

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

Module I
Body Mechanics
July 2019

Objectives


- Describe principles of body mechanics that help prevent injury
- Identify measures to safely assist a falling person to the floor
- Describe correct positioning of residents

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Body Mechanics

Efficient and safe use of the body by the coordination of:


- Body alignment,
- Balance and
- Movement



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Body Mechanics – Importance (1)

Due to nature of their duties, nurse aides are subject to back and other injuries, so.....



practicing correct body mechanics is very important


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Body Mechanics – Importance (2)

- Maximizes strength, minimizes fatigue
- Nurse aides lift, move and carry
- Reduces cost
- Reduces employee absences
- Reduces liability for 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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Body Mechanics ABC's

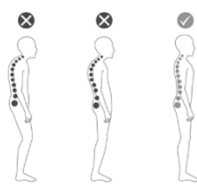
A = alignment
B = base of support
C = coordination



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Alignment (1)




- Posture
- How the head, trunk, arms, and legs line up with one another when the back is straight

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Alignment (2)

When you stand up straight.....

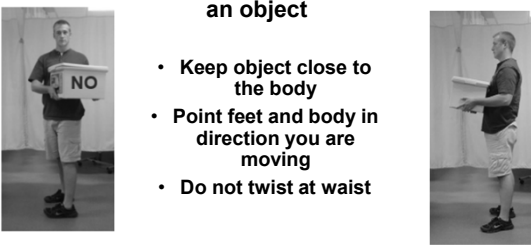
Correct body alignment allows the body to move and function efficiently and with strength



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Alignment (3)

Maintain correct body alignment when lifting/carrying an object



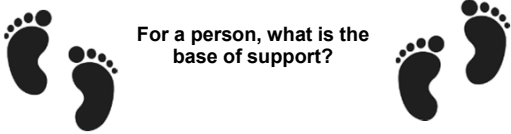
- Keep object close to the body
- Point feet and body in direction you are moving
- Do not twist at waist

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Base of Support

- Foundation that supports an object
- Good base of support needed for balance
- Wide base of support more stable than narrow

For a person, what is the base of support?




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Center of Gravity (1)

- Point where most weight is concentrated
- For a standing person.....


The pelvis is the center of gravity




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Center of Gravity (2)

Incorrect



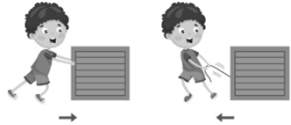
Correct



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Points to Remember When Lifting

- When given a choice push or pull, rather than lift
- Use large muscles of arms and thighs
- Move in a smooth motion. Do not jerk the object.
- Face object or person
- Use both arms and hands



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Body Mechanics – Changing Linen

Incorrect



Correct



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Lifting an Object off the Floor (1)

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

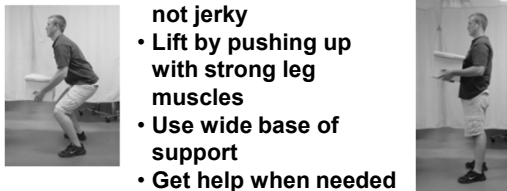


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Lifting an Object off the Floor (2)

- Move smoothly and not jerky
- Lift by pushing up with strong leg muscles
- Use wide base of support
- Get help when needed



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A Resident is About to Fall


- Simply control direction of fall by easing resident to floor, protecting head
- Keep resident still until nurse can check
- DO NOT try to hold the resident up because it can hurt nurse aide and resident
- DO NOT try to hold the resident up because the nurse aide may lose balance and both land on floor

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Angles

An angle is formed when 2 lines meet

Angles are measured in degrees and abbreviated with the symbol, °



The bed frame and head of bed are the 2 lines used to determine the angle of the bed

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Measuring Bed Angles

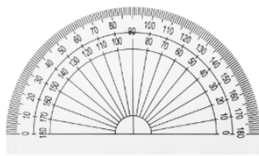
- Angles used to describe positions in a bed measured in degrees ranging from 0° – 90°
 - 0° = supine and prone positions (or flat)
 - 45° – 60° = Fowler’s position
 - 60° – 90° = High Fowler’s position
- As the head of bed is being raised, angle area is between bottom of the mattress at the head end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

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Bed Angles and the Protractor

A protractor is a measurement device that is used to measure angles



- If head of bed is facing the right, use the bottom numbers to get angles of bed positions
- If head of bed is facing the left, use the top numbers to get angles of bed positions

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Positioning the Resident



A resident must always be positioned and correctly aligned

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Positioning the Resident – Importance


Regular position changes and correct alignment

- Promote well-being and comfort
- Promote easier breathing
- Promote circulation
- Prevent pressure ulcers and contractures

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Positioning the Resident

- Reposition in bed or chair at every 2 hours (or more frequently per care plan)
- Use good body mechanics
- Ask co-worker for assistance as needed
- Use pillows for support and correct alignment
- Understand correct placement for variety of positions while resident is in bed



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Positioning the Resident: Supine



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Positioning the Resident: Prone



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Positioning the Resident: Fowler's



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Positioning the Resident: High Fowler's



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Positioning the Resident: Lateral



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Positioning the Resident: Sims



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Logrolling

- Positioning a resident on the side who has problems with the neck/back, spinal cord injury, or surgery of the back/hip requires logrolling
- As the resident is being turned, the resident must be turned as a unit; the head, back, and legs must remain in a straight line
- It is best to have two people perform the logroll together using a draw sheet and a count of three

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Mechanical Lifts (1)

- Helps prevent injury to staff and residents
- Used to transfer residents to/from beds, chairs, wheelchairs, stretchers, tubs, shower chairs, and commodes
- Use requires special training
- Never use if unsure of the operation of the lift; always ask questions if further explanation is needed

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Mechanical Lifts (2)

- Different types of lifts available
- Use may be mandatory if facility has a “no lift” policy
- 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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Mechanical Lifts (3)



Realize that just because the nurse aide knows how to use one type of lift does not mean the nurse aide knows how to use all types of lifts

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Full-sling Mechanical Lift



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Stand-assist Lift



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