Expanded Chapter Objectives: Chapter 3, Musculoskeletal System Conditions

Note: Chapter Objectives for each condition are listed below in the order of their appearance in the text.

Instructors: The numbers of the conditions and objectives agree with those listed in the Test Generator.

Introduction

a. Describe the structure of long bones, with definitions of osteoblast, osteoclast, trabecular bone, and Wolff’s law.

b. Describe the structure of skeletal muscle, with the names of at least three connective tissue membranes found within them.

c. Describe the purpose and location of articular cartilage.

d. Name the cells that are found within fascial sheaths, and describe their functions.

1. Muscular dystrophy

a. Identify the definition of muscular dystrophy.

b. List the most common causes or contributing factors to muscular dystrophy.

c. Identify the most common subtypes of muscular dystrophy

   i. Duchenne MD

   ii. Becker MD

   d. List major signs and symptoms of muscular dystrophy.

   e. Identify possible complications of muscular dystrophy.

   f. Identify possible risks and benefits of massage therapy for a client with muscular dystrophy.

2. Spasms, cramps

   a. Identify the definition of spasms and cramps.
b. List the most common causes or contributing factors to spasms and cramps
   i. Nutrition
   ii. Ischemia
   iii. Exercise-induced muscle cramping
   iv. Splinting

c. Identify possible risks and benefits of massage therapy for a client with spasms or cramps.

3. Strains
   a. Identify the definition of strains.
   b. List the most common causes or contributing factors to strains.
   c. List major signs and symptoms of strains.
   d. Identify possible risks and benefits of massage therapy for a client with strains.

4. Osteosarcoma
   a. Identify the definition of osteosarcoma.
   b. List the most common causes or contributing factors to osteosarcoma.
   c. Identify who is most at risk for osteosarcoma.
   d. List major signs and symptoms of osteosarcoma.
   e. Identify possible risks and benefits of massage therapy for a client with osteosarcoma.

5. Osgood-Schlatter disease (OSD)
   a. Identify the definition of OSD.
   b. List the most common causes or contributing factors to OSD.
   c. Identify who is most at risk for OSD.
   d. List major signs and symptoms of OSD.
e. Identify possible risks and benefits of massage therapy for a client with OSD.

6. **Osteoporosis**
   a. Identify the definition of osteoporosis.
   b. List three controllable risk factors for osteoporosis.
   c. List three uncontrollable risk factors for osteoporosis.
   d. Describe how calcium absorption, calcium loss, and bone density mechanisms contribute to osteoporosis.
   e. List major signs and symptoms of osteoporosis.
   f. Identify possible complications of osteoporosis.
   g. Name four strategies to prevent osteoporosis.
   h. Identify possible risks and benefits of massage therapy for a client with osteoporosis.

7. **Postural deviations**
   a. Identify the definition of postural deviations.
   b. Identify the difference between functional deviations and structural deviations.
   c. Identify the most common subtypes of postural deviations
      i. Hyperkyphosis
      ii. Hyperlordosis
      iii. Scoliosis, rotoscoliosis
   d. List major signs and symptoms of postural deviations.
   e. Identify possible complications of postural deviations.
   f. Identify possible risks and benefits of massage therapy for a person with postural deviations.

8. **Adhesive capsulitis**
   a. Identify the definition of adhesive capsulitis and its alternate name.
b. Identify who is most at risk to develop adhesive capsulitis.

c. Name the three recognized phases of adhesive capsulitis.

d. List major signs and symptoms of adhesive capsulitis in each of its three phases.

e. Identify possible risks and benefits of massage therapy for a person with adhesive capsulitis.

9. **Baker cysts**
   
a. Identify the definition of Baker cysts.
   
b. List the most common causes or contributing factors to Baker cysts.
   
c. List major signs and symptoms of Baker cysts.
   
d. Identify possible complications of Baker cysts.
   
e. Identify possible risks and benefits of massage therapy for a client with Baker cysts.

10. **Gout**
   
a. Identify the definition of gout.
   
b. List the most common causes or contributing factors to gout.
   
c. List major signs and symptoms of gout, with its most common location.
   
d. Identify possible complications of gout
   
   i. Explain the link between gout and renal function
   
e. Identify possible risks and benefits of massage therapy for a person with gout.

11. **Joint disruptions**
   
a. Identify the definition of joint disruptions.
   
b. List the most common causes or contributing factors to each type of joint disruptions.
   
c. Identify the most common subtypes of joint disruptions
i. Subluxation  
ii. Dislocation  
iii. Dysplasia  

d. List major signs and symptoms of joint disruptions. 
e. Identify possible complications of joint disruptions.  
f. Identify possible risks and benefits of massage therapy for a person with joint disruptions. 

