

Exercise 13 Review Sheet

Gross Anatomy of the Muscular System

Name _____ Lab Time/Date _____

Classification of Skeletal Muscles

1. Several criteria were given for the naming of muscles.

For each of the criteria below, list at least two muscles that are named for the given criterion.

1. Muscle location: _____

2. Muscle shape: _____

3. Muscle size: _____

4. Direction of muscle fibers: _____

5. Number of origins: _____

6. Location of attachments: _____

7. Muscle action: _____

2. Match the key terms to the descriptions below.

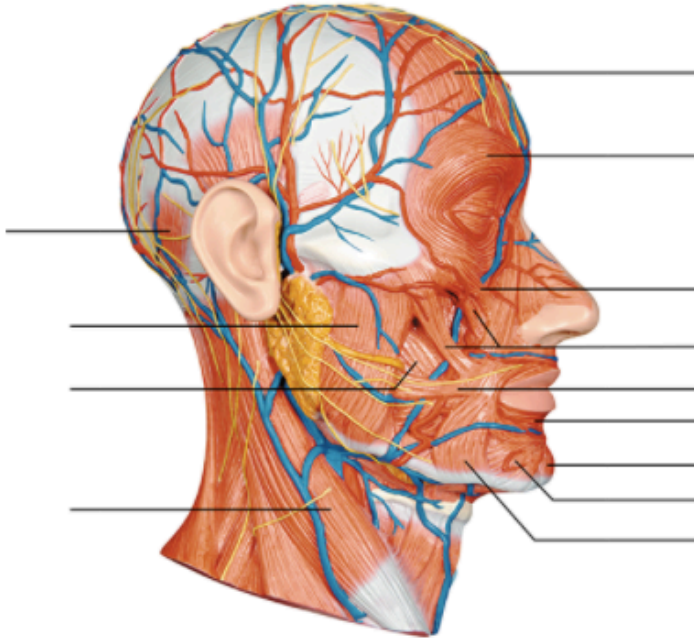
Key:

- a. prime mover (agonist)
- b. antagonist
- c. synergist
- d. fixator
- e. origin
- f. insertion

- _____ 1. term for the biceps brachii during forearm flexion
- _____ 2. term that describes the relation of brachioradialis to biceps brachii during forearm flexion
- _____ 3. term for the triceps brachii during forearm flexion
- _____ 4. term for the more movable muscle attachment
- _____ 5. term for the more fixed muscle attachment
- _____ 6. term for the rotator cuff muscles and deltoid when the forearm is flexed and the hand grabs a tabletop to lift the table

Muscles of the Head and Neck

3. Using choices from the key at the right, correctly identify muscles provided with leader lines on the illustration.



Key:

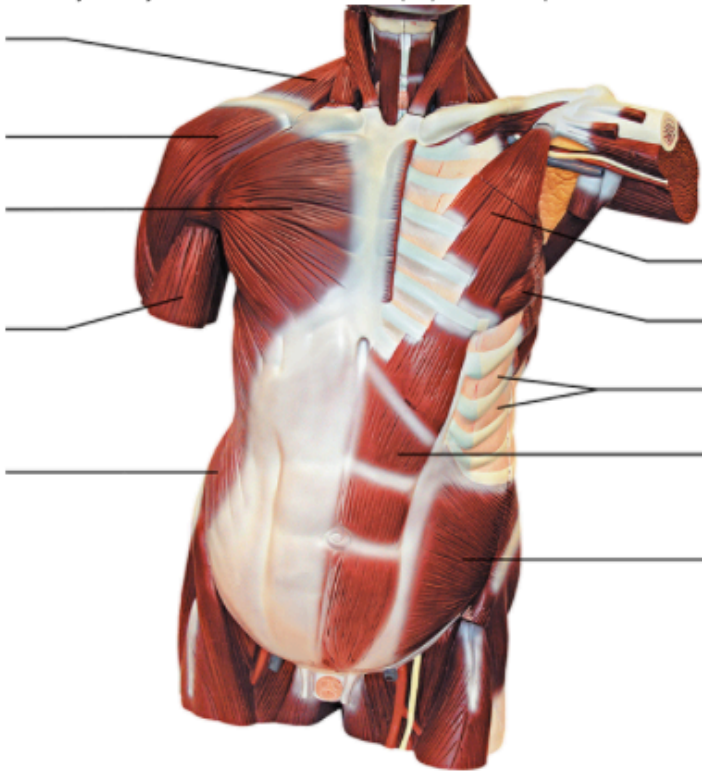
- a. buccinator
- b. depressor anguli oris
- c. depressor labii inferioris
- d. frontal belly of the epicranii
- e. levator labii superioris
- f. masseter
- g. mentalis
- h. occipital belly of the epicranii
- i. orbicularis oculi
- j. orbicularis oris
- k. risorius
- l. sternocleidomastoid
- m. zygomaticus minor and major

