Coronary Artery Bypass Graft (CABG) Surgery Practice Test (Sample)

Study Guide

BY EXAMZIFY

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

1. Which electrolyte disturbance is specifically monitored due to risk of dysrhythmias and muscle weakness after CABG?

A. Hyperkalemia

B. Hypokalemia

C. Hypercalcemia

D. Hyponatremia

2. Which is a strategy for stress reduction as part of risk factor modification?

A. Coping mechanisms

B. Ignore stress

C. Increase caffeine

D. High-sodium intake

3. What is the triglyceride goal in lipid management?

A. Triglycerides <150 mg/dL

B. Triglycerides <200 mg/dL

C. Triglycerides <100 mg/dL

D. Triglycerides <180 mg/dL

4. When is sexual activity typically resumed after CABG?

A. Usually safely resumed once patient can walk one block or climb two flights of stairs w/o symptoms

B. Immediately after surgery

C. After 1 year

D. Only after complete healing shown on imaging

5. Which practice is commonly recommended across lipid, glucose, and blood pressure management for CAD risk reduction?

A. Aerobic exercise

B. High-sodium diet

C. Smoking cessation is the only strategy needed

D. Avoiding all physical activity

6. What is postpericardiotomy syndrome?

A. A postoperative arrhythmia

B. A type of heart failure after CABG

C. An inflammatory reaction involving the pleura & pericardium; cause thought to be autoimmune & may be associated w/ blood remaining in the pericardial sac

D. A bacterial infection of the mediastinal tissue

7. Which finding should be reported immediately in suspected cardiac tamponade?

A. Sudden cessation of chest tube drainage

B. Increased midline chest incisional bleeding

C. Restlessness

D. Pulsus paradoxus

8. What is coronary artery bypass graft (CABG) surgery?

A. A procedure to remove a portion of the heart muscle

B. The most common cardiac surgery in which occluded coronary arteries are bypassed with the patient's own venous or arterial blood vessels, or synthetic grafts

C. A non-surgical treatment using medications only

D. A surgery that widens the aorta

9. If hypotension is due to hypovolemia, which hemodynamic pattern would you expect?

A. CO ↓, CI ↓, CVP ↓, PAP ↓, PAOP ↓, SVR ↑

B. CO ↑, CI ↑, CVP ↓, PAP ↓, PAOP ↓, SVR ↓

C. CO ↓, CI ↓, CVP ↑, PAP ↑, PAOP ↑, SVR ↑

D. CO ↓, CI ↑, CVP ↓, PAP ↑, PAOP ↓, SVR ↑

10. What do bubbles in the water seal chamber indicate?

A. A normal water seal function

B. A chest tube kink or blockage

C. An air leak

D. A clogged suction line

Answers

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

Explanations

1. Which electrolyte disturbance is specifically monitored due to risk of dysrhythmias and muscle weakness after CABG?

A. Hyperkalemia

B. Hypokalemia

C. Hypercalcemia

D. Hyponatremia

Potassium balance is crucial for normal heart rhythm and skeletal muscle function. After CABG, patients commonly lose potassium through urine and other routes, and shifts into cells can occur because of metabolic alkalosis, insulin use, and catecholamines in the perioperative period. This makes low potassium a frequent and serious postoperative issue. Hypokalemia destabilizes the cardiac cell membrane and delays repolarization, increasing the risk of dysrhythmias, and it also weakens skeletal muscles, including those needed for breathing. Because preventing rhythm problems and muscle weakness is a priority during recovery, potassium levels are closely monitored and corrected as needed after CABG.

2. Which is a strategy for stress reduction as part of risk factor modification?

A. Coping mechanisms

B. Ignore stress

C. Increase caffeine

D. High-sodium intake

Managing stress is a part of reducing cardiovascular risk, and coping mechanisms provide practical ways to handle stress without resorting to unhealthy responses. When people have skills for dealing with stress—like deep breathing, mindfulness or relaxation, problem-solving, and drawing on social support—the body's stress response stays more controlled. This supports better adherence to medications, healthier lifestyle choices (diet, exercise, sleep), and overall heart health. By lowering the physiological arousal that stress can trigger, coping strategies help prevent spikes in blood pressure and heart rate that stress can cause. Choosing to ignore stress doesn't lessen the body's response to it and can allow harmful patterns to take over. Increasing caffeine intake can raise heart rate and blood pressure, potentially worsening stress-related effects. High-sodium intake raises blood pressure and fluid retention, which undermines risk-factor modification.

