Geriatric Rehabilitation

- Aging depends on your:
    - Genes
    - Environment
    - Lifestyle

Statistics

- Born in 1935
- 65th Birthday in 2000
- Over 50 million senior citizens live in the U.S., making up 16.5% of the total population., Feb 22

Care setting for Geriatric clients

Five main area of care

- Home Health
- Hospice
- Residential care community – (assistive living)
- Nursing homes
- Adult day care

Aging Theories

- Physiological
- Developmental
- Psychological
- Sociological

Aging Theories

- Physiological
  - Molecular
  - Cellular
  - Neuroendocrine
- Developmental
  - Erikson
  - Havighurst

- Psychological/ Sociological
  - Role changes
  - Consistency in personality over time

Fears about getting old!!

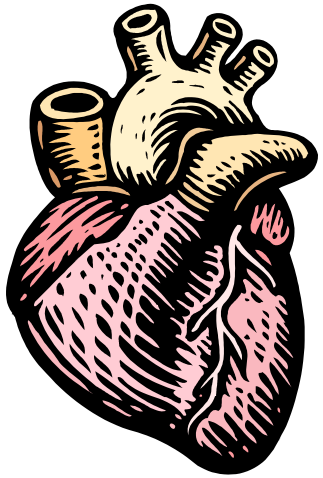
- Health Problems/Health Care Cost
- Income Problems
- Being Dependent
- Dying
- Being alone

PEW Research Center

The Aging Process…Normal Aging Changes

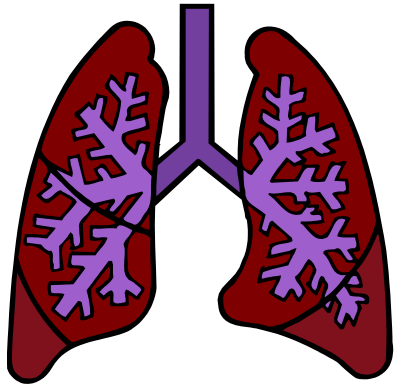
Cardiovascular -Changes

- Chronological age is the primary risk
- Cardiac dysfunction & arterial stiffness which leads to leads to ↑ SBP, Heart Failure,↓ output, Kidney function and Brain damage



Respiratory

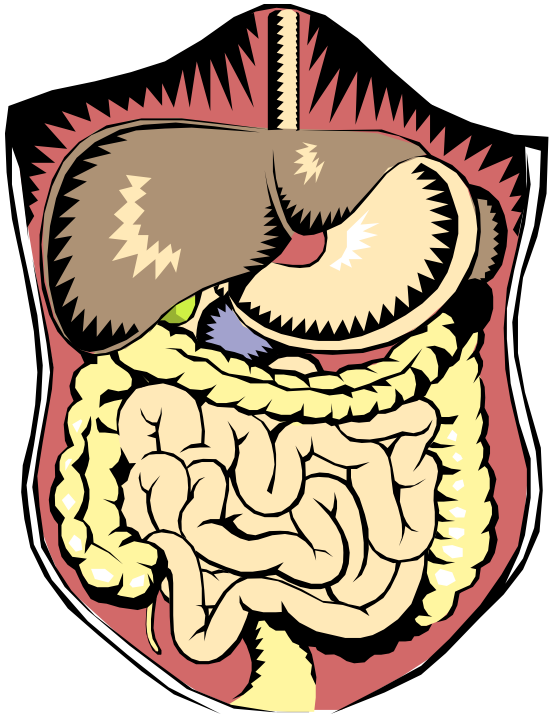
- Impaired gas exchange
- Dry mucus membranes
- Hypoxia
- ↑ susceptibility to infection
- ↑ residual volume and CO_2 retention



