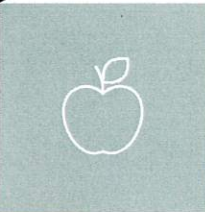
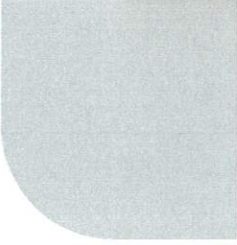




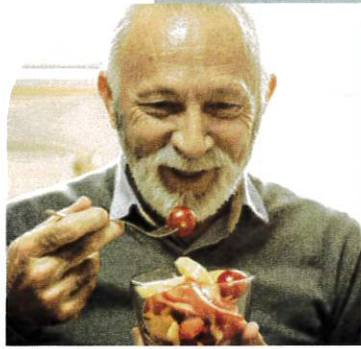
DGA | Dietary
Guidelines
for Americans
2020 - 2025



Make Every
Bite Count With
the *Dietary
Guidelines*



DietaryGuidelines.gov





Introduction



Setting the Stage

The foods and beverages that people consume have a profound impact on their health. The scientific connection between food and health has been well documented for many decades, with substantial evidence showing that healthy dietary patterns can help people achieve and maintain good health and reduce the risk of chronic diseases throughout all stages of the lifespan. Yet, Federal data show that from the first edition of the *Dietary Guidelines for Americans* in 1980 through today, Americans have fallen far short of meeting its recommendations, and diet-related chronic disease rates have risen to pervasive levels and continue to be a major public health concern.



The *Dietary Guidelines* is an important part of a complex, multifaceted approach to promote health and reduce chronic disease risk. The *Dietary Guidelines* provides science-based advice on what to eat and drink to promote health, help reduce risk of chronic disease, and meet nutrient needs. The *Dietary Guidelines* is the foundation of Federal food, nutrition, and health policies and programs. An important audience is health professionals and nutrition program administrators who work with the general public to help them consume a healthy and nutritionally adequate diet and establish policies and services to support these efforts. Comprehensive, coordinated strategies built on the science-based foundation of the *Dietary Guidelines*—and a commitment to drive these strategies over time across sectors and settings—can help all Americans consume healthy dietary patterns, achieve and maintain good health, and reduce the risk of chronic diseases.

Grounded in Science and Focused on Public Health

The U.S. Departments of Agriculture (USDA) and of Health and Human Services (HHS) update the *Dietary Guidelines* at least every 5 years, based on the current science. A fundamental premise of the *Dietary Guidelines* is that everyone, no matter their age, race, or ethnicity, economic circumstances, or health status, can benefit from shifting food and beverage choices to better support healthy dietary patterns.

To make sure that the dietary advice provided in the *Dietary Guidelines* is aimed at improving public health, the science used to inform the Guidelines has examined diet through a lens of health promotion and disease prevention and considered various segments of the United States population, including ethnic populations who have disproportionately and/or historically been affected by diet-related disparities. This means that priority has been placed on scientific studies that examine the relationship between diet and health across all life stages, in men, women, and children from diverse racial and ethnic backgrounds, who are healthy or at risk of chronic disease.

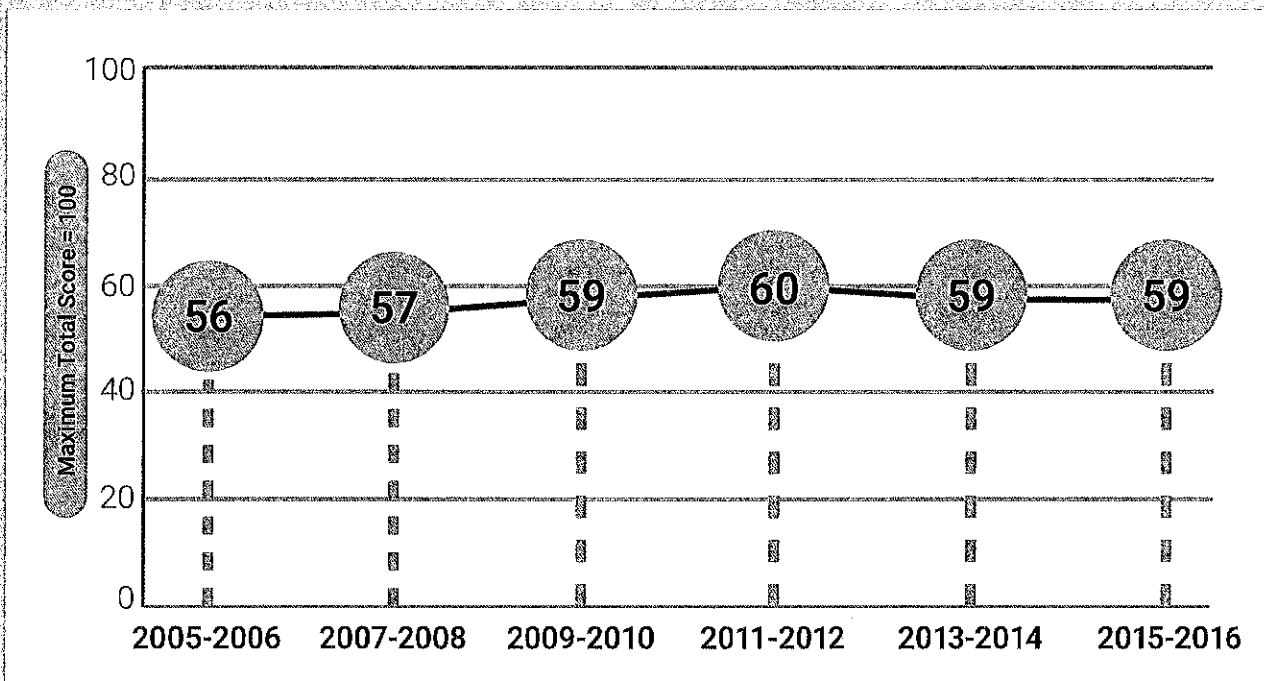
Over time, eating patterns in the United States have remained far below *Dietary Guidelines* recommendations (**Figure I-1**). Concurrently, it has become increasingly clear that diet-related chronic diseases, such as cardiovascular disease, type 2 diabetes, obesity, liver disease, some types of cancer, and dental caries, pose a major public health problem for Americans. Today,

60 percent of adults have one or more diet-related chronic diseases (**Table I-1**). Given its aim to prevent further disease incidence by promoting health and reducing chronic disease risk, the *Dietary Guidelines* focuses on the general public, including healthy individuals, as well as those with overweight or obesity and those who are at risk of chronic disease. The importance of following the *Dietary Guidelines* across all life stages has been brought into focus even more with the emergence of COVID-19, as people living with diet-related chronic conditions and diseases are at an increased risk of severe illness from the novel coronavirus.

Grounded in the current body of scientific evidence on diet and health that is relevant to all Americans, the *Dietary Guidelines* is a critically important tool for health professionals, policymakers, and many other professionals. It is designed to help people make food and beverage choices all through life that are enjoyable and affordable and that also promote health and help prevent chronic disease.

Figure I-1

Adherence of the U.S. Population to the *Dietary Guidelines* Over Time, as Measured by the Average Total Healthy Eating Index-2015 Scores



NOTE: HEI-2015 total scores are out of 100 possible points. A score of 100 indicates that recommendations on average were met or exceeded. A higher total score indicates a higher quality diet.

Data Source: Analysis of What We Eat in America, National Health and Nutrition Examination Survey (NHANES) data from 2005-2006 through 2015-2016, ages 2 and older, day 1 dietary intake data, weighted.

