

# ACSM Certified Exercise Physiologist (EP-C) 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. Which pre-existing condition is considered a positive risk factor only if a person is older than 45 or has a higher BMI?**
  - A. Overweight status**
  - B. Hypertension**
  - C. Prediabetes**
  - D. High cholesterol**
  
- 2. What is emphysema characterized by?**
  - A. Permanently reduced lung volume**
  - B. Hyperplasia of alveolar walls**
  - C. Permanently enlarged airspaces along with necrosis of alveolar walls**
  - D. Decreased surface area for gas exchange**
  
- 3. What is the primary method used to estimate body fat using skinfold measurements?**
  - A. Caliper measurements**
  - B. Bioelectrical Impedance Analysis**
  - C. Body Segment Analysis**
  - D. X-ray Absorptiometry**
  
- 4. Which type of motivation is characterized by internal rewards and is more likely to sustain physical activity?**
  - A. Extrinsic motivation**
  - B. Intrinsic motivation**
  - C. Social motivation**
  - D. Biological motivation**
  
- 5. Which component of physical fitness evaluates the relative amounts of muscle, fat, bone, and other vital parts of the body?**
  - A. Cardiorespiratory endurance**
  - B. Muscular strength**
  - C. Body composition**
  - D. Flexibility**

**6. What influences training volume in resistance training?**

- A. Only the number of sets performed**
- B. Weight lifted**
- C. All aspects: exercises, reps, and sets**
- D. Frequency of training sessions**

**7. In marketing, what does the balance between perceived value and demand determine?**

- A. The quality of the product**
- B. The acceptable profit margin**
- C. The overall customer satisfaction**
- D. The marketing strategy to be employed**

**8. What characterizes isokinetic training?**

- A. Constant angular limb velocity during muscle actions**
- B. Assessment primarily using free weights**
- C. Use of high resistance with low repetitions**
- D. Involvement of balance-based exercises**

**9. What is the recommended rest interval for muscular strength training?**

- A. 30 seconds**
- B. 1 minute**
- C. 2-3 minutes**
- D. 5 minutes**

**10. What is the purpose of conducting physical fitness assessments?**

- A. To diagnose medical conditions**
- B. To evaluate exercise readiness and fitness level**
- C. To prescribe medications for health improvement**
- D. To provide nutritional advice**

## **Answers**

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

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## **Explanations**

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**1. Which pre-existing condition is considered a positive risk factor only if a person is older than 45 or has a higher BMI?**

- A. Overweight status**
- B. Hypertension**
- C. Prediabetes**
- D. High cholesterol**

Prediabetes is recognized as a positive risk factor in the context of cardiovascular risk assessment, particularly as it relates to the age and body mass index (BMI) of the individual. According to established guidelines, prediabetes signifies a state of impaired glucose metabolism that increases the likelihood of developing type 2 diabetes and associated cardiovascular issues. However, prediabetes is classified as a positive risk factor only if the individual is older than 45, reflecting the increased likelihood of comorbidities with advancing age. Additionally, having a higher BMI, which often indicates increased body fat, is linked to a greater risk of developing metabolic syndrome and cardiovascular disease. This dual criterion emphasizes how age and BMI interact to influence health risk, making it specific to this condition. Other conditions, while they may indicate health risks, do not have the same specific age or BMI-related thresholds to be classified as positive risk factors. Overweight status, hypertension, and high cholesterol can contribute to overall risk but are not conditional on being over a certain age or having a higher BMI for their classification as risk factors. Thus, prediabetes stands out in this context due to its specific guidelines surrounding age and body mass index.

**2. What is emphysema characterized by?**

- A. Permanently reduced lung volume**
- B. Hyperplasia of alveolar walls**
- C. Permanently enlarged airspaces along with necrosis of alveolar walls**
- D. Decreased surface area for gas exchange**

Emphysema is characterized by the presence of permanently enlarged airspaces due to the destruction of alveolar walls, which is referred to as necrosis. This destruction leads to a decrease in the overall elasticity of the lung tissue, causing those air spaces to lose their ability to constrict properly. As a result, air becomes trapped in the lungs during exhalation, leading to inefficient gas exchange and contributing to the symptoms commonly associated with this condition, such as shortness of breath. The destruction of alveolar walls critically affects the lung's structure and function, resulting in significant impairment of respiratory mechanics. While other options point to aspects related to lung function, they do not capture the specific pathology of emphysema as accurately as the characterization provided in the correct choice.

