



Move It! Move It!

ACTIVITY AND MOBILITY

OUTCOME

Outline the factors of impact immobility has on a patient and identify how to assess and implement nursing interventions for immobile patients.

OBJECTIVES

1. Explain the importance of activity and mobility and what can influence them
2. Differentiate the changes immobility can have on multiple body systems
3. Create a concept map that denotes the variations in an assessment of the immobilized patient and which nursing interventions to implement



Image credit: Creately

Concept Map Activity



MOBILITY

- ❖ Many purposes
- ❖ Functions of the body depend on mobility
- ❖ Musculoskeletal and nervous systems are necessary

(Potter et al.,
2017)

A photograph of a dumbbell and several weight plates on a concrete surface. The dumbbell is positioned diagonally in the upper left, and several weight plates are scattered in the lower left. The background is a textured, grey concrete wall.

Activity and Exercise

- ❖ Active lifestyle
 - Maintains and promotes health
 - Essential treatment for chronic illnesses
- ❖ Regular physical activity
 - Enhances functioning of all body systems
 - Dependent on patient's activity tolerance
- ❖ Combination of exercises

Influences on Activity and Exercise

- ❖ Developmental changes
- ❖ Behavioral aspects
- ❖ Family and social support
- ❖ Environmental issues

(Potter et al., 2017)



Impacts to Mobility

- ❖ Postural abnormalities
- ❖ Muscle abnormalities
- ❖ Damage to central nervous system
- ❖ Trauma to musculoskeletal system

(Potter et al., 2017)



Mobility- Immobility

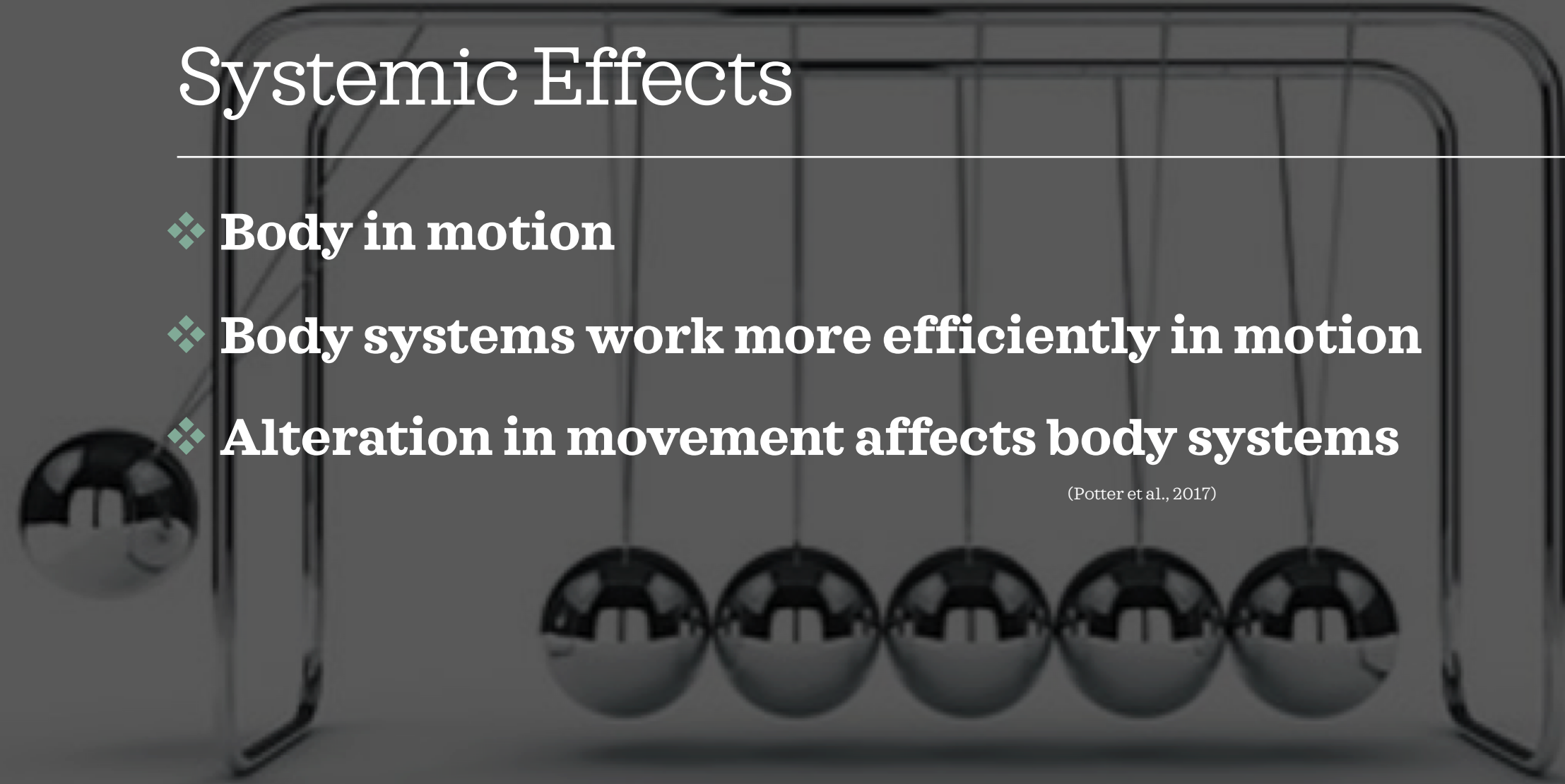
- ❖ Mobility
- ❖ Immobility
- ❖ Bedrest
- ❖ Deconditioning



