Unit 12: Healthy Aging in Women

**Unit Objectives**

- Review common age-related conditions that affect women, including osteoporosis, arthritis, and Alzheimer’s Disease.
Osteoporosis

What is osteoporosis?

- Reduction in bone mass and structural deterioration of bone tissue
  - Bone resorption (removal of older bones) speeds up, bone formation slows
- Major cause of bone fractures in postmenopausal women
- “Silent disease” – no pain nor symptoms
Epidemiology

- 8 million women in US
- 1 in 2 women older than age 50 have osteoporosis-related fracture
- Women have 2-3x as many hip fractures as men
- More common among non-Hispanic White and Asian women

Risk Factors

- Smoking
- Inadequate calcium intake
- Lack of regular weight-bearing exercise
- Long-term use of some medications
- Medical conditions (thyroid, amenorrhea, anorexia)
Screening and Diagnosis

- Bone fracture from minimal trauma

- Bone mineral density test
  - Postmenopausal women younger than 65 with risk factor
  - All women 65 years or older
  - Postmenopausal women with fractures
  - Women considering therapy

Prevention and Treatment

- Lifestyle and personal behaviors
  - Calcium
  - Vitamin D
  - Weight-bearing & muscle-strengthening exercises

- Preventing fall-related fractures
Osteoarthritis

- Degenerative joint disease
- Surface layer of cartilage erodes and bones rub together
- Causes joint pain, swelling, and loss of movement in the joints
Epidemiology

- Most common form of arthritis
  - 27 million people in the US
- 1 in 7 adults
- 1 in 3 over 65
- More common in women, especially after age 50
Risk Factors

- Increases with age
- Genetics
- Obesity (2x as common)
- Injuries (sports, occupation)
- Infectious disease (Lyme disease)
Diagnosis

- No single test

- Many things together:
  - Medical history
  - Family history
  - Physical exams of joints, reflexes, muscle strength
  - Radiographs

Prevention & Treatment

<table>
<thead>
<tr>
<th>Prevention</th>
<th>Treatment</th>
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<tbody>
<tr>
<td>Appropriate weight</td>
<td>Goal: decrease pain</td>
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<tr>
<td>Reduce joint injury</td>
<td>Exercise</td>
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<tr>
<td>Strength training exercises</td>
<td>Resting body</td>
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<tr>
<td>Avoiding contact sports or repetitive joint motion</td>
<td>NSAIDs, pain relievers</td>
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Alzheimer’s Disease

- Irreversible, progressive brain disorder that affects thinking, memory, and behavior.

- Results from the death of brain cells and the breakdown of the connections between them.

- Two types:
  - Late Onset: over age 60
  - Early Onset: 40s-50s

- No cure
Risk Factors

- Age
- Genetic background
- Lifestyle
  - Head injuries
  - Lower education levels
  - Environmental agents
# Symptoms

- Disrupts three key processes in brain:
  - Communication
  - Metabolism
  - Repair

- Think less clearly
- Forget how to do simple tasks
- Disrupts language skills
- Emotional outbursts
- Disturbing behavior
- Bedridden, incontinent, unresponsive

# Diagnosis

- No conclusive diagnostic test (*while living)
  - Symptoms
  - Medical history
  - Physical and neurological exam

- Must rule out other causes of symptoms
  - Depression
  - Normal aging
Things to Consider

- Caregiving
- Long-term care
- Economics
- Health Reform:
  - Medicare requires Annual Wellness Visit to include detection of cognitive impairment
  - Improve care coordination
  - Home- and community-based service (rather than nursing homes)
  - Pre-existing conditions
  - Workforce training

Class Wrap-Up

- Key Words:
  - Osteoarthritis; Osteoporosis; Alzheimer’s Disease
- Individual Importance:
  - It is important to understand the lifestyle factors, like smoking, diet, and exercise that can increase risk for age related disease.
- Public Health Importance:
  - As more people are living longer, age-related health issues will become important public health issues.
- Socio/Economic Importance:
  - In our society, which values independence, age-related illness which may cause people to be dependent on others can cause stress and anxiety to people.