#### Immobility



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#### **Course contents**

- Introiduction of immobility
- •Causes of immobility
- •Adverse effect of immobility in different system
- •Nursing management of adverse effect

# Immobility

#### Introiduction of immobility

Incapable of movement

- May involve a specific part of the body due to injury
- May involve lower part of body (paraplegia)
- May involve one side of body (hemiplegia)
- Or may involve entire body from the neck down (quadriplegia)

Causes of immobility

Enforce bed rest illness or convalescence Paralysis Immobilization of extremities with: ✓ brace ✓ Cast ✓ Corsets ✓ Fixations ✓ Traction

✓ Sling( collar cuff, triangular sling)

#### Continue.....

- Joint stiffness and pain with protective limitation of movement
- Mental disorder
- Loss of sensation

#### Adverse effects of immobility....

Immobility affects the following body systems

- musculoskeletal system
- cardiovascular system
- respiratory system
- metabolic system
- urinary system
- gastrointestinal system
- integumentary system
- psycho neurologic system

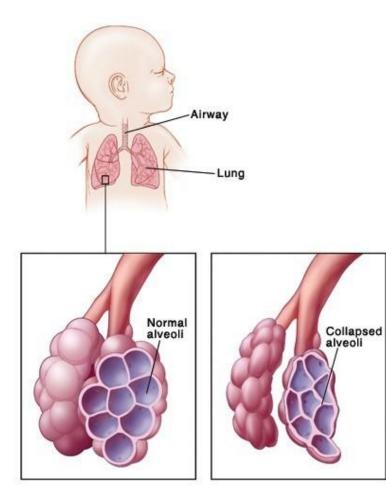
#### Musculoskeletal system

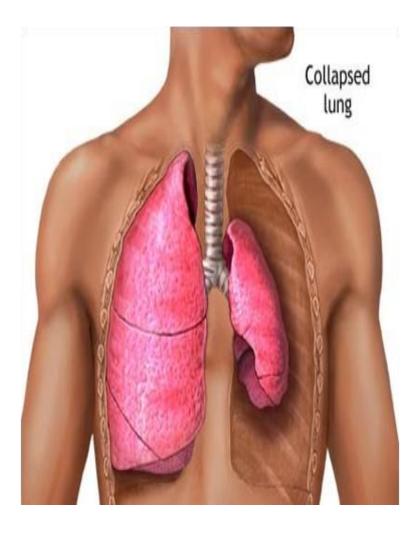
- Muscle atrophy
- Stiffness or arthralgia
- Decreased joint mobility and flexibility
- Osteoporosis
- Contractures and ankylosis
- Diminished Cardiac Reserve
- Orthostatic Hypotension
- Venous Vaso Dilation And Stasis
- Dependent Edema
- Increased cardiac work load
- Venous thrombosis

#### **Respiratory System**

- Decreased respiratory movement
- Atelectasis (collapse of alveoli)
- Hypostatic pneumonia
- Increased respiratory secretions
- Respiratory congestion

Atelectasis





# Metabolic system

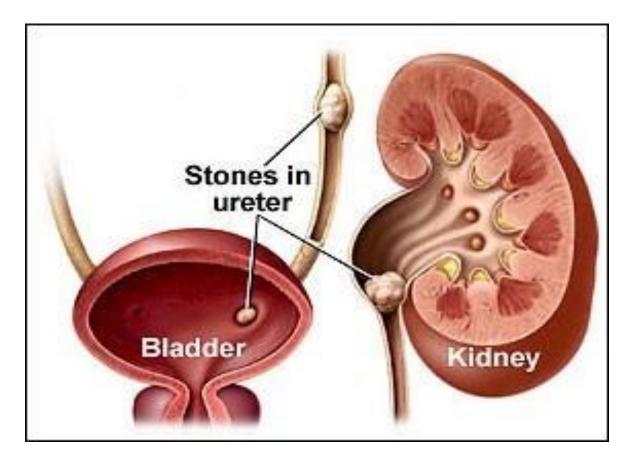
- Decreased metabolic rate.
- Anorexia
- Fluid and electrolyte imbalances

#### **Urinary System**

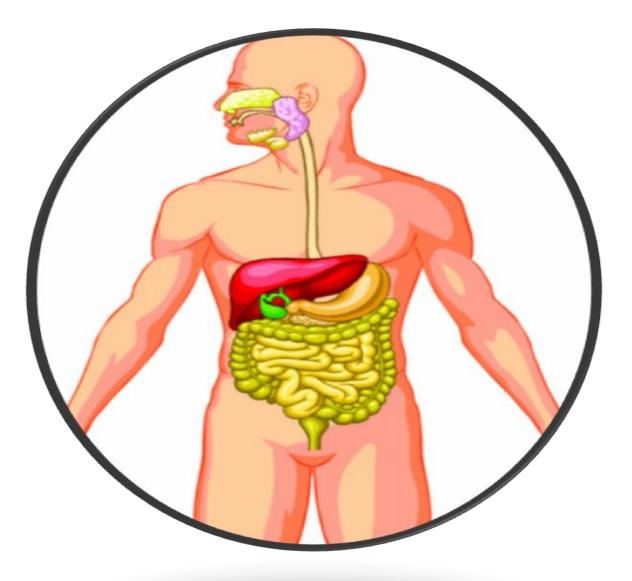
- •Urinary stasis
- •Urinary retention.
- Urinary infection.
- UTI
- Poor perineal hygiene
- Incontinence
- Decreased fluid intake
- Indwelling urinary catheterization
- Renal calculi
- Alkaline urine

