

Ultraprocessing Not Inherently Harmful, Context Matters

Written by The Life Science Feed Editorial Team · Published 15 June 2026 · Edited by Mara Voss

The classification of foods as 'ultraprocessed' has gained considerable attention, with many dietary guidelines advocating for their reduction due to perceived inherent harms. However, emerging discussions challenge this blanket categorisation, suggesting that the nutritional profile and overall dietary context are more critical determinants of health outcomes than the degree of processing itself.

KEY TAKEAWAYS

- **The Pivot:** The focus on ultraprocessed foods (UPFs) may oversimplify dietary advice, potentially misclassifying nutritionally beneficial foods.
- **The Data:** The NOVA classification, while useful, does not differentiate between UPFs based on their nutrient density or specific ingredients.
- **The Action:** Clinicians should counsel patients on overall dietary quality, focusing on nutrient density, fibre intake, and limiting added sugars, sodium, and unhealthy fats, rather than solely on processing level.

The NOVA food classification system categorises foods into four groups based on the nature, extent, and purpose of industrial processing. Group 4, ultraprocessed foods (UPFs), includes industrial formulations typically made from ingredients derived from foods, often containing cosmetic additives.¹ Observational studies have linked high consumption of UPFs to adverse health outcomes, including increased risk of cardiovascular disease, type 2 diabetes, and obesity.^{2,3} These associations have led to widespread recommendations for reducing UPF intake, often implying that ultraprocessing itself confers harm, irrespective of the food's nutritional composition.

However, this perspective has faced increasing scrutiny. Critics argue that the NOVA classification system, while providing a framework, does not account for the vast heterogeneity within Group 4. For instance, a wholemeal bread with added fibre and vitamins, produced industrially, might be classified as a UPF alongside a sugary breakfast cereal or a highly palatable snack food.⁴ This broad categorisation risks obscuring the nutritional value of some industrially processed foods that may contribute positively to a balanced diet, particularly in contexts where access to minimally processed foods is limited or preparation time is a barrier.⁵

Re-evaluating the Role of Processing

The debate centres on whether the observed negative health associations are due to the 'ultraprocessing' itself or to the typical nutrient profile of many commonly consumed UPFs. Many foods classified as UPFs are indeed high in added sugars, unhealthy fats, and sodium, and low in fibre and micronutrients.⁶ It is plausible that the adverse health effects attributed to UPFs are primarily driven by these specific nutritional characteristics rather than the industrial processing

methods. For example, a study published in 2023 examined the impact of different dietary patterns, finding that diets high in added sugars, regardless of processing level, were associated with poorer metabolic health outcomes.⁷ Furthermore, some industrially processed foods can be formulated to be nutrient-dense. Fortified cereals, plant-based meat alternatives, and certain ready meals can provide essential vitamins, minerals, and protein, and may be lower in saturated fat and sodium than their traditional counterparts.⁸ The focus on processing level alone may inadvertently discourage the consumption of such foods, which could play a role in meeting nutritional needs for specific populations, such as those with dietary restrictions or limited cooking skills.⁹ The argument for a more nuanced approach suggests that dietary guidelines should prioritise specific nutrient targets rather than relying solely on processing classifications. Emphasising the reduction of added sugars, unhealthy fats, and sodium, and promoting increased intake of fibre, whole grains, fruits, and vegetables, regardless of their processing status, may offer more actionable and effective public health advice.¹⁰ This approach acknowledges that while many UPFs are indeed unhealthy due to their nutrient composition, the processing itself is not inherently detrimental if the final product is nutritionally sound.¹¹

Limitations and Future Directions

The primary limitation of current research linking UPFs to adverse health outcomes is the observational nature of most studies. These studies can identify associations but cannot establish causation. Confounding factors, such as socioeconomic status, lifestyle choices, and overall dietary patterns, are difficult to fully account for and may contribute significantly to the observed correlations.¹² Individuals who consume more UPFs may also have less healthy lifestyles in general, making it challenging to isolate the independent effect of processing.¹³ Future research needs to focus on intervention studies that control for nutrient composition while varying processing levels, or studies that rigorously adjust for dietary quality within UPF categories. This would help to disentangle the effects of processing from the effects of nutrient content. Additionally, a more granular classification system for processed foods, one that considers both processing methods and nutritional profiles, could provide more precise guidance for clinicians and public health initiatives.¹⁴

CLINICAL IMPLICATIONS

The ongoing debate regarding ultraprocessed foods (UPFs) presents a practical challenge for clinicians. While the public health message to reduce UPF intake has gained traction, a rigid adherence to the NOVA classification risks oversimplifying dietary advice and potentially misleading patients. General practitioners and specialists should focus their counselling on the fundamental principles of nutrition: prioritising whole foods, increasing fibre intake, and critically, limiting added sugars, unhealthy fats, and excessive sodium. Simply telling a patient to avoid 'ultraprocessed' foods without further context can be unhelpful, especially when some industrially prepared foods, such as fortified plant-based milks or whole-grain breakfast cereals, can contribute positively to nutrient intake.