Systemic Effects

- ❖ **Body in motion**
- ❖ **Body systems work more efficiently in motion**
- ❖ **Alteration in movement affects body systems**

(Potter et al., 2017)

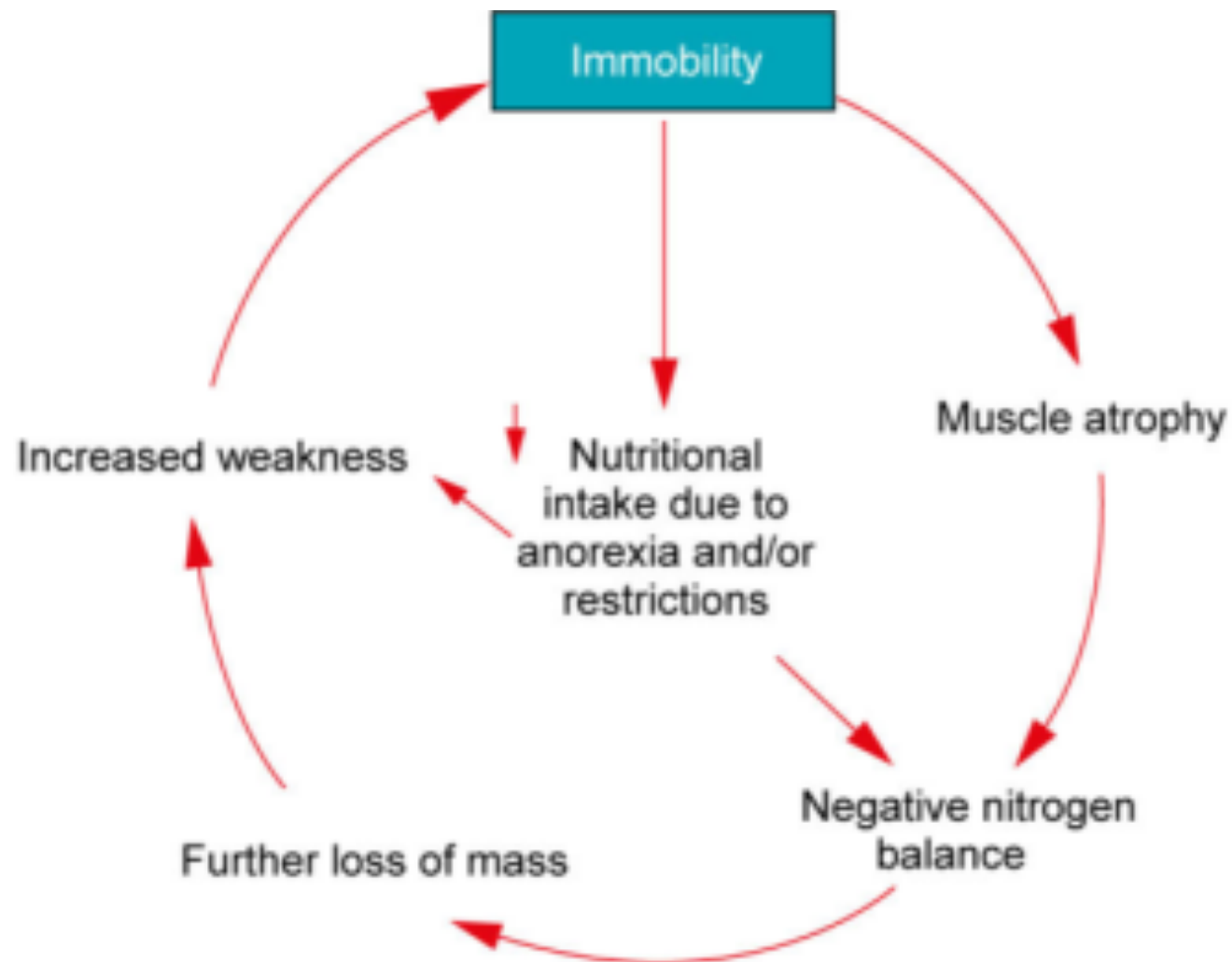


Metabolic Changes

Altered endocrine
metabolism

Calcium reabsorption

Function of the