4. Using the key provided in question 3, identify the muscles described next.

- _____ 1. used in smiling
- _____ 2. used to suck in your cheeks
- _____ 3. used in blinking and squinting
- _____ 4. used to pout (pulls the corners of the mouth downward)
- _____ 5. raises your eyebrows for a questioning expression
- _____ 6. used to turn and tilt the head toward the shoulder
- _____ 7. your kissing muscle
- _____ 8. prime mover of jaw closure
- _____ 9. draws corners of the lip back (laterally)

Muscles of the Trunk

5. Correctly identify both intact and transected (cut) muscles depicted in the illustration, using the key given at the right.



Key:

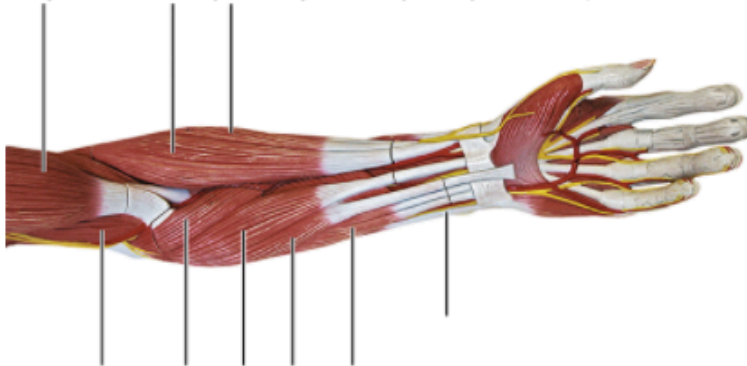
- a. biceps brachii (cut)
- b. deltoid
- c. external intercostals
- d. external oblique
- e. internal oblique
- f. pectoralis major
- g. pectoralis minor
- h. rectus abdominis
- i. serratus anterior
- j. trapezius

6. Using the key provided in question 5 above, identify the major muscles described below.

- _____ 1. a major flexor of the vertebral column
- _____ 2. prime mover for forearm flexion
- _____ 3. prime mover for arm flexion
- _____ 4. assume major responsibility for forming the abdominal wall (three pairs of muscles)
- _____ 5. prime mover of arm abduction
- _____ 6. with ribs fixed, pulls scapula forward and downward
- _____ 7. moves the scapula forward and rotates scapula upward
- _____ 8. small, inspiratory muscles between the ribs; elevate the rib cage
- _____ 9. extends the head

Muscles of the Upper Limb

7. Using terms from the key on the right, correctly identify all muscles provided with leader lines in the illustration.



Key:

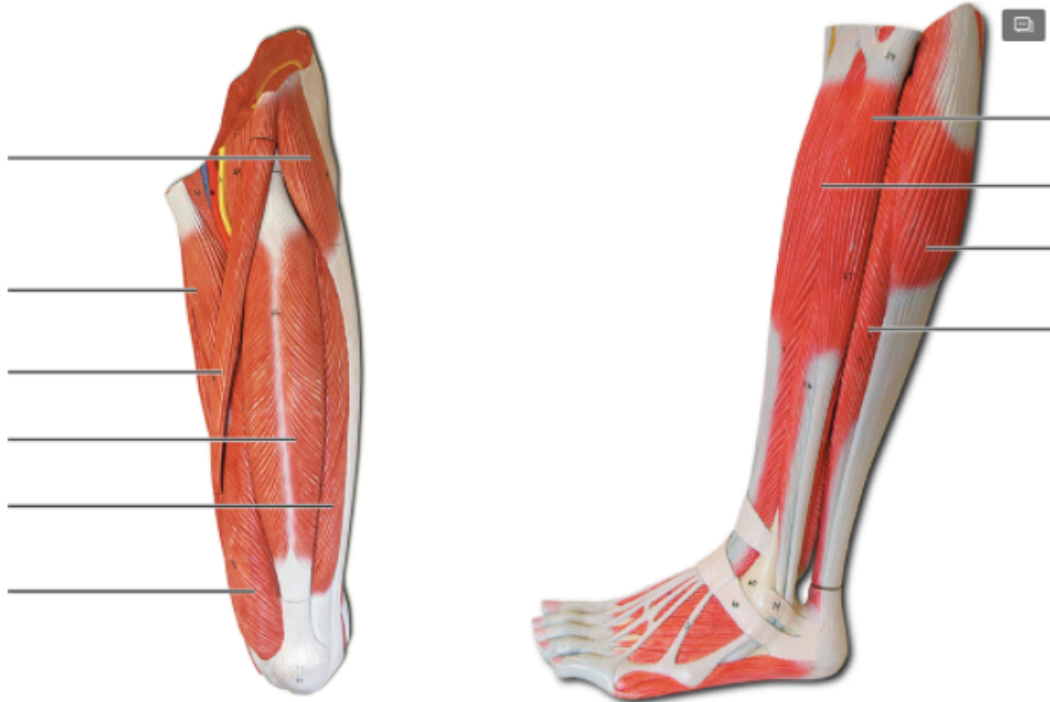
- a. biceps brachii
- b. brachialis
- c. brachioradialis
- d. extensor carpi radialis longus
- e. flexor carpi radialis
- f. flexor carpi ulnaris
- g. flexor digitorum superficialis
- h. palmaris longus
- i. pronator teres

