

Ultraprocessed Foods Linked to Early Onset of Colorectal Cancer

Analysis by [Dr. Joseph Mercola](#)

October 03, 2026

STORY AT-A-GLANCE

- › Colorectal cancer is rising in younger adults, with U.S. rates in adults under 50 increasing 2.9% per year from 2013 to 2022. Evidence suggests dietary changes may be a contributing factor
- › A study published in JAMA Oncology found that women consuming the most ultraprocessed foods had 45% higher odds of developing precancerous colorectal growths (conventional adenomas) before age 50
- › Risk increased with higher ultraprocessed food intake, then plateaued beyond seven to eight servings daily. Sauces, spreads, and condiments, packaged savory snacks, and artificially sweetened beverages were among the subgroups linked to higher odds, though no single food group drove the overall association
- › You can reduce ultraprocessed food intake by planning real meals, replacing snack foods with whole ingredients, tracking triggers, and making unprocessed options more visible and accessible in your home
- › Lowering your linoleic acid intake, increasing fiber gradually, and supporting gut health with protective foods and habits may also help support your colorectal health

Colorectal cancer was once primarily a disease of older adults, but that pattern has been shifting in the past decades. Rates of early-onset colorectal cancer, meaning cases diagnosed before age 50, have been rising in 27 of 50 countries and territories examined

in a global analysis. The trend was first documented in high-income Western nations, but it now extends to countries in Eastern Europe, Asia, and Latin America and the Caribbean.¹

In the United States, the incidence of colorectal cancer in people younger than 50 years old has increased by 2.9% per year from 2013 to 2022, even though overall incidence has dropped by about 1% per year, mostly among older adults. It ranks as the third leading cause of cancer-related death in American men and the fourth in women. Combined, it is the second most common cause of cancer death overall.²

In parallel with this rise, one major change in dietary patterns has drawn increasing attention — the growing dominance of ultraprocessed foods. A study published in JAMA Oncology investigated whether higher intake of these items is linked to a greater risk of developing early-onset colorectal cancer, a concern with growing relevance as these foods become dietary staples.³

Higher Ultraprocessed Food Intake Linked to Early Precancerous Colorectal Growths

The featured study, which is prospective observational cohort research, analyzed data from the Nurses' Health Study II, a large ongoing U.S. cohort of female registered nurses born between 1947 and 1964. The authors followed over 29,100 participants who completed at least one lower gastrointestinal endoscopy before age 50 and assessed long-term dietary patterns to explore possible links between ultraprocessed food consumption and the development of early colorectal tumors.⁴

- **Researchers focused on early precancerous growths and long-term diet patterns —** They reviewed the participants' medical records to confirm the presence of polyps, specifically adenomas. These are growths that form in the lining of the colon or rectum and can serve as early warning signs for colorectal cancer.

The study also evaluated serrated lesions, another type of polyp that arises through a different molecular pathway and can also lead to cancer, though the biology and risks differ. Dietary intake was tracked using food frequency questionnaires collected every four years, covering how often participants consumed specific foods over the prior 12 months.

- **Higher ultraprocessed intake linked to markedly greater early adenoma risk —** Women who ate the most ultraprocessed foods, about 10 servings a day, had 45% higher odds of developing conventional adenomas before age 50 than those who ate the least, averaging a little over three servings daily.

The link was also seen for adenomas in the distal colon and rectum, although the researchers found that the association did not differ significantly by polyp size, type, malignancy risk, or location. This relationship held even after adjusting for other risk factors, including age, family history, body mass index (BMI), alcohol intake, smoking, physical activity, total calorie consumption, and overall diet quality.

- **Risk climbed with intake then plateaued at higher levels —** The researchers found a clear dose-response pattern, with adenoma risk increasing as ultraprocessed food intake rose, then leveling off around seven to eight servings per day.

Eating more than eight servings daily did not keep raising risk in a straight line, yet the overall link between higher intake and elevated adenoma risk remained statistically significant. A dose-response pattern like this adds weight to the association, although because the study was observational, it cannot prove that ultraprocessed foods caused the adenomas.

