CHAPTER 6

The Skeletal and Muscular Systems

LEARNING OBJECTIVES

After completing this chapter, you will be able to:

• Define and spell the word parts used to create medical terms for the skeletal and muscular systems.
• Break down and define common medical terms used for symptoms, diseases, disorders, procedures, treatments, and devices associated with the skeletal and muscular systems.
• Build medical terms from word parts associated with the skeletal and muscular systems.
• Pronounce and spell common medical terms associated with the skeletal and muscular systems.
Phonetic Spelling Challenge

Spell the medical term correctly in the space provided.

1. ah TAK see ah ____________________________
2. DISS troh fee ____________________________
3. TEN oh DINN ee ah ____________________________
4. my AL jee ah ____________________________
5. highPER troh fee ____________________________
6. diss kih NEE see ah ____________________________
7. ahr THRAL jee ah ____________________________
8. BRAD ee kih NEE see ah ____________________________
9. AT roh fee ____________________________
10. DEE kal sih fih KAY shun ____________________________
11. an kill OH siss ____________________________
12. ber SIGH tiss ____________________________
13. BUN yun ____________________________
14. FIE broh my AHL jee ah ____________________________
15. OSS tee oh sar KOH mah ____________________________
16. OSS tee oh my eh LYE tiss ____________________________
17. TEN oh sin oh VYE tiss ____________________________
18. kon DREK toh me ____________________________
19. disk EK toh mee ____________________________
20. or THOTT iks ____________________________
Spelling Challenge
These terms are spelled incorrectly. Spell each term correctly in the space provided.

1. spondilarthritis ____________________________
2. tendonightis ____________________________
3. arthrouplasty ____________________________
4. electromiography ____________________________
5. kraniotomy ____________________________
6. carpull tunnel syndrome ____________________________
7. epicondilitis ____________________________
8. menisitis ____________________________
9. excision ____________________________
10. tempoormandibular ____________________________
11. aspiration ____________________________
12. Archilly’s tendon ____________________________
13. musculorskeletal ____________________________
14. scoleosis ____________________________
15. kiropractict ____________________________

Abbreviation Matchup
Select and match the correct abbreviation to the definition.

_______ 1. Total knee replacement  a. ROM
_______ 2. Myasthenia gravis b. RA
_______ 3. Degenerative joint disease c. MG
_______ 4. Range of motion d. DJD
_______ 5. Spinal cord injury e. TKR
_______ 6. Rheumatoid arthritis f. THR
_______ 7. Total hip replacement g. SCI
True/False
Mark each statement as true (T) or false (F).

_____ 1. There are a total of 209 bones in the human body.
_____ 2. Another term for a ruptured disk is a herniated disk.
_____ 3. Inflammation of bone tissue is called osteitis.
_____ 4. The term *myasthenia* means a serious weakness in the muscles.
_____ 5. A congenital disease called Marfan’s syndrome results in excessive cartilage formation at the growth plates, or epiphyseal plates, forming abnormally long limbs and a tall, thin body form.
_____ 6. Kyphosis is an exaggerated anterior spinal curve in the lumbar area, causing the patient to bend forward.
_____ 7. Scoliosis is a lateral curvature of the spine.
_____ 8. Inflammation of the white bone marrow is a painful disease known as osteomyelitis.
_____ 9. A sprain is a tear of collagen fibers within a ligament.
_____ 10. A sprain is a stretching of a muscle beyond its normal range.

Fill in the Blank
Fill in the blank with the correct medical term from this chapter.

11. ____________________________ is the inflammation of a tendon, a common sports injury.
12. ____________________________ is a form of tendonitis that involves inflammation of the synovial membrane.
13. A break or fracture at the ankle that affects both bones of the leg is called a(n) ____________________________.
14. When a break causes an abnormal alignment of bone pieces, it is called ____________________________.
15. A crushed break is called a(n) ____________________________.
16. The medical specialty that focuses on foot health is ____________________________.
17. A medical field that emphasizes the relationship between the musculoskeletal system and overall health, with an emphasis on preventative herbal medicine, is ____________________________.
18. A surgical procedure that repairs damaged or diseased vertebrae is called a(n) ____________________________.
19. The term that means withdrawal by suction is ____________________________.
20. The correct medical term for “humpback” is ____________________________.

Short Answer
Write the definition for each of the following terms.
21. Hypertrophy ___________________________________________________________
22. Dystrophy ___________________________________________________________
23. NSAIDs _____________________________________________________________
24. Ostectomy ___________________________________________________________
25. Myoplasty ___________________________________________________________

Word Search
Fill in the blank with the correct medical term from this chapter.
1. The surgical repair of bone is a general procedure known as ____________________________.
2. The surgical procedure involving the repair of both muscle and tendon is a(n) ____________________________.
3. During a(n) ____________________________, a joint is loosened of abnormal restrictions, such as calcium deposits and bursoliths.
4. This is the medical term for a break in a bone. ____________________________.
5. A disease of unknown origin that produces widespread pain of musculoskeletal structures—other than joints—of the limb, face, and trunk is known as ____________________________.
6. A person experiencing sharp pain in the joints of the toes, especially the big toe, might be suffering from ____________________________.
7. ____________________________ is an exaggerated anterior spinal curve in the lumbar area.
8. Also called Paget’s disease, ____________________________ deformans results in bone deformities due to the acceleration of bone loss.
9. In the disease ____________________________, the bones become softened due to the excessive removal of calcium for other body functions.
10. A break in the distal part of the radius is called a(n) ____________________________ fracture.
11. The term ____________________________ means a surgical fixation or stabilization of a joint.

