WORKBOOK ANSWERS
CHAPTER 7
Diseases and Conditions of the Musculoskeletal System
1. During the first weeks of a new exercise program or after a sudden increase in the amount of exercise during an existing program

2. The cause is unknown.

3. No

4. Osteoarthritis (degenerative joint disease)

5. Red with a red circular center that resembles a bull’s eye on a target

6. Excessive uric acid in the blood and synovial fluid of the joints

7. Marfan syndrome

8. Osteitis deformans (Note: Paget’s disease of the breast, see Chapter 12)

9. Pelvis, tibia

10. Osteosarcoma

11. Osteomalacia/rickets

12. Female

13. Ganglion

14. Bunion

15. Torn meniscus
16. Lordosis, kyphosis, scoliosis
17. Joints
18. 1975, Lyme, Connecticut
19. Tenderness, pain when moving the affected part, flexion and extension limitation, edema at the site of inflammation
20. Corticosteroids
21. First metatarsal joint of the great toe
22. Osteoporosis
23. The tumor type, extent of disease at presentation, and the anatomic location of affected bone
24. First-, second-, or third-degree/grade
25. Amputation
26. Yes
27. Heel, calcaneus
28. Wear proper footwear
29. DEXA scan (dual energy x-ray absorptiometry scan)
30. Immediately
FILL IN THE BLANKS

1. organs, body, muscle
2. striated, nonstriated, cardiac
3. osteogenesis
4. third, gestation
5. movement
6. cartilage, tissue, ends, bones
7. serotonin
8. muscles, tendons, bony, facilitate
9. humerus, tibia, femur, vertebrae
10. limb, amputation
11. muscle atrophy
12. ganglion, back, surface
ANATOMIC STRUCTURES
MUSCULAR SYSTEM-ANTERIOR VIEW

1. Frontalis
2. Masseter
3. Sternocleidomastoid
4. Deltoid
5. External oblique
6. Sartorius
7. Gastrocnemius
8. Soleus
9. Rectus femoris
10. Rectus abdominis
11. Biceps brachii
12. Pectoralis major
13. Trapezius
14. Temporalis
ANATOMIC STRUCTURES
MUSCULAR SYSTEM-POSTERIOR VIEW

1. Sternocleidomastoid
2. Trapezius
3. Deltoid
4. Triceps brachii
5. Soleus
6. Gastrocnemius
7. Biceps femoris
8. Gluteus maximus
9. Latissimus dorsi
ANATOMIC STRUCTURES
TYPES OF MUSCLES

A. Striated (skeletal) muscle

B. Nonstriated (smooth) muscle

C. Cardiac muscle
ANATOMIC STRUCTURES
SKELETAL SYSTEM-ANTERIOR VIEW

1. Cranium
2. Facial bones
3. Clavicle
4. Scapula
5. Humerus
6. Xiphoid process
7. Radius
8. Ulna
9. Carpals (8)
10. Metacarpals (5)
11. Phalanges (14)
12. Femur
13. Tibia
14. Tarsals (7)
15. Phalanges (14)
16. Metatarsals (5)
17. Fibula
18. Patella
19. Pubis
20. Ischium
21. Coccyx
22. Sacrum
23. Ilium
24. Vertebral column
25. Costal cartilage
26. Ribs (12)
27. Sternum
28. Mandible

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ANATOMIC STRUCTURES
TYPES OF JOINTS

- Shoulder (ball-and-socket joint)—freely moveable
- Cranial sutures—immovable
- Elbow (hinge joint)—freely moveable
- Wrist (ellipsoidal joint)—freely moveable
- Pubic symphysis—slightly moveable
- Intervertebral joints—slightly moveable
ANATOMIC STRUCTURES
TYPES OF FRACTURES

A. Closed, or simple
B. Open, or compound
C. Longitudinal
D. Transverse
E. Oblique
F. Greenstick
G. Comminuted
H. Impacted
I. Pathologic
J. Nondisplaced
K. Displaced
L. Spiral
M. Compression
N. Avulsion
O. Depression
# MULTIPLE CHOICE QUESTIONS

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<thead>
<tr>
<th>Pharmacology Questions</th>
<th>Certification Examination Review Questions</th>
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<tbody>
<tr>
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</tr>
<tr>
<td>2. C</td>
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Logan
9 months
The treatment for fractures depends on the type, severity, location, and cause of the break. Radiograph films are taken to help determine these factors. Reduction and immobilization can be used for simple fractures that involve long bones such as the radius and ulna.

When the patient has a compound fracture, the wound must be debrided and cleaned before reduction and immobilization can be accomplished. Casting, splinting, taping, and internal or external fixation are used to immobilize the fracture. If internal fixation is necessary, surgically implanted pins, wires, rods, plates, screws, or other devices must be utilized. In some cases it is necessary to place the fracture in traction to hold the ends of the bones in proper alignment until healing is complete.
Possible Scoliosis

Schedule for the next available appointment. Keep in mind the anxiety the parent may be experiencing.
PATIENT SCREENING #2

Possible Lyme Disease

Schedule for the next available appointment. Early detection of Lyme disease is important. In areas where the deer tick is prevalent or the patient reports a “target lesion,” visual inspection and diagnostic laboratory tests are necessary. Likewise, if a patient reports flulike symptoms 2 to 4 weeks after a tick bite, an appointment for prompt diagnostic evaluation is indicated.
Possible Gout

Schedule a timely appointment to begin treatment and obtain medication to relieve pain.
Possible Strain and Sprain

Schedule a same-day appointment for an individual with a painful ankle injury with inability to bear weight or walk. If an appointment is not possible, refer to an urgent care or emergency facility.
Possible Severed Tendon

Pain and immobility of the affected area after injury requires prompt medical care. In addition, the laceration will require attention. Refer to an urgent care or emergency care facility.
PATIENT TEACHING #1

- Osteoarthritis

Reinforce that certain food supplementation—therapeutic diets, medications, and proper exercise can significantly improve the quality of life for the patient. Provide the patient with printed materials available in the office. Encourage him or her to remain active as prescribed by the physician.
Lyme Disease

Reinforce the importance of completing the entire regimen of antibiotics as prescribed. In addition, stress the importance of keeping the follow-up appointment.
PATIENT TEACHING #3

Gout

Using printed material available in the office, help the patient understand that early measures to treat inflammation, such as ice packs and antiinflammatory medication, could be helpful to avoid prolonged pain and dysfunction. Specific dietary instructions should be given to each patient with gout.
PATIENT TEACHING #4

➤ Osteoporosis

Using the printed information, provide the patient with information regarding preferred diets. She should be instructed to stop smoking and informed about calcium and vitamin D intake, along with recommended exercise programs.
PATIENT TEACHING #5

Fractures

Discuss with the patient what he or she has been told by the physician. Help the patient understand that optimal rehabilitation of the involved body areas requires the patient’s understanding of the condition and long-term goals. Discuss the patient’s understanding of the area involved, and ask him or her to define his or her long-term goals. Patient education should be focused on appropriate conditioning programs to avoid fractures. After a fracture, instructions on cast or brace care, activity limitations, and gradual rehabilitation exercises are essential. Physical therapy will possibly be prescribed in the near future, if not already in progress, to maintain function of the affected structures.