Nutrition Action

MAY/IIINE 2025

ENTER FOR SCIENCE IN THE PUBLIC INTEREST

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TODAY'S CHILDREN WILL PAY THE PRICE

How much caffeine is in that?

VACCINESGet the facts

Seafood
Which to buy...
or avoid

Fixin' for a fight



PETER G. LURIE MD, MPH President, Center for Science in the Public Interest

Since January 20th, we've been battered by a steady drumbeat of threats to the public's health.

From cuts to National Institutes of Health (NIH) research grants to mass lavoffs at the National Oceanic and Atmospheric

Administration (NOAA), we could soon be at greater risk of dving not only from cancer, infections, and other illnesses, but from hurricanes, floods, and wild-

The Center for Science in the **Public Interest** (Nutrition Action's publisher) has a new strategic plan for the next five vears that makes us well equipped to face these challenges. Among its priorities:

■ Preventing food from making people sick.

In March, the Department of Health and Human Services (HHS) announced plans to cut 10,000 employees, including 3,500 at the FDA, the agency that quashes food poisoning outbreaks, reviews the safety of chemicals in food, ensures that infant formula doesn't sicken babies, and more.

Those sweeping cuts could be devastating to the public's health. We'll keep fighting them.

■ Improving the safety of drugs and medical devices. In March, HHS Secretary Robert F. Kennedy Jr. suggested that parents can treat measles with cod liver

oil, which is high in vitamin A. Doctors later had to treat a handful of children for liver damage due to excess vitamin A.

RFK Jr. has since grudgingly conceded that vaccines are the best way to prevent measles. But by April, the disease was already spreading in 24 states.

Also in March, HHS hired a vaccine skeptic as a data analyst to conduct a study of vaccines and autism, the Washington Post reported. The skeptic, discredited researcher David Geier, was once disciplined by the state of Maryland for practicing medicine without a license.

■ Improving access to healthy foods.

Congress is considering cuts to free school meals for 12 million children, and

> is adding red tape that would make it difficult for millions more to receive free meals. And its proposed cuts to SNAP (formerly Food Stamps) would harm 42 million people. The proposals would take money from families struggling to make ends meet in order to pay for



We'll fight to keep Congress from denying free school meals to 12 million children.

massive tax cuts for billionaires.

These and other actions make a mockery of the administration's promise to "Make America Healthy Again." We're mobilizing our networks to fight them.

Our vision for a healthier America pushes for health equity to address the root causes of health disparities and would make it easier for people to eat foods that protect our planet as well as our health. We won't back down.



For more information on CSPI's strategic plan, visit **cspinet.org/ourplan**



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TODAY'S CHILDREN WILL PAY THE PRICE

BY BONNIE LIEBMAN

The government can urge industry to "drill, baby, drill," vow to end "the green new scam," and erase rules to limit greenhouse gases. But that won't erase what may be irreversible damage to the planet our children inherit. Here's the latest...and how your diet can matter.

1 Last year was the hottest ever...again.

"2024 was the warmest year on record," announced Russell Vose, chief of the Monitoring and Assessment Branch at the National Oceanic and Atmospheric Administration (NOAA), at a press conference in January.¹

In 2024, the average global temperature topped the pre-industrial (1850–1900) average by 1.46° Celsius (2.63° Fahrenheit), according to NOAA.²

El Niño—the periodic warming of

the Pacific Ocean—was partially to blame.

Another contributor: "Shipping regulations implemented in 2020 reduced the emission of sulfur dioxide," noted Vose.

Sulfur dioxide can worsen problems like asthma and bronchitis by irritating and inflaming airways. But cutting sulfur dioxide has a downside.

"If you have reduced emissions, that implies fewer clouds and more sunlight reaching the Earth, heating the ocean, and warming," said Vose.

What's more, "polar sea ice has been at very low levels. That allows more energy to hit the ocean rather than being reflected back to space."

But the main driver is no surprise.

"Of course, there's been concentrations of gases like carbon dioxide, which is 50 percent higher than pre-industrial levels," said Vose.
"Methane and nitrous oxide are also up about 150 percent and 25 percent."

And those greenhouse gas emissions have taken a toll.

"It's very, very clear that the heat waves that we're seeing would not have been happening without anthropogenic climate change," said Gavin Schmidt, director of NASA's Goddard Institute for Space Studies, at the press conference. (He was refer-

ring to changes caused by human activity.)

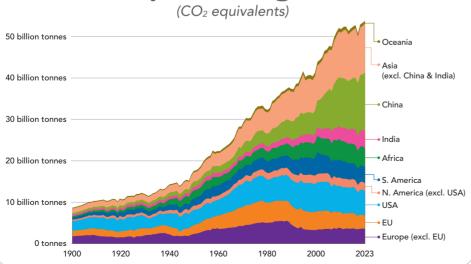
"The intense rainfall increases that we're seeing almost everywhere would not have been happening without anthropogenic climate change," added Schmidt.

Heat waves, heavy rainfalls, and wildfires are all signals of that climate change, he explained.

"The signal now is so large that you're not only seeing it in the global mean, you're not only seeing it at the continental scale, you're not only seeing it at the regional scale," noted Schmidt. "You're seeing it at the local scale. You're seeing it in local weather."

NOAA's reported 1.46° C rise in global temperature was less than those reported by the UK's Met Office Hadley Centre, the EU's Copernicus Climate Change Service, and Berkeley Earth.

Annual greenhouse gas emissions by world region



U.S. greenhouse gas emissions have dropped since their peak in 2005. But per person, U.S. residents emit nearly twice as much as people living in China.

"Using an average of multiple data sets, 2024 was about 1.55° Celsius above the average for 1850 to 1900," said Vose.

However, topping 1.5° C in 2024, noted Schmidt, "doesn't mean that we've exceeded it in the context of the Paris accord, which is over a longer time period." (He was referring to the 2015 Paris Agreement, which set a 1.5° C limit of warming to avoid the most devastating climate disasters.)

But that's not much comfort.

"We anticipate future global warming as long as we are emitting greenhouse gases," said Schmidt.

"Until we get to net zero, we will not get a leveling off of global mean temperature...and that's something that brings us no joy to tell people."

The Arctic is no longer a carbon sink.

In December, NOAA released its 2024 Arctic Report Card.3 The news wasn't reassuring.

"The Arctic continues to warm more quickly than the globe overall," Twila Moon, deputy lead scientist at the National Snow and Ice Data Center at the University of Colorado, told the press.4

That warming has taken a toll. The Arctic's summer sea ice extent "is only about 50 percent of what it was in the 1980s," noted Moon.

And a warmer Arctic means trouble. "The region contains massive amounts of carbon in its soils, most of that locked up in permafrost, ground that has been frozen for hundreds to thousands of years," explained Brendan Rogers, associate scientist at the Woodwell Climate Research Center in Falmouth, Massachusetts.

"The Arctic has acted as a carbon sink for millennia, gradually building up these large terrestrial carbon stores as plants photosynthesize, taking carbon dioxide out of the atmosphere and depositing carbon into the soil, where microbial decomposition has

historically been slow because of cold temperatures and frozen soils."

But the permafrost is no longer permanent.

"As climate change is happening, soils warm, permafrost is thawing, and microbes are waking up," Rogers pointed out. "And that decomposition—[causing] emissions of carbon dioxide and methane back into the atmosphere—is increasing."

What's more, Arctic wildfires have become more intense.

"Wildfires combust vegetation and soil organic matter, emitting that carbon back into the atmosphere," said Rogers. "And by removing insulating soil, they can also lead to longer-term permafrost thaw and carbon emissions."

The result: "The permafrost region, which historically has acted as a carbon dioxide sink, has been essentially carbon dioxide neutral over the

past 20 years," noted Rogers.

Translation: The Arctic is no longer helping to cool the Earth.

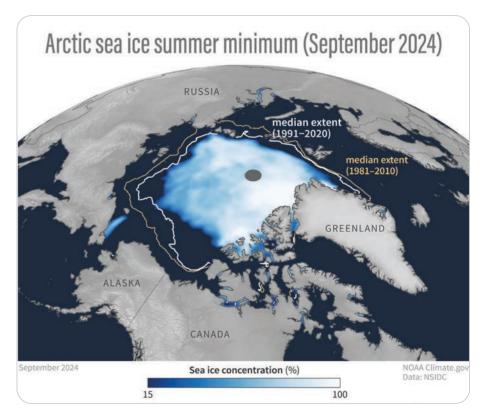
And the Arctic tundra—a large expanse of treeless lands in the far north—has shifted from a sink to a source of carbon dioxide.

"This transition from a carbon sink to a source is of global concern because carbon dioxide and methane are heat-trapping greenhouse gases," Rogers explained.

Earth is warming faster than expected.

"We Earth-system scientists and climate scientists are getting seriously nervous," said Johan Rockström. director of the Potsdam Institute for Climate Impact Research and professor of Earth-system science at the University of Potsdam, in a 2024 TED Talk.⁵

"We are, despite years of raising the



The Arctic is warming faster than the overall globe, causing sea ice to shrink and releasing carbon and methane from the thawing permafrost. alarm, now seeing that the planet is actually in a situation where we underestimated risks."

From 1970 to 2010, the world's average temperature climbed by 0.18° C per decade, said Rockström. But in the decade starting in 2014, it rose by 0.26° C.