gastrointestinal system



From Gibler WW, Shakkottai ME. *Basic pathophysiology: a holistic approach*, ed 5. St Louis, 1999, Mosby

Assessment of Metabolic Changes

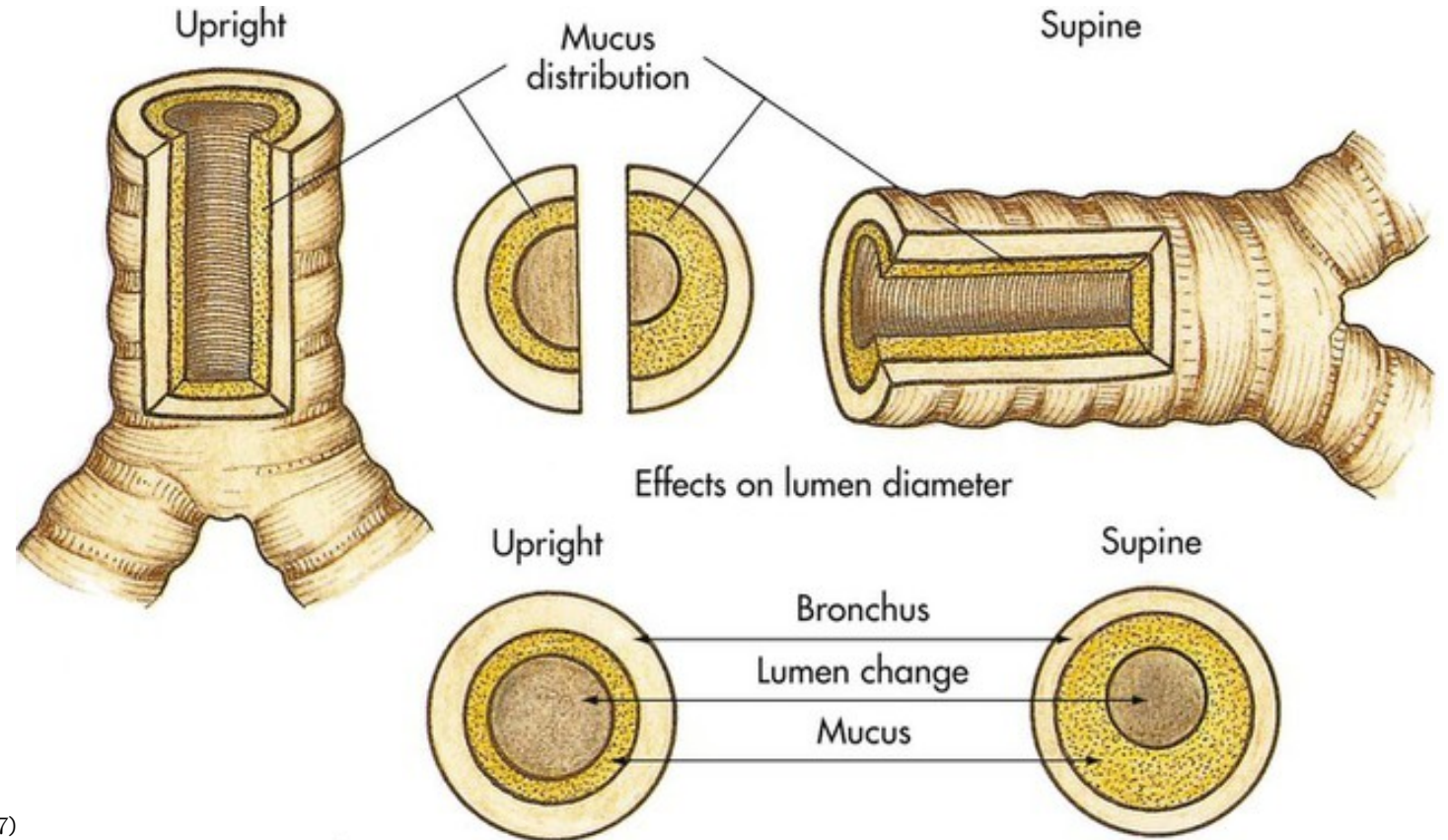
- ❖ Anthropometric measurements
- ❖ Intake and output
- ❖ Nutrition
- ❖ Lab values
- ❖ Elimination pattern