Table I-1

Facts About Nutrition-Related Health Conditions in the United States

HEALTH CONDITIONS	STATISTICS
Overweight and Obesity	- About 74% of adults are overweight or have obesity. - Adults ages 40 to 59 have the highest rate of obesity (43%) of any age group with adults 60 years and older having a 41% rate of obesity. - About 40% of children and adolescents are overweight or have obesity; the rate of obesity increases throughout childhood and teen years.
Cardiovascular Disease (CVD) and Risk Factors: - Coronary artery disease - Hypertension - High LDL and total blood cholesterol - Stroke	- Heart disease is the leading cause of death. - About 18.2 million adults have coronary artery disease, the most common type of heart disease. - Stroke is the fifth leading cause of death. - Hypertension, high LDL cholesterol, and high total cholesterol are major risk factors in heart disease and stroke. - Rates of hypertension and high total cholesterol are higher in adults with obesity than those who are at a healthy weight. - About 45% of adults have hypertension.^a - More Black adults (54%) than White adults (46%) have hypertension. - More adults ages 60 and older (75%) than adults ages 40 to 59 (55%) have hypertension. - Nearly 4% of adolescents have hypertension.^b - More than 11% of adults have high total cholesterol, ≥ 240 mg/dL. - More women (12%) than men (10%) have high total cholesterol, ≥ 240 mg/dL. 7% of children and adolescents have high total cholesterol, ≥ 200 mg/dL.
Diabetes	- Almost 11% of Americans have type 1 or type 2 diabetes. - Almost 35% of American adults have prediabetes, and people 65 years and older have the highest rate (48%) compared to other age groups. - Almost 90% of adults with diabetes also are overweight or have obesity. - About 210,000 children and adolescents have diabetes, including 187,000 with type 1 diabetes. - About 6-9% of pregnant women develop gestational diabetes.
Cancer^c - Breast Cancer - Colorectal Cancer	- Colorectal cancer in men and breast cancer in women are among the most common types of cancer. - About 250,520 women will be diagnosed with breast cancer this year. - Close to 5% of men and women will be diagnosed with colorectal cancer at some point during their lifetime. - More than 1.3 million people are living with colorectal cancer. - The incidence and mortality rates are highest among those ages 65 and older for every cancer type.
Bone Health and Muscle Strength	- More women (17%) than men (5%) have osteoporosis. 20% of older adults have reduced muscle strength. - Adults over 80 years, non-Hispanic Asians, and women are at the highest risk for reduced bone mass and muscle strength.

^a For adults, hypertension is defined as systolic blood pressure (SBP) >130 mm Hg and/or a diastolic blood pressure (DBP) >90 mm Hg.

^b For children, hypertension was defined using the 2017 American Academy of Pediatrics (AAP) Clinical Practice Guideline.

^c The types of cancer included here are not a complete list of all diet- and physical activity-related cancers.



A Spotlight on Dietary Patterns

Although many of its recommendations have remained relatively consistent over time, the *Dietary Guidelines* has evolved as scientific knowledge has grown. Early *Dietary Guidelines* editions used evidence that examined the relationships between individual nutrients, foods, and food groups and health outcomes. In recent years, researchers, public health experts, and registered dietitians have acknowledged that nutrients and foods are not consumed in isolation. Rather, people consume them in various combinations over time—a dietary pattern—and these foods and beverages act synergistically to affect health.

The 2015-2020 *Dietary Guidelines* put this understanding into action by focusing its recommendations on consuming a healthy dietary pattern. The 2020-2025 *Dietary Guidelines* carries forward this emphasis on the importance of a healthy dietary pattern as a whole—rather than on individual nutrients or foods in isolation.

Serving as a framework, the Guidelines' dietary patterns approach enables policymakers, programs, and health professionals to help people personalize their food and beverage choices to accommodate their wants and needs, food preferences, cultural traditions and customs, and budgetary considerations.

Healthy Dietary Patterns at Every Life Stage

The 2020-2025 *Dietary Guidelines* takes the dietary patterns approach one step further by focusing on the importance of encouraging healthy dietary patterns at every stage of life, from birth to older adulthood. It provides recommendations for healthy dietary patterns by life stage, identifying needs specific to each life stage and considering healthy dietary pattern characteristics that should be carried forward into the next stage of life. And, for the first time since the 1985 edition, this edition of the *Dietary Guidelines* includes recommendations for infants and toddlers as well as continuing the emphasis on healthy dietary patterns during pregnancy and lactation.

This approach recognizes that each life stage is distinct—nutrient needs vary over the lifespan and each life stage has unique implications for food and beverage choices and disease risk. At the same time, it recognizes an important continuity. Because early food preferences influence later food choices, establishing a healthy dietary pattern early in life may have a beneficial impact on health promotion and disease prevention over the course of decades.



Dietary Guidelines for Americans: What It Is, What It Is Not

The *Dietary Guidelines* translates the current science on diet and health into guidance to help people choose foods and beverages that comprise a healthy and enjoyable dietary pattern—the “what” and “how much” of foods and beverages to consume to achieve good health, reduce risk of diet-related chronic diseases, and meet nutrient needs. The *Dietary Guidelines* is just one piece of the nutrition guidance landscape, however. Other guidance is designed to address requirements for the specific nutrients contained in foods and beverages or to address treatments for individuals who have a chronic disease. The following section describes the role of the *Dietary Guidelines* within this larger nutrition guidance landscape.

Quantitative Guidance on Foods, Not Nutrient Requirements

Nutrient requirements are established and updated by the National Academies of Sciences, Engineering, and Medicine. At the request of the U.S. and Canadian Federal Governments, the Academies set the quantitative requirements or limits—known as Dietary Reference Intakes (DRI)—on nutrients, which include macronutrients (i.e., protein, carbohydrates, and fats), vitamins and minerals (e.g., vitamin C, iron, and sodium), and food components (e.g., dietary fiber).

Because foods provide an array of nutrients and other components that have benefits for health, nutritional needs should be met primarily through foods. Thus, the *Dietary Guidelines* translates the Academies’ nutrient requirements into food and beverage recommendations. The *Dietary Guidelines* recognizes, though, that in some cases, fortified foods and dietary supplements are useful when it is not possible otherwise to meet needs for one or more nutrients (e.g., during specific life stages such as pregnancy).

Health Promotion, Not Disease Treatment

At its core, the *Dietary Guidelines* has a public health mission—that is, health promotion and disease prevention. Medical and nutrition professionals may use or adapt the *Dietary Guidelines* to encourage their patients or clients to follow a healthy dietary pattern. The body of current scientific evidence on diet and health reviewed to inform the *Dietary Guidelines* included study participants who represent the U.S.

population, including healthy individuals and people at risk of diet-related chronic conditions and diseases, such as cardiovascular disease, type 2 diabetes, or obesity, and some people who are living with a diet-related chronic illness.

Because of this public health orientation, the *Dietary Guidelines* is not intended to be a clinical guideline for treating chronic diseases. However, the *Dietary Guidelines* often has served as a reference for Federal, medical, voluntary, and patient care organizations as they develop clinical nutrition guidance tailored for people living with a specific medical condition. Chronic diseases result from a complex mix of genetic, biological, behavioral, socioeconomic, and environmental factors, and people with these conditions have unique health care requirements that require careful oversight by a health professional. Health professionals can adapt the *Dietary Guidelines* to meet the specific needs of their patients with chronic diseases, as part of a multi-faceted treatment plan.

