves compared to surrounding tissues, appearing darker on the sonogram. Hyperechoic, on the other hand, describes a structure that reflects more ultrasound waves, appearing brighter. These terms do not convey the combination of solid and fluid that is central to the concept of a complex mass.

10. True or False: Continuous repetitive motion can contribute to WRMSD.

- A. True**
- B. False
- C. Only in older workers
- D. Only in manual labor jobs

Continuous repetitive motion is indeed associated with workplace-related musculoskeletal disorders (WRMSD). This type of motion places stress on muscles, tendons, and nerves, leading to fatigue and injury over time. Activities that involve similar movements executed repeatedly can result in cumulative trauma, which increases the likelihood of developing conditions such as tendonitis, carpal tunnel syndrome, or other chronic pain issues. Research supports the view that repeated motions—regardless of the worker's age or the specific nature of their job—can contribute significantly to the development of WRMSD. This is why ergonomic assessments in various workplaces aim to minimize repetitive tasks and promote safe working practices to reduce the risks associated with such activities. Ensuring a variety of movements and incorporating rest breaks can mitigate the risk of WRMSD significantly. The other potential answers suggest that WRMSD is only relevant to specific demographics or occupations; however, WRMSD can affect a wide range of workers across various fields and ages due to the fundamental nature of repetitive motion stress.

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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