

# DIETARY GUIDELINES FOR AMERICANS 2015-2020 EIGHTH EDITION



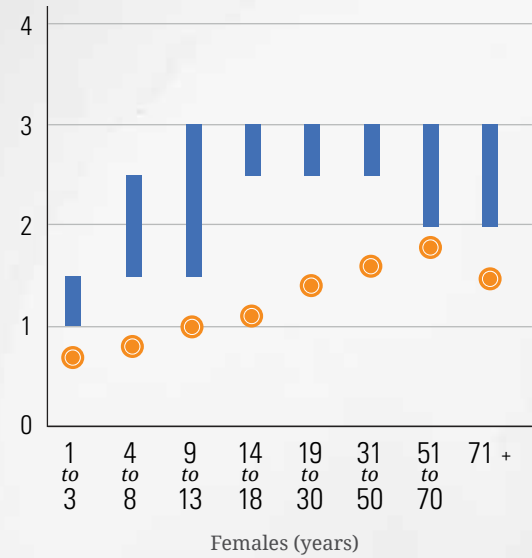
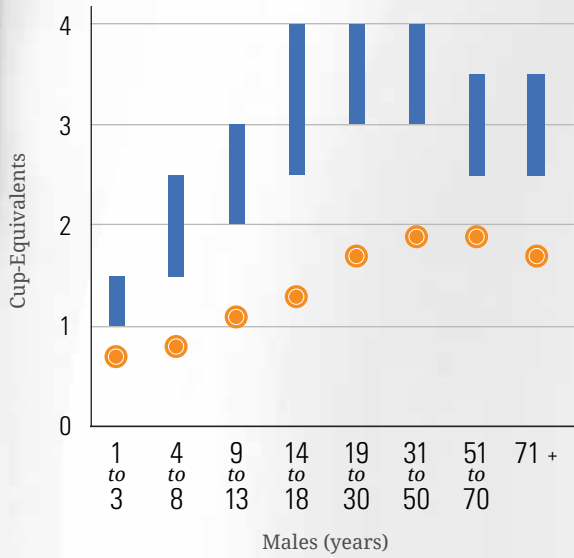
[DietaryGuidelines.gov](http://DietaryGuidelines.gov)

Figure 2-3.

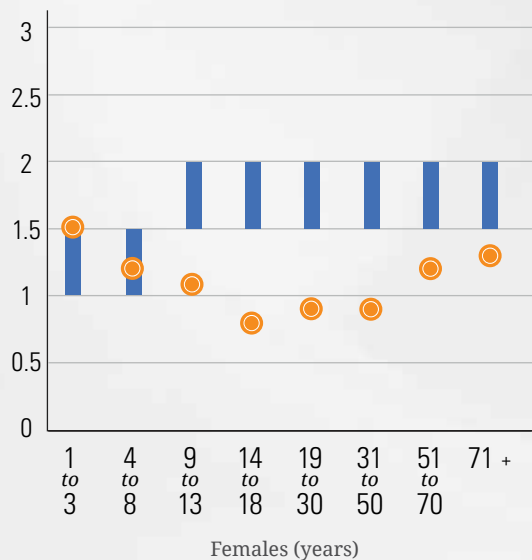
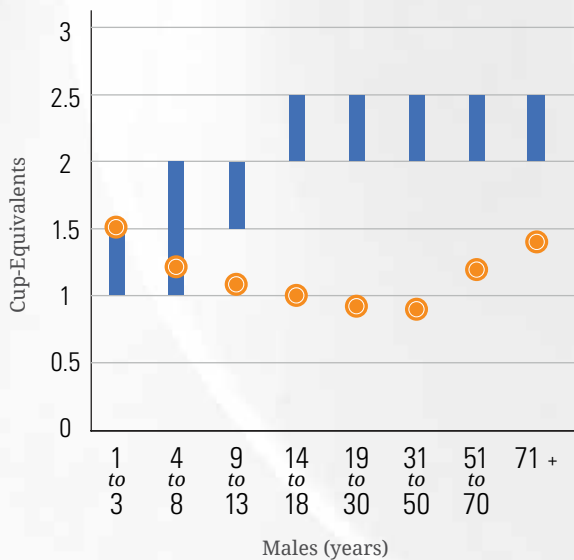
## Average Daily Food Group Intakes by Age-Sex Groups, Compared to Ranges of Recommended Intake

■ Recommended Intake Ranges  
○ Average Intake

### Vegetables



### Fruits



## Calories in Nutrient-Dense Versus Current Typical Choices in the Food Groups

To stay within energy requirements while meeting nutritional needs, food choices in each food group should be in nutrient-dense forms. However, in many food groups, foods as they are typically eaten are not in nutrient-dense forms—they contain additional calories from components such as added sugars, added refined starches, solid fats, or a combination. For example, in the dairy group, nutrient-dense choices such as fat-free milk, plain fat-free yogurt, and low-fat cheese contain an average of about 80 calories per cup-equivalent. In contrast, many dairy products that are typically consumed, such as whole milk, sweetened yogurt, and regular cheese, contain almost 150 calories per cup-equivalent.<sup>[2]</sup> Similarly, in the protein foods group, nutrient-dense (lean) choices of meats and poultry contain an average of about 50 calories per ounce-equivalent, but the higher fat choices that are typically consumed contain about 80 to 100 calories per ounce-equivalent. Grains and vegetables also are often consumed in forms that contain additional calories from added sugars or solid fats that are added in processing or preparing the food, rather than in nutrient-dense forms.



