

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

Module I Body Mechanics

July 2024

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.

Body Mechanics

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



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



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



The ABCs of Body Mechanics

A = Alignment

B = Base of support

C = Coordination

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

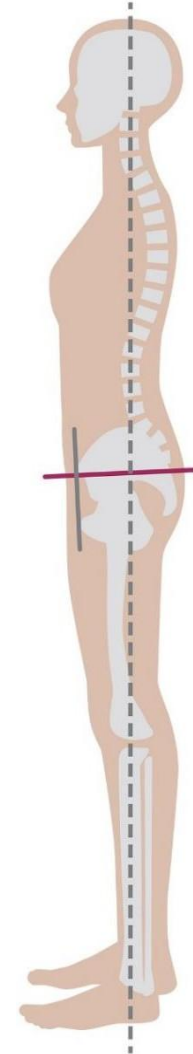


- Add the painted outside of the car to see how the car looks. Color, style, design, make, model, et cetera are subjective personal preferences



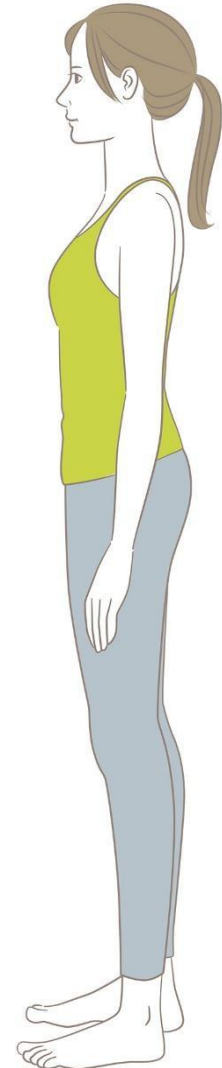
Human Body Alignment

- 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



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



Alignment and Posture

Standing up straight allows for:

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



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?



Center of Gravity

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



Body Mechanics – Changing Linen

Watch your back

Incorrect



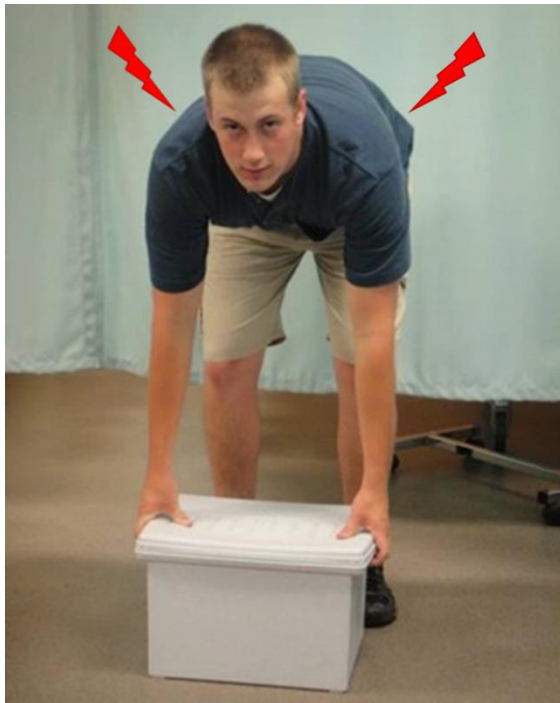
Correct



Body Mechanics – Bending

Watch your back

Incorrect



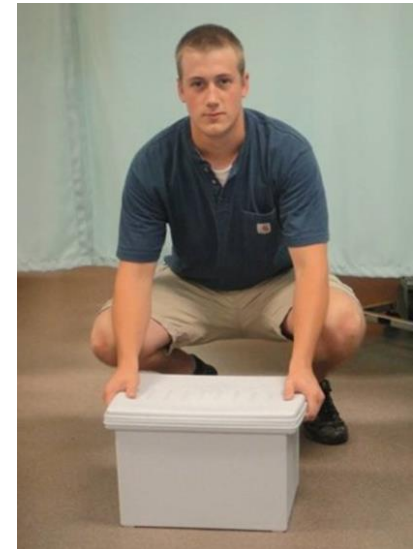
Correct



Lifting an Object off the Floor

Preparation

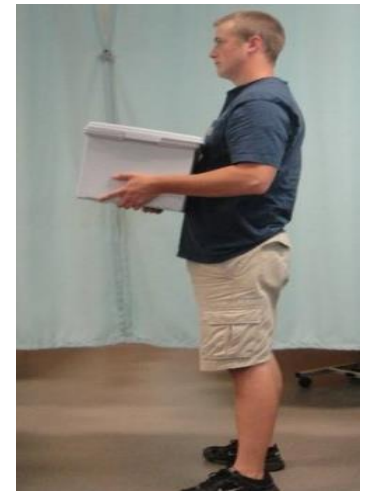
- Face the object
- Bend hips/knees and get close to the object
- Grip the object firmly with both hands



Lifting an Object Off the Floor

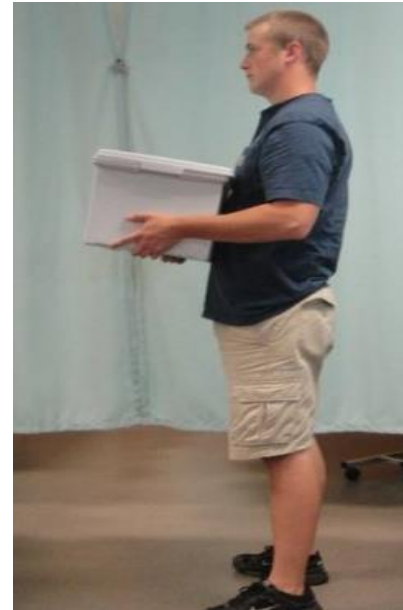
Actions

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



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



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

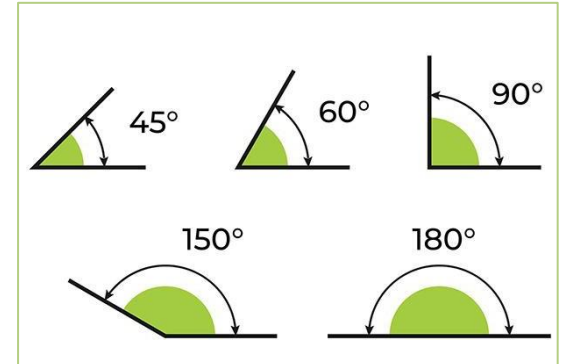


A Resident Who Is Falling

- 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

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



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

Positioning the Resident



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

Position Changes and Correct Alignment

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



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



Positioning the Resident – Supine

Lies flat on back
with arms and
hands at the side



Positioning the Resident – Prone

Lying on the
abdomen



Positioning the Resident – Fowler's

Reclined sitting position



Positioning the Resident – High Fowler's

Sitting up almost straight



Positioning the Resident – Lateral

Lying on the right
or left side



Positioning the Resident – Sims

Left side-lying position



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

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

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

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

Full-sling Mechanical Lift



Stand-Assist Lift



The End