Without the skeletal muscular system, the bones that we learned in the previous unit would be unable to move. Our bodies are equipped with some 600 skeletal muscles to not only put those 206 bones into motion, but also to generate as much as 85% of our body heat, maintain our posture, control the openings involved with the entrance and exit of materials, and to express our emotions and thoughts through movements of our facial muscles.

Three important structural terms to understand as you begin your study of the skeletal muscular system are a muscle’s **origin**, **insertion**, and **belly**. Most muscles are attached to different bones at each end. This assures that each muscle or its tendon will span at least one joint. When a muscle contracts, it causes movement where one bone remains relatively stationary and the other bone will move. The end of the muscle attached to the relatively stationary bone is called the **origin**, while the end of the muscle attached to the moving bone is called the **insertion**. One way to remember the difference is to think of your birthplace, your **origin**. No matter where you may move throughout your life, your **origin** remains the same – it *doesn’t move*! You may **insert** yourself at several locations throughout your life—away to college, a job in a different town, and so on. These require *moving*! Also, many muscles are narrow at each end, their origin and insertion, and thick in the middle. This thicker middle region is called the **belly**.

**Animation: Skeletal Muscle**

Before beginning the following exercises, view the *Anatomy and Physiology Revealed* animation covering the anatomy of skeletal muscle.

- Insert Anatomy and Physiology Revealed *Skeletal / Muscular* CD.
- Click on the **ANIMATIONS** button.
- In the **Select topic** menu, select **Anatomy**.
- From the **Select animation** menu, select **Skeletal muscle**.
- Click the **Play** button and the animation will run in the window.
- When you are finished viewing the animation, click on the **Dissection** button at the bottom of the screen to begin the next exercises, or click on the **EXIT** button at the bottom right of the screen to exit *Anatomy and Physiology Revealed*.

*Anatomy and Physiology Revealed* has several animations available to aid your study of different systems. Watch for the Animation button at the bottom of the screen to be highlighted, which indicates that an animation is available for the specific structure(s) you are viewing.

**MUSCULAR SYSTEM: HEAD AND NECK**

**EXERCISE 3.1:** Skeletal Muscle—Head and Neck, Anterior View

- Insert Anatomy and Physiology Revealed *Skeletal / Muscular* CD, or, if you are still in the Animation section, click the Dissection
button at the bottom of the screen, and skip the next step.

- In the Home screen, select the **Dissection** button in the left portion of the screen. You may click either on the **Dissection** button or on the word itself.
- On the **SELECT A VIEW** window that appears, click on the **Select region** button.
- Choose **Head and neck** from the menu.
- The **Select view** menu will now become available. Click here and choose the **Anterior** view.
- The **GO** button will now flash green. Click on it, and the screen at right will appear.
- Click on **TAG 1**, and the following screen will appear:

Mouse-over the blue pins on the screen to find the information necessary to fill in the following blanks:

A. ____________________________
B. ____________________________
C. ____________________________

**CHECK POINT:**

**Head and Neck, Anterior View**

1. Name the ridge superior to each orbit on the anterior side.
2. What bone is that ridge part of?
3. What is the name of the shallow midline groove of the upper lip?

- Now click on **TAG 2** and the following image will appear:
• Mouse-over the blue pins on the screen to find the information necessary to fill in the following blanks:

A. _______________________________________
B. _______________________________________
C. _______________________________________
D. _______________________________________
E. _______________________________________
F. _______________________________________
G. _______________________________________
H. _______________________________________
I. _______________________________________

C H E C K P O I N T:

Head and Neck, Anterior View, cont’d

4. Name the muscle that closes the eye when winking or blinking.
5. Name the muscle responsible for compression of the cheek as in inflating a balloon or playing a wind instrument.
6. Name the muscle that closes and protrudes the lips.

• Now click on TAG 3, and the following image will appear:

• Mouse-over the blue pins on the screen to find the information necessary to fill in the following blanks:

A. _______________________________________
B. _______________________________________
C. _______________________________________
D. _______________________________________
E. _______________________________________
F. _______________________________________

C H E C K P O I N T:

Head and Neck, Anterior View, cont’d

7. Name two muscles whose insertion is the hyoid bone.
8. Name the muscle responsible for depression of the angle of the mouth to grimace.
9. Name the muscle responsible for depression of the lower lip while pouting.

• Now click on TAG 4, and the following image will appear:
• Mouse-over the blue pins on the screen to find the information necessary to fill in the following blanks:

A. _______________________________________
B. _______________________________________
C. _______________________________________
D. _______________________________________
E. _______________________________________
F. _______________________________________

CHECK POINT:

Head and Neck, Anterior View, cont’d

10. The roots of the brachial plexus are located between the anterior and posterior _________ muscles.
11. Name a muscle responsible for elevation of the larynx and depression of the hyoid bone.
12. Name the four infrahyoid muscles.

Correlated Animations: Frontalis, Levator Labii Superioris Alaeque Nasi, Orbicularis Oculi, Orbicularis Oris, and Sternocleidomastoid

• Click on the ANIMATIONS button at the bottom of the screen.
• In the Select topic menu, select Muscle actions.
• In the Select animation menu, select and view the following animations:
  – Frontalis
  – Levator labii superioris alaeque nasi
  – Orbicularis oculi
  – Orbicularis oris
  – Sternocleidomastoid

EXERCISE 3.2: Skeletal Muscle—Head and Neck, Lateral View

• Insert Anatomy and Physiology Revealed Skeletal / Muscular CD, or, if you are still in the Animation section, click the Dissection button at the bottom of the screen, and skip the next step.

• In the Home screen, select the Dissection button in the left portion of the screen. You may click either on the Dissection button or on the word itself.
• On the SELECT A VIEW window that appears, click on the Select region button.
• Choose Head and neck from the menu.
• The Select view menu will now become available. Click here and choose the Lateral view.
• The Go button will now flash green. Click on it, and the head and neck lateral view screen will appear.
• Click on TAG 1, and the following image will appear:

C H E C K  P O I N T:

Head and Neck, Lateral View

1. What location on the mandible provides an attachment site for the masseter muscle?
2. What other muscle attaches at this point?
CHECK POINT:

Head and Neck, Lateral View, cont’d

3. Name the muscle responsible for elevation of the upper lip in a sneer.
4. Name the two muscles responsible for elevation of the upper lip in a smile.
5. Name the muscle that elevates and creases the skin of the neck as well as depresses the lower lip and the angle of the mouth.

