NC Department of Health and Human Services NC Nurse Aide I Curriculum

Module I
Body Mechanics

July 2024

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Objectives

1. Describe principles of body mechanics that help prevent injury to the resident and the nurse aide.
2. Identify measures to assist a falling person to the floor safely.
3. Describe the correct positioning of residents.

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Body Mechanics

Actions promoting safe, efficient movement of the body by using the correct muscles and movements to avoid straining muscles or joints

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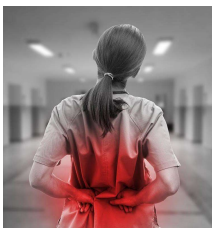
Importance of Body Mechanics

- Due to the nature of their duties, nurse aides are subject to back and other injuries
- The practice of correct body mechanics is essential for the safety of nurse aides



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Proper Body Mechanics

- Maximizes strength, minimizes fatigue
- Empowers the nurse aide to lift, move and carry safely
- Reduces costs
- Reduces employee absences
- Reduces liability for the facility

By not using proper body mechanics even picking up a piece of paper from the floor can cause back injury

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The ABCs of Body Mechanics

A = **Alignment**
B = **Base of support**
C = **Coordination**

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Alignment and Posture of a Car

- Remove the painted outside of a car, and you will see the parts that join to make the car work. If all the parts are in alignment, the car runs well

- Add the painted outside of the car to see how the car looks. Color, style, design, make, model, et cetera are subjective personal preferences

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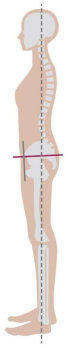
Human Body Alignment

- Alignment is how the body works and is objective and scientific
- Alignment of the body is how the head, shoulders, spine, hips, knees and ankles line up with each other



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Body Posture

- The position in which someone holds their body when standing or sitting
- Posture is how the body looks and is subjective and can be affected by cultural customs

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Alignment and Posture

Standing up straight allows for:

- correct body alignment
- the body to move and function efficiently and with strength
- good posture

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Base of Support

- A wide base of support is more stable than a narrow one.
- A good base of support is needed for balance.

What is the base of support for a person?

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Center of Gravity

- Point where most weight is concentrated
- The pelvis is the center of gravity for a person standing

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Body Mechanics – Changing Linen

Watch your back

Incorrect

Correct

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Body Mechanics – Bending

Watch your back

Incorrect

Correct

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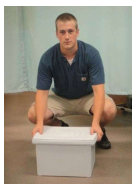
Lifting an Object off the Floor

Preparation

- Face the object
- Bend hips/knees and get close to the object
- Grip the object firmly with both hands



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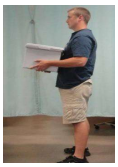
Lifting an Object Off the Floor
Actions

- Lift by pushing up with strong leg muscles
- Use a wide base of support
- Get help when needed



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Lifting and Carrying an Object

- Maintain correct body alignment when lifting or carrying an object
- Keep the object close to the body
- Point feet and body in the direction you are moving
- Avoid twisting at the waist

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Points to Remember When Lifting

- Push or pull instead of lifting
- Use large muscles of arms and thighs
- Move in a smooth motion.
- Avoid quick movements with heavy objects
- Face object or person
- Use both arms and hands

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A Resident Who Is Falling

- Control the direction of the fall by easing the resident to the floor while protecting the head
- Keep the resident still until the nurse can check them
- DO NOT try to hold the resident up:
  - it can injure the nurse aide and resident
  - both may lose balance and sustain injuries

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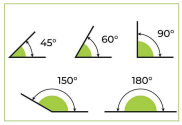
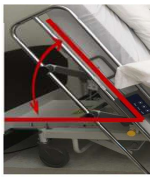
Angles

- An angle is formed when two straight lines meet at a common endpoint
- Angles are measured in degrees and abbreviated with the degree symbol



- The bed frame and head of the bed are the two lines meeting at a common endpoint used to determine the angle of the bed



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Measuring Bed Angles

- Angles are used to describe positions in a bed that are measured in degrees ranging from 0˚ – 90˚
  - 0˚ = supine and prone positions (or flat)
  - 45˚ – 60˚ = Fowler's position
  - 60˚ – 90˚ = High Fowler's position
- As the head of the bed is being raised, the angle area is between bottom of the mattress at the head end of the bed and the bed frame
- As the head of the bed is raised, the angle increases

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Positioning the Resident

A resident must always be positioned and correctly aligned in a bed or chair.

