

Body Mechanics

14

CHAPTER

CHAPTER OBJECTIVES

After careful study of this chapter, you should be able to:

1. Explain the importance of safe movement, good body mechanics, and injury prevention, p. 82.
2. Identify problems resulting from poor body mechanics, p. 83.
3. Identify risk factors of poor body mechanics, p. 83.
4. Describe the principles of effective body mechanics, p. 84.

KEY TERMS

body mechanics
carpal tunnel syndrome
(CTS)

dislocation
ergonomics
joint

ligament
sprain
tendinitis

tendon
thoracic outlet syndrome
(TOS)

Good body mechanics, which involve the efficient use of a person's body and directly relate to effective body functioning, can help health care professionals avoid injuries that result from improper or repetitive body movements. Ergonomics, which is designing work environments and tasks to promote efficiency, safety, and health, also keep health care professional safe and healthy.

Poor body mechanics can lead to many problems, including: sprains and dislocations; decreased muscle strength and tone; lack of coordination; increased risk of falls and accidents; decreased joint flexibility; pain on movement; and decreased ability to tolerate activity. Several factors affect body mechanics, such as a person's level of fitness, weight, posture, and performance of repetitive tasks. Posture, stretching, and gravity all play a role in effective body mechanics.

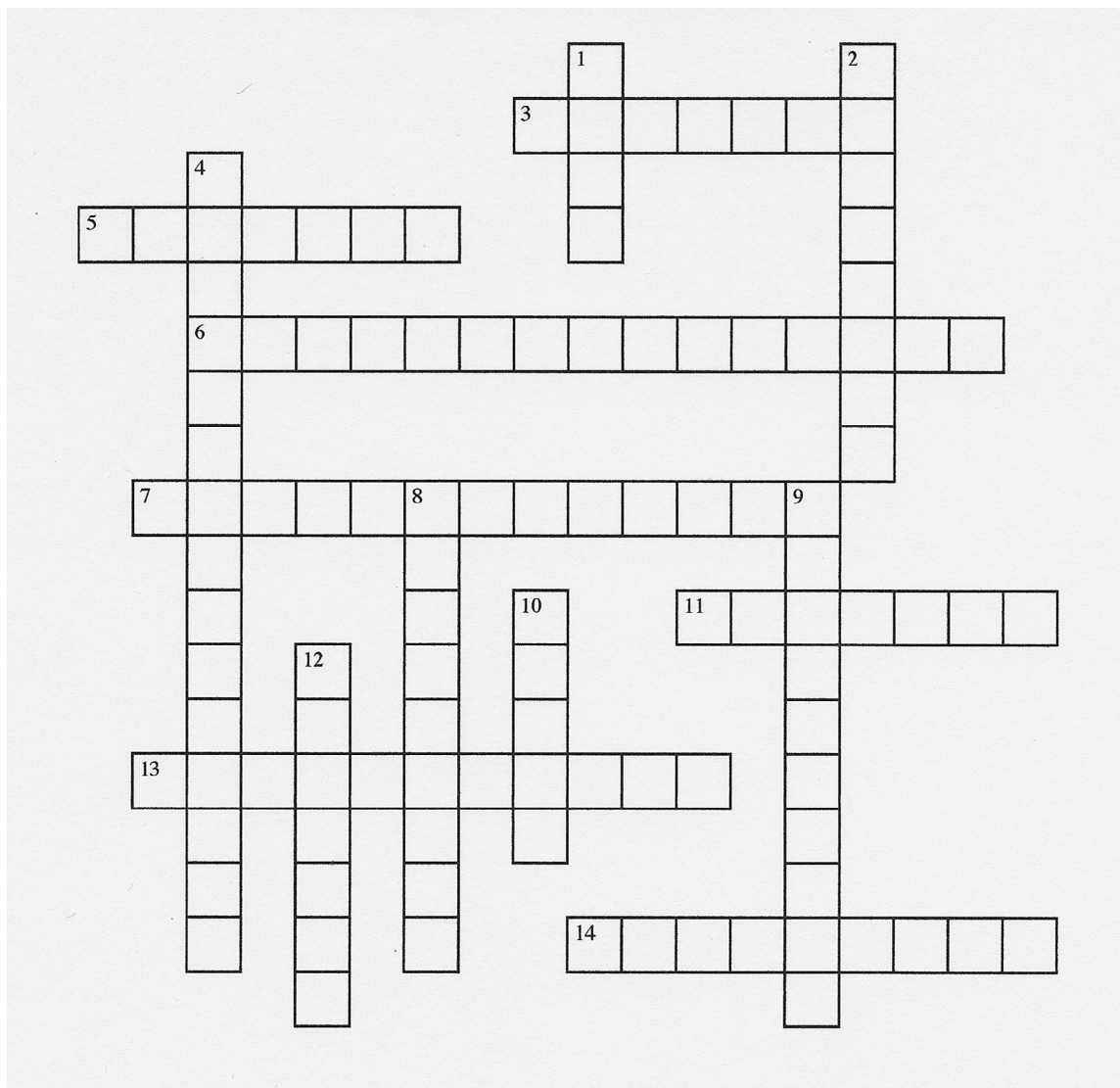
It is much easier, and much healthier, to prevent an injury than to treat an injury that has occurred. Providers who use proper body mechanics in daily work activities help prevent injury to themselves and others.

