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**Outline**

- Welcome & Objectives
- Importance of Nutrition in Older Adults
- Overview of the Dietary Guidelines for Americans: Background & Purpose
- Key Nutritional Recommendations
- Special Considerations for Older Adults
- Putting it All Together
- Conclusion
- Question & Answers

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**Disclaimer**

*The information presented in this presentation is based on the current Dietary Guidelines for Americans and is intended for educational purposes only. While every effort has been made to provide accurate and up-to-date information, it is important to recognize that dietary recommendations may vary based on individual health conditions, needs, and preferences.*

*As a registered dietitian, I am providing this information to support your understanding and application of the guidelines in a variety of settings, including healthcare, culinary, and caregiving environments. However, the content should not be interpreted as personalized medical or nutritional advice. For specific dietary recommendations or health concerns, please consult with a qualified healthcare professional.*

*The views and recommendations expressed in this presentation are my own and do not necessarily reflect the official position of any organization or agency.*

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About Me

- Nutrition Compliance Lead and Registered Dietitian Nutritionist at SeniorAge, based here in Springfield, MO
- Dietitian for nearly 10 years, graduated from Missouri State University
- Married and mom of 2 little girls
- Inspired by my grandmother who could create delicious meals from simple ingredients
- Fave food: Anything involving pasta & cheese



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Importance of Nutrition in Older Adults

- Dietary needs change as we age and one of the biggest risk factors we face is malnutrition
- Malnutrition is present in at least 22% of seniors<sup>1</sup>
- 1 in 2 older Americans are at risk for malnutrition<sup>2</sup>
- Malnutrition presents in physical and mental bodily changes, that include, but not limited to:
  - Weight loss
  - Muscle wasting
  - Fatigue/weakness
  - Skin changes, slow wound healing
  - GI Issues
  - Increased infections/illnesses
  - Cognitive decline and/or mood changes
- 73% of participants say they eat healthier foods because of program meals<sup>3</sup>



Graphic via act.gov/age50/social

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Food Insecurity Amongst Seniors

- **Food insecurity:** individuals or households lack reliable access to sufficient, safe and nutritious food to meet their nutritional needs for an active and healthy life
- It is estimated that **1 in 11 seniors** (age 60 and older) and **1 in 8 older adults** (age 50 to 59) faced hunger in the U.S. in 2022, which reflects an **increase of approximately 25% over the prior year**<sup>8</sup>
- In 2021, 7.0% of Missourians aged 60+ experienced food insecurity and Missouri was on the list as one of the top ten states for VLFS among seniors, at 4.1%<sup>9</sup>



Graphic source: fraa.org/older-americans-month-part-one

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# Dietary Guidelines for Older Americans: Purpose & Background

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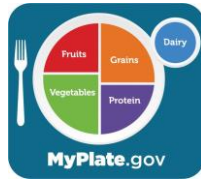
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## Overview of the Dietary Guidelines for Older Adults

- The DGAs are updated every five years, with the most recent edition released in 2020. They provide **evidence-based recommendations** to promote health, reduce the risk of chronic diseases, and meet nutritional needs
- MyPlate, launched in 2011, is a key educational tool derived from the DGAs, aiming to simplify healthy eating for the public
- Used to form the basis of federal nutrition policy and programs
- DGAs are food focused



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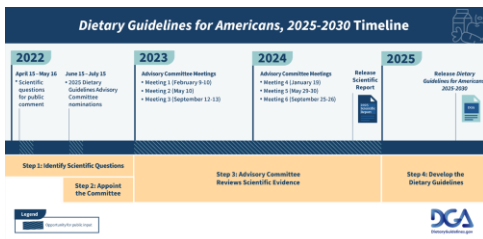
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## Work Under Way for 2025-2030 Guidelines



Graphic source: <https://www.dietaryguidelines.gov/get-involved/attend-virtual-meetings>

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**Dietary Reference Intakes (DRIs)**

- The DRIs focus on the nutrients found in food that are necessary for health and for decreasing the risk of chronic disease
  - Daily amounts that meet the needs of most healthy people
  - Set intake levels not to exceed to avoid harm
  - Reduce the risk of chronic disease
- The DRIs provide the amount of a nutrient needed to maintain health
- The DRIs are published periodically