Developing the Dietary Guidelines for Americans

The process to develop the *Dietary Guidelines* has evolved over time, in step with developments in nutrition science, public health, and best practices in scientific review and guidance development. USDA and HHS work together to determine the approach for each edition.

As stipulated by law, USDA and HHS must update the *Dietary Guidelines* at least every 5 years. The Guidelines must be grounded in the body of scientific and medical knowledge available at that time, not in individual studies or individual expert opinion. In establishing the process for the 2020-2025 *Dietary Guidelines*, USDA and HHS considered and integrated recommendations from a comprehensive 2017 National Academies’ study, *Review of the Process to Update the Dietary Guidelines*. Greater transparency figured prominently in the Academies’ recommendations. As a result, in developing the 2020-2025 process, USDA and HHS made significant changes to increase transparency and public participation while maintaining the core element of scientific integrity.

One of these changes was the addition of a new stage at the beginning of the process. Thus, the 2020-2025 process consisted of four stages: (1) identify the topics



and supporting scientific questions to be examined; (2) appoint a Dietary Guidelines Advisory Committee to review current scientific evidence; (3) develop the new edition of the *Dietary Guidelines*; and (4) implement the *Dietary Guidelines* through Federal programs. The following information provides an overview of the 4-stage process. More details are available at DietaryGuidelines.gov.

Stage 1: Identify Topics and Supporting Scientific Questions

The Departments added a new step of identifying topics and scientific questions to begin the process of developing the next *Dietary Guidelines*. This was done to promote a deliberate and transparent process, better define the expertise needed on the Committee, and ensure the scientific review conducted by the Committee would address Federal nutrition policy and program needs and help manage resources.

In consultation with agencies across the Federal Government, USDA and HHS identified potential topics and supporting scientific questions that were of greatest importance and relevance to Federal nutrition programs, policies, and consumer education priorities. Compared to all previous *Dietary Guidelines* processes, the topic areas for 2020-2025 expanded due to the added focus on infants and toddlers from birth through age 23 months, as well as women who are pregnant. The Agricultural Act of 2014 mandated that, beginning with the 2020-2025 edition, the *Dietary Guidelines* should expand to include dietary guidance for these populations. Thus, the topics and questions—and areas of expertise needed on the Committee—reflected this change.

The Departments posted the topics and questions publicly on DietaryGuidelines.gov, allowing the public

and Federal agencies 30 days to view and provide comments. Following review of the comments, USDA and HHS posted the final topics and questions, along with the public call for nominations to the 2020 Committee. Having topics and questions identified upfront helped inform the public's nominations by defining which areas of nutrition expertise were needed on the Committee.

Stage 2: Appoint a Dietary Guidelines Advisory Committee To Review Current Scientific Evidence

In the second stage, the Secretaries of USDA and HHS appointed the Committee with the single, time-limited task of reviewing the *2015-2020 Dietary Guidelines*, examining the evidence on the selected nutrition and public health topics and scientific questions, and providing independent, science-based advice and recommendations to USDA and HHS. The 20 nationally recognized scientific experts appointed to the Committee represented a mix of practitioners, epidemiologists, scientists, clinical trialists, and others from every region of the United States.

The use of a Federal advisory committee is a commonly used best practice to ensure the Federal Government seeks sound, external scientific advice to inform decisions. The Committee's work concluded with its scientific report submitted to the Secretaries of USDA and HHS in June 2020.¹ This report was not a draft of the *Dietary Guidelines*; it was a scientific document that detailed the Committee's evidence review and provided advice to USDA and HHS.

The Committee was divided into six subcommittees to conduct its work: Dietary Patterns, Pregnancy and Lactation, Birth to Age 24 Months, Beverages and Added Sugars, Dietary Fats and Seafood, and Frequency

¹ Dietary Guidelines Advisory Committee. 2020. *Scientific Report of the 2020 Dietary Guidelines Advisory Committee: Advisory Report to the Secretary of Agriculture and the Secretary of Health and Human Services*. U.S. Department of Agriculture, Agricultural Research Service, Washington, DC.

of Eating. The Committee also formed one cross-cutting working group—Data Analysis and Food Pattern Modeling—to support work across the subcommittees.

The Committee’s work had three defining characteristics: the use of three approaches to examine the evidence, the creation of transparent protocols before the evidence review began, and the development of scientific review conclusion statements for the scientific reviews conducted.

THREE APPROACHES TO EXAMINE THE EVIDENCE

The 2020 Committee used three state-of-the-art approaches to conduct its robust and rigorous reviews:



Data analysis: Using Federal, nationally representative data, this approach provided insights into current eating habits of the U.S. population and current diet-related chronic disease rates in the United States. These data helped make the *Dietary Guidelines* practical, relevant, and achievable.

The Committee used data analysis to address scientific questions that looked at current dietary patterns and beverage consumption, current intakes of food groups and nutrients, dietary components of public health concern, prevalence of nutrition-related chronic health conditions, and relationships between eating habits and achieving nutrient and food group recommendations.



Nutrition Evidence Systematic Review (NESR):

Systematic reviews are research projects that follow meticulously defined protocols (i.e., plans) to answer clearly formulated scientific questions by searching for, evaluating, and synthesizing all relevant, peer-reviewed studies. Systematic reviews are considered a gold standard method to inform development of evidence-based guidelines by ensuring consideration of the strongest, most appropriate body of evidence available on a topic. USDA’s Nutrition Evidence Systematic Review is a team of scientists who specializes in conducting systematic reviews focused on nutrition and disease prevention and evaluating scientific evidence on nutrition topics relevant to Federal policy and programs. NESR used its rigorous, protocol-driven methodology to support the Committee in conducting its systematic reviews. New to the 2020 process, USDA and HHS added a step for peer review of the systematic reviews by Federal scientists.



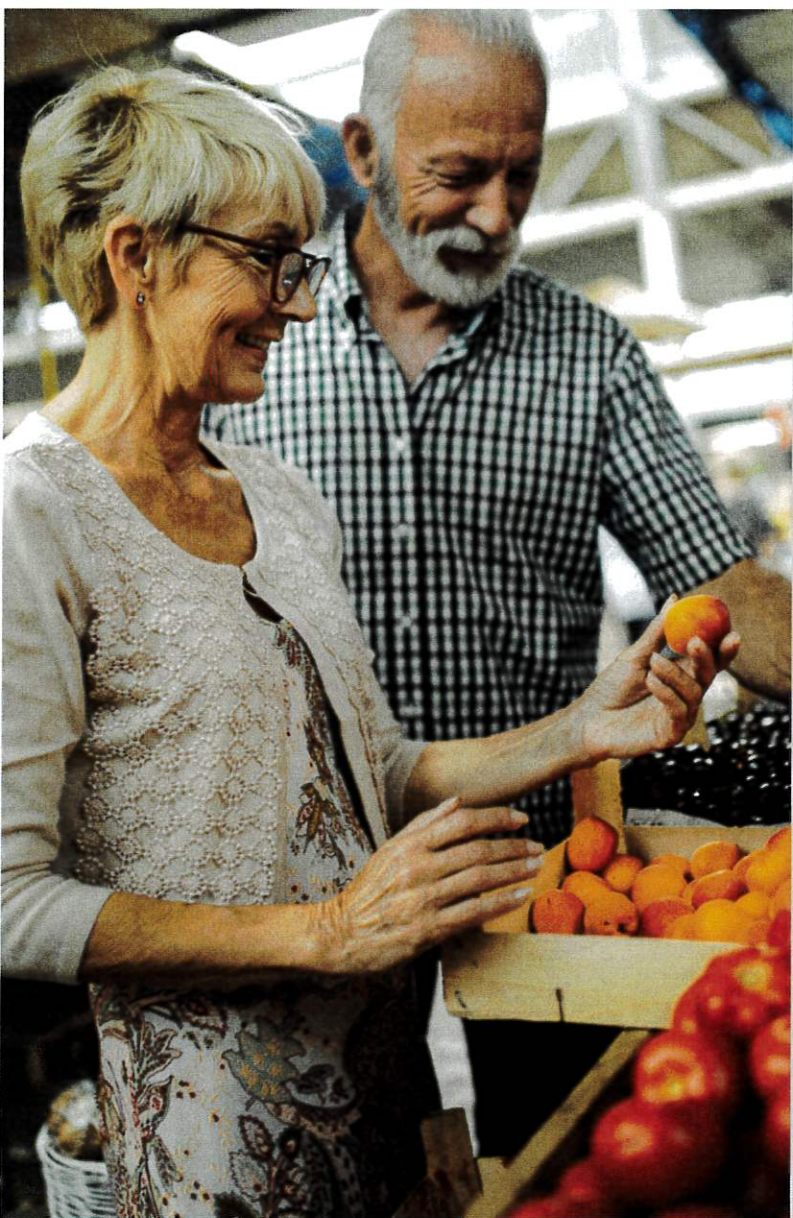
Food pattern modeling: This type of analysis illustrates how changes to the amounts or types of foods and beverages in a dietary pattern might affect meeting nutrient needs across the U.S. population.

