NBME SURGERY SHELF PRACTICE TEST (SAMPLE)

STUDY GUIDE

SAMPLE STUDY GUIDE WITH LIMITED QUESTIONS

VISIT US ONLINE FOR THE FULL VERSION STUDY GUIDE

https://nbmesurgeryshelf.examzify.com

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. The standard operative approach for localized colon cancer includes removal of the tumor with surrounding colon and what additional step?

A. Local polypectomy

B. Colectomy with ileostomy

C. Segmental colectomy with regional lymphadenectomy

D. Total colectomy

2. Which factor most strongly increases the risk of a postoperative wound infection?

A. Obesity

B. Age

C. Smoking

D. Sleep deprivation

3. The most common cause of postoperative ileus is?

A. Hypokalemia

B. Lymphatic and smooth muscle suppression from opioids and surgical stress

C. Mechanical obstruction

D. Dehydration

4. An 8 cm left adrenal mass with irregular borders and high attenuation suggesting a lipid-poor lesion: next step in management?

A. Percutaneous biopsy

B. Observation with interval imaging

C. Open adrenalectomy

D. Laparoscopic adrenalectomy

5. Functional status is assessed using metabolic equivalents (METs). What threshold defines adequate functional capacity?

A. ≥2 METs

B. ≥4 METs

C. ≥6 METs

D. ≥8 METs

6. Which nerve is at risk with a shoulder dislocation?

A. Axillary

B. Median

C. Ulnar

D. Radial

7. Pigmentation around the medial malleolus with a painless ulcer is most consistent with which underlying vascular problem?

A. Arterial insufficiency

B. Venous insufficiency with lipodermatosclerosis

C. Diabetic neuropathy

D. Lymphedema

8. An insidious onset of shin pain in a young athlete after a sudden increase in activity. There is focal tenderness and some surrounding edema. What is the most likely diagnosis and the next step in management?

A. Shin splints; rest and NSAIDs

B. Tibial stress fracture; order a plain film

C. Compartment syndrome; urgent fasciotomy

D. Osteomyelitis; MRI

9. How is pneumoperitoneum most reliably detected in an unstable patient?

A. Free intraperitoneal air on upright radiographs or CT

B. Abdominal ultrasound

C. MRI

D. Lateral decubitus radiographs

10. Splenorrhaphy refers to which intraoperative approach in splenic injury management?

A. Splenorrhaphy is the surgical repair of the spleen to salvage it

B. Emergent splenectomy

C. Angiographic embolization

D. Observation

Answers

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

Explanations

1. The standard operative approach for localized colon cancer includes removal of the tumor with surrounding colon and what additional step?

A. Local polypectomy

B. Colectomy with ileostomy

C. Segmental colectomy with regional lymphadenectomy

D. Total colectomy

In colon cancer the operation aims for an oncologic resection: remove the tumor-bearing segment of colon with adequate margins and remove the regional lymphatic drainage. The lymph nodes along the mesentery are the first sites where cancer can spread, so taking them out as part of the resection serves both curative and staging purposes. This is accomplished with a segmental colectomy that includes the involved colon segment plus its mesentery (regional lymphadenectomy). That combination provides clearance of potential microscopic nodal disease and allows accurate pathologic staging, which guides adjuvant therapy and prognosis. Local polypectomy wouldn't address invasive cancer beyond a surface polyp and could leave nodal disease behind. A colectomy with ileostomy would divert stool and is not the standard reconstruction for a localized lesion unless specific circumstances require diversion. Total colectomy is more extensive than needed for a localized tumor and carries greater morbidity. Therefore, segmental colectomy with regional lymphadenectomy best represents the standard approach.

2. Which factor most strongly increases the risk of a postoperative wound infection?

A. Obesity

B. Age

C. Smoking

D. Sleep deprivation

Smoking exerts the strongest direct impact on the wound bed by compromising oxygen delivery and immune function. Nicotine causes vasoconstriction, reducing blood flow to the surgical site, while carbon monoxide from smoke lowers the amount of oxygen carried by red blood cells. The resulting tissue hypoxia hinders essential processes for wound healing—neutrophil killing of bacteria, collagen synthesis, and new blood vessel formation—leading to slower healing and a higher chance of infection. Although obesity, age, and sleep deprivation can influence infection risk, none affect the wound environment as profoundly as smoking does through these oxygenation and immune defects. Stopping smoking before surgery improves oxygen delivery and immune response, reducing postoperative infection risk.