"If we follow this path, we will crash through 2° Celsius within 20 years and hit 3° Celsius by the year 2100, a disastrous outcome, caused by us humans," he warned.

Why is the planet heating faster than expected? For starters, its buffering capacity may be dwindling.

"So far, Mother Earth has been so forgiving," said Rockström. "Fifty-three percent of the carbon dioxide from fossil fuel burning and land system change has been soaked up by intact nature on land and in the ocean."

But forests in Canada, Russia, Germany, and elsewhere may be losing their capacity to absorb carbon.

"Did you know that the latest science shows that part of the Amazon rainforest, planet Earth's richest biome on terrestrial land, has already tipped over and is no longer a carbon sink?" asked Rockström.

"It is today a carbon source. It's no longer helping us."

The oceans worry him even more. "The ocean absorbs 90 percent of the heat caused by human-induced climate change," he noted.

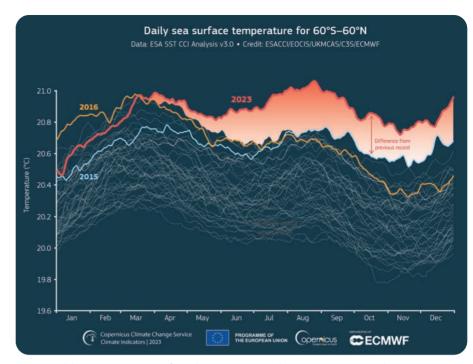
Since 1980, the oceans have gradually gotten warmer and warmer.

"Then suddenly in 2023, something happens," said Rockström. "Temperatures just go completely off the charts, 0.4° Celsius outside of the warmest temperature in previous years."

It's not clear why.

"Is it...an ocean that is starting to lose resilience?" Rockström asked.
"An ocean that is at risk of releasing heat to the atmosphere and self-amplifying warming? We do not know. But one thing is for certain: The ocean is sounding the alarm."

The oceans aren't the only Earth



A troubling sign: Sea surface heat in non-polar regions jumped in 2023 and stayed high in 2024 (not shown), compared to earlier years.

system that could tip from friend to foe.

"Big systems like the Greenland ice sheet, the overturning of heat in the North Atlantic, the coral reef systems, the Amazon rainforest are tipping element systems," explained Rockström.

"Push them too far, and they will flip over from a desired state that helps us to a state that will self-amplify in the wrong direction, going from cooling and dampening to self-amplifying and warming."

To stay under 1.5° C of warming and avoid crossing tipping points, we need to stay within the "global carbon budget" set by the Intergovernmental Panel on Climate Change (IPCC), noted Rockström. But we've already used up over 90 percent of that budget.

"What remains for us is only 200 billion tons of carbon dioxide that we can continue emitting to have a 50 percent chance of holding 1.5," he said.

"We emit today 40 billion tons of carbon dioxide per year, giving us five years at current rates of emission before we've consumed the budget. We are seriously running out of time."

The solution: "Bend the curve of emissions immediately and follow a path where we reduce emissions by at least 7 percent per year for a safe landing and a net zero world economy by 2050."

Even then, we'll inevitably face at least 30 to 40 years of overshoot before we come back to the 1.5° C limit.

"We must now be prepared for a very likely breaching of the 1.5° C planetary boundary on climate somewhere between 2030 and 2035," cautioned Rockström.

The only solution: a rapid transition away from fossil fuels and toward sustainable food systems, regenerating forests, and more.

"I know that is very daunting," said Rockström, "but what choice do we have when on the line is the future of our children on planet Earth?"

4 A planet-healthy diet is also healthy for you.

Worldwide, the food system accounts for roughly 25 percent of man-made greenhouse gas emissions.⁶

"By far, the biggest single offender is the production of red meat, and especially beef," says Walter Willett, professor of epidemiology and nutrition at the Harvard T.H. Chan School of Public Health.

Why? "The conversion of feed into edible flesh for humans is extremely inefficient, especially when we're feeding grain to cattle," explains Willett.

"And the vast majority of cattle, whether they're for dairy production or beef production, are fed grain during much of their life cycle."

Then there's methane, a potent greenhouse gas.

"It's produced in the forestomach of cattle as part of their digestion," says Willett.

And the damage done by food is growing.

"Worldwide, many people want to eat more meat and more dairy foods as incomes go up," notes Willett.

"That increased demand is driving deforestation as we chop down trees to grow food for cattle or allow them to graze."

In fact, along with fires and droughts, deforestation is turning the Amazon from a carbon sink into a carbon emitter.7

"We're losing the trees, which may be the most important resource for capturing carbon," explains Willett.

"And by plowing up the soil, we're releasing methane that had been stored there. So it's a double whammy."

In 2019, Willett and the University of Potsdam's Johan Rockström co-chaired the EAT-Lancet Commission, which set the parameters of a healthy, sustainable diet that could feed 10 billion people by 2050.8

"We ended up with a diet that fits pretty closely with a traditional Mediterranean diet," says Willett.

"It's not a vegan diet; it's an omnivore diet. It allows about one 3-to-4 ounce serving of red meat a week. Or, if you like big steaks, you could have a celebration once a month with a 12-ounce steak."

The diet has room for one daily serving of dairy, but most protein would come from plants like beans, nuts, and soy foods.

"And this would be on a base of plenty of fruits, vegetables, and whole grains," says Willett.

"But there's not much wiggle room," he adds. "If the world went to two servings of dairy a day, or a bit more red meat, it wouldn't fit within

obstructive pulmonary disease," says Willett.9 "They also had a lower risk of heart attacks and strokes."10

Which foods mattered most?

People who consumed more whole grains, fruits, poultry, nuts, soy foods, and added unsaturated fats had a lower risk of dying, while those who ate more potatoes, red or processed meats, eggs, added saturated fats, added sugars, and sugar from fruit

juices had a higher risk.9

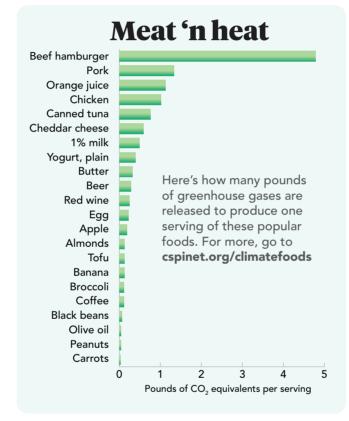
"We estimated that the diets of people with the highest scores accounted for about 30 percent fewer greenhouse gas emissions and about 50 percent less land use than those of people with the lowest scores, because they were eating foods directly, rather than running them through animals," says Willett.9

It's the least we can do.

"Climate change is happening even though one might pretend that it's not," says Willett. "We can see the fires and floods and the heat that's making many parts of the world not livable."

"The consequences are going to be even worse 10 years from now, but it will be tragic for much of the world's population by the end of the century, when

our children and grandchildren will be alive. Once we've reached the tipping points, we can't put the genie back in the bottle."



the EAT-Lancet's estimates of what we can produce sustainably."8

Since then, his team has created a score to rate how closely a person's diet comes to what they called a Planetary Health Diet. And they've tracked its links to health in some 200,000 nurses and other health professionals over roughly 30 years.

"Those who had the best adherence to the Planetary Health Diet had a lower risk of dying due not just to heart disease, but to cancer, neurodegenerative disease like dementia, and respiratory disease like chronic

¹ noaa.gov/media-advisory/noaa-nasa-toannounce-2024-global-temperature-rankingclimate-events.

² noaa.gov/news/2024-was-worlds-warmest-year-

³ arctic.noaa.gov/report-card/report-card-2024/ surface-air-temperature-2024.

⁴ youtube.com/watch?v=3MOI9JE5ZPI.

youtube.com/watch?v=VI6VhCAeEfQ

⁶ ourworldindata.org/greenhouse-gas-emissions-

⁷ Nature 595: 354, 388, 2021.

⁸ eatforum.org/eat-lancet-commission.

⁹ Am. J. Clin. Nutr. 120: 80, 2024.

¹⁰ Lancet Planet Health 8: e666, 2024.



Confused about whether vaccines are safe? You're not alone. Here's what to know about how vaccines work, how they're approved and tracked for safety, and the rare risks of some vaccines.

"The goal of a vaccine is to induce the immunity that typically follows a natural infection without having to pay the price of a natural infection," explains Paul Offit, director of the Vaccine Education Center at Children's Hospital of Philadelphia.

To trigger an immune response, scientists can use:

sponse, scientists can use:Weakened pathogens.

Examples include the measles and chickenpox vaccines.

■ Inactivated pathogens.

The polio, flu, and hepatitis A vaccines use a killed virus.

■ Pathogen components.

Vaccines for shingles and pneumonia use a protein, sugar, or casing from a virus or bacteria.

- mRNA. The Pfizer and Moderna Covid vaccines use messenger RNA. mRNA vaccines take far less time to make than others.
- Toxoids. Vaccines for diphtheria and tetanus use a toxin made by the germs.

The job of all vaccines is the same: to trigger your immune system's "memory" cells and antibodies to retain information about the virus or bacteria in order to protect you from future infections.

EFFECTIVENESS

All FDA-approved vaccines are effective, but some work better than others. Best-case scenario: "The smallpox vaccine essentially eliminated smallpox from the face of the earth by the 1980s," says Offit. And vaccines



For more on vaccine safety—including questions about vaccines for children—check out cspinet.org/vaccines.

have eradicated diseases like polio and rubella from the U.S.