BUILD YOUR UNDERSTANDING

Objective 1: Explain the importance of safe movement, good body mechanics, and injury prevention.

Crossword

Complete this crossword puzzle using clues across and down to familiarize yourself with the concept of good body mechanics and its importance in health care.



Across

3. Maintaining proper what during an activity can greatly reduce safety risks?
5. Lifting, repositioning, and transferring patients are examples of what kind of tasks that present safety risks to both care providers and patients?
6. When his or her spine is in vertical alignment, and the feet are positioned for a broad base of support, a person displays a balanced what? (3 words)
7. Using proper what during an activity can greatly reduce safety risks? (2 words)
11. Less strenuous movements, such as keyboarding, transcribing, bending, and sitting, can lead to injury or what kind of pain?
13. Health care-related injuries are often the result of improper or what other kind of body movements?
14. Besides inflicting pain and suffering, injuries also take what kind of toll?

Down

1. How people do this with their bodies can affect their health
2. Doing this for patients occurs directly, through verbal instructions about safe body mechanics, and indirectly, by examples
4. Proper body mechanics promote safe functioning of what body system?
8. Body mechanics involve what kind of use of a person's body when moving or performing work?
9. Doing this before and after an activity can greatly reduce safety risks
10. What should health care professionals do with repetitive motions?
12. It is easier to _____ an injury than to treat it

Objectives 2 and 3: Identify problems resulting from poor body mechanics, and identify risk factors of poor body mechanics.

Jumble

After answering the questions below about poor body mechanics, use the circled letters to form the answer to this jumble (punctuation [e.g., hyphens, apostrophes, etc.] counts as a character).

Clue: When the skillful health care worker used both his left and right hands to prevent carpal tunnel syndrome while entering data in his computer, he showed that he was what? _____

1. Improper lifting or movement can result in a sprained or dislocated _ (O) _ _ _ , which is the junction between your bones.
2. A (O) _ _ _ _ _ occurs when a joint is pulled or twisted, causing its attachments to partially tear.
3. _ (O) _ (O) _ _ _ are fibrous tissue that connects muscle to bone.
4. Tissue that connects bone to bone are called _ _ _ _ (O) _ _ _ _ .
5. Improper lifting or movement can also cause persistent health problems, such as _ _ _ (O) _ (O) _ lower back pain, sleeping problems, and many other long-term health issues.
6. _ (O) _ _ _ _ _ _ (O) _ _ is a form of tendinitis that occurs when that joint is continuously moved in the same manner.
7. Poor body mechanics can lead to other problems, including decreased muscle strength and muscle tone as well as decreased joint _ _ _ (O) _ _ _ _ _ (O) _ .
8. Individuals who lead a (O) _ _ _ _ _ _ (O) _ _ lifestyle with little or no exercise are much more likely to have poor body mechanics.

9. Whether sitting or standing, proper _____ ☐ _____ is important for good body mechanics.
10. Health care professionals who regularly perform such tasks as bending over, typing, writing, or lifting are more likely to develop a ☐ _____ ☐ _____ ☐ _____.

Objective 4: Describe the principles of effective body mechanics.

True or False?

After reviewing the section, “Principles of Effective Body Mechanics,” read the statements below and circle T if they are true or F if they are false.

1. T F Whether you are walking, lifting, or just standing, using effective body mechanics is important for all forms of movement.
2. T F Slouching provides some relief for your neck and back muscles.
3. T F With proper posture, a straight line can be drawn from your ear through your shoulder and hip in both the sitting and standing positions.
4. T F Proper posture in bed is having your head, shoulders, and feet aligned.
5. T F Stretching or warming up before beginning an exercise is important, but stretching is not helpful before beginning regular daily routines.
6. T F Maintaining a balanced center of gravity is one of the most fundamental aspects of good body mechanics
7. T F When lifting, keep your knees bent and your back straight and use arm and leg muscles—never your back muscles.
8. T F When you must move an object, it is safer to pull it instead of push it.
9. T F When reaching for a high object, reach only as high as is comfortable without straining or threatening your balance; otherwise, stand on an office chair.
10. T F Ergonomics is the design of work environments and tasks to be efficient, safe, and healthful.

EXPAND YOUR KNOWLEDGE

Essay Question

Visit <http://ergonomicsinhealthcare.org/> and create a free user account. Next, click on the *Worker Fact Sheets* green tab at the left of your screen. There you will find several articles, including *Alternative Keyboards*. After reading the article, write a brief essay summarizing the benefits of the proposed alternatives as well as how and why they would be useful.