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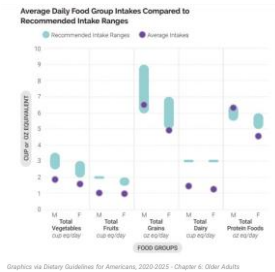
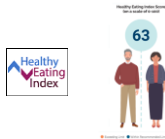
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**Current Intakes: Ages 60 and Older**

- Older adults generally have lower caloric needs but similar or even increased *nutrient* needs compared to younger adults'
- The majority of older adults are not meeting recommendations for food group and nutrient intakes<sup>6</sup>



Graphics via Dietary Guidelines for Americans 2020-2025 | Chapter 6: Older Adults

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**Key Nutritional Recommendations**

- **Calories:** 25 to 30 calories/kg BW
- For foodservice purposes, may use an average (i.e. 1800 calories/day or 600 calories/meal based on 51 yr/Male and 51 yr/Female caloric reqs)
- **Macronutrients**
  - Protein
  - Carbohydrates
  - Fats
- **Micronutrients**
  - Vitamins
  - Minerals
- **Hydration**



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### Nutrition Requirements of the OAA<sup>2</sup>

OAA Section 339 lists the basic nutrition requirements of the OAA:

- Meals are to comply with the most recent Dietary Guidelines for Americans;
- Meals are to provide nutrients to meet the Dietary Reference Intakes as follows:
  - A minimum of 33 1/3 percent of the DRIs for one meal per day.
  - A minimum of 66 2/3 percent of the DRIs for two meals per day.
  - A minimum of 100 percent of the DRIs for three meals per day.
- Meal service is to meet state and local public health code for safe and sanitary foodservice. Most state public health departments use the Model Code from the Food and Drug Administration; and
- Meals are to be appealing to older adults.

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## Protein

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### Protein Foods

- Meats, poultry, eggs
- Seafood
- Nuts, Seeds
- Vegetable subgroup:
  - Beans, peas and lentils
- Dairy and fortified soy alternatives



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### Importance of Protein

- Cognition & Mood
- Muscle Mass & Strength
- Bone Health
- Immune Function
- Wound Healing
- Satiety and Weight Management



Graphic via Creative Commons

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### Recommended Protein Intake

- General RDA: **0.8 grams** per kilogram of body weight per day.
- For Older Adults: **1.0 to 1.2 grams** per kilogram of body weight per day.<sup>7</sup>
- Individual needs may vary based on health status, activity level, and specific conditions
- Per intake patterns of ages 71+, tend to fall short on protein foods recommendations compared to ages 60-70 yrs<sup>4</sup>
- *SUA Guidelines (per meal)*:
  - 2-3, 1 oz. equivalents
  - >/=15.5 to 17 grams (1/2 DRI, for 1800 calories)




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### Protein Portion Sizes



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|---|---|---|--|
| Deck of cards – About 3 oz  | Tennis ball – 1/2 cup                                     | Golf ball – 2 Tablespoons                                   | 1 large egg – 1 oz. equivalent or 6 grams of protein |
| 3 oz. cooked Chicken breast, lean beef, fish/seafood – 22-26 grams, or 3 oz. equivalent | 1/2 cup lentils or beans – 7-9 grams, or 2 oz. equivalent | 2 Tbsp. nut or seed butter – 5-8 grams, or 2 oz equivalents |  |
|   | 1/2 cup tofu or tempeh – 10-15 grams, or 2 oz equivalent  |   |  |

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# Carbohydrates

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## Carbohydrate Foods

- Grains/Whole grains
  - Bread, cereals, rice, quinoa, barley, pasta, baked goods
- Fruits
  - Apples, bananas, berries, oranges, grapes, pears, etc.
- Vegetables
  - **Starchy:** Potatoes, peas, corn, and winter squash
  - **Non-starchy:** All other vegetables outside of the ones listed above
    - ½ cup cooked or 1 cup raw – average of 5 gms carb
- Legumes
  - Beans, lentils, chickpeas, and peas
- Dairy Products
  - Milk, yogurt



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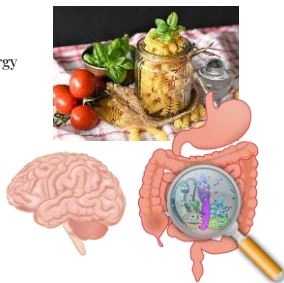
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## Importance of Carbohydrates

- The body's primary source of energy
- Supports physical activity
- Digestive health
- Blood sugar regulation
- Nutrient density
- Satiety & Weight Management
- Mood & Mental Well-being