"The measles vaccine is also a superb vaccine," adds Offit. Before the vaccine, experts estimate that 3 to 4 million U.S. residents were infected and 400 to 500 died of the disease each year. About 1 in 20 children with measles get pneumonia and 1 in 1,000

develop brain swelling that could leave a child deaf or with an intellectual disability.¹

"We had eliminated measles, far and away the most contagious infectious disease, from this country by the year 2000," says Offit. "But we've just had our first child deaths from measles since 2003 because people have chosen not to vaccinate their children."

(In that Texas outbreak, 98 percent of cases have been in people who were unvaccinated or whose vaccina-

tion status was unknown.)

Vaccines for diseases like measles, polio, and rubella usually provide lifelong protection. Why do you need boosters for viruses like the flu or Covid?

■ The infection is local.

Systemwide infections like measles and polio cause robust immune responses. But viruses like the flu and Covid only infect mucous membranes like those lining the nose, throat, and lungs.

The immune responses that combat those viruses wane faster than responses to systemwide infections.

■ The virus changes. Viruses like measles and polio don't change much over time. But flu and Covid viruses mutate often, so the antibodies that your body makes against one strain or variant may not work against another.

"Even if the entire world were vaccinated, viruses like the flu would still circulate," Offit explains. "The goal of those vaccines is not to eliminate the virus; it's to make you less likely to be hospitalized or die."

APPROVAL

Before a vaccine reaches the market and your arm—scientists do several rounds of studies to test how well it works and how safe it is. It can take 10 to 15 years for a vaccine to get through the entire testing and approval process.

One exception: When Covid hit in 2019, the government's Operation Warp Speed enabled scientists to get to work on vaccines immediately, conducting multiple studies—and churning out millions of doses of the vaccines—at the same time.

Once the vaccines were approved, the supply was ready to go. So the Covid vaccines underwent the same safety protocols as other vaccines...just a lot faster.

"In order for a vaccine to be initially licensed by the Food and Drug Administration, you have to show that it works and is safe in a large placebo-controlled clinical trial involving thousands or tens of thousands of people," notes Offit.

But even with trials that large, it's still possible to miss a rare, serious side effect.

"That's why we have additional safety systems in place," says Offit.

SAFETY

Several systems track vaccine safety. "The most important is the Vaccine Safety Datalink," says Offit.

The VSD is a partnership between the Centers for Disease Control and Prevention and healthcare organizations that serve roughly 12 million people. It evaluates data weekly to keep tabs on both immediate side effects and complications that take years to develop.2

Meanwhile, the CDC's Advisory

Committee on Immunization Practices meets at least three times a year to decide who needs vaccines, to set vaccine schedules, and to evaluate vaccines' safety and effectiveness.

The voting members include medical and public health experts (not government employees) who have no conflicts of interest.3

"Vaccines are truly held to the highest standard of safety," says Offit.

RISKS

"Vaccines are considered to be safe if the benefits clearly and definitively outweigh the risks," Offit explains. "It doesn't mean that there are no risks."

Covid vaccines saved roughly 3 million U.S. lives. When rare problems arose, our monitoring systems detected them.

"For example, the mRNA Covid vaccines have the rare side effect of myocarditis, or inflammation of the heart muscle," says Offit. According to one estimate, roughly 1 in every 38,000 young men developed myocarditis after receiving their second dose of an mRNA vaccine.4

The Advisory Committee on Immunization Practices decided that the benefits of the mRNA Covid vaccines vastly outweighed the risk of myocarditis. (Note: People are far more likely to get myocarditis from a natural Covid infection than from a Covid vaccine.)

"Covid is a perfect example of the

safety monitoring system working as it should," says Offit.

"The Covid vaccines probably saved 3 million American lives. But the Johnson & Johnson vaccine was found to cause a rare, severe clotting disorder in about one in 250,000 people.⁵ It took about nine lives, which is unacceptable, especially when there were safer alternatives. So it was taken off the market."

Other vaccines also carry rare risks. "Flu vaccines have a risk of Guillain-Barré syndrome, which is a paralysis that often starts in the legs and spreads upward," says Offit. "It occurs in about one in a million people who receive

the flu vaccine."6 (Most people recover from Guillain-Barré, though the recovery can take months or even years.)

"And some people are allergic to a component of a vaccine," says Offit. Allergic reactions can range from mild—like redness, swelling, or itching—to severe anaphylaxis, which is a life-threatening reaction that makes it difficult to breathe. Only about 1 in 1.3 million vaccinations result in anaphylaxis.7

The most common risks? "All injectable vaccines

could cause pain, redness, or tenderness at the site of injection," says Offit. Or you may feel fatigued, feverish, or have head or body aches for a day or two after getting a vaccine.

Most of those side effects are simply a sign that your immune system is mounting a response against the disease. Said another way, they mean the vaccine is working.

¹cdc.gov/pinkbook/hcp/table-of-contents/ chapter-13-measles.html?CDC_AAref_Val=.

Vaccine 32: 5390, 2014.

³ cdc.gov/acip/index.html.

⁴ Eur. J. Heart Fail. 24: 2000, 2022.

⁵ cdc.gov/vaccine-safety/vaccines/covid-19.html.

⁶ Vaccine 38: 1869, 2020.

⁷ J. Allergy Clin. Immunol. 141: 463, 2018.

What's the best seafood?

IT'S COMPLICATED

Seafood is good for you. That's no surprise. But it's not easy to find species that don't contain mercury, PCBs, PFAS, or other contaminants, that aren't overfished, and that aren't linked to human rights abuses. In her new book *The Fish Counter*, NYU professor emerita Marion Nestle tackles those and other issues.

What led you to write The Fish Counter?

MN: When I wrote *What to Eat* in 2006, there were more chapters devoted to fish than to any other topic. Who knew that it was that complicated?

You go to a fish store, you pick the one you want, you take it home, you cook it. You think you're done, but if you start asking questions, you can't buy anything. There are so many almost unsolvable issues.

Like whether to buy farmed or wild-caught fish?

MN: Yes. The reason for farming is that the ocean has been overfished in dreadful ways—like using explosives or by dragging mile-long nets through the water. The fish don't have a chance. So ocean fish are enormously depleted.

You call it an extraction industry.

MN: Yes. Countries can only control their own fishing waters, and everyone wants to extract as much fish as they can. So it's become increasingly mechanized. Often it's done with explosives like dynamite.

What are they exploding?

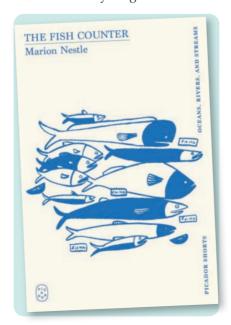
MN: They set off an explosion near the ocean bottom, and the fish rise to the surface. It's absolutely awful.

Also, the fish are sometimes tracked

by radar. The nets are miles long, so there's phenomenal waste because they bring up all kinds of fish that aren't sellable. So they throw them back, dead or alive.

And 70 to 85 percent of seafood sold in the U.S. is imported?

MN: Yes, and you have no idea from where because wild-caught fish can be labeled as caught in the U.S., for example, as long as the fishing vessel has a U.S. flag, regardless of where the fish were actually caught.



The Fish Counter (available in early June) delves into seafood dilemmas.



MARION NESTLE is the Paulette Goddard Professor of Nutrition, Food Studies, and Public Health, Emerita, at New York University and the author of 16 books, including Food Politics and Safe Food. She spoke with Nutrition Action's Bonnie Liebman.

Are there human rights abuses on fishing vessels?

MN: It's hard to monitor because some are far out to sea for weeks or months. With no one watching, operators can starve, punish, or even murder their workers with impunity.

Some fishing vessels have observers to look for environmental violations. But nobody wants the observers to see anything, and they're subject to a surprising number of accidents. Uh-oh, man overboard.

It's very dangerous work—so dangerous that the organization that represents observers on fishing vessels is extremely worried about the risks. You're out at sea, there's nobody watching, and you have no escape.

Does fish farming have problems?

MN: Farming fish can be done well or it can be done terribly. Better farms minimize the use of antibiotics and pesticides and keep chemicals from being discharged into nearby waters or land,

and they don't deplete ocean stocks to feed farmed fish. That's easier to avoid doing if you're farming seafood that's lower on the food chain—like shellfish, catfish, or tilapia—rather than fish like salmon that eat other fish or require sources of omega-3 fats.

Are inland farms better or worse?

MN: It depends. With inland fish farms, it's easier to set up systems to handle the waste. With fish farms in the ocean, uneaten food pellets and fish waste can pollute the water and harm plants and animals living on the sea floor. Managing that is difficult when you're dependent on tides.

I visited some Norwegian ocean fish farms, and they've got 80,000 fish in one of these pens, swimming around in circles, and they throw the feed in. The feed drops. The fish eat it. If the fish don't eat it, it gets out of the pen.

Is farmed salmon naturally gray?

MN: Yes. It's dyed salmon color with astaxanthin, a safe dye. You can buy it as an antioxidant supplement, though evidence for its benefits is weak.

But nobody eats gray fish unless they expect it to be gray. They've done studies that show that the brighter the red color, the more people like it.

Is most shrimp farmed?

