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Younger Adults May Be Aging Faster Than Previous Generations — A Pattern Linked to Higher Cancer Risk

Analysis by Dr. Joseph Mercola | September 09, 2026

STORY AT-A-GLANCE

- Cancers diagnosed before age 50 increased 24% worldwide between 1990 and 2019, while younger generations also show signs of faster biological aging
- Biological age reflects the condition of your cells, tissues, and organ systems, giving you a more complete picture of your health than chronological age alone
- Faster biological aging was associated with higher risks of early-onset lung, gastrointestinal, and uterine cancers, although the strength of these links varied depending on how researchers measured aging
- Different parts of your body age at different rates, with faster immune system aging linked to early-onset lung cancer and accelerated fat tissue aging linked to early-onset colorectal cancer in an exploratory analysis
- Reducing seed oils and ultraprocessed foods, supporting cellular energy with adequate carbohydrates and protein, staying active, protecting your circadian rhythm, and limiting environmental toxin exposure help address factors associated with faster biological aging

Cancers diagnosed before age 50 increased 24% worldwide between 1990 and 2019.[1] Even more striking, people born in the 1990s in Australia, Canada, the United Kingdom, and the U.S. face at least four times the risk of early-onset colorectal cancer as those

born in the 1960s. Early-onset cancer means cancer diagnosed in younger adults, and symptoms vary widely based on the affected organ, from unexplained weight loss, pain, and fatigue to changes in bowel habits or unusual bleeding.

New research published in Nature Medicine points to a pattern that may help explain this generational shift: Younger adults appear to be aging faster biologically.[2] Your chronological age counts years. Your biological age reflects how well your cells, tissues, and organ systems are actually holding up, and researchers found that the gap between the two is widening with each generation.

That gap matters because it was associated with cancer risk in this study. Participants whose biological age ran further ahead of their chronological age showed higher measured risks of developing certain cancers before midlife, most consistently in the lungs, gastrointestinal tract, and uterus — though the strength of the association varied depending on which aging measure researchers used.

The size of that gap, and how strongly it corresponded with risk, is where this research gets specific. These findings raise a question that deserves far more attention: What is causing younger generations to age faster on the inside? Your birth date tells only part of the story.

The researchers point out metabolic dysfunction, poor diet quality, inactivity, disrupted sleep, and environmental exposures as factors that accumulate over time and may affect inflammation, immune function, and cellular health. The Nature Medicine study offers a closer look at how sharply biological aging has shifted across generations and what that shift means for your early-onset cancer risk.

Faster Biological Aging Linked to Early-Onset Cancer

The Nature Medicine study examined whether accelerated aging throughout the body and within specific organs was associated with cancers diagnosed before age 55.[3] In this prospective cohort analysis, researchers analyzed 154,169 U.K. Biobank

participants for generational aging trends and followed 148,317 participants across 953,582 person-years to assess cancer risk.

They repeated the analysis in a second, much smaller cohort from the All of Us Research Program (10,262 participants for generational trends, and from that number, 8,935 were assessed for early-onset cancer risk).

They also used several biological "clocks," or measurement systems that estimate how old your body appears based on clinical, metabolic, and protein markers rather than the date on your birth certificate.

Unlike a single blood test, these clocks capture different aspects of your health. PhenoAge uses common clinical measurements associated with disease and mortality, while the Klemera-Doubal method compares your biological measurements with patterns typically seen at different ages.

Researchers also examined small molecules produced by metabolism and proteins associated with specific organs. Using several approaches allowed them to test whether the results held up when biological aging was measured in different ways.

- **Cancer risk varied depending on how biological aging was measured —** The PhenoAge analysis found that each standard deviation increase in the biological age gap (a standard deviation representing a typical spread in the data) was associated with a 57% higher risk of early-onset lung cancer, a 17% higher risk of gastrointestinal cancer, and a 31% higher risk of uterine cancer. For colorectal cancer specifically, the increase was 14%.

  Of the four, the lung and gastrointestinal findings were the most solid, while the uterine and colorectal numbers were the least certain — the range the data allowed for those two stretched nearly all the way down to no added risk at all.

  Yet the other biological clocks didn't produce identical results. The Klemera-Doubal age gap was associated with a 53% higher risk of early-onset lung cancer and a 41% higher risk of gastrointestinal cancer, but its association with all early-onset solid

cancers combined was weaker and not statistically significant. Put simply, once every solid cancer was pooled together, this second clock found essentially no link.

The metabolite-based clock showed a similar distinction: Each standard deviation increase was associated with an 89% higher risk of lung cancer and a 44% higher risk of uterine cancer, while the overall cancer association again did not reach statistical significance.

