Proper Body Mechanics

Storyboard

Produced by Michelle Hussein

04/27/18

Version 4

Introduction to the storyboard

This document contains the write-up of the visuals and voice-over that learners will experience during Proper Body Mechanics: Back Safety, Lifting with Transfers, & Wheelchair Positioning. Each table represents a separate module and each line a separate slide/page. The write-up is formatted into columns to show the topic, the voice-over that will play on that page, and the visuals that will accompany the voice-over. The last column includes navigational instructions and extra notes about that slide/page.

In reviewing the script, ask yourself whether the examples and information represent situations that will build your colleagues’ proficiency in identifying and performing proper posture and body mechanics to minimize back injuries on and off the job; demonstrating safe lifting techniques and proper body mechanics while safely transferring a client using the two man lift; and identifying the correct positioning of the client in the wheelchair, utilization of safety, and positioning accessories.

Thank you!
<table>
<thead>
<tr>
<th>Slide #</th>
<th>Topic, and Topic Links</th>
<th>VO Script</th>
<th>Text and Images on Screen</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-1</td>
<td>Title Screen-Introduction to the guide</td>
<td>Welcome to the DeKalb Community Service Board’s training on Proper Body Mechanics: Back Safety, Lifting with Transfers, and Wheelchair Positioning</td>
<td><img src="image1.png" alt="Image" /></td>
<td></td>
</tr>
</tbody>
</table>
| 1-2    | Navigation             | Navigating the course:  
- The course outline will help you revisit pages you have viewed previously, which will appear in gray. The course outline will now allow you to skip content, but you may retrace your steps at any time.  
- If a page has narration, the audio will begin automatically when you visit a new page. Use the seek bar to control the audio. To pause, press the pause button.  
- You may view and download the attachments by clicking the Resources button.  
- Click the Previous button to visit the most recently viewed page | ![Image](image2.png) |       |
Learning Objectives

In this training module you will learn to:

- Utilize proper posture and body mechanics to minimize back injuries on and off the job.

- Apply correct lifting techniques and proper body mechanics while safely transferring an individual using a two-person lift or a Patient Lift.

- Correctly position an individual in a wheelchair, considering their safety and using positioning accessories if necessary.

Each objective will fade in when cued by voice over.
<table>
<thead>
<tr>
<th>2-1</th>
<th>Introduction to Back Safety</th>
</tr>
</thead>
<tbody>
<tr>
<td>Section 1: Back Safety</td>
<td></td>
</tr>
<tr>
<td>In this section we will review how to utilize proper posture and body mechanics to minimize back injuries on and off the job.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2-2</th>
<th>Back Injuries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Back injuries, which can be caused by improper lifting, can be debilitating. Click each injury to learn more.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2-3</th>
<th>Guidelines for Proper Lifting</th>
</tr>
</thead>
<tbody>
<tr>
<td>To minimize the possibility of back injury, employees need to practice safe and correct lifting techniques.</td>
<td></td>
</tr>
<tr>
<td>Select each technique to learn more.</td>
<td></td>
</tr>
</tbody>
</table>

Learner may click each injury on the left of the screen to pull up the definition.

Next button inactivated until all techniques selected.
### Guidelines for Proper Lifting:

#### Technique 1
Plan ahead. Before lifting an object, know where it will be placed. The path should be clear of any obstacles. This will help prevent any awkward movements while carrying the load. If lifting with another person, agree on a plan beforehand.

#### Technique 2
Bend at the knees and keep the back straight. Focus on keeping the spine straight to shift most of the weight off the back and onto the legs. Keep eyes up and look straight ahead. This will help keep the back straight.

#### Technique 3
Keep feet shoulder width apart. This will give you a more solid base and provide more support. If your feet are too close together, good balance will be difficult to achieve; if they are too far apart, movement will be reduced.

When turning, move your feet. Never twist your back.
### Guidelines for Proper Lifting: Technique 4

#### Technique 4: Tighten your abdominal muscles. Keeping your abdomen tight will help the back stay in a good lifting position and help keep from straining the back.

### Guidelines for Proper Lifting with Individuals

Now let's apply the techniques for safe and correct lifting specifically to the lifting of individuals. Using proper lifting and handling techniques will help protect your back and ensure the safety of the individuals we serve.

Select each scenario to view the proper procedure.

### Guidelines for Proper Lifting with Individuals: Bed to Wheelchair

View the following video to watch proper lifting and handling techniques when assisting individuals from a bed to a wheelchair.

### Scenario 1: A staff member is transferring an individual from their bed to a wheelchair.

**People:**
- Individual
- Staff Member
- Narrator

**Props:**
- Bed
- Wheelchair
- Transfer/Gait belt
Proper Body Mechanics

Narrator:
When assisting an individual by transferring them from their bed to a wheelchair, it is important to follow certain guidelines and techniques to minimize the risk of back injury. Before starting the transfer process, always make sure the wheelchair’s wheels are locked. Begin by helping the individual to sit up on the edge of the bed by placing one of your hands under their neck and shoulders and the other under the knees.