**3. What is the primary method used to estimate body fat using skinfold measurements?**

- A. Caliper measurements**
- B. Bioelectrical Impedance Analysis**
- C. Body Segment Analysis**
- D. X-ray Absorptiometry**

The primary method used to estimate body fat using skinfold measurements is through caliper measurements. This technique involves using skinfold calipers to pinch and measure the thickness of skinfolds at specific sites on the body. The rationale behind this method is that the amount of subcutaneous fat can be indicative of total body fat, as subcutaneous fat represents a significant portion of overall body fat. Calipers provide a simple and relatively inexpensive way to collect these measurements, which can then be entered into equations or formulas to estimate body fat percentage. These equations often incorporate factors such as age and gender to enhance the accuracy of the body fat estimation. The other methods listed, such as Bioelectrical Impedance Analysis, Body Segment Analysis, and X-ray Absorptiometry, are distinct techniques not directly related to skinfold measurement. Bioelectrical Impedance Analysis uses electrical conductivity through the body to assess composition, Body Segment Analysis focuses on different body segments for muscle and fat distribution, and X-ray Absorptiometry employs low-level X-rays to determine body composition. While these methods may offer valuable insights into body composition, they do not utilize skinfold caliper measurements as their primary means of estimating body fat.

**4. Which type of motivation is characterized by internal rewards and is more likely to sustain physical activity?**

- A. Extrinsic motivation**
- B. Intrinsic motivation**
- C. Social motivation**
- D. Biological motivation**

Intrinsic motivation is characterized by internal rewards, meaning that individuals engage in an activity for its own sake, enjoying the process, and deriving satisfaction from it. This type of motivation can lead to greater sustained participation in physical activity because it aligns with personal values, interests, and desires. When people are intrinsically motivated, they are more likely to adhere to their exercise routines, as they find personal fulfillment and enjoyment in the activity itself rather than being driven solely by external factors, such as rewards or recognition from others. In contrast, extrinsic motivation often relies on external motivators, such as prizes, social approval, or performance outcomes, which may not be as effective for long-term adherence, especially if those external factors are removed. Similarly, social motivation refers to the influence of social dynamics and relationships on behavior, which might encourage participation but does not inherently foster the internal satisfaction that sustains long-term activity. Lastly, biological motivation is linked to physiological needs and biological drives, which can initiate activity but may not be sufficient for maintaining an ongoing commitment to exercise without the enriching qualities of intrinsic motivation.

**5. Which component of physical fitness evaluates the relative amounts of muscle, fat, bone, and other vital parts of the body?**

- A. Cardiorespiratory endurance**
- B. Muscular strength**
- C. Body composition**
- D. Flexibility**

The correct answer is indeed body composition, which is a key component of physical fitness. Body composition refers to the relative proportions of different substances that make up the body, including muscle, fat, bone, and other vital components. It provides an important insight into an individual's health and fitness status, as it helps to distinguish between lean mass (muscle and bone) and fat mass. Understanding body composition is crucial for evaluating health risks associated with being underweight, overweight, or obese. For instance, individuals with a high percentage of body fat may be at a greater risk for metabolic diseases, whereas those with a higher lean muscle mass may have improved metabolic health and physical performance. Other components of physical fitness, such as cardiorespiratory endurance, muscular strength, and flexibility, focus on different aspects of physical capability and do not directly assess the quantities of muscle, fat, and other body parts. Cardiorespiratory endurance relates to the efficiency of the cardiovascular and respiratory systems during prolonged physical activity. Muscular strength assesses the maximum amount of force that a muscle or group of muscles can generate, while flexibility measures the range of motion in joints. Each of these elements is vital for overall fitness but does not specifically address the makeup of the body's composition as body

**6. What influences training volume in resistance training?**

- A. Only the number of sets performed**
- B. Weight lifted**
- C. All aspects: exercises, reps, and sets**
- D. Frequency of training sessions**

Training volume in resistance training is a comprehensive measure that includes multiple factors to assess the total workload that a person performs during their training sessions. It encompasses the total number of exercises, repetitions, and sets completed within a given workout. Each of these components contributes to the overall training volume and impacts different aspects of muscular strength, hypertrophy, and endurance. Including all aspects—exercises, repetitions, and sets—provides a clear picture of the stimulus placed on the muscles. For instance, performing more sets or increasing the repetition range not only increases the volume but also influences fatigue and muscle adaptation. Additionally, the choice of exercises plays a crucial role as compound movements may involve more muscle groups compared to isolation exercises, further affecting the training volume. Weight lifted, while vital for understanding intensity and progression in resistance training, is just one part of the equation and does not alone define training volume. Frequency of training sessions affects how often an individual trains, which is essential for recovery and adaptation, but does not explicitly measure the amount of work done in each session. Therefore, recognizing that training volume is a multifaceted concept—encompassing exercises, repetitions, and sets—highlights its significance in programming and achieving specific fitness goals.