When typical instead of nutrient-dense choices are made in each food group, individuals consume extra calories when meeting their food group recommendations. Shifting from typical choices to nutrient-dense options is an important principle for maintaining calorie balance in a healthy eating pattern. A related principle, reducing the portion size of foods and beverages that are not in nutrient-dense forms, also can help to maintain calorie balance.

[2] Britten P, Cleveland LE, Koegel KL, Kuczynski KJ, and Nickols-Richardson MS. Impact of typical rather than nutrient dense food choices in the US Department of Agriculture Food Patterns. *J Acad Nutr Diet*. 2012;112 (10):1560-1569.



**Figure 2-4.** Average Vegetable Subgroup Intakes in Cup-Equivalents per Week by Age-Sex Groups, Compared to Ranges of Recommended Intakes per Week  
**Dark Green Vegetables**

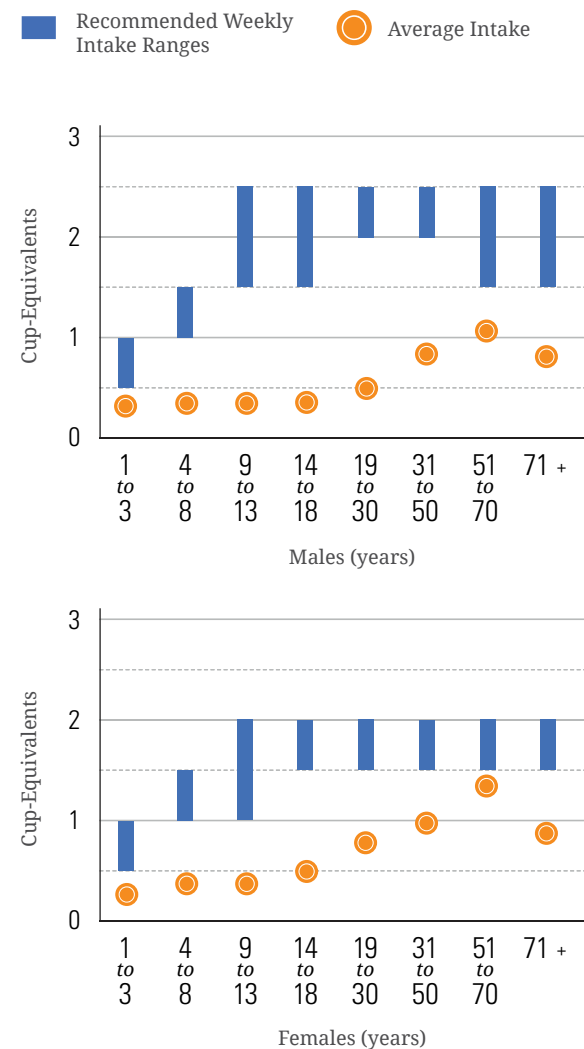




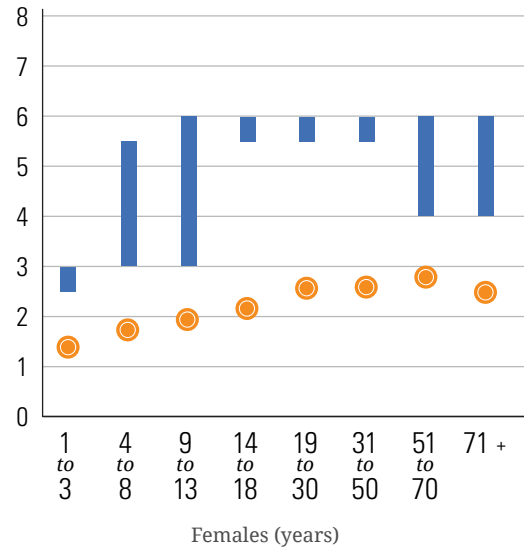
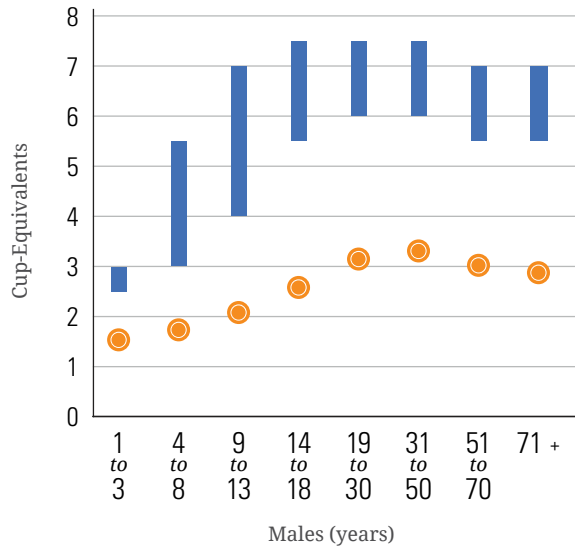
Figure 2-4. (continued...)

