# Scientists warn eco-friendly food packaging may increase exposure to cancer-linked chemicals



Recent scientific investigations have raised significant concerns regarding food packaging, revealing its potential role in increasing our exposure to hazardous chemicals linked to severe health issues, including cancer. Analysts from the Food Packaging Forum Foundation in Switzerland have highlighted that current trends towards 'eco-friendly' packaging, often involving recycled plastics, may ironically heighten this risk rather than alleviate it. Their review underlines a troubling fact: the push for more recycled materials in everyday packaging can result in a greater migration of harmful substances into food, thereby posing a serious health threat.

The ongoing recycling processes concentrate hazardous materials, which can leach into food from various types of packaging. This effect is exacerbated when the food is subjected to heating—such as reheating ready meals—leading to an increased release of harmful chemicals. The report also signals additional risks associated with black plastic products, commonly used in kitchen utensils, which may contain dangerous compounds sourced from illicit recycling practices.

Notably, chemicals such as perfluoroalkyl and polyfluoroalkyl substances (known collectively as PFAS) have drawn considerable attention. These 'forever chemicals' are notorious for their persistence in the environment and biological systems. They have been linked to a host of health issues including various cancers, endocrine disruption, and developmental problems in children. Alarmingly, the review revealed that there is no established safe exposure limit for these substances, underscoring their severe implications for public health.

The research also draws attention to the concerning rise of ultra-processed foods (UPFs) in dietary consumption, particularly within the UK where they constitute roughly 57% of the national diet—a figure that is even higher in the United States. UPFs, which are characterised by additives that enhance shelf life and palatability, often come in packaging that may contain these harmful chemicals. The authors of the review emphasize that the prolonged storage of such foods, along with the industrial cooking processes they undergo, can further facilitate the transfer of toxic substances into the food.

Lead author Jane Muncke has called for a reevaluation of current policies surrounding food packaging. She stated that while research into the health impacts of UPFs is ongoing, the evidence is compelling enough that governments should take immediate action to limit the consumption of these products.

These warnings align with broader concerns voiced by health experts and legislative bodies across various countries, particularly around the safety of food additives. In the United States, for instance, many substances currently deemed 'Generally Recognized As Safe' are allowed under the FDA’s regulatory framework without rigorous independent evaluation, raising questions about their long-term health impacts. Notable chemicals of concern include bisphenol A (BPA), phthalates, and various food dyes that have been linked to endocrine disruption and other chronic illnesses.

A recent systematic review has further illuminated the scope of this issue, revealing over 3,600 chemical entities detected within human biological samples, many of which pose significant risks including carcinogenic properties. The urgency of regulatory reform has never been clearer, with scientists advocating for more robust measures to reduce human exposure to these harmful materials.

The findings urge consumers to be more discerning about dietary choices, favouring whole and organic foods over heavily processed options. Tools aimed at educating the public about food safety have begun to gain traction, helping individuals identify safer alternatives in their shopping habits. As awareness of these issues heightens, the pressure is mounting on both industry and regulatory bodies to introduce changes that prioritise public health and safety.

In summary, while advancements in food packaging technology aim to reduce environmental impact, they may inadvertently lead to increased risk from chemical exposure. This paradox highlights the need for comprehensive reforms to safeguard consumers against the latent dangers present in food packaging, ultimately promoting better health outcomes for society at large.

