Chapter 13

Body Mechanics

Body Mechanics

- 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

Principles of Body Mechanics, cont'd.

- 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 musculo-skeletal 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

Ergonomics, cont'd.

- 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 are positions that place stress on the body.
  - Heavy lifting involves manually lifting persons who cannot move themselves.

Ergonomics, cont'd

- Back injuries can occur from repeated activities or from 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
  - 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.

Positioning the Person, cont'd.

- 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 call light within reach after positioning.
  - Complete a safety check before leaving the room.

Positioning the Person, cont'd.

- 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.

Positioning the Person, cont'd.

- 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.