## Average Vegetable Subgroup Intakes in Cup-Equivalents per Week by Age-Sex Groups, Compared to Ranges of Recommended Intakes per Week

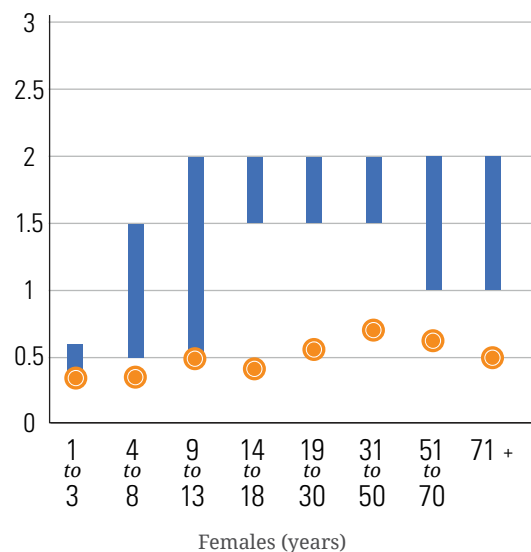
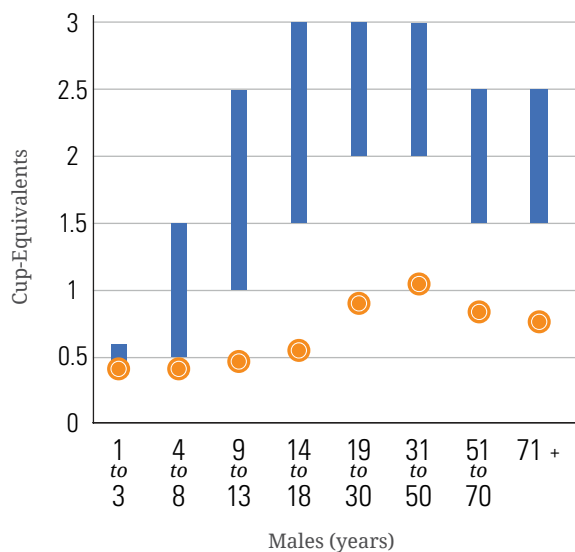
 Recommended Intake Ranges  
 Average Intake



### Red & Orange Vegetables



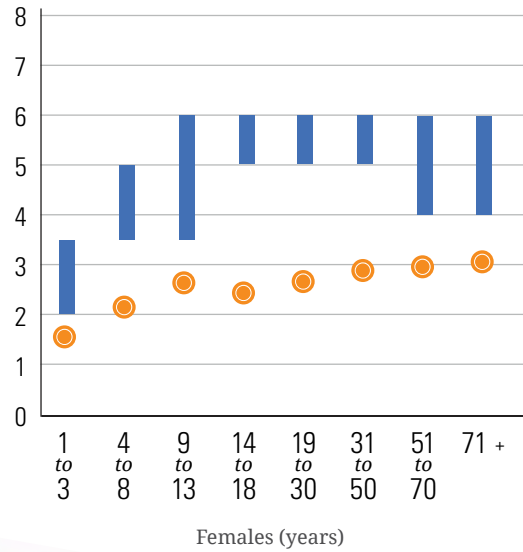
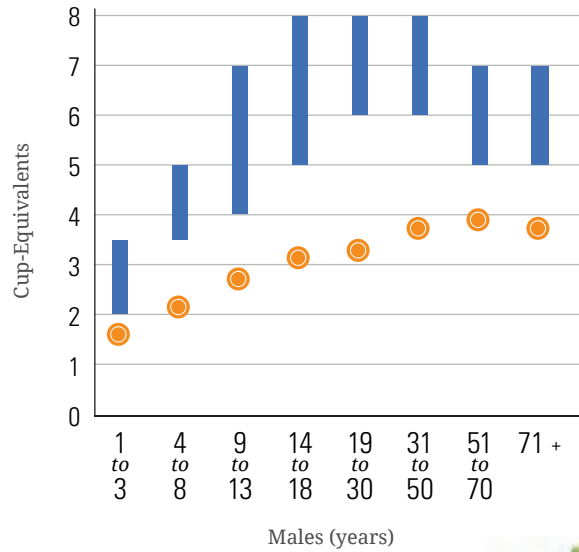
### Legumes (Beans & Peas)