12. Joint replacement surgery  
   a. Identify the definition and an alternate name for joint replacement surgery.  
   b. List the most common causes or contributing factors to joint replacement surgery.  
   c. Identify the most common subtypes of joint replacement surgery  
      i. Shoulders  
      ii. Hips  
      iii. Knees  
   d. List major signs and symptoms seen with joint replacement surgery. 
   e. Identify possible risks and benefits of massage therapy for a person with joint replacement surgery. 

13. Lyme disease  
   a. Identify the definition of Lyme disease.  
   b. List the most common causes or contributing factors to Lyme disease.  
   c. List major signs and symptoms of Lyme disease in early and late stages.  
   d. Identify possible complications of Lyme disease.  
   e. Describe the best protection against contracting Lyme disease.  
   f. Identify possible risks and benefits of massage therapy for a person with Lyme disease.
14. Osteoarthritis
   a. Identify the definition of osteoarthritis.
   b. List the most common causes or contributing factors to osteoarthritis.
   c. List major signs and symptoms of osteoarthritis.
   d. Identify possible risks and benefits of massage therapy for a person with osteoarthritis.

15. Patellofemoral pain syndrome
   a. Identify the definition of patellofemoral pain syndrome.
   b. List the most common causes or contributing factors to patellofemoral pain syndrome.
   c. List major signs and symptoms of patellofemoral pain syndrome.
   d. Name one common condition that can be challenging to distinguish from patellofemoral pain syndrome.
   e. Identify possible risks and benefits of massage therapy for a person with patellofemoral pain syndrome.

16. Spondylolisthesis
   a. Identify the definition of spondylolisthesis.
   b. List the most common causes or contributing factors to spondylolisthesis.
   c. Identify the most common subtypes of spondylolisthesis
      i. Isthmic spondylolisthesis
      ii. Degenerative spondylolisthesis
   d. List major signs and symptoms of spondylolisthesis.
   e. Identify possible complications of spondylolisthesis.
   f. Identify possible risks and benefits of massage therapy for a person with spondylolisthesis.
17. Spondylosis
   a. Identify the definition of spondylosis.
   b. List the most common causes or contributing factors to spondylosis.
   c. List major signs and symptoms of spondylosis.
   d. Identify possible complications of spondylosis.
   e. Identify possible risks and benefits of massage therapy for a person with spondylosis.

18. Sprains
   a. Identify the definition of sprains.
   b. List the most common causes or contributing factors to sprains.
   c. Identify features that distinguish sprains from tendinopathies
      i. Ligament structure
      ii. Severity
      iii. Swelling
   d. List major signs and symptoms of sprains.
   e. Name what the acronyms PRICE and POLICE stand for in the context of sprain treatment.
   f. Identify possible risks and benefits of massage therapy for a person with a sprain.

19. Temporomandibular joint disorder (TMJ disorder)
   a. Identify the definition of TMJ disorder.
   b. List the most common causes or contributing factors to TMJ disorder.
   c. List major signs and symptoms of TMJ disorder.
   d. Identify possible risks and benefits of massage therapy for a person with TMJ disorder.
20. Compartment syndrome
   a. Identify the definition of compartment syndrome.
   b. List the most common causes or contributing factors to compartment syndrome.
   c. Identify the most common subtypes of compartment syndrome
      i. Acute compartment syndrome
      ii. Chronic compartment syndrome
   d. List major signs and symptoms of compartment syndrome.
   e. Identify a serious complication of compartment syndrome.
   f. Identify possible risks and benefits of massage therapy for a person with compartment syndrome.

21. Dupuytren contracture
   a. Identify the definition of Dupuytren contracture
      i. Identify the definition of fibromatosis
   b. List the most common causes or contributing factors to Dupuytren contracture.
   c. List major signs and symptoms of Dupuytren contracture.
   d. Identify possible risks and benefits of massage therapy for a person with Dupuytren contracture.

22. Ganglion cysts
   a. Identify the definition of ganglion cysts.
   b. List the most common causes or contributing factors to ganglion cysts.
   c. List major signs and symptoms of ganglion cysts.
   d. Identify possible risks and benefits of massage therapy for a person with ganglion cysts.
23. **Hammer toe**
   a. Identify the definition of hammer toe.
   b. List the most common causes or contributing factors to hammer toe.
   c. List major signs and symptoms of hammer toe.
   d. Identify possible risks and benefits of massage therapy for a person with hammer toe.

