



Excessive ultraprocessed foods (UPFs) and poor nutrition tied to poor health

New American Heart Association Science Advisory reviews current evidence about UPFs and their impact on adverse health outcomes and outlines opportunities for research, policy and regulatory reform to improve dietary intake and overall health

Science Advisory Highlights:

- Most UPFs are characterized by poor nutritional quality, contributing to excessive calories, and are typically high in saturated fats, added sugars and sodium (salt), the combination of which is often abbreviated as HFSS, which contribute to adverse cardiometabolic health outcomes, including heart attack, stroke, obesity, inflammation, Type 2 diabetes and vascular complications.
- Observational studies have found links between eating higher amounts of ultraprocessed foods (UPFs) and an increased risk of cardiovascular disease, chronic illness and mortality.
- Emerging evidence also suggests certain additives and industrial processing techniques may have negative health effects.
- However, not all UPFs are junk foods or have poor nutritional quality; some UPFs have better nutritional value and can be part of an overall healthy dietary pattern.
- Experts recommend multilevel strategies, including more research to uncover how UPFs specifically impact the body, refining dietary guidance to discourage excessive consumption of nutrient-poor UPFs, clarifying the impact of the limited number of UPFs with more favorable nutrition profiles, more research on the health impacts of food additives and evidence-based policies to evaluate and regulate food additives.

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DALLAS, Aug. 8, 2025 — Ultraprocessed foods or UPFs are a growing concern due to their widespread consumption and impact on potential health risks. Most UPFs, particularly those commonly seen in U.S. dietary patterns, are high in saturated fat, added sugars and sodium (salt), the combination of which is often abbreviated as HFSS, and contribute to excess calories. These include sugar-sweetened drinks, ultraprocessed meats, refined grains, candy and commercial baked goods, among others. A limited number of ultraprocessed foods, such as certain commercial whole grains, low-fat, low-sugar dairy, and some plant-based items, have positive nutritional value and, therefore, can be part of an overall healthy dietary pattern. This overlap is confusing for health care professionals and the public.

A new Science Advisory from the American Heart Association, “Ultraprocessed Foods and Their Association with Cardiometabolic Health: Evidence, Gaps and Opportunities,” summarizes current knowledge about UPFs and their impact on cardiometabolic health, and outlines opportunities for research, policy and regulatory reform to improve dietary intake and overall health. The manuscript published today in *Circulation*, the flagship journal of the American Heart Association.

“The relationship between UPFs and health is complex and multifaceted,” said Maya K. Vadiveloo, Ph.D., R.D., FAHA, volunteer chair of the writing group for this Science Advisory. “We know that eating foods with too much saturated fat, added sugars and salt is unhealthy. What we don’t know is if certain ingredients or processing techniques make a food unhealthy above and beyond their poor nutritional composition. And if certain additives and processing steps used to make healthier food like commercial whole grain breads have any health impact.”

The rapid rise in UPF consumption since the 1990s disrupted traditional dietary patterns, potentially contributing to adverse health effects. It is estimated that 70% of grocery store products in the U.S. contain at least one ultraprocessed ingredient. As detailed in a CDC report published yesterday, 55% of calories consumed by people ages 1 and older in the U.S. were UPFs. Among youth ages 1-18 years of age, total UPF calories jumped to nearly 62%, and among adults ages 19 and older total UPF calories was 53%. In addition, families with lower mean income had a higher percentage of UPFs consumed per day: 54.7% for the lowest income group vs. 50.4% for highest income group.¹

UPFs are relatively inexpensive, convenient for use and aggressively marketed, particularly toward youth and under-resourced communities, often displacing healthier alternatives. This shift resulted in lowering the overall nutritional quality of typical eating patterns in the U.S. and is misaligned with the American Heart Association’s dietary guidance.

This new Science Advisory reinforces current dietary guidelines from the American Heart Association to:

- Reduce the intake of most UPFs, especially those high in saturated fat, added sugars and sodium, and excessive calories; and
- Replace UPF consumption with healthier options like vegetables, fruits, whole grains, beans, nuts, seeds and lean proteins.

How are ultraprocessed foods classified?

¹ Ultra-processed Food Consumption in Youth and Adults: United States, August 2021-August 2023. National Center for Health Statistics. National Health and Nutrition Examination Survey. Data Brief No. 536. August 2025. U.S. Centers for Disease Control and Prevention. <https://www.cdc.gov/nchs/products/index.htm>.

UPFs are multi-ingredient foods containing additives (likely intended to enhance shelf life, appearance, flavor or texture) widely used in industrial food production and not commonly used in home cooking. Human diets are increasingly including more industrially processed foods, leading to various systems for classifying foods based on processing criteria. Multiple food classification systems exist currently; this Science Advisory focuses on the Nova framework for food classification. The Nova system, the most widely used, is based on the nature, extent and purpose of the food's industrial food processing. However, the Nova categorization does not consider the nutritional quality of foods. Certain types of industrial food processing are beneficial for preservation and safety, and/or lowering cost, such as techniques that extend shelf life, control microbial growth, mitigate chemical toxicants, preserve functional, nutritional and sensory (taste) qualities, and reduce food loss and waste.