Click on TAG 2, and the following screen will appear:

Click on TAG 3, and the following screen will appear:

Mouse-over the blue pins on the screen to find the information necessary to fill in the following blanks:

A. _______________________________________
B. _______________________________________
C. _______________________________________
D._______________________________________
E. _______________________________________
F.________________________________________
G._______________________________________
H._______________________________________
I.________________________________________
J.________________________________________
K. _______________________________________
**CHECK POINT:**

Head and Neck, Lateral View, cont’d

6. Name a muscle with two bellies (superior and inferior) joined by an intermediate tendon.
7. What is a raphe?
8. What is the “kissing muscle”?

- Click on TAG 4, and the following screen will appear:

![Image](image1.png)

- Mouse-over the blue pins on the screen to find the information necessary to fill in the following blanks:

A. ___________________________________
B. ___________________________________
C. ___________________________________
D. ___________________________________
E. ___________________________________
F. ___________________________________
G. ___________________________________
H. ___________________________________
I. ___________________________________
J. ___________________________________
K. ___________________________________
L. ___________________________________

**CHECK POINT:**

Head and Neck, Lateral View, cont’d

9. Name a muscle responsible for the protrusion of the mandible.
10. Name a muscle responsible for the elevation of the scapula, as in shrugging the shoulders.
11. Name the muscle involved in abduction of the eyeball.

- Click on TAG 5, and the following screen will appear:

![Image](image2.png)

- Mouse-over the blue pins on the screen to find the information necessary to fill in the following blanks:

A. ___________________________________
B. ___________________________________
C. ___________________________________
D. ___________________________________
E. ___________________________________
CHECK POINT:
Head and Neck, Lateral View, cont’d
12. Name the muscle involved with adduction of the eyeball.
13. Name the muscle whose tendon passes through a trochlea.
14. Which muscle allows you to stick out your tongue?

Correlated Animations: Frontalis, Levator Labii Superiors Alaeque Nasi, Orbicularis Oculi, Orbicularis Oris, and Sternocleidomastoid

- Click on the ANIMATIONS button at the bottom of the screen.
- In the Select topic menu, select Muscle actions.
- In the Select animation menu, select and view the following animations:
  - Frontalis
  - Levator labii superiors alaeque nasi
  - Orbicularis oculi
  - Orbicularis oris
  - Sternocleidomastoid

EXERCISE 3.3: Skeletal Muscles—Head and Neck, mid-Sagittal view

- Insert Anatomy and Physiology Revealed Skeletal/Muscular CD, or, if you are still in the Animation section, click the DISSECTION button at the bottom of the screen, and skip the next step.
- In the Home screen, select the Dissection button in the left portion of the screen. You may click either on the Dissection button or on the word itself.
- On the SELECT A VIEW window that appears, click on the Select region button.
- Choose Head and neck from the menu.

CHECK POINT:
Mid-Sagittal View
1. Name the muscular structure that separates the oropharynx from the nasopharynx.
2. Name a muscle that blends with the musculature of the tongue.
EXERCISE 3.4: Skeletal Muscle—Head and Neck, Posterior View

- Insert Anatomy and Physiology Revealed Skeletal / Muscular CD, or, if you are already in the Dissection section, click the CHANGE VIEW at the top of the screen, and skip the next step.

- In the Home screen, select the Dissection button in the left portion of the screen. You may click either on the Dissection button or on the word itself.

- In the SELECT A VIEW window that appears, click on the Select region button.

- Choose Head and neck from the menu, if it’s not already selected.

- The Select view menu will now become available. Click here and choose the Posterior view.

- The GO button will now flash green. Click on it, and the posterior view will appear.

- Click on TAG 1, and the following screen will appear:

- Mouse-over the blue pins on the screen to find the information necessary to fill in the following blanks:
  A. _______________________________________
  B. _______________________________________
  C. _______________________________________
  D._______________________________________

CHECK POINT: Head and Neck, Posterior View, cont’d

3. Name two muscles attached to the nuchal ligament.
4. Name the two origins and the one insertion for the sternocleidomastoid muscle.
5. Name the large superficial muscle located from the posterior neck to the shoulders and the posterior midline.
Mouse-over the blue pins on the screen to find the information necessary to fill in the following blanks:

A. _______________________________________

B. _______________________________________

C. _______________________________________

Click on TAG 6, and the following screen will appear:

Mouse-over the blue pins on the screen to find the information necessary to fill in the following blanks:

A. _______________________________________

B. _______________________________________
IN REVIEW

Self-Test
• From the opening screen or the present screen, click on the SELF-TEST button.
• From the Select test topic menu, select Muscles.
• From the Select region menu, select Head and neck.
• From the Select test type menu, select Multiple choice.
• Answer the questions listed, and when finished, click on the END TEST button.
• You can save your results to document your progress as you learn the structures in Anatomy and Physiology Revealed by clicking the SAVE RESULTS button.

• Now click Take new test and clear results, and select Muscles.
• Again, click Head and neck.
• Click Structure identification.
• Answer the questions listed, and when finished, click on the END TEST button.
• Again, you can save your results to document your progress as you learn the structures in Anatomy and Physiology Revealed by clicking the SAVE RESULTS button.

IN REVIEW

What Have I Learned?

The following questions cover the material that you have just learned: the muscles of the head and neck. Use the STRUCTURE INFORMATION to answer these questions:

1. Name a muscle responsible for elevation of the larynx.

2. Name the muscle that flares the nostrils.

3. The scapula is elevated by which muscles?

4. When this muscle contracts, the head rotates so that the face turns downward and to the opposite side.

5. Name three muscles responsible for closing the mouth.

6. Name three muscles responsible for depression of the hyoid bone.

7. What muscle is responsible for flexion of the head to look downward?

8. Name the group of muscles responsible for the peristaltic waves of swallowing.

9. Name three muscles involved in moving the tongue.

10. Name the muscle involved in elevating the eyebrow and creasing the skin of the forehead.

11. Name a muscle responsible for depression of the larynx.

12. There is a muscle complex that lies deep to the scalp from the forehead to the posterior skull. What is the name of that complex, and the two muscles that it is made of?

13. List all of the muscles involved with eye movement, and describe the movement involved with each muscle.

14. Name the anatomical structure commonly called the “chin.”
MUSCULAR SYSTEM:
Trunk, Shoulder Girdle, and Upper Limb

EXERCISE 3.5: Skeletal Muscle—Thorax, Anterior View

- Insert Anatomy and Physiology Revealed Skeletal / Muscular CD, or, if you are still in the Dissection section, click the CHANGE VIEW button at the top of the screen, and skip the next step.

- In the Home screen, select the Dissection button in the left portion of the screen. You may click either on the Dissection button or on the word itself.

- In the SELECT A VIEW window that appears, click on the Select region button.

- Choose Thorax from the menu.

- The Select view menu will now show Anterior view.

- The GO button will flash green. Click on it, and the screen at right will appear.