#### **Urinary System**

## Renal Calculi



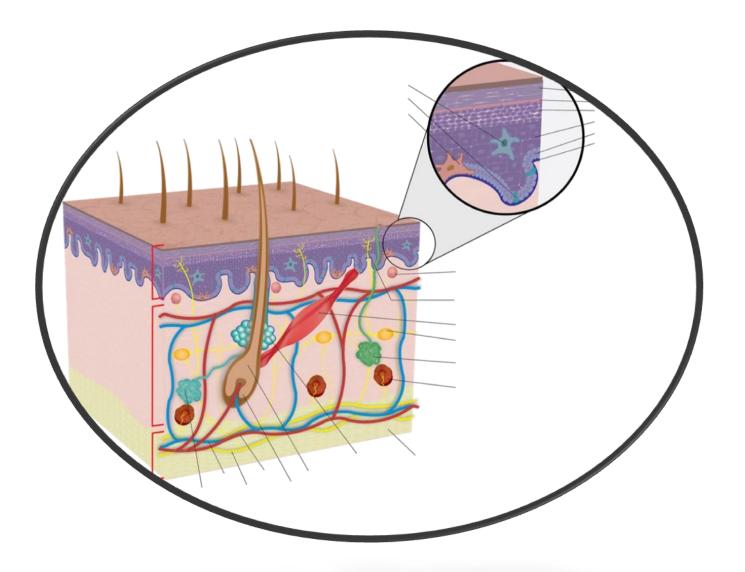
#### **Gastrointestinal System**



# **Gastrointestinal System**

- Decreased food intake
- Altered protein metabolism
- Poor digestion and utilization
- Weight gain
- Constipation

#### **Integumentary System**



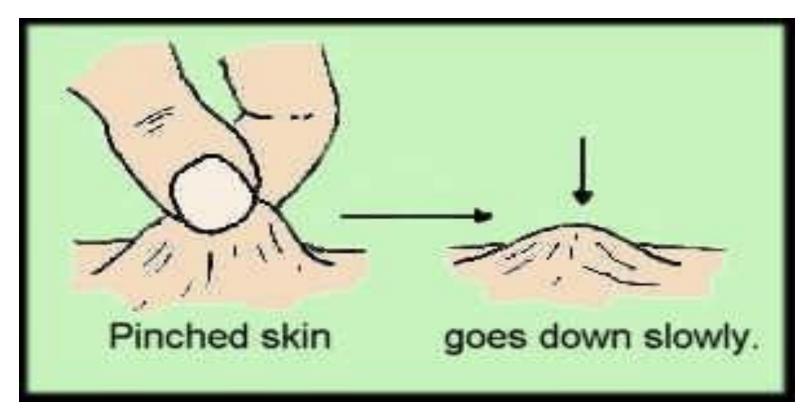
#### **Integumentary System**

Reduced Skin Turgor

- Skin Breakdown:
- ✓ Bed Sores
- ✓ Pressure Ulcers

# Integumentary System

### Skin turgor



# Integumentary System Skin breakdown



#### Psycho neurologic System

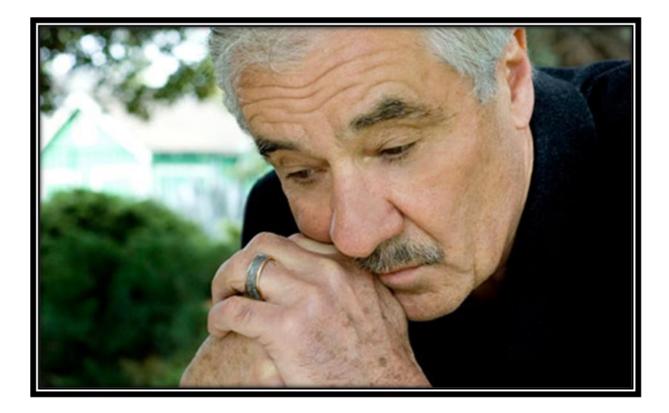


# Psycho neurologic System

- Decreased self esteem
- Loss of control over events
- Depression
- Anxiety
- Feeling of worthlessness
- Apathetic
- Altered thought process
- Coping difficulties
- Disturbed sleep pattern

# **Psycho neurologic System**

# Depression



# **Nursing management**

#### **1.Assessment** History

- Daily activity level
- Exercise
- Fitness goals
- Mobility problems
- Physical and mental alternations
- Physical examination
  - Movement and gait
  - Alignment
  - Joint structure and function
  - Muscle mass and power
  - •ADL
  - •Ability to stand, walk, and sit
  - Physical and mental alternations

#### 2. Nursing diagnosis

>Activity intolerance

>Impaired physical mobility

>Impaired bed mobility

>Impaired comfort

Impaired skin integrity

Impaired wheel chair mobility

Impaired sitting

>Impaired standing

>Impaired transfer ability

#### **3. Implementation**

Position the patient to maintain normal body alignment:

- Change position every 2hourly
- Teach to use over head trapez
- Passive exercise

#### Airway clearance problem

- Deep breathing and coughing exercises
- Chestphysiotherapy
- ➢Suctioning

#### **3.Implementation**

Monitor vital signs before and after activity Renal problems

Increase fluid intake

Frequent position changes **Risk for injury** 

- ➢Keep side rails
- >Do not leave the patient un attended
- Take all safety measures

# **3.Implementation**

#### Nutrition

- Provide balance diet
- Sufficient proteins, CHO, vitamins and minerals.
- Increase fluid intake

#### **Encourages for ADL**

- Assist for brushing, combing etc
- > Ambulate the patient at the earliest

# **3.Implementation** Elimination

- ➢ High fiber diet
- Add more fruits, vegetables and fluids
- Changing position and exercises
- Keep the patient clean and tidy
- Prevent soiling linens
- Provide/assist sponge bath
- ➢Observe skin integrity
- > Take precautions to prevent bed sores