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## Recommended Carbohydrate Intake

- **Recommended Dietary Allowance (RDA)**, Adults aged 51 years and older: 130 gm/day
- **Acceptable Macronutrient Distribution Range (AMDR)**: 45% to 65% of total daily calories should come from carbohydrates
- **Fiber**: 21- 30 grams/day
- **Added sugars**: Limit added sugars to less than 10% of total daily calories

*SUA Guidelines (per meal):*

- **Grains**: 1-2, 1 oz. grain equivalents, with **whole grains** offered at least 5 times per week or if serving less than 5 days/week, half of grains offered shall be whole grains
- **Fruits/Vegetables (including legumes)**: 1-2, 1 cup equivalents
- **Dairy**: 1, 1 cup equivalents



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## Carbohydrate Portion Sizes



Examples of 1 oz. equivalent for grains:

- ½ cup cooked rice, or 1 oz. dry
- ½ cup cooked pasta, or 1 oz. dry
- ½ cup cooked cereal
- 1 medium tortilla
- 1 medium flatbread



Examples of 1-2, 1 cup equivalents for fruits/vegetables:

- 1 cup raw vegetable
- 1 cup raw fruit
- 1 cup cooked vegetable
- 1 cup cooked fruit
- 1 cup vegetable juice
- 1 cup fruit juice
- 2 cups leafy salad greens
- ½ cup dried fruit
- ½ cup dried vegetables



Examples of 1, one-cup dairy equivalent:

- 1 cup milk
- 1 cup yogurt
- 1 cup fortified soy milk
- 1.5 oz natural cheese (such as cheddar)
- 2 oz. of processed cheese

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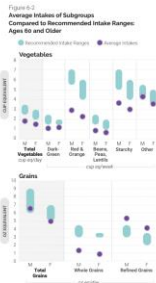
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## Average Intakes of Subgroups Compared to Recommended Intake Ranges: Ages 60 and Older



Graphic © Data Sources: Average Intakes: Analysis of What We Eat in America, NHANES 2005-2006, days dietary intake data, weighted. Recommended Intake Ranges: Healthy U.S.-Style Dietary Patterns (see Appendix 3), Page 47 | Dietary Guidelines for Americans, 2020-2025 | Chapter 6: Older Adults

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# Fats

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## Dietary Sources of Fat

- Animal-foods
  - Meat & Fish
  - Dairy
  - Eggs
- Plant-based foods
  - Nuts and seeds
  - Avocado
  - Coconut
  - Oils



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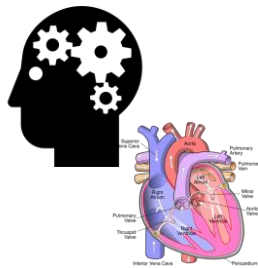
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## Importance of Dietary Fat

- Energy supply
- Cognitive function
- Cardiovascular health
- Joint health
- Nutrient absorption
- Skin health
- Hormone production
- Satiety & satisfaction in meals
- Bone health
- Mental health



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### Recommended Dietary Fat Intake

- **Acceptable Macronutrient Distribution Range (AMDR):** 20% to 35% of total daily calories should come from fats
- **Saturated Fat:** less than 10% of total daily calories
  - Can raise LDL cholesterol
  - Sources: butter, cheese, red meat, coconut & palm oils, full-fat dairy products, processed meats (bacon, hot dogs, etc)
- **Trans Fats:** Limit or avoid as much as possible
  - Artificial trans fats created through hydrogenation
  - Increase LDL cholesterol and decrease HDL cholesterol
  - Often found in: margarines, shortenings, fried foods, packaged baked goods and snacks



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### Tips for Increasing Healthy Fats & Decreasing Saturated Fats

- Choose cost-effective sources of healthy fats such as canola & olive oils
- Incorporate avocado, nuts & seeds into recipes
- Opt for lean cuts of protein
- Get creative with plant-based proteins like beans and lentils
- Choose lower-fat dairy products
- Limit processed, high-fat meats like sausage, bacon, and hot dogs



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## Special Considerations for Older Adults

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**Micronutrients of Concern: Vitamin B-12**