- Click on TAG 1 and the following screen will appear:

- Mouse-over the blue pins on the screen to find the information necessary to fill in the following blanks:
  A. ____________________________
  B. ____________________________
  C. ____________________________
  D. ____________________________

CHECK POINT:
Thorax, Anterior View
1. What is the name for the inferior border of costal cartilages 7–10?
2. What structures attach to this location?
3. What are the two names for the shallow notch in the superior border of the manubrium, visible superficially?
CHAPTER 3  The Muscular System

• Click on TAG 2 and the following screen will appear:

![Image of thorax, anterior view]

• Mouse-over the blue pins on the screen to find the information necessary to fill in the following blanks:

A. _______________________________________
B. _______________________________________
C. _______________________________________
D. _______________________________________
E. _______________________________________

CHECK POINT:
Thorax, Anterior View, cont’d

4. Name the muscle involved with adduction, extension, and medial rotation of the humerus.
5. Name the muscle involved with abduction, flexion, extension, lateral, and medial rotation of the humerus.
6. What is the name for the fibrous compartment enclosing the rectus abdominis muscle?

• Click on TAG 3, and the following screen will appear:

![Image of thorax, anterior view]

• Mouse-over the blue pins on the screen to find the information necessary to fill in the following blanks:

A. _______________________________________
B. _______________________________________
C. _______________________________________
D. _______________________________________

CHECK POINT:
Thorax, Anterior View, cont’d

7. Name the muscle that consists of three to four bellies, separated by tendinous intersections.
8. Name the muscle with its origin at the medial clavicle and the manubrium of the sternum and its insertion at the mastoid process.
9. Name the muscle that stabilizes the scapula and is involved in its lateral rotation.


**IN REVIEW**

**What Have I Learned?**

The following questions cover the material that you have just learned—the muscles of the thorax. Use the **STRUCTURE INFORMATION** for the muscles you have learned in answering these questions:

1. Name the structure formed by the tendons of three abdominal muscles.

2. Name the three primary muscles of respiration.

3. Name the muscle responsible for the adduction, extension, and medial rotation of the humerus.

4. Name the two muscles that stabilize the scapula.

5. Name the muscle that is the site of intramuscular injections of the arm.

---

**Correlated Animations: Deltoid, Rectus Abdominis, and Sternocleidomastoid**

- Click on **TAG 4**, and the following screen will appear:

- Mouse-over the blue pins on the screen to find the information necessary to fill in the following blanks:
  
  A. __________________________
  
  B. __________________________

- Click on the ANIMATIONS button at the bottom of the screen.

- In the Select topic menu, select **Muscle actions**.

- In the Select animation menu, select and view the following animations:
  
  - Deltoid
  
  - Rectus abdominis
  
  - Sternocleidomastoid

- Click on the Dissection button at the bottom of the IMAGE AREA to return to the Dissection section.
EXERCISE 3.6: Skeletal Muscle—Abdomen, Anterior View

- Insert Anatomy and Physiology Revealed Skeletal / Muscular CD, or, if you are still in the Dissection section, click the CHANGE VIEW button at the top of the screen, and skip the next step.

- In the Home screen, select the Dissection button in the left portion of the screen. You may click either on the Dissection button or on the word itself.

- In the SELECT A VIEW window that appears, click on the Select region button.

- Choose Abdomen from the menu.

- The Select view menu will now show Anterior view.

- The GO button will now flash green. Click on it.

- When the superficial abdomen screen appears, click on TAG 2 and the following screen will appear:

  - Mouse-over the blue pins on the screen to find the information necessary to fill in the following blanks:
    A. __________________________
    B. __________________________
    C. __________________________
    D. __________________________

  - E. __________________________
  - F. __________________________

CHECK POINT:

Abdomen, Anterior View

1. Name the common site for male inguinal hernias.
2. Opening the abdominal wall by incision through the ___________ avoids cutting muscle fibers.
3. What abdominal muscle has its fibers running at right angles to the internal abdominal oblique?

- Click on TAG 3, and the following screen will appear:

  - Mouse-over the blue pins on the screen to find the information necessary to fill in the following blanks:
    A. __________________________
    B. __________________________
    C. __________________________
CHECK POINT: Abdomen, Anterior View, cont’d

4. Name the structures that subdivide the rectus abdominis muscle into three to four bellies.
5. What abdominal muscle has its fibers running at right angles to the external abdominal oblique?
6. Name the abdominal muscles in this view important in straining and abdominal breathing.

• Click on TAG 4, and the following screen will appear:

• Mouse-over the blue pins on the screen to find the information necessary to fill in the following blanks:

A. _______________________________________
B. _______________________________________

CHECK POINT: Abdomen, Anterior View, cont’d

7. Name the abdominal muscle whose fibers run in a transverse plane.
8. What is the anatomical term for “flat tendons”?
9. What two structures come together to form the linea alba?

• Click on TAG 5, and the following screen will appear:

• Mouse-over the blue pins on the screen to find the information necessary to fill in the following blanks:

A. _______________________________________
B. _______________________________________
C. _______________________________________

CHECK POINT: Abdomen, Anterior View, cont’d

10. Name a muscle of the posterior abdominal wall involved in respiration.
### IN REVIEW

**What Have I Learned?**

The following questions cover the material that you have just learned, the muscles of the thorax. Use the **STRUCTURE INFORMATION** to answer these questions:

1. Name the abdominal wall muscles responsible for abdominal breathing.
2. What is the term for a “seam” where two structures meet?
3. Two individual muscles of the abdomen unite to form a single muscle, the most powerful flexor of the hip. Name those two individual muscles and the muscle they unite to form.
4. Two abdominal wall muscles have their structures running at right angles to each other. What are those two muscles?
5. Name the abdominal wall muscles important in straining, such as while lifting.

---

### Correlated Animation: Rectus Abdominis

- Click on the **ANIMATIONS** button at the bottom of the screen.
- In the **Select topic** menu, select **Muscle actions**.
- In the **Select animation** menu, select and view the following animation:
  - **Rectus abdominis**

### EXERCISE 3.7: Skeletal Muscle—Pelvis, Superior View

- Insert Anatomy and Physiology Revealed **Skeletal / Muscular CD**, or, if you are already in the **Dissection** section, click the **CHANGE VIEW** button at the top of the screen, and skip the next step.
- In the **Home screen**, select the **Dissection** button in the left portion of the screen. You may click either on the **Dissection** button or on the word itself.
- In the **SELECT A VIEW** window that appears, click on the **Select region** button.
- Choose **Pelvis** from the menu.
- The **Select view** menu will show **Superior** view.
- The **GO** button will now flash green. Click on it.