NM: Yes. Much of it comes from Asia, where it's farmed in polluted water. Many shrimp farmers use massive amounts of antibiotics, disinfectants, and pesticides. None are good for your health, and none are strictly necessary. And using antibiotics could create resistant bacteria.

What about microplastics?

MN: Much of the plastic in the ocean ends up in what's called the Great Pacific Garbage Patch. A lot comes from fishing vessels. Some of the plastic gets beaten up by the ocean, so you get tiny pieces that are too small to see. We don't know what ingesting them is doing to us, but it can't be good. Of

course, microplastics are in our air, water, and other foods, not just in fish.

Where does mercury come from?

MN: One source is underwater volcanoes. We can't do anything about that. Another is coal-burning power plants, about which you can do a great deal. You can insist that the power plants clean their emissions.

For decades, presidents have wanted to stop coal-burning power plants from emitting mercury, and under President Biden, the EPA limited emissions. Now the EPA is planning to roll back those controls.

How does mercury get into fish?

MN: It's very heavy, so any mercury in the atmosphere falls to the ground, then eventually washes into the ocean. And if mercury gets methylated, it's extremely toxic.

The classic example is a truly shocking incident that happened in Japan. Between 1932 and 1968, a manufacturing plant dumped

methylmercury into the bay around Minamata at enormous levels. The fish picked it up, and people ate the fish. Methylmercury is toxic to the developing nervous system, so kids were born with severe neurological disorders like deformed spines and intellectual disabilities.

The plant knew about it, the government knew about it, but nobody did anything because of corruption and because if they had, the fishermen wouldn't have been able to catch as many fish. In the meantime, thousands of kids suffered.

What about lower doses of mercury?

MN: There have been instances of people who eat a lot of albacore tuna showing neurological symptoms.

But only the large predatory fish are a problem, because methylmercury moves up the food chain. Little fish eat it, and then big fish eat the little fish, and bigger fish eat those fish, so it accumulates in their muscle.



Tuna may be good for you, but in March, four Indonesian fishermen filed a lawsuit accusing Bumble Bee (owned by FCF, a Taiwanese company) of benefiting from the forced labor and abuse the men suffered.

Sustainable seafood

Looking for seafood that won't harm the environment? Here are the "Best Choice" and "Good Alternative" lists from Seafood Watch's national guide. Go to seafoodwatch.org for details and the "Avoid" list.

Which fish are high in mercury?

MN: Shark, swordfish, king mackerel, tilefish from the Gulf of Mexico, marlin, orange roughy, and bigeye tuna. Most people don't eat them often, but they do eat albacore tuna, which has about half the amount in other big predatory fish. That's still a lot.

The tuna industry has fought any attempt to tell people to eat less albacore. Fortunately, light tuna has less mercury, and it's cheaper. [See cspinet.org/mercury for more.]

What about fish you catch yourself?

MN: If you're a sports fisherman fishing in U.S. inland waters, many state advisories say you can't eat any—or very much—of the fish you catch because of the PCBs, PFAS, or mercury. That's astonishing to me.

Are fish often mislabeled?

MN: I don't know about you, but when I go to a fish market, many fish look pretty much alike to me. Labels are supposed to say what they are and where they come from. But unless you trust your fish seller, be suspicious.

Salmon is the best example, because retailers can get so much more for wild salmon than they can for farmed salmon. They may also mislabel cheaper fish as more expensive lemon sole, red snapper, or grouper.

Do we need the omega-3 fats in fish?

MN: High-dose omega-3 supplements reduce triglyceride levels, but when it comes to reducing heart disease risk, some studies find a reduction while others don't. So I'm not convinced that the omega-3s in fish are essential.

Nevertheless, based on research suggesting that omega-3 fats might prevent blood clots and the irregular heartbeats that can lead to heart attacks or strokes, the American Heart Association recommends two servings

BEST CHOICE

Abalone (farmed)

Arctic char

Bass (farmed from US or

Mexico)

Catfish (farmed from US)

Clams (farmed)

Cod: Pacific (from Alaska)

Crab: king (from Alaska)

Flounder (from Alaska)

Mussels (farmed)

Oysters (farmed)

Rockfish (from US)

Sablefish/black cod (from Alaska pots)

Salmon (farmed from New Zealand)

Scallops (farmed)

Seaweed (farmed)

Shrimp (farmed from US)

Sole (from US)

Squid (from California)

Sturgeon (farmed from US)

Swordfish (from US buoy gear,

harpoon, or pole-&-line)

Trout (farmed from US)
Tuna: albacore/white

(troll or pole-&-line)

Tuna: skipjack/chunk light (Pacific troll or pole-&-line)



GOOD ALTERNATIVE

Clams (wild from US or Canada)

Cod: Atlantic

Lobster: spiny (from US or

Mexico)

Mackerel (from Chile, Ecuador,

Japan, or Morocco)

Mahi mahi (from US)

Oysters (wild from US)

Sablefish/black cod (US longline)

Salmon (wild from US)

Salmon: Atlantic (farmed from Maine

or Faroe Islands)

Sardines (from Japan or Morocco)

Scallops (wild)

Shrimp (wild from US or Canada; farmed from Ecuador, Honduras, or

Thailand)

Snapper (from US)

Squid (from Chile or Peru)

Swordfish (imported harpoon or pole-&-line; from U.S. gillnet or longline)

Tilapia (from Colombia, Indonesia,

Mexico, or Taiwan)

Tuna: canned (pole-&-line, troll-caught, FAD-free, free school, or

school-caught)

Tuna: some Pacific bluefin, yellowfin/ahi (see seafoodwatch.org for details)

a week of fish, especially fish rich in omega-3s like sardines or salmon.

Is there a single place where people can go for advice about fish?

MN: No one deals with everything. The Monterey Bay Aquarium's Seafood Watch, which is the best of the lot, deals largely with sustainability. It doesn't deal with toxins. The FDA deals with toxins. It doesn't deal with sustainability.

The Global Seafood Alliance issues seals for Best Seafood Practices and Best Aquaculture Practices. It has standards for managing fisheries and the rights and welfare of crew members. You can look for "BSP certified"

or "BAP certified" when you shop.

And all the wild-caught fish at Whole Foods is either on Seafood Watch's Best Choice or Good Alternative list or has been certified by the Marine Stewardship Council. Whole Foods also has standards for farm-raised fish.

What's your take-home message?

MN: We should look for every conceivable way to stop polluting and overfishing. These are huge problems.

But in the rest of the world, loads of people are absolutely dependent on catching fish in the ocean to survive. It's pretty tough to say we want them to stop, but we certainly want them to do it without destroying so much. •

Quick Studies

A snapshot of the latest research on diet, exercise, and more.

Are ultra-processed foods addictive?



Do ultra-processed foods that are high in fat and sugar elicit an outsized dopamine response in the brain's reward regions, similar to what's seen with addictive drugs?

Scientists used a PET scan to measure brain dopamine release in 50 young adults 30 minutes after they drank an ultra-processed milkshake

that was high in fat and sugar. The average brain dopamine responses were no different after the milkshake than before. Nor did the responses differ between people with or without excess weight, as some earlier studies had suggested.

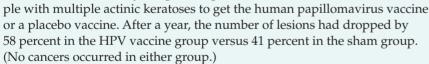
WHAT TO DO: Limit unhealthy ultra-processed foods (see Sept./Oct. 2024, p. 16). There's little evidence that they're as addictive as abused drugs.

Cell Metab. 37: 616, 2025.

HPV vaccine & actinic keratoses

Actinic keratoses—rough, scaly, reddish patches on the skin caused by the sun's UV rays—are more likely to turn into squamous cell skin cancer in people who have multiple lesions. Can the HPV vaccine help?

Researchers randomly assigned 70 peo-



WHAT TO DO: If you get frequent actinic keratoses, ask your dermatologist about an HPV vaccine.

JAMA Dermatol. 2025. doi:10.1001/jamadermatol.2025.0531.

Butter vs. plant oils



Heard that butter is healthier than plant oils like canola, soybean, or olive?

Researchers tracked 221,054 people for roughly 33 years. Those who ate the most butter had a 15 percent higher risk of dying than those who ate the least. And those who ate the most plant-based oils had a 16 percent lower risk of dying than those who ate the least.

Every 2 teaspoons a day of plant oils was linked to an 11 percent lower risk of dying of cancer. Every 2 teaspoons of butter a day was linked to a 12 percent higher risk.

WHAT TO DO: Replace butter with plant oils when possible. This kind of study can't prove that they're healthier, but replacing saturated fats (like butter) with unsaturated plant oils (all but coconut and palm) cuts the risk of heart disease in clinical trials. And seed oils don't boost inflammation (see Nov./Dec. 2024, p. 10).

JAMA Intern. Med. 2025. doi:10.1001/ jamainternmed.2025.0205.



Do beans "stick to your ribs"?

Does beef ward off hunger better than

Scientists had 35 older adults eat a breakfast tortilla made with equal amounts (and calories) of black beans, red kidney beans, or beef on different days. (The Ontario Bean Growers funded the study.)

There was no difference in how full the participants felt, how much pizza they ate for lunch, or how much food they ate during the rest of the day.

WHAT TO DO: Give beans a chance. Or mix them in with ground beef to save money and help protect the planet.

J. Nutr. 2025. doi:10.1016/j.tjnut.2025.02.008.



Yoga for knee pain?

