

**Before you come to lab:**

1. Take the list of skeletal muscles (see Lab Exam 2 Review Sheet) and put them in categories based on their **general locations** in the body. I suggest you learn them in the following categories:
  - head/neck
  - torso (both anterior and posterior)
  - arm
  - forearm
  - thigh
  - leg

**During the lab period:**

1. Working with muscle models:
  - The hardest part of Lab Exam 2 is learning the skeletal muscles.
    - On this exam, even moreso than the first, *studying is rewarded and laziness is punished*.
  - This week is your opportunity to get experience using the lab models.
    - These are the models that I'll use for the lab exam.
  - We have six appendage models (three arms and three legs) and two torso models.
    - You can find copies of the keys for the appendage models and the "old" torso model on pp. 205-206. Students prefer to study off the old torso, so this is the one I test from.
    - Please do **NOT** disassemble the appendage models. All of the muscles that you need to know are on the outside surface.
  - Using the models and the keys provided, make your own keys to the models.
    - Only concentrate on the muscles for which you are responsible!
    - I've provided sheets for you to use to make your keys.
      - These are for your use only! Don't pass them in!
  - You are responsible for learning the major action of each muscle.
    - This information can be found in Exercise 15 in the *Lab Manual* (pp. 197-226).
    - Pick the one action that makes sense to you.
    - I test the actions by multiple choice, so you'll have a decent shot if you're at least familiar with what each muscle does.
  - Two more Lab Exam hints:
    1. I always pick the largest, most prominent muscles for the exam.
    2. You'll be tested on the head/neck muscles by figure only!

**Additional resources:**

1. In the course website, in the section on lab materials, I've uploaded all of the muscle figures from the textbook without their labels.
  - This may be helpful, but is no substitute for using the models.
2. Check out this website: <http://daphne.palomar.edu/ccarpenter/Models/model%20index.htm>
  - This site has photos of models (including our appendage models).
  - If you move your mouse over the different numbers, you'll see the name of the muscle appear.
3. Your Practice Anatomy Lab (PAL) CD-ROM also has photos of muscle models. You can take quizzes on the muscles there.
4. Lastly, the ARC also has muscle models available for you to use.

**Muscles, Ligaments and Tendons of the Arm**

1. Supraspinatus
2. Infraspinatus
3. Teres major
4. Teres minor
5. Latissimus dorsi
6. Subscapularis
7. Deltoid
8. Pectoralis major
9. Biceps (brachii)
10. Brachialis
11. Triceps
12. Pronator teres
13. Flexor carpi radialis
14. Palmaris longus
15. Flexor carpi ulnaris
16. Extensor carpi ulnaris
17. Extensor digitorum
18. Extensor carpi radialis brevis
19. Extensor carpi radialis longus
20. Brachioradialis
21. Tendon of extensor pollicis longus
22. Extensor pollicis brevis
23. Abductor pollicis longus

24. Flexor digitorum sublimis
25. Supinator
26. Volar fascia
27. Extensor retinaculum
28. Flexor pollicis brevis
29. Abductor pollicis brevis
30. Adductor pollicis
31. Opponens pollicis
32. Opponens digiti minimi
33. Flexor digiti minimi
34. Abductor digiti minimi
35. Lumbricals
36. Dorsal interosseus muscles of the hand
37. Flexor retinaculum of upper limb
38. Tendon sheath
39. Crucial strings of the tendon sheath
40. Annular strings of the tendon sheath
41. Tendon of the flexor pollicis
42. Tendons of the flexor digitorum sublimis
43. Tendons of the flexor digitorum profundus
44. Chiasma tendinum

**Muscles, Ligaments and Tendons of the Leg**

1. Psoas major
2. Iliacus
3. Gluteus maximus
4. Gluteus medius
5. Piriformis
6. Obturator internus
7. (a) Superior gemellus
7. (b) Inferior gemellus
8. Quadratus femoris
9. Tensor fasciae latae
10. Sartorius
11. (a-b-c-d) Quadriceps femoris
  - a. Rectus femoris
  - b. Vastus medialis
  - c. Vastus lateralis
  - d. Vastus intermedius
  - e. Common tendon of 11(a-b-c-d)
12. Pectineus
13. Adductor longus
14. Adductor magnus
15. Gracilis
16. Semitendinosus
17. Semimembranosus
18. (a-b) Biceps femoris
  - a. Caput longum
  - b. Caput breve

