

## **Herlihy: The Human Body in Health and Illness, 6th Edition**

### **Bridges to Nursing Assessment: Answer Keys**

**Note: Not all answers are provided. Instructor is encouraged to work with students in these exercises to facilitate discussion and conclusions.**

### **Broken Bones: The Cast Party**

#### *Scenarios*

1. A 60-year-old woman fell and suffered a hairline fracture involving the styloid process of the ulna. Which cast is most appropriate? What is the name of the joint immobilized by this cast?

Answer: Short arm cast. The radiocarpal and radioulnar joints are immobilized.

2. This cast is a circular cast that extends from the distal palmar area to the proximal forearm. It immobilizes the wrist but allows for unrestricted movement at the humeroulnar and glenohumeral joints. What is the name of the cast, and what joints are immobilized by this cast?

Answer: Short arm cast. The radiocarpal and radioulnar joints are immobilized.

3. A 22-year-old woman fractured her proximal right tibia. What cast will be applied? What are the names of the joints immobilized by this cast?

Answer: Long leg cast. Joints immobilized are the tibiofemoral, proximal and distal tibiofibular, and ankle joints.

4. This cast extends from the palmar area to the proximal humerus. What is it? What are the names of the joints immobilized by this cast?

Answer: Long arm cast. Joints immobilized are the radiocarpal, radioulnar, and humeroulnar joints.

5. This cast extends from the base of the phalanges to the groin and gluteal crease. What is the name of this cast? What are the names of the joints immobilized by this cast?

Answer: Long leg cast. Joints immobilized are the tibiofemoral, proximal and distal tibiofibular, and ankle joints.

6. A patient injured his distal radius; the cast immobilizes the radiocarpal joint, but he can flex his humeroulnar joint. Name the cast.

Answer: Short arm cast.

7. This person has a cast on her lower extremity but can flex her leg at the tibiofemoral joint. What is the name of the cast?

Answer: Short leg cast.

8. This cast restricts movement of the humeroulnar, radioulnar,, and radiocarpal joints. Name the cast.

Answer: Long arm cast.

9. This cast is used to treat an injury to the tarsal bones. Name the cast.

Answer: Short leg cast.

10. Why doesn't the long leg cast prevent abduction of the thigh?

Answer: Because the cast does not immobilize the hip joint (acetabulofemoral).

11. Why doesn't the long arm cast prevent abduction, flexion, or hyperextension of the arm?

Answer: Because the cast does not immobilize the glenohumeral joint (shoulder).

12. Which casts prevent dorsiflexion and plantar flexion?

Answer: Short leg cast and long leg cast.

13. Long-term use of these casts may result in disuse atrophy of the hamstrings and quadriceps femoris.

Answer: Short and long leg casts.

14. Following the removal of this cast, the patient is apt to experience impaired mobility of the humeroulnar joint. Name the cast.

Answer: Long arm cast.

15. Which cast, if any, immobilizes the sternoclavicular joints?

Answer: None.

16. This cast is used for an injury to the olecranon process. Name the cast.

Answer: Long arm cast.

17. List the casts that prevent inversion and eversion.

Answer: Short and long leg casts.

18. List the two casts that prevent adduction and abduction at the carpal sites.

Answer: Short and long arm casts.

### **True or False?**

1. Flexion, extension, and hyperextension of the head are possible.

Answer: True

2. Lateral flexion of the head is possible.

Answer: True

3. Flexion of the trunk is possible.

Answer: True

4. Hyperextension of the hip is possible.

Answer: True

5. Adduction of the thigh at the hip is possible.

Answer: True

6. Flexion, extension, and hyperextension of the hand at the wrist are possible.

Answer: False

7. Internal rotation of the arm at the shoulder is possible.

Answer: True

8. External rotation of the arm at the shoulder is possible.

Answer: True

9. All digits or phalanges are visible.

Answer: True

10. Circumduction of the arm at the shoulder is possible.

Answer: True

11. Elevation and depression of the shoulders are possible.

Answer: True

12. External and internal rotations of the thighs at the hip are possible.

Answer: True