12. Also performed to treat a herniated disk is a(n) ____________________________, during which the part of a vertebra known as the lamina is surgically removed to relieve pressure on the spinal cord.

13. A surgery involving the removal of a rib is known as a(n) ____________________________.

14. A disease resulting in the softening of bones is generally known as ____________________________.

15. Similar to a sprain but involving a muscle, a(n) ____________________________ is usually caused by stretching a muscle beyond its normal range.
Dictation Report

Write each numbered term as you hear it, spelling each term correctly. This exercise will help you learn to hear, comprehend, visualize, and spell the new medical terms accurately.

Mr. Jones is being admitted to the hospital for the repair of a(n) (1) __________________________ at the (2) __________________________ level. He has been experiencing back pain for the last six months and has been under the care of a(n) (3) __________________________. The patient reports that he has not received any relief from his symptoms and is not seeking surgical intervention.

The patient has a history of (4) __________________________ as a child. He has never had back surgery. He reports he experiences episodes of (5) __________________________ occasionally in both great toes. There is a history of diagnosed (6) __________________________ in his father and (7) __________________________ in his maternal grandmother. Tests have been performed to rule out the conditions of (8) __________________________, (9) __________________________, and (10) __________________________. He has no history of (11) __________________________ within the family.

Mr. Jones has been advised that without surgical intervention, it is likely he will continue to experience pain. Mr. Jones’s herniation could result in (12) __________________________, or __________________________, and even (13) __________________________. Mr. Jones is also experiencing (14) __________________________, or inflammation of the joints of the vertebra, which is causing a gradual inability to flex and bend the back. A medication regimen of (15) __________________________ has been recommended.
Due to Mr. Jones’s back pain and instability in walking, he has fallen a number of times, injuring the (16) __________________ of the ankle. This tendon, also known as the (17) ______________________________, might require repair at a future date. A(n) (18) ______________________________ is not scheduled at this time. However, it is anticipated that Mr. Jones will need a consultation with a(n) (19) ______________________________ at discharge to further evaluate his feet.

It is expected that Mr. Jones will regain full (20) ______________________________ following surgery. As Mr. Jones is able to return to full weight bearing, he should be able to reverse his difficulty in movement, or (21) ______________________________.
CHAPTER 6
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Worksheet 3

Word Surgery

Read the Medical Word. Break down the medical word into its word parts, and give the meaning of each word part. Then give the definition of the medical word.

1. Dyskinesia
   Definition: _________________________________________________________________
   Prefix and definition: _______________________________________________________
   Combining form and definition: ______________________________________________
   Suffix and definition: _________________________________________________________

2. Fibromyalgia
   Definition: _________________________________________________________________
   Combining form and definition: ______________________________________________
   Suffix and definition: _________________________________________________________

3. Monoplegia
   Definition: _________________________________________________________________
   Prefix and definition: _______________________________________________________
   Combining form and definition: ______________________________________________
   Suffix and definition: _________________________________________________________

4. Achondroplasia
   Definition: _________________________________________________________________
   Prefix and definition: _______________________________________________________
   Combining form and definition: ______________________________________________
   Suffix and definition: _________________________________________________________

5. Ankylosis
   Definition: _________________________________________________________________
   Prefix and definition: _______________________________________________________
   Suffix and definition: _________________________________________________________
6. Arthroplasty
   Definition: ____________________________________________________________
   Prefix and definition: __________________________________________________
   Combining form and definition: __________________________________________
   Suffix and definition: __________________________________________________

7. Dystrophy
   Definition: ____________________________________________________________
   Prefix and definition: __________________________________________________
   Combining form and definition: __________________________________________
   Suffix and definition: __________________________________________________

8. Tenomyositis
   Definition: ____________________________________________________________
   Prefix and definition: __________________________________________________
   Combining form and definition: __________________________________________
   Suffix and definition: __________________________________________________

9. Tenorrhaphy
   Definition: ____________________________________________________________
   Combining form and definition: __________________________________________
   Suffix and definition: __________________________________________________

10. Orthopedic
    Definition: ____________________________________________________________
    Combining form and definition: _________________________________________
    Suffix and definition: _________________________________________________

11. Periosteum
    Definition: ____________________________________________________________
    Prefix and definition: _________________________________________________
    Combining form and definition: _________________________________________
    Suffix and definition: _________________________________________________

12. Costochondritis
    Definition: ____________________________________________________________
    Combining form and definition: _________________________________________
    Suffix and definition: _________________________________________________
13. Podiatrist
   Definition: _____________________________________________________________________
   Combining form and definition: ___________________________________________________
   Suffix and definition: ____________________________________________________________

14. Kyphosis
   Definition: _____________________________________________________________________
   Combining form and definition: ___________________________________________________
   Suffix and definition: ____________________________________________________________

15. Spondylosis
   Definition: _____________________________________________________________________
   Combining form and definition: ___________________________________________________
   Suffix and definition: ____________________________________________________________
CHAPTER 6
The Skeletal and Muscular Systems
Worksheet 4

Case Study
Fill in the blank with the correct medical term from this chapter.