- Decreased cough reflex
- ↓ Vidal capacity & functional reserve

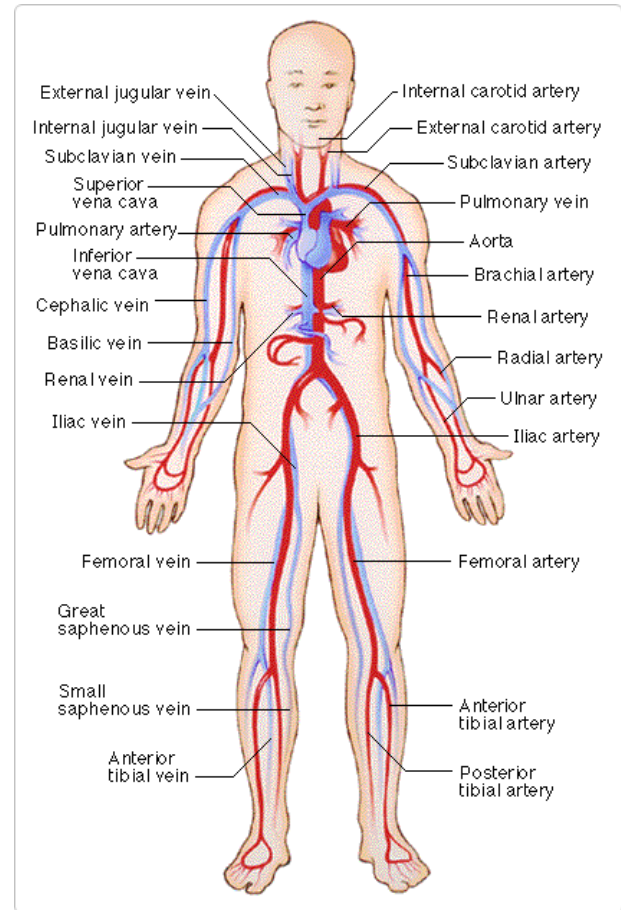
GI System

- ↓ nutrient reserves
- ↓peristalsis
- ↓ appetite → dehydration
- ↓ salvia production
- ↓absorption
- ↓ gag reflex



Hematological

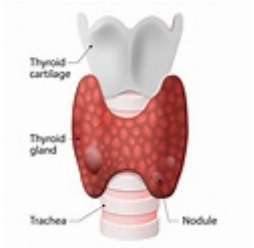
- Anemia
- Hypoalbuminemia
- ↓ body water
  → dehydration