*Individual and staff member act this out together.*
Next bend your knees and spread your feet shoulder width apart. With both hands, grasp the individual around the waist or grasp the transfer belt.

*Staff member acts this out*
Brace your knees against the individual’s knees to help the client stand up and lock their knees. Using a gentle rocking motion, lift the individual to a standing position, the individual can help by pushing down on the bed with their arms.

*Individual and staff member act this out together.*
Once the individual is standing, bend your knees and move your feet to turn and lower the individual into the wheelchair. If necessary the individual can reach for the chair arms for support.

*Individual and staff member act this out together.*
**Guidelines for Proper Lifting with Individuals: Wheelchair to Bed**

View the following video to watch proper lifting and handling techniques when assisting individuals from a wheelchair to a bed.

**Reveal layer 2-4.3 when timeline ends**

**Scenario 2:** A staff member is transferring an individual from a wheelchair to their bed

**People:**
- Individual
- Staff Member
- Narrator

**Props:**
- Bed
- Wheelchair
- Transfer/Gait Belt

**Narrator:**
When assisting an individual by transferring them from a wheelchair to their bed, it is important to follow certain guidelines and techniques to minimize the risk of back injury. Begin by adjusting the bed to the individual’s hip level and positioning the wheelchair close to the bed and locking the wheels. Also, use and attach a transfer belt when possible.

*Staff member acts this out*

Next, bend at the knees and wrap your arms around the individual’s waist or grasp the transfer belt with both hands and lift the individual to a standing position.

*Individual and staff member act this out together.*

Once the individual is standing, turn your feet and sit the individual on the edge of the bed. Then help the individual to lie down and use a draw sheet to comfortably position them.

*Individual and staff member act this out together.*
View the following video to watch proper lifting and handling techniques when assisting individuals from a wheelchair to a toilet.

Return to Guidelines main page when timeline ends.

**Scenario 3:** A staff member is transferring an individual from a wheelchair to the toilet

**People:**
- Individual
- Staff Member
- Narrator (doubles as a staff member)

**Props:**
- Wheelchair accessible bathroom
- Wheelchair
- Transfer/Gait Belt

**Narrator:**
When assisting an individual by transferring them from a wheelchair to the toilet, it is important to follow certain guidelines and techniques to minimize the risk of back injury.

*Staff member acts this out in sync with the narration*

Begin by adjusting angling the wheelchair to the toilet. If the individual has a strong side, angle the chair in a position that allows the individual to help support the process by being able to access rails or other supports. Lock the wheelchair and remove any leg rests, which may become a barrier in the transfer process.

*Staff member and individual act this out*

Next, have the individual scoot to the edge of the wheelchair. If assistance is needed, use a transfer belt to help move the individual. Once the individual is at the edge of the chair, stand in front of him or her, bend at the knees, and place your hands at the trunk of the body to lift. Lift the individual by gently rocking forward.

*Narrator*
When the individual is in a standing position, a second staff member should be present to assist with removing the individual’s clothes.

*Narrator turns to support the process (imitates clothing removal)*

To sit the individual on the toilet, turn them to
### Guidelines for Proper Lifting with Individuals: Assisting Falling Individuals

View the following video to watch proper lifting and handling techniques when assisting falling individuals.

If an individual’s head hits the floor as a result of a fall, please follow the correct protocol to report the injury:

- Complete an incident report
- Notify a nurse
- If a nurse is not available, seek medical attention as necessary for the injury

*Link Incident Report and policy

### Scenario 4: A staff member is assisting a falling individual.

**People:**
- Individual
- Staff Member
- Narrator

**Props:**
- NONE

**Narrator:**

If an individual is falling, do not try to catch them to prevent the fall. Try to slow the fall by lowering the individual to the floor. Protect the individual’s head as much as possible as you help them gently to the floor. Then get help to lift the individual from the floor.

*Individual and staff member act this out together.*
*Narrator turns to help lift at the end.*
*Video cuts prior to the lift.*

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Learner must click on a return button to navigate back to videos.

After video is over, slide state will change to reveal head injury protocol.

Return to Guidelines main page when timeline ends.

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Proper Body Mechanics
| 2-5 | Good Posture | Good posture is important for a healthy back. When sitting for long periods of time, posture can affect the back either positively or negatively. It is important to learn the correct ways to sit, things to do to support the back when sitting, and exercises to perform while sitting.

To exhibit proper posture when sitting you should:

- Keep your knees at a 90° angle
- Your feet should be flat on the floor
- Slide back in the chair and,
- Sit up straight

| Layer 2-5.1 | Good Posture | Putting a pillow behind your lower back will help provide support.