- **Certain ultraprocessed categories showed notable associations —** The study also examined which ultraprocessed subgroups were tied to early adenoma formation. Women who consumed the most sauces, spreads, and condiments were 23% more likely to develop early-onset conventional adenomas compared to those consuming the least.

The combined category of sugar- or artificially sweetened beverages showed a 25% increase, with artificially sweetened beverages alone demonstrating a 21% elevation when examined separately — one of the clearer individual associations in the analysis. Packaged savory snacks were associated with a 30% higher likelihood among top consumers, while the 11% difference seen for ultraprocessed breads and breakfast foods was not statistically significant. The researchers noted:

*"Within UPF (ultraprocessed food) subgroups, no single food group appeared to drive the overall association of UPF intake, suggesting that the combined exposure to multiple food additives may exert a synergistic or cocktail effect on gut health by impairing barrier function and altering the microbiome."*⁵

- **No link appeared for serrated lesions, possibly pointing to a specific pathway —**
This distinction matters because serrated lesions follow a different developmental pathway than conventional adenomas. The lack of association with serrated polyps suggests that ultraprocessed foods may influence colorectal cancer risk more through the adenoma-carcinoma sequence than through alternate routes of tumor development. The researchers cautioned, however, that the serrated category included hyperplastic polyps with limited cancer potential, which may have diluted the results.

While further research is still needed to explore the biological mechanisms and to confirm these results in other populations, this is, to the authors' knowledge, the first prospective study to examine ultraprocessed food intake and precursors of early-onset colorectal cancer. Because the participants were predominantly well-educated, female nurses and the design was observational, keep in mind that the findings show an association rather than cause and effect.

What Is Considered Ultraprocessed Food?

Understanding what food counts as ultraprocessed requires looking beyond simple categories like "junk food" or "unhealthy snacks." The classification system used in the JAMA Oncology study and increasingly adopted by nutrition researchers worldwide is

called NOVA, first formally defined in 2009 by Brazilian researchers.⁶

- **NOVA ranks foods by processing level and purpose, not nutrient labels** — NOVA categorizes all foods and beverages into four groups based not on nutritional content, but on the extent and purpose of industrial processing they undergo. This approach recognizes that how food is made matters as much as what ingredients it contains.⁷
- Group 1 includes unprocessed or minimally processed foods like fresh produce, grains, eggs, milk, meat, and fish. These foods may be frozen, dried, or vacuum-packed, but their structure and nutrients remain largely intact.
- Group 2 consists of culinary ingredients used in home cooking, such as oils, butter, sugar, salt, and starches, usually extracted from whole foods and used to prepare Group 1 foods.
- Group 3 includes traditionally processed foods like canned vegetables, salted fish, cheese, and fresh bread made from flour, water, yeast, and salt. These usually contain a few ingredients and are made using methods like salting, fermentation, or canning.
- Group 4, the ultraprocessed category, refers to industrial formulations built from food substances rather than whole foods. These products often contain five or more ingredients, including additives not used in home kitchens, such as hydrogenated oils, high-fructose corn syrup, protein isolates, modified starches, artificial sweeteners, emulsifiers, stabilizers, thickeners, and synthetic flavors and colors.
- **Ultraprocessed foods are engineered for convenience, shelf life, and palatability** — They're easy to store and require little or no preparation, but their formulation tends to make them highly palatable and less satisfying, which can make them easy to overconsume. Marketing often highlights convenience or added nutrients while obscuring how deeply the product has been restructured.

- **They show up everywhere in daily eating** — Common examples include boxed breakfast cereals, sweetened yogurts, flavored chips, packaged snack bars, reconstituted meat products, soft drinks, frozen pizza, shelf-stable sauces, and most commercial baked goods.

Mass-produced breads with refined flours, dough conditioners, emulsifiers, and added sugars fall into this category, as do many plant-based meat substitutes and protein shakes. These products now dominate grocery aisles and contribute a growing share of daily calories worldwide.

