Muscle Actions and Functions – Anatomy and Movement 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 abducts the hip and medially rotates the hip?

A. Gluteus Medius

B. Adductor Longus

C. Sartorius

D. Iliopsoas

2. Which muscle is considered the primary elevator of the corner of the mouth (smile)?

A. Zygomaticus Major

B. Frontalis

C. Orbicularis Oculi

D. Orbicularis Oris

3. Which muscle extends and adducts the wrist?

A. Extensor Carpi Ulnaris

B. Extensor Carpi Radialis Longus

C. Extensor Digitorum

D. Flexor Carpi Ulnaris

4. Which muscle protracts the shoulder and rotates the glenoid cavity superiorly when the scapula is fixed?

A. Serratus Anterior

B. Latissimus Dorsi

C. Subscapularis

D. Frontalis

5. Which muscle abducts the shoulder?

A. Supraspinatus

B. Latissimus Dorsi

C. Subscapularis

D. Serratus Anterior

6. Which muscle shapes and compresses the lips as in whistling or kissing?

A. Orbicularis Oris

B. Zygomaticus Major

C. Frontalis

D. Orbicularis Oculi

7. Which muscle abducts the shoulder when all parts act together?

A. Deltoid

B. Supraspinatus

C. Infraspinatus

D. Latissimus Dorsi

8. Which muscle is located on the lateral side of the leg and contributes to foot eversion?

A. Gracilis

B. Piriformis

C. Fibularis Longus

D. Soleus

9. Which muscle provides hip adduction, flexion, and medial rotation?

A. Adductor Longus

B. Adductor Magnus

C. Gluteus Medius

D. Sartorius

10. Which muscle flexes the elbow, flexes the shoulder, and assists supination?

A. Biceps Brachii

B. Triceps Brachii

C. Brachialis

D. Brachioradialis

Answers

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

Explanations

1. Which muscle abducts the hip and medially rotates the hip?

A. Gluteus Medius

B. Adductor Longus

C. Sartorius

D. Iliopsoas

When a muscle both abducts the hip and medially rotates it, the gluteus medius is the best fit. It sits on the outer hip and is the primary hip abductor, with the anterior fibers capable of medially rotating the thigh as the hip flexes. This combination explains why it can perform both actions together. The other muscles don't match both actions as the primary role: adductor longus mainly pulls the thigh inward (adduction), iliopsoas is a powerful hip flexor, and the sartorius primarily flexes the hip while producing abduction and lateral rotation rather than medial rotation.

2. Which muscle is considered the primary elevator of the corner of the mouth (smile)?

A. Zygomaticus Major

B. Frontalis

C. Orbicularis Oculi

D. Orbicularis Oris

The action being tested is which muscle mainly lifts the corner of the mouth when you smile. The zygomaticus major is the best answer because it runs from the zygomatic bone to the corner of the mouth and, when it contracts, pulls the mouth corner upward and outward, producing a smile. The other muscles have different jobs: frontalis raises the eyebrows, orbicularis oculi closes the eyes, and orbicularis oris encircles the lips to close or purse them. The zygomaticus major provides the primary lift of the mouth corner, making the smile happen.

3. Which muscle extends and adducts the wrist?

A. Extensor Carpi Ulnaris

B. Extensor Carpi Radialis Longus

C. Extensor Digitorum

D. Flexor Carpi Ulnaris

Extending the wrist while pulling the hand toward the pinky side is done by a muscle on the back of the forearm that reaches the base of the fifth metacarpal. Extensor carpi ulnaris performs both actions: it extends the wrist and adducts it (ulnar deviation), especially when the wrist is in extension. This combination matches the described movement. The other muscles either don't extend and adduct together or don't extend at all. Extensor carpi radialis longus extends the wrist but tends to abduct (radial deviation) rather than adduct. Extensor digitorum extends the fingers and assists with wrist extension but not adduction. Flexor carpi ulnaris adducts the wrist when flexed but is a flexor, not an extensor, so it doesn't fit the action described.

4. Which muscle protracts the shoulder and rotates the glenoid cavity superiorly when the scapula is fixed?

A. Serratus Anterior

B. Latissimus Dorsi

C. Subscapularis

D. Frontalis

Protracting the shoulder blade and upwardly rotating the glenoid cavity when the scapula is fixed is the job of the serratus anterior. This muscle attaches to the ribs and the medial border of the scapula; when it contracts, it pulls the scapula forward along the rib cage (protraction) and rotates the scapula so the glenoid cavity tilts upward. That upward rotation is what allows the arm to be raised and the shoulder to move efficiently through a full range of motion. The other muscles listed don't produce this combination: latissimus dorsi mainly moves the arm itself (extension, adduction, internal rotation) rather than the scapula; subscapularis is a rotator cuff muscle that medially rotates and stabilizes the humerus; and the frontalis is a facial muscle with no role in shoulder girdle movement.