You can exercise while sitting by tightening the stomach and buttock muscles and holding for 5-10 seconds. Also occasionally getting up and walking around will help if you have been sitting for prolonged periods

| Layer 2-5.1 | Good Posture | Each note for good posture will fade in when cued by the voice over; the corresponding area on the picture will be highlighted

When timeline ends, layer will be revealed |
<table>
<thead>
<tr>
<th></th>
<th>Lifting for Transfer or Positioning</th>
<th>Section 2: Lifting for Transfer or Positioning</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-1</td>
<td>If asked to lift an individual for transfer or positioning, always perform a two-person transfer, or lift.</td>
<td>In this section we will review the proper techniques and body mechanics needed to lift an individual for transfer or positioning. In these instances, the individual is not able to support during the process.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Two-Person Lift</th>
<th>Scenario 5: Two-Person Transfer</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-2</td>
<td>Watch this video to learn how to correctly perform a two-person lift.</td>
<td>People:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Individual</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Staff Member</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Narrator (doubles as a staff member)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Props:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Bed</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Wheelchair</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Extra chair or box to act as barrier/obstacle</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Narrator:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>When transferring an individual, you may need to utilize a two-person transfer. This video demonstrates one method of doing a two-person transfer; modifications may be needed for each individual as determined by your physical therapist.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>To begin, prepare the equipment. Arrange the two locations so as to minimize barriers. If performing a lateral transfer of an individual, make sure that both beds are positioned at the same height. Next, talk to the individual and prepare him/her for the transfer.</td>
</tr>
</tbody>
</table>
### Proper Body Mechanics

Staff member removes barrier/obstacle then notifies individual of the transfer.

Narrator now acts as a staff member while continuing to narrate; moves to stand in front of individual.

To perform the two person transfer, one person needs to stand behind the individual, and the other in front. If the individual is lying down, assist him or her to a seated position. Once seated, scoot the individual to the edge of the chair or bed.

Staff member scoots the individual to the edge of the bed.

Staff member and narrator do the following in sync with the narration.

The staff member behind the individual reaches through the individual’s underarms, and grasps the forearms. The staff member in front of the client grasps under the thighs.

On a count of three, lift with bent knees and straight backs. Both staff members then side-step to the target area and lower the individual using bent knees and straight back.

Finally, secure the individual as needed with a seat belt and any necessary supports. Replace any equipment or pieces removed.

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### Scenario 6: Using a Hoyer Lift

**People:**
- Individual
- Staff Member
- Narrator (doubles as a staff member)

**Props:**
- Bed
- Wheelchair
- Hoyer Lift

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<table>
<thead>
<tr>
<th>3-3</th>
<th>Using a Patient Lift</th>
</tr>
</thead>
<tbody>
<tr>
<td>A patient lift can also be used as an assistive device in a two-person lift. This device is used when the individual being lifted cannot stand or is too heavy to be lifted by two people.</td>
<td></td>
</tr>
</tbody>
</table>

Watch this video on how to

![Hoyer Lift](image-url)
Proper Body Mechanics

| Correctly use a patient lift. | Narrator will read directions as they are being acted out simultaneously. Follow these guidelines when using a Hoyer Lift to transfer an individual:
1. Assess your path of transfer; remove any barriers on the path from the bed to the wheelchair. Ensure that the wheelchair is nearby and ready for the transfer with the wheels locked.
2. Raise the arm of the Hoyer Lift to prevent it from hitting the individual.
3. Move the Hoyer Lift to the bed; widen the leg stance for support if possible or necessary.
4. Place the sling under the individual. Use the log roll technique to roll the individual onto their side. Place as much of the sling as possible under the individual, leaving one end out. Roll the individual back and then to the other side and pull the other end of the sling through.
5. Prepare for transfer by wrapping the two bottom ends of the sling under the individual’s legs and ensuring that the rest of the sling is positioned correctly to be attached to the Hoyer Lift.
6. Lower the arm of the Hoyer lift and attach the sling by placing the loops on the hooks. Make sure that corresponding loops are attached by the same color and that the hooks are locked after the sling is attached.
7. Raise the arm of the Hoyer Lift to clear the bed and use the lift to transfer the individual to the wheelchair. A second staff member should help to guide the lift.
8. Once at the wheelchair, position the individual over the chair in a seated position and lower into the chair.
9. Make sure that the individual is positioned correctly in the wheelchair, with their buttocks pushed back into |
Proper Body Mechanics

Techniques for Bed Positioning

Techniques for safe and supportive bed positioning.