Can yoga match strength training in curbing knee osteoarthritis pain?

Researchers randomly assigned 117 people with knee osteoarthritis to 3 yoga or strength training sessions a week. After 12 weeks, the yoga group's pain scores were no better or worse than the strength group's (the study's main outcome). But after 24 weeks, the yoga group reported less stiffness and pain and better function than the strength group.

WHAT TO DO: Got knee arthritis pain? Give yoga a whirl.

JAMA Network Open 8: e253698, 2025.

GLP-1 drugs & pancreatic cancer

Can GLP-1 drugs like semaglutide and tirzepatide (sold as Ozempic, Wegovy, Mounjaro, and Zepbound) lower the risk of pancreatic cancer?

Researchers compared 167,091 people who were prescribed GLP-1



drugs for type 2 diabetes to 1,468,965 people taking other diabetes meds. Over 5 years, the GLP-1 takers had roughly a 20 to 30 percent lower risk of pancreatic cancer than those who were taking the other diabetes drugs. And GLP-1 takers had nearly a 60 percent lower risk than those taking insulin, possibly because insulin may boost the risk of pancreatic cancer.

WHAT TO DO: It's too early to know if GLP-1 drugs can help prevent pancreatic cancer. Stay tuned.

J. Natl. Cancer Inst. 117: 476, 2025

Defend your brain



Vascular dementia—caused by damaged blood vessels in the brain—occurs both by itself and in 50 to 80 percent of people with Alzheimer's.

Can a healthy lifestyle help protect your brain's blood vessels?

Scientists studied 365,782 people aged 50 or older. Each participant's "Lifestyle Risk Score" was based on "Life's Essential 8"—that is, on their weight, blood lipids (like cholesterol and triglycerides), blood sugar, blood pressure, diet, physical activity, smoking, and sleep patterns.

(Diet scores depended on servings per day of fruits, vegetables, whole grains, refined grains, fish, processed meats, and unprocessed red meats.)

After 14 years, those with the worst Lifestyle Risk Scores had a 40 percent higher risk of vascular dementia (but not Alzheimer's) than those with the best scores.

WHAT TO DO: This kind of study can't prove that a healthy lifestyle protects your brain's blood vessels. But whaddya got to lose? For more, go to heart.org/Lifes8.

Circulation 2025. doi:10.1161/CIRCULATIONAHA.124.070632.

Treating women...and men...for bacterial vaginosis



A third of premenopausal women get bacterial vaginosis, which often recurs within 3 months of treatment. Treating male partners can help.

Researchers randomly assigned 164 couples in which the woman had bacterial vaginosis to a 7-day antibiotic treatment for both partners or for only the women.

The trial was stopped early—after

150 of the couples had completed the 12-week followup—because the results were clear. An infection reoccurred in 63 percent of the women-only group but in only 35 percent of the partner group.

WHAT TO DO: Got recurring bacterial vaginosis and a male partner? Ask your provider about treatment for both of you.

N. Engl. J. Med. 392: 947, 2025.

What to look for in a sunscreen

A quick guide to sunscreen claims

A good sunscreen is one you'll wear...and wear often. But the ideal sunscreen not only feels good to wear. It also blocks most ultraviolet (UV) rays, is affordable, and is safe for both humans and the environment. As it turns out, that's a tall order.

SPF

The SPF—or sun protection factor—tells you how well a sunscreen blocks UVB rays, which cause sunburn and cancer. The American Academy of Dermatology recommends an SPF of at least 30, which blocks 97 percent of UVB rays. (No sunscreen blocks 100 percent.)

But a sunscreen's SPF doesn't tell you how well it blocks UVA rays, which also cause cancer (and skin aging). So high-SPF sunscreens may give you a false sense of security, leading you to stay in the sun longer because they're protecting you from sunburn-causing UVB rays. That can overexpose you to the sun's UVA rays.

Broad spectrum

To get at least some UVA protection, you need a sunscreen that's labeled "broad spectrum." The FDA has proposed requiring that all sunscreens with an SPF of 15 or higher provide broad spectrum protection and that UVA protection increase as SPF increases in all sunscreens labeled "broad spectrum." Until that proposal is finalized, "broad spectrum" means you're getting some UVA protection, but the label needn't tell you how much.

Water-resistant

If you'll be swimming or sweating, look for a water-resistant sunscreen. It will retain its SPF value for either 40 or 80 minutes (the label will tell you which).

Active ingredients

Compounds in sunscreens called "UV filters" are what protect you from the sun.

Mineral UV filters include zinc oxide and titanium dioxide. They sit atop the skin and are safe, says the FDA.

Chemical UV filters most often used in the U.S. are avobenzone, homosalate, octinoxate. octocrylene, octisalate, and oxybenzone. In one study, all six were absorbed into the bloodstream.

But that doesn't necessarily mean they're dangerous, and the FDA says that you shouldn't avoid using sunscreens that contain them.

What are the safety concerns? Some chemical UV filters may carry a low risk of skin irritation or allergic reactions. Oxybenzone and homosalate may disrupt hormones.

But more research is needed on those and other health outcomes. The FDA has asked companies for more safety data.

Based on the evidence we have now, though, the benefits of chemical UV filters outweigh their potential harms. Stay tuned.

Expiration date

Sunscreens have a long shelf life, but they do eventually expire. If you don't see an expiration date on the bottle, it means the company has proven that the sunscreen is stable for at least three years. If you're unsure how long you've had your sunscreen or if it separates into clumps, it's time for a new bottle.

Note: Sunscreen can degrade faster if it's exposed to heat or direct sunlight, so don't keep it in your car. Long day at the beach, park, or pool? Wrap your sunscreen in a towel, keep it in the shade, or toss it in your cooler.





Water resistant (80 min)

EXP 06/2027

For more details on sunscreen claims—and why, when, and how you should wear sunscreen—check out cspinet.org/sunscreen



Mineral sunscreen

Mineral sunscreens are safe, but many don't live up to their labeled SPF, says Consumer Reports, which tests sunscreens. Even CR's highest-rated mineral sunscreen provided only about 50 percent of its labeled SPF. So apply mineral sunscreens extra generously and often.

Ever notice "nano" mineral sunscreens? That means that the zinc oxide or titanium dioxide compounds are smaller than 100 nanometers across. Nano compounds can harm phytoplankton, crustaceans, mollusks, and coral.

Reef safe

Terms like "reef safe" or "reef friendly" may not mean much because neither term is regulated.

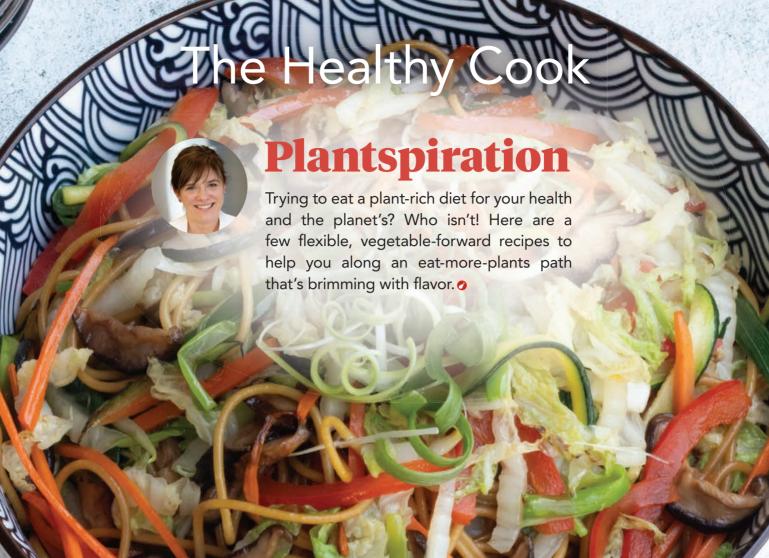
No UV filter is known to be truly safe for reefs. Researchers have only scratched the surface when it comes to understanding the environmental effects of UV filters.

What to do?

The UV filters with the strongest evidence for harm to marine ecosystems are oxybenzone and octinoxate. Avoid sunscreens that contain either.

And opt for lotions, not spray sunscreens, which can end up on the sand and wash into the water.

Based on current evidence, non-nano mineral sunscreens are the most environmentally friendly option. (Labels aren't required to say if a sunscreen contains nanoparticles or not. If in doubt, ask the company or check its website.)



VEGETABLE YAKISOBA

No time to prep a pile of veggies? Substitute bean sprouts and a bag of slaw for the matchstick-cut veg and cabbage. Because the pasta will absorb some sauce, undercook it by 2 minutes, then rinse in cold water and drain.

- 2 Tbs. reducedsodium soy sauce
- Tbs. oyster sauce
- 1 tsp. Worcestershire sauce
- tsp. molasses or brown sugar
- scallion, cut into matchsticks
- Tbs. + 1 Tbs. peanut oil

- shiitake mushroom caps, sliced
- 3 cups matchstick-cut vegetables
- 3 cups shredded napa or green cabbage
- cups al dente cooked whole wheat spaghetti
- TIME: 30 MINUTES | SERVES 4

PER SERVING (1½ cups): calories 300 | total fat 9 g | sat fat 1.5 g carbs 50 g | fiber 8 g | total sugar 9 g | added sugar 1 g protein 10 g | sodium 500 mg

- 1 Whisk together the soy sauce, oyster sauce, Worcestershire sauce, and molasses. (Optional: Soak the scallions in ice water until they curl.)
- 2 In a large nonstick pan over medium-high heat, heat 1 Tbs. of the oil until shimmering. Stir-fry the mushrooms until browned in spots, 2–3 minutes. Remove from the pan.
- 3 Add the remaining 1 Tbs. oil. Stir-fry the vegetables and cabbage until hot and charred in spots, 2-3 minutes.
- 4 Return the mushrooms to the pan and add the spaghetti. Drizzle the sauce over the pasta and stir-fry until hot, 1–2 minutes. Top with the scallions.

