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Review of Dietary Guidelines and Nutrient Recommendations

minerals
proteins
fats
carbohydrates
vitamins
NUTRIENTS

Kaitlyn Livingston, RD
Nutrition Program Manager
Title III-C Nutrition Programs

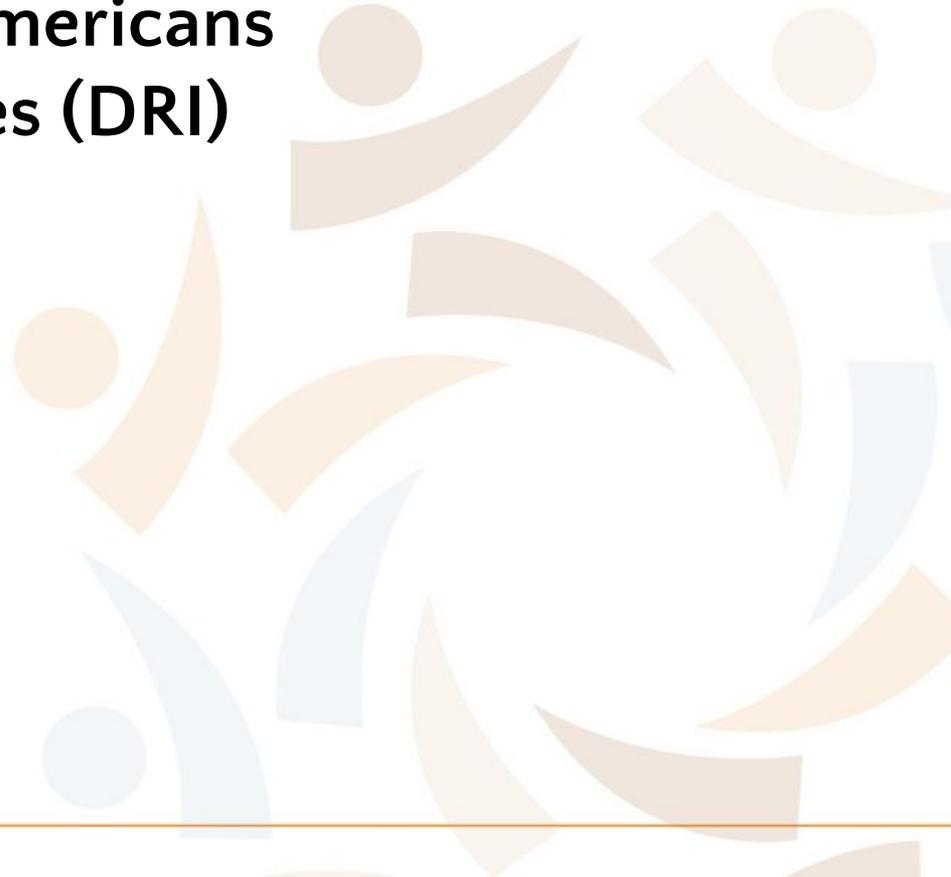


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Overview

- **OAA Requirements**
- **Dietary Guidelines for Americans**
- **Dietary Reference Intakes (DRI)**
- **Resources**
- **References**
- **Questions**





OAA Requirements

Section 339. Nutrition¹

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-
 - I. **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



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Dietary Guidelines for Americans

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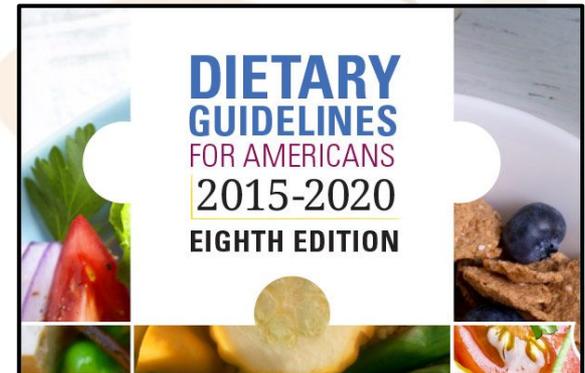
- **History and Context²**
 - First published in 1980
 - The U.S. Department of Health and Human Services (HHS) and the U.S. Department of Agriculture (USDA) jointly publish the Dietary Guidelines every 5 years
 - Written for policymakers, nutrition educators, and health professionals; not written for consumers directly
 - Focus is promoting overall health and **preventing**, rather than treating, chronic disease

Dietary Guidelines for Americans

- **History and Context²**
 - Provide evidence-based food and beverage recommendations for Americans age 2 and older.
 - Recommendations aim to:
 - Promote health
 - Prevent chronic disease
 - Help people reach and maintain a healthy weight
 - By 2020, the Guidelines will expand to include additional guidance for;
 - Infants and toddlers from birth to 24 months
 - Pregnant woman

Dietary Guidelines for Americans

- **The 2015–2020 Guidelines²**
 - 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