3. The most common cause of postoperative ileus is?

A. Hypokalemia

B. Lymphatic and smooth muscle suppression from opioids and surgical stress

C. Mechanical obstruction

D. Dehydration

Postoperative ileus happens mainly because the bowel's propulsion is slowed by the combination of opioid use for pain control and the body's response to surgical stress. Opioids bind to μ receptors in the enteric nervous system, which decreases acetylcholine release and dampens coordinated peristaltic contractions. This directly slows intestinal transit. At the same time, surgical manipulation of the gut triggers inflammation and increases sympathetic activity, further suppressing smooth muscle contractility and delaying movement of contents through the intestines. Together, these factors are the most common cause of a temporary ileus after surgery. Dehydration or electrolyte disturbances can worsen the situation, but they are not the primary driver in most patients. A mechanical obstruction presents with different signs (such as persistent severe pain, continuous vomiting, and no passage of gas or stool with abdominal x-ray findings suggesting blockage), rather than a generalized slowdown of motility.

4. An 8 cm left adrenal mass with irregular borders and high attenuation suggesting a lipid-poor lesion: next step in management?

A. Percutaneous biopsy

B. Observation with interval imaging

C. Open adrenalectomy

D. Laparoscopic adrenalectomy

The key idea is that an adrenal mass that is large and has lipid-poor features on imaging carries a high risk of malignancy, so it should be removed with oncologic principles rather than watched or biopsied. Lipid-poor adrenal lesions are more suspicious for adrenocortical carcinoma or metastatic disease than lipid-rich adenomas. At 8 cm, the mass size itself raises concern for malignancy, since larger adrenal tumors have a higher probability of cancer. Irregular borders add to the suspicion because they can reflect invasion or aggressive behavior. Percutaneous biopsy is not the right next step here because it often cannot reliably distinguish benign from malignant adrenal tumors and can carry risks such as bleeding or even tumor seeding along the needle tract. In the setting of a suspected malignancy, the management is typically surgical resection, not diagnosis by biopsy. Open adrenalectomy is favored in this scenario to achieve complete oncologic resection with intact margins and to allow thorough evaluation for invasion and regional lymphatics. While laparoscopic removal is appropriate for many benign lesions or smaller tumors without invasion, an 8 cm lesion with irregular borders and high attenuation strongly argues for an open approach to maximize oncologic control.

5. Functional status is assessed using metabolic equivalents (METs). What threshold defines adequate functional capacity?

A. ≥2 METs

B. ≥4 METs

C. ≥6 METs

D. ≥8 METs

METs gauge how much energy the body uses during activity and serve as a practical measure of functional capacity in preoperative evaluation. Four METs roughly correspond to brisk walking, climbing a flight of stairs, or light cycling—activities most people can perform without symptoms. In surgical risk assessment, having a functional capacity of at least four METs is considered adequate, because it indicates sufficient physiologic reserve and is associated with a lower perioperative cardiac risk. If a patient can only perform activities under four METs, they may have limited cardiac reserve and could need further testing or optimization before surgery. Activities around six or eight METs show even greater exercise tolerance, but the threshold used to define adequacy is four METs. This is why four METs is the best-cutoff choice.

6. Which nerve is at risk with a shoulder dislocation?

A. Axillary

B. Median

C. Ulnar

D. Radial

Nerve most at risk with a shoulder dislocation is the axillary nerve. Its course is right around the surgical neck of the humerus, passing through the quadrangular space with the posterior circumflex humeral artery. In an anterior shoulder dislocation, the head of the humerus can stretch or compress this nerve as it exits the glenohumeral joint. Injury to the axillary nerve leads to weakness of the deltoid and teres minor, so abduction of the arm beyond about the first 15 degrees is lost, and there is often sensory loss over the skin over the lateral shoulder. The other nerves mentioned (median, ulnar, radial) are not routinely at risk from a shoulder dislocation because their courses are more distal or separate from the joint itself.