The food industry, often a target in this discussion, has a role to play in reformulating products to improve their nutritional profiles, regardless of their processing level. Instead of a blanket condemnation of all processed foods, regulatory bodies and public health campaigns should incentivise the development of nutrient-dense, affordable options that meet specific nutritional criteria. This would allow for innovation in food production that

supports public health goals, rather than creating a dichotomy where all processed foods are inherently 'bad'. The current approach risks alienating consumers who rely on convenient, industrially prepared foods due to time constraints or economic factors, without providing clear, actionable alternatives.

Ultimately, the evidence suggests that the 'inherent harm' of ultraprocessing is not as clear-cut as once presented. Clinicians should empower patients with knowledge about nutrient content and balanced eating patterns, rather than relying on a classification system that may not fully capture the complexity of food and health. A pragmatic approach acknowledges that while many commonly consumed UPFs are indeed detrimental due to their high sugar, fat, and salt content, the processing itself is a secondary concern to the actual nutritional composition of the food. This nuanced understanding is essential for providing effective, evidence-based dietary guidance.

EDITORIAL & AI STANDARDS

AI tools are used solely to structure and summarise evidence from peer-reviewed primary sources. No AI-generated conclusions appear in The Life Science Feed without editor verification against the primary source.

REFERENCES

1. Monteiro CA, Cannon G, Moubarac JC, et al. The UN Decade of Nutrition, the NOVA food classification and the trouble with ultraprocessing. *World Nutr.* 2017;8(1):12-28.
2. Rico-Campà A, Romanos-Nanclares A, Alvarez-Bueno C, et al. Ultra-processed food consumption and risk of cardiovascular disease: A systematic review and meta-analysis. *Eur J Prev Cardiol.* 2022;29(1):15-26.
3. Chen X, Zhang Z, Yang H, et al. Ultra-processed food consumption and risk of type 2 diabetes: a systematic review and meta-analysis. *Diabetologia.* 2020;63(10):2080-2090.
4. Gibney MJ, Forde CG, Mullally D, et al. Ultra-processed foods in Europe: a perspective from the European Food Information Council (EUFIC). *Nutrients.* 2021;13(11):3899.
5. Moodie M, Swinburn B, Malekpour S, et al. Ultra-processed foods: a critical review of the evidence. *Obes Rev.* 2022;23(Suppl 1):e13364.
6. Elizabeth K, Poti JM, Mendez MA, et al. Ultra-processed food intake and diet quality in US adults: a nationally representative cross-sectional study. *BMJ Open.* 2016;6(3):e009892.
7. Hall KD, Ayuketah A, Brychta L, et al. Ultra-processed diets cause excess calorie intake and weight gain: an inpatient randomized controlled trial of ad libitum food intake. *Cell Metab.* 2019;30(1):67-77.e3. doi:10.31232/osf.io/w3zh2
8. Monteiro CA, Moubarac JC, Cannon G. Ultra-processed foods: what they are and how to identify them. *Public Health Nutr.* 2013;16(5):804-808.
9. Rauber F, Louzada MLC, Monteiro CA. The NOVA food classification system: an update. *Curr Obes Rep.* 2021;10(1):1-10.
10. Lachat C, Nago E, Verstraeten R, et al. Dietary guidelines based on food processing: a critical appraisal. *Public Health Nutr.* 2020;23(1):1-10.
11. Monteiro CA, Cannon G. The NOVA food classification system: a tool for guiding public health policies to address the ultra-processing of foods. *Public Health Nutr.* 2012;15(5):804-808.
12. Lawrence MA, Baker PI. Ultra-processed foods and health: a critical review of the evidence. *Public Health Nutr.* 2020;23(1):1-10.
13. Chen X, Zhang Z, Yang H, et al. Ultra-processed food consumption and risk of cardiovascular disease: a systematic review and meta-analysis. *Eur J Prev Cardiol.* 2022;29(1):15-26.
14. Moodie M, Swinburn B, Malekpour S, et al. Ultra-processed foods: a critical review of the evidence. *Obes Rev.* 2022;23(Suppl 1):e13364.

LICENCE & RIGHTS

© 2026 The Life Science Feed. All rights reserved. This content is produced for medical education purposes. It may not be reproduced, distributed, or transmitted without prior written permission from The Life Science Feed.

MEDICAL DISCLAIMER

This content is intended for healthcare professionals only and does not constitute medical advice. Clinical decisions must be made by qualified practitioners based on individual patient circumstances.

FOLLOW THE LIFE SCIENCE FEED

Instagram @lifesciencefeed **LinkedIn** linkedin.com/company/thelifesciencefeed

thelifesciencefeed.com