- **The immune system and fat tissue revealed distinct cancer patterns —** Researchers next analyzed 19,874 U.K. Biobank participants with protein data to estimate the biological age of specific organs and tissues. In this exploratory analysis, immune system aging was associated with an 89% higher risk of early-onset lung cancer, while accelerated aging of adipose, or fat, tissue was associated with a 60% higher risk of early-onset colorectal cancer.

  Both of these organ-level numbers carry a wide margin of error, and the authors treat this part of the analysis as exploratory — a promising lead rather than a settled finding.

- **These associations remained even after researchers adjusted for whole-body biological aging.** Knowing the condition of a specific organ system provided information that an overall biological age score missed. That matters to you because aging doesn't occur uniformly throughout your body. One tissue or biological system could show greater physiological strain even when a broader health measurement looks less concerning.

- **Genetics didn't explain away the observed associations —** Researchers accounted for genetic predisposition to both aging and cancer, along with factors such as body mass index (BMI), smoking, alcohol intake, diet, physical activity, education, and existing health conditions. The associations between faster PhenoAge-defined aging and early-onset cancer remained after these adjustments and after researchers excluded participants with less than two years of follow-up.

The findings also remained similar when researchers defined early-onset cancer as diagnosis before age 50 instead of 55. This is an important distinction. The study doesn't prove that faster biological aging directly causes cancer, but the associations weren't easily explained by one genetic risk factor, one lifestyle habit or one definition of early-onset disease.

One limitation is worth keeping in mind — the U.K. Biobank participants are healthier and less socioeconomically diverse than the general population and are predominantly of European ancestry, so these estimates may not transfer evenly to everyone.

- **Several forms of cellular damage could connect faster aging with cancer —** The researchers described biological aging as the cumulative result of many exposures that affect your body over time.

  They proposed that these exposures converge on processes tied to cancer development, including chronic inflammation, accumulated genetic damage, changes in gene activity, altered conditions surrounding your tissues, and disruptions in both adaptive and innate immunity, the two major branches of your immune defenses.

  Those processes don't operate in isolation. In the framework the researchers describe, they reinforce one another: Chronic inflammation affects tissue health, genetic damage disrupts normal cellular instructions, and impaired immune defenses may reduce your body's ability to identify abnormal cells.

  Taken together, the researchers characterize this as a biological environment more susceptible to malignant transformation, meaning normal cells become more vulnerable to the changes associated with cancer development.

- **Your biological age reflects cumulative strain rather than one isolated habit —** The researchers pointed to earlier and more sustained exposure to obesity and metabolic dysfunction, poor diet quality, prolonged sedentary time, circadian

disruption, and widespread environmental chemicals as factors that could contribute to generational differences in biological aging.

However, the study didn't determine which exposures caused the observed changes, and the authors called for long-term studies that repeatedly measure biological aging within the same people.

Think of your biological age as a scorecard, not a sentence. Instead of asking whether one food, chemical, or habit is aging you faster, look at the cumulative load placed on your cells and tissues. Your practical goal is to reduce that load wherever you have control, one choice at a time, because the study suggests that the condition of your biological systems provides information about health risk that chronological age alone can't capture.

The study doesn't hand you a single fix, because biological aging isn't driven by a single cause. But the factors researchers identified — metabolic dysfunction, poor diet quality, inactivity, disrupted sleep, and environmental exposures — are areas where your daily choices have direct influence. That's where practical steps come in.

Reduce the Daily Strain Associated with Faster Biological Aging

Your biological age reflects the cumulative strain placed on your cells and tissues over time. I recommend focusing first on the daily exposures and habits that interfere with **cellular energy production**, metabolic health, and your body's ability to repair itself. You don't need to change everything at once. Pick one step, make it consistent, and build from there.

1. **Remove seed oils and ultraprocessed foods from your diet —** Start by reducing one of the most common sources of metabolic strain: excess **linoleic acid (LA) from seed oils**. My narrative review, published in Nutrients, explores the **explosion of LA intake** over the last century and how skyrocketing levels have altered the metabolic landscape of the modern world.[4]

Check ingredient labels for soybean, corn, canola, sunflower, safflower, and other seed oils, which appear throughout packaged foods, restaurant meals, and sauces. High intake of these **polyunsaturated fats** may push your cells toward less efficient energy pathways — the metabolic equivalent of running a car engine on the wrong fuel. It still runs, but it generates more exhaust and more wear.

Replace these products with simple whole foods you prepare yourself. For cooking fats, choose tallow, ghee, or grass fed butter. If you eat restaurant food often, your first challenge is simple: Prepare one additional meal at home each day. Every meal you control gives you another opportunity to reduce your exposure to ingredients that work against healthy cellular energy production.

A daily LA target below 5 grams may support healthier metabolic signaling over time. I recommend signing up for my **Pax health platform**, which includes two features — Food Buddy and Seed Oil Sleuth — that can help identify hidden sources of LA in your diet and estimate your total daily intake.