- **When the anterior abdomen screen appears, click on TAG 1, and the following screen will appear:**

---

---
IN REVIEW

What Have I Learned?

The following questions cover the material that you have just learned: the muscles of the pelvis. Use the STRUCTURE INFORMATION for the muscles you have learned to answer these questions:

1. Name the pelvic muscle involved with lateral rotation of the femur and that exits the pelvis through the greater sciatic foramen.

2. Name the two muscles that make up the pelvic diaphragm. What are their functions?

3. Name the structure that serves as the origin for part of the levator ani muscle.

EXERCISE 3.8: Skeletal Muscle—Back, Posterior View

- Insert Anatomy and Physiology Revealed Skeletal / Muscular CD, or if you are already in the Dissection section, click the CHANGE VIEW button at the top of the screen, and skip the next step.

- In the Home screen, select the Dissection button in the left portion of the screen. You may click either on the Dissection button or on the word itself.

- In the SELECT A VIEW window that appears, click on the Select region button.

- Choose Back from the menu.

- The Select view menu will now show Posterior view.

- The GO button will flash green. Click on it.

- When the back screen appears, click on TAG 1, and the screen at right will appear.

- Mouse-over the blue pins on the screen to find the information necessary to fill in the following blanks:
  
  A. ________________________________
  B. ________________________________
  C. ________________________________
CHECK POINT:

Back, Posterior View

1. Name the landmark for intramuscular injections of the hip.
2. The shallow skin depression (dimple) in the lower back marks what point?
3. What is the name for the prominent surface projection produced by the spinous process of vertebra C7?

4. Name the superficial “kite-shaped” muscle of the back that spans from the nuchal line of the occipital bone to vertebra T12.

5. Name the deep fascia whose attached structures include the latissimus dorsi and erector spinae muscles.
6. Name the superficial muscle whose name describes its location as it spans from the back to the side of the body.

Check Point: Back, Posterior View, cont’d

7. Name two muscles involved in the retraction and elevation of the scapula.
8. Name a muscle that allows the shrugging of the shoulders.

• Mouse-over the blue pins on the screen to find the information necessary to fill in the following blanks:

A. __________________________
B. __________________________
C. __________________________
D. __________________________
• **Click on TAG 4,** and the following screen will appear:

![Image of the back, posterior view]

• Mouse-over the blue pins on the screen to find the information necessary to fill in the following blanks:
  
  A. ______________________________________

  B. ______________________________________

• **Click on TAG 5,** and the following screen will appear:

![Image of the back, posterior view]

• Mouse-over the blue pins on the screen to find the information necessary to fill in the following blanks:
  
  A. ______________________________________

  B. ______________________________________

  C. ______________________________________

  D. ______________________________________

**CHECK POINT:**

Back, Posterior View, cont’d

9. Name the muscle known as the “antigravity muscle.”

10. The muscle in Check Point consists of three separate muscles. What are they?

**Correlated Animation:**

**Rectus Abdominis**

• **Click on the ANIMATIONS button at the bottom of the screen.**

• In the Select topic menu, select **Muscle actions.**

• In the Select animation menu, select and view the following animation:
  
  – **Rectus abdominis**

**EXERCISE 3.9:** Skeletal Muscle—Shoulder and Arm, Anterior View

• **Insert Anatomy and Physiology Revealed Skeletal / Muscular CD,** or, if you are already in the Animation section, click the Dissection button at the bottom of the screen, and skip the next step.

• In the Home screen, select the Dissection button in the left portion of the screen. You may click either on the Dissection button or on the word itself.

• In the SELECT A VIEW window that appears, click on the Select region button.

• Choose **Shoulder and arm** from the menu.

• From the Select view menu, select **Anterior view.**

• The GO button will flash green. Click on it.
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• When the Shoulder and arm screen appears, click on TAG 1, and the following screen will appear:

• Mouse-over the blue pins on the screen to find the information necessary to fill in the following blanks:
  A. _______________________________________
  B. _______________________________________
  C. _______________________________________

CHECK POINT:
Shoulder and Arm, Anterior View
1. Name the structure referred to as the collar bone.
2. Name the structure that is the flattened, lateral part of the scapular spine.
3. What is the name for the triangular concavity of the anterior elbow?

• Click on TAG 2, and the following screen will appear:

• Mouse-over the blue pins on the screen to find the information necessary to fill in the following blanks:
  A. _______________________________________
  B. _______________________________________
  C. _______________________________________
  D. _______________________________________

CHECK POINT:
Shoulder and Arm, Anterior View, cont’d
4. Name the superficial muscle of the chest.
5. Name the muscle that contributes to the roundness of the shoulder.
6. Name the mostly posterior muscle that has its insertion at the clavicle and scapula.
CHECK POINT:

Shoulder and Arm, Anterior View, cont’d

7. Name the muscle of the arm that has two heads.
8. Name the tough fibrous envelope that surrounds the joint where the arm attaches to the pectoral girdle.
9. Name the two muscles referred to as the “pecs.”

CHECK POINT:

Shoulder and Arm, Anterior View, cont’d

10. Name the four rotator cuff muscles.
11. What is the function of the rotator cuff muscles?
12. Name the muscle that is deep to the biceps brachii.
• Click on TAG 5, and the following screen will appear:

![Image of the shoulder and arm]

• Mouse-over the blue pin on the screen to find the information necessary to fill in the following blank:

A. ________________________________

Correlated Animations: Biceps Brachii and Deltoid

• Click on the ANIMATIONS button at the bottom of the screen.

• In the Select topic menu, select Muscle actions.

• In the Select animation menu, select and view the following animations:
  – Biceps brachii
  – Deltoid

EXERCISE 3.10: Skeletal Muscle—Shoulder and Arm, Posterior View

• In the Home screen, select the Dissection button in the left portion of the screen. You may click either on the Dissection button or on the word itself.

• In the SELECT A VIEW window that appears, click on the Select region button.

• Choose Shoulder and arm from the menu.

• From the Select view menu, select Posterior view.

• The GO button will flash green. Click on it.

• When the Shoulder and arm screen appears, click on TAG 1, and the following screen will appear:

![Image of the shoulder and arm]

• Mouse-over the blue pins on the screen to find the information necessary to fill in the following blanks:

A. ________________________________
B. ________________________________

CHECK POINT: Shoulder and Arm, Posterior View

1. What is the name for the point of the elbow?
2. What specific structure of what bone constitutes the point of the elbow?
3. Name the prominent ridge on the posterior surface of the scapula.
• Click on **TAG 2**, and the following screen will appear:

![Image of anatomical structure]

- **CHECK POINT**: Shoulder and Arm, Posterior View, cont’d

4. Name the triangle-shaped muscle of the shoulder.
5. Name the large lateral muscle responsible for adduction, extension, and medial rotation of the humerus.
6. Name the muscle responsible for the elevation, medial rotation, adduction, and depression of the scapula.

