Muscles: Actions, Origins & Insertions Practice Test (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

1. Which muscle adducts the scapula and inserts at the vertebral border of the scapula?

A. Serratus Anterior

B. Trapezius

C. Rhomboid Major

D. Pectoralis Minor

2. Which muscle medially rotates the shoulder?

A. Supraspinatus

B. Biceps Brachii

C. Subscapularis

D. Flexor Carpi Radialis

3. Which muscle originates from the lateral condyle of the tibia and anterior surface of the fibula?

A. Extensor Digitorum Longus

B. Fibularis Longus

C. Tibialis Anterior

D. Vastus Medialis

4. Biceps Femoris origin?

A. Iliac crest

B. Pubic symphysis

C. Greater trochanter

D. Ischial tuberosity

5. Which muscle originates from the coracoid process of the scapula?

A. Biceps Brachii

B. Supraspinatus

C. Subscapularis

D. Teres Major

6. Which muscle inserts on the calcaneus and originates from the femoral condyles?

A. Soleus

B. Tibialis Anterior

C. Gastrocnemius

D. Extensor Digitorum Longus

7. What is the action of the Masseter muscle?

A. Elevates mandible

B. Closes jaw; elevates mandible

C. Depresses larynx

D. Elevates ribs

8. Which muscle primarily abducts and medially rotates the thigh at the hip?

A. Gluteus Medius

B. Sartorius

C. Adductor Longus

D. Rectus Femoris

9. Which muscle originates from ribs 3-5 and protracts the scapula?

A. Latissimus Dorsi

B. Serratus Anterior

C. Pectoralis Minor

D. Rhomboid Major

10. Which muscle flexes and abducts the wrist, originating from the medial epicondyle of the humerus and inserting on the bases of the 2nd and 3rd metacarpals?

A. Brachioradialis

B. Palmaris Longus

C. Subscapularis

D. Flexor Carpi Radialis

Answers

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

Explanations

1. Which muscle adducts the scapula and inserts at the vertebral border of the scapula?

A. Serratus Anterior

B. Trapezius

C. Rhomboid Major

D. Pectoralis Minor

Adduction (retraction) of the scapula is produced by muscles that pull the medial edge of the scapula toward the spine. The rhomboid group does this and specifically attaches along the vertebral (medial) border of the scapula. The rhomboid major inserts on the lower portion of that border and pulls the scapula medially, helping to retract it and downwardly rotate it for stability. The other options don't fit this pattern: serratus anterior pulls the scapula forward and attaches to the anterior surface of the medial border; trapezius retracts the scapula but its insertion is on the spine of the scapula and the acromion, not the vertebral border; pectoralis minor attaches to the coracoid and protracts the scapula. So the muscle that both adducts the scapula and inserts on the vertebral border is the rhomboid major.

2. Which muscle medially rotates the shoulder?

A. Supraspinatus

B. Biceps Brachii

C. Subscapularis

D. Flexor Carpi Radialis

Medial rotation of the shoulder is produced by muscles that pull the humerus inward toward the body. The primary muscle for this action is the subscapularis, a rotator cuff muscle. It originates on the subscapular fossa of the scapula and inserts onto the lesser tubercle of the humerus. When it contracts, it pulls the front of the humerus toward the chest, rotating the arm inward and helping stabilize the glenohumeral joint. Supraspinatus mainly initiates and assists with arm abduction and helps stabilize the head of the humerus, but it does not medially rotate. Biceps brachii can flex the shoulder and forearm supination, but it is not the primary internal rotator of the humerus. Flexor carpi radialis acts at the wrist, not the shoulder, so it has no role in shoulder rotation.

3. Which muscle originates from the lateral condyle of the tibia and anterior surface of the fibula?

A. Extensor Digitorum Longus

B. Fibularis Longus

C. Tibialis Anterior

D. Vastus Medialis

Matching muscle origins to bone surfaces helps you identify which muscle fits the description. Extensor Digitorum Longus has a distinctive origin on both bones of the lower leg: the lateral condyle of the tibia and the anterior surface of the fibula (plus the interosseous membrane). That dual-origin pattern is a hallmark of this muscle and aligns with its role in extending the toes and dorsiflexing the foot, placing it in the anterior compartment of the leg. The other muscles come from different sites: Fibularis Longus originates from the fibula only, Tibialis Anterior originates from the tibia (and interosseous membrane) but not the fibula's anterior surface, and Vastus Medialis originates from the femur. So the described origin clearly points to Extensor Digitorum Longus.

4. Biceps Femoris origin?

A. Iliac crest

B. Pubic symphysis

C. Greater trochanter

D. Ischial tuberosity

The biceps femoris has two heads, and the one that crosses both the hip and knee joints—the long head—originates from the ischial tuberosity, the sit bone. The short head, by contrast, arises from the linea aspera of the femur. This is why the ischial tuberosity is the correct origin for the biceps femoris. Other sites listed correspond to different muscles: the iliac crest attaches to muscles like the tensor fasciae latae and gluteus medius, the pubic symphysis to adductors, and the greater trochanter to gluteus medius/minimus and some external rotators.