- **Ultraprocessed foods now dominate the American diet** — A study published in Nature Communications found that ultraprocessed foods make up over 73% of the U.S. food supply.⁸ Another study published in Public Health Nutrition analyzed 2020 grocery purchases by U.S. households and found that the categories with the highest share of ultraprocessed purchases were [sodas](#) (90%), mixed dishes and soups (81%), and sweets and snacks (71%).⁹

These products are not just stripped-down versions of food. Their structure and composition may alter how they interact with your gut, your metabolism, and your immune system. That's why it's important to learn not only what ultraprocessed foods lack, but also how they may contribute to chronic health problems. Learn more about their health consequences in "[Ultraprocessed Foods Dominate the US Diet and Drive Chronic Disease](#)."

Simple Steps to Cut Back on Ultraprocessed Foods

If you feel stuck in a loop of eating ultraprocessed foods even though you want to stop, you're not the only one. However, the answer isn't self-blame — it's awareness. Once you understand how these foods manipulate your biology, you regain the power to make conscious choices that truly support your health. Here are practical steps to help you break free:

- 1. Remove the foods that override your fullness signals** — Identify the biggest offenders in your diet and replace them with real foods that require chewing, such as apples, carrots with grass fed cream cheese, or cucumber slices. Slower eating helps your brain register satisfaction.
- 2. Prioritize real meals over constant snacking** — Build your day around three balanced meals with enough protein, healthy carbs, and saturated fat. Think pastured eggs, grass fed beef, wild-caught salmon, or beans paired with vegetables, fruit, or cooked whole grains.

Protein slows digestion and prolongs satiety, while dietary fiber supports gut health by feeding beneficial microbes. Together, they help regulate appetite and reduce the drive to graze between meals.

- 3. Disrupt the marketing cycle** — Companies deliberately use sound, packaging, and visual branding to influence your food choices and reinforce habitual consumption. One of the most effective ways to counter this is to remove processed foods from your immediate environment. Keep them out of the home when possible. If you need to keep certain items, store them in opaque containers to reduce visual triggers.

At the same time, make whole foods more accessible. Move fresh fruit to the front of your refrigerator, keep cut vegetables in clear containers, and place them at eye level. If you have children, take the opportunity to explain how food marketing works, so they begin to recognize how branding and advertising shape desire.

- 4. Track your progress** — Keep a brief journal for 10 days. Note when you reach for ultraprocessed foods, what triggered it, and how you felt afterward. Patterns often reveal emotional or situational triggers you need to address, such as stress or boredom.

Get more tips to reduce your ultraprocessed food intake in "[Many Older Adults Today Struggle with Ultraprocessed Food Addiction](#)."

5 Additional Strategies to Help Protect Your Colorectal Health

If you want to support your colorectal health, the gut is a logical place to start. A well-balanced microbiome and a strong colon lining are foundations of healthy colon function. Below are practical strategies to support your gut, starting with what you eat.

- 1. Eliminate vegetable oils and packaged foods from your diet** — Restaurant meals, fried foods, and most packaged convenience items deliver high amounts of **linoleic acid (LA)** from industrial seed oils. In excess, this fat may disrupt mitochondrial function and shift the gut environment in ways that favor harmful microbial activity. Replace these foods with fresh, minimally processed meals you prepare yourself.

Use stable fats such as ghee, tallow, or grass fed butter, and keep your LA intake below 5 grams per day. Using the Seed-Oil Sleuth feature in Food Buddy, which is part of my Pax health platform can help you spot hidden vegetable oils that otherwise slip into your diet unnoticed.

- 2. Support energy production with the right carbohydrates** — Your gut and mitochondria rely on a steady supply of glucose to function well. For most adults, that translates to about 250 grams of healthy carbohydrates per day, with higher amounts for very active people.

If your gut is already strained, begin with easier-to-digest sources such as white rice and fruit. This approach provides reliable energy while giving your microbiome room to stabilize before you add more complex carbohydrates.

- 3. Increase fiber gradually** — Fiber nourishes beneficial gut microbes and helps them produce **butyrate**, a short-chain fatty acid that fuels and protects the colon lining. When the gut is inflamed, large fiber jumps can aggravate symptoms, so pacing matters to allow your gut to heal and build strength without triggering irritation.

Once fruit and white rice are well tolerated, add root vegetables, then expand into cruciferous vegetables, beans, legumes, and whole grains. Cooked-then-cooled potatoes or rice are especially useful because cooling forms resistant starch, a

preferred substrate for butyrate-producing bacteria.