Dorothy is seen by her doctor for her yearly physical. She is 68 years old, and she feels well except for pain in her right knee. The medical term for joint pain is ____________________________ (1). This pain occurs mainly when she is going down steps. On examination of her right knee the doctor finds signs consistent with chronic inflammation of the joint. The medical term for this is ____________________________ (2). For this he prescribes the use of ibuprofen, which is in the class of drugs called ____________________________ (3). During examination her doctor also notices that she has an abnormal hump at the upper back. He informs her that this is an abnormal curvature of the spine called ____________________________ (4). This abnormal curvature can be associated with thinning of the bones, also known as ____________________________ (5).
Medical Report Analysis

Consider the following excerpt from a clinician’s notes following completion of a musculoskeletal examination. For the highlighted terms or word parts, provide the meaning.

Patient complains of dyskinesia (A) ________________________ with arthralgia (B) ________________________ previously diagnosed by her general practice physician as osteoarthritis (C) _________________________. Physical exam reveals mild kyphosis (D) _________________________, and x-ray examination demonstrates evidence of osteoporosis (E) _________________________. 
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Worksheet 6

Which Term Does Not Belong?
Circle the term that is not related to the other terms. Then explain why the term does not belong with the others.

1. Signs and symptoms
   a. atrophy
   b. dyskinesia
   c. hypertrophy
   d. myalgia
   e. periosteum

   Why does it not belong? ___________________________________________________________

2. Diseases and conditions
   a. orthopedist
   b. carpoptosis
   c. bursitis
   d. ankylosis
   e. achondroplasia

   Why does it not belong? ___________________________________________________________

3. Fractures
   a. Colles’
   b. compression
   c. gout
   d. greenstick
   e. spiral

   Why does it not belong? ___________________________________________________________

4. Bone disorders
   a. arthritis
   b. osteomalacia
   c. osteitis
   d. osteosarcoma
   e. rickets

   Why does it not belong? ___________________________________________________________
5. Treatments and procedures
   a. arthroscopy
   b. fasciotomy
   c. osteoplasty
   d. quadriplegia
   e. tenorrhaphy

   Why does it not belong? ______________________________
Labeling
Label the diagram below.
Key Terms Double Check

Remember that the chapter’s key terms appeared alphabetically throughout this chapter. This exercise helps you check your knowledge and review for tests.

1. First, fill in the missing word in the definitions for the chapter’s key terms.
2. Then, check your answers using the answer key.
3. If you got the answer right, put a checkmark in the right column.
4. If your answer was incorrect, go back to the frame number provided and review the content.

Use the checklist to study the terms you don’t know until you’re confident you know them all.

