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Ultraprocessed Foods Linked to Early Onset of Colorectal Cancer

Analysis by Dr. Joseph Mercola | January 21, 2026

STORY AT-A-GLANCE

- Colorectal cancer is rising in younger adults, with U.S. rates increasing 2.4% per year since 2012. New evidence points to dietary changes as a contributing factor
- A recent study in JAMA Oncology found that those consuming the most ultraprocessed foods had a 45% higher risk of developing precancerous colorectal tumors before age 50
- Risk increased with higher ultraprocessed food intake, then plateaued beyond seven to eight servings daily. Sweetened beverages, sauces, spreads, and condiments showed the strongest links
- 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 also helps reduce your risk of colorectal cancer

Colorectal cancer was once primarily a disease of older adults, but that pattern has been shifting in recent decades. Rates of early-onset colorectal cancer, meaning cases diagnosed before age 50, have been climbing steadily worldwide, with the steepest increases reported in high-income countries.[1]

In the United States, the incidence of colorectal cancer has increased by an average of 2.4% each year between 2012 and 2021. 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 recent 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 Intake of Processed Foods Linked to Early Colorectal Tumors

The featured study analyzed data from the Nurses' Health Study II, a large ongoing U.S. cohort of female registered nurses born between 1947 and 1964. Researchers 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, faced a 45% higher risk of developing conventional adenomas before age 50 than those who ate the least, averaging a little over three servings daily.

  The increase was strongest for adenomas that were multiple, large (more than 1 centimeter), or located in the distal colon and rectum. 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. This strengthens the finding by showing risk tracks with consumption rather than appearing randomly.

- **Certain ultraprocessed categories drove the strongest associations —** The study went further by identifying which ultraprocessed subtypes were most strongly 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. Ultraprocessed breads and breakfast foods were also associated with a 16% higher likelihood among top consumers. 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, pointing to a specific cancer 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 primarily through the adenoma-carcinoma sequence, rather than through alternate routes of tumor development.

While further research is still needed to explore the biological mechanisms and to confirm these results in other populations, these findings offer one of the clearest pictures to date of how habitual intake of ultraprocessed foods may increase the likelihood of developing precancerous growth in the colon and rectum.

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 is designed to stimulate appetite and blunt satiety, which makes 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 noted that sodas topped the ultraprocessed list (90%), followed by 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 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 on how they actively contribute to chronic diseases like cancer. 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, 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 reduce your colorectal cancer risk, start where the risk begins — in the gut. When your microbiome is well balanced and your colon lining stays strong, your body is better equipped to shut down abnormal cells before they gain ground. Below are practical strategies to rebuild protection, 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. This fat disrupts mitochondrial function and shifts 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 — closer to 2 grams is even better. Using a tracking app like Food Buddy in my Health Coach app, which will be coming soon, helps 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 a protective 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 support detox pathways, help repair DNA damage, and reinforce the colon lining.

   Aim for about 40 to 60 grams per day, roughly half a cup of 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 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. Research shows that exercising in the morning around 8 a.m. and again in the evening around 6 p.m. reduces colorectal cancer risk by 11%, with this two-peak pattern outperforming other exercise schedules.[10]

   Antibiotics add another layer of disruption by depleting protective bacteria, so use them only when clearly necessary and follow with fermented foods to support recovery. Once gut health stabilizes, encouraging beneficial strains such as Akkermansia helps maintain the mucus layer and strengthens colon defenses against carcinogenic toxins.

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

Q: Do ultraprocessed foods increase my colorectal cancer risk?

A: Yes. Higher intake of ultraprocessed foods is linked to early precancerous colorectal tumors that 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. Adenomas can develop into malignant tumors over time.

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 means even moderate consumption could elevate your risk, and eating more than eight servings daily does not appear to increase risk linearly, but the risk remains high 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 also help strengthen your gut and lower cancer risk.

Sources and References

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