The Committee used this method to assess potential changes to the USDA Dietary Patterns, which help meet the DRIs set by the National Academies, while taking into consideration current consumption in the United States and the conclusions from its systematic reviews. As with all food pattern modeling for the *Dietary Guidelines*, the results of the Committee’s food pattern modeling tests were interpreted in light of two key assumptions. First, the modeling tests were based on nutrient profiles of nutrient-dense foods in the U.S. food supply and U.S. population-based dietary data. Population-based patterns articulate the evidence on the relationships between diet and health in ways that might be adopted by the U.S. public as a whole. Second, modeling tests assumed population-wide compliance with all food intake recommendations. As with other types of modeling, the food pattern modeling is hypothetical and does not predict the behaviors of individuals.

Each of these approaches had its own rigorous, protocol-driven methodology, and each had a unique, complementary role in examining the science. Additional detailed information is available at [DietaryGuidelines.gov](https://www.dietaryguidelines.gov) and [NESR.usda.gov](https://www.nesr.usda.gov).

TRANSPARENT PROTOCOLS FIRST, THEN REVIEW

To answer each scientific question, the Committee first created a protocol that described how the Committee would apply one of the three approaches to examine the evidence related to that specific question. The Committee created each protocol before examining any evidence, and, for the first time, the protocols were posted online for the public as they were being developed. This enabled the public to understand how a specific scientific question would be answered and to have the opportunity to submit public comments before the Committee completed the protocols and conducted its reviews of the scientific evidence. Detailed information on the Committee's review is documented in its scientific report, which is available on [DietaryGuidelines.gov](https://www.dietaryguidelines.gov).



Health Status of Participants in Studies Included in Nutrition Evidence Systematic Reviews

To ensure that the *Dietary Guidelines* promotes the health of and reduce risk of disease among all Americans, the evidence base that informs the *Dietary Guidelines* must comprise studies conducted with people who are representative of the general public and must examine diet through a health promotion and disease prevention lens.

As outlined in the Committee's systematic review protocols, the Committee's reviews included studies with participants who were healthy and/or who were at risk of a chronic disease, including participants with obesity, as well as studies that enrolled *some* participants with a disease. Because the *Dietary Guidelines* is not intended to be a clinical guideline for treating chronic diseases, the Committee excluded studies that enrolled *only* patients with a disease with the intention to treat those individuals.

In general, the majority of the reviews conducted to inform the *Dietary Guidelines* included trials that exclusively enrolled participants with overweight or obesity, or who were at high risk of cardiovascular disease or type 2 diabetes, and observational studies that enrolled participants from a wide range of health and weight status, including those with healthy weight, overweight, or obesity. The reviews included few studies that enrolled only healthy participants.

Thus, the *Dietary Guidelines* are applicable to the overall U.S. population, including healthy individuals and people at risk of diet-related chronic conditions and diseases, such as cardiovascular disease, type 2 diabetes, and obesity. In addition, people living with a diet-related chronic illness can benefit from a healthy dietary pattern. The *Dietary Guidelines* can serve as a reference for Federal, medical, voluntary, and patient care organizations as they develop nutrition guidance tailored for people living with a specific medical condition. Health professionals can adapt the *Dietary Guidelines* to meet the specific needs of their patients with chronic diseases, as part of a multifaceted treatment plan.

CONCLUSION STATEMENTS FOR THE SCIENTIFIC REVIEWS CONDUCTED

For all topics and questions, regardless of the approach used to identify and evaluate the scientific evidence, the Committee developed conclusion statements. Each conclusion statement provided a succinct answer to the specific question posed. The Committee took the strengths and limitations of the evidence base into consideration when formulating conclusion statements.

For questions answered using NESR systematic reviews, the conclusion statements included a grade to indicate the strength of the evidence supporting the conclusion statement. The grades were Strong, Moderate, Limited, or Grade Not Assignable.

Grading the strength of the evidence applied only to questions answered using NESR systematic reviews; it did not apply to questions answered using data analysis or food pattern modeling. Therefore, data analysis and food pattern modeling conclusion statements were not graded.

As it completed its work, the Committee looked across all of the conclusion statements to develop overarching advice for USDA and HHS to consider as the Departments developed the next edition of the *Dietary Guidelines*.

Using these three approaches, the Committee worked collaboratively for 16 months and deliberated on the scientific reviews in six meetings, all of which were open to the public. Two of the six meetings included an opportunity for the public to provide oral comments to the Committee. An ongoing period for written public comments to the Committee spanned 15 months of its work. And, for the first time, a final public meeting was included for the Committee to discuss its draft scientific report 1 month before the final report was posted for public comment.

In addition to documenting its rigorous review of the evidence to answer the scientific questions from USDA and HHS and providing advice for the Departments' development of the next *Dietary Guidelines* edition, the Committee provided recommendations for future research. These research recommendations reflected an acknowledgment that science in nutrition, diet, and health associations continues to evolve, and that new findings build on and enhance existing evidence.

Upon submitting its final scientific report to the USDA and HHS Secretaries, the Committee disbanded. The Departments then posted the scientific report and asked the public for comments. The Departments received written comments on the report over a 30-day period and also held an online meeting to hear oral comments.

Stage 3: Develop the *Dietary Guidelines*

Each edition of the *Dietary Guidelines* builds on the preceding edition, with the scientific justification for revisions informed by the Committee's scientific report and consideration of public and Federal agency comments. As with previous editions, development of the 2020-2025 *Dietary Guidelines* involved a step-by-step process of writing, review, and revision conducted by a writing team of Federal staff from USDA and HHS.



The writing team included Federal nutrition scientists with expertise in the *Dietary Guidelines* and related research and programs as well as specialists with expertise in communicating nutrition information.

Key tenets of writing the *Dietary Guidelines* are that it must:

- Represent the totality of the evidence examined
- Address the needs of Federal programs
- Reduce unintended consequences
- Follow best practices for developing guidelines
- Use plain language

The draft *Dietary Guidelines* went through internal and external review. Ultimately, the document was reviewed by all Agencies with nutrition policies and programs across USDA and HHS, such as USDA's Food and Nutrition Service and its Food Safety and Inspection Service, and HHS' National Institutes of Health, Food and Drug Administration, and Centers for Disease Control and Prevention. The draft *Dietary Guidelines* also went through an external expert peer review to ensure that it accurately reflected the body of evidence documented in the Committee's scientific report.

