

Study Review Shows Dozens of Health Problems From Ultraprocessed Food

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STORY AT-A-GLANCE

- › A 2024 systematic review of the literature confirms the results of past studies: the higher your exposure to ultraprocessed food, the higher your risk of adverse health outcomes, including 32 health parameters
- › Exposure to ultraprocessed food had a dose-dependent response on metabolic, cancer, mental, respiratory, heart and gastrointestinal conditions, as well as declining cognition, obesity and premature death
- › Recognizing the link between how you feel and ultraprocessed products may be challenging as one physician found when he experimentally increased his energy intake to 80% for four weeks and experienced multiple changes, including feeling 10 years older, which he didn't attribute to his diet until he stopped eating it
- › Americans eat more ultraprocessed products than any other country, and according to one survey, people would eat more and pay more if the products were "healthier" and promised benefits such as sleeping better, having more energy or improving brain function
- › Data show 73% of the food at the grocery store is ultraprocessed. Don't be fooled by lab-made, plant-based, pseudo-foodstuffs promoted by the industry as healthy. Change one ingredient at a time, and start with linoleic acid, one of the most destructive ingredients in your diet

A 2024 systematic review¹ of the literature confirmed what multiple studies have shown – the higher your intake of ultraprocessed food, the higher your risk of adverse health outcomes. To fully appreciate what the study says and your risk, it's important to know exactly what ultraprocessed foods are.

There are often misunderstandings about which foods fall into processed and ultraprocessed categories. For example, when green beans are canned, they become processed food, but they are still a far cry from a bag of potato chips or a box of donuts – examples of ultraprocessed foods.

NOVA Classification

Several systems are used to classify food according to the level of processing. The NOVA classification is the most common, though there is some debate² over the accuracy of how foods are classified by evaluators, even when information on the ingredients is available. The European Journal of Clinical Nutrition reports NOVA food categories this way:³

- **NOVA1** – "Unprocessed or minimally processed foods," primarily the edible parts of plants or animals that have been taken straight from nature or that have been minimally modified/preserved.
- **NOVA2** – "Culinary ingredients," such as salt, oil, sugar or starch, which are produced from NOVA1 foods.
- **NOVA3** – "Processed foods," such as freshly baked breads, canned vegetables or cured meats, obtained by combining NOVA1 and NOVA2 foods.
- **NOVA4** – "Ultraprocessed foods," such as ready-to-eat industrially formulated products "made mostly or entirely from substances derived from foods and additives, with little if any intact Group 1 food."

From these categories, it's evident that NOVA1 and NOVA2 foods are those that you buy from the produce aisle or raw meat section, bring home and cook in your kitchen.

NOVA3 and NOVA4 are typically foodstuffs purchased in the center aisles at the grocery store or a convenience store.

These consumables typically have a long shelf life, don't need refrigeration, cannot be reproduced at home and have more than five ingredients, some of which you may not be able to pronounce.

Ultraprocessed Foods Linked to Dozens of Health Problems

The 2024 analysis,⁴ which included 45 unique pooled analyses and 9,888,373 participants, found direct associations between 32 health parameters and exposure to ultraprocessed food. These health outcomes included metabolic, cancer, mental, respiratory, cardiovascular, gastrointestinal and all-cause mortality.

There was a direct association between the higher number of ultraprocessed foods and a higher incidence of heart disease-related mortality and Type 2 diabetes. Anxiety disorders were also highly correlated with ultraprocessed food intake, and the researchers found highly suggestive evidence that ultraprocessed foods increased all-cause mortality, Type 2 diabetes and depression.

The research was prepared by an international team from Ireland, France, Australia and the U.S. using the NOVA system. They wrote:

"These products are characterized as industrial formulations primarily composed of chemically modified substances extracted from foods, along with additives to enhance taste, texture, appearance and durability, with minimal to no inclusion of whole foods."