8. Use the key provided in question 7 to identify the muscles described below. (Some choices from the key will be used more than once.)

- _____ 1. flexes and supinates the forearm
- _____ 2. muscle located in the posterior compartment of the forearm
- _____ 3. forearm flexors; no role in supination (two muscles)
- _____ 4. muscle located medial to the palmaris longus
- _____ 5. flexes and abducts the hand
- _____ 6. flexes the hand and middle phalanges
- _____ 7. pronates the forearm
- _____ 8. flexes and adducts the hand
- _____ 9. extends and abducts the hand
- _____ 10. flat muscle that is a weak hand flexor, tenses skin of the palm

Muscles of the Lower Limb

9. Using the terms from the key on the right, correctly identify all muscles provided with leader lines in the illustrations below.



Key:

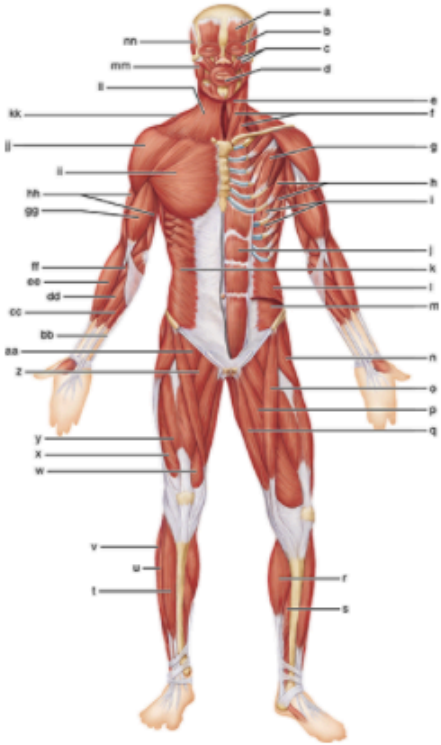
- a. adductor longus
- b. extensor digitorum longus
- c. fibularis longus
- d. gastrocnemius
- e. rectus femoris
- f. sartorius
- g. soleus
- h. tensor fascia lata
- i. vastus lateralis
- j. vastus medialis

10. Use the key terms in question 9 to respond to the descriptions below.

- _____ 1. "tailor's muscle"
- _____ 2. lateral compartment muscle that plantar flexes and everts the foot
- _____ 3. abducts the thigh to take the "at ease" stance
- _____ 4. extend leg and stabilize knee (two muscles)
- _____ 5. posterior compartment muscles that plantar flex the foot (two muscles)
- _____ 6. adducts the thigh, as when standing at attention
- _____ 7. extends the toes
- _____ 8. extends leg and flexes thigh