**Reference Map**

* Paragraph 1: Sources [[1]](https://www.dailymail.co.uk/health/article-14718869/cancer-causing-chemicals-hidden-food-packaging.html?ns_mchannel=rss&ns_campaign=1490&ito=1490), [[3]](https://www.lemonde.fr/en/environment/article/2024/09/18/scientists-discover-over-3-000-chemicals-enter-our-bodies-from-food-packaging-or-kitchen-utensils_6726519_114.html)
* Paragraph 2: Sources [[1]](https://www.dailymail.co.uk/health/article-14718869/cancer-causing-chemicals-hidden-food-packaging.html?ns_mchannel=rss&ns_campaign=1490&ito=1490), [[3]](https://www.lemonde.fr/en/environment/article/2024/09/18/scientists-discover-over-3-000-chemicals-enter-our-bodies-from-food-packaging-or-kitchen-utensils_6726519_114.html), [[5]](https://time.com/6968550/plastic-test-bisphenol-phthalates/)
* Paragraph 3: Sources [[1]](https://www.dailymail.co.uk/health/article-14718869/cancer-causing-chemicals-hidden-food-packaging.html?ns_mchannel=rss&ns_campaign=1490&ito=1490), [[2]](https://time.com/7272178/are-food-chemicals-dangerous/), [[4]](https://www.huffingtonpost.es/sociedad/identifican-200-quimicos-asociados-cancer-mama-envases-supermercado.html)
* Paragraph 4: Sources [[1]](https://www.dailymail.co.uk/health/article-14718869/cancer-causing-chemicals-hidden-food-packaging.html?ns_mchannel=rss&ns_campaign=1490&ito=1490), [[3]](https://www.lemonde.fr/en/environment/article/2024/09/18/scientists-discover-over-3-000-chemicals-enter-our-bodies-from-food-packaging-or-kitchen-utensils_6726519_114.html)
* Paragraph 5: Sources [[2]](https://time.com/7272178/are-food-chemicals-dangerous/), [[3]](https://www.lemonde.fr/en/environment/article/2024/09/18/scientists-discover-over-3-000-chemicals-enter-our-bodies-from-food-packaging-or-kitchen-utensils_6726519_114.html)
* Paragraph 6: Sources [[2]](https://time.com/7272178/are-food-chemicals-dangerous/), [[4]](https://www.huffingtonpost.es/sociedad/identifican-200-quimicos-asociados-cancer-mama-envases-supermercado.html), [[6]](https://www.reuters.com/legal/government/mass-tort-litigation-watch-2025-2024-12-23/)
* Paragraph 7: Sources [[1]](https://www.dailymail.co.uk/health/article-14718869/cancer-causing-chemicals-hidden-food-packaging.html?ns_mchannel=rss&ns_campaign=1490&ito=1490), [[6]](https://www.reuters.com/legal/government/mass-tort-litigation-watch-2025-2024-12-23/)
* Paragraph 8: Sources [[1]](https://www.dailymail.co.uk/health/article-14718869/cancer-causing-chemicals-hidden-food-packaging.html?ns_mchannel=rss&ns_campaign=1490&ito=1490), [[2]](https://time.com/7272178/are-food-chemicals-dangerous/), [[5]](https://time.com/6968550/plastic-test-bisphenol-phthalates/)