A 2022 paper⁵ noted that a food product is not simply the sum of the nutrients and that "Human diets are progressively incorporating larger quantities of industrially processed foods." According to this recent study and others, this increasing exposure is contributing to rising rates of chronic disease and illness in the population. Just some of the other health conditions associated with ultraprocessed products include:

- **Declining cognition** – Research suggests that a daily intake of sweets and fatty snacks can change the way we "learn, remember and feel."⁶ Research presented at the 2022 Alzheimer's Association International Conference⁷ showed that people who ate 20% of their diet from breakfast cereal, frozen food and soda had a 28% **faster rate of cognitive decline** and a 25% faster rate of decline in executive function.
- **Obesity** – A 2023 eight-week interventional study found a direct effect on neurobehavioral adaptation leading to an increased risk of overeating and weight gain.⁸ The senior study author, Dana M. Small, Ph.D. commented:⁹

"Adding one unhealthy snack per day to your diet changes the way your brain learns about rewards. More importantly, it does so in a way that could promote overeating. This means that even in individuals with no intrinsic or genetic risk for obesity, exposure to an unhealthy diet can produce that risk."

A 2019 study¹⁰ compared global trends and sales of ultraprocessed food and drink and found that with an increased volume of sales per capita came a rise in population-level body mass index trajectories.

- **Cancers** – A 2023 study¹¹ from the Imperial College London evaluated diets of 197,426 people over 10 years and found those who **ate more ultraprocessed foods** had a greater risk of developing any type of cancer, specifically ovarian and breast cancers.

Consumption was also associated with an increased risk of dying from cancer. Each 10% increase was linked with a 2% increase in incidence of diagnosis and a 6% increased risk of cancer mortality.

- **Premature death** – A 2022 study¹² noted that consumption of ultraprocessed foods in Brazilian adults ranged from 13% to 21% of their total energy intake. Evaluation of data showed that 10.5% of all premature deaths could be attributed to the consumption of ultraprocessed food.

Based on information from the featured study if there is a dose-dependent response to consuming ultraprocessed food, it's likely that eating more junk food would result in a higher percentage of premature deaths.

- **More chronic diseases** — A systematic review and meta-analysis of 43 observational studies¹³ found eating ultraprocessed food is also associated with an increased risk of wheezing, heart disease, frailty, irritable bowel syndrome and functional dyspepsia, in addition to many of the chronic illnesses already mentioned.

You May Not Be Feeling Your Age, You Might Be Feeling Your Food

Dr. Chris Van Tulleken, BBC television presenter of "What Are We Feeding Our Kids?"¹⁴ was curious about how ultraprocessed foods affect the body. Over one month, the 42-year-old increased his daily intake from 30% of ultraprocessed products to 80%, which mimicked how 20% of the U.K. population eats. By the end of four weeks, Tulleken experienced a myriad of changes, including:¹⁵

Poor sleep

Heartburn

Anxiety

Sluggishness

Low libido

Unhappy feelings

Hemorrhoids (from constipation)

Weight gain of 7 kilograms (15.4 pounds)

"I felt 10 years older, but I didn't realize it was all [because of] the food until I stopped eating the diet," Tulleken told the BBC.¹⁶ This is significant since the physician recognized that he had purposely changed his diet, and yet he did not recognize that feeling 10 years older after only four weeks was associated with the food he was eating.

What Country Eats More Ultraprocessed Foods

The featured study noted that the more ultraprocessed food consumed, the greater your risk of experiencing chronic disease and poor health. The study¹⁷ noted that the share of energy derived from ultraprocessed food had a significant range across countries. For example, the percentage of energy derived from ultraprocessed foods in Italy was 10%, South Korea 25%, Columbia 16% and Mexico 30%.

The authors noted the share of dietary energy from ultraprocessed products in Australia was 42% and the country with the highest share of dietary energy from ultraprocessed products was the U.S. at 58%. While this percentage of energy intake from ultraprocessed foods is disturbing enough, other data suggests it may be greater than 60%.¹⁸

Interestingly, a database of the food supply indicates that 73% of what is available to be purchased at the grocery store is ultraprocessed.¹⁹ These foods are 52% cheaper than healthier options, which is a significant consideration for many people as they have watched food prices rise out of control.