• **Mouse-over the blue pins on the screen to find the information necessary to fill in the following blanks:**

A. __________________________
B. __________________________
C. __________________________

• **Click on **TAG 3**, and the screen at top right will appear.**

![Image of anatomical structure]

- **CHECK POINT**: Shoulder and Arm, Posterior View, cont’d

7. Name the muscle of the arm with three heads.
8. Name the muscle found in the infraspinous fossa of the scapula.
9. Name two muscles with their insertions on the medial border of the scapula.
CHAPTER 3 The Muscular System

CHECK POINT:
Shoulder and Arm, Posterior View, cont’d

10. Name the muscle located in the supraspinous fossa of the scapula.
11. Name a muscle that holds the head of the humerus in the glenoid cavity.

IN REVIEW
What Have I Learned?

The following questions cover the material that you have just learned—the muscles of the shoulder and arm. Use the STRUCTURE INFORMATION for the muscles you have learned to answer these questions:

1. Name the landmark for intramuscular injections of the hip.
2. Name the superficial “kite-shaped” muscle of the back that spans from the nuchal line of the occipital bone to vertebra T12.
3. Name the superficial muscle whose name describes its location as it spans from the back to the side of the body.
4. Name two muscles involved in the retraction and elevation of the scapula.
5. Name a muscle that allows the shrugging of the shoulders.
6. Name the muscle known as the “antigravity muscle”. What three muscles combine to form this muscle?
7. Name the superficial muscle of the chest.
8. Name the muscle of the arm that has two heads.
9. Name the muscle of the arm that has three heads.
10. Name the four rotator cuff muscles. What is the function of the these muscles?
EXERCISE 3.11: Skeletal Muscles—Forearm and Hand, Anterior View

- Insert Anatomy and Physiology Revealed Skeletal / Muscular CD, or, if you are still in the Animation section, click the Dissection button at the bottom of the screen, and skip the next step.
- In the Home screen, select the Dissection button in the left portion of the screen. You may click either on the Dissection button or on the word itself.
- In the SELECT A VIEW window that appears, click on the Select region button.
- Choose Forearm and hand from the menu.
- From the Select view menu, select Anterior view.
- The GO button will flash green. Click on it.
- When the Forearm and hand screen appears, click on TAG 1 and the screen at right will appear.

- Mouse-over the blue pins on the screen to find the information necessary to fill in the following blanks:
  A. ___________________________
  B. ___________________________
  C. ___________________________
• **Click on TAG 2, and the following screen will appear:**

- Mouse-over the blue pins on the screen to find the information necessary to fill in the following blanks:
  
  A. ____________________________
  B. ____________________________
  C. ____________________________
  D. ____________________________
  E. ____________________________
  F. ____________________________
  G. ____________________________

**CHECK POINT:**

Forearm and Hand, Anterior View, cont’d

4. Name a muscle involved in the pronation of the forearm.
5. Name a muscle involved in the supination of the forearm.
6. Name a muscle involved with the extension of the elbow.

**CHECK POINT:**

Forearm and Hand, Anterior View

1. Name three muscles that flex the wrist.
2. Name two muscles that flex the elbow.
3. Name the structure that forms the carpal tunnel.

• **Click on TAG 3, and the following screen will appear:**

- Mouse-over the blue pins on the screen to find the information necessary to fill in the following blanks:

  A. ____________________________
  B. ____________________________
  C. ____________________________
  D. ____________________________
  E. ____________________________
• Mouse-over the blue pins on the screen to find the information necessary to fill in the following blanks:

A. ________________________________
B. ________________________________

CHECK POINT:
Forearm and Hand, Anterior View, cont’d
7. Name the only muscle that flexes the distal interphalangeal joint.
8. Name the only muscle that flexes the distal phalanx of the thumb.
9. What is the anatomical name for the thumb?

EXERCISE 3.12: Skeletal Muscles—Forearm and Hand, Posterior View

• Insert Anatomy and Physiology Revealed Skeletal / Muscular CD, or, if you are already in the Dissection section, click the CHANGE VIEW button at the top of the screen, and skip the next step.

• In the Home screen, select the Dissection button in the left portion of the screen. You may click either on the Dissection button or on the word itself.
In the SELECT A VIEW window that appears, click on the Select region button.

Choose Forearm and hand from the menu.

From the Select view menu, select Posterior view.

The GO button will flash green. Click on it.

When the Forearm and hand screen appears, click on TAG 1, and the following screen will appear:

Mouse-over the blue pin on the screen to find the information necessary to fill in the following blank:

A. ________________________________

CHECK POINT:
Forearm and Hand, Posterior View

1. What is the relationship between the retinaculum and the extensor tendons of the forearm?
• Mouse-over the blue pins on the screen to find the information necessary to fill in the following blanks:

A. ____________________________
B. ____________________________
C. ____________________________
D. ____________________________
E. ____________________________
F. ____________________________

CHECK POINT:
Forearm and Hand, Posterior View, cont’d

2. Name three muscles that extend the wrist.
3. Name a muscle that assists in both pronation and supination of the forearm.
4. Name a muscle that extends the fifth finger.

• Click on **TAG 3**, and the following screen will appear:

• Click on **TAG 4**, and the following screen will appear:

CHECK POINT:
Forearm and Hand, Posterior View, cont’d

5. Name a muscle that both extends and abducts the thumb.
6. Name two muscles that extend the thumb.
7. Name a muscle that extends the second finger.
IN REVIEW

What Have I Learned?

The following questions cover the material that you have just learned—the muscles of the forearm and hand. Use the STRUCTURE INFORMATION for the muscles you have learned to answer these questions:

1. Name three muscles that flex the wrist.
2. Name two muscles that flex the elbow.
3. Name the structure that forms the carpal tunnel.
4. Name a muscle involved in the pronation of the forearm.
5. Name a muscle involved in the supination of the forearm.
6. What is the anatomical name for the thumb?
7. Name the thick sheet of connective tissue between the ulna and the radius. What is its function?
8. Name three muscles that extend the wrist.
9. Name a muscle that both extends and abducts the thumb.

EXERCISE 3.13: Skeletal Muscles - Wrist and Hand, Anterior View

- Insert Anatomy and Physiology Revealed Skeletal / Muscular CD, or, if you are already in the Dissection section, click the CHANGE VIEW button at the top of the screen, and skip the next step.
- In the Home screen, select the Dissection button in the left portion of the screen. You may click either on the Dissection button or on the word itself.
- In the SELECT A VIEW window that appears, click on the Select region button.
- Choose Wrist and hand from the menu.
- From the Select view menu, select Anterior view.
- The GO button will flash green. Click on it.
- When the Wrist and hand screen appears, click on TAG 1 and the screen at right will appear.

