

# JOURNAL OF THE ACADEMY OF NUTRITION AND DIETETICS



## NEWS RELEASE FOR IMMEDIATE RELEASE

### Media contacts:

Eileen Leahy

Elsevier

+1 732 238 3628

[andjrnmedia@elsevier.com](mailto:andjrnmedia@elsevier.com)

Lydia Hall

Academy of Nutrition and Dietetics

+1 800 877 1600, ext. 4769

[media@eatright.org](mailto:media@eatright.org)



### ACCOMPANYING PODCAST

[www.jandonline.org/content/podcast](http://www.jandonline.org/content/podcast)

## **Buyer beware: 60% of foods purchased by Americans contain technical food additives -- a 10% increase since 2001**

*Manufacturers have increased the mean number of additives in purchased foods and beverages from 3.7 in 2001 to 4.5 in 2019, according to new research in the Journal of the Academy of Nutrition and Dietetics*

**Philadelphia, March 13, 2023** – A [new study](#) in the [Journal of the Academy of Nutrition and Dietetics](#), published by Elsevier, has determined that 60% of foods purchased by Americans contain technical food additives including coloring or flavoring agents, preservatives, and sweeteners. This represents a 10% increase since 2001. The findings also present compelling evidence that the prevalence of food additives is on the rise; manufacturers have increased the mean number of additives contained in purchased food and beverage products from 3.7 in 2001 to 4.5 in 2019.

While food additives can extend shelf life and improve palatability, their health consequences are not fully understood. Assessing food-additive exposure over time is a vital step in understanding its role in increased bodyweight, negative changes to the gut microbiome, and other adverse health outcomes associated with ultra-processed foods.

“Our research clearly shows that the proportion of ultra-processed foods with additives in Americans’ shopping carts increased significantly between 2001 and 2019. We observed this trend across all food and additive categories,” noted lead investigator Elizabeth K. Dunford, PhD, Food Policy Division, The George Institute for Global Health, University of New South Wales, Sydney, Australia, and Department of Nutrition, Gillings Global School of Public Health, The University of North Carolina at Chapel Hill, USA.

By 2019, more than half of the overall packaged food and beverage products bought by US households contained three or more additives. Furthermore, and perhaps most concerning, a 22% higher percentage of baby food purchases were ultra-processed and contained additives.

“These findings give us reason for concern, given the growing evidence linking high consumption of processed foods with adverse health outcomes,” noted Dr. Dunford, adding that the investigators observed one positive trend, a decrease in the use of added flavors in carbonated soft drinks.



Caption: The proportion of food products purchased by US households that contain additives increased from 49.6% in 2001 to 59.5% in 2019 (Credit: iStock.com/monticello).

US consumers purchase more than 400,000 different packaged food and beverage products each year at grocery stores, with new products constantly being added to shelves. Increased ultra-processed foods means that Americans are consuming more sugar, sodium, and saturated fats.

“With manufacturers producing foods and beverages with an increasingly higher number of additives, it is more important than ever to understand what is in the foods that Americans are buying and eating,” commented the study’s senior investigator, Barry Popkin, PhD, W.R. Kenan, Jr. Distinguished Professor, Department of Nutrition, Gillings Global School of Public Health, and the Carolina Population Center, The University of North Carolina at Chapel Hill, USA.

“US consumers are demanding a much higher level of transparency from brands and retailers than in previous years. We hope the findings from this study will be used to inform policymakers on where Americans – especially babies – are being exposed to additives, and how the packaged food supply is changing,” Dr. Popkin said.

This is the first study to examine what US consumers are purchasing – rather than relying on reported food and beverage intake – to evaluate exposure to food additives in ultra-processed foods, which is essential for assessing their role in the associated adverse health risks. The investigators used Nielsen Homescan Consumer Panel data from 2001 and 2019 to examine the proportion of products purchased by US households containing four common technical food additives (colors, flavors, preservatives, and nonnutritive sweeteners) and to ascertain whether purchases have changed over time through the products’ scanned Nutrition Facts Panels. Previous research had been hampered by the lack of publicly available ingredient databases identifying and quantifying top additives in US foods.

“The findings from this study could be used to inform policymakers on where American consumers are getting an increasing number of additives and how the packaged food supply is changing. The results can also set the foundation for future work in this area and provide direction for future researchers,” added Dr. Dunford. “At a minimum, I hope this work leads to further investigation into the types and amounts of ingredients being used in the manufacturing of baby food products.”

An accompanying editorial by Mona S. Calvo, PhD, and Jaime Uribarri, MD, of The Icahn School of Medicine at Mount Sinai, NY, New York, USA, cites the study’s contributions, “By providing data on exposure to food additives in ultra-processed foods found in grocery-purchased foods over time, Dr. Dunford’s team is leading the way with much-needed research. Their novel method enabled them to document food additive-exposure changes over time and by food and additive category,” said Dr. Calvo.