(Potter et al., 2017)



Respiratory Changes

- ❖ Atelectasis
- ❖ Hypostatic pneumonia
- ❖ Decreased oxygenation
- ❖ Prolongs recovery (Potter et al., 2017)



Assessment of Respiratory Changes

- ❖ Assess at least every two hours
- ❖ Assess chest wall
- ❖ Auscultate the lung fields

(Potter et al., 2017)

Cardiovascular Changes

Orthostatic
hypotension

Increased
cardiac
workload

Thrombus
formation

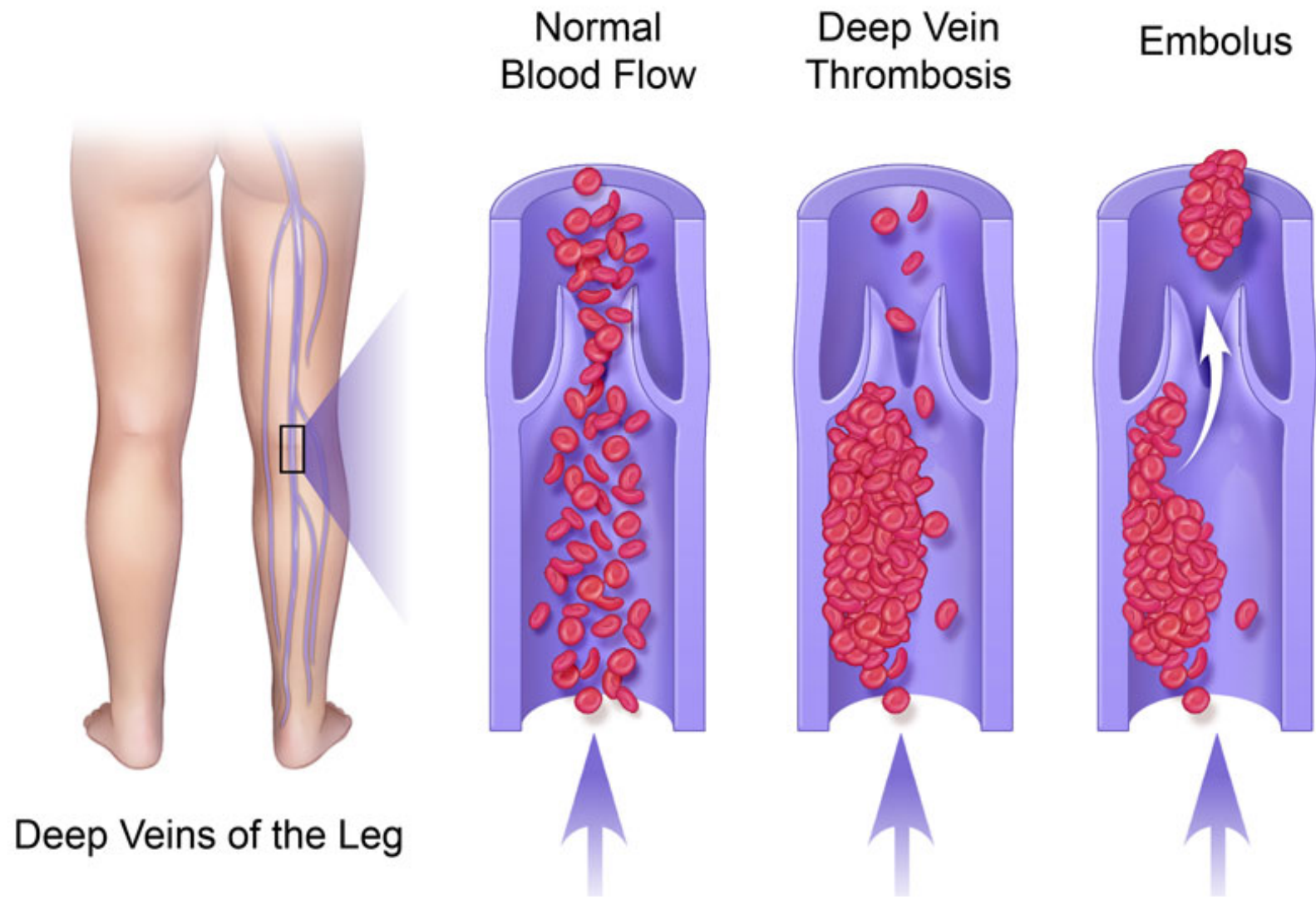


Image credit: UCLA Health



Assessing for Cardiovascular Changes

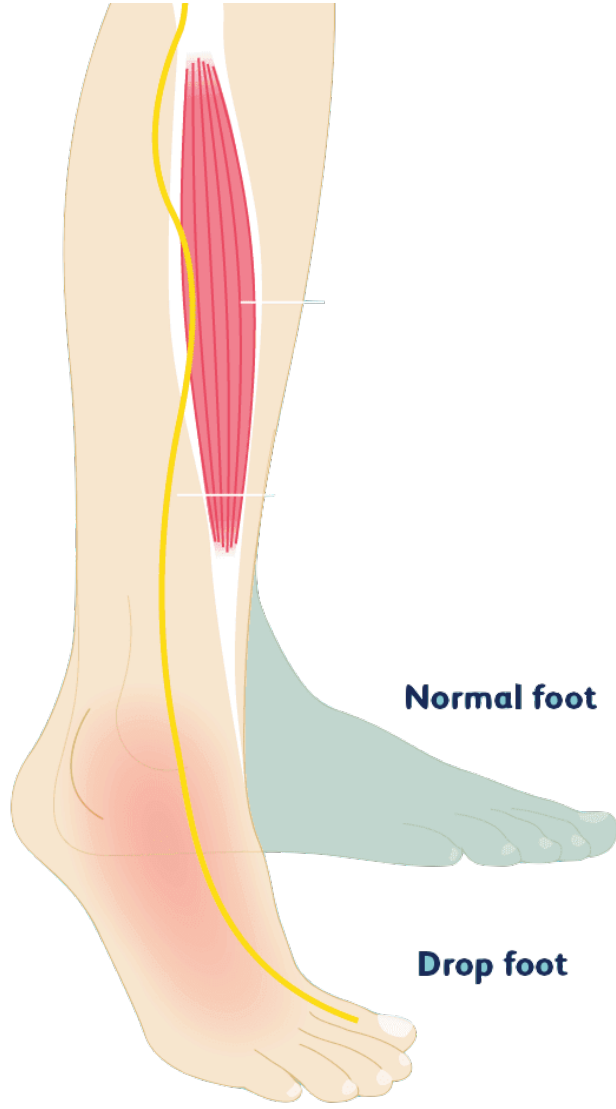
- ❖ Monitor blood pressure, including orthostatic
- ❖ Evaluate apical and peripheral pulses
- ❖ Observe for edema and delayed wound healing
- ❖ Assess for signs of a DVT

Musculoskeletal Changes



- ❖ Loss of muscle mass
- ❖ Muscle weakness
- ❖ Disuse osteoporosis
- ❖ Joint abnormalities

(Potter et al., 2017)