- Mouse-over the blue pins on the screen to find the information necessary to fill in the following blanks:
  A. ____________________________
  B. ____________________________
CHECK POINT: Wrist and Hand, Anterior View

1. Name the thick, fleshy eminence at the base of the first digit.
2. Name the thick, fleshy eminence at the base of the fifth digit.

• Click on TAG 2, and the following screen will appear:

• Mouse-over the blue pins on the screen to find the information necessary to fill in the following blanks:
  A. _______________________________________
  B. _______________________________________
  C. _______________________________________

CHECK POINT: Wrist and Hand, Anterior View, cont’d

3. Name a muscle often missing on one or both forearms.

• Click on TAG 3, and the following screen will appear:

• Mouse-over the blue pins on the screen to find the information necessary to fill in the following blanks:
  A. _______________________________________
  B. _______________________________________
  C. _______________________________________
  D._______________________________________
  E. _______________________________________
  F.________________________________________
  G._______________________________________

CHECK POINT: Wrist and Hand, Anterior View, cont’d

4. Name the three thenar muscles.
5. Name the three hypothenar muscles.
6. Which digits do each of the above muscles act upon?
• Click on TAG 4, and the following screen will appear:

• Mouse-over the blue pins on the screen to find the information necessary to fill in the following blanks:

A. _______________________________________
B. _______________________________________
C. _______________________________________
D. _______________________________________
E. _______________________________________ 

CHECK POINT:

Wrist and Hand, Anterior View, cont’d

7. Name the muscles that both flex the metacarpophalangeal joint and extend the interphalangeal joints.
8. Name the muscle that allows the fifth finger to touch the tip of the first finger.
9. Name the muscle that allows the tip of the first finger to touch the tips of the other fingers.

• Click on TAG 5, and the following screen will appear:

• Mouse-over the blue pins on the screen to find the information necessary to fill in the following blanks:

A. _______________________________________
B. _______________________________________
C. _______________________________________
D. _______________________________________
E. _______________________________________ 

CHECK POINT:

Wrist and Hand, Anterior View, cont’d

10. Name the only muscle that flexes the distal phalanx of the first digit.
11. Name the only muscle that flexes the distal interphalangeal joint of digits 2–5.
12. Name the distal pronator of the forearm.
EXERCISE 3.14: Skeletal Muscles—Wrist and Hand, Posterior View

- Insert Anatomy and Physiology Revealed Skeletal/Muscular CD, or, if you are already in the Dissection section, click the CHANGE VIEW button at the top of the screen, and skip the next step.

- In the Home screen, select the Dissection button in the left portion of the screen. You may click either on the Dissection button or on the word itself.

- In the SELECT A VIEW window that appears, click on the Select region button.

- Choose Wrist and hand from the menu.

- From the Select view menu, select Posterior view.

- The GO button will flash green. Click on it.

- When the Wrist and hand screen appears, click on TAG 1, and the following screen will appear:

  - Mouse-over the blue pins on the screen to find the information necessary to fill in the following blanks:
    A. ____________________________
    B. ____________________________

CHECK POINT:

Wrist and Hand, Posterior View

1. Flexion of which joint makes the knuckles prominent?
2. What structures are visible as the knuckles?

- Click on TAG 2, and the following screen will appear:

  - Mouse-over the blue pin on the screen to find the information necessary to fill in the following blank:
    A. ____________________________

CHECK POINT:

Wrist and Hand, Posterior View, cont’d

3. Name a muscle often missing on one or both forearms.
CHAPTER 3 The Muscular System

Click on TAG 3, and the following screen will appear:

Mouse-over the blue pins on the screen to find the information necessary to fill in the following blanks:

A. _______________________________________
B. _______________________________________
C. _______________________________________
D. _______________________________________
E. _______________________________________
F. _______________________________________
G. _______________________________________
H. _______________________________________
I. _______________________________________
J. _______________________________________

IN REVIEW

What Have I Learned?

The following questions cover the material that you have just learned—the muscles of the wrist and hand. Use the STRUCTURE INFORMATION for the muscles you have learned to answer these questions:

1. Name the thick, fleshy eminence at the base of the first digit.

2. Name the thick, fleshy eminence at the base of the fifth digit.

3. Name a muscle often missing on one or both forearms.

4. Name the only muscle that flexes the distal phalanx of the first digit.

5. Flexion of which joint makes the knuckles prominent?

6. What structures are visible as the knuckles?
**Exercise 3.15:** Skeletal Muscles—Hip and Thigh, Anterior View

- Insert Anatomy and Physiology Revealed Skeletal/Muscular CD, or, if you are already in the Dissection section, click the Change View button at the top of the screen, and skip the next step.

- In the Home screen, select the Dissection button in the left portion of the screen. You may click either on the Dissection button or on the word itself.

- In the Select A View window that appears, click on the Select region button.

- Choose Hip and thigh from the menu.

- From the Select view menu, select Anterior view.

- The Go button will flash green. Click on it.

- When the Hip and thigh screen appears, click on TAG 1 and the following screen will appear:

- Mouse-over the blue pins on the screen to find the information necessary to fill in the following blanks:
  
  A._______________________________________  
  B._______________________________________  
  C. ______________________________________  
  D. ______________________________________

<table>
<thead>
<tr>
<th>Check Point: Hip and Thigh, Anterior View</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Name the superficially visible anterior subcutaneous end of the iliac crest.</td>
</tr>
<tr>
<td>2. Name the point of attachment for the quadriceps femoris muscles by way of the patellar ligament.</td>
</tr>
<tr>
<td>3. Name the ligament that connects the patella to the tuberosity of the tibia.</td>
</tr>
</tbody>
</table>

- Click on TAG 2, and the following screen will appear:

- Mouse-over the blue pins on the screen to find the information necessary to fill in the following blanks:
  
  A._______________________________________  
  B._______________________________________  
  C. ______________________________________  
  D. ______________________________________
CHECK POINT:
Hip and Thigh, Anterior View, cont’d

4. Name the muscle whose origin is the anterior superior iliac spine of the ilium and whose insertion is the proximal medial shaft of the tibia.
5. Name the four muscles of the quadriceps femoris.
6. Name the most powerful flexor of the hip joint.

• Click on TAG 3, and the following screen will appear:

• Mouse-over the blue pins on the screen to find the information necessary to fill in the following blanks:
  A. _______________________________________
  B. _______________________________________
  C. _______________________________________

CHECK POINT:
Hip and Thigh, Anterior View, cont’d

7. Name the muscle of the thigh that is weak in humans and used in muscle transplants.
8. Name the muscle often involved in a “pulled groin.”