24. **Hernia**
   a. Identify the definition of hernia.
   b. List the most common causes or contributing factors to hernias.
   c. Identify the most common subtypes of hernia
      i. Direct inguinal hernia
      ii. Hiatal hernia
   d. List major signs and symptoms of hernias.
   e. Identify possible complications of hernias.
   f. Identify possible risks and benefits of massage therapy for a person with a hernia.

25. **Morton neuroma**
   a. Identify the definition of Morton neuroma.
   b. List the most common causes or contributing factors to Morton neuroma.
   c. List major signs and symptoms of Morton neuroma.
   d. Identify possible risks and benefits of massage therapy for a person with Morton neuroma.

26. **Plantar fasciitis**
   a. Identify the definition of plantar fasciitis.
   b. List the most common causes or contributing factors to plantar fasciitis.
   c. List major signs and symptoms of plantar fasciitis.
d. Identify possible risks and benefits of massage therapy for a person with plantar fasciitis.

27. **Pes planus, pes cavus**
   a. Identify the definitions of pes planus and pes cavus.
   b. List the most common causes or contributing factors to pes planus and pes cavus.
   c. List major signs and symptoms of pes planus and pes cavus.
   d. Identify possible risks and benefits of massage therapy for a person with pes planus or pes cavus.

28. **Carpal tunnel syndrome**
   a. Identify the definition of carpal tunnel syndrome.
   b. List the most common causes or contributing factors to carpal tunnel syndrome.
   c. List some conditions that can be confused with carpal tunnel syndrome
      i. Neck injury
      ii. General nerve impairment
      iii. Other wrist injuries
   d. List major signs and symptoms of carpal tunnel syndrome.
   e. Identify possible risks and benefits of massage therapy for a person with carpal tunnel syndrome.

29. **Disc disease**
   a. Identify the definition of disc disease.
   b. List the most common causes or contributing factors to disc disease.
   c. Identify the most common subtypes of disc problems
      i. Herniated disc
      ii. Degenerative disc disease
iii. Endplate junction failure  
d. List major signs and symptoms of disc disease.  
e. Identify possible risks and benefits of massage therapy for a person with disc disease.

30. Myofascial pain syndrome  
a. Identify the definition of myofascial pain syndrome.  
b. List the most common causes or contributing factors to myofascial pain syndrome.  
c. List major signs and symptoms of myofascial pain syndrome.  
d. Identify possible risks and benefits of massage therapy for a person with myofascial pain syndrome.

31. Thoracic outlet syndrome  
a. Identify the definition of thoracic outlet syndrome.  
b. List the most common causes or contributing factors to thoracic outlet syndrome.  
c. List major signs and symptoms of thoracic outlet syndrome.  
d. Identify possible risks and benefits of massage therapy for a person with thoracic outlet syndrome.

32. Bunions  
a. Identify the definition of bunions.  
b. List the most common causes or contributing factors to bunions.  
c. List major signs and symptoms of bunions.  
d. Identify possible risks and benefits of massage therapy for a person with bunions.

33. Bursitis  
a. Identify the definition of bursitis.
b. List the most common causes or contributing factors to bursitis.
c. List major signs and symptoms of bursitis.
d. Identify possible risks and benefits of massage therapy for a person with bursitis.

34. Shin splints
   a. Identify the definition of shin splints.
   b. List the most common causes or contributing factors to shin splints.
   c. Identify the most common subtypes of shin splints
      i. Medial tibial stress syndrome
      ii. Tibialis anterior/posterior injury
      iii. Periostitis
      iv. Stress fractures
   d. List major signs and symptoms of shin splints.
   e. Identify possible risks and benefits of massage therapy, with:
      i. Variables that contribute to risks and benefits
      ii. Appropriate adaptations for massage therapy

35. Tendinopathies
   a. Identify the definition of tendinopathies.
   b. List the most common causes or contributing factors to tendinopathies.
   c. Identify the most common subtypes of:
      i. Tendinitis
      ii. Tendinosis
      iii. Tenosynovitis
   d. List major signs and symptoms of tendinopathies.
   e. Identify possible risks and benefits of massage therapy for a person with tendinopathies.
36. Whiplash
   a. Identify the definition of whiplash.
   b. List the most common causes or contributing factors to whiplash.
   c. List major signs and symptoms of whiplash.
   d. Identify possible risks and benefits of massage therapy for a person with whiplash.