This process culminated with approval by the Secretaries of USDA and HHS. After approval by the Secretaries, the Departments released the *Dietary Guidelines* to Federal agencies and the public for implementation across programs and through educational activities.

Stage 4: Implement the *Dietary Guidelines*

The U.S. Government uses the *Dietary Guidelines* as the basis of its food assistance and meal programs, nutrition education efforts, and decisions about national health objectives. For example, the National School Lunch Program and the Older Americans Act Nutrition Program incorporate the *Dietary Guidelines* in menu planning; the Special Supplemental Nutrition Program for Women, Infants, and Children applies the *Dietary Guidelines* in its program and educational materials; and the Healthy People objectives for the Nation include objectives based on the *Dietary Guidelines*.

The *Dietary Guidelines* also provides a critical structure for State and local public health promotion and disease prevention initiatives. In addition, it provides foundational, evidence-based nutrition guidance for use by individuals and those who serve them in public and private settings, including health professionals, public health and social service agencies, health care and educational institutions, researchers, agricultural producers, food and beverage manufacturers, and more.



Using MyPlate as a Guide To Support Healthy Dietary Patterns

The *Dietary Guidelines for Americans* is developed and written for a professional audience. Therefore, its translation into actionable consumer messages and resources is crucial to help individuals, families, and communities achieve healthy dietary patterns.

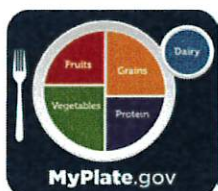
MyPlate is one example of consumer translation. Created to be used in various settings and adaptable to meeting personal preferences, cultural foodways, traditions, and budget needs, MyPlate is used by professionals across sectors to help people become more aware of and informed about making healthy food and beverage choices over time. More information is available at [MyPlate.gov](https://www.MyPlate.gov).

Following a healthy dietary pattern from birth through older adulthood can have a profound impact on a person's lifelong health. The *Dietary Guidelines* provides the framework for following such a pattern. However, broad and multisector collaboration is needed to help people achieve that goal. Action on many fronts is needed to ensure that healthy dietary choices at home, school, work, and play are the affordable, accessible norm. Everyone has a role to play in helping all Americans shift to a healthy dietary pattern and achieve better health.

Try the MyPlate Plan

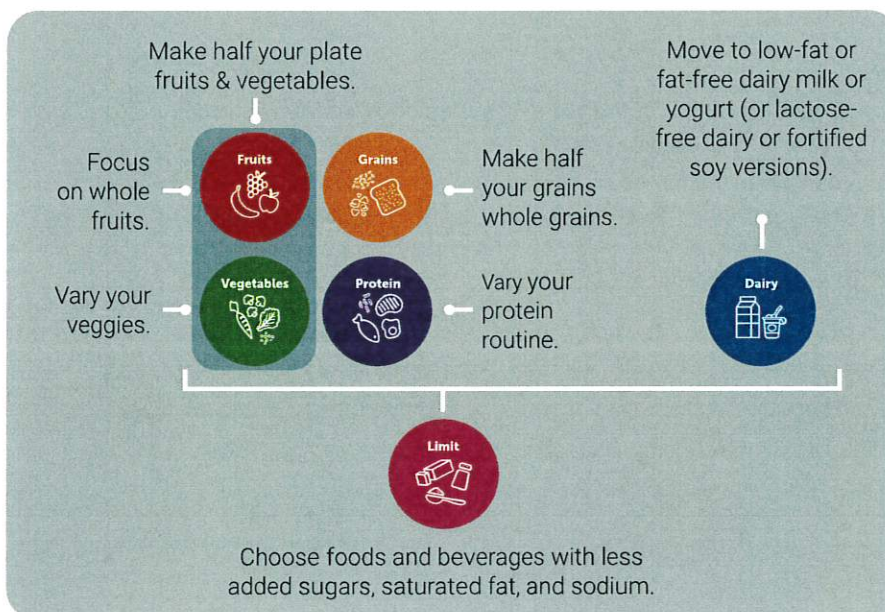
A healthy eating routine is important at every stage of life and can have positive effects that add up over time. It's important to eat a variety of fruits, vegetables, grains, dairy or fortified soy alternatives, and protein foods. When deciding what to eat or drink, choose options that are full of nutrients. Make every bite count.

Think about how the following recommendations can come together over the course of your day or week to help you create a healthy eating routine:



To learn what the right amounts are for you, try the personalized [MyPlate Plan](https://www.MyPlate.gov/myplate-plan).²

Based on decades of solid science, MyPlate advice can help you day to day and over time.



The benefits of healthy eating add up over time, bite by bite. Small changes matter. **Start Simple with MyPlate.**



Dietary
Guidelines
for Americans

Start simple
with MyPlate

² Available at: [MyPlate.gov/myplate-plan](https://www.MyPlate.gov/myplate-plan)

A Roadmap to the *Dietary Guidelines for Americans, 2020-2025*

Reflecting the accumulating body of evidence about the relationships between diet and health outcomes, the *2020-2025 Dietary Guidelines* presents its recommendations with a primary emphasis on encouraging the consumption of a healthy overall dietary pattern at every stage of life, from birth through older adulthood. This edition of the *Dietary Guidelines* consists of an Executive Summary, this Introduction, six chapters, and three appendixes.

📍 **Chapter 1: Nutrition and Health Across the Lifespan: The Guidelines and Key Recommendations** discusses the health benefits of lifelong healthy dietary choices and explains the four Guidelines and supporting Key Recommendations. This chapter is the basis for all the succeeding chapters. Chapters 2 through 6 should be read in tandem with Chapter 1.

📍 **Chapter 2: Infants and Toddlers** is the first of five chapters that focus on healthy dietary patterns for a specific life stage. This edition of the *Dietary Guidelines* is the first since the 1985 edition to provide guidance for infants and toddlers (birth through age 23 months). The chapter provides specific key recommendations for this age group, along with guidance on how to put these recommendations into action. The chapter closes with a Healthy Dietary Pattern during the second year of life and a look toward the next life stage—Children and Adolescents.

📍 **Chapter 3: Children and Adolescents** first sets the stage by describing nutrition issues specific to children and adolescents ages 2 through 18. It then presents the recommended Healthy Dietary Patterns for this age group, explains how current intakes compare to recommendations, and discusses special dietary guidance considerations for this life stage. The chapter concludes with a discussion of ways to support healthy dietary patterns among children and adolescents and a look toward the next life stage—Adults.

📍 **Chapter 4: Adults** opens with a discussion of selected nutrition issues that characterize the adult life stage (ages 19 through 59). It then presents the recommended Healthy Dietary

Patterns for this age group, explains how current intakes compare to recommendations, and discusses special dietary guidance considerations for adults. The chapter concludes with suggestions for how to support healthy dietary patterns among adults and a look toward two important adult life stages—Women Who Are Pregnant or Lactating and Older Adults.

📍 **Chapter 5: Women Who Are Pregnant or Lactating** opens with a discussion of selected nutrition issues important to this stage of adult life. It then presents the recommended Healthy Dietary Patterns for this life stage, explains how current intakes compare to recommendations, and discusses special dietary guidance considerations for women who are pregnant or lactating. The chapter concludes with suggestions for how to support healthy dietary patterns among this population group.