• Click on TAG 4, and the following screen will appear:

• Mouse-over the blue pins on the screen to find the information necessary to fill in the following blanks:
  A. _______________________________________
  B. _______________________________________

• Click on TAG 5, and the following screen will appear:
• Mouse-over the blue pins on the screen to find the information necessary to fill in the following blanks:
  A. _______________________________________
  B. _______________________________________
  C. _______________________________________

CHECK POINT:
Hip and Thigh, Anterior View, cont’d
9. Name the strongest ligament around the hip joint.
10. Name the ligament that resists excessive abduction of the hip.
11. Name the ligament that resists hyperextension of the hip joint.

Correlated Animations:
Quadriceps Femoris

• Click on the ANIMATIONS button at the bottom of the screen.
• In the Select topic menu, select Muscle actions.
• In the Select animation menu, select and view the following animation:
  – Quadriceps femoris

EXERCISE 3.16: Skeletal Muscles—Hip and Thigh, Posterior View
• Insert Anatomy and Physiology Revealed Skeletal/Muscular CD, or, if you are still in the Animation section, click the Dissection button at the bottom of the screen, click change view and skip the next step.
• In the Home screen, select the Dissection button in the left portion of the screen. You may click either on the Dissection button or on the word itself.
• In the SELECT A VIEW window that appears, click on the Select region button.
• Choose Hip and thigh from the menu.

• From the Select view menu, select Posterior view.
• The GO button will flash green. Click on it.
• When the Hip and thigh screen appears, click on TAG 1, and the following screen will appear:

• Mouse-over the blue pins on the screen to find the information necessary to fill in the following blanks:
  A. _______________________________________
  B. _______________________________________

CHECK POINT:
Hip and Thigh, Posterior View
1. Name the muscle whose tendon is the lateral hamstring.
2. Name the muscles whose tendons are the medial hamstring.
3. Name the structure that provides attachment for the fibular collateral ligament of the knee and the biceps femoris muscle.
• Click on TAG 2, and the following screen will appear:

• Mouse-over the blue pins on the screen to find the information necessary to fill in the following blanks:
  A. _______________________________________
  B. _______________________________________  

CHECK POINT:  
Hip and Thigh, Posterior View, cont’d

4. Name a muscle of the posterior thigh that is not important in walking.
5. Name a muscle of the posterior thigh that is important for powerful extension of the femur as in running, climbing stairs, and rising from the seated position.
6. Name the structure that provides attachment for the tensor fascia lata and gluteus maximus muscles.

• Check on TAG 3, and the following screen will appear:

• Mouse-over the blue pins on the screen to find the information necessary to fill in the following blanks:
  A. _______________________________________
  B. _______________________________________
  C. _______________________________________  
  D._______________________________________
  E. _______________________________________

CHECK POINT:  
Hip and Thigh, Posterior View, cont’d

7. Name the two muscles that allow the non-weight-bearing limb to swing forward during walking.
8. Name the two heads of the biceps femoris.
9. Name the largest nerve in the body.
CHAPTER 3 The Muscular System

**Check Point:**

**Hip and Thigh, Posterior View, cont’d**

10. Name the structure that is an important anchor of the sacrum to the hip bone.
11. Name the two components of the sciatic nerve.

12. Name the thick fibrous band fused to the posterior surface of the hip joint capsule.
13. Name the ligament that resists hyperflexion of the hip.
IN REVIEW

What Have I Learned?

The following questions cover the material that you have just learned—the muscles of the hip and thigh. Use the STRUCTURE INFORMATION for the muscles you have learned to answer these questions:

1. Name the four muscles of the quadriceps femoris.
2. Name the most powerful flexor of the hip joint.
3. Name the muscle of the thigh that is weak in humans and used in muscle transplants.
4. Name the muscle often involved in a “pulled groin”.
5. Name the strongest ligament around the hip joint.
6. Name a muscle of the posterior thigh that is important for powerful extension of the femur as in running, climbing stairs, and rising from the seated position.
7. Name the two muscles that allow the non weight-bearing limb to swing forward during walking.
8. Name the two heads of the biceps femoris.
9. Name the thick fibrous band fused to the posterior surface of the hip joint capsule.

EXERCISE 3.17:  Skeletal Muscles—Leg and Foot, Anterior View

- Insert Anatomy and Physiology Revealed Skeletal / Muscular CD, or, if you are still in the Dissection section, click the CHANGE VIEW button at the top of the screen, and skip the next step.
- In the Home screen, select the Dissection button in the left portion of the screen. You may click either on the Dissection button or on the word itself.
- In the SELECT A VIEW window that appears, click on the Select region button.
- Choose Leg and foot from the menu.
- From the Select view menu, select Anterior view.
- The GO button will flash green. Click on it.
- When the Leg and foot screen appears, click on TAG 1, and the screen at right will appear.

- Mouse-over the blue pins on the screen to find the information necessary to fill in the following blanks:
  
  A. _____________________________
  B. _____________________________
CHECK POINT:
Leg and Foot, Anterior View
1. Name the bony elevation of the anterior proximal tibia.
2. Name the lateral subcutaneous projection that contributes to the ankle joint.

- Click on TAG 2, and the following screen will appear:

- Mouse-over the blue pins on the screen to find the information necessary to fill in the following blanks:
A. __________________________
B. __________________________
C. __________________________
D. __________________________
E. __________________________
F. __________________________
G. __________________________

CHECK POINT:
Leg and Foot, Anterior View, cont’d
3. What is the anatomical term for the first toe?
4. The tendons of which muscles are subcutaneous on the dorsum of the foot?
5. Name the structure that serves to bind in place the tendons from the anterior compartment of the leg as they cross the ankle joint.

- Click on TAG 3, and the following screen will appear:

- Mouse-over the blue pins on the screen to find the information necessary to fill in the following blanks:
A. __________________________
B. __________________________
C. __________________________
D. __________________________
E. __________________________
F. __________________________
G. __________________________
H. __________________________
CHECK POINT:
Leg and Foot, Anterior View, cont’d
6. Name the thick sheet of connective tissue between the tibia and fibula.
7. What is the function of this sheet of connective tissue?
8. Name the structures referred to as the “unhappy triad.”

EXERCISE 3.18: Skeletal Muscles—Leg and Foot, Posterior View

- Insert Anatomy and Physiology Revealed Skeletal / Muscular CD, or, if you are still in the Dissection section, click the CHANGE VIEW button at the top of the screen, and skip the next step.

- In the Home screen, select the Dissection button in the left portion of the screen. You may click either on the Dissection button or on the word itself.

- In the SELECT A VIEW window that appears, click on the Select region button.

