How Nutritional Needs Differ for Older Adults
How Nutritional Needs Differ for Older Adults

Physiological Changes
- Body weight tends to decline after age 60
- Increase in fat
  - Due to less exercise, more insulin resistance
- Decrease in skeletal muscle
  - Due to decreased exercise
  - When severe is called sacropenia. Sacropenia can lead to functional impairment, falls, poor gait and balance, and fractures
- Decrease in resting metabolic rate due to decreased lean muscle mass

GI Tract changes with aging
- Early satiety due to decreased production of Ghrelin and increased cholecystokinin
- Slower gastric emptying, which leads to increased antral distension and signals of satiety from the small intestine
- GI tract has reduced peristaltic strength and increased non-peristaltic movements, which allows more absorption of nutrients and water; increased water absorption leads to constipation which may indirectly cause a decrease in appetite
More GI Tract Changes with Aging

• Reduction in Gastric sections and rise in gastric pH leads to overgrowth in bacteria
• Impairs absorption of key nutrients
  – Folic acid
  – Calcium
  – Iron
  – Vitamins B₁₂, K

Decrease in smell / taste receptors

• Food may appear tasteless
• Decrease in enjoyment of food may lead to diminished appetite
• Sometimes called “Anorexia of Aging”
Decrease in Kidney Function

- More difficult to concentrate urine
- Less water is returned to circulation
- Some older adults cut back on fluids to prevent incontinence
  - Lack of fluids may amplify other problems such as constipation

Obstacles to Achieving Adequate Nutrition

Physical Disabilities:

- Shopping and meal preparation may be difficult
- Chewing and digesting food may be painful or uncomfortable
Obstacles to Achieving Adequate Nutrition

Psycho-social considerations:

- Depression
- Cognitive Impairment
- Eating Alone
- Lack of Finances
- Lack of Food Choice
- Medications

Nutritional Shortcomings of Older Adults

- Calcium
  - Efficiency of absorption decreases with aging
  - Lack of vitamin D plays a role
  - Lactose intolerance more prevalent
  - High sodium or protein diet exacerbates difficulties with absorption
  - Supplements cause constipation, so many older adults avoid them
  - Can be hard to swallow
  - Can’t take with thyroid medication
Vitamin D

• Recommended daily supplement of 2000 IU in the northwest due to low sun exposure and reduced intake of dairy products
• Prevents osteoporosis
• Improves gait and decreases falls
• May play a role in immune function and other body processes

Vitamin $B_6$

• Fish (salmon), meat (chicken), vegetables (turnips, broccoli, spinach) and fruit (bananas)
• Reduces homocysteine levels whose excess is correlated with Alzheimer’s Disease, endothelial dysfunction and cardiovascular disease
Vitamin B₁₂

- Meat and dairy products (only food source)
- Less absorption due to:
  - Inadequate absorption common
  - Malabsorption accounts for 40% of vitamin B₁₂ deficiency
  - 12-24% of the older population is vitamin B₁₂ deficient
  - Reduced stomach acid production caused by atrophic gastritis or prolonged use of histamine-2 blockers and proton pump inhibitors may make stomach alkalotic and reduces vitamin B₁₂ absorption

Fiber

- Found in plant-based foods low in energy but rich in nutrients
- Oral pain may lead to increased selection of processed food low in fiber
Folate

- Found in green leafy vegetables (spinach, broccoli) and nuts (walnuts, peanuts)
- More difficult to absorb due to GI changes
- Helps reduce homocysteine levels
- Added to flour in the US since 2000

What You Can Do

- Conduct a nutritional assessment
  - Mini Nutritional Assessment (MNA)
- Recommend supplements as needed
  - Calcium, Vitamins D, B₁₂
- Provide for an OT, PT referral*
  - OT: Increase manual dexterity for meal preparation
  - PT: Assist with incontinence
- Address psychosocial issues
  - Counseling and/or medication
  - Support Groups and/or increasing social support

* Referrals to dieticians are not covered under Medicare unless the patient has diabetes or renal disease
What You Can Do

- Encourage menu planning/cooking
  - Easy, nutritional recipes
  - Meals-on-Wheels (group or home delivered meals)
- Utilize Counseling – 5As
  - Assess
  - Advise
  - Agree
  - Assist
  - Arrange

Resources

- Try This: Assessing Nutrition in Older Adults
- Food Pyramid for Older Adults
  http://www.mypyramidtracker.gov/Default.htm