Efforts to understand UPFs are hindered by differing definitions, limitations in dietary assessment tools and food composition databases, which often lack detailed information on additives and processing methods. Currently, U.S. manufacturers are not required to disclose processing techniques or cosmetic additive quantities, which contributes to the variability in risk estimates and confusion for consumers.

The writing group cautions that an overreliance on the degree of processing as a proxy for healthfulness of foods could sway the food industry to reduce or remove the markers of ultraprocessing from foods that are high in saturated fats, added sugars and sodium and promote them as “better-for-you alternatives.”

Health Impact of UPFs

A meta-analysis of prospective studies cited in the advisory found a dose-response relationship between UPF consumption and cardiovascular events, such as heart attack, transient ischemic attack and stroke, Type 2 diabetes, obesity and all-cause mortality. High versus low UPF intake was linked to a 25%-58% higher risk of cardiometabolic outcomes and a 21%-66% higher risk of mortality. More research is needed to understand the appropriate thresholds for daily consumption of UPFs—what a safe amount is and the incremental risks of eating more UPFs.

Research has also found that there may be underlying mechanisms that affect eating behaviors and obesity for some people, and that UPFs may promote obesity. UPFs frequently contain combinations of ingredients and additives that are uncommon in whole foods to enhance palatability and reduce cost, and these may influence reward-related brain activity. For example, ingredients like artificial flavors may mimic sweetness without sugar, and this disruption in flavor-nutrient relationships often leads to irregular eating habits, and results in weight gain.

Opportunities for research and policy

Balancing multiple priorities, including the practical need for a nutrient-dense, affordable food supply, current evidence supports the following key research and policy changes to improve public health and reduce risks related to UPFs:

1. Introduce approaches for individuals, food manufacturers and the retail industry that help shift eating patterns away from UPFs high in saturated fat, added sugars and sodium toward patterns high in vegetables, fruits, nuts, seeds, legumes, whole grains, nontropical liquid plant oils, fish and seafood, low-fat, low-sugar dairy, and, if personally desired, lean poultry and meats.
2. Enact multipronged policy and systems-change strategies (e.g., front-of-package labels) to help reduce intake of HFSS products.
3. Increase research funding to explore critical questions about UPFs: To what extent is it the ultraprocessing itself that makes a UPF unhealthy vs. the fact that ultraprocessed foods tend to have unhealthy ingredients? Most UPFs overlap with HFSS foods that are already targeted for cardiometabolic risk reduction, so understanding the root cause of UPFs' link to poor health is fundamental to effective reduction strategies.
4. Enhance ongoing efforts to improve food additive science, including streamlined and efficient evaluation and regulation of food additives.

"More research is needed to better understand the mechanisms of how UPFs impact health. In the meantime, the Association continues to urge people to cut back on the most harmful UPFs that are high in saturated fats, added sugars and sodium, and excessive calories and instead follow a diet rich in vegetables, fruits, nuts, seeds and whole grains, low-fat, low-sugar dairy, and lean proteins like fish, seafood or poultry—for better short- and long-term health," said Vadiveloo.

This Science Advisory was prepared by the volunteer writing group on behalf of the American Heart Association Council on Lifestyle and Cardiometabolic Health; the Council on Cardiovascular and Stroke Nursing; the Council on Clinical Cardiology; the Council on Genomic and Precision Medicine; and the Stroke Council. American Heart Association scientific statements and advisories promote greater awareness about cardiovascular diseases and stroke issues and help facilitate informed health care decisions. Scientific statements outline what is currently known about a topic and what areas need additional research. While scientific statements inform the development of guidelines, they do not make treatment recommendations. American Heart Association guidelines provide the Association's official clinical practice recommendations.

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Additional Resources:

- Available multimedia is on right column of release link
- After August XX, 2025, view the [manuscript online](#).
- American Heart Association Scientific Statement: [Popular Dietary Patterns: Alignment with American Heart Association 2021 Dietary Guidance](#) (April 2023)
- American Heart Association Scientific Statement: [2021 Dietary Guidance to Improve Cardiovascular Health](#) (Nov. 2021)
- American Heart Association Report: [2025 Heart Disease and Stroke Statistics: A Report of U.S. and Global Data](#) (Jan. 2025)
- American Heart Association health information: [Can processed foods be part of a healthy diet?](#)
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The American Heart Association is a relentless force for a world of longer, healthier lives. Dedicated to ensuring equitable health in all communities, the organization has been a leading source of health information for more than one hundred years. Supported by more than 35 million volunteers globally, we fund groundbreaking research, advocate for the public's health, and provide critical resources to save and improve lives affected by cardiovascular disease and stroke. By driving breakthroughs and implementing proven solutions in science, policy, and care, we work tirelessly to advance health and transform lives every day. Connect with us on [heart.org](#), [Facebook](#), [X](#) or by calling 1-800-AHA-USA1.

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