Vascular Techniques Exam 3 Practice (Sample)

Study Guide

Everything you need from our exam experts!

Table of Contents

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. In the BEFAST acronym, what does the letter B stand for?

A. Breathing

B. Blinking

C. Bleeding

D. Balance

2. The vertebral artery typically presents what type of resistance waveform on duplex Doppler examination?

A. High

B. Low

C. Moderate

D. No flow

3. NASCET is an acronym associated with carotid stenosis at what threshold?

A. 80% stenosis

B. 70% stenosis

C. 50% stenosis

D. 30% stenosis

4. Intraplaque hemorrhage results from rupture of which structure?

A. A small vein in the adventitia

B. A small artery within the artery wall or within the plaque

C. The external carotid artery

D. The intimal flap

5. In the BEFAST acronym, what does the letter F stand for?

A. Forehead

B. Face

C. Fingers

D. Feet

6. Which of the following is considered an uncontrollable stroke risk factor?

A. Age

B. Gender

C. Congenital

D. Previous CVA or TIA

7. What is the name of the surgical procedure to remove fatty plaque from the common carotid artery while the patient is under anesthesia?

A. Endarterectomy

B. Atherectomy

C. Angioplasty

D. Bypass

8. Which term describes a stroke lasting longer than 24 hours with permanent damage?

A. CVA (Cerebrovascular Attack)

B. TIA (Transient Ischemic Attack)

C. ICH (Intracerebral Hemorrhage)

D. SAH (Subarachnoid Hemorrhage)

9. Which artery is characteristically associated with a high-resistance waveform?

A. ECA

B. ICA

C. Vertebral artery

D. CCA

10. Which of the following terms describes fainting?

A. Dizziness

B. Seizure

C. Syncope

D. Collapse

Answers

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

Explanations

1. In the BEFAST acronym, what does the letter B stand for?

A. Breathing

B. Blinking

C. Bleeding

D. Balance

BEFAST is used to quickly screen for stroke symptoms. The B stands for Balance, representing a sudden loss of balance or coordination that can occur with a stroke affecting the brain. This helps trigger urgent action since balance changes are a key early warning sign. The other letters correspond to Eyes, Face, Arms, Speech, and Time, guiding what to check and to call emergency services immediately. The other options—Breathing, Blinking, Bleeding—aren't part of this stroke recognition mnemonic, so Balance is the correct meaning for the B.

2. The vertebral artery typically presents what type of resistance waveform on duplex Doppler examination?

A. High

B. Low

C. Moderate

D. No flow

In duplex Doppler, the waveform reflects the downstream impedance of the vascular bed. The brain's circulation is characteristically low resistance because autoregulation maintains relatively continuous flow, leading to forward flow throughout diastole. The vertebral arteries, as part of the posterior cerebral circulation, share this pattern. So you'd expect a low-resistance waveform with forward flow during diastole and a relatively broad systolic peak. If diastolic flow were markedly reduced or reversed, that would raise suspicion for proximal stenosis, subclavian steal, or other downstream resistance issues, not the normal vertebral pattern.

3. NASCET is an acronym associated with carotid stenosis at what threshold?

A. 80% stenosis

B. 70% stenosis

C. 50% stenosis

D. 30% stenosis

NASCET defines significant carotid stenosis using a specific measurement method that compares the narrowed segment to a normal distal portion of the internal carotid artery. According to this approach, severe stenosis is 70% to 99%. This 70% threshold became the criterion for recommending carotid endarterectomy in symptomatic patients because trials showed clear benefit when stenosis reached at least this level. The NASCET calculation uses the residual lumen at the stenosis compared to the normal distal artery lumen to derive the percent narrowing, which is why this threshold is tied to NASCET measurements. It's helpful to note that other measurement methods, like ECST, reference a different diagram and can yield different percentages for the same anatomy, so the 70% cutoff specifically applies to NASCET.

4. Intraplaque hemorrhage results from rupture of which structure?

A. A small vein in the adventitia

B. A small artery within the artery wall or within the plaque

C. The external carotid artery

D. The intimal flap

Intraplaque hemorrhage comes from rupture of the microvasculature that feeds the plaque—the vasa vasorum. These small arteries run within the artery wall and can even be located inside the plaque itself. When they rupture, blood pours into the plaque, expanding it, increasing pressure, and destabilizing the fibrous cap, which accelerates plaque progression and risk of rupture. So the best answer is a tiny artery within the artery wall or plaque. It's not from a vein in the adventitia, nor from the external carotid artery or an intimal flap associated with dissection.

