

## Calorie

The energy-producing potential of food is measured in calories. Kilocalorie (kcal) is the term used to represent the amount of energy required to raise the temperature of a liter of water 1 degree Celsius at sea level. Although 1 kilocalorie is equal to 1000 calories, the terms are commonly used interchangeably.

- Energy requirements decrease throughout adulthood due to decreased physical activity and a decline in the basal metabolic rate
- The mean daily energy intake declines between 20 and 80 years of age
  - By 1000 – 2000 calories in men
  - By 600 – 800 calories in women
- The elder with a pressure ulcer should receive approximately 30-35 kcal per kg of body weight daily

## Carbohydrates

Carbohydrates are the nutrient that is the most important source of energy for the body. It is found in sugars, whole grains, starchy vegetables and legumes. It also provides a good source of fiber.

- The recommended daily caloric intake from carbohydrates is 55%
- The recommended fiber intake is 25 – 38 g/day

## Protein

Protein provides the essential components for new tissue growth, building and maintaining bone, muscles and skin. Proteins are found in meat, dairy products, nuts and certain grains and beans.

- Protein is not stored in the body as fats and carbohydrates are so it is needed daily in our diet
- Older adults breakdown protein faster, so they require more
- An elder with a pressure ulcer needs 1.25-1.5g of protein per kilogram of body weight
- Protein should be approximately 10-20% of the daily caloric intake

## Fats

Fats are a major source of energy.

- Fats assist with temperature regulation
- Fats facilitate the absorption of vitamins
- Fats provide taste to foods
- Fats help provide a feeling of satiety (fullness)
- Intake should not include more than 10 – 30% of daily caloric intake

### NSI figures approximate

- 40 – 60 % of hospitalized elders are at risk of malnourishment
- 40 – 85% of nursing home residents are at risk of malnourishment
- 20 – 60% of home care patients are at risk of malnourishment

### NSI (Nutrition Screening Institute)



### Guidelines for vitamin supplementation in older adults

- Take one multivitamin daily
- Vitamin D 600 IU daily for people with osteoporosis and/or who are sunlight deprived
- Folate 1 mg daily for people with cardiovascular risk factors and alcoholism
- Thiamin 10 mg for alcoholics
- Vitamin C up to 2000 IU for people with dementia



## Water

- Recommended intake of 1500 – 2000 ml of noncaffeinated fluid daily
- Residents with wounds need at least 2000 – 2500 ml of water per day
- Elders lose fluid by perspiring, urinating, breathing, sneezing, defecating, high fever, and draining wounds which can increase the need for fluids
- Renal failure or congestive heart failure will decrease the need for fluids

## Complications (signs & symptoms) of poor hydration (dehydration)

- Dry mouth
- Dark urine
- Thirst (elders may lose sensation of being thirsty)
- Constipation
- Confusion
- Dizziness
- Dry skin
- Poor skin turgor
- Sunken eyes

## Risk factors for malnutrition/dehydration

- Having little to no appetite
- Difficulty swallowing
- Inadequate servings
- Fewer than 2 meals per day
- Insufficient hot meals
- Limited income
- Disability and/or chronic illness
- Change in taste (caused by medications, nutrient deficiency, or taste bud atrophy).

### Interventions to improve: Protein intake

- Add eggs to dishes when possible
- Use/Drink milk whenever possible
- Add powdered milk to regular milk and milkshakes
- Ice cream, yogurt and frozen yogurt
- Add cheeses to dishes whenever possible
- Meat and fish
- Beans and legumes
- Peanut Butter
- Nuts and Seeds

### Nutritional intake

- Walk around during meals to determine how much food is being consumed and whether assistance is needed
- Encourage family members to visit at mealtimes
- Ask family members to bring in the resident's favorite foods
- Ask about food preferences
- Suggest small, frequent meals
- Administer pain medications and anti-emetics on schedule
- Don't interrupt meals if at all possible

### Hydration

- Have a glass of water/juice in the morning
- Have access to fluids 24/7
- Drink cooler fluids; 40 to 60 degrees
- Make sure water pitcher in resident's room is full and within reach
- Use color of urine to determine how well the resident is hydrated (darker color indicates poorer hydration)
- Use any excuse to have a celebration and serve refreshments