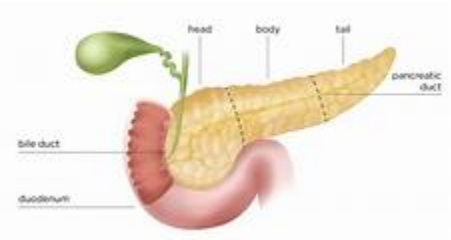


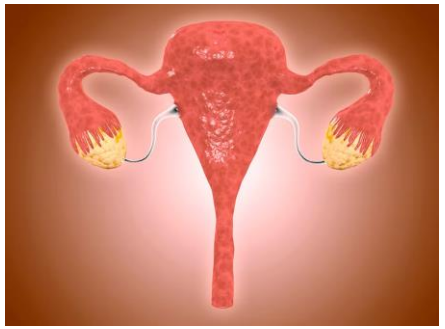
Hepatic System

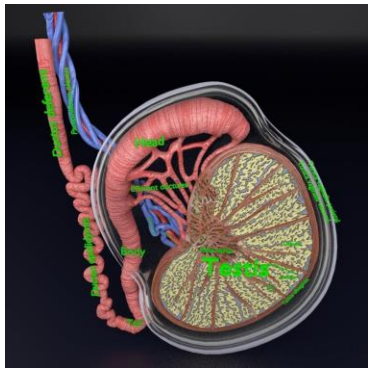
↓enzyme activity

Metabolic and Excretory Changes



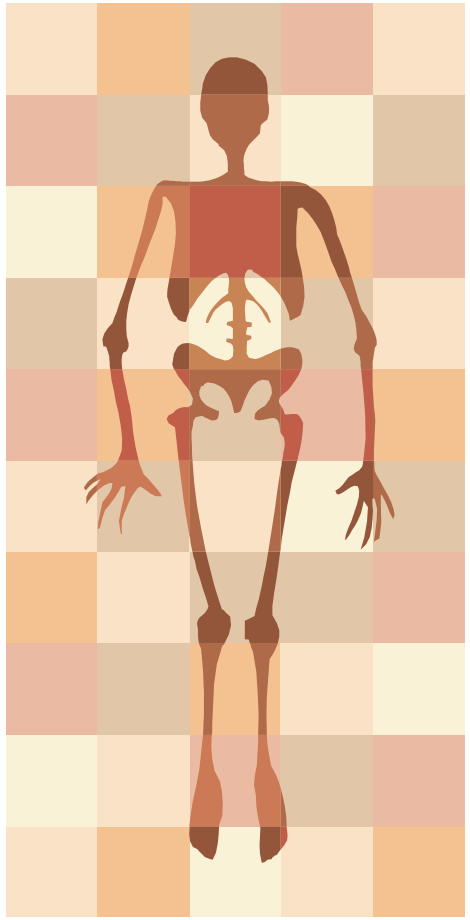






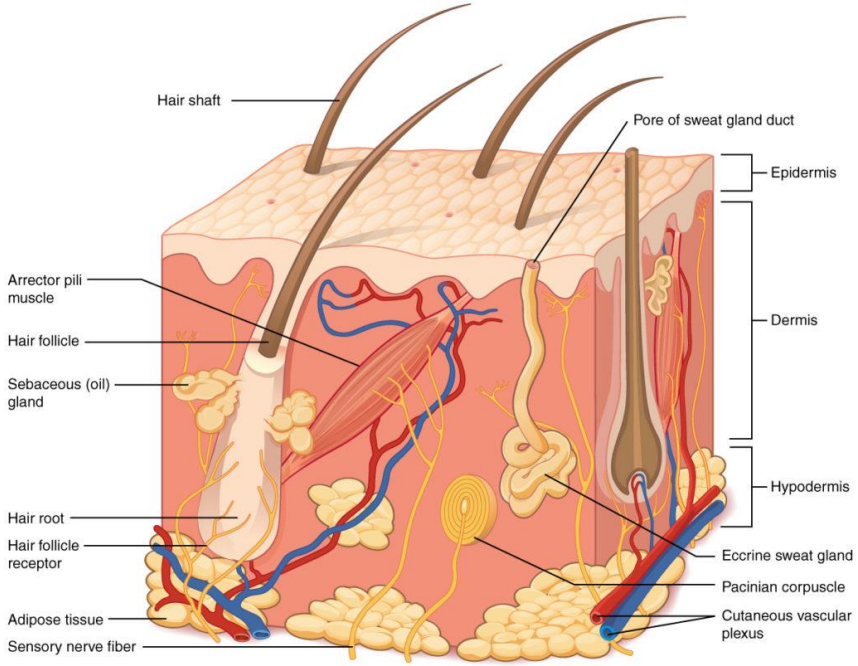
- ↓ efficiency of glucose metabolism
- ↓flexible BMR
- ↓thyroid & M/F hormone production
- Slower response to stress
- ↓nutrient reserves
- Slower/incomplete healing

Musculo-skeletal System



- ↓muscle mass
- ↓maximal strength
- ↓flexibility
- Osteopenia/ osteoporosis
- Osteoarthritis
- Wider stance, head forward posture
- Decreased compensation for sway
- ALL CAN lead to falls

Integumentary



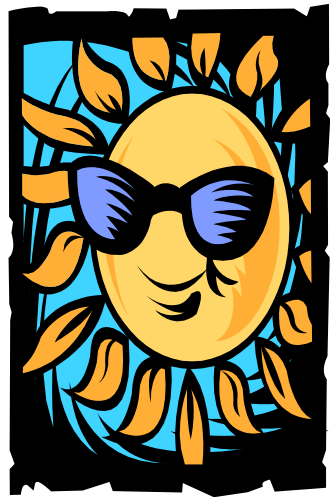
- Thinning & loss of elasticity
- Decreased sweat gland production
- Changes in nails

Neurological Changes

- ↓ wt. and size of brain
- ↓ dopamine
- Slower processing of information
- ↓ quality of sleep/rest
- ↓ proprioception
- ↓ sensation
- ↓ balance & coordination

Neurosensory Changes

- ↓depth perception
- ↓field of vision-Presbyopia
- ↑ glare sensitivity
- ↓Decreased perception of higher tones
- ↓ taste
- ↓smell
- ↓ perception of pain & touch
- ↑ pain tolerance

