

# Chapter 27

## Exercise and Activity Needs

# Lesson 27.1

- Define the key terms and key abbreviations in this chapter.
- Describe bedrest.
- Explain how to prevent the complications from bedrest.
- Describe the devices that support and maintain body alignment.

# Lesson 27.1 (Cont.)

- Describe range-of-motion exercises.
- Describe 4 walking aids.
- Perform the procedures described in this chapter.
- Explain how to promote PRIDE in the person, the family, and yourself.

# Exercise and Activity

- Illness, surgery, injury, pain, and aging can limit activity.
  - Inactivity, whether mild or severe:
    - Affects every body system
    - Affects mental well-being
- You assist the nurse in promoting exercise and activity in all persons to the extent possible.

# Bedrest

- The doctor orders bedrest to:
  - Reduce physical activity
  - Reduce pain
  - Encourage rest
  - Regain strength
  - Promote healing
- These types of bedrest are common:
  - Strict bedrest (everything done for the person)
  - Bedrest (some ADL allowed)
  - Bedrest with commode privileges
  - Bedrest with bathroom privileges (bedrest with BRP)

# Bedrest Complications

- Bedrest and lack of exercise and activity can cause the following serious complications:
  - Pressure injuries
  - Constipation and fecal impaction
  - Urinary tract infections and renal calculi (kidney stones)
  - Blood clots (thrombi)
  - Pneumonia (inflammation and infection of the lung)
  - Musculo-skeletal system complications
    - Contractures
    - Muscle atrophy
    - Orthostatic hypotension (postural hypotension)

# Bedrest Complications (Cont.)

- These important nursing measures help prevent complications of bedrest:
  - Good alignment
  - Range-of-motion exercises
  - Frequent position changes

# Positioning

- Supportive devices are often used.
  - Bed-boards are placed under the mattress to prevent it from sagging.
  - Foot-boards prevent plantar flexion that can lead to footdrop.
  - Trochanter rolls prevent the hips and legs from turning outward.
  - Hip abduction wedges keep the hips abducted.
  - Hand rolls or hand grips prevent contractures of the thumb, fingers, and wrist.
  - Splints keep the elbows, wrists, thumbs, fingers, ankles, and knees in normal position.
  - Bed cradles keep the weight of top linens off the feet and toes.



# Range-of-Motion Exercises

- The movement of a joint to the extent possible without causing pain is the range of motion (ROM) of that joint.
  - Active ROM exercises are done by the person.
  - With passive ROM, someone moves the joints through their range of motion.
  - With active-assistive ROM, the person does the exercises with some help.

# Ambulation

- Ambulation is the act of walking.
- After bedrest, activity increases slowly and in steps.
- Persons who are weak and unsteady from bedrest, illness, surgery, or injury need help walking.
  - Follow the care plan.
  - Use a gait (transfer) belt if the person is weak or unsteady.
  - The person also uses hand rails along the wall.
  - Always check the person for orthostatic hypotension.

# Walking Aids

- Walking aids support the body.
  - The physical therapist or nurse measures and teaches the person to use the device.
  - Crutches are used:
    - When the person cannot use one leg
    - When one or both legs need to gain strength
    - When the person has permanent leg weakness

# Crutches

- When crutches are used, follow these safety measures:
  - Check the crutch tips.
    - Replace worn or torn crutch tips.
    - Dry wet tips with a towel or paper towels.
  - Check crutches for flaws.
  - Tighten all bolts.
  - Street shoes are worn.
    - They must be flat and have non-skid soles.
  - Clothes must fit well.
  - Practice safety rules to prevent falls.
  - Keep crutches within the person's reach.

# Canes and Walkers

- Canes are used for weakness on one side of the body.
  - They help provide balance and support.
  - A cane is held on the strong side of the body.
  - The person walks as follows:
    - The cane is moved forward 6 to 10 inches.
    - The weak leg is moved forward even with the cane.
    - The strong leg is moved forward and ahead of the cane and the weak leg.
- A walker gives more support than a cane.
  - Wheeled walkers are common.
    - The person pushes the walker about 6 to 8 inches in front of his or her feet.

# Orthotic Devices

- Braces do the following:
  - Support weak body parts
  - Prevent or correct deformities
  - Prevent joint movement
- A brace is applied over the ankle, knee, or back.
  - To prevent skin breakdown:
    - Keep skin and bony points under braces clean and dry.
    - Report redness or signs of skin breakdown at once.
    - Report complaints of pain or discomfort.
- The care plan tells you when to apply and remove a brace.