

## 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.