For cooking advice, write to Chef Kate at healthycook@cspinet.org

TOFU & SNOW PEAS IN BLACK BEAN SAUCE

Oh-so easy and flavor packed, this recipe takes advantage of the savoriness of the fermented black beans that are used in Chinese cooking. Like spicy? Choose a black bean chili sauce instead of the black bean garlic sauce.

- 16 oz. high-protein or extra-firm tofu
- tsp. cornstarch
- 2 Tbs. black bean garlic sauce
- Tbs. dry sherry
- Tbs. + 1 Tbs. peanut oil
- scallions, cut into
- cloves garlic, minced

TIME: 20 MINUTES | SERVES 3

PER SERVING (11/2 cups): calories 370 | total fat 23 g sat fat 4 g | carbs 18 g | fiber 7 g | total sugar 6 g | added sugar 1 g protein 23 g | sodium 460 mg

- cups snow peas, strings removed
- 1-inch pieces

BITS & BOBS CHICKPEA BOWL

You can use 3 cups of whatever vegetables you have on hand, whether raw, steamed, sautéed, or roasted. And the wheat berries (or try quinoa, farro, or brown or wild rice) can be warm or cold.

- Tbs. tahini
- 2 Tbs. extra-virgin olive oil
- 2 Tbs. chopped fresh mint
- 2 tsp. minced ginger
- ½ tsp. kosher salt
- Tbs. + 1 Tbs. red wine vinegar
- ½ cup thinly sliced red onion

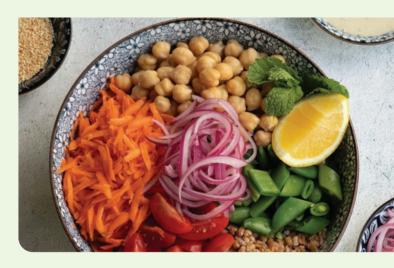
- cups cooked wheat berries
- 15 oz. can no-saltadded chickpeas, drained and rinsed
- cup grated carrot
- cup chopped snap peas
- cup quartered grape tomatoes

TIME: 20 MINUTES | SERVES 4

PER SERVING (134 cups): calories 400 | total fat 13 g sat fat 1.5 g | carbs 58 g | fiber 13 g | total sugar 5 g | added sugar 0 g protein 15 g | sodium 310 mg



- 1 Cut the tofu into triangles. Blot dry with a paper towel.
- 2 Whisk together the cornstarch, black bean sauce, and sherry with ½ cup water.
- 3 In a large nonstick pan over medium-high heat, heat 2 Tbs. of the oil until shimmering. Add the tofu and sauté until browned, 5-6 minutes. Remove from the pan.
- 4 Add the snow peas and scallions and stir-fry until charred in spots, 2-3 minutes. Remove from the pan.
- 5 Add the remaining 1 Tbs. oil to the pan. Stir-fry the garlic for 1 minute. Stir in the black bean sauce mixture and simmer until thickened, about 1 minute.
- 6 Add the tofu and vegetables to the sauce and toss everything together to heat through.



- 1 Make the dressing: In a small bowl, whisk together the tahini, oil, mint, ginger, and salt with 1 Tbs. of the vinegar and 2 Tbs. water.
- 2 In another small bowl, toss the red onion with the remaining 1 Tbs. vinegar.
- 3 In a serving bowl, add the wheatberries, then arrange the chickpeas, carrots, snap peas, and tomatoes. Top with the red onions. Serve with the dressing.

Optional extras: sprigs of mint, lemon wedges, toasted sesame seeds

Have you been fooled ese foods?

Most people eat more saturated fat, sodium, or added sugar than health authorities recommend. And cutting back isn't easy when some foods have more than you might expect. Here are a dozen sneaky ones to watch. Then turn the page for some better news.

MORE ADDED SUGAR than you might expect



Sorbet

"Packed with raspberries," says Talenti about its Roman Raspberry Sorbetto.

And packed with added sugar. A ²/₃-cup serving has 30 grams (7 teaspoons). Four more grams (1 tsp.) of sugar occur naturally in the berries.

Each serving racks up 60 per-

cent of a day's (50-gram) max for added sugar. That's typical. Häagen-Dazs Raspberry Sorbet has 34 grams. That's only five grams less than a 12 oz. Coke.

How to cut sugar: Frozen fruit treats on a stick make downsizing portions easy. Try Talenti Roman Raspberry Mini Sorbetto Bars or Outshine Raspberry Mini Fruit Pops (each with just 9 grams of added sugar per pop).

Tonic water

Tonic water tastes bitter, not sweet, so you might expect it to be roughly like (sugarfree) club soda.

But most tonic waters have about as much added sugar as a sugar-sweetened soda like Sprite. So top off the gin in your gin & tonic with 7 oz. of Canada Dry Tonic Water, and you'll be adding 5 teaspoons of sugar.

How to cut sugar: Skip Canada Dry or Schweppes Diet or Zero Sugar tonics. They're sweetened with saccharin, which we rate as "avoid" (see chemicalcuisine.org). Instead, try Fever-Tree Light Premium Tonic Water, which simply adds less sugar. Grand total: 2 tsp. (8 grams) in a 6.8 oz. bottle. Not bad!



Trail mix

The original trail mix formula, GORP— "good ol' raisins and peanuts"—has no added sugar. But most modern mixes do:

- Sugary dried fruit. Almost all cranberries, blueberries, and cherries have added sugar. Mango, pineapple, and papaya sometimes do. Check the label.
- Candy. Target's Good & Gather Anti-

oxidant Trail Mix's chocolate chips and dried cranberries and blueberries add 10 grams of sugar to each 1/4 cup. Glazed or honey roasted nuts, "peanut butter" or "yogurt" chips, and/or cookie pieces add sugar to other trail mixes.

How to cut sugar: Make your own trail mix with (unglazed) nuts and/or seeds plus dried fruits like raisins, figs, no-sugar-added mango, etc.

Coffee creamer

Every tablespoon of flavored, sweetened liquid coffee creamer like Coffee-Mate, International Delight, and Chobani adds 4 to 6 grams of sugar and 30 to 40 calories.

But that may be an underestimate. A "serving" of liquid creamer is only 1 Tbs., say labels, yet a serving of half and half is 2 Tbs. And many mugs hold 12+ ounces of liquid—1½ cups. More coffee, more creamer. If your brew hue is tan, you might be using 3 (or more) tablespoons ...and getting 12 to 18 grams of added sugar.

How to cut sugar: Try Silk Soy Original (1 gram per Tbs.), an unsweetened Califia or Nut Pods creamer, or a "barista milk" like Oatly's (less than 1 gram per Tbs.).



MORE SATURATED FAT than you might expect



Plant-based ice cream

Most plant-based milks are low in saturated fat, but most plant-based ice creams are high in sat fat because they replace dairy whole milk and cream with coconut oil. Take Oatly Vanilla Non-Dairy Frozen Dessert. It hits 8 grams of sat fat (40 percent of a day's max) in ½ cup.

How to cut sat fat: Some brands use healthy fats from olive oil (like Wildgood) or avocado (like Cado).



So-called "yogurt" coatings on dried fruit or nuts stay solid at room temperature thanks to their palm or palm kernel oil. That's how just 2 Tbs. of Ocean Spray Greek Yogurt Flavored Dipped Cranberry Bites end up with 4½ grams of saturated fat—nearly a quarter of a day's limit (20 grams).

How to cut sat fat: Dip your own berries or banana slices in low-fat yogurt and freeze until solid.



Banana chips

Banana chips may look dried, but they're fried...in coconut oil. That explains why a 1/3-cup serving of most brands has a whopping 7 to

9 grams of saturated fat (up to half a day's limit). Many also add sugar.

How to cut sat fat: Freeze-dried or baked banana slices—look for them at Trader Joe's and some other supermarkets—have a satisfying crunch and no sat fat.

Reduced-fat cream cheese

You wouldn't expect full-fat cream cheese to be low in saturated fat. A mere 2 Tbs. serving of Philadelphia Original Cream Cheese Spread has 4½ grams. Surprisingly, though, Philadelphia's "½ less fat" tub is only a bit better (3½ grams of sat fat). And a bagel's thick schmear may be more than a "serving."

How to cut sat fat: Try Philadelphia Whipped Cream Cheese (2½ grams) or almond-based Kite Hill (0 grams).





Bread

Bread doesn't taste salty, but two slices of Sara Lee Artesano Smooth Multigrain Bread add 440 milligrams of sodium (about 20 percent of a day's 2,300 mg max) to your sandwich.

That's not unusual. How do foods that don't taste salty sneak in sodium? Salt is baked into the bread, not sprinkled on top.