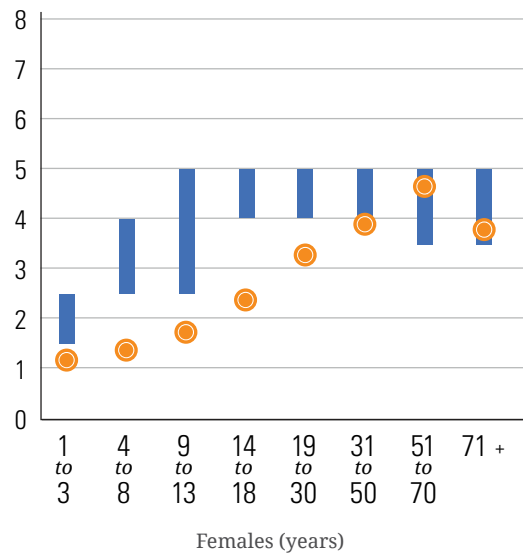
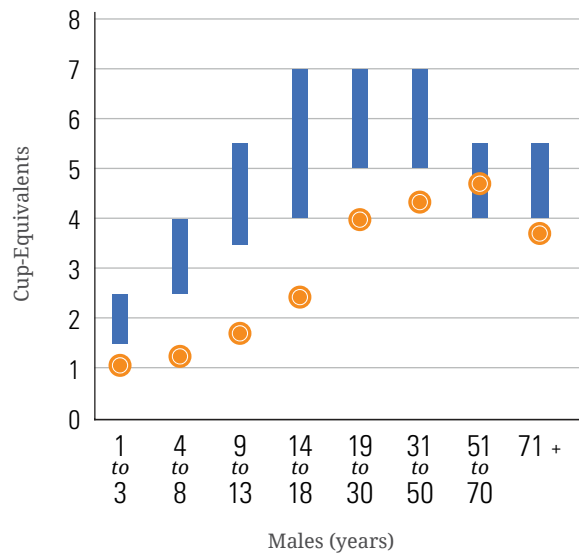
■ Recommended Intake Ranges ○ Average Intake



## Starchy Vegetables



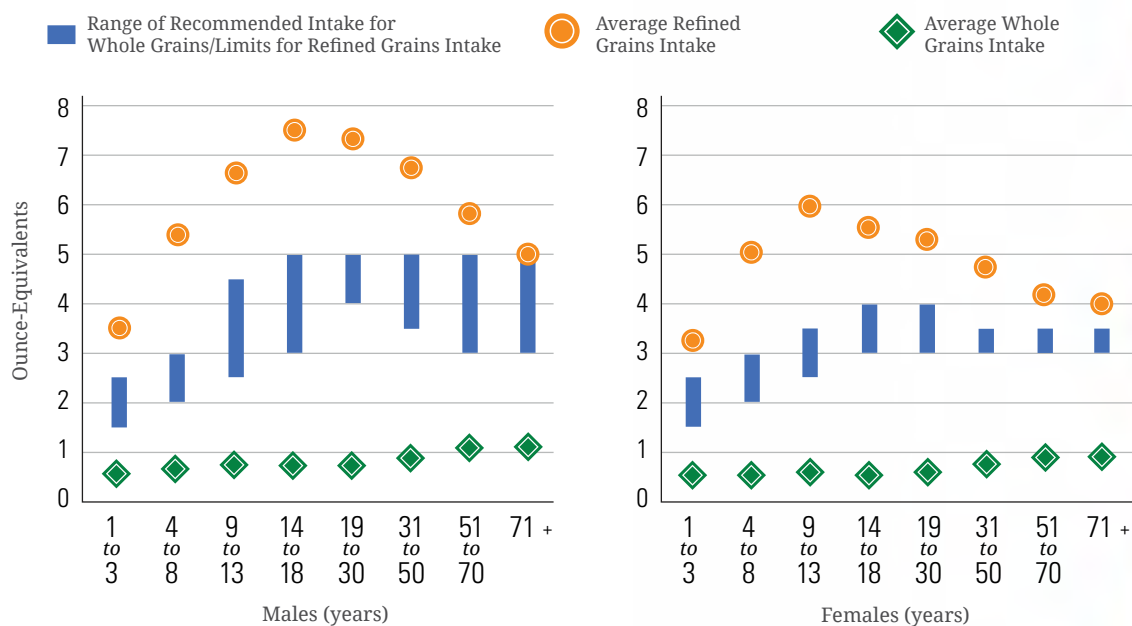
## Other Vegetables



**DATA SOURCES:** What We Eat in America, NHANES 2007-2010 for average intakes by age-sex group. Healthy U.S.-Style Food Patterns, which vary based on age, sex, and activity level, for recommended intake ranges.

Figure 2-5.

## Average Whole & Refined Grain Intakes in Ounce-Equivalents per Day by Age-Sex Groups, Compared to Ranges of Recommended Daily Intake for Whole Grains & Limits for Refined Grains\*



**\*NOTE:** Recommended daily intake of whole grains is to be at least half of total grain consumption, and the limit for refined grains is to be no more than half of total grain consumption. The blue vertical bars on this graph represent one half of the total grain recommendations for each age-sex group, and therefore indicate recommendations for the minimum amounts to consume of whole grains or maximum amounts of refined grains. To meet recommendations, whole grain intake should be within or above the blue bars and refined grain intake within or below the bars.

**DATA SOURCES:** What We Eat in America, NHANES 2007-2010 for average intakes by age-sex group. Healthy U.S.-Style Food Patterns, which vary based on age, sex, and activity level, for recommended intake ranges.