3. What is the triglyceride goal in lipid management?

A. Triglycerides <150 mg/dL

B. Triglycerides <200 mg/dL

C. Triglycerides <100 mg/dL

D. Triglycerides <180 mg/dL

Keeping triglycerides under 150 mg/dL is the standard goal in lipid management because normal fasting triglycerides are below that level, and staying there is associated with lower cardiovascular risk. When triglycerides rise above this threshold, overall ASCVD risk increases and the potential for pancreatitis grows with very high levels, so the aim is to bring them back below 150 mg/dL through lifestyle changes and appropriate therapy. The other thresholds describe higher or more aggressive targets that aren't the universal goal for most patients.

4. When is sexual activity typically resumed after CABG?

A. Usually safely resumed once patient can walk one block or climb two flights of stairs w/o symptoms

B. Immediately after surgery

C. After 1 year

D. Only after complete healing shown on imaging

Sexual activity after CABG is considered safe when you have enough functional capacity to handle moderate exertion without symptoms. The guiding idea is that you're able to perform a basic level of activity, like walking a block or climbing two flights of stairs, without chest pain, shortness of breath, dizziness, or other warning signs. If you can do that comfortably, it suggests your heart and healing sternotomy are ready for the added effort of sex. This approach focuses on how you feel and how your heart responds during activity, not on a fixed calendar or imaging alone. Immediate resumption is not advised due to healing and recovery needs, while waiting a year or requiring imaging-confirmed complete healing isn't necessary. If symptoms occur during activity, or you have other concerns, check with your clinician for personalized guidance.

5. Which practice is commonly recommended across lipid, glucose, and blood pressure management for CAD risk reduction?

A. Aerobic exercise

B. High-sodium diet

C. Smoking cessation is the only strategy needed

D. Avoiding all physical activity

Regular aerobic exercise is commonly recommended because it improves all three major CAD risk factors together. For lipids, aerobic activity tends to raise HDL cholesterol and lower triglycerides, with modest effects on LDL. For glucose management, it enhances insulin sensitivity and glucose uptake by muscles, helping control blood sugar and reduce diabetes risk. For blood pressure, it lowers resting and ambulatory blood pressure and improves vascular function. Collectively, these changes translate into lower overall cardiovascular risk and better management of metabolic and hypertensive components. Guidelines typically advocate regular moderate-intensity aerobic activity (with some vigorous options) several days a week, plus strength training to support long-term benefits. Other choices—like a high-sodium diet or avoiding activity—either worsen these factors or are clearly counterproductive, and smoking cessation, while crucial, is not the sole strategy addressing all three areas at once.

6. What is postpericardiotomy syndrome?

A. A postoperative arrhythmia

B. A type of heart failure after CABG

C. An inflammatory reaction involving the pleura & pericardium; cause thought to be autoimmune & may be associated w/ blood remaining in the pericardial sac

D. A bacterial infection of the mediastinal tissue

Postpericardiotomy syndrome is an inflammatory reaction that occurs after surgical opening or manipulation of the heart, affecting both the pericardium and the adjacent pleura. The condition is thought to be autoimmune in origin, triggered by exposure of cardiac antigens during surgery, and it can be worsened if blood remains in the pericardial sac. Clinically, it presents with chest pain, fever, a pericardial friction rub, and often pleural effusions or pericardial effusion weeks after surgery. It is not a rhythm disturbance, not a form of heart failure from poor pumping, and not a bacterial infection. Treatment focuses on anti-inflammatory therapy, such as NSAIDs and sometimes colchicine, with careful monitoring of effusions.