How to cut sodium: "Small slice" or "thin-sliced" breads are typically lower.

Pita chips

Pita chips may seem better than potato chips, but Stacy's Simply Naked Pita Chips have more sodium (200 mg in 1 oz.) than Classic Lay's (140 mg). Some Stacy's chips have even more.

How to cut sodium: Snacks like fiber-rich air-popped popcorn or lightly salted nuts are healthier than any chips (pita, potato, veggie, etc.).



Chicken with "solution"

Perdue Perfect Portions Chicken Breasts look unseasoned, but each 5 oz. fillet has 370 mg of sodium, not the 90 mg of naturally occurring sodium you'd expect. What gives? Your clue: the words "contain-

ing up to 10% of a solution of water and

seasoning." Translation: It's pumped up with saltwater.

How to cut sodium: Skip chicken with "solution" disclosures and check label ingredient lists for salt.

Instant oatmeal packets

Instant oatmeal packets don't just add sugar, spices, and maybe dried fruit for flavor. They also add salt. A packet of Quaker Maple & Brown Sugar Instant Oatmeal has 260 mg of sodium—more than 10 percent of a day's limit. Ditto for the "Lower Sugar" version (240 mg).

How to cut sodium: Start with plain quick oats (0 mg) and add fruit, spices, and nuts or seeds.



SIMPLY NAKED

Good news!

LESS SODIUM, ADDED SUGAR, or SAT FAT than you might expect



Mayonnaise

Mayo looks creamy, but it has no cream. And because it's mostly unsaturated vegetable oil and water, a tablespoon of full-fat mayo has just 1 to

1½ grams of saturated fat...plus plenty of healthy fats. Light mayo is also fine. Which brand? Take your pick (see Jan./Feb. 2025, p. 20).



Salted nuts

If you like the taste of unsalted nuts, go for them. But if you're going unsalted to spare your heart and blood vessels, you can relax.

Nuts only need a sprinkle of salt on the surface to taste salty. So 1 oz. (about 1/4 cup) of Blue Diamond Roasted Salted Almonds, for example, has just 4 percent of a day's sodium (85 mg). And the company's Lightly Salted Low Sodium Almonds have a mere 2 percent. Impressive!

Planters Dry Roasted Salted Peanuts have 150 mg (7 percent of a day's limit), but its Lightly Salted Peanuts have just 3 percent. Neither is anything to worry about.

Brands and flavors vary, so check the Nutrition Facts label. Or look for one of these trustworthy claims: "lightly salted" (50 percent less sodium than the regular version) or "low sodium" (less than 85 mg per ounce). Both are defined by the Food and Drug Administration.



Swiss cheese

An ounce of most cheeses (like cheddar, provolone, or shredded mozzarella) has 150 to 250 mg of sodium, so adding just one slice to

your sandwich can boost its sodium by 10 percent of a day's worth.

But Swiss cheese, soft goat cheese logs, and fresh mozzarella or burrata (the kind that's often packed in tubs of water) all deliver less sodium than you might expect (60 to 100 mg per ounce).

Another surprise: It's easy to find Swiss cheeses with less saturated fat. Jarlsberg Lite, for example, has just 1½ grams of sat fat (and 70 mg of sodium) per slice.

Pre-popped popcorn

Most bags of pre-popped supermarket popcorn like Angie's Boomchickapop or Skinny Pop are made with healthy, unsaturated oils like sunflower, olive, or canola. So they're low in saturated fat (just 1 gram or so in every 3 cups). To dodge added sat fat from butter or cheese, pick a flavor like "salted"



Exception: Leave Lesser Evil Himalayan Pink Salt Popcorn on the shelf. Ironically, "Lesser Evil" uses coconut oil, which adds 5 grams of sat fat—a quarter of a day's worth—to every 3 cups. And keep in mind that most microwave popcorns contain saturated palm oil.

Marinara sauce

Store-bought marinara sauce gained a reputation for being sugary, in part because the old "Nutrition Facts" labels on packaged foods listed only "Sugars."



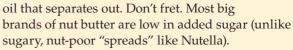
That lumped together the naturally occurring sugar in the tomatoes and any added sugar.

On the new Nutrition Facts label, you can see that the 4 to 7 grams of sugar in ½ cup of most marinara sauces is all naturally occurring. Plenty of great-tasting sauces have zero grams of added sugar. But even sauces that add sugar typically only tack on 1 or 2 grams (2 to 4 percent of a day's worth). Sweet!

Peanut butter

Prefer the taste of "natural" peanut butter? Great. Most have no added sugar.

But some people aren't fans of natural PB's texture or the need to mix in the



Two tablespoons of regular Jif, Skippy, or Peter Pan have just 2 grams (½ tsp.) of added sugar—a low 4 percent of a day's worth.



Caffeine

HOW MUCH IS IN YOUR CUP?

BY LINDSAY MOYER & MARLENA KOCH

How much caffeine is in your tea, coffee, latte, soda, coffee, or chocolate? Good question. The FDA doesn't require companies to say (some do so voluntarily). Here's what to expect. For more, go to cspinet.org/caffeineguide.

HOW MUCH IS TOO MUCH?

For most healthy adults, up to 400 milligrams of caffeine a day is "not generally associated with negative effects," says the FDA. But that dose may or may not—be too much for you. People vary in how quickly their bodies break down caffeine and how sensitive they are to its effects.

Overdoing caffeine can make you jittery and disturb your sleep. And anyone who is pregnant, trying to become pregnant, breastfeeding, or taking certain medications should limit caffeine. (Not sure? Check with your provider or pharmacist.)

For children and teens, the American Academy of Pediatrics and other health authorities recommend avoiding caffeine, especially in energy drinks.

COFFEE



The caffeine in a cup of coffee depends not just on the serving size, but also on the variety of beans, growing conditions, brewing method, water

temperature, and ratio of water to beans. That helps explain why some companies (like Starbucks) only disclose a range, not a single number, for their coffee.

Data from the U.S. Department of Agriculture puts an average 8 oz. cup of coffee at roughly 70 to 100 milligrams of caffeine. (Note: Coffee mugs typically hold 10 to 12 oz.) That's about as much caffeine as a cup of Folgers Classic Roast. And brew-at-home pods like Keurig K-cups are in the same ballpark (75 to 150 mg).

At Starbucks, an 8 oz. "short" coffee packs twice that much caffeine (155 to 195 mg). A 24 oz. "venti" tops the charts at 390 to 490 mg. Yikes.

ESPRESSO DRINKS



Expect slightly less caffeine in a shot of espresso (about 75 mg) than in 8 oz. of coffee.

With coffee, the larger the cup, the more caffeine. But

with espresso-plus-milk drinks, the caffeine depends on how many espresso shots go in the drink. Ask a barista or check the chain's website or app.

Surprisingly, you get the same 75 mg of caffeine in a Starbucks short (8 oz.) or tall (12 oz.) cappuccino or latte, because both are made with 1 shot of espresso. And a grande (16 oz.) and venti (20 oz. hot) each has 2 shots and 150 mg of caffeine.

TEA

Caffeine in tea depends on the:

- amount of tea
- volume of water (steeping in more water can extract more caffeine from a tea bag),
- steep time (steeping a tea bag for 5 minutes can extract more caffeine than steeping it for 3 minutes), and
- variety of tea.

Expect the biggest caffeine jolt—rivaling coffee's from yerba mate, with roughly 40 to 80 milligrams in a 6 oz. teacup. You'll get less in black tea (30 to 50 mg), oolong (30 to 40 mg), green tea (20 to 40 mg), or white tea (15 to 20 mg). Herbal teas like mint, ginger, rooibos, and chamomile are caffeine-free.



ENERGY DRINKS



Energy drinks pack as much caffeine as 1 to 3 cups of coffee.

For example, an 8 oz. Red Bull has just 80 milligrams of caffeine, while a 2 oz. 5-hr Energy

"shot" or a 12 oz. Celsius energy drink has 200 mg and a 16 oz. Bang energy drink has 300 mg. Oof.

That's one reason the American Academy of Pediatrics warns that kids should avoid energy drinks. In fact, everyone should be wary of them. Ditto for similar "pre-workout" energy powders.

Here's why:

- They supply a concentrated dose of caffeine.
- They're easier to gulp down (unlike hot coffee).
- Some contain ingredients that may pose health risks or haven't been well studied (either alone or in the combinations used).
- They've been linked to irregular heart rhythms, increased heart rate and blood pressure, and other adverse events.

What's best for adults who don't like coffee or tea but still want caffeine? Look for drinks that are low in calories and sugar and are sweetened with only safer sweeteners like stevia or monk fruit extract.

Also, try to avoid food dyes and questionable ingredients like botanical extracts or "proprietary blends." (Some drinks have added B vitamins or vitamin C, which are unnecessary but harmless.)

Two finds that fit the bill: True Lemon Energy Drink Mix and Zevia Zero Sugar Energy Drink.

CHOCOLATE



Chocolate has low levels of naturally occurring caffeineabout 8 to 12 mg in a tablespoon of plain cocoa powder.

Milk chocolate (less cocoa) has

less caffeine than dark chocolate (more cocoa), which has less than baking chocolate (the most cocoa). That explains why a Hershey's Milk Chocolate Bar has half the caffeine (10 mg) of a Hershey's Special Dark Chocolate Bar (20 mg). Neither is very high.