📍 **Chapter 6: Older Adults** opens with a discussion of selected nutrition issues that are important for older adults, ages 60 and older. It then presents the recommended Healthy Dietary Patterns for this life stage, explains how current intakes compare to recommendations, and discusses special dietary guidance considerations for this age group. The chapter concludes with suggestions for how to support healthy dietary patterns among older adults.

📍 **Appendixes** include a table summarizing nutritional goals for age-sex groups, estimated calorie needs for all ages and at three physical activity levels, and the USDA Dietary Patterns.







CHAPTER

1

Nutrition and Health Across the Lifespan:

The Guidelines and Key Recommendations

The Guidelines

Make every bite count
with the *Dietary Guidelines for Americans*. Here's how:

Follow a healthy dietary
pattern at every life stage.



1



Customize and
enjoy nutrient-
dense food
and beverage
choices to
reflect personal
preferences,
cultural
traditions, and
budgetary
considerations.



2



3



Focus on meeting food group needs with
nutrient-dense foods and beverages,
and stay within calorie limits.



4

Limit foods
and beverages
higher in
added sugars,
saturated fat,
and sodium,
and limit
alcoholic
beverages.



Key Recommendations



Follow a healthy dietary pattern at every life stage.

At every life stage—infancy, toddlerhood, childhood, adolescence, adulthood, pregnancy, lactation, and older adulthood—it is never too early or too late to eat healthfully.

- **For about the first 6 months of life**, exclusively feed infants human milk. Continue to feed infants human milk through at least the first year of life, and longer if desired. Feed infants iron-fortified infant formula during the first year of life when human milk is unavailable. Provide infants with supplemental vitamin D beginning soon after birth.
- **At about 6 months**, introduce infants to nutrient-dense complementary foods. Introduce infants to potentially allergenic foods along with other complementary foods. Encourage infants and toddlers to consume a variety of foods from all food groups. Include foods rich in iron and zinc, particularly for infants fed human milk.
- **From 12 months through older adulthood**, follow a healthy dietary pattern across the lifespan to meet nutrient needs, help achieve a healthy body weight, and reduce the risk of chronic disease.



Customize and enjoy nutrient-dense food and beverage choices to reflect personal preferences, cultural traditions, and budgetary considerations.

A healthy dietary pattern can benefit all individuals regardless of age, race, or ethnicity, or current health status. The *Dietary Guidelines* provides a framework intended to be customized to individual needs and preferences, as well as the foodways of the diverse cultures in the United States.



Focus on meeting food group needs with nutrient-dense foods and beverages, and stay within calorie limits.

An underlying premise of the *Dietary Guidelines* is that nutritional needs should be met primarily from foods and beverages—specifically, nutrient-dense foods and beverages. Nutrient-dense foods provide vitamins, minerals, and other health-promoting components and have no or little added sugars, saturated fat, and sodium. A healthy dietary pattern consists of nutrient-dense

forms of foods and beverages across all food groups, in recommended amounts, and within calorie limits.

The core elements that make up a healthy dietary pattern include:

- Vegetables of all types—dark green; red and orange; beans, peas, and lentils; starchy; and other vegetables
- Fruits, especially whole fruit
- Grains, at least half of which are whole grain
- Dairy, including fat-free or low-fat milk, yogurt, and cheese, and/or lactose-free versions and fortified soy beverages and yogurt as alternatives
- Protein foods, including lean meats, poultry, and eggs; seafood; beans, peas, and lentils; and nuts, seeds, and soy products
- Oils, including vegetable oils and oils in food, such as seafood and nuts



Limit foods and beverages higher in added sugars, saturated fat, and sodium, and limit alcoholic beverages.

At every life stage, meeting food group recommendations—even with nutrient-dense choices—requires most of a person's daily calorie needs and sodium limits. A healthy dietary pattern doesn't have much room for extra added sugars, saturated fat, or sodium—or for alcoholic beverages. A small amount of added sugars, saturated fat, or sodium can be added to nutrient-dense foods and beverages to help meet food group recommendations, but foods and beverages high in these components should be limited. **Limits are:**

- **Added sugars**—Less than 10 percent of calories per day starting at age 2. Avoid foods and beverages with added sugars for those younger than age 2.
- **Saturated fat**—Less than 10 percent of calories per day starting at age 2.
- **Sodium**—Less than 2,300 milligrams per day—and even less for children younger than age 14.
- **Alcoholic beverages**—Adults of legal drinking age can choose not to drink or to drink in moderation by limiting intake to 2 drinks or less in a day for men and 1 drink or less in a day for women, when alcohol is consumed. Drinking less is better for health than drinking more. There are some adults who should not drink alcohol, such as women who are pregnant.



Guideline 1

Follow a Healthy Dietary Pattern at Every Life Stage

A fundamental premise of the *Dietary Guidelines* is that almost everyone, no matter an individual's age, race, or ethnicity, or health status, can benefit from shifting food and beverage choices to better support healthy dietary patterns.

Healthy eating starts at birth with the exclusive consumption of human milk, if possible, for about the first 6 months. If human milk is unavailable, infants should be fed an iron-fortified commercial infant formula (i.e., labeled “with iron”) regulated by the U.S. Food and Drug Administration (FDA), which are based on standards that ensure nutrient content and safety. Healthy eating continues with the introduction of complementary foods and beverages at about 6 months of age. By 12 months, infants should maintain their healthy eating as they transition to developmentally appropriate foods and beverages. Healthy eating continues in each life stage thereafter. Even though nutrient needs vary across life stages, the foods and beverages that individuals should eat over the lifespan are remarkably consistent.

This chapter provides foundational guidance about maintaining a healthy dietary pattern across each life stage—infancy, toddlerhood, childhood, adolescence, adulthood, pregnancy, lactation, and older adulthood. Because the nutritional needs and transition of infants and toddlers are unique, **Chapter 2** provides a focused discussion on this age group. **Chapters 3, 4, 5, and 6** then provide tailored nutrition information specific to children and adolescents, adults, women who are pregnant or lactating, and older adults, respectively.

What Is a Dietary Pattern?

Over the course of any given day, week, or year, individuals consume foods and beverages¹ in combination—a dietary pattern. A dietary pattern represents the totality of what individuals habitually eat and drink, and the parts of the pattern act synergistically to affect health. As a result, the dietary pattern may better predict overall health status and disease risk than individual foods or nutrients.

A healthy dietary pattern consists of nutrient-dense

forms of foods and beverages across all food groups, in recommended amounts, and within calorie limits. Achieving a healthy dietary pattern at each life stage not only supports health at that point in time, but also supports health in the next life stage and possibly for future generations. If healthy dietary patterns can be established early in life and sustained thereafter, the impact on health could be significant. Establishing and maintaining a healthy dietary pattern can help minimize diet-related chronic disease risk. Conversely, consuming foods and beverages that are not nutrient-dense may lead to disease expression in later years. High intakes of such foods (i.e., an unhealthy dietary pattern) throughout the lifespan can increase the risk of developing chronic diseases.

The good news is that at any stage of life, individuals can make efforts to adopt a healthy dietary pattern and improve their health. The Healthy U.S.-Style Dietary Pattern, USDA's primary Dietary Pattern, provides a framework for healthy eating that all Americans can follow. It is based on the types and proportions of foods Americans of all ages, genders, races, and ethnicities typically consume, but in nutrient-dense forms and appropriate amounts.