7. Which finding should be reported immediately in suspected cardiac tamponade?

A. Sudden cessation of chest tube drainage

B. Increased midline chest incisional bleeding

C. Restlessness

D. Pulsus paradoxus

Pulsus paradoxus signals that the heart's filling is being severely limited by pressure in the pericardial sac, which is exactly what happens in tamponade. In tamponade, the increased intrapericardial pressure prevents the ventricles from filling properly, so during inspiration venous return rises but stroke volume falls, producing a marked drop in systolic blood pressure with inspiration—this is pulsus paradoxus. It is a direct, clinically urgent sign that hemodynamics are collapsing, so it should be reported immediately to initiate rapid intervention (such as re-exploration or pericardiocentesis) to relieve the tamponade. While other findings like sudden cessation of chest tube drainage, increased chest incisional bleeding, or restlessness may accompany postoperative issues, they do not specifically indicate evolving tamponade. Sudden chest tube drain cessation could be tube obstruction or other issues; increased bleeding reflects hemorrhage rather than tamponade physiology; restlessness is nonspecific and not diagnostic of tamponade.

8. What is coronary artery bypass graft (CABG) surgery?

A. A procedure to remove a portion of the heart muscle

B. The most common cardiac surgery in which occluded coronary arteries are bypassed with the patient's own venous or arterial blood vessels, or synthetic grafts

C. A non-surgical treatment using medications only

D. A surgery that widens the aorta

CABG is a surgical way to restore blood flow to heart muscle when coronary arteries are blocked. It creates new routes for blood by bypassing narrowed or blocked segments using grafts taken from the patient's own vessels (such as a vein from the leg or an internal mammary artery) or, less commonly, synthetic grafts. These grafts are attached to the aorta or other major vessels and to the coronary arteries beyond the block, so blood can reach the heart muscle that's at risk. This procedure is used when there are significant or multiple blockages and medical therapy alone isn't enough to relieve symptoms or reduce risk. It's often performed with the heart-lung machine to circulate blood while the heart is temporarily stopped, though there are off-pump techniques as well. It's not a procedure to remove heart muscle, not a purely medical treatment with drugs, and not a surgery to widen the aorta.

9. If hypotension is due to hypovolemia, which hemodynamic pattern would you expect?

A. CO ↓, CI ↓, CVP ↓, PAP ↓, PAOP ↓, SVR ↑

B. CO ↑, CI ↑, CVP ↓, PAP ↓, PAOP ↓, SVR ↓

C. CO ↓, CI ↓, CVP ↑, PAP ↑, PAOP ↑, SVR ↑

D. CO ↓, CI ↑, CVP ↓, PAP ↑, PAOP ↓, SVR ↑

When hypotension comes from hypovolemia, the circulating blood volume is reduced, so the heart is underfilled. That means preload drops, which leads to a lower stroke volume and thus a lower cardiac output. The body compensates by constricting the arteries to raise the systemic vascular resistance, helping maintain blood pressure despite the low volume. Filling pressures reflect how much blood is returning to the heart and filling the chambers, so with hypovolemia both right and left filling pressures fall: CVP goes down, PAOP (wedge pressure) goes down, and mean PAP tends to fall as well. Cardiac index mirrors the drop in cardiac output when indexed to body surface area. So the overall pattern you'd expect is: CO decreased, CI decreased, CVP decreased, PAP decreased, PAOP decreased, and SVR increased due to compensatory vasoconstriction. This contrasts with patterns seen in other shock states, where you'd see high filling pressures in cardiogenic shock or low SVR in distributive shock.

10. What do bubbles in the water seal chamber indicate?

A. A normal water seal function

B. A chest tube kink or blockage

C. An air leak

D. A clogged suction line

Bubbles in the water-seal chamber mean air is escaping from the pleural space into the chest-tube system. The water seal is designed to prevent air from flowing back into the chest, so continuous bubbling indicates an air leak somewhere in the system, often from the lung injury or a loose/sealed connection. It's not a sign of normal water-seal function, which would show little or no bubbling. A kinked or blocked chest tube would usually reduce or stop bubbling and impair drainage, while a clogged suction line would affect the suction-control chamber rather than the water seal.

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://cabgsurgery.examzify.com

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