5. Which muscle originates from the coracoid process of the scapula?

A. Biceps Brachii

B. Supraspinatus

C. Subscapularis

D. Teres Major

Origin from the coracoid process means the muscle starts at that projection on the front of the scapula. The biceps brachii has two heads: the short head attaches to the coracoid process, while the long head attaches to the supraglenoid tubercle. The other muscles attach elsewhere—supraspinatus comes from the supraspinous fossa, subscapularis from the subscapular fossa, and teres major from the inferior angle of the scapula. So the muscle that originates from the coracoid process is the biceps brachii (short head).

6. Which muscle inserts on the calcaneus and originates from the femoral condyles?

A. Soleus

B. Tibialis Anterior

C. Gastrocnemius

D. Extensor Digitorum Longus

The key idea is matching where a muscle starts with where it ends. The muscle that starts from the medial and lateral femoral condyles and ends on the calcaneus is the gastrocnemius. Its two heads originate on the femoral condyles, and it travels via the Achilles tendon to insert on the heel bone, making it a powerful plantarflexor of the foot (and a knee flexor when the leg is straight). The other muscles don't fit: the soleus also ends on the calcaneus but originates from the tibia and fibula, not the femoral condyles. The tibialis anterior and extensor digitorum longus originate in the tibia/fibula and insert on bones of the foot rather than the calcaneus, so they don't meet the given origin.

7. What is the action of the Masseter muscle?

A. Elevates mandible

B. Closes jaw; elevates mandible

C. Depresses larynx

D. Elevates ribs

The Masseter's main role is to close the jaw by elevating the mandible. It runs from the zygomatic arch to the mandible, so when it contracts, it lifts the lower jaw to bring the teeth together, which is the primary mechanism of biting. Its fibers can also help protrude the jaw slightly for a stronger bite, but the essential action you're being tested on is elevating the mandible to close the mouth. Depressing the larynx and elevating ribs are actions of other muscles, not the masseter, so the description that includes both closing the jaw and elevating the mandible best matches its function.

8. Which muscle primarily abducts and medially rotates the thigh at the hip?

A. Gluteus Medius

B. Sartorius

C. Adductor Longus

D. Rectus Femoris

The main action being tested is identifying the muscle that both moves the thigh away from the midline (abduction) and turns the thigh inward (medial rotation). The gluteus medius is the primary hip abductor, lying on the outer surface of the pelvis and attaching to the greater trochanter. Its fibers pull the femur laterally to abduct the hip, and the anterior portion of the muscle medially rotates the thigh, especially when the hip is flexed. This combination matches the description of abducting and medially rotating the thigh most effectively. The other muscles don't fit as well. Sartorius mainly assists with hip flexion, abduction, and external rotation, plus knee actions, but it isn't the primary abductor or medial rotator. Adductor longus adducts the thigh, not abduct; rectus femoris primarily flexes the hip and extends the knee, not medially rotates.

9. Which muscle originates from ribs 3-5 and protracts the scapula?

A. Latissimus Dorsi

B. Serratus Anterior

C. Pectoralis Minor

D. Rhomboid Major

Protracting the scapula is about pulling the shoulder blade forward against the chest wall. The muscle that starts on ribs 3 to 5 and pulls the scapula forward is the pectoralis minor. It runs from the anterior surfaces of ribs 3–5 to the coracoid process of the scapula, and when it contracts it draws the scapula forward and downward, helping to stabilize the shoulder girdle. Serratus anterior also protracts the scapula, but it originates from a broader region (ribs 1–9), not specifically 3–5. Latissimus dorsi does not protract the scapula; it acts on the humerus. Rhomboid major retracts the scapula rather than protracting it.

10. Which muscle flexes and abducts the wrist, originating from the medial epicondyle of the humerus and inserting on the bases of the 2nd and 3rd metacarpals?

A. Brachioradialis

B. Palmaris Longus

C. Subscapularis

D. Flexor Carpi Radialis

The muscle that flexes the wrist and abducts it is the one that both originates from the medial epicondyle of the humerus and inserts on the bases of the second and third metacarpals. Flexor carpi radialis fits this exactly: it arises from the medial epicondyle via the common flexor tendon, and its tendon inserts on the bases of the second and third metacarpals, enabling flexion of the wrist with radial (thumb-side) deviation. This action differentiates it from other contenders: brachioradialis mainly flexes the elbow and doesn't originate from the medial epicondyle or insert on the metacarpals; palmaris longus also comes from the medial epicondyle but inserts into the palmar aponeurosis rather than metacarpals and doesn't contribute to wrist abduction; subscapularis is a shoulder muscle with no role in wrist movement.

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://musclesactionoriginsinsertions.examzify.com

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