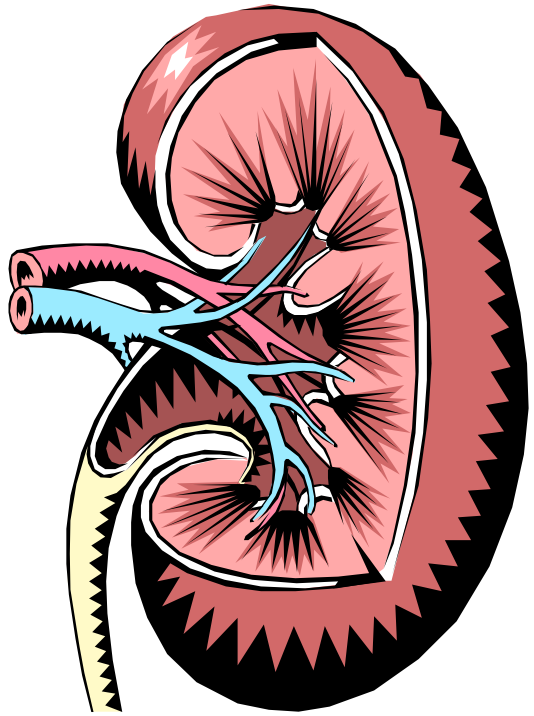


Immunological Changes

- ↓ resistance to infection
- Possible absence of typical symptoms

Renal/GU System

- ↓glomerular filtration rate
- Kidney atrophy
- Enlarged Prostate
- Kidneys process more urine at night
- OAB/UI
- ↑ dehydration



Safety Considerations

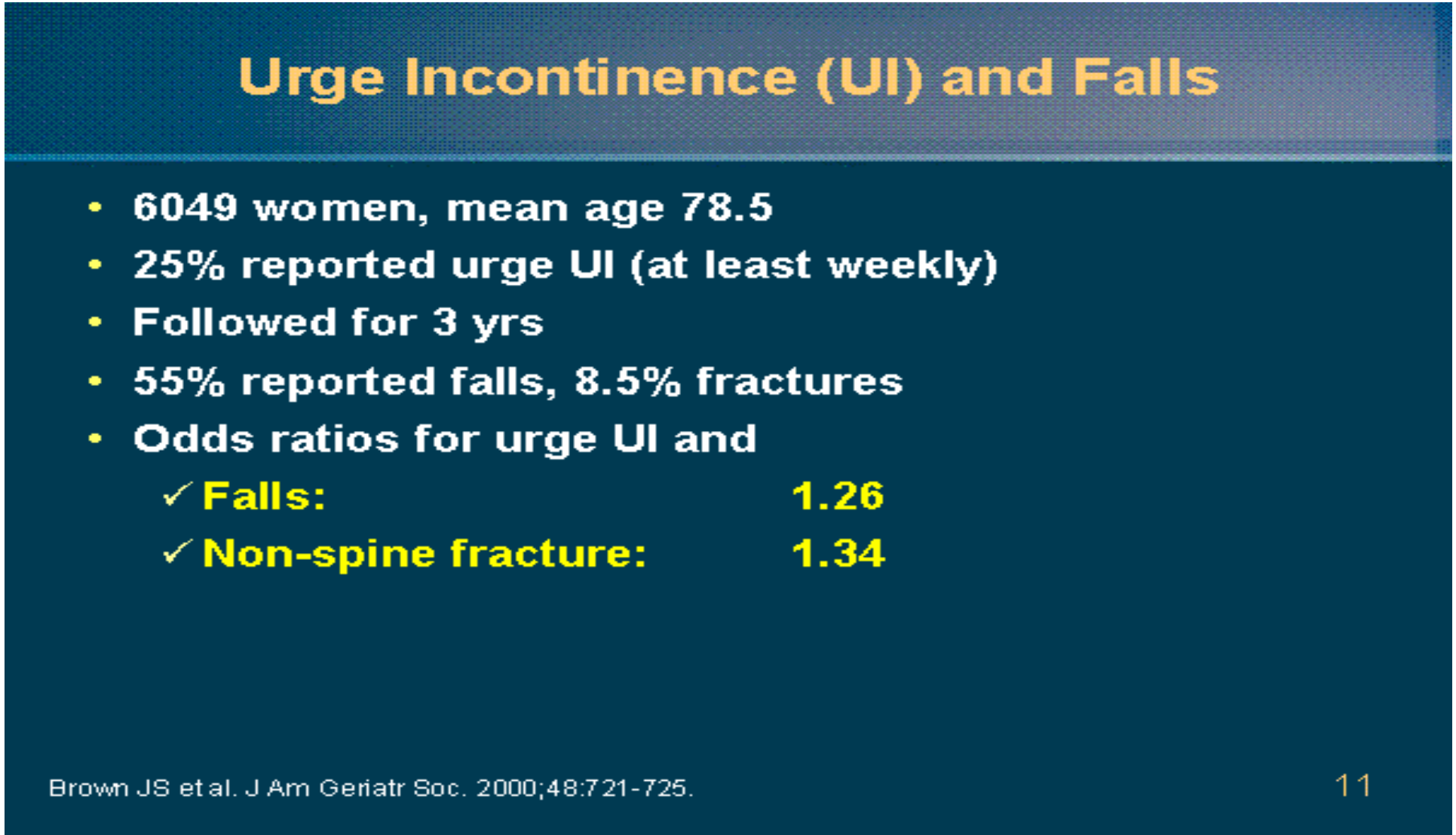
- Special considerations
- Physical constraints