- Water soluble vitamin, also known as cobalamin
- Essential for nerve function, RBC production, DNA synthesis
- **Dietary sources:** animal-based protein (meat, dairy, eggs) and fortified foods, such as breakfast cereals
- Inadequate B-12 can lead to pernicious anemia and neurological complications
- DGAs recommend older adults to meet protein food recs and include fortified foods
- **DRI = 2.4 mcg/day**
- **Target Value (% DRI, for 1800 calories) = 0.8mcg/meal**
  - Ground beef (3 oz) = 2.4 mcg
  - Turkey (3 oz) = 0.3 mcg
  - Egg (2 large) = 1.0 mcg
  - Milk, 2% (1 cup) = 1.3 mcg
  - Fortified breakfast cereal (1 cup) = 0.6 mcg



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**Micronutrients of Concern: Vitamin D**

- Fat-soluble vitamin
- Available as ergocalciferol (Vitamin D2) and cholecalciferol (Vitamin D3); also created in our body via sunlight exposure
- Essential for bone health, muscle function, immune health, cognitive function
- **Dietary sources:** fatty fish, mushrooms, fortified foods (milk, dairy, OJ, cereal)
- DGAs encourage incorporation of fortified foods + adequate sun exposure+
- **DRI = 600 IU/day**
- **Target Value (% DRI, for 1800 calories) = 200 IU, or 5 mcg/meal**
  - Salmon (3 oz) = 570 IU
  - Mushrooms (½ cup) = 366 IU
  - Tuna (3 oz) = 40 IU
  - Milk, 2%, fortified (1 cup) = 120 IU
  - Fortified RTE cereals (1 cup) = 80 IU



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**Hydration**



- DGAs estimate that older adults consume roughly 16 oz less fluid per day than adults under the age of 60+
- **Causes for decreased fluid intake:**
  - Medications
  - Decreased thirst sensation
  - Limited mobility
  - Bladder control issues
  - Kidney function decline
- Inadequate fluid intake can lead to dehydration, confusion, falls, chronic health problems and issues with digestion and absorption<sup>99</sup>
- Fluid recommendation for older adults = 2.7 L or 3.7 L per day for women and men, respectively<sup>99</sup>
- Fluid doesn't have to come only from water
  - milk, tea juice, water-rich foods like fruits, vegetables, and soups

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**Sodium**

- DGA recommends adults, including seniors: <2,300 mg sodium/day
- 94% males and 72% females are exceeding sodium recs<sup>4</sup>
- Ensure adequate intake of potassium to help balance sodium
- Choose no-salt added or reduced sodium products
- Limit high-sodium foods like processed meats & processed cheese
- Use herbs and spices
- Seek guidance from qualified nutrition expert
- Educate and train culinary staff



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**Putting it all together...**

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**Examples of Meals**

- Grilled Chicken Salad with Quinoa & Roasted Mixed Vegetables
- Baked Fish with Sweet Potato, Steamed Green Beans, and Whole-Grain Roll
- Turkey & Spinach Wrap with Hummus and Vegetable Soup
- Meatloaf with Mashed Potatoes, Steamed Green Peas and Whole-Grain Roll
- Chicken Pot Pie with Whole-Wheat Crust and Side Salad
- BBQ Pulled Pork Sandwich on Whole-Grain Bun with Coleslaw and Fruit Salad

*Nearly any recipe or meal can be adapted to boost the nutritional value and meet recommendations! Think about what you can add or replace.*

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**Tips for Introducing New Foods and Making Menu Changes**

- Start small and familiar
- Explain the benefits
- Make it social
- Keep it simple
- Adapt to preferences & feedback
- Appeal to curiosity and cultural exploration
- Offer alternatives




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**Role of Healthcare Professionals, Culinary Staff, and Caregivers**



- Collaboration and communication!
  - Different roles can work together to support older adults' nutritional needs
- Continuing nutrition education and support
  - For the seniors you serve
  - For culinary staff
  - For caregivers
  - For you!
- Enjoyment of food is important
  - Sharing meals can help increase food enjoyment and promote adequate intake<sup>4</sup>

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**Conclusion**

- Prioritize whole foods, protein, fortified foods, and fluids
- Research on individuals who closely follow the Dietary Guidelines for Americans (DGA) generally shows several positive outcomes related to health and nutrition<sup>4</sup>
- Study published this year compiled results of 18 published articles and showed that those who adhere to DGA, have a 20% lower rate of death from any cause and 19% lower risk of death from cancer & heart disease<sup>12</sup>




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### Additional Resources

Nutrition and Aging Resource Center:  
<https://acl.gov/senior-nutrition>

Dietary Guidelines for Americans:  
<https://www.dietaryguidelines.gov/>



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Q & A

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