<table>
<thead>
<tr>
<th>Key Term</th>
<th>Frame</th>
<th>Definition</th>
<th>Know It?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. achondroplasia</td>
<td>6.16</td>
<td>literally “without _______________ formation”; a genetic disease that causes dwarfism</td>
<td>☐</td>
</tr>
<tr>
<td>2. ankylosis</td>
<td>6.17</td>
<td>an abnormal condition of _______________ stiffness</td>
<td>☐</td>
</tr>
<tr>
<td>3. arthralgia</td>
<td>6.6</td>
<td>a symptom of joint _______________</td>
<td>☐</td>
</tr>
<tr>
<td>4. arthritis</td>
<td>6.18</td>
<td>a condition of _______________ and degeneration of a joint</td>
<td>☐</td>
</tr>
<tr>
<td>5. arthrochondritis</td>
<td>6.19</td>
<td>a temporary condition of inflammation of articular cartilage within synovial _______________</td>
<td>☐</td>
</tr>
<tr>
<td>6. arthrocentesis</td>
<td>6.58</td>
<td>a procedure in which excess fluids are aspirated through a surgical _______________ in the synovial cavity of a joint</td>
<td>☐</td>
</tr>
<tr>
<td>7. arthroclasia</td>
<td>6.59</td>
<td>a procedure in which an abnormally stiff joint is _______________ during surgery to increase range of motion</td>
<td>☐</td>
</tr>
<tr>
<td>8. arthrodesis</td>
<td>6.60</td>
<td>the surgical _______________ (fusion) of a joint</td>
<td>☐</td>
</tr>
<tr>
<td>9. arthrogram</td>
<td>6.61</td>
<td>an x-ray _______________ of a joint that is printed on a film</td>
<td>☐</td>
</tr>
<tr>
<td>10. arthrolysis</td>
<td>6.62</td>
<td>a procedure in which a joint is _______________ of its abnormal restrictions, such as calcium deposits and bursoliths</td>
<td>☐</td>
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<tr>
<td>Key Term</td>
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<td>Definition</td>
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<tr>
<td>11. arthroplasty</td>
<td>6.63</td>
<td>the surgical ____________ of a joint</td>
<td></td>
</tr>
<tr>
<td>12. arthroscopy</td>
<td>6.64</td>
<td>an endoscopic visual examination of a(n) ____________ cavity that uses an instrument known as an arthroscope</td>
<td></td>
</tr>
<tr>
<td>13. arthroscopy</td>
<td>6.65</td>
<td>the surgical ____________ into the synovial cavity of a joint</td>
<td></td>
</tr>
<tr>
<td>14. ataxia</td>
<td>6.7</td>
<td>the inability to coordinate muscles during a voluntary ____________</td>
<td></td>
</tr>
<tr>
<td>15. atrophy</td>
<td>6.8</td>
<td>literally means “process of without ____________,” or condition of reduced muscle strength due to disuse</td>
<td></td>
</tr>
<tr>
<td>16. bradykinesia</td>
<td>6.9</td>
<td>abnormally ____________ movement, a clinical sign of an underlying bone, muscle, or nervous disorder</td>
<td></td>
</tr>
<tr>
<td>17. bunion</td>
<td>6.20</td>
<td>an abnormal enlargement of the joint at the base of the big ____________</td>
<td></td>
</tr>
<tr>
<td>18. bursectomy</td>
<td>6.66</td>
<td>a surgery involving the removal of a(n) ____________ from a joint</td>
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<tr>
<td>19. bursitis</td>
<td>6.21</td>
<td>____________ of a bursa</td>
<td></td>
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<tr>
<td>20. bursolith</td>
<td>6.22</td>
<td>a calcium deposit or ____________ within a bursa</td>
<td></td>
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<tr>
<td>21. carpal tunnel syndrome</td>
<td>6.23</td>
<td>a repetitive stress injury of the ____________</td>
<td></td>
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<tr>
<td>22. carpoptosis</td>
<td>6.24</td>
<td>weakness of the wrist that results in difficulty supporting the ____________</td>
<td></td>
</tr>
<tr>
<td>23. chiropractic</td>
<td>6.67</td>
<td>the field of therapy that is centered on manipulation of bones and joints, most commonly the ____________ column</td>
<td></td>
</tr>
<tr>
<td>24. chondrectomy</td>
<td>6.68</td>
<td>surgical ____________, or excision, of the cartilage associated with a joint</td>
<td></td>
</tr>
<tr>
<td>25. chondroplasty</td>
<td>6.69</td>
<td>surgical repair of ____________ associated with a joint</td>
<td></td>
</tr>
<tr>
<td>26. costectomy</td>
<td>6.70</td>
<td>a surgery involving the removal of a(n) ____________</td>
<td></td>
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<tr>
<td>27. cramps</td>
<td>6.25</td>
<td>prolonged, involuntary ____________ contractions that cause pain</td>
<td></td>
</tr>
<tr>
<td>28. cranioplasty</td>
<td>6.71</td>
<td>a surgery that involves repair of one or more bones of the ____________</td>
<td></td>
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<tr>
<td>Key Term</td>
<td>Frame</td>
<td>Definition</td>
<td>Know It?</td>
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<tr>
<td>29. craniotomy</td>
<td>6.72</td>
<td>a(n) _______________ into the cranial cavity during surgery of the brain</td>
<td>☐</td>
</tr>
<tr>
<td>30. decalcification</td>
<td>6.10</td>
