



Training Solutions, Delivered!

FACTORS IN MAINTAINING BALANCE AND STABILITY

**Leader's Guide, Fact Sheet
& Quiz**

Item Number: 5173
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This easy-to-use Leader's Guide is provided to assist in conducting a successful presentation.

PREPARING FOR THE MEETING

Here are a few suggestions for using this program:

- a) Review the contents of the Fact Sheet that immediately follows this page to familiarize yourself with the program topic and the training points discussed in the program. The Fact Sheet also includes a list of Program Objectives that details the information that participants should learn from watching the program.
- b) If required by your organization, make an attendance record to be signed by each participant to document the training to be conducted.
- c) Prepare the area and equipment to be used for the training. Make sure the watching environment is comfortable and free from outside distractions. Also, ensure that participants can see and hear the TV screen or computer monitor without obstructions.
- d) Make copies of the Review Quiz included at the end of this Leader's Guide to be completed by participants at the conclusion of the presentation. Be aware that the page containing the answers to the quiz comes before the quiz itself, which is on the final page.

CONDUCTING THE PRESENTATION

- a) Begin the meeting by welcoming the participants. Introduce yourself and give each person an opportunity to become acquainted if there are new people joining the training session.
- b) Introduce the program by its title and explain to participants what they are expected to learn as stated in the Program Objectives of the Fact Sheet.
- c) Play the program without interruption. Upon completion, lead discussions about your organization's specific policies regarding the subject matter. Make sure to note any unique hazards associated with the program's topic that participants may encounter while performing their job duties at your facility.
- d) Hand out copies of the review quiz to all of the participants and make sure each one completes it before concluding the training session.

5173 FACTORS IN MAINTAINING BALANCE AND STABILITY FACT SHEET

LENGTH: 2:18 MINUTES

PROGRAM SYNOPSIS:

The statistics related to slips, trips and falls in the workplace are staggering—nearly 16 million fall injuries occur each year. These mishaps are the second leading cause of fatalities on the job and the third leading cause of employee disability. To help prevent fall injuries at your facility, your organization provides training on the common factors and hazards that contribute to falling and the safe work practices that should be followed to control them. As part of such training, this program explains the various factors that affect a person's balance and stability.

Topics include the center of gravity, friction and momentum.

PROGRAM OBJECTIVES:

After watching the program, the participant should be able to explain the following:

- How a person's center of gravity affects his or her ability to remain stable and well-balanced;
- How loss of friction between the soles of your footwear and the walking surface can lead to a fall;
- How increased momentum contributes to the likelihood of a trip and fall.

INSTRUCTIONAL CONTENT:

FACTORS IN MAINTAINING BALANCE AND STABILITY

- To prevent falls, we need to understand the various factors that affect balance and stability.
- The "center of gravity" or "center of mass" is the point on which the force of gravity acts uniformly to pull a body directly downward.
- A stable person's center of gravity is located near their lower back and is directly over the base of support created by their feet. When this is the case, a person will be stable and well-balanced as the force of gravity pulls downward, directly onto the base of support.
- When a person leans forward or backward, their center of gravity begins to move beyond their base of support and they become unstable and off balance. When the center of gravity extends too far beyond the base of support, a fall will occur.
- Remaining stable and well-balanced while walking requires that your center of gravity remain aligned with your base of support.
- One factor that helps you do this is friction. Friction between the soles of your footwear and the walking surface helps keep your base of support, your feet, aligned with your center of gravity while walking.
- If there is a loss of friction, or traction, such as when walking on ice or other slippery surfaces, your feet can slip or slide beyond the center of gravity causing a loss of balance and a fall. This type of fall is referred to as a "slip and fall."
- Another factor related to stability and balance is momentum. When an object is in motion, it has momentum. The faster an object is traveling, the more momentum it has and the harder it is for the object to stop.
- When we are walking or running, we also have momentum, and if our feet are stopped suddenly, our center of gravity will continue moving beyond our base of support, causing a loss of balance and a fall. This type of fall is referred to as a "trip and fall."
- Gravity, friction and momentum are all factors that act upon our center of gravity and our base of support that affect our balance and stability. Understanding and controlling these various fall factors is critical to preventing slips, trips and falls.

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ANSWERS TO THE REVIEW QUIZ

1. b

2. a

3. a

4. c

FACTORS IN MAINTAINING BALANCE AND STABILITY
REVIEW QUIZ

Name _____ Date _____

The following questions are provided to determine how well you understand the information presented in this program.

1. A stable person's center of gravity is located near _____ back and is directly over the base of support created by their feet.
 - a. The middle of their
 - b. Their lower
 - c. Their upper

2. When a person's center of gravity extends too far beyond the base of support, a fall will occur.
 - a. True
 - b. False

3. The faster an object is traveling, the more momentum it has and the harder it is for the object to stop.
 - a. True
 - b. False

4. Which of the following is NOT a factor that acts upon our center of gravity and our base of support that affect our balance and stability?
 - a. Gravity
 - b. Momentum
 - c. Resistance
 - d. Friction