From 2021 to 2022, food prices rose 11%.²⁰ In the year ending August 2022, food prices had risen 13.5%²¹ and in 2023 they rose another 5.8%.²² This is compared to a historical rise in food prices of 2% in prior years.

Despite mounting evidence that ultraprocessed products are unhealthy and increase your risk of chronic disease and premature death, one survey showed that American adults would eat more and pay more for ultraprocessed products if they had more nutritious ingredients.²³ The survey was performed by Ayana Bio, a plant cell technology company, that will likely use this information in their marketing strategies.

For example, 74% of the adults asked said they would buy ultraprocessed products if they had health benefits, such as improving brain function, sleep or increasing energy; 67% said they would pay more if the foodstuffs contained nutritious ingredients and 68% said they would pay up to \$3 more.

From this survey, it appears 84% of the younger generation and parents want more options to reduce the time they have to spend in the kitchen. Millennials, Gen Z adults and parents with children are also willing to pay more for an oxymoron – healthier ultraprocessed food.

Food Industry Pushes Back Against Change to Improve Health

Deseret News reported²⁴ that the food industry is pushing back against mounting evidence that their products may cause problems. Industry groups claim processing food increases the shelf life, which reduces food waste and lower cost. In a letter to the U.S. Department of Health and Human Services, the Institute of Food Technologists wrote that chemical additives are there to help ensure food security "when fresh foods may not be available or accessible."

In November 2023,²⁵ a Washington Post article suggested the nutritional guideline committee may be considering warning consumers against eating too many ultraprocessed products. According to the article, despite years of research, this is the first time the committee examined the science of the association between obesity and ultraprocessed products, including things like chicken nuggets, frozen dinners and potato chips.

The length of time it's taken the committee to consider the association is a testimony to the strength of the food industry. If the committee's primary concern was recognizing the link between nutrition and health, ultraprocessed products would have likely come under consideration years ago.

Fake Meat Is the Epitome of Ultraprocessed Food

The years of research detailing the health risks of consuming ultraprocessed products make it ironic that fake meat and lab-made, plant-based pseudo-foods are being passed off as healthy. It's hard to imagine a food that's more ultraprocessed than a lab-made burger. Dairy alternatives and plant-based or lab-grown meat are the very definition of

ultraprocessed products as they're made with heavily processed fats from industrial seed oils like soy and canola oil.

Beyond Burger steak meat patties contain 22 ingredients,²⁶ among which are expeller pressed canola oil, pea protein isolate, cellulose from bamboo, modified food starch and methylcellulose. To morph these ingredients into a patty that resembles meat requires significant processing. And if the push to move away from whole food is "best," why are ultraprocessed products trying to imitate whole food?

While the hype and marketing point you toward believing that these products are healthy, they are fake foods that are likely to cause the same health problems that are linked to other ultraprocessed foods that have many of the same ingredients. As researchers are connecting ultraprocessed products with chronic disease and early death, the World Economic Forum is vilifying whole food as unsustainable and environmentally destructive.

Instead, they push for a transition away from whole food to a highly unnatural, ultraprocessed diet. Their largest initiative is called FReSH,²⁷ which aims to transform the food system by working with biotech and fake meat companies to replace whole foods with lab-created alternatives that are certain to be detrimental to human health.

Spring Clean Your Diet

As Americans consumed greater amounts of seed oils high in **linoleic acid** (LA), there was an increase in the concentration of LA in subcutaneous fat tissue, which correlates with an increase in the prevalence of asthma, obesity and diabetes.²⁸

Eliminating ultraprocessed foods from your diet is essential to keeping your LA intake low, and vice versa, as the two go hand-in-hand.

If the thought of overhauling your diet to remove ultraprocessed products seems daunting, reframe it from a move of scarcity to one of abundance. By giving up these toxic junk foods, you're gaining a place in your diet to add in whole foods, which —

instead of taking away your health one meal at a time – will give your body the nutrients it needs to heal and stay well.

Sources and References

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