



Dietary Guidelines and Nutrient Recommendations Review

Aging Division, Community Living Section
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Older Americans Act Requirements¹

A State that establishes and operates a nutrition project under this chapter shall-

1. utilize the expertise of a dietitian or other individual with equivalent education and training in nutrition science, or if such an individual is not available, an individual with comparable expertise in the planning of nutritional services, and
2. ensure the project-
 - a. provides meals that-
 - i. **comply with the most recent Dietary Guidelines for Americans**, published by the Secretary and the Secretary of Agriculture, and
 - ii. provide to each participating older individual-
 1. **a minimum of 33 ⅓ percent of the dietary reference intakes** established by the Food and Nutrition Board of Institute of Medicine of the National Academy of Sciences, if the project provides one meal per day

Dietary Guidelines for Americans²

- The guidelines were first published in 1980.
- The U.S. Department of Health and Human Services (HHS) and the U.S. Department of Agriculture (USDA) jointly publish the Dietary Guidelines every 5 years.
- They are written for policymakers, nutrition educators, and health professionals; not written for consumers directly.
- The focus of the guidelines is promoting overall health and preventing, rather than treating, chronic disease.
- They provide evidence-based food and beverage recommendations for Americans age 2 and older.
 - By 2020 the Guidelines will expand to include additional guidance for infants and toddlers from birth to 24 months, and pregnant woman.
- The recommendations aim to promote health, prevent chronic disease, and help people reach and maintain a healthy weight.

- 2015-2020 Guidelines
 - Expand upon the 2010 edition’s focus on weight management to address the prevention of chronic diseases.
 - Takes a wider view by emphasizing overall eating patterns, the combinations of all the foods and drinks that people consume every day.
 - Highlights evidence about synergistic and potentially cumulative impact on eating patterns on a person’s health and risk of chronic disease.

- Key Focus for 2015-2020 Guidelines
 - Follow a healthy eating pattern across the lifespan
 - Focus on variety, nutrient density, and amount
 - Limit calories from added sugars and saturated fats and reduce sodium intake
 - Shift to healthier food and beverage choices
 - Support healthy eating patterns for all

- Key Recommendations
 - Individuals should consume a healthy eating pattern that accounts for all foods and beverages within an appropriate calorie level.
 - *A healthy eating pattern includes:*
 - A variety of vegetables from all of the subgroups (starches, red and orange, dark green)
 - Fruits, especially whole fruits
 - Grains, at least half of which are whole grains
 - Fat-free or low-fat dairy
 - A variety of protein foods
 - Oils
 - *A healthy eating pattern limits:*
 - Saturated fats and trans fats, added sugars, and sodium

- Quantitative Key Recommendations
 - Consume less than 10% of calories per day from added sugars
 - Consume less than 10% of calories per day from saturated fats
 - Consume less than 2300 milligrams per day of sodium
 - If alcohol is consumed, it should be consumed in moderation

- USDA Food Guides
 - MyPlate was introduced in 2011. USDA food patterns were updated along with the release of the 2010 Dietary Guidelines for Americans.

- MyPlate is used to help consumers adopt healthy eating habits consistent with the Dietary Guidelines for Americans.
- MyPlate illustrates the five food groups that are the building blocks for a healthy diet using a familiar image, a place setting for a meal.

Application to Title III-C Programs
Menu Standards³

Food Group	Servings per meal	Servings per Day for 2000 kcal/day
Grains	2 servings; 1 oz- eq 1 slice bread 1 oz. dry cereal ½ cup cook rice, pasta or cereal	6 oz- eq/day (6 servings) At least ½ of grain servings should be whole grain (3 oz-eq/day)
Vegetables	2-3 servings; ½ cup- eq 1 cup raw leafy vegetables ½ cup cut-up raw or cooked vegetables ½ cup vegetable juice	2½ cup- eq/day (5 servings) Eat a variety of colors and types
Fruits	1-2 servings; ½ cup- eq 1 medium fruit ¼ cup dried fruit ½ cup fresh, frozen, or canned fruit ½ cup fruit juice	2 cup- eq/day (4 servings) Eat a variety of color and types
Dairy	1 serving; 1 cup- eq 1 cup fat-free or low-fat milk 1 cup fat-free or low-fat yogurt 1½ oz fat-free or low-fat cheese	3 cup- eq/day (3 servings) Select low or nonfat products
Protein Foods	1 serving; 3 oz- eq 3 oz cooked meat= 3 oz 1 egg= 1 oz 2 Tbsp. peanut butter= 2 oz ½ cup black beans= 2 oz	5 ½ oz- eq/day (2 servings) Include lean/lower fat choices of meat