The Healthy U.S.-Style Dietary Pattern is carried forward from the *2015-2020 Dietary Guidelines for Americans*. The 2,000-calorie level of the pattern is shown in **Table 1-1**. The Healthy Mediterranean-Style Dietary Pattern and the Healthy Vegetarian Dietary Pattern—also carried forward from the *2015-2020 Dietary Guidelines for Americans*—are variations of the Healthy U.S.-Style Dietary Pattern that have the same core elements. The USDA Dietary Patterns are described in **Appendix 3. USDA Dietary Patterns** and are meant to be tailored to meet cultural and personal preferences and used as guides to plan and serve meals for individuals, households, and in a variety of institutions and other settings. The Dietary Approaches to Stop Hypertension (DASH) dietary pattern is an example of a healthy dietary pattern and has many of the same characteristics as the Healthy U.S.-Style Dietary Pattern. Additional details on DASH are available at [nhlbi.nih.gov/health-topics/dash-eating-plan](https://www.nhlbi.nih.gov/health-topics/dash-eating-plan).

¹ If not specified explicitly, references to “foods” refer to “foods and beverages.”



Table 1-1

Healthy U.S.-Style Dietary Pattern at the 2,000-Calorie Level, With Daily or Weekly Amounts From Food Groups, Subgroups, and Components

FOOD GROUP OR SUBGROUP ^a	Daily Amount ^b of Food From Each Group (Vegetable and protein foods subgroup amounts are per week.)
Vegetables (cup eq/day)	2 ½
	Vegetable Subgroups in Weekly Amounts
Dark-Green Vegetables (cup eq/wk)	1 ½
Red and Orange Vegetables (cup eq/wk)	5 ½
Beans, Peas, Lentils (cup eq/wk)	1 ½
Starchy Vegetables (cup eq/wk)	5
Other Vegetables (cup eq/wk)	4
Fruits (cup eq/day)	2
Grains (ounce eq/day)	6
Whole Grains (ounce eq/day)	≥ 3
Refined Grains (ounce eq/day)	< 3
Dairy (cup eq/day)	3
Protein Foods (ounce eq/day)	5 ½
	Protein Foods Subgroups in Weekly Amounts
Meats, Poultry, Eggs (ounce eq/wk)	26
Seafood (ounce eq/wk)	8
Nuts, Seeds, Soy Products (ounce eq/wk)	5
Oils (grams/day)	27
Limit on Calories for Other Uses (kcal/day)^c	240
Limit on Calories for Other Uses (%/day)	12%

^a Definitions for each food group and subgroup are provided throughout the chapter and are compiled in [Appendix 3](#).

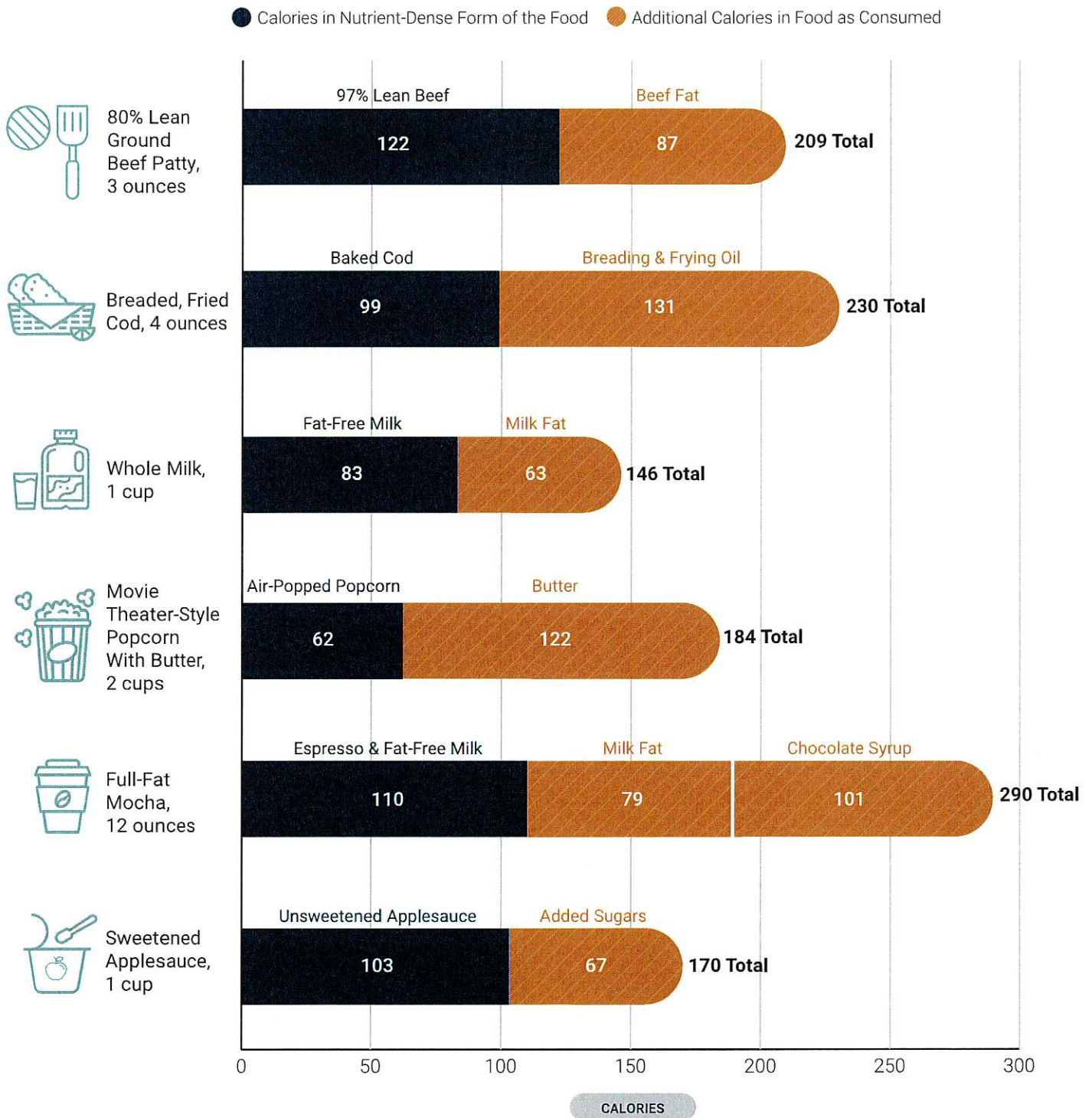
^b Food group amounts shown in cup or ounce equivalents (eq). Oils are shown in grams. Quantity equivalents for each food group are defined in [Appendix 3](#). Amounts will vary for those who need <2,000 or >2,000 calories per day.

^c Foods are assumed to be in nutrient-dense forms, lean or low-fat and prepared with minimal added sugars, refined starches, saturated fat, or sodium. If all food choices to meet food group recommendations are in nutrient-dense forms, a small number of calories remain within the overall limit of the pattern (i.e., limit on calories for other uses). The amount of calories depends on the total calorie level of the pattern and the amounts of food from each food group required to meet nutritional goals. Calories up to the specified limit can be used for added sugars, saturated fat, and/or alcohol, or to eat more than the recommended amount of food in a food group.

NOTE: The total dietary pattern should not exceed *Dietary Guidelines* limits for added sugars, saturated fat, and alcohol; be within the Acceptable Macronutrient Distribution Ranges for protein, carbohydrate, and total fats; and stay within calorie limits. Values are rounded. See [Appendix 3](#) for all calorie levels of the pattern.