- 4. Add cruciferous vegetables as an everyday staple** — After your gut handles carbohydrates comfortably, bring cruciferous vegetables into regular rotation. Brussels sprouts, broccoli, cabbage, cauliflower, and fermented options like sauerkraut provide compounds that have been studied for their role in supporting the body's natural detoxification pathways and the health of the colon lining.

Aim for about 40 to 60 grams per day, roughly one-third cup of chopped, cooked broccoli, and rotate different crucifers across the week so your microbes and tissues benefit from a wider range of protective molecules.

- 5. Reduce toxic load, move daily, and rebuild the microbiome** — **Environmental exposures** from plastics, pesticides, synthetic estrogens, and other toxins may disturb gut balance and encourage less favorable microbial shifts. Practical changes include switching to glass storage, avoiding heating food in plastic, and reducing unnecessary wireless exposure at home when possible.

Daily movement also plays a measurable role. An observational study of 86,252 U.K. Biobank participants who wore activity trackers found that **exercising in the morning** around 8 a.m. and again around 6 p.m. was associated with an 11% lower colorectal cancer risk, beyond the benefits of overall activity. A single late-day activity peak showed a weaker association that was not statistically significant.¹⁰

Antibiotics add another layer of disruption by depleting protective bacteria, so talk with your health care provider about whether they're clearly necessary, and follow with fermented foods to support recovery. Once your gut health stabilizes, encouraging beneficial strains such as Akkermansia may help maintain the protective mucus layer that lines the colon.

Frequently Asked Questions (FAQs) About Early-Onset Colorectal Cancer

Q: Do ultraprocessed foods increase my colorectal cancer risk?

A: Research suggests they may. Higher intake of ultraprocessed foods has been linked to early precancerous colorectal growths, some of which can develop into cancer over time. In the JAMA Oncology study, women with the highest ultraprocessed food intake had a 45% higher likelihood of developing conventional adenomas before age 50 compared with those eating the least. Because the study was observational, it shows an association rather than proof of cause.

Q: How much ultraprocessed food is too much for my colon health?

A: The study showed that risk began rising with increased intake and plateaued around seven to eight servings per day. This suggests that even moderate consumption may be associated with higher risk. Beyond eight servings daily, risk did not keep climbing in a straight line, but it remained elevated overall.

Q: What exactly counts as ultraprocessed food?

A: Ultraprocessed foods are industrially formulated products made mostly from refined ingredients and additives not found in home kitchens, such as protein isolates, emulsifiers, flavorings, and artificial sweeteners. Common examples include packaged snacks, sweetened breakfast cereals, reconstituted meats, commercial breads, frozen pizza, and soft drinks.

Q: How do I start cutting ultraprocessed foods out of my diet?

A: Start by identifying and removing foods that override your natural fullness signals. Replace them with real foods that require chewing, like apples or carrots. Build your day around three balanced meals with enough protein, carbs, and

saturated fat, and minimize grazing and processed snack intake between meals.

Q: What else can I do to protect my colorectal health?

A: Start by removing vegetable oils from your diet to lower your linoleic acid intake. Eat whole meals with enough protein, fiber, and healthy carbs. Add cruciferous vegetables for detox support, build up fiber slowly to feed protective gut microbes, and avoid environmental toxins where possible. Daily movement and fermented foods may also help support your gut and overall colorectal health.

This article is for informational purposes only and does not constitute medical advice. Consult a qualified health care provider before making changes to your health regimen.

Sources and References

- ¹ [The Lancet Oncology, Volume 26, Issue 1, 51-63](#)
- ² [American Cancer Society, Key Statistics for Colorectal Cancer](#)
- ^{3, 4, 5, 6} [JAMA Oncol. 2025 Nov 13:e254777](#)
- ⁷ [News Medical, The NOVA Method of Food Classification](#)
- ⁸ [Nature Communications, 2023, Volume 14, Article number: 2312](#)
- ⁹ [Public Health Nutrition, 2025, 28: e85, 1-7](#)
- ¹⁰ [BMC Medicine Volume 22, Article number: 399 \(2024\)](#)