Dietary Reference Intakes (DRI)⁵

- DRI is the general term for a set of reference values used to plan and assess nutrient intakes of healthy people. These values, which vary by age and gender, include:
 - **Estimated Average Requirement (EAR):** the intake level for a nutrient at which the needs of 50% of the population will be met.
 - **Recommended Dietary Allowance (RDA):** average daily level of intake sufficient to meet the nutrient requirements of nearly all (97-98%) healthy people.
 - **Adequate Intake (AI):** established when evidence is insufficient to develop an RDA and is set at a level assumed to ensure nutritional adequacy.
 - **Tolerable Upper Intake Level (UL):** maximum daily intake unlikely to cause adverse health effects.
- Application to Title III-C Programs
 - The following tables list the most current DRIs.
 - The target Values represent 33.33% DRI for a >70 year old male and should be used when planning and evaluating meals.
 - Values are provided for serving 1 meal that meets the requirement for OAA meals.
 - Menus that are documented as meeting the nutritional requirements through menu analysis must have written documentation which supports required nutrient content of each meal.
 - Individual requirements may be higher or lower than the DRIs; amounts listed are the minimum requirements for OAA meal eligibility.
 - Nutrient requirements may be averaged over one week to allow more flexibility in menu planning.

DRI- Nutrient Values for Meal Planning and Evaluation

Nutrient	Target Values (33.33%)	DRI (100%)
Calories	650-750	Varies by age and gender; 2000-2500
Protein (gram)	19	56
Carbohydrate (gram)	43	130
Fat (gram)	15-23 (<30% calories averaged over one week)	Not determined; No one meal may be more than 35% fat
Fiber (gram)	10	30
Vitamin A (ug)	300	900
Vitamin D (ug)	7	20
Vitamin C (mg)	30	90
Vitamin E (ug)	5	15
Vitamin K (ug)	40	120
Thiamin	.4	1.2
Riboflavin	.43	1.3
Niacin (mg)	5.4	16
Vitamin B6 (mg)	.6	1.7
Folate (ug)	133	400
Vitamin B12 (ug)	.8	2.4
Pantothenic Acid (mg)	1.7	5
Biotin (ug)	10	30
Choline (mg)	184	550

Calcium (mg)	400	1200
Chromium (ug)	10	30
Copper (ug)	300	900
Fluoride (mg)	1.33	4
Iodine (ug)	50	150
Iron (mg)	2.66	8
Magnesium (mg)	140	420
Manganese (ug)	.77	2.3
Molybdenum (ug)	15	45
Phosphorus (mg)	233	700
Selenium (ug)	18	55
Zinc (mg)	3.7	11
Potassium (g)	1.6	4.7
Sodium (g)	.4	1.2
Chloride (g)	.6	1.8

Rationale for Nutrient Recommendations⁶

There are several nutrients of concern in the older adult population.

- Protein
 - The current EAR for protein for all adults 19 years and older is .66g/kg/day.
 - A higher protein intake (1.0-1.3g/kg/day) may be required for older adults to maintain a nitrogen balance due to decreased efficiency of protein synthesis and insulin action.
 - Health, Aging and Body Composition Study
- Vitamin E
 - Important nutrient because of its role as an antioxidant and in immune function.
 - Supplements may not be the best option for increasing intake due to different tocopherol types.
- Vitamin B12
 - Dietary intake data may underestimate the number of people who are vitamin B12 deficient.
 - The Institute of Medicine recommends that older adults get their vitamin B12 in crystalline form (fortified foods, supplements).
- Vitamin B6
 - Important nutrient for numerous metabolic reactions and health outcomes.
 - Inadequacy has been associated with impaired cognitive function and depression.
- Dietary Fiber
 - Important for intestinal health and protection against heart disease and metabolic syndrome.
 - Median intakes of neither men or women 60 years and older meet the AI.
- Vitamin D
 - Poor intake and status may be due to a variety of reasons (sun exposure, access to fortified foods).
 - It is recommended that older adults take a vitamin D supplement.

References

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www.heart.org/HEARTORG/HealthyLiving/HealthyEating/HealthyDietGoals/Suggested-Servings-from-Each-Food-Group_UCM_318186_Article.jsp.
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5. “Nutrient Recommendations: Dietary Reference Intakes (DRI).” *NIH Office of Dietary Supplements*, U.S. Department of Health and Human Services,
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