# Answers to Questions in the Workbook, Chapter 30, The Musculoskeletal System

**Activity A TRUE OR FALSE**

* 1. F. Long bones consist of a shaft, called the DIAPHYSIS, and two rounded ends, called the EPIPHYSES.
  2. T
  3. T
  4. F. CARTILAGE**,** a tough, fibrous substance, fills in the space between the bones in the slightly movable joint.
  5. F. Skeletal muscle is VOLUNTARY muscle.

**Activity B CHOOSE THE RIGHT ANSWER**

1. X

2.

3. X

4. X

5.

**Activity C TRUE OR FALSE**

1. T

2. F. Calcium, an important mineral that keeps the bones strong and helps the cardiac muscle to function properly, is stored in the bones.

3. T.

4. F. Contraction of the skeletal muscles helps us to maintain a constant body temperature by producing heat.

5. T

6. T

**Activity D SHORT ANSWER**

(1) Loss of bone tissue makes the older person’s bones more fragile and prone to breaking; (2) loss of muscle mass can leave a person too weak to walk or carry out routine activities of daily living (ADLs) and it can affect the body’s ability to produce heat, causing the person to feel cold and need more clothing; (3) wear and tear on the joints can make activities like walking or getting out of a chair difficult and painful and increases the person’s risk of falling.

**Activity E SHORT ANSWER**

When caring for a person who has osteoporosis, (1) you must be extra gentle when helping with transfers; (2) you should encourage light exercise, such as walking; (3) you should encourage the intake of calcium-rich foods and carefully document the types of foods and drinks the person consumes; and (4) you should be especially observant for loss of function, swelling, or pain.

**Activity F FILL IN THE BLANKS**

|  | Osteoarthritis | Rheumatoid Arthritis | Gout |
| --- | --- | --- | --- |
| Cause | A degenerative disorder that is the result of normal wear and tear on the joint | Thought to be an autoimmune disorder, occurring when the immune system attacks the body’s own tissues | A metabolic disorder that is caused by a build-up of uric acid, leading to the formation of crystals in the joints |
| Most Likely to Affect | Older people; both sexes | Young people, females more often than males | People older than middle age; males more often than females |

**Activity G FILL IN THE BLANKS**

1. A total joint replacement involves removing the ends of the bones in the affected joint and replacing them with parts made from metal and plastic.

2. A prosthetic device may allow a person who has had a limb amputated to regain mobility, function, and a more normal appearance.

3. Patients who have had hip replacement surgery may need to use a special wedge-shaped pillow, called an abduction pillow, which goes between the legs and attaches to each leg with Velcro fasteners.

4. Phantom pain may be experienced by a person who has had a body part amputated and is caused by the healing of the nerves that were cut during the surgery.

5. Estrogen, a hormone, helps to prevent bone loss in females.

6. Crumbling of the bones of the spinal column causes the upper back to curve into the deformity known as kyphosis.

7. Muscular dystrophy is the general term for a group of inherited disorders that cause the skeletal muscles to become progressively weaker over time.

8. A cast is a method of external fixation, or fixation that is achieved without surgery.

**Activity H CHOOSE THE RIGHT ANSWER**

1. X

2.

3. X

4. X

5. X

6. X

7.

8.

9. X

**Activity I SHORT ANSWER**

Mr. Whitman may not be allowed to bear weight on the affected joint for a period of time following the surgery and will need help with transfers. He will need to use an abduction pillow to keep his legs in the proper position. If an abduction pillow is not available, a regular pillow can be used instead. When out of bed, Mr. Whitman should sit in a straight-backed chair to avoid flexing his hips more than 90 degrees. His feet should rest flat on the floor. A special device may be used to raise the height of the toilet seat as well. When the physical therapist comes to work with Mr. Whitman, the nursing assistant should observe the specific ambulation and transfer techniques that are being used.

**Activity J TRUE OR FALSE**

1. F. Osteoporosis is most common in older FEMALES.

2. T

3. F. In Duchenne muscular dystrophy, the person dies because the muscles that allow him to breathe eventually become too weak to perform this vital function.