Normal foot

Drop foot

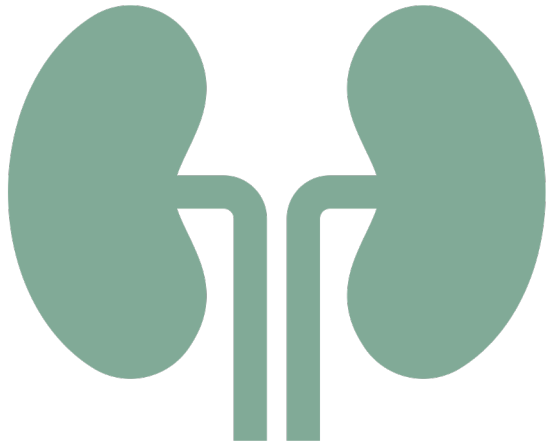
Image credit: Verywell Health

Assessing for Musculoskeletal Changes

- ❖ **Measure height, weight, and skinfold thickness**
- ❖ **Assess range of motion**
- ❖ **Identify high risk patients for disuse osteoporosis**

(Potter et al., 2017)

Urinary Elimination Changes



- ❖ Loss of gravity
- ❖ Urinary stasis
- ❖ Urinary tract infections
- ❖ Renal calculi

(Potter et al., 2017)

Assessing Elimination Changes



- ❖ Monitor intake and output
- ❖ Assess for dehydration
- ❖ Nutrition
- ❖ Bowel sounds
- ❖ Bowel movements

(Potter et al., 2017)

Integumentary Changes

- ❖ Nutrition and metabolism changes
- ❖ Pressure ulcers
- ❖ Intervention for prevention are key!

(Potter et al., 2017)