19. Tibialis anterior
20. Extensor hallucis longus
21. Extensor digitorum longus
22. Peroneus longus
23. Peroneus brevis
24. (a-b-c) Triceps surae
  - (a-b) Gastrocnemius
    - a. Caput mediale
    - b. Caput laterale
    - c. Soleus (# is on deep side of muscle)
    - d. Achilles tendon (tendo calcaneus)
25. Plantaris
26. Popliteus
27. Flexor digitorum longus
28. Tibialis posterior
29. Flexor hallucis longus
30. Extensor hallucis brevis
31. Extensor digitorum brevis
32. Abductor hallucis
33. Flexor hallucis brevis
34. Abductor digiti minimi
35. Flexor digiti minimi brevis
36. Flexor digitorum brevis
37. Lumbricals
38. Dorsal interosseus muscles of the foot

# MUSCLE MODEL KEYS

## Muscles on the “Old Torso” (identical to torso model in ARC)

- |  |                            |  |
|--|----------------------------|--|
| 1. Frontalis                             | 35. Stylohyoideus          | 71. Intertransversarius                      |
| 2. Procerus                              | 36. Pterygoideus internus  | 72. see 71                                   |
| 3. Orbicularis oculi                     | 37. Sternohyoideus         | 73. Ligamentum lumbosacral                   |
| 4. Rectus superior                       | 38. Sternothyroideus       | 74. Lumbodorsal fascia                       |
| 5. Rectus lateralis                      | 39. Thyreohyoideus         | 75. Levator costae                           |
| 6. Rectus inferior                       | 40. Cricothyroideus        | 76. see 75                                   |
| 7. Ligamentum palpebrale mediale         | 41. Omohyoideus            | 77. Rotator spinae                           |
| 8. Quadrati labii superioris             | 42. Scalenus anterior      | 78. see 77                                   |
| 9. Levator labii superioris alaequenasii | 43. Scalenus medius        | 79. Intercostalis internus                   |
| 10. Levator labii superioris             | 44. Scalenus posterior     | 80. Internal oblique*                        |
| 11. Zygomaticus minor                    | 45. Levator scapulae       | 81. Quadratus lumborum                       |
| 12. Caninus                              | 46. Splenius capitis       | 82. Psoas major                              |
| 13. Zygomaticus                          | 47. see 24                 | 83. Psoas minor                              |
| 14. Orbicularis oris                     | 48. Supraspinatus          | 84. Iliacus                                  |
| 15. Mentalis                             | 49. Infraspinatus          | 85. Coccygeus                                |
| 16. Transversus menti                    | 50. Teres minor            | 86. Piriformis                               |
| 17. Triangularis                         | 51. Teres major            | 87. Obturator                                |
| 18. Buccinator                           | 52. Deltoideus             | 88. Tensor fasciae latae                     |
| 19. Masseter                             | 53. Triceps brachii        | 89. Sartorius                                |
| 20. Platysma                             | 54. see 53                 | 90. Rectus femoris                           |
| 21. Temporalis                           | 55. Subscapularis          | 91. Iliopsoas                                |
| 22. Auricularis posterior                | 56. Coracobrachialis       | 92. Pectineus                                |
| 23. Sternocleidomastoideus               | 57. Biceps brachii         | 93. Adductor longus                          |
| 24. Trapezius                            | 58. see 57                 | 94. Gracilis                                 |
| 25. Occipitalis                          | 59. Pectoralis major       | 95. Vastus intermedius                       |
| 26. Transversus nuchae                   | 60. Pectoralis minor       | 96. Gluteus maximus                          |
| 27. Semispinalis capitis                 | 61. Serratus anterior      | 97. Biceps femoris                           |
| 28. Mylohyoideus                         | 62. Intercostalis externus | 98. Tractus iliotibialis                     |
| 29. Geniohyoideus                        | 63. External oblique       | 99. Prominence of greater trochanter femorus |
| 30. Genioglossus                         | 64. Latissimus dorsi       | 100. Gluteus medius                          |
| 31. Digastricus                          | 65. Linea alba             | 101. see 86                                  |
| 32. see 31                               | 66. Rectus sheath          | 102. Gemellus inferior                       |
| 33. Styloglossus                         | 67. Ligamentum inguinale   | 103. Obturator externus                      |
| 34. Stylopharyngeus                      | 68. Rectus abdominis*      | 104. Quadriceps femoris                      |
|  | 69. Transversus abdominis  | 105. Adductor minimus                        |
|  | 70. Interspinalis          | 106. see 97                                  |
|  |                            | 107. Semimembranosus                         |
|  |                            | 108. Adductor magnus                         |
|  |                            | 109. Sphincter ani externus                  |

\*If you use the key inside the torso model stand, these are switched and are misidentified in the key.





