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## Bibliography

1. <https://www.dailymail.co.uk/health/article-14718869/cancer-causing-chemicals-hidden-food-packaging.html?ns_mchannel=rss&ns_campaign=1490&ito=1490> - Please view link - unable to able to access data
2. <https://time.com/7272178/are-food-chemicals-dangerous/> - This article discusses the growing concern among health experts and government officials about chemicals found in the American food supply. Many food additives, some linked to chronic diseases such as cancer and heart disease, are permitted under the FDA's 'Generally Recognized As Safe' (GRAS) loophole without independent safety evaluations. Chemicals like Red Dye No. 3, BHA, BHT, titanium dioxide, potassium bromate, and artificial sweeteners like aspartame are among those raising concerns due to their potential endocrine-disrupting and carcinogenic effects. Food packaging also contributes to chemical exposure through substances like BPA, phthalates, bisphenols, and PFAS. Legislators in several states are pushing for stricter regulations, while researchers urge consumers to reduce processed food consumption in favor of whole, organic options. Apps like EWG Healthy Living and Yuka can help identify safer food choices. Particular attention is needed for vulnerable populations, including pregnant women and children, as some additives may impair neurological development and behavior. Though the food and plastics industries defend their safety practices, researchers emphasize that even low levels of chemical exposure may have long-lasting health implications. Experts advise practical and informed dietary changes to minimize risk.
3. <https://www.lemonde.fr/en/environment/article/2024/09/18/scientists-discover-over-3-000-chemicals-enter-our-bodies-from-food-packaging-or-kitchen-utensils_6726519_114.html> - A recent study published in the 'Journal of Exposure Science and Environmental Epidemiology' has revealed that over 3,600 chemical substances from food packaging and kitchen utensils are found in our bodies, posing potential health risks. Researchers from the Food Packaging Forum, the Swiss Federal Institute of Water Science and Technology, and Wayne University conducted a systematic review of food contact chemicals (FCCs) in human biomonitoring studies, shedding light on the pervasive exposure to these chemicals. The study identified 14,402 FCCs, with evidence of 3,601 of these chemicals detected in human biological samples. Alarmingly, around 80 of these chemicals are classified as substances of very high concern, including carcinogens and endocrine disruptors. The study calls for stricter regulations and the development of safer alternatives to reduce exposure to hazardous chemicals from food contact materials. This research underscores the need for urgent action to improve the safety of food packaging and kitchenware to protect public health.
4. <https://www.huffingtonpost.es/sociedad/identifican-200-quimicos-asociados-cancer-mama-envases-supermercado.html> - Un estudio ha identificado casi 200 sustancias químicas en envases de alimentos y vajillas de plástico que están relacionadas con el cáncer de mama. Estas sustancias pueden transferirse al cuerpo humano. La investigación, liderada por Jane Muncke del Food Packaging Forum, reveló que al menos 76 de estos químicos se han detectado en materiales en contacto con alimentos en todo el mundo. De los químicos analizados, 40 ya estaban clasificados como peligrosos por distintas entidades reguladoras. El estudio subraya la urgente necesidad de eliminar estos productos químicos del suministro de alimentos para prevenir el cáncer. Los resultados también indican que muchos de los químicos estudiados son disruptores hormonales y pueden dañar el ADN, destacando la falta de regulación y la exposición involuntaria de los consumidores a estas sustancias.
5. <https://time.com/6968550/plastic-test-bisphenol-phthalates/> - A recent personal test revealed that significant amounts of plastic toxins, particularly bisphenols and phthalates, are present in the human body. Bisphenols, used in hard plastics like water bottles, and phthalates, used in flexible plastics like raincoat linings, are hormone disruptors linked to severe health issues, including cancers. Million Marker, a company offering urinalysis tests for these chemicals, found that the author had high levels of bisphenol A (BPA). Jenna Hua, the founder of Million Marker, notes that over 90% of people tested show significant exposure. This issue is widespread due to plastics in food containers, personal care products, and packaging, further exacerbated by increased plastic use during the COVID-19 pandemic. The UN is negotiating international agreements to limit plastic pollution. Limiting exposure through lifestyle changes and strict regulations could help address this pervasive problem.
6. <https://www.reuters.com/legal/government/mass-tort-litigation-watch-2025-2024-12-23/> - Mass tort litigation in 2025 will feature continued and novel legal theories. Key cases involve: 1. PFAS 'forever chemicals' due to their persistent and toxic nature, especially in firefighting foam, with personal injury claims centralized in South Carolina. 2. Social media companies like Meta and TikTok facing lawsuits for allegedly contributing to teen mental health issues, with trials beginning in October. 3. Bayer's ongoing Roundup litigation over claims that its glyphosate ingredient causes cancer, facing continued trials despite previous massive verdicts. 4. Preterm infant formula litigation against Abbott and Mead Johnson for allegedly causing necrotizing enterocolitis, with close to 1,000 cases pending. 5. Ultra-processed food litigation initiated by a single lawsuit accusing food companies of causing chronic diseases, the outcome of which could impact future litigation trends. These cases highlight growing concerns about product safety, corporate responsibility, and the evolving nature of mass tort litigation.
7. <https://apnews.com/article/234b4d2ebb9ee1eed30006c24ff6f450> - The FDA has announced that fast-food wrappers and packaging containing PFAS (perfluoroalkyl and polyfluoroalkyl substances) are no longer sold in the U.S., following a voluntary phase-out by American food manufacturers. This initiative began in 2020 to eliminate PFAS, which are known as 'forever chemicals' for their persistence in the environment and links to various health issues including cholesterol problems, liver function impairment, immune system impact, and certain cancers. Major fast-food chains, including McDonald's, had already ceased using PFAS-containing packaging before the official phase-out deadline. Dr. Sheela Sathyanarayana has praised the move but noted the continued presence of PFAS in other sources, particularly drinking water, meat, and dairy products. She suggests that consumers can mitigate exposure by using water filters, reducing meat and dairy intake, and avoiding products with water-resistant chemicals.