To ensure that an individual is properly supported when positioned and that positioning is performed safely:

- **Do:**
  - Place a pillow between an individual’s knees when in a sideline position. This provides support to keep the individual’s hips aligned. You may also need to place a pillow in from behind for support.
  - Place a pillow under an individual’s knees when they are on their back.
  - Use the log rolling technique to reposition an individual.
  - Use a roll sheet to move an individual when on the bed.

- **Don’t:**
  - Move or position an individual by pulling on the chair. Fasten the seat belt and remove the sling by leaning the individual forward and pulling the sling out from behind.
Proper Body Mechanics

<table>
<thead>
<tr>
<th>3-5</th>
<th>Fracture Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Fracture Risk</strong></td>
</tr>
<tr>
<td></td>
<td>• Genetic Predisposition</td>
</tr>
<tr>
<td></td>
<td>• Medical diagnoses or conditions, such as osteoporosis</td>
</tr>
<tr>
<td></td>
<td>• Fall or trip hazards</td>
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<tr>
<td></td>
<td>• Bed ridden or non-weight bearing</td>
</tr>
<tr>
<td></td>
<td>• Impaired standing balance during wheelchair transfers or ambulation</td>
</tr>
<tr>
<td></td>
<td>• Falls from bed, wheelchair, or during ambulation</td>
</tr>
<tr>
<td></td>
<td>• Excessive force on an extremity during bed positioning</td>
</tr>
<tr>
<td></td>
<td>If a fracture is suspected, there are</td>
</tr>
</tbody>
</table>

*Link Incident Report and policy*
Proper Body Mechanics

<table>
<thead>
<tr>
<th>three diagnostic procedures for fractures:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. A physical exam by a physician, especially when the fracture is obvious</td>
</tr>
<tr>
<td>2. An x-ray</td>
</tr>
<tr>
<td>3. An MRI</td>
</tr>
</tbody>
</table>

If an injury is suspected:

- Seek medical attention immediately
- Notify your supervisor
- Complete an incident report

<table>
<thead>
<tr>
<th>4-1</th>
<th>Wheelchair Positioning</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Section 3: Wheelchair Positioning</td>
</tr>
<tr>
<td></td>
<td>In this section we will review the correct positioning of an individual in the wheelchair, utilization of safety, and positioning accessories.</td>
</tr>
</tbody>
</table>
### Comparing Correct Positioning vs. Incorrect

Take a look at the two pictures on the screen. One depicts an individual correctly positioned in a wheelchair and the other depicts the individual positioned incorrectly.

Here are the general positioning guidelines for correct positioning in a wheelchair:

- Hips are centered between the armrests, and buttocks against the backrest
- Weight bearing is equal on both sides
- Seat belt fits snugly but does not cause red marks
- Foot rests are adjusted so that the client’s thighs are parallel with the supporting surface
- Hips, knees, and ankles are bent or flexed 90 degrees
- Feet are flat on the floor pedals when able/appropriate with the back of the heels against the heel loops and toes pointed straight ahead

“General positioning” lines will fade in when cued from the voice over.
<table>
<thead>
<tr>
<th>Page</th>
<th>Section</th>
<th>Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-3</td>
<td>Wheelchair supports</td>
<td>Wheelchair supports must be considered when positioning an individual. Scroll over each label on the wheelchair to read more about supports.</td>
</tr>
<tr>
<td>4-4</td>
<td>Wheelchair Positioning: Do’s &amp; Don’ts</td>
<td>When working with an individual who is in a wheelchair, there are several Do’s and Don’ts to use as guidelines for wheelchair positioning: &lt;br&gt;&lt;br&gt; <strong>DO:</strong>  &lt;br&gt;• Ensure the individual is sitting as normally as can be for their needs and supported properly by the chair and its accessories.  &lt;br&gt;• Ensure the individual’s hips and pelvis are properly positioned and supported.  &lt;br&gt;• Ensure the individual’s hips are centered between the armrests and that the individual is sitting as evenly as possible between any supportive moldings.  &lt;br&gt;• Ensure the individual’s buttock is pushed back in</td>
</tr>
</tbody>
</table>
Proper Body Mechanics

the chair against the back rest.

- Protect an individual’s arms and legs when going through doorways and around corners.

DON’T:

- Grasp or pull an individual at their joints or extremities. Individuals may have underdeveloped muscles and osteoporosis, and could be at high risk for dislocations and fractures.

- Allow the individual to slump forward. This puts the pelvis in a posterior tilt, which causes the spine to curve forward and throws the head out of alignment.

- Allow the individual to lean excessively to one side. Individuals may have moderate to severe scoliosis, which is curvature of the spine.
| 4-5 | Course Complete | You have reached the end of the course. If you would like to review any of the sections, you may use the buttons to the left to navigate to them. If you are ready to take the quiz, you may exit this course now. | Learners may navigate to previous section titles using buttons on screen. Learners may exit the course using the “Exit” button. |