

Body Mechanics, Transfers, Mobility & Positioning



Nurse Aide Education Program
Inservice/Continuing Education Credit Courses

Body Mechanics

Body mechanics means using the body properly to coordinate balance and movement. Using proper body mechanics maximizes strength and minimizes stress allowing the nursing aide's body to be used efficiently. The practice of proper body mechanics prevents injury when bending, moving and lifting. It reduces fatigue and promotes safety for the client and you during moves.

The mechanisms that affect moving include:

Center of gravity-the pelvis is the center of gravity and maintains balance and stability.

Base support-the feet are the base of support and should be approximately 18 inches or shoulder width apart to support the body during the move.

Friction-affects the amount of effort needed to move something. More friction under the feet increases stability. Less friction under what is being moved decreases the effort needed to move it. Avoid lifting objects. Push, pull or slide objects if possible.

General principles include:

Bend the knees and keep the back straight.
Keep the load close to you.
Lift smoothly using leg muscles. Don't jerk.
Never lift and twist at the same time.



What to consider before lifting and moving:

Survey the area and remove clutter to reduce the chance of accident and injury. Adjust the height of the bed if able. Up for care and down for transfers. Always lock bed brakes and wheelchairs for safety.

Assess the load to be lifted. Assess both weight and height. If you are unsure of your ability to move the client or the client's ability to help with the move, talk to the nurse and review the plan of care.

Plan and think through the move. Bring the client close to you by moving the client to the edge of the bed with their feet on the floor.

Communicate and explain what you are going to do and always move on the count of three....one, two and then three.

What to consider during the lift:

Take a deep breath before lifting and exhale during the lift which helps pump blood to the lungs and oxygen to the muscles.

Tighten the abdominal muscles. Pull in the stomach to support the spine.

Move slowly. Counting to three allows you and the client to move at the same time. Jerking could injure both you and the client. Stop if either you or the client is not ready for the lift.

Don't lift and twist at the same time. Once you straighten your knees, pivot around by repositioning your feet as you turn.

Your role:

Always tell the client what you are doing.

Always move the client on the count of three

If in doubt, ask for help.

Report injuries immediately.

Transferring

Moving or transferring a client to and from a bed, wheelchair, or stationary chair requires the use of proper body mechanics with emphasis on planning and safety. A safe transfer for the client and the nursing assistant is the goal. Refer to the client's plan of care before moving the client. To prepare for a move:

- Gather all equipment. Be certain it is safe and in good working order.
- Provide privacy. Observe client for tubing, catheters or other devices that indicate a special need. Clear the immediate area and position furniture for safety.
- Assess the client's size and ability to assist. Determine if you need help to move the client safely. If necessary ask a family member to assist you.

Moving the client from the lying position to a sitting position can cause dizziness and fainting. To avoid falls and injuries, clients should be moved into a sitting position at the edge of the bed with their feet flat on the floor for a least 10-15 seconds (or as long as the client needs) prior to the move. When transferring a client:

Be sure the client is wearing shoes or slippers with nonskid soles.

If the client is too heavy or can't help, ask for assistance from a family member.

Determine if the client has an affected (weak) side. Place the chair on the client's unaffected side.

If the chair has wheels, make sure the brakes are locked, before the transfer of the client.

Communicate with the client. Count to three to let the client know when to move.

Ask the client to put his hands on your upper arms, never around your neck (which could injure you).

Frequently encourage the client to help as much as possible and be alert for any sign of a problem.

A mechanical lift is a hydraulic device or electric device used to transfer dependent or obese clients in and out of bed or possibly a wheel chair. Always follow the manufacturer's guidelines for use of the lift.

Mobility

Physical movement is important for mental and physical well being. Clients who walk should be encouraged and /or assisted to walk frequently throughout the day. Clients in wheelchairs should be encouraged to transport themselves if possible.

Clients with assistive devices should be encouraged to use the devices when ambulating. Assistive devices are ordered by a doctor and fitted specifically to the client. Assistive devices should never be borrowed or shared. Some assistive devices include:



Brace-supports a specific part of the body

Cane-used by the client with weakness on one side

Crutches-used when weight-bearing ability is reduced

Walker-used for support and steadiness

Range of motion (**ROM**) are exercises that move each joint in the body to the fullest extent possible without causing pain. Each movement is different based on the structure of the joint. Clients should be encouraged to actively do range of motion exercises daily. Clients who have difficulty moving by themselves will require assistance to exercise (passive range of motion).

- Check joints for redness and swelling. Report any unusual findings immediately and do not continue the procedure.
- Remove obstacles that may block movement.
- Support above and below the joint being exercised.
- Perform ROM exercises according to the client's plan of care.
- Frequently ask the client if he is uncomfortable or in pain. Watch facial expression and response if a client is unable to verbalize pain. Stop ROM immediately if the client experiences pain and report immediately.



Positioning

Positioning is the placement and alignment of the client's body when assisting the client to sit, lie down or turn. If a client has trouble moving or forgets to change position, you must change the client's position at least every two hours or more often as indicated in the client's care plan.

Always check body alignment. Shoulders should be directly above hips, head and neck straight, arms and legs in a natural position.

Proper positioning and good body alignment:

- Improves physical comfort and general well being.
- Relieves strain on the client's body.
- Promotes good circulation.
- Helps the body function more efficiently.
- Prevents deformities and complications including contractures and pressure sores.

Frequent position changes prevent:

Musculoskeletal deformities (contractures).

Development of pressure sores (decubitus ulcers)

Respiratory complications (pneumonia) and decreased circulation (venous stasis).



Commonly used positions include:

Semi-Fowler's position – head elevated 30-45 degrees helps breathing, puts less pressure on coccyx than sitting up and allows client to better view environment.

Fowler's position – head elevated 45-60 degrees helps breathing and is comfortable for grooming, oral care, and eating but puts more pressure on coccyx.

Supine position – flat on back; maybe necessary during some procedures including bedmaking, bed bath, and perineal care.

Lateral position – lying on either right or left side reduces pressure on one side of body.

Prone-lying face down (certain surgery may make this the position option of choice).

Positioning and protective devices:

Pillows

Foam wedges

Handrolls/trochanter rolls

Foot cradles/footboards

Trapeze

Other (rolled blanket)

Your role:

- Use good body mechanics.
- Keep client's body in good alignment. Support affected limbs during repositioning. Recheck alignment after the position change.
- Pay special attention to equipment such as oxygen tubing, feeding tubes and urinary catheters during moves.
- Encourage client to assist with positioning.
- Be patient and never rush the client. Speak calmly and reassuringly because client may feel anxious.
- Be gentle with the client to prevent pain and injury.
- Be informed of what positions are safe for each client.
- Position urinary catheter over (not under) the leg to prevent pressure sores. Prevent skin tears by never sliding or dragging a client on the bed. You may also use a lift sheet.
- Use side rails while moving client in bed (if in a hospital bed).
- Reposition a client who is sitting in a chair every hour.