Dr. Unbarri added, “Most importantly, the authors’ unique approach enabled exposure estimates in the understudied, vulnerable populations of infants and children.”

---

### Notes for editors

The article is “Food Additives in Ultra-Processed Packaged Foods: An Examination of US Household Grocery Store Purchases,” by Elizabeth K. Dunford, PhD, Donna R. Miles, PhD, and Barry Popkin, PhD (<https://doi.org/10.1016/j.jand.2022.11.007>). The article appears online in the *Journal of the Academy of Nutrition and Dietetics*, published by [Elsevier](#).

The article is openly available for 30 days at [https://www.jandonline.org/article/S2212-2672\(22\)01193-5/fulltext](https://www.jandonline.org/article/S2212-2672(22)01193-5/fulltext).

Funding for this research comes primarily from Arnold Ventures with additional support from the Carolina Population Center National Institutes of Health grant no. P2C HD050924.

The accompanying editorial is “Food Additive Use in Ultraprocessed Foods: Can Processing Use of Industrial Additives Contribute to Adverse Health Outcomes in Children?” by Mona S. Calvo, PhD, and Jaime Uribarri, MD (<https://doi.org/10.1016/j.jand.2023.01.010>).

The editorial is openly available for 30 days at [https://www.jandonline.org/article/S2212-2672\(23\)00039-4/fulltext](https://www.jandonline.org/article/S2212-2672(23)00039-4/fulltext).

Full text of the article is also available to credentialed journalists upon request. Contact Eileen Leahy at +1 732 238 3628 or [andjrnmedia@elsevier.com](mailto:andjrnmedia@elsevier.com) to obtain copies. Journalists who wish to interview the study authors should contact Tina Wall, Media and Communications Manager, The George Institute, at +61 406 404 906 or [twall@georgeinstitute.org.au](mailto:twall@georgeinstitute.org.au). To reach the editorial’s authors for comment, contact Mona S. Calvo, PhD, at [Mscalvo55@comcast.net](mailto:Mscalvo55@comcast.net).

An accompanying podcast and information specifically for journalists are located at [www.jandonline.org/content/media](http://www.jandonline.org/content/media). Excerpts from the podcast may be reproduced by the media; contact Eileen Leahy to obtain permission.

### About the *Journal of the Academy of Nutrition and Dietetics*

The official journal of the [Academy of Nutrition and Dietetics](#), the *Journal of the Academy of Nutrition and Dietetics* is the premier source for the practice and science of food, nutrition, and dietetics. The monthly, peer-reviewed journal presents original articles prepared by scholars and practitioners and is the most widely read professional publication in the field. The *Journal* focuses on advancing professional knowledge across the range of research and practice issues such as: nutritional science, medical nutrition therapy, public health nutrition, food science and biotechnology, food service systems, leadership and management and dietetics education. [www.jandonline.org](http://www.jandonline.org)

### About the Academy of Nutrition and Dietetics

Representing more than 112,000 credentialed nutrition and dietetics practitioners, the Academy of Nutrition and Dietetics is the world's largest organization of food and nutrition professionals. The Academy is committed to improving health and advancing the profession of dietetics through research, education and advocacy. Visit the Academy at [www.eatright.org](http://www.eatright.org).

### **About Elsevier**

As a global leader in information and analytics, [Elsevier](#) helps researchers and healthcare professionals advance science and improve health outcomes for the benefit of society. We do this by facilitating insights and critical decision-making for customers across the global research and health ecosystems.

In everything we publish, we uphold the highest standards of quality and integrity. We bring that same rigor to our information analytics solutions for researchers, health professionals, institutions and funders.

Elsevier employs 8,700 people worldwide. We have supported the work of our research and health partners for more than 140 years. Growing from our roots in publishing, we offer knowledge and valuable analytics that help our users make breakthroughs and drive societal progress. Digital solutions such as [ScienceDirect](#), [Scopus](#), [SciVal](#), [ClinicalKey](#) and [Sherpath](#) support strategic [research management](#), [R&D performance](#), [clinical decision support](#), and [health education](#). Researchers and healthcare professionals rely on over 2,800 digitized journals, including [The Lancet](#) and [Cell](#); our 46,000+ eBook titles; and our iconic reference works, such as *Gray's Anatomy*. With the [Elsevier Foundation](#) and our external [Inclusion & Diversity Advisory Board](#), we work in partnership with diverse stakeholders to advance [inclusion and diversity](#) in science, research and healthcare in developing countries and around the world.

Elsevier is part of [RELX](#), a global provider of information-based analytics and decision tools for professional and business customers. [www.elsevier.com](http://www.elsevier.com)