Chapter 14

Body Mechanics and Safe Resident Handling, Positioning, and Transfers
Body Mechanics

- Body mechanics means using the body in an efficient and careful way.
  - It involves:
    - Good posture
    - Balance
    - Using your strongest and largest muscles for work
Principles of Body Mechanics

- Body alignment (posture) is the way the head, trunk, arms, and legs are aligned with one another.
- Base of support is the area on which an object rests.
  - A good base of support is needed for balance.
- Use the muscles in your shoulders, upper arms, hips, and thighs to lift and move residents and heavy objects.
Good Body Mechanics

For good body mechanics:
- Bend your knees and squat to lift a heavy object.
- Do not bend from the waist; it causes strain on small back muscles.
- Hold items close to your body and base of support.

All activities require good body mechanics.
Ergonomics

- Ergonomics is the science of designing the job to fit the worker.
  - The goal is to eliminate a serious and disabling work-related musculoskeletal disorder (MSD).
- MSDs are injuries and disorders of the muscles, tendons, ligaments, joints, and cartilage.
- Risk factors for MSDs in nursing centers include:
  - Force
  - Repeating action
  - Awkward postures
- MSDs are workplace health hazards.
- Always report a work-related injury as soon as possible.
OSHA Identified Risk Factors

- The Occupational Safety and Health Administration (OSHA) has identified risk factors for MSDs in nursing team members.
- The risk of an MSD increases if risk factors are combined.
- Risk factors:
  - Force: the amount of physical effort needed to perform a task
  - Repeating action: performing the same motion or series of motions continually or frequently
  - Awkward postures: assuming positions that place stress on the body
  - Heavy lifting: manually lifting residents who cannot move themselves
Risk of Back Injuries

- Back injuries:
  - Are a major threat
  - Can occur from repeated activities or one event

- Signs and symptoms of back injuries include:
  - Pain when trying to assume a normal posture
  - Decreased mobility
  - Pain when standing or rising from a seated position
Positioning the Person

● Regular position changes and good alignment:
  ➢ Promote comfort and well-being
  ➢ Promote breathing
  ➢ Promote circulation
  ➢ Help prevent pressure ulcers and contractures

● Residents may:
  ➢ Move and turn when in bed or a chair without assistance
  ➢ Need reminding to adjust their positions
  ➢ Need help with position changes
  ➢ Depend entirely on the nursing team for position changes
Turning and Re-positioning

- The person is repositioned at least every 2 hours.
- Follow these guidelines to safely position a person:
  - Use good body mechanics.
  - Ask a co-worker to help you if needed.
  - Explain the procedure to the person.
  - Be gentle when moving the person.
  - Provide for privacy.
  - Use pillows as directed by the nurse for support and alignment.
  - Provide for comfort after positioning.
  - Place the signal light within reach after positioning.
  - Complete a safety check before leaving the room.
Positions

- Fowler’s position (a semi-sitting position)
  - The head of the bed is raised between 45 and 60 degrees.

- Supine position (dorsal recumbent position)
  - This is the back-lying position.

- Prone position
  - The person lies on the abdomen with the head turned to one side.

- Lateral position (side-lying position)
  - The person lies on one side or the other.
Positions (Cont’d)

- Sims’ position (semi-prone side position)
  - This is a left side-lying position.

- Chair position
  - Persons who sit in chairs must hold their upper bodies and heads erect.
  - The nurse may ask you to put a small pillow between the person’s lower back and the chair.
    - A pillow is not used behind the back if restraints are used.
  - Some people require postural supports to keep them in good alignment.
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B. Sims' (posterior view)
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Proper Body Mechanics

- When providing care, you will:
  - Turn and reposition persons often
  - Move persons in bed
  - Transfer persons to and from beds, chairs, wheelchairs, stretchers, and toilets

- You must use your body correctly.
Preventing Work-Related Injuries

- OSHA recommends that:
  - Manual lifting be minimized in all cases
  - Manual lifting be eliminated when possible
- For safe resident handling, moving, and transfers, the nurse and health team determine:
  - The resident’s dependence level
  - The amount of assistance needed
  - What procedure to use
  - The equipment needed
Preventing Work-Related Injuries (Cont’d)

● Persons with dementia may:
  ➢ Not understand what you are doing
  ➢ Resist your handling, moving, and transfer efforts
  ➢ Shout at you, grab you, or try to hit you

● Measures to provide safe care for persons with dementia include:
  ➢ Always get a co-worker to help you.
  ➢ Do not force the person.
  ➢ Proceed slowly and use a calm, pleasant voice.
  ➢ Divert the person’s attention.
  ➢ Tell the nurse at once if you have problems handling, moving, or transferring the person.
How do we protect the skin?

- Friction and shearing injure the skin.
- Friction and shearing cause infection and pressure ulcers.
- Reduce friction and shearing when moving the person in bed by:
  - Rolling the person
  - Using a lift sheet (turning/draw sheet)
  - Using a turning pad, a large incontinence product, slide board, or slide sheet
Moving Persons in Bed

- Some persons can move and turn in bed.
- Those who are weak, unconscious, paralyzed, or in casts need help.
- If the person has a dependence level of Code 3: Extensive Assistance or Code 4: Total Dependence, use a mechanical lift or friction-reducing device. At least two staff members are needed.
- If the person weighs less than 200 pounds, two to three staff members and a friction-reducing device are needed.
- If the person weighs more than 200 lbs, at least three staff members and a friction-reducing device are needed.
Transfers and Lifts

- Chair or wheelchair to bed transfers
  - If the person is weak on one side, transfer the person so that the strong side moves first.