- Choose Leg and foot from the menu.

- From the Select view menu, select Posterior view.

- The GO button will flash green. Click on it.

- When the Leg and foot screen appears, click on TAG 1 and the following screen will appear:

• Mouse-over the blue pins on the screen to find the information necessary to fill in the following blanks:

A.__________________________
B.__________________________
C.__________________________
D.__________________________
E.__________________________

CHECK POINT:
Leg and Foot, Posterior View
1. Name the strongest tendon in the body.
2. Give an example of this tendon’s strength from the STRUCTURE INFORMATION window.
3. Name the tendon also known as the “Achilles” tendon.

• Click on TAG 2, and the following screen will appear:

• Mouse-over the blue pins on the screen to find the information necessary to fill in the following blanks:

A.__________________________
B.__________________________
CHECK POINT:
Leg and Foot, Posterior View, cont’d

4. The tendons of which two muscles contribute to the calcaneal tendon?
5. Name the calf muscle that consists of a medial and a lateral belly.
6. Name the superficial calf muscle.

• Click on TAG 3, and the following screen will appear:

• Mouse-over the blue pins on the screen to find the information necessary to fill in the following blanks:
A. _______________________________________
B. _______________________________________

CHECK POINT:
Leg and Foot, Posterior View, cont’d

7. Name the calf muscle deep to the gastrocnemius.
8. Name the long thin tendon that is a common source for tendon transplants.

• Click on TAG 4, and the following screen will appear:

• Mouse-over the blue pins on the screen to find the information necessary to fill in the following blanks:
A. _______________________________________
B. _______________________________________
C. _______________________________________
D. _______________________________________
E. _______________________________________

CHECK POINT:
Leg and Foot, Posterior View, cont’d

9. Name the muscle that helps “unlock” the knee joint from full extension.
10. Name the two structures that maintain the position of the femur on the tibia in full knee flexion such as squatting.
11. Name the powerful muscle for “push-off” of the foot during walking or running.
CHAPTER 3  The Muscular System

**IN REVIEW**

**What Have I Learned?**

The following questions cover the material that you have just learned—the muscles of the leg and foot. Use the **STRUCTURE INFORMATION** for the muscles you have learned to answer these questions:

1. What is the anatomical term for the first toe?

2. Name the thick sheet of connective tissue between the tibia and fibula. 2. What is its function?

3. Name the structure that serves to bind the tendons from the anterior compartment of the leg in place as they cross the ankle joint.

4. Name the strongest tendon in the body.

5. The tendons of which two muscles contribute to the calcaneal tendon?

6. Name the long thin tendon that is a common source for tendon transplants.

7. Name the powerful muscle for “push-off” of foot during walking or running.

8. Name the cruciate ligaments. Which of the two is thinner and weaker?

**CHECK POINT:**

Leg and Foot, Posterior View, cont’d

12. Name the thinner and weaker of the cruciate ligaments.

13. Name the cartilaginous structure on the tibia that articulates with the medial condyle of the femur.

14. Name the structure that limits rotation between the femur and the tibia.

**Correlated Animation:**

Gastrocnemius

- Click on the **ANIMATIONS** button at the bottom of the screen.
- In the **Select topic** menu, select **Muscle actions**.
- In the **Select animation** menu, select and view the following animation:
  - Gastrocnemius

• Mouse-over the blue pins on the screen to find the information necessary to fill in the following blanks:

A. _______________________________________

B. _______________________________________

C. _______________________________________

D. _______________________________________

E. _______________________________________

F. _______________________________________

G. _______________________________________
EXERCISE 3.19: Skeletal Muscles—Foot, Plantar View

- Insert Anatomy and Physiology Revealed Skeletal / Muscular CD, or, if you are still in the Dissection section, click the CHANGE VIEW button at the top of the screen, and skip the next step.

- In the Home screen, select the Dissection button in the left portion of the screen. You may click either on the Dissection button or on the word itself.

- In the SELECT A VIEW window that appears, click on the Select region button.

- Choose Foot from the menu.

- Plantar view will then appear in the Select view menu.

- The GO button will flash green. Click on it.

- When the Foot screen appears, click on TAG 1, and the following screen will appear:

  ![Foot, Plantar View](image)

  - Mouse-over the blue pin on the screen to find the information necessary to fill in the following blank:

    A. _______________________________________

  - Click on TAG 2, and the following screen will appear:

  ![Foot, Plantar View, cont’d](image)

  - Mouse-over the blue pin on the screen to find the information necessary to fill in the following blank:

    A. _______________________________________

CHECK POINT:

Foot, Plantar View

1. Name the structures that serve as contact points of the foot for weight bearing.

   - Click on TAG 2, and the following screen will appear:

   ![Foot, Plantar View](image)

   - Mouse-over the blue pin on the screen to find the information necessary to fill in the following blank:

     A. _______________________________________

CHECK POINT:

Foot, Plantar View, cont’d

2. Name the structure that protects the muscles, vessels, and nerves of plantar foot.
• Click on TAG 3, and the following screen will appear:

- Mouse-over the blue pins on the screen to find the information necessary to fill in the following blanks:
  A. 
  B. 
  C. 

CHECK POINT:
Foot, Plantar View, cont’d
3. What is the anatomical term for the first toe?
4. Name the muscle responsible for flexion of toes 2–5.
5. Name the muscle that supports the medial longitudinal arch of the foot during weight bearing.

• Click on TAG 4, and the following screen will appear:

- Mouse-over the blue pins on the screen to find the information necessary to fill in the following blanks:
  A. 
  B. 
  C. 
  D. 

CHECK POINT:
Foot, Plantar View, cont’d
6. Name two muscles located on the posterior leg whose tendons run along the plantar foot.
7. Name a muscle of the foot that uses the tendons of another muscle to produce toe flexion.
• Mouse-over the blue pins on the screen to find the information necessary to fill in the following blanks:

A. _______________________________________
B. _______________________________________
C. _______________________________________

CHECK POINT:

Foot, Plantar View, cont’d

8. Name a muscle that resists separation ("spreading") of the metatarsals during weight bearing.
9. Name two muscles of the lateral leg whose muscles run along the plantar foot.
10. Name a muscle responsible for adduction of the first toe.

IN REVIEW

What Have I Learned?

The following questions cover the material that you have just learned—the muscles of the plantar foot. Use the STRUCTURE INFORMATION for the muscles you have learned to answer these questions:

1. Name the structures that serve as contact points of the foot for weight bearing.

2. Name the structure that protects the muscles, vessels and nerves of plantar foot.

3. Name the muscle that supports the medial longitudinal arch of the foot during weight-bearing.

4. Name a muscle that resists separation ("spreading") of the metatarsals during weight-bearing.