Dietary Guidelines for Americans

- **Key Recommendations²**
 - 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

Dietary Guidelines for Americans

- **Quantitative Key Recommendations²**
 - 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
 - One drink per day for women
 - Two drinks per day for men

Dietary Guidelines for Americans

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- 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

Dietary Guidelines for Americans

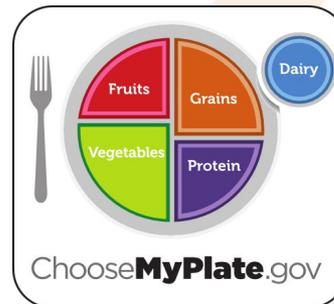
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- Application to Title III-C Programs
 - Menu Standards³

Food Group	Servings per meal	Servings per Day for 2000 kcal/day
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 Guidelines for Americans

- **USDA Food Guides⁴**
 - 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





Dietary Reference Intakes (DRI)

- **DRI is the general term for a set of reference values used to plan and assess nutrient intakes of healthy people⁵. 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

Dietary Reference Intakes (DRI)

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- **Application to Title III-C Programs⁵**
 - Tables in this presentation follow the most current DRIs
 - 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

Dietary Reference Intakes (DRI)

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- **Nutrient Values for Meal Planning and Evaluation**
 - DRI: Recommended Dietary Allowances and Adequate Intake, Total Water and Macronutrients⁵

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

Dietary Reference Intakes (DRI)

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- **Nutrient Values for Meal Planning and Evaluation**
 - DRI: Recommended Dietary Allowances and Adequate Intake, Vitamins⁵

Nutrient	Target Values (33.33%)	DRI (100%)
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

Dietary Reference Intakes (DRI)

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- **Nutrient Values for Meal Planning and Evaluation**
 - DRI: Recommended Dietary Allowances and Adequate Intake, Vitamins⁵

Nutrient	Target Values (33.33%)	DRI (100%)
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

Dietary Reference Intakes (DRI)

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- **Nutrient Values for Meal Planning and Evaluation**
 - DRI: Recommended Dietary Allowances and Adequate Intake, Elements⁵

Nutrient	Target Values (33.33%)	DRI (100%)
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

Dietary Reference Intakes (DRI)

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- **Nutrient Values for Meal Planning and Evaluation**
 - DRI: Recommended Dietary Allowances and Adequate Intake, Elements⁵

Nutrient	Target Values (33.33%)	DRI (100%)
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

Dietary Reference Intakes (DRI)

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- **Rationale for Nutrient Recommendations**– There are several nutrients of concern in the older adult population⁶
 - Protein
 - 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 nitrogen balance due to decreased efficiency of protein synthesis and impaired insulin action
 - Health, Aging, and Body Composition Study
 - Vitamin E
 - Important 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

Dietary Reference Intakes (DRI)

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- **Rationale for Nutrient Recommendations⁶**
 - 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 for numerous metabolic reactions and health outcomes
 - Inadequacy has been associated with impaired cognitive function and depression

Dietary Reference Intakes (DRI)

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- **Rationale for Nutrient Recommendations⁶**
 - 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



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Resources

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- **Older Americans Act**
 - <https://www.acl.gov/node/423>
- **Dietary Guidelines for Americans**
 - <https://health.gov/dietaryguidelines/>
 - <https://www.choosemyplate.gov/dietary-guidelines>
- **MyPlate**
 - <https://www.choosemyplate.gov/printable-materials>
 - <https://www.choosemyplate.gov/older-adults>
- **Dietary Reference Intakes (DRI)**
 - https://ods.od.nih.gov/Health_Information/Dietary_Reference_Intakes.aspx
- **Aging Division, Community Living Section**
 - <https://health.wyo.gov/aging/communityliving/nutrition/>



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References

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2. 29, 2017 Posted on Nov. "Food and Nutrition." *Dietary Guidelines*, health.gov/dietaryguidelines/.
3. "Suggested Servings from Each Food Group ." *Suggested Servings from Each Food Group*, www.heart.org/HEARTORG/HealthyLiving/HealthyEating/HealthyDietGoals/Suggested-Servings-from-Each-Food-Group_UCM_318186_Article.jsp.
4. "Dietary Guidelines." *Choose MyPlate*, 5 Feb. 2016, www.choosemyplate.gov/dietary-guidelines.
5. "Nutrient Recommendations: Dietary Reference Intakes (DRI)." *NIH Office of Dietary Supplements*, U.S. Department of Health and Human Services, ods.od.nih.gov/Health_Information/Dietary_Reference_Intakes.aspx.
6. Tucker, Katherine L. *Nutrition Concerns for Aging Population*. www.ncbi.nlm.nih.gov/books/NBK51837/.



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Questions?

Kaitlyn Livingston, RD
Nutrition Program Manager
Title III-C Nutrition Programs

(307) 777-5048

kaitlyn.livingston@wyo.gov