Figure 1-1

Examples of Calories in Food Choices That Are Not Nutrient Dense and Calories in Nutrient-Dense Forms of These Foods

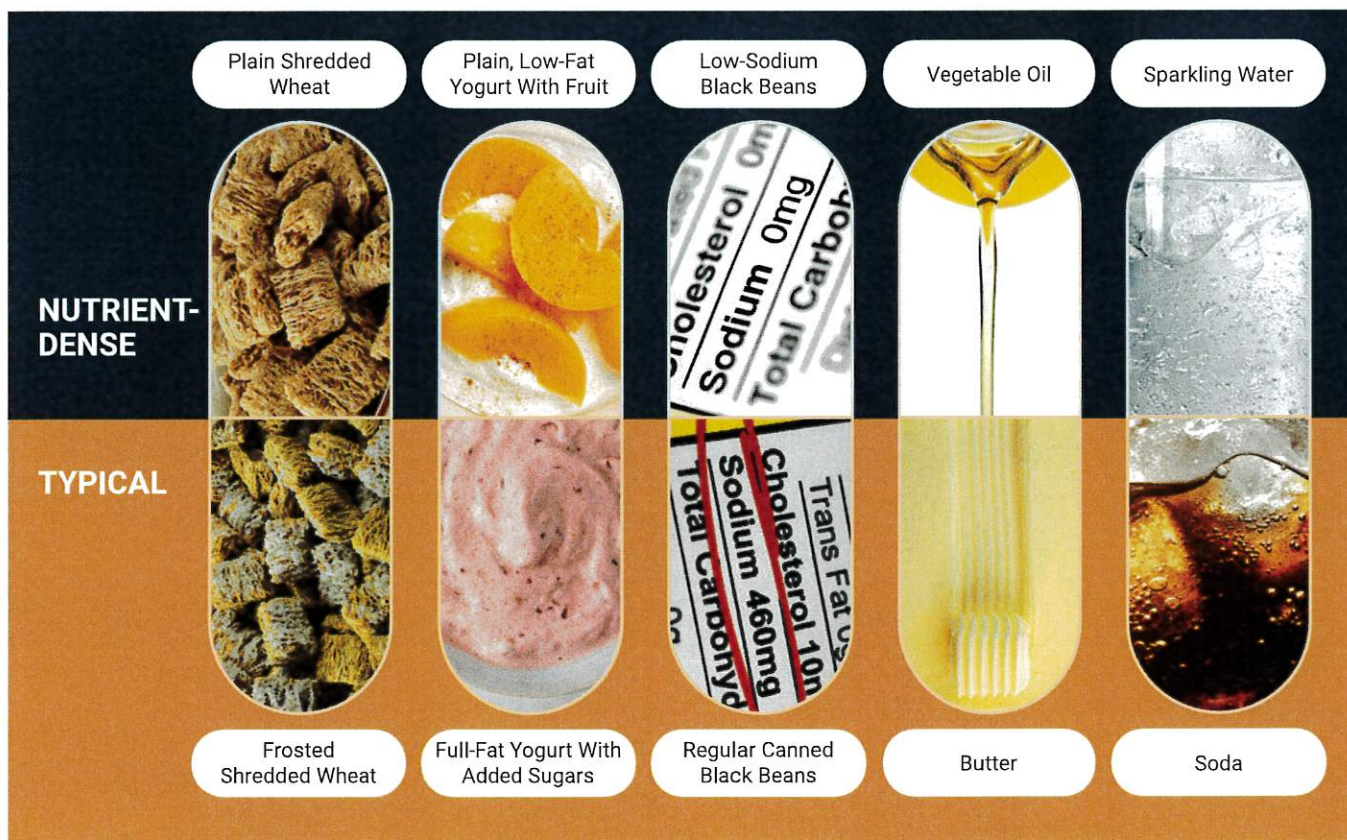


Data Source: U.S. Department of Agriculture, Agricultural Research Service. FoodData Central, 2019. fdc.nal.usda.gov.

Figure 1-2

Making Nutrient-Dense Choices: One Food or Beverage At a Time

Every food and beverage choice is an opportunity to move toward a healthy dietary pattern. Small changes in single choices add up and can make a big difference. These are a few examples of realistic, small changes to nutrient-dense choices that can help people adopt healthy dietary patterns.





The Health Benefits of a Healthy Dietary Pattern

Science is the foundation of the *Dietary Guidelines* recommendations on what Americans should eat and drink to promote health, reduce risk of chronic disease, and meet nutrient needs. The science shows that consuming a healthy dietary pattern, meeting food group and nutrient needs with nutrient-dense foods and beverages, and limiting intake of foods and beverages that are not nutrient-dense is related to many health benefits. Science also supports the idea that every life stage provides an opportunity to make food choices that promote health and well-being, achieve and maintain appropriate weight status, and reduce risk of diet-related chronic disease.

The science supporting the *Dietary Guidelines* is extensively documented in the *Scientific Report of the 2020 Dietary Guidelines Advisory Committee*, which describes the state of the science on key topics related to diet and health. Outcomes with Strong or Moderate evidence are provided in **Figure 1-3**. The report is available at [DietaryGuidelines.gov](https://www.dietaryguidelines.gov).

Evidence on the association between dietary patterns and reduced risk of diet-related chronic diseases has expanded in recent years and supports the use of dietary patterns as a foundation for the recommendations in the *Dietary Guidelines for Americans, 2020-2025*. Consistent evidence demonstrates that a healthy dietary pattern is associated with beneficial outcomes for all-cause mortality, cardiovascular disease, overweight and obesity, type 2 diabetes, bone health, and certain types of cancer (breast and colorectal).

Common characteristics of dietary patterns associated with positive health outcomes include relatively higher intake of vegetables, fruits, legumes, whole grains,

low- or non-fat dairy, lean meats and poultry, seafood, nuts, and unsaturated vegetable oils, and relatively lower consumption of red and processed meats, sugar-sweetened foods and beverages, and refined grains. The evidence examined showed broad representation across a number of populations and demographic groups. This suggests a consistent association no matter the region or cultural context in which a healthy dietary pattern is consumed. In addition, dietary patterns characterized by higher intake of red and processed meats, sugar-sweetened foods and beverages, and refined grains are, in and of themselves, associated with detrimental health outcomes. These findings are consistent with—and build on—the evidence base that informed the *2015-2020 Dietary Guidelines*.

A Healthy Dietary Pattern Supports Appropriate Calorie Levels

The total number of calories a person needs each day varies depending on a number of factors, namely the person's age, sex, height, weight, level of physical activity, and pregnancy or lactation status. Due to reductions in basal metabolic rate that occur with aging, calorie needs generally decrease for adults as they age. In addition, a need to lose, maintain, or gain weight affects how many calories should be consumed. Estimated amounts of calories needed based on age, sex, and level of physical activity are provided in **Appendix 2. Estimated Calorie Needs**, and estimated calorie needs relevant for different ages are provided in each life stage chapter. These estimates are based on the Estimated Energy Requirement (EER) equations established by the National Academies of Sciences, Engineering, and Medicine (National Academies) using reference heights (average) and reference weights (healthy) for each age-sex group. These amounts are estimates. **The best way to evaluate calorie intake, in comparison to calorie needs, is by measuring body weight status.**



Rather than focus on weight status at any one point in life, **the *Dietary Guidelines* supports healthy weight trajectories at each stage of life—appropriate weight gain during pregnancy and postpartum weight loss, healthy growth and development from infancy through adolescence, weight stability during mid-life, and healthy body composition late in life. Meeting the *Dietary Guidelines* recommendations within calorie needs can help prevent excess weight gain at every life stage and support overall good health.**