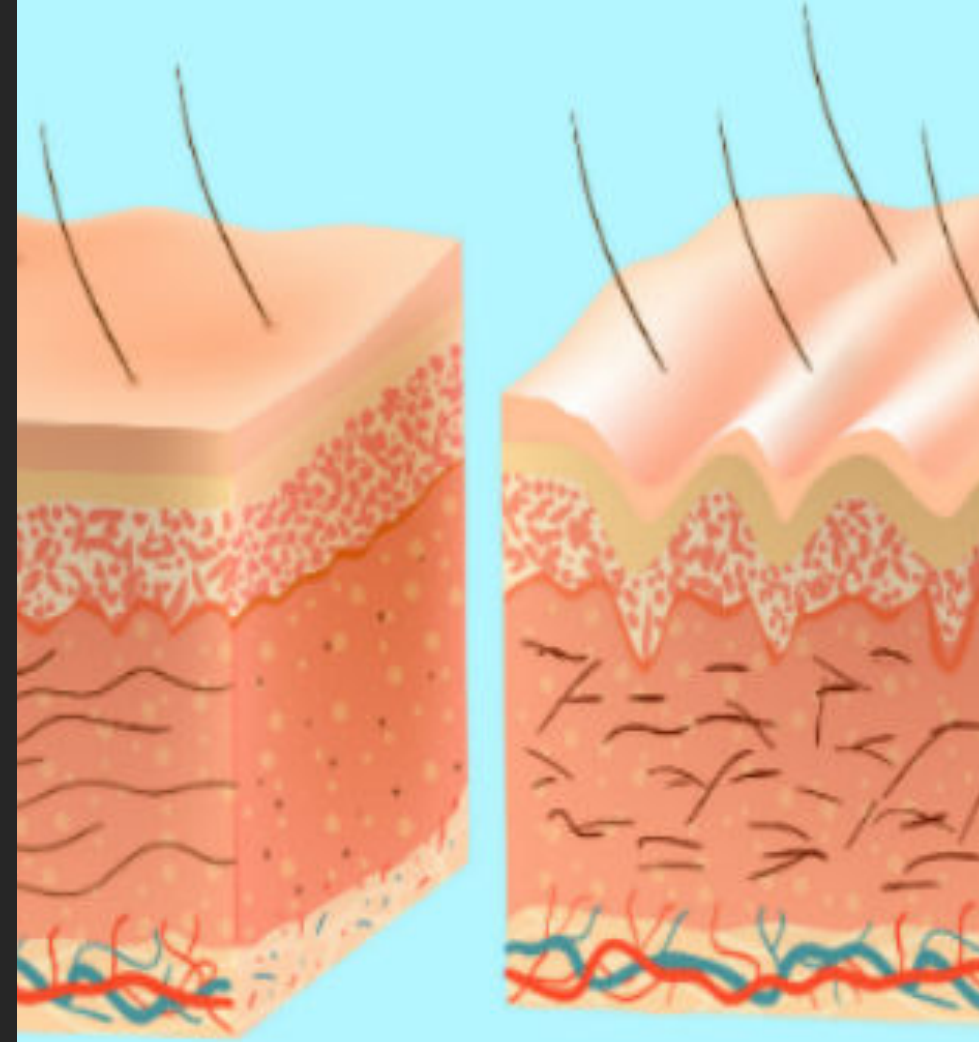


Image source: Skin Institute

Stage I



Presence of a reddened area that fails to blanch with pressure, and changes in temperature (warmth or coolness), consistency (firm or boggy), sensation (pain or itching), or color (red, blue, or purple on darker skin; red on lighter skin)

Stage II



The skin forms a blister or sore. Partial-thickness skin loss or ulceration involving the epidermis, dermis, or both

Stage III

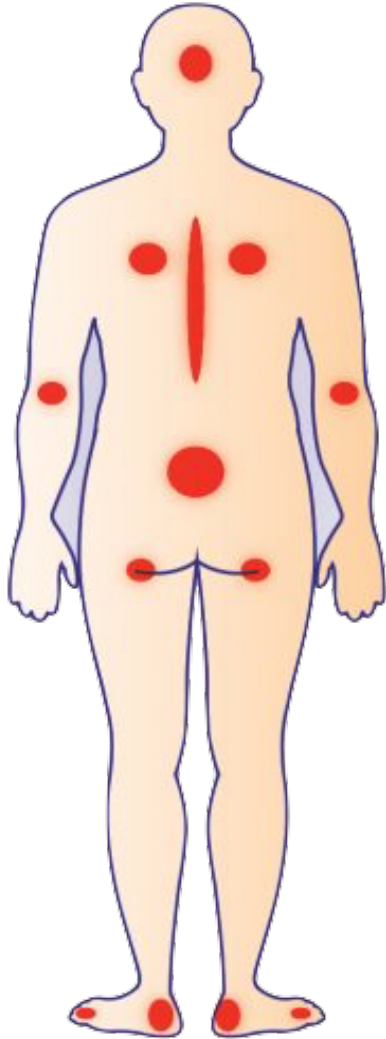


A crater appears in the skin, with full-thickness skin loss and damage to or necrosis of subcutaneous tissue that may extend to, but not through, underlying muscle

Stage IV



The pressure ulcer deepens. There is full-thickness skin loss, with destruction, tissue necrosis, or damage to underlying muscle, bone, and sometimes tendons and joints



Assessing for Skin Changes

- ❖ Skin breakdown
- ❖ Color changes
- ❖ Braden Scale
- ❖ Every two hours

(Potter et al., 2017)

Psychosocial Effects

- ❖ **Emotional and behavioral responses**
- ❖ **Sensory alterations**
- ❖ **Coping abilities**

(Potter et al., 2017)



Psychosocial Assessment

- ❖ Abrupt changes may indicate another concern