- Mechanical lifts
  - Mechanical lifts are used
    - To transfer persons who
      - Cannot help themselves.
      - Are too heavy for the staff to transfer.
    - For transfers to and from beds, chairs, stretchers, tubs, shower chairs, toilets, commodes, whirlpools, or vehicles
  - The type of sling used depends on the person’s size, condition, and other needs.
    - Slings are padded, unpadded, or made of mesh.
Using an Assist Device for Re-positioning

- Moving the person up in bed with an assist device
  - Assist devices are used to move some persons up in bed.
  - With these devices, the person is moved more easily and more evenly.
  - With these devices, shearing and friction are reduced, helping to prevent pain and skin damage.
  - These devices also help prevent injury to bones, joints, and the spinal cord.
  - The device is placed under the person from the head to above the knees or lower.
  - At least two staff members are needed.
Positioning to the Side of the Bed

- Moving the person to the side of the bed
  - One method involves moving the person in segments.
  - Use a mechanical lift or the assist device method for:
    - Tall or heavy persons
    - Totally dependent persons
    - Persons requiring extensive assistance
    - Older persons
    - Persons with arthritis
    - Persons recovering from spinal cord injuries or spinal cord surgery
Turning Persons

- Turning persons onto their sides helps prevent complications from bedrest.
- Certain procedures and care measures also require the side-lying position.
- The direction of turning depends on the person’s condition and the situation.
- After the person is turned, position him or her in good alignment.
- Persons may:
  - Be able to turn and reposition themselves in bed
  - Need help
  - Totally depend on the nursing staff for care
Logrolling

- Turning the person as a unit, in alignment, with one motion.
  - The procedure is used to turn:
    - Older persons with arthritic spines or knees
    - Persons recovering from hip fractures
    - Persons with spinal cord injuries
    - Persons recovering from spinal surgery
  - The spine is kept straight all times.
Residents dangle for many reasons.

Many older persons become dizzy or faint when getting out of bed too fast.

- They may need to sit on the side the bed for 1 to 5 minutes before walking or transferring.

While dangling the legs, the person:

- Deep breathes and coughs
- Moves the legs back and forth in circles

Two staff members may be needed to help the person sit on the side of the bed.
Transferring Persons

- Residents are moved to and from beds, chairs, wheelchairs, shower chairs, commodes, toilets, and stretchers.
- The amount of help needed and the method used vary with the person’s dependency level.
- Arrange the room so there is enough space for a safe transfer. Correct placement of the chair, wheelchair, or other device also is needed for a safe transfer.
- Transfer belts (gait belts) are used to:
  - Support residents during transfers
  - Reposition persons in chairs and wheelchairs
- Bed to chair or wheelchair transfers
  - Help the person out of bed on his or her strong side.
Chair or wheelchair to bed transfers

- If the person is weak on one side, transfer the person so that the strong side moves first.

Mechanical lifts used for:

- Transferring persons who
  - Cannot help themselves.
  - Are too heavy for the staff to transfer.
- For transfers to and from beds, chairs, stretchers, tubs, shower chairs, toilets, commodes, whirlpools, or vehicles.
Before using a mechanical lift:

- You must be trained in its use.
- It must work.
- The sling, straps, hooks, and chains must be in good repair.
- The person’s weight must not exceed the lift’s capacity.
- At least two staff members are needed.
- Always follow the manufacturer’s instructions.

The type of sling used depends on the person’s size, condition, and other needs.
- Slings are padded, unpadded, or made of mesh.
Manual lift or Mechanical lift for moving resident up in bed
How do we get a resident to the bathroom?

- Using the bathroom for elimination
  - promotes dignity, self-esteem, and independence. It is more private than using a bedpan, urinal, or bedside commode.

- Transferring the person to and from the toilet
  - Sometimes mechanical lifts are used.
  - A slide board may be used if:
    - The wheelchair armrests are removable.
    - The person has upper body strength.
    - The person has good sitting balance.
    - There is enough room to position the wheelchair next to the toilet.
Stretchers

- Used for persons who:
  - Cannot sit up.
  - Must stay in a lying position.
  - Are seriously ill.

- To transfer the person to the stretcher:
  - A drawsheet, turning pad, large incontinence product, slide sheet, or slide board is used.
  - At least two or three staff members are needed.
Stretcher safety

- When the person is on the stretcher:
  - Safety straps are used.
  - The stretcher side rails are kept up during the transport.
  - The stretcher is moved feet first.
  - Never leave a person on a stretcher alone.
Repositioning in a Chair or Wheelchair

- For good alignment and safety, the person’s back and buttocks must be against the back of the chair.
- Follow the nurse’s directions and the care plan for the best way to reposition the person.
- If the person cannot help, a mechanical lift is needed to re-position the person.
Turning persons onto their sides helps prevent complications from bedrest. Certain procedures and care measures also require the side-lying position. The direction of turning depends on the person’s condition and the situation.

- The person is turned toward you or away from you.
- After the person is turned, position him or her in good alignment.
- Persons may:
  - Be able to turn and reposition themselves in bed
  - Need help
  - Totally depend on the nursing staff for care
Quality of Life

- You must protect the right to privacy at all times.
- The person’s rights also are protected by allowing personal choice whenever possible.
- The person has the right to be free from restraint.
- Promote independence to the extent possible.
- Proper body mechanics protect the person from injury.