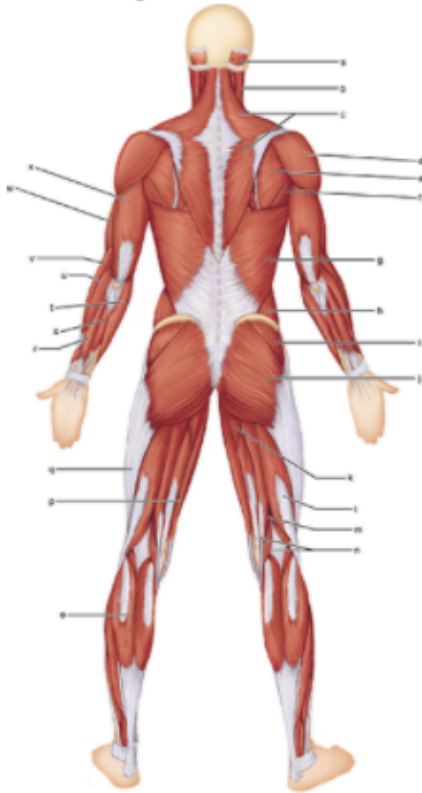
General Review: Muscle Recognition

11. Identify each lettered muscle in the illustration of the human anterior superficial musculature by matching its letter with one of the following muscle names:



- _____ 1. adductor longus
- _____ 2. biceps brachii
- _____ 3. brachioradialis
- _____ 4. deltoid
- _____ 5. extensor digitorum longus
- _____ 6. external oblique
- _____ 7. fibularis longus
- _____ 8. flexor carpi radialis
- _____ 9. flexor carpi ulnaris
- _____ 10. frontal belly of epicranium
- _____ 11. gastrocnemius
- _____ 12. gracilis
- _____ 13. iliopsoas
- _____ 14. intercostals
- _____ 15. internal oblique
- _____ 16. masseter
- _____ 17. orbicularis oculi
- _____ 18. orbicularis oris
- _____ 19. palmaris longus
- _____ 20. pectineus
- _____ 21. pectoralis major
- _____ 22. pectoralis minor
- _____ 23. platysma
- _____ 24. pronator teres
- _____ 25. rectus abdominis
- _____ 26. rectus femoris
- _____ 27. sartorius
- _____ 28. serratus anterior
- _____ 29. soleus
- _____ 30. sternocleidomastoid
- _____ 31. sternohyoid
- _____ 32. temporalis
- _____ 33. tensor fascia lata
- _____ 34. tibialis anterior
- _____ 35. transversus abdominis
- _____ 36. trapezius
- _____ 37. triceps brachii
- _____ 38. vastus lateralis
- _____ 39. vastus medialis
- _____ 40. zygomaticus

12. Identify each lettered muscle in this illustration of the human posterior superficial musculature by matching its letter with one of the following muscle names:



- _____ 1. adductor magnus
- _____ 2. biceps femoris
- _____ 3. brachialis
- _____ 4. brachioradialis
- _____ 5. deltoid
- _____ 6. extensor carpi radialis longus
- _____ 7. extensor carpi ulnaris
- _____ 8. extensor digitorum
- _____ 9. external oblique
- _____ 10. flexor carpi ulnaris
- _____ 11. gastrocnemius
- _____ 12. gluteus maximus
- _____ 13. gluteus medius
- _____ 14. gracilis
- _____ 15. iliotibial tract (tendon)
- _____ 16. infraspinatus
- _____ 17. latissimus dorsi
- _____ 18. occipital belly of epicranii
- _____ 19. semimembranosus
- _____ 20. semitendinosus
- _____ 21. sternocleidomastoid
- _____ 22. teres major
- _____ 23. trapezius
- _____ 24. triceps brachii

General Review: Muscle Descriptions

13. Identify the muscles described by completing the following statements. Use an appropriate reference as needed.

1. The _____, _____, _____, and _____ are commonly used for intramuscular injections (four muscles).
2. The insertion tendon of the _____ group contains a large sesamoid bone, the patella.
3. The triceps surae insert in common into the _____ tendon.
4. The bulk of the tissue of a muscle tends to lie _____ to the part of the body it causes to move.
5. The extrinsic muscles of the hand originate on the _____.
6. Most flexor muscles are located on the _____ aspect of the body; most extensors are located _____. An exception to this generalization is the extensor-flexor musculature of the _____.

14. **Clinical/Critical Thinking** Bruxism is a condition in which individuals clench and/or grind their teeth. It often occurs as they sleep, leading to jaw pain and damaged teeth. Which muscles contract during this nocturnal event? _____

15. **Clinical/Critical Thinking** Repetitive extension of the hand at the wrist and abduction of the hand can lead to lateral epicondylitis. Although sometimes called "tennis elbow," it more often affects individuals who don't play tennis. Based on the name *lateral epicondylitis* and the action described above, which muscle would most likely have microscopic tears in the tendon? _____