• Body mechanics means using the body in an efficient and careful way.
  – It involves good posture, balance, and 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.
  – Good alignment:
    • Lets the body move and function with strength and efficiency
    • Is needed when standing, sitting, and lying down
• Base of support is the area on which an object rests.
  – A good base of support is needed for balance.
• To handle and move persons and heavy objects, use your strongest and largest muscles in the shoulders, upper arms, hips, and thighs.
• For good body mechanics:
  – Bend your knees and squat to lift a heavy object.
  – Hold items close to your body and base of support.
• All activities require good body mechanics.
ERGONOMICS

• Ergonomics is the science of designing a job to fit the worker.
  – The goal is to prevent a serious and disabling work-related musculoskeletal disorder (MSD).
  – MSDs are injuries and disorders of the muscles, tendons, ligaments, joints, and cartilage.
    • They also can involve the nervous system.

• Early signs and symptoms of MSDs include:
  – Pain
  – Limited joint movement
  – Soft tissue swelling
• Always report a work-related injury as soon as possible.
• The Occupational Safety and Health Administration (OSHA) has identified risk factors for MSDs in nursing team members.
  – Force is the amount of effort needed to perform a task.
  – Repeating action is performing the same motion or series of motions continually or frequently.
  – Awkward postures mean assuming positions that place stress on the body.
  – Heavy lifting involves manually lifting persons who cannot move themselves.
POSITIONING THE PERSON

• Regular position changes and good alignment:
  – Promote comfort and well-being
  – Make breathing easier
  – Promote circulation
  – Prevent contractures and pressure ulcers

• Whether in bed or in a chair, the person is repositioned at least every 2 hours.
  – Follow the nurse’s instructions and the care plan.
• 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.
• Fowler’s position is a semi-sitting position.
  – The head of the bed is raised between 45 and 60 degrees.
  – The knees may be slightly elevated.
• Supine position (dorsal recumbent position)
  – This is the back-lying position.
• In the 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.
• The Sims’ position (semi-prone side position) is a left side-lying position.
  – The upper leg is sharply flexed so it is not on the lower leg.
  – The lower arm is behind the person.

• Chair position
  – Persons who sit in chairs must hold their upper bodies and heads erect.
  – A pillow is not used behind the back if restraints are used.
  – Some persons have positioners.
    • Ask the nurse about their proper use.
  – Some people require postural supports.