<td>a clinical sign of abnormal reduction of _______________ in bone</td>
<td>☐</td>
</tr>
<tr>
<td>31. DJD</td>
<td>6.26</td>
<td>the abbreviation for a progressive, _______________ disease of the cartilage of the joints</td>
<td>☐</td>
</tr>
<tr>
<td>32. diskectomy</td>
<td>6.73</td>
<td>a surgery that involves the removal of the intervertebral _______________ to reduce pain</td>
<td>☐</td>
</tr>
<tr>
<td>33. Duchenne muscular dystrophy</td>
<td>6.27</td>
<td>a disease that causes skeletal muscle degeneration with progressive muscle _______________ and deterioration; abbreviated DMD</td>
<td>☐</td>
</tr>
<tr>
<td>34. dyskinesia</td>
<td>6.11</td>
<td>difficulty in _______________, a common sign of musculoskeletal disorder</td>
<td>☐</td>
</tr>
<tr>
<td>35. dystrophy</td>
<td>6.12</td>
<td>a general term to describe a deformity that arises during _______________</td>
<td>☐</td>
</tr>
<tr>
<td>36. electromyography</td>
<td>6.74</td>
<td>a procedure that _______________ stimulates a muscle and records and analyzes the resulting contractions</td>
<td>☐</td>
</tr>
<tr>
<td>37. epicondylitis</td>
<td>6.28</td>
<td>_______________ of small bony elevations (epicondyles) on the humerus near the elbow joint</td>
<td>☐</td>
</tr>
<tr>
<td>38. fasciotomy</td>
<td>6.75</td>
<td>a surgical incision into the _______________, the connective tissue sheath surrounding a muscle</td>
<td>☐</td>
</tr>
<tr>
<td>39. fibromyalgia</td>
<td>6.29</td>
<td>a disease of unknown origin that produces widespread _______________ of musculoskeletal structures of the limbs, face, and trunk</td>
<td>☐</td>
</tr>
<tr>
<td>40. fracture</td>
<td>6.30</td>
<td>clinical term for a break in a(n) _______________</td>
<td>☐</td>
</tr>
<tr>
<td>41. fracture reduction</td>
<td>6.76</td>
<td>a procedure that involves aligning the broken bones to their _______________ positions</td>
<td>☐</td>
</tr>
<tr>
<td>42. gout</td>
<td>6.31</td>
<td>a condition caused by an abnormal accumulation of uric _______________ crystals in the joints; usually affects the big toe joints</td>
<td>☐</td>
</tr>
<tr>
<td>43. herniated disk</td>
<td>6.32</td>
<td>a(n) _______________ of an intervertebral disk that causes pressure against spinal nerves or the spinal cord</td>
<td>☐</td>
</tr>
<tr>
<td>44. hypertrophy</td>
<td>6.13</td>
<td>a sign of excessive muscle _______________ or development</td>
<td>☐</td>
</tr>
<tr>
<td>45. kyphosis</td>
<td>6.33</td>
<td>a spine deformity with a(n) _______________ curve of the upper spine</td>
<td>☐</td>
</tr>
<tr>
<td>Key Term</td>
<td>Frame</td>
<td>Definition</td>
<td>Know It?</td>
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<td>-----------------------------------------------------------------------------</td>
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</tr>
<tr>
<td>46. lordosis</td>
<td>6.33</td>
<td>a spine deformity with a(n) ____________ curve of the lower spine</td>
<td>❑</td>
</tr>
<tr>
<td>47. Marfan’s syndrome</td>
<td>6.34</td>
<td>a congenital disease that results in excessive cartilage formation at the ____________, or epiphyseal, plates</td>
<td>❑</td>
</tr>
<tr>
<td>48. meniscitis</td>
<td>6.35</td>
<td>inflammation of a(n) ____________, a band of cartilage that supports certain joints such as the knee and shoulder</td>
<td>❑</td>
</tr>
<tr>
<td>49. myalgia</td>
<td>6.14</td>
<td>____________ pain</td>
<td>❑</td>
</tr>
<tr>
<td>50. myasthenia gravis</td>
<td>6.36</td>
<td>literally “___________ muscle weakness”; a condition caused by a progressive failure of muscles to respond to nerve stimulation</td>
<td>❑</td>
</tr>
<tr>
<td>51. myeloma</td>
<td>6.37</td>
<td>a(n) ____________ that forms in the red bone marrow</td>
<td>❑</td>
</tr>
<tr>
<td>52. myocele</td>
<td>6.38</td>
<td>the ____________ of muscle through its fascia</td>
<td>❑</td>
</tr>
<tr>
<td>53. myoplasty</td>
<td>6.77</td>
<td>the surgical ____________ of a muscle</td>
<td>❑</td>
</tr>
<tr>
<td>54. myorrhaphy</td>
<td>6.77</td>
<td>a surgical procedure that ____________ the torn ends of a muscle</td>
<td>❑</td>
</tr>
<tr>
<td>55. myositis</td>
<td>6.39</td>
<td>local ____________ of a muscle</td>
<td>❑</td>
</tr>
<tr>
<td>56. nonsteroidal anti-inflammatory drugs (NSAIDs)</td>
<td>6.78</td>
<td>the most common ____________ treatment for inflammation or pain of muscle or bone tissue</td>
<td>❑</td>
</tr>
<tr>
<td>57. orthotics</td>
<td>6.79</td>
<td>the field of medical support involving the construction and fitting of ____________ appliances to assist a patient</td>
<td>❑</td>
</tr>
<tr>
<td>58. ostectomy</td>
<td>6.80</td>
<td>the surgical removal (__________) of bone tissue</td>
<td>❑</td>
</tr>
<tr>
<td>59. osteitis</td>
<td>6.40</td>
<td>inflammation of ____________ tissue</td>
<td>❑</td>
</tr>
<tr>
<td>60. osteitis deformans</td>
<td>6.41</td>