5. In the BEFAST acronym, what does the letter F stand for?

A. Forehead

B. Face

C. Fingers

D. Feet

F stands for Face. In BEFAST, this cue checks for facial droop or asymmetry from unilateral facial weakness, which can occur with a stroke. Have the person smile or show teeth; if one side of the face sags or doesn't move as the other side, that's a warning sign. Recognizing facial weakness quickly helps trigger urgent evaluation and treatment, since time is critical in stroke care. BEFAST also includes Balance, Eyes, Arms, Speech, and Time, but the F component specifically targets facial weakness.

6. Which of the following is considered an uncontrollable stroke risk factor?

A. Age

B. Gender

C. Congenital

D. Previous CVA or TIA

Non-modifiable risk factors are those you can't change through lifestyle or medical treatment. Having had a prior cerebrovascular accident (CVA) or transient ischemic attack (TIA) is such a factor because it's a past event that cannot be undone, yet it leaves you with a higher ongoing risk of another stroke. While we can aggressively manage other risk factors to reduce recurrence (blood pressure, cholesterol, diabetes, antiplatelet therapy, etc.), the fact that a CVA or TIA has already occurred remains a non-changeable predictor of future risk.

7. What is the name of the surgical procedure to remove fatty plaque from the common carotid artery while the patient is under anesthesia?

A. Endarterectomy

B. Atherectomy

C. Angioplasty

D. Bypass

Removing fatty plaque from the carotid artery through an open surgical approach is carotid endarterectomy. This procedure is done under anesthesia because the surgeon needs full control of blood flow and the patient's neurologic status during the operation. The artery is exposed, clamped, and opened to access the plaque. The fatty material is carefully removed from the inner lining, and then the artery is closed, often with a patch to widen the lumen and reduce the chance of restenosis. This approach is distinct from catheter-based options: atherectomy uses a device inserted through the skin to shave or cut away plaque, angioplasty widens the artery with a balloon (often with a stent), and a bypass would reroute blood flow around the blockage rather than removing plaque from the artery itself.

8. Which term describes a stroke lasting longer than 24 hours with permanent damage?

A. CVA (Cerebrovascular Attack)

B. TIA (Transient Ischemic Attack)

C. ICH (Intracerebral Hemorrhage)

D. SAH (Subarachnoid Hemorrhage)

This question tests how to tell apart a transient ischemic attack from a stroke by duration and permanent damage. A Transient Ischemic Attack is a brief disruption of blood flow that resolves within 24 hours and does not cause permanent brain injury. When symptoms persist longer than 24 hours and leave permanent deficits, the event is described as a cerebrovascular accident. Historically, CVA denotes a stroke with irreversible brain injury. The other terms refer to bleeding-related strokes (intracerebral or subarachnoid hemorrhage), which are different categories of stroke, but the defining criterion here is duration with lasting damage, which fits CVA.

9. Which artery is characteristically associated with a high-resistance waveform?

A. ECA

B. ICA

C. Vertebral artery

D. CCA

High-resistance waveforms appear when the downstream vascular beds have higher impedance, producing a sharp, prominent systolic peak with little diastolic flow. The external carotid artery fits this pattern because it supplies the face and scalp, where the downstream vascular beds present higher resistance. That makes its Doppler signal tend to be high-resistance. In contrast, the internal carotid artery feeds the brain, a low-resistance circuit, so its waveform shows substantial diastolic flow and a more continuous profile. The vertebral artery and other cerebral feeders similarly display low-resistance patterns due to their downstream demand for steady brain perfusion. The external carotid artery's characteristic high-resistance waveform is the hallmark you'd expect to see in this context.

10. Which of the following terms describes fainting?

A. Dizziness

B. Seizure

C. Syncope

D. Collapse

Fainting is a brief loss of consciousness caused by a temporary drop in blood flow to the brain. The precise medical term for this is syncope. It captures the key feature: a transient event where consciousness is lost but the person quickly wakes up on their own and returns to baseline without ongoing confusion. Dizziness, by contrast, is only a sensation of lightheadedness or unsteadiness and doesn't involve actually losing consciousness. Seizures involve abnormal electrical activity in the brain and often include convulsions and a postictal period of confusion, making them a different phenomenon from fainting. Collapse is a broader term meaning falling down and can occur with many causes, not all of which involve true loss of consciousness. So, syncope is the most accurate single term for fainting.

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://vasculartechniques3.examzify.com

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