**7. In marketing, what does the balance between perceived value and demand determine?**

- A. The quality of the product**
- B. The acceptable profit margin**
- C. The overall customer satisfaction**
- D. The marketing strategy to be employed**

The relationship between perceived value and demand is central to understanding how pricing and profit margins are established in marketing. When consumers perceive high value in a product, they are often willing to pay a higher price, which can enhance the acceptable profit margin for that product. Conversely, if demand is low or perceived value diminishes, businesses may need to adjust their pricing strategy to stimulate purchases, thereby affecting profit margins. Recognizing this balance helps marketers strategically set prices that maximize both sales and profitability. For instance, if a product is in high demand but perceived as low value, consumers might be less willing to pay a premium price, leading to a lower profit margin. On the other hand, a product perceived as highly valuable can sustain a higher price point, thereby improving profitability. Overall, understanding the dynamics of perceived value and demand is crucial for determining acceptable profit margins, as this balance will directly influence how much consumers are willing to spend on a product.

**8. What characterizes isokinetic training?**

- A. Constant angular limb velocity during muscle actions**
- B. Assessment primarily using free weights**
- C. Use of high resistance with low repetitions**
- D. Involvement of balance-based exercises**

Isokinetic training is characterized by the maintenance of a constant angular velocity throughout the entire range of motion during muscle contractions. This means that the speed of the movement remains unchanged, regardless of the force exerted by the individual. This type of training is commonly achieved through the use of specialized equipment that adjusts the resistance to match the force applied by the user, ensuring that the velocity remains constant. This characteristic differentiates isokinetic training from other forms of resistance training, which may involve variable speeds and resistance levels, such as free-weight exercises or traditional strength training routines. By maintaining a constant speed, isokinetic training allows for a controlled environment where the strength and endurance of muscles can be assessed and improved more reliably across different phases of motion.

## 9. What is the recommended rest interval for muscular strength training?

- A. 30 seconds
- B. 1 minute
- C. 2-3 minutes**
- D. 5 minutes

The recommended rest interval for muscular strength training is typically 2-3 minutes between sets. This duration allows adequate recovery of the muscles and the nervous system, which is essential for maximizing strength gains during training. Muscular strength training involves lifting heavy weights, and the stress placed on the muscles and the energy systems requires sufficient time to restore energy reserves, particularly ATP and creatine phosphate, which are critical for optimal performance in subsequent sets. Additionally, longer rest intervals are beneficial for avoiding fatigue during sets and maintaining high quality of movement, which is crucial for lifting heavier weights effectively and safely. This recovery period not only helps in maintaining strength output but also prepares the neuromuscular system for the demands of successive high-intensity efforts. Rest intervals shorter than 2 minutes may not provide sufficient recovery, leading to decreased performance and heightened risk of injury due to fatigue. In contrast, while a 5-minute rest may sometimes be beneficial for very heavy lifts or advanced training protocols, it is generally not necessary for standard muscular strength training sessions aimed at hypertrophy or general strength.

## 10. What is the purpose of conducting physical fitness assessments?

- A. To diagnose medical conditions
- B. To evaluate exercise readiness and fitness level**
- C. To prescribe medications for health improvement
- D. To provide nutritional advice

Conducting physical fitness assessments serves the essential purpose of evaluating an individual's exercise readiness and overall fitness level. These assessments provide insights into various components of fitness, such as cardiovascular endurance, muscular strength, flexibility, and body composition. By understanding an individual's baseline fitness level, exercise physiologists can design personalized exercise programs that cater to specific goals and needs. This ensures that individuals engage in safe and effective exercise practices, helping them progress towards better health and fitness outcomes. The assessments also help identify any potential limitations or contraindications to exercise, allowing for the appropriate modifications to be made in exercise prescriptions. This evaluation is crucial for developing a tailored fitness regimen that will facilitate improvements in health and performance while minimizing the risk of injury.

# 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://acsmcertifiedexercisephysiologist.examzify.com>**

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

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