<td>a disease that results in bone deformities due to a failure of bone remodeling, which is a balance between bone loss and bone deposition; also called ____________ disease</td>
<td>❑</td>
</tr>
<tr>
<td>61. osteoclasis</td>
<td>6.81</td>
<td>a surgical procedure that involves purposely ____________ a bone to correct a defect or an improperly healed fracture</td>
<td>❑</td>
</tr>
<tr>
<td>62. osteogenesis imperfecta</td>
<td>6.43</td>
<td>an inherited, progressive disease resulting in impaired bone ____________ and fragile bones</td>
<td>❑</td>
</tr>
<tr>
<td>Key Term</td>
<td>Frame</td>
<td>Definition</td>
<td>Know It?</td>
</tr>
<tr>
<td>-----------------</td>
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<td>---------------------------------------------------------------------------</td>
<td>----------</td>
</tr>
<tr>
<td>63. osteomalacia</td>
<td>6.44</td>
<td>a disease resulting in the ____________ of bones usually caused by hormonal imbalance</td>
<td>☐</td>
</tr>
<tr>
<td>64. osteomyelitis</td>
<td>6.45</td>
<td>inflammation of the red bone ____________</td>
<td>☐</td>
</tr>
<tr>
<td>65. osteopathy</td>
<td>6.82</td>
<td>a medical field that emphasizes the relationship between the ____________ system and overall health with an emphasis on body alignment and nutrition</td>
<td>☐</td>
</tr>
<tr>
<td>66. osteoplasty</td>
<td>6.83</td>
<td>the ____________ repair of bone</td>
<td>☐</td>
</tr>
<tr>
<td>67. osteoporosis</td>
<td>6.46</td>
<td>the abnormal loss of bone ____________ that is a common result of aging</td>
<td>☐</td>
</tr>
<tr>
<td>68. osteosarcoma</td>
<td>6.42</td>
<td>____________ cancer arising from connective tissue, usually within the bone itself</td>
<td>☐</td>
</tr>
<tr>
<td>69. paraplegia</td>
<td>6.47</td>
<td>____________ of the lower body, including both legs</td>
<td>☐</td>
</tr>
<tr>
<td>70. podiatry</td>
<td>6.84</td>
<td>the healthcare specialty that focuses on ____________ health</td>
<td>☐</td>
</tr>
<tr>
<td>71. polymyositis</td>
<td>6.48</td>
<td>inflammation of ____________ muscles simultaneously in a condition caused by bacterial infection</td>
<td>☐</td>
</tr>
<tr>
<td>72. quadriplegia</td>
<td>6.47</td>
<td>a form of paralysis in which all ____________ limbs are without sensation or voluntary movement</td>
<td>☐</td>
</tr>
<tr>
<td>73. rickets</td>
<td>6.49</td>
<td>a disease in which the bones become softened due to the excessive removal of ____________ for other body functions</td>
<td>☐</td>
</tr>
<tr>
<td>74. rotator cuff injury</td>
<td>6.50</td>
<td>a trauma that causes tearing of tendons and/or muscles of the ____________</td>
<td>☐</td>
</tr>
<tr>
<td>75. scoliosis</td>
<td>6.33</td>
<td>abnormal ____________ curve of the spine, usually in the thoracic or lumbar regions</td>
<td>☐</td>
</tr>
<tr>
<td>76. spinal cord injury</td>
<td>6.51</td>
<td>a trauma to the vertebral ____________, which if severe can cause paralysis of areas of the body below the vertebral level of the injury</td>
<td>☐</td>
</tr>
<tr>
<td>77. spondylarthritis</td>
<td>6.52</td>
<td>____________ of intervertebral joints that leads to gradual inability to flex and bend the back</td>
<td>☐</td>
</tr>
<tr>
<td>78. sprain</td>
<td>6.53</td>
<td>a(n) ____________ of collagen fibers within a ligament</td>
<td>☐</td>
</tr>
<tr>
<td>79. strain</td>
<td>6.54</td>
<td>an injury that results from ____________ a muscle beyond its normal range</td>
<td>☐</td>
</tr>
<tr>
<td>Key Term</td>
<td>Frame</td>
<td>Definition</td>
<td>Know It?</td>
</tr>
<tr>
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<td>-----------------------------------------------------------------------------</td>
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</tr>
<tr>
<td>80. temporomandibular joint disease</td>
<td>6.55</td>
<td>a disease of the ____________ joint that results in frequent dislocations that make it difficult and painful to move the jaw</td>
<td>☐</td>
</tr>
<tr>
<td>81. tendonitis</td>
<td>6.56</td>
<td>inflammation of a(n) ____________</td>
<td>☐</td>
</tr>
<tr>
<td>82. tenodynia</td>
<td>6.15</td>
<td>____________ in a tendon</td>
<td>☐</td>
</tr>
<tr>
<td>83. tenomyoplasty</td>
<td>6.85</td>
<td>a surgical procedure involving the repair of both muscle and ______________</td>
<td>☐</td>
</tr>
<tr>
<td>84. tenorrhaphy</td>
<td>6.86</td>
<td>a surgery that involves ____________ a tendon to close a tear</td>
<td>☐</td>
</tr>
<tr>
<td>85. tenosynovitis</td>
<td>6.57</td>
<td>form of tendonitis that also involves inflammation of the ______________ membrane surrounding the joint</td>
<td>☐</td>
</tr>
<tr>
<td>86. tenotomy</td>
<td>6.87</td>
<td>a procedure in which one or more ____________ are made into a tendon</td>
<td>☐</td>
</tr>
<tr>
<td>87. vertebroplasty</td>
<td>6.88</td>
<td>a surgical procedure that repairs damaged or diseased ______________</td>
<td>☐</td>
</tr>
</tbody>
</table>
CHAPTER 6
The Skeletal and Muscular Systems
Worksheet 9