- ❖ Boredom, isolation, depression, anger
- ❖ Observe and listen!
- ❖ Sleep-wake cycle
- ❖ Usually gradual

(Potter et al., 2017)



Nursing Diagnosis

1. Impaired physical mobility
2. Risk for disuse syndrome

Consider all dimensions of your patients' health!

(Potter et al., 2017)

Nursing Interventions

Nutrition for
metabolic
needs

Cough and
deep breathe

Adequate
fluid intake

Mobilize the
patient

Teach patient
to not hold
his/her breath

DVT
prevention

Nursing Interventions

Passive ROM
or ROM
exercises

Repositioning,
alleviate
pressure

Hydration and
nutrition

Address
incontinence
issues

Socialization

Minimize
sleep
interruptions

Encourage
patient
participation



Image credit: Creately

Concept Map Activity



Metabolic



Respiratory



Cardiovascular



Musculoskeletal

A large, horizontally-oriented oval with a teal or slate blue color, centered on a white background. The word "Integumentary" is written in white, bold, serif font across the middle of the oval.

Integumentary



Elimination



Psychosocial

References

Potter, P. A., Perry, A. G., Hall, A., & Stockert, P. A. (2017). *Fundamentals of nursing* (9th ed.). St. Louis, MO: Mosby Elsevier.