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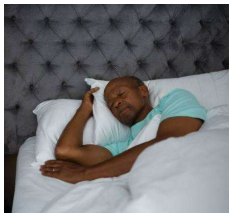
Position Changes and Correct Alignment

- Promotes well-being and comfort, easier breathing, and circulation
- Prevents pressure ulcers and contractures



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Repositioning the Resident

- Reposition in bed or chair at least every 2 hours or more frequently per the care plan
- Use good body mechanics
- Ask co-workers for assistance as needed
- Use pillows for support and correct positioning
- Recognize the correct alignment for variety of positions while resident is in bed

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Positioning the Resident – Supine

Lies flat on back with arms and hands at the side

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Positioning the Resident – Prone

Lying on the abdomen

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Positioning the Resident – Fowler's

Reclined sitting position

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Positioning the Resident – High Fowler's

Sitting up almost straight

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Positioning the Resident – Lateral

Lying on the right or left side

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Positioning the Resident – Sims

Left side-lying position

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Logrolling

- Position the resident on the side
- Turn the resident as a unit
- At least two people should perform a logroll
- Use a draw sheet and a count of three

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Mechanical Lifts

- Used to transfer residents
- Helps prevent injury to staff and residents
- Use of a lift requires special training
- Never use a lift prior to receiving the special training
- Never operate a lift alone if the lift requires more than one person for operation

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Follow Facility Policy for Mechanical Lifts

- Different types of lifts available
- Use of a mechanical lift may be mandatory if facility has a “no lift” policy for staff members
- Follow care plan and supervisor’s directive
- Notify supervisor if lift is not working right or needs repair
- Explain procedure to resident
- Nurse aide must be at least 18-years old to use the lift

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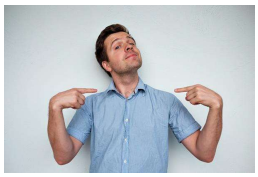
Many Types of Mechanical Lifts



- Knowledge of the use of one specific lift does not equate to knowledge of how to use all types of lifts
- Special training is required for use of lifts

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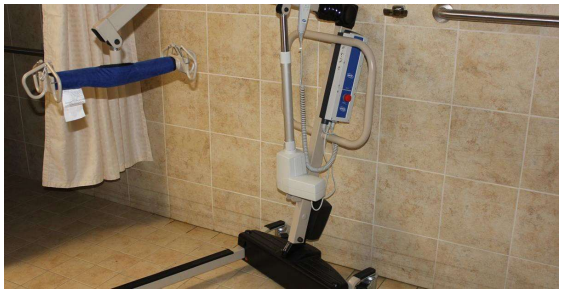
Full-sling Mechanical Lift



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Stand-Assist Lift

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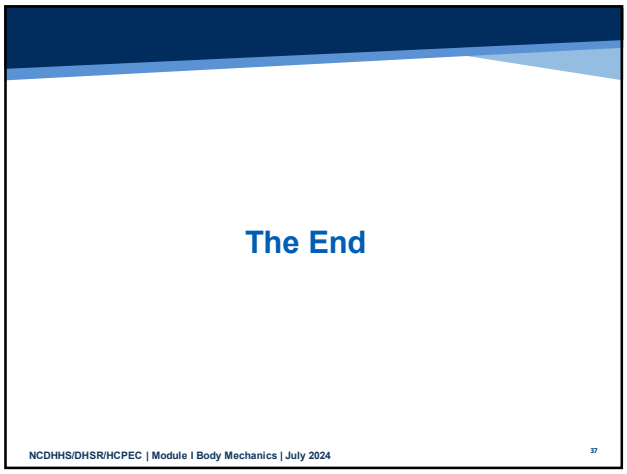
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