Crossword Puzzle

Directions: Fill in the crossword puzzle with the words missing from the sentences below. Match the number of the sentence to the boxes placed across or down the grid. If filled out correctly, the words will fit neatly into the puzzle.

ACROSS
4 In the joint disease ___________, the articular cartilage within synovial joints undergoes inflammation, resulting in joint pain during movements.
7 The branch of medicine focusing on skeletal diseases is known as ___________.
8 An alternate term for spinal fusion is ___________.
9 In the procedure known as arthrocentesis, excess fluids are ___________ or withdrawn by suction, through a surgical puncture into the synovial cavity of the joint.

DOWN
1 A sign of reduced muscle size known as ___________.
2 As a muscle shortens in length by contraction, its pulls on the tendons connecting it to ___________ to produce body movement.
3 A disease of unknown origin that produces widespread pain of musculoskeletal structures of the limbs, face, and trunk is known as ___________.
5 In the disease ___________, the bones become softened due to the excessive removal of calcium for other body functions.
6 ___________ gravis is characterized by a progressive failure of muscles to respond to nerve stimulation.
CHAPTER 6
The Skeletal and Muscular Systems
Worksheet 1 Answers

Phonetic Spelling Challenge
1. ataxia
2. dystrophy
3. tenodynia
4. myalgia
5. hypertrophy
6. dysequisia
7. arthralgia
8. bradykinesia
9. atrophy
10. decalcification
11. ankylosis
12. bursitis
13. bunion
14. fibromyalgia
15. osteosarcoma
16. osteomyelitis
17. tenosynovitis
18. chondrectomy
19. diskectomy
20. orthotics

Spelling Challenge
1. spondylarthritis
2. tendonitis
3. arthroplasty
4. electromyography
5. craniotomy
6. carpal tunnel syndrome
7. epicondylitis
8. meniscitis
9. excision
10. temporomandibular
11. aspiration
12. Achilles tendon
13. musculoskeletal
14. scoliosis
15. chiropractic

Abbreviation Matchup
1. TKR
2. MG
3. DJD
4. ROM
5. SCI
6. RA
7. THR

True/False
1. F
2. T
3. T
4. T
5. T
6. F
7. T
8. F
9. T
10. F
Fill in the Blank

11. Tendonitis
12. Tenosynovitis
13. Pott’s fracture
14. displaced
15. compression fracture
16. podiatry
17. osteopathy
18. vertebroplasty
19. aspiration
20. kyphosis

Short Answer

21. Abnormal muscle growth
22. A general term used to describe a deformity arising during development, literally meaning “bad development”
23. Nonsteroidal anti-inflammatory drugs
24. Surgical removal, or excision, of bone tissue
25. A surgical repair that involves the suturing together of torn muscle ends

Word Search

1. osteoplasty
2. tenomyoplasty
3. arthrolysis
4. fracture
5. fibromyalgia
6. gout
7. lordosis
8. osteitis
9. rickets
10. Colles
11. arthrodesis
12. laminectomy
13. costectomy
14. osteomalacia
15. strain
Dictation Report

Write each numbered term as you hear it, spelling each term correctly. This exercise will help you learn to hear, comprehend, visualize, and spell the new medical terms accurately.

Mr. Jones is being admitted to the hospital for the repair of a (1) herniated disk at the (2) L2 level. He has been experiencing back pain for the last six months and has been under the care of an (3) orthopedist. The patient reports that he has not received any relief from his symptoms and is not seeking surgical intervention.

The patient has a history of (4) scoliosis as a child. He has never had back surgery. He reports he experiences episodes of (5) gout occasionally in both great toes. There is a history of diagnosed (6) Marfan’s syndrome in his father and (7) myasthenia gravis in his maternal grandmother. Tests have been performed to rule out the conditions of (8) osteomalacia, (9) osteogenesis imperfecta, and (10) osteoporosis. He has no history of (11) rickets within the family.

Mr. Jones has been advised that without surgical intervention, it is likely he will continue to experience pain. Mr. Jones’s herniation could result in (12) SCI, or spinal cord injury, and even (13) paraplegia. Mr. Jones is also experiencing (14) spondylarthris, or inflammation of the joints of the vertebra, which is causing a gradual inability to flex and bend the back. A medication regimen of (15) NSAIDs has been recommended.

Due to Mr. Jones’s back pain and instability in walking, he has fallen a number of times, injuring the (16) calcaneal tendon of the ankle. This tendon, also known as the (17) Achilles tendon, might require repair at a future date. A (18) tenorrhaphy is not scheduled at this time. However, it is anticipated that Mr. Jones will need a consultation with a (19) podiatrist at discharge to further evaluate his feet.

It is expected that Mr. Jones will regain full (20) ROM, or range of motion, following surgery. As Mr. Jones is able to return to full weight bearing, he should be able to reverse his difficulty in movement, or (21) dyskinesia.
CHAPTER 6
The Skeletal and Muscular Systems

Worksheet 3 Answers

Word Surgery

1. Dyskinesia
   Definition: Difficult or painful movement
   Prefix and definition: dys-, difficult or painful
   Combining form and definition: kinesi/o, movement
   Suffix and definition: -a, singular

2. Fibromyalgia
   Definition: Pain in the muscle fibers
   Combining form and definition: fibr/o, fibers; my/o, muscle
   Suffix and definition: -algia, pain

3. Monoplegia
   Definition: Paralysis of one limb
   Prefix and definition: mono-, one
   Combining form and definition: pleg/o, paralysis
   Suffix and definition: -plegia, paralysis