4. F. Reduction is the word used to describe the process of bringing the broken ends of the bone into alignment.

5. T

6. F. Osteoporosis, or excessive loss of bone tissue, is NOT a normal age-related change.

7. T

8. T

9. T

**Activity K REARRANGE IN THE RIGHT ORDER**

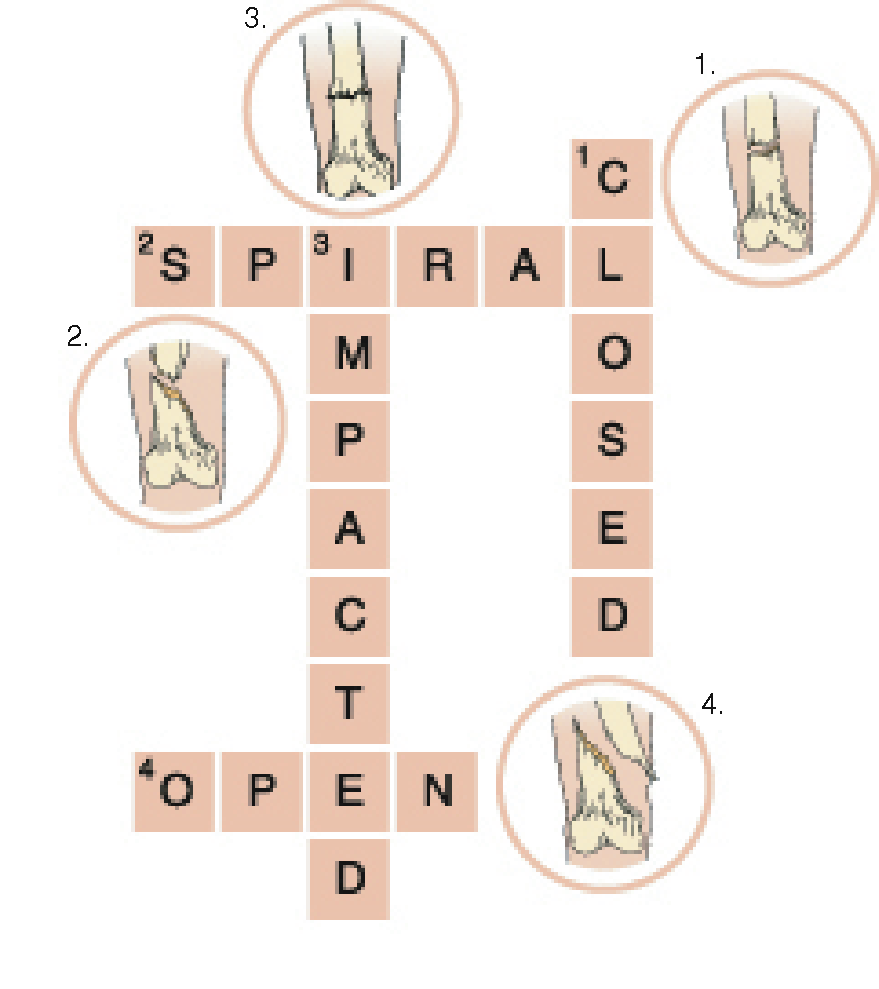
E

C

D

B

A

**Activity L CROSSWORD**  


1. Closed fracture: The broken ends of the bone do not protrude through the skin

2. Open fracture: Carries a very high risk of infection

3. Greenstick fracture: Common in children because their bones are quite flexible

4. Impacted fracture: Often seen in people who have fallen or jumped from a great height

5. Comminuted fracture: Often seen when a bone has been crushed by a lot of force

6. Spiral fracture: Common when the bone has been subjected to a twisting force

**Activity M MATCHING**

1. c

2. a

3. b

4. e

5. d

**Activity N MULTIPLE CHOICE**

1. d. All of the above

2. d. All of the above

**Activity O TRUE OR FALSE**

1. T

2. F. A nursing assistant might perform passive range-of-motion exercises for a person who is in a coma.

**Activity P CROSSWORD**

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