### Shift To Consume More Fruits:

To help support healthy eating patterns, most individuals in the United States would benefit from increasing their intake of fruits, mostly whole fruits, in nutrient-dense forms. A wide variety of fruits are available in the U.S. marketplace, some year-round and others seasonally. Strategies to help achieve this shift include choosing more fruits as snacks, in salads, as side dishes, and

as desserts in place of foods with added sugars, such as cakes, pies, cookies, doughnuts, ice cream, and candies.

### Grains

**Current Intakes:** Intakes of total grains are close to the target amounts (Figure 2-3) for all age-sex groups, but as shown in Figure 2-5, intakes do not meet the recommendations for whole grains and exceed limits for refined grains. Average intakes of whole grains are far below

recommended levels across all age-sex groups, and average intakes of refined grains are well above recommended limits for most age-sex groups.

Examples of commonly consumed whole-grain foods are whole-wheat breads, rolls, bagels, and crackers; oatmeal; whole-grain ready-to-eat cereals (e.g., shredded wheat, oat rings); popcorn; brown rice; and whole-grain pasta. Examples of refined grain foods are white bread, rolls, bagels, and crackers; pasta; pizza crust; grain based



**Shift To Increase Variety in Protein Foods Choices and To Make More Nutrient-Dense Choices:**

Average intake of total protein foods is close to recommendations, while average seafood intake is below recommendations for all age-sex groups. Shifts are needed within the protein foods group to increase seafood intake, but the foods to be replaced depend on the individual's current intake from the other protein subgroups. Strategies to increase the variety of protein foods include incorporating seafood as the protein foods choice in meals twice per week in place of meat, poultry, or eggs, and using legumes or nuts and seeds in mixed dishes instead of some meat or poultry. For example, choosing a salmon steak, a tuna sandwich, bean chili, or almonds on a main-dish salad could all increase protein variety.

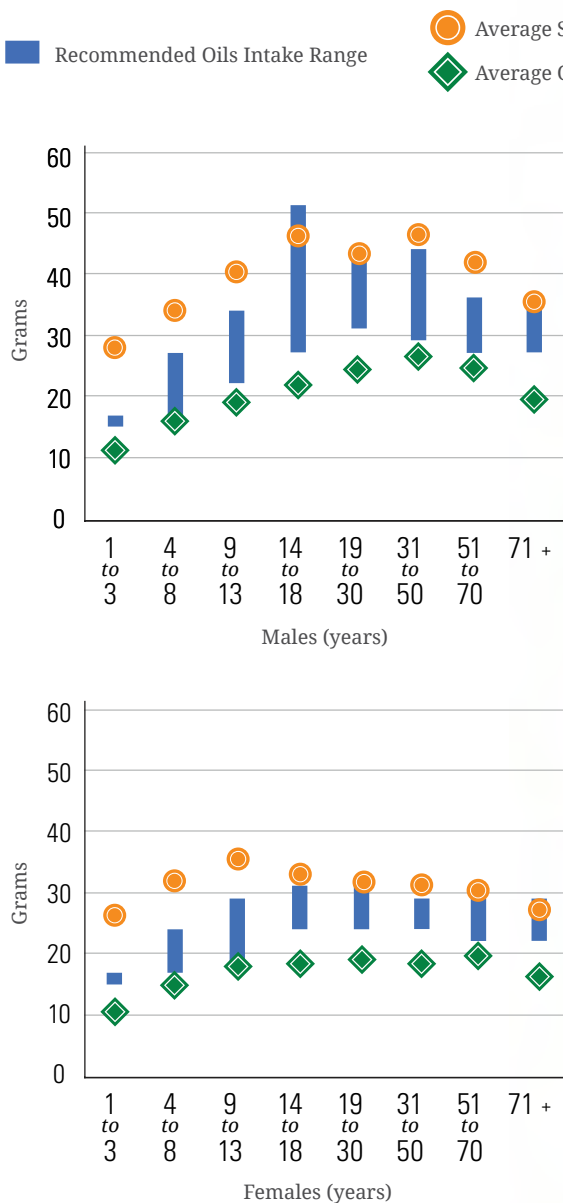
Shifting to nutrient-dense options, including lean and lower sodium options, will improve the nutritional quality of protein food choices and support healthy eating patterns. Some individuals, especially teen boys and adult men, also need to reduce overall intake of protein foods (see Figure 2-3) by decreasing intakes of meats, poultry, and eggs and increasing amounts of vegetables or other underconsumed food groups.

**Oils**

**Current Intakes:** Average intakes of oils are below the recommendations for almost every age-sex group (Figure 2-7). However, intakes are not far from recommendations. In the United States, most oils are consumed in packaged foods, such as salad dressings, mayonnaise,

Figure 2-7.

