Physiological Aging Changes

BODY COMPOSITION

- Iean muscle mass
- subcutaneous fat
- ★ overall body fat
- ♣ sweat glands
- skin pigmentation
- serum protein binding

CENTRAL NERVOUS SYSTEM

- neuronal density
- ♣ reflexes
- ♣ sympathetic response
- proprioception
- barorecptor response (postural hypotension)

CARDIOVASCULAR

- ★ myocardial irritability
- ★ dysrhythmias, e.g.,

 - ▲ A/V blocks
 - maximal heart rate
 - sinus rate
- ♣ arterial compliance
- ★ systolic blood pressure
- ♣ cardiac output
- ★ circulation time
- cutaneous/tissue perfusion

ENDOCRINE

- ★ or ↓ thyroid function Hypo/hyperthyroidism
- ♣ insulin sensitivity

GASTROINTESTINAL

- gastrointestinal absorption
- gastric emptying
 hepatic blood flow, drug clearance
- I drug absorption
- motility
- ♣ transit time

IMMUNE

- ♣ neurohumoral response
- white blood cell reserve (secondary to bone marrow/splenic sclerosis)
 "Sluggish" T cell response

METABOLIC

- ♣ basal metabolic rate
- ★ risk for hypothermia
- ➡ temperature regulation response

<u>Sources</u>: Graf, C. (2006).Functional decline in hospitalized older adults. *ANJ*, *106*(1), 58-67; Mick, DJ, Ackerman, MH. (2004). Critical care nursing for older adults: pathophysiological and functional considerations. *Nurs Clin N Am*, *39*, 473-493; Watters, JM. (2002). Surgery in the elderly. *Journal canadien de chirurgie*, *45*(2), 104-108.

ORTHOPEDIC

- Osteopenia
- ★ risk of fractures
- ♣ range of motion
- ▲ ligamentous stiffness

RENAL

- bladder capacity
- Image: Frence in the second secon
- Iglomerular filtration
- renal clearance of drugs and metabolites

RESPIRATORY

- ➡ tidal volume
- vital capacity
- Iung capacity
- ♣ compliance
- ♣ response to

hypoxemia/hypercapnia

SENSORY

- salivation
- taste buds for sweet and salty (most tastes are bitter or sour)
- ➡ visual acuity
- ♣ sensitivity to sound
- ♣ response to pain
- ♣ thirst sensation
- motor skills
- Changes in dentition