4. Achondroplasia
   Definition: A condition where cartilage fails to form properly
   Prefix and definition: a-, without
   Combining form and definition: chondr/o, cartilage
   Suffix and definition: -plasia, formation or development

5. Ankylosis
   Definition: A condition characterized by deformity of the bones. The term technically means “crooked condition.”
   Prefix and definition: ankyl-, crooked
   Suffix and definition: -osis, state or condition

6. Arthroplasty
   Definition: Surgical reconstruction of the joint
   Combining form and definition: arthr/o, joint
   Suffix and definition: -plasty, surgical repair

7. Dystrophy
   Definition: Difficult or painful development or growth
   Prefix and definition: dys-, painful or difficult
   Combining form and definition: troph/o, development or growth
   Suffix and definition: -y, condition

8. Tenomyositis
   Definition: Inflammation of the muscles and tendons
   Combining form and definition: ten/o, tendon; myos/o, muscle
   Suffix and definition: -itis, inflammation
9. Tenorrhaphy
   Definition: Suturing of a tendon
   Combining form and definition: ten/o, tendon
   Suffix and definition: -rrhaphy, suture or stitch

10. Orthopedic
    Definition: Related to the skeletal system. The term technically means “straight child.”
    Combining form and definition: orth/o, straight ped/o, child
    Suffix and definition: -ic, related to or pertaining to

11. Periosteum
    Definition: Pertaining to the tissues surrounding the bone
    Prefix and definition: peri-, around
    Combining form and definition: oste/o, bone
    Suffix and definition: -um, related to

12. Costochondritis
    Definition: Inflammation of the ribs and cartilage
    Combining form and definition: cost/o, rib; chondr/o, cartilage
    Suffix and definition: -itis, inflammation

13. Podiatrist
    Definition: A clinician who treats conditions of the foot
    Combining form and definition: pod/o, foot; iatr/o, treatment
    Suffix and definition: -ist, person who specializes in

14. Kyphosis
    Definition: A condition characterized by an exaggerated curvature of the thoracic spine
    resulting in a hunch-backed appearance
    Combining form and definition: kyph/o, hump
    Suffix and definition: -osis, condition

15. Spondylosis
    Definition: A condition of the spine
    Combining form and definition: spondyl/o, spine
    Suffix and definition: -osis, state or condition
Building Medical Terms

1. arthralgia
2. arthritis
3. nonsteroidal anti-inflammatory drugs or NSAIDS
4. kyphosis
5. osteoporosis
CHAPTER 6
The Skeletal and Muscular Systems

Worksheet 5 Answers

Medical Report Analysis

A. Difficulty moving
B. Joint pain
C. Inflammation of bones and joints
D. Abnormal curvature of the thoracic spine causing a “hunchbacked” appearance
E. Loss of bone density commonly attributed to aging
CHAPTER 6
The Skeletal and Muscular Systems

Worksheet 6 Answers

Which Term Does Not Belong?

1. E  Periosteum is the outer layer of bone rather than a sign or symptom.
2. A  An orthopedist treats diseases and conditions related to the skeletal system and is not a disease or condition.
3. C  Gout is a disease of the foot that is the result of a buildup of uric acid.
4. A  Arthritis is a joint disorder rather than a bone disorder.
5. D  Quadriplegia is a condition of paralysis in all four extremities and is not a treatment or procedure.
CHAPTER 6
The Skeletal and Muscular Systems

Worksheet 7 Answers

Labeling
CHAPTER 6
The Skeletal and Muscular Systems

Worksheet 8 Answers

Key Terms Double Check

1. cartilage or gristle
2. joint
3. pain
4. inflammation
5. joints
6. puncture
7. broken
8. fixation
9. image
10. loosened
11. repair
12. joint
13. incision
14. activity
15. development
16. slow
17. toe
18. bursa
19. inflammation
20. stone
21. wrist
22. hand
23. vertebral
24. removal
25. cartilage
26. rib
27. muscular
28. cranium
29. incision
30. calcium
31. degenerative
32. disk
33. weakness
34. movement
35. development
36. electrically
37. inflammation
38. fascia
39. pain
40. bone
41. normal
42. acid
43. rupture
44. growth
45. posterior
46. anterior
47. growth
48. meniscus
49. muscle
50. serious
51. tumor
52. protrusion
53. repair
54. sutures
55. inflammation
56. pharmacological
57. orthopedic
58. excision
59. bone
60. Paget’s
61. breaking
62. growth
63. softening
64. marrow
65. musculoskeletal
66. surgical
67. density
68. bone
69. paralysis
70. foot
<p>| | |</p>
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<tbody>
<tr>
<td>71.</td>
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<td>72.</td>
<td>four</td>
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<td>73.</td>
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<td>77.</td>
<td>inflammation</td>
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<td>78.</td>
<td>tear</td>
</tr>
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<td>79.</td>
<td>stretching</td>
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CHAPTER 6
The Skeletal and Muscular Systems

Worksheet 9 Answers

Crossword Puzzle

Solution:

```
A
T
R
B

P
N
I
B

M
H
E
C
R

Y
Y
S
K
O

A
E
M

S
T
Y

ORTHOEDICS

A
H
L

E
G

SPONDYLOSYNDESIS

I
A

ASPIRATED
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