2. **Give your cells enough carbohydrates to produce energy efficiently —** Most adults need about 250 grams of targeted carbohydrates per day, with higher amounts for active individuals. Healthy **carbohydrates** from whole foods support steady cellular energy production instead of repeated crashes.

   If your gut health is compromised, with regular bloating or irregular bowel habits, begin with easier-to-digest carbohydrates like whole fruit and white rice. If your digestion is on track, root vegetables and properly prepared starches and grains work well for many people. Increase carbs gradually instead of forcing large amounts of fiber all at once.

3. **Build and preserve muscle with enough protein and daily movement —** Your muscles support metabolic health, physical resilience, and healthy aging. Aim for about 0.6 to 0.8 grams of protein per pound (or 1.32 to 1.76 grams per kilogram) of ideal body weight, with one-third coming from **collagen-rich sources** like slow-cooked meats or bone broth.

Pair adequate nutrition with regular movement. Walk daily, limit prolonged periods of sitting, and add strength training twice a week. If you're inactive now, start small. Track your walking time for one week, then set a goal to gradually work toward about one hour per day.

4. **Protect your circadian rhythm and use sunlight wisely —** Your sleep-wake cycle affects metabolic health and cellular energy production. Get natural outdoor light early in the day and reduce bright artificial light at night. Consistent light exposure at the right times helps your body maintain the daily rhythms that support sleep and repair.

   Sunlight also supports vitamin D production, nitric oxide release, mitochondrial melatonin, and cellular energy. Melatonin is produced primarily inside your mitochondria in response to near-infrared light exposure, which is one reason why natural sunlight matters here in a way indoor light does not.

   Avoid intense sun exposure from 10 a.m. to 4 p.m. until you've reduced seed oil intake for at least four to six months, since high LA levels increase your skin's sensitivity to the sun. Once you have reduced your seed oil intake, solar noon is the optimal time for sun exposure.

5. **Reduce your daily exposure to environmental toxins —** The research points toward biological aging as a reflection of many exposures that build over time, including environmental toxins. Start with the exposures you encounter every day. Run a high-quality air purifier in the room where you sleep to reduce the pollutants you breathe for hours each night. Use a high-quality filtration system designed to remove fluoride, along with other environmental chemicals and pesticide residues.

   Cut your contact with plastics as well. Store food and drinks in glass whenever practical, avoid heating food in plastic containers, and don't drink from plastic water bottles, especially those that have been left in a hot car. Heat increases the release of chemicals from plastic, adding to your cumulative exposure.

Spend regular time outdoors in green spaces, too, as a simple way to reduce the stress burden on your body. You don't need to eliminate every environmental exposure at once. Focus first on the ones you encounter most often, then reduce them one by one.

I recommend viewing this process as a long-term effort to restore the conditions your cells need to produce energy efficiently. You can't change your chronological age, but your daily choices influence the metabolic and environmental strain placed on your cells. Small improvements that you sustain give you a practical way to address the cumulative factors associated with faster biological aging.

FAQs About Faster Biological Aging and Cancer

Q: What is biological aging?

A: Biological aging reflects the condition and function of your cells, tissues, and organ systems compared with your chronological age, which simply measures how many years you have lived. Your biological age is influenced by the cumulative effects of metabolic health, diet, physical activity, sleep patterns, and environmental exposures.

Q: Why is faster biological aging linked to early-onset cancer?

A: The study found that greater biological age gaps were associated with higher risks of early-onset solid cancers, particularly lung, gastrointestinal, and uterine cancers. Chronic inflammation, genetic damage, altered tissue environments, and impaired immune function are among the processes researchers propose may connect accelerated biological aging with cancer development.

Q: Do all parts of my body age at the same rate?

A: No. Researchers found that specific tissues and biological systems showed distinct associations with early-onset cancers. Faster immune system aging was associated with early-onset lung cancer, while accelerated aging of fat tissue was associated with early-onset colorectal cancer. These organ-level findings come from an exploratory analysis and need confirmation.

Q: What factors contribute to faster biological aging?

A: Biological aging reflects cumulative strain rather than one isolated factor. Poor metabolic health, low-quality diets, prolonged inactivity, disrupted circadian rhythms, and environmental chemical exposures are among the factors researchers identified as contributors to faster biological aging.

Q: What steps help reduce the factors associated with faster biological aging?

A: Focus on reducing the daily strain placed on your cells. Remove seed oils and ultraprocessed foods from your diet, consume enough healthy carbohydrates and protein to support cellular energy and muscle mass, stay physically active, protect your circadian rhythm, use sunlight wisely, and reduce your exposure to environmental toxins.

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, 2, 3] Nature Medicine June 22, 2026
- [4] Nutrients. 2023 Jul 13;15(14):3129