S/S of UTI in Elderly

Signs and symptoms of infection vary widely, and the older resident usually presents differently than a younger adult. Common, nonspecific symptoms of UTI are:

- Unexplained deterioration of physical function
- Change in mental status
- New or worsening cognitive impairment, increasing confusion
- Delirium
- Agitation, restlessness
- Lethargy
- Anorexia
- Decline in mobility
- Falls
- Nonspecific complaints of feeling ill
- New episode of incontinence, increased frequency of incontinence, and/or nocturia
- Cough
- Nausea, vomiting
- Abdominal pain
- Change in appearance, color, odor of urine that does not promptly respond to increased fluids
- Body language or other behavior suggesting pain

OAB/UI- safety aspects



Fall Statistics 2020 CDC

- One in four Americans aged 65+ falls each year.
- Every 11 seconds, an older adult is treated in the emergency room for a fall; **every 19 minutes, an older adult dies from a fall.**
- **Falls are the leading cause of fatal injury** and the most common cause of nonfatal trauma-related hospital admissions among older adults.
- Falls result in more than 2.8 million injuries treated in emergency departments annually, including over 800,000 hospitalizations and more than 27,000 deaths.
- In 2015, the total cost of fall injuries was $50 billion. Medicare and Medicaid shouldered 75% of these costs.
- The financial toll for older adult falls is expected to increase as the population ages

Geriatrics and Polypharmacy

- Drugs causing acute change in mental status in elderly
  - Antiparkinsonian
  - Corticosteroids
  - Anticholinergics
  - Diuretics
  - Theophylline
  - Cardiovascular
  - H2 blockers
  - Antimicrobials

NSAIDs
Geri psychiatric
ENT
Insomnia
Narcotics
Muscle relaxants
Seizure

Anticholinergics in Geriatric Patients

- Increase side effects and toxicity
  - Slower metabolism and elimination of the drug
  - Changes in the BBB
  - Changes in neurotransmission

Quick Assessment

- S leep disorders
- P roblems with eating and feeding
- I ncontinence
- C onfusion
- E vidence of falls
- S kin injuries

Fulmer

C.R.A.S.H.E.D. (reasons for falls)

- C - Cords, carpet, cracks
- R- RX meds and OTC
- A -Affect/depressed
- S- (increased) Sickness
- H –Hypo/hypertension
- E- Eyes & Environment
- D - Dizziness

Stats

- 7 out of 10 inadvertent death in 75yo are associated with falls.
- New admissions/recently moved- ORIENT!!
- Check of HX of falls

Aging with a Disability

- Arthritis
- COPD
- Heart/Vascular Disease
- MS
- Post Polio Syndrome
- SCI
- TBI