Body Mechanics and Safe Patient Handling
Body Mechanics

- means using the body in an efficient and careful way
- involves good posture, balance, and using your strongest and largest muscles for work
- good body mechanics reduce the risk of injury
Body Alignment

- 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
Base of Support

- the area on which an object rests
- a good base of support is needed for balance
- when standing, your feet are your base
- Back injuries are a major risk
Good Body Mechanics

- Bend your knees and squat to lift a heavy object.
  - do not bend from your waist because this places strain on small back muscles
- Hold items close to your body and base of support.
  - involves upper arm and shoulder muscles
  - holding objects away from the body places strain on small muscles in lower arms
Ergonomics

- the science of designing a job to fit the worker
- involves changing the task, workstation, equipment, and tools to help reduce stress on worker’s body
Work Related Disorders

- injuries and disorders of the muscles, tendons, ligaments, joints, and cartilage
- can also involve the nervous system
- These are workplace health hazards
  - s/s include: pain, limited joint movement, or soft tissue swelling
- always report an injury as soon as possible
High Risk Work Related Disorders

- transfers-to and from places
- preventing falls
- picking up person
- lifting alone
- lifting persons who are confused
- lifting persons that cannot lift their own weight
- lifting heavy persons
- weighing a person
- moving a person up in bed

- re-positioning a person in a bed or in a chair
- changing an incontinence product
- making beds
- dressing/undressing person
- feeding a person in bed
- giving a bed bath
- applying anti-embolism stockings
Risk Factors that increase risk of injury

- force-the amount of physical effort needed to perform a task. Lifting or transferring heavy residents, preventing falls, and unexpected or sudden motions
- Repeating action-performing the same motion or series of motions continually or frequently; repositioning residents and transfers to and from beds, chairs, and commodes without adequate rest breaks
- Awkward postures- assuming positions that place stress on the body; reaching above shoulder height, kneeling, squatting, leaning over a bed, bending twisting the torso while lifting
- heavy lifting- manually lifting residents who cannot move themselves
Back Injuries

● these are major threats that can occur from repeated activities or one event

● s/s:
  ○ pain
  ○ decreased mobility
  ○ pain when standing or rising from a seated position

● Look at rules for Body Mechanics
Positioning the Person

- Regular position changes and good alignment promote comfort and well-being.
- Breathing is easier
- Circulation is promoted
- Pressure ulcers and contractures are prevented
Types of Positioning

- **Fowler's position** = a semi-sitting position.
  - head of the bed is raised between 45-60 degrees
- **Supine position** = back-lying position
  - the bed is flat
- **Prone position** = person lies on their abdomen with the head turned to one side
- **Lateral position** = person lies on one side or the other
- **Sim’s position** = a left side-lying position.
  - the upper leg (right leg) is sharply flexed so it is not on the lower leg (left leg)
  - the lower arm is behind the person
- **Chair position** = the persons who sit in chairs must hold their upper bodies and heads erect
To Prevent Injuries, Consider

- The person’s dependence level
- the amount of assistance needed
- what procedure to use
- the equipment needed
Moving Persons in Bed

- A dependence level of Code 4: Total Dependence
  - use a mechanical lift or friction reducing device and at least 2 staff members

- A dependence level of Code 3: Extensive assistance
  - use a mechanical lift or friction-reducing device and at least 2 staff members

- Code 2: Limited Assistance
  - the person is highly involved in the moving or transfer procedure

- Code 1: Supervision
  - the staff needs to look after, encourage, or cue(remind) the person

- Code 0: Independent
  - the person can walk without help
Protecting the Person’s Skin

- Older person’s have fragile skin that is easily damaged
- Friction= the rubbing of one surface against another. When moved in bed, the person’s skin rubs against the sheet.
- Shearing= when the skin sticks to a surface while muscles slide in the direction the body is moving. Occurs when the person slides down in bed or is moved in bed.
Reduce Friction

- Rolling the person
- Using friction-reducing devices

Logrolling is turning the person as a unit, in alignment, with one motion

the spine is kept straight
Moving the Person Up in Bed