7. Pigmentation around the medial malleolus with a painless ulcer is most consistent with which underlying vascular problem?

A. Arterial insufficiency

B. Venous insufficiency with lipodermatosclerosis

C. Diabetic neuropathy

D. Lymphedema

Chronic venous insufficiency leads to long-standing venous hypertension that causes leakage of blood components and inflammation in the skin and subcutaneous tissue. The red blood cells leak out and break down, leaving hemosiderin pigment that gives a brownish, pigmented appearance, especially in the dependent "gaiter" zone around the malleoli. Over time this inflammation tightens and hardens the skin and subcutaneous tissue—a process called lipodermatosclerosis. This combination of stasis dermatitis with lipodermatosclerosis creates a predisposition for shallow, painless ulcers to form near the medial malleolus, where edema and venous pressure are greatest. In contrast, arterial ulcers are typically painful, located at the tips of toes or pressure points, and are associated with diminished pulses and pallor on elevation. Diabetic neuropathy ulcers are usually painless but occur on the plantar aspects of the feet due to loss of protective sensation, not specifically around the malleolus. Lymphedema causes swelling with skin changes from chronic edema but is not characteristically described by this pattern of pigmentation with a unilateral venous ulcer.

8. An insidious onset of shin pain in a young athlete after a sudden increase in activity. There is focal tenderness and some surrounding edema. What is the most likely diagnosis and the next step in management?

A. Shin splints; rest and NSAIDs

B. Tibial stress fracture; order a plain film

C. Compartment syndrome; urgent fasciotomy

D. Osteomyelitis; MRI

When a young athlete develops shin pain that starts insidiously after a sudden jump in activity and there is focal tenderness with some surrounding edema, think tibial stress fracture from overuse. The most appropriate next step is to obtain a plain radiograph of the tibia to look for a fracture line or periosteal reaction. While early stress injuries can be radiographically occult, X-rays are the first imaging test to establish the diagnosis; if the film is negative but clinical suspicion remains high, more sensitive imaging such as MRI or bone scan can detect a stress reaction or fracture that isn't yet visible on X-ray. Shin splints tend to cause diffuse, not focal, tibial pain; compartment syndrome presents with severe pain out of proportion to exam, tense swelling, and pain on passive stretch; and osteomyelitis would typically involve systemic signs or risk factors and is not the most likely diagnosis in this presentation.

9. How is pneumoperitoneum most reliably detected in an unstable patient?

A. Free intraperitoneal air on upright radiographs or CT

B. Abdominal ultrasound

C. MRI

D. Lateral decubitus radiographs

In a patient who is unstable, you want the imaging method that most reliably shows free air in the peritoneal cavity to guide urgent management. Free intraperitoneal air rises and collects under the diaphragms, so an upright radiograph of the chest/abdomen can reveal air outlining the under-surface of the diaphragm—this finding is highly specific for pneumoperitoneum. If the patient can be transported and stabilized enough for it, computed tomography is even more sensitive and can detect very small amounts of free air and precisely localize its source, while also identifying other injuries. Ultrasound is fast and portable but far less reliable for detecting small volumes of free air and is highly operator-dependent. MRI is impractical in an emergent setting due to time, availability, and the need for patient stability. If upright imaging isn't possible, a lateral decubitus radiograph can still show free air, but it's not as reliable as an upright view or CT.

10. Splenorrhaphy refers to which intraoperative approach in splenic injury management?

A. Splenorrhaphy is the surgical repair of the spleen to salvage it

B. Emergent splenectomy

C. Angiographic embolization

D. Observation

Splenorrhaphy is the surgical repair of the spleen to salvage it. Intraoperative salvage is pursued when the splenic tissue is viable and bleeding can be controlled with direct repair, hemostatic techniques, or patches (for example, suturing lacerations, repairing the capsule, and using an omental patch) to preserve splenic function. This approach contrasts with removing the spleen (emergent splenectomy), which eliminates the organ; with angiographic embolization, which is a nonoperative radiologic method; and with observation, which involves monitoring without operative repair. Preserving the spleen helps maintain its immunologic roles, reducing the risk of postsplenectomy infections.

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://nbmesurgeryshelf.examzify.com

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