Muscle Movements, Types, and Names

14. Figure 6–5:


16.  1. C or prime mover.  2. B or fixator.  3. D or synergist.  4. D or synergist.  5. A or antagonist.  6. B or fixator.


Gross Anatomy of the Skeletal Muscles


20. Figure 6–8: 1. F. 2. E. 3. A. 4. B. 5. E.


25. 1. 4. 2. 5. 3. 17. 4. 16. 5. 7. 6. 6. 7. 19. 8. 14. 9. 18. 10. 12. 11. 11. 12. 10. 13. 21. 14. 11. 15. 2. 16. 3. 17. 15. 18. 20. 19. 13. 20. 9. 21. 8.

26. 1. 2. 3. 1. 3. 5. 4. 9. 5. 7. 6. 4. 7. 12. 8. 3. 9. 8. 10. 10. 11. 11. 12. 6.

Developmental Aspects of the Muscular System


The Incredible Journey


At the Clinic

29. Tendons attaching at the anterior wrist are involved in wrist and finger flexion. Malcolm will lose his ability to make a fist and grasp a baseball.

30. The hamstrings can be strained (pulled) when the hip is flexed and the knee is vigorously extended at the same time.

31. The rectus abdominis is a narrow, medially placed muscle that does not extend completely across the iliac regions. No, if the incision was made as described, the rectus abdominis was not cut.

32. The latissimus dorsi and the trapezius, which together cover most of the superficial surface of the back, are receiving most of the massage therapist’s attention.

33. The chances are good that the boy has Duchenne muscular dystrophy. This condition is fatal when it impairs the respiratory muscles.

34. By reducing the size of the abdomen, the abdominal contents are forced into a smaller space which would increase the intra-abdominal pressure. The rise in intra-abdominal pressure would, in turn, force the vertebrae to move farther apart, reducing vertebral compression and pressure on the nerve fibers that transmit pain.

35. The pesticide is a chemical that inhibits the enzyme that destroys acetylcholine. Acetylcholine remains in the synapse and stimulates muscle activity.

Chapter 7  The Nervous System

1. 1. It monitors all information about changes occurring both inside and outside the body. 2. It processes and interprets the information received and integrates it in order to make decisions. 3. It commands responses by activating muscles, glands, and other parts of the nervous system.

Organization of the Nervous System

2. 1. B or CNS. 2. D or somatic nervous system. 3. C or PNS. 4. A or autonomic nervous system.

5. B or CNS. 6. C or PNS.

Nervous Tissue—Structure and Function

3. 1. B or neuroglia. 2–4. A or neurons. 5. B or neuroglia.

4. 1. B or axonal terminal. 2. C or dendrite. 3. D or myelin sheath. 4. E or cell body. 5. A or axon.

5. 1. A or bare nerve endings, D or muscle spindle. 2. A or bare nerve endings, E or Pacinian corpuscle. 3. E or Pacinian corpuscle (perhaps also B and D). 4. B or Golgi tendon organ, D or muscle spindle. 5. C or Meissner’s corpuscle.

6. 1. C or cutaneous sense organs. 2. L or Schwann cells. 3. M or synapse. 4. O or tract. 5. B or association neuron. 6. I or nodes of Ranvier. 7. E or ganglion. 8. D or efferent neuron. 9. K or proprioceptors. 10. N or stimuli. 11. A or afferent neuron. 12. G or neurotransmitters.