5. Which muscle abducts the shoulder?

A. Supraspinatus

B. Latissimus Dorsi

C. Subscapularis

D. Serratus Anterior

The muscle that initiates shoulder abduction is the supraspinatus. It sits in the supraspinous fossa and runs under the acromion to attach to the greater tubercle of the humerus. When it contracts, it pulls the humeral head into the glenoid and lifts the arm through the first roughly 15 degrees of abduction, acting as the starter before the deltoid takes over for the higher range. Other muscles in the mix: latissimus dorsi and teres major mainly contribute to extending, adducting, and medially rotating the humerus rather than abducting. Subscapularis medially rotates the arm. Serratus anterior helps upwardly rotate and stabilize the scapula to permit full arm elevation, but it is not the primary shoulder abductor at the glenohumeral joint.

6. Which muscle shapes and compresses the lips as in whistling or kissing?

A. Orbicularis Oris

B. Zygomaticus Major

C. Frontalis

D. Orbicularis Oculi

The muscle that shapes and compresses the lips is the orbicularis oris. This circular muscle surrounds the mouth like a ring, acting as a sphincter. When it contracts, it tightens and purses the lips, allowing you to press them together, protrude them, or puck-er—motions essential for whistling and kissing. Because it encircles the mouth, its primary action is to close and shape the lip opening rather than lift the mouth corners. Other nearby muscles have different roles—for example, the zygomaticus major lifts the corners of the mouth in smiling, the frontalis raises the eyebrows, and the orbicularis oculi closes the eyelids. But for shaping and compressing the lips, the orbicularis oris is the key muscle.

7. Which muscle abducts the shoulder when all parts act together?

A. Deltoid

B. Supraspinatus

C. Infraspinatus

D. Latissimus Dorsi

Abduction of the shoulder is produced mainly by the deltoid, especially the middle fibers, which lift the arm away from the body once the movement has begun. The supraspinatus starts the act and keeps the humeral head centered, but when all parts are working together, the deltoid does the bulk of the lifting. The other muscles listed don't serve as the primary abductors: the infraspinatus mainly externally rotates and stabilizes the shoulder, while latissimus dorsi pulls the arm downward and inward (adduction and internal rotation). So the deltoid is the best answer for the muscle that abducts the shoulder when all parts act together.

8. Which muscle is located on the lateral side of the leg and contributes to foot eversion?

A. Gracilis

B. Piriformis

C. Fibularis Longus

D. Soleus

The main idea here is understanding which muscle in the lateral leg group drives foot eversion. The fibularis longus sits on the outer (lateral) side of the leg, its tendon winds behind the lateral malleolus and under the foot to insert on the base of the first metatarsal and the medial cuneiform. From that position, it everts the foot at the subtalar joint and assists plantarflexion at the ankle. Its tendon also helps support the arches of the foot as it crosses under the sole, linking the lateral leg to the medial side of the foot. The other muscles listed are located in different regions or have different primary roles (gracilis in the medial thigh as an adductor, piriformis in the hip region as an external rotator, and soleus in the posterior leg mainly a plantarflexor). Thus, the fibularis longus best fits being on the lateral leg and contributing to foot eversion.

9. Which muscle provides hip adduction, flexion, and medial rotation?

A. Adductor Longus

B. Adductor Magnus

C. Gluteus Medius

D. Sartorius

The actions together point to a muscle in the medial compartment that pulls the thigh toward the midline while also assisting hip flexion and inward rotation. Adductor Longus fits this profile well: it lies on the front part of the medial thigh, and its fibers primarily cause hip adduction. Because it is located anteriorly, it also assists hip flexion, and when the hip is flexed, it can contribute to medial (inward) rotation of the thigh. Adductor Magnus has an adductor part that adducts and can flex, but its other part extends the hip, so it doesn't consistently provide all three actions together. Gluteus medius mainly abducts the thigh (with medial rotation as a secondary action when the hip is flexed), not adduction. Sartorius flexes the hip and knee and laterally rotates the thigh, but it does not produce hip adduction.

10. Which muscle flexes the elbow, flexes the shoulder, and assists supination?

A. Biceps Brachii

B. Triceps Brachii

C. Brachialis

D. Brachioradialis

When a muscle crosses two joints and can produce actions at both, it becomes a versatile mover. The biceps brachii fits this pattern: it crosses the shoulder and elbow joints, allowing actions at both. Its two heads originate on the scapula and converge to insert on the radius. At the elbow, the biceps brachii is a powerful flexor, pulling the forearm toward the upper arm. It also functions as a prime forearm supinator when the elbow is flexed, because its contraction rotates the radius to turn the palm upward. Crossing the shoulder, its fibers can contribute to shoulder flexion, giving a secondary shoulder action in addition to its elbow work. So it best matches all three movements: elbow flexion, shoulder flexion, and assisting supination. The other muscles don't fit all three actions. The triceps brachii extends the elbow and can assist shoulder movements, but it does not flex the elbow. The brachialis is a strong elbow flexor but stays entirely at the elbow and does not influence supination or shoulder motion. The brachioradialis flexes the elbow mainly in a mid-position of forearm rotation and does not cross the shoulder or contribute to forearm rotation.

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://muscleanatomyandmovement.examzify.com

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