Like a cup of hot cocoa before bed? The 1 to 3 mg of caffeine Swiss Miss says is in a packet of its Milk Chocolate Hot Cocoa Mix is unlikely to keep you up.

SODA

How much caffeine do you get in a soda? It depends.

Zero Sugar Mtn Dew tops the charts at 68 milligrams in a 12 oz. can. (Regular and Diet Mtn



Dew have 54 mg.) That's high for soda, but still less than coffee.

Then come colas like Diet Coke, Dr Pepper, Coke, Coke Zero, and Pepsi (34 to 46 mg).

Usually caffeine-free: root beers (except Barq's), orange sodas (except Sunkist), lemon-lime sodas, and ginger ales or ginger beers.

Better-for-you brands like stevia-sweetened Zevia and Olipop's or Poppi's "gut health" sodas follow the same blueprint. For example, the caffeine in Zevia's Mountain Zevia or Poppi's Alpine Blast (55 mg) is nearly identical to Mtn Dew.

While a 12 oz. can of caffeinated soda has no more caffeine than a cup of tea, larger bottles or fountain sodas can add up. A 20 oz. bottle of Diet Coke has 77 mg, and a 30 oz. fountain Mtn Dew (without ice) at Panera has 129 mg (more caffeine than 1½ shots of espresso).

COFFEE YOGURT & ICE CREAM

Many companies don't say how much caffeine is in their coffee yogurts. Those that do vary.

Eating a 5.3 oz. tub of Dannon Low Fat Coffee Yogurt



(40 mg of caffeine), for example, is roughly the same as drinking half a cup of coffee. Chobani, on the other hand, says that its coffee yogurt has just 3 mg.

A ²/₃-cup serving of coffee ice cream can pack a bigger jolt. Expect roughly 25 mg of caffeine in a lessdense ice cream like Dreyer's or Edy's Coffee Ice Cream or Breyers Coffee Frozen Dairy Dessert.

Denser super-premiums like Häagen-Dazs or Ben & Jerry's coffee ice creams hit 30 to 50 mg. Among the highest: Talenti's Cold Brew Sorbetto (39 to 84 mg) and Coffee Chocolate Chip Gelato (43 to 91 mg) approach what you'd get in a cup of coffee. (Why such wide ranges? It's not clear.)

The bottom line: Unless the company voluntarily discloses numbers (see "Caffeine counter"), it's hard to know how much caffeine you're getting in any brand's coffee yogurt or ice cream.

Caffeine counter

The FDA doesn't require companies to disclose how much caffeine is in their foods and beverages, but many voluntarily do. To get the numbers for this chart, we checked product labels and websites and asked companies. To see more, go to cspinet.org/caffeine.

Coffee, espresso, & tea drinks (coffee shops)

Starbucks Coffee (venti, 20 oz.)	390–490
Starbucks Coffee (grande, 16 oz.)	315–390
Starbucks Iced Coffee (trenta, 30 oz.)	320
Caribou Coffee (medium, 16 oz.)	305
Dunkin' Coffee (medium, 14 oz.)	210
Starbucks Coffee (short, 8 oz.)	155–195
Starbucks—Caffè Latte or Cappuccino (venti, 20 oz.)	150
Starbucks Coffee Frappuccino (grande, 16 oz.)	95
Starbucks—Caffè Latte or Cappuccino (tall, 12 oz.)	75
Starbucks Espresso (1 shot, 0.75 oz.)	75
Dutch Bros Chai Latte (medium, 16 oz.)	35
Starbucks Decaf Coffee (grande, 16 oz.)	25
Panera Chai Tea Latte (regular, 16 oz.)	9

Coffee & espresso (ground)

Nespresso Vertuo Coffee (1 capsule)	170–200
Folgers Classic Roast Coffee (2 Tbs., makes 12 oz.)	120-160
Keurig K-Cup, most varieties (1 pod, makes 8 oz.)	75–150
Nespresso Original Espresso (1 capsule)	50-120
Folgers Classic Decaf Coffee (2 Tbs., makes 12 oz.)	2–8

Tea (bottles & tea bags)

Republic of Tea HiCAF Tea (1 bag, brewed)	50-140
Califia Farms Matcha Almond Latte (12 oz.)	115
Celestial Seasonings Fast Lane Black Tea (1 bag, brewed	90
Pure Leaf Unsweetened Tea (18.5 oz.)	84
Just Ice Tea Original Black Tea (16 oz.)	80
Yerba mate, most brands (6 oz.)	40–80
KeVita Kombucha (15.2 oz.)	68
Just Ice Tea Honey Green Tea (16 oz.)	50
Black tea, most brands (6 oz.)	30–50
Califia Farms Chai Almond Latte (12 oz.)	45
Oolong tea, most brands (6 oz.)	30–40
Green tea, most brands (6 oz.)	20-40
Synergy Kombucha (16 oz.)	16–28
White tea, most brands (6 oz.)	15–20
Lipton decaf black tea (1 bag, brewed)	ess than 1
Herbal tea (1 bag, brewed)	0

Sodas (12 oz.)

Zero Sugar Mtn Dew	68
Poppi Alpine Blast	55
Zevia Mountain Zevia	55
Mtn Dew—diet or regular	54
Olipop—Cherry Cola, Doctor Goodwin, Ridge Rush, or Vintage Cola	50
Diet Coke	46

	0
Zevia Cola	45
Zevia Dr. Zevia	42
Dr Pepper—diet or regular	41
Poppi—Cherry Cola, Classic Cola, or Doc Pop	40
Zevia Cherry Cola	38
Pepsi—diet, zero sugar, or regular	35–38
Coca-Cola—regular or zero sugar	34
Barq's Root Beer	22
Sunkist Orange—regular or zero sugar	19
Ginger ale, lemon-lime, orange, or root beer, most brands	0

Energy drinks & other beverages

Bang (16 oz.)	300
C4 Ultimate Energy (16 oz.)	300
Celsius Essentials (16 oz.)	270
5-hour Energy Extra Strength (1.9 oz.)	230
5-hour Energy Regular Strength (1.9 oz.)	200
Alani Nu Energy (12 oz.)	200
Celsius (12 oz.)	200
Gatorade Fast Twitch Energy Drink (12 oz.)	200
True Lemon Energy Drink Mix (1 stick, makes 16 oz.)	120
Zevia Zero Sugar Energy (12 oz.)	120
Hydrant Energy (1 stick, makes 8–16 oz.)	100
Mio Energy (¾ tsp. squeeze, makes 12 oz.)	90
Red Bull—regular, sugar-free, or zero (8.4 oz.)	80
V8 Plus Energy (8 oz.)	80
V8 Sparkling Plus Energy (11.5 oz.)	80
Bai WonderWater (18 oz.)	55

Ice cream & yogurt

Talenti Coffee Chocolate Chip Gelato (¾ cup)	43–91
Talenti Cold Brew Coffee Sorbetto (¾ cup)	39-84
Ben & Jerry's Coffee Toffee Bar Crunch Ice Cream (% cup) 49
Ben & Jerry's Brewed to Matter Ice Cream (% cup)	47
Ben & Jerry's Coffee, Coffee BuzzBuzzBuzz! Ice Cream (¾ cup)	47
Dannon Low Fat Coffee Yogurt (5.3 oz.)	40
Häagen-Dazs Coffee Ice Cream (% cup)	29
Dreyer's or Edy's Coffee Ice Cream (% cup)	up to 25
Breyers Coffee Frozen Dairy Dessert (% cup)	20
Yasso Coffee Chocolate Chip Frozen Greek Yogurt Bar (1 bar, 2.3 oz.)	12–13
Chobani Coffee Greek Yogurt (5.3 oz.)	3

Chocolate

Taza Chocolate Covered Espresso Beans (1 oz.)	135
Hershey's Special Dark Chocolate Bar (1 bar, 1.4 oz.)	20
Cocoa powder, unsweetened (1 Tbs.)	8–12
Baking chocolate, unsweetened (0.5 oz.)	11
Hershey's Milk Chocolate Bar (1 bar, 1.5 oz.)	10
Swiss Miss Milk Chocolate Hot Cocoa Mix (1 packet)	1–3

Sources: company information and NIQ Product Explorer. The use of information from this article for commercial purposes is strictly prohibited without written permission from CSPI.





FOOD FAIL

FOOD FIND

Oatstanding!

Tracking down a plant-based yogurt that's healthy and tastes great is no easy feat. That's why newbie Icelandic Provisions Oatmilk Skyr Non-Dairy Yogurt is such a

Among its highlights:

- Thick, creamy texture. If you like dairy skyr (Icelandic yogurt) or Greek yogurt, Icelandic's plant-based version is a sure winner.
- More protein. Icelandic adds enough pea protein to reach 12 or 13 grams in every 5 oz. tub. That beats the 1 to 3 grams in most coconut, oat, and nut yogurts that don't add protein.
- **Less unhealthy fat.** Many of the richest-tasting plantbased yogurts are high in saturated fat because they contain coconut. But Icelandic adds only a smidgen of coconut oil to its oatgurt. So you get just 21/2 grams of sat fat in 5 oz. instead of 7 to 18 grams in a 4-to-5-oz. serving of coconut-heavy yogurts like Culina, Cocojune, Siggi's Plant-Based, and Silk Greek Style. (A day's max is 20 grams.)
- Less sugar. Many