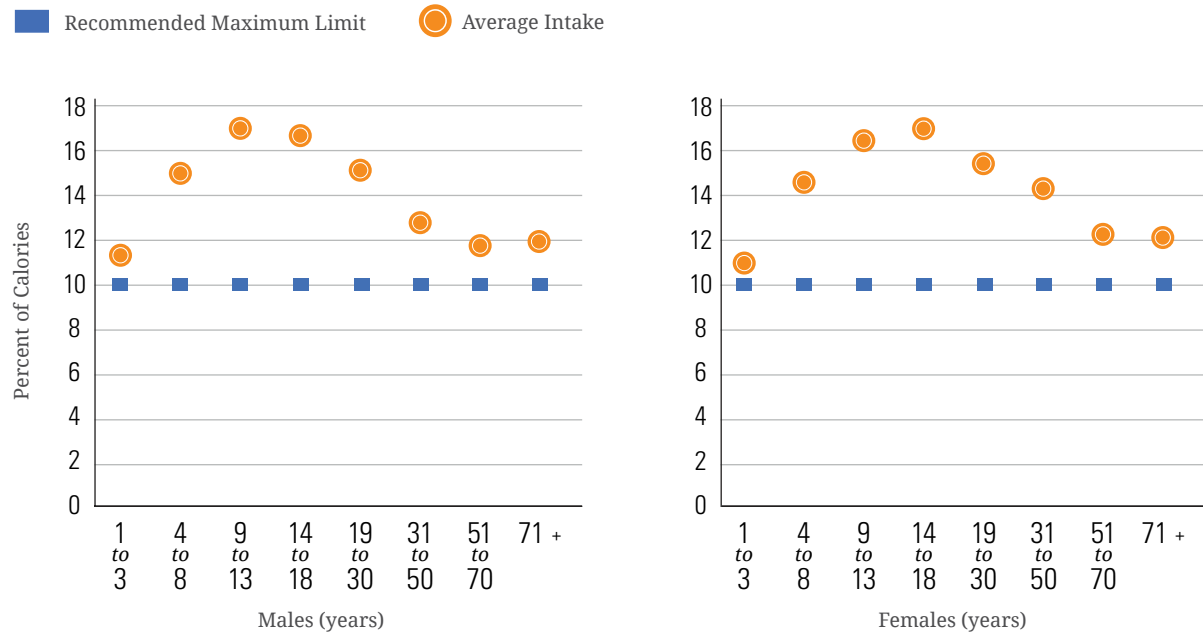
**Average Intakes of Oils & Solid Fats in Grams per Day by Age-Sex Group, in Comparison to Ranges of Recommended Intake for Oils**



**DATA SOURCES:** What We Eat in America, NHANES 2007-2010 for average intakes by age-sex group. Healthy U.S. Style Food Patterns, which vary based on age, sex, and activity level, for recommended intake ranges.

Figure 2-9.

## Average Intakes of Added Sugars as a Percent of Calories per Day by Age-Sex Group, in Comparison to the Dietary Guidelines Maximum Limit of Less than 10 Percent of Calories



**NOTE:** The maximum amount of added sugars allowable in a Healthy U.S.-Style Eating Pattern at the 1,200-to-1,800 calorie levels is less than the *Dietary Guidelines* limit of 10 percent of calories. Patterns at these calorie levels are appropriate for many children and older women who are not physically active.

**DATA SOURCE:** What We Eat in America, NHANES 2007-2010 for average intakes by age-sex group.

The following sections describe total intakes compared to limits for these components, and the leading food categories contributing to this total.

### Added Sugars

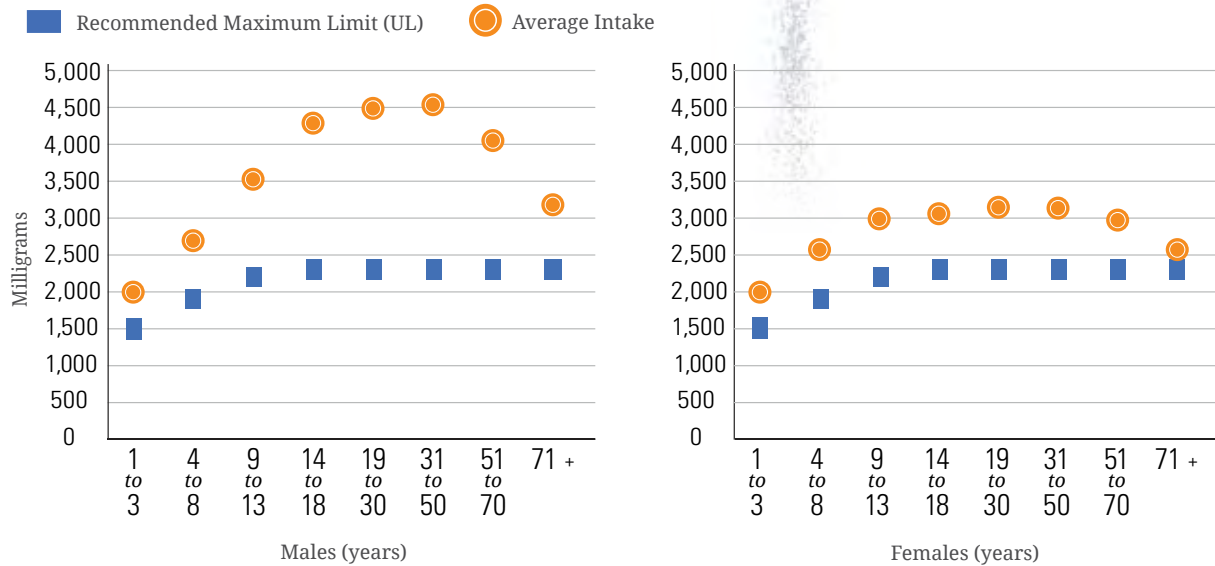
**Current Intakes:** Added sugars account on average for almost 270 calories, or more than 13 percent of calories per day in the U.S. population. As shown in Figure 2-9, intakes as a

percent of calories are particularly high among children, adolescents, and young adults. The major source of added sugars in typical U.S. diets is beverages, which include soft drinks, fruit drinks, sweetened coffee and tea, energy drinks, alcoholic beverages, and flavored waters (Figure 2-10). Beverages account for almost half (47%) of all added sugars consumed by the U.S. population (Figure 2-10). The other

major source of added sugars is snacks and sweets, which includes grain-based desserts such as cakes, pies, cookies, brownies, doughnuts, sweet rolls, and pastries; dairy desserts such as ice cream, other frozen desserts, and puddings; candies; sugars; jams; syrups; and sweet toppings. Together, these food categories make up more than 75 percent of intake of all added sugars.

Figure 2-13.

## Average Intake of Sodium in Milligrams per Day by Age-Sex Groups, Compared to Tolerable Upper Intake Levels (UL)



**DATA SOURCES:** What We Eat in America, NHANES 2007-2010 for average intakes by age-sex group. Institute of Medicine Dietary Reference Intakes for Tolerable Upper Intake Levels (UL).

### Sodium

**Current Intakes:** As shown in Figure 2-13, average intakes of sodium are high across the U.S. population compared to the Tolerable Upper Intake Levels (ULs). Average intakes for those ages 1 year and older is 3,440 mg per day. Average intakes are generally higher for men than women. For all adult men, the average intake is 4,240 mg, and for adult women, the average is 2,980 mg per day. Only a small proportion of total sodium intake is from sodium inherent in foods or from salt added in home cooking or at the table. Most sodium consumed in the United States comes from salts added during commercial food processing and preparation.

Sodium is found in foods from almost all food categories (Figure 2-14). Mixed dishes—including burgers, sandwiches, and tacos; rice, pasta, and grain dishes; pizza; meat, poultry, and seafood dishes; and soups—account for almost half of the sodium consumed in the United States. The foods in many of these categories are often commercially processed or prepared.



**Shift Food Choices To Reduce Sodium Intake.<sup>[5]</sup>**

Because sodium is found in so many foods, careful choices are needed in all

food groups to reduce intake. Strategies to lower sodium intake include using the Nutrition Facts label to compare sodium content of foods and choosing the product with less sodium and buying low-sodium, reduced sodium, or no-salt-added versions of products when available. Choose fresh, frozen (no sauce or seasoning), or no-salt-added canned vegetables, and fresh poultry, seafood, pork, and lean meat, rather than processed meat and poultry. Additional strategies include eating at home more often; cooking foods from scratch to control the sodium content of dishes; limiting sauces, mixes, and “instant” products, including flavored rice, instant noodles, and ready-made pasta; and flavoring foods with herbs and spices instead of salt.

<sup>[5]</sup> The recommendation to limit intake of sodium to less than 2,300 mg per day is the UL for individuals ages 14 years and older set by the IOM. The recommendations for children younger than 14 years of age are the IOM age- and sex-appropriate ULs (see Appendix 7. Nutritional Goals for Age-Sex Groups, Based on Dietary Reference Intakes and Dietary Guidelines Recommendations).

# Appendix 7.

## Nutritional Goals for Age-Sex Groups Based on Dietary Reference Intakes & *Dietary Guidelines* Recommendations

**Table A7-1. Daily Nutritional Goals for Age-Sex Groups Based on Dietary Reference Intakes & *Dietary Guidelines* Recommendations**

	Source of Goal <sup>(a)</sup>	Child 1-3	Female 4-8	Male 4-8	Female 9-13	Male 9-13	Female 14-18	Male 14-18	Female 19-30	Male 19-30	Female 31-50	Male 31-50	Female 51+	Male 51+
Calorie Level(s) Assessed		1,000	1,200	1,400, 1,600	1,600	1,800	1,800	2,200, 2,800, 3,200	2,000	2,400, 2,600, 3,000	1,800	2,200	1,600	2,000
Macronutrients														
Protein, g	RDA	13	19	19	34	34	46	52	46	56	46	56	46	56
Protein, % kcal	AMDR	5-20	10-30	10-30	10-30	10-30	10-30	10-30	10-35	10-35	10-35	10-35	10-35	10-35
Carbohydrate, g	RDA	130	130	130	130	130	130	130	130	130	130	130	130	130
Carbohydrate, % kcal	AMDR	45-65	45-65	45-65	45-65	45-65	45-65	45-65	45-65	45-65	45-65	45-65	45-65	45-65
Dietary Fiber, g	14 g/1,000 kcal	14	16.8	19.6	22.4	25.2	25.2	30.8	28	33.6	25.2	30.8	22.4	28
Added Sugars, % kcal	DGA	<10%	<10%	<10%	<10%	<10%	<10%	<10%	<10%	<10%	<10%	<10%	<10%	<10%
Total Fat, % kcal	AMDR	30-40	25-35	25-35	25-35	25-35	25-35	25-35	20-35	20-35	20-35	20-35	20-35	20-35
Saturated Fat, % kcal	DGA	<10%	<10%	<10%	<10%	<10%	<10%	<10%	<10%	<10%	<10%	<10%	<10%	<10%
Linoleic Acid, g	AI	7	10	10	10	12	11	16	12	17	12	17	11	14
Linolenic Acid, g	AI	0.7	0.9	0.9	1	1.2	1.1	1.6	1.1	1.6	1.1	1.6	1.1	1.6

	Source of Goal <sup>[a]</sup>	Child 1-3	Female 4-8	Male 4-8	Female 9-13	Male 9-13	Female 14-18	Male 14-18	Female 19-30	Male 19-30	Female 31-50	Male 31-50	Female 51+	Male 51+
<b>Calorie Level(s) Assessed</b>		1,000	1,200	1,400, 1,600	1,600	1,800	1,800	2,200, 2,800, 3,200	2,000	2,400, 2,600, 3,000	1,800	2,200	1,600	2,000
<b>Minerals</b>														
Calcium, mg	RDA	700	1,000	1,000	1,300	1,300	1,300	1,300	1,000	1,000	1,000	1,000	1,200	1,000 <sup>[b]</sup>
Iron, mg	RDA	7	10	10	8	8	15	11	18	8	18	8	8	8
Magnesium, mg	RDA	80	130	130	240	240	360	410	310	400	320	420	320	420
Phosphorus, mg	RDA	460	500	500	1,250	1,250	1,250	1,250	700	700	700	700	700	700
Potassium, mg	AI	3,000	3,800	3,800	4,500	4,500	4,700	4,700	4,700	4,700	4,700	4,700	4,700	4,700
Sodium, mg	UL	1,500	1,900	1,900	2,200	2,200	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300
Zinc, mg	RDA	3	5	5	8	8	9	11	8	11	8	11	8	11
Copper, mcg	RDA	340	440	440	700	700	890	890	900	900	900	900	900	900
Manganese, mg	AI	1.2	1.5	1.5	1.6	1.9	1.6	2.2	1.8	2.3	1.8	2.3	1.8	2.3
Selenium, mcg	RDA	20	30	30	40	40	55	55	55	55	55	55	55	55
<b>Vitamins</b>														
Vitamin A, mg RAE	RDA	300	400	400	600	600	700	900	700	900	700	900	700	900
Vitamin E, mg AT	RDA	6	7	7	11	11	15	15	15	15	15	15	15	15
Vitamin D, IU	RDA	600	600	600	600	600	600	600	600	600	600	600	600 <sup>[c]</sup>	600 <sup>[c]</sup>
Vitamin C, mg	RDA	15	25	25	45	45	65	75	75	90	75	90	75	90
Thiamin, mg	RDA	0.5	0.6	0.6	0.9	0.9	1	1.2	1.1	1.2	1.1	1.2	1.1	1.2
Riboflavin, mg	RDA	0.5	0.6	0.6	0.9	0.9	1	1.3	1.1	1.3	1.1	1.3	1.1	1.3
Niacin, mg	RDA	6	8	8	12	12	14	16	14	16	14	16	14	16
Vitamin B <sub>6</sub> , mg	RDA	0.5	0.6	0.6	1	1	1.2	1.3	1.3	1.3	1.3	1.3	1.5	1.7
Vitamin B <sub>12</sub> , mcg	RDA	0.9	1.2	1.2	1.8	1.8	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
Choline, mg	AI	200	250	250	375	375	400	550	425	550	425	550	425	550
Vitamin K, mcg	AI	30	55	55	60	60	75	75	90	120	90	120	90	120
Folate, mcg DFE	RDA	150	200	200	300	300	400	400	400	400	400	400	400	400

[a] RDA = Recommended Dietary Allowance, AI = Adequate Intake, UL = Tolerable Upper Intake Level, AMDR = Acceptable Macronutrient Distribution Range, DGA = 2015-2020 Dietary Guidelines recommended limit; 14 g fiber per 1,000 kcal = basis for AI for fiber.

[b] Calcium RDA for males ages 71+ years is 1,200 mg.

[c] Vitamin D RDA for males and females ages 71+ years is 800 IU.

**SOURCES:** Institute of Medicine. Dietary Reference Intakes: The essential guide to nutrient requirements. Washington (DC): The National Academies Press; 2006.

Institute of Medicine. Dietary Reference Intakes for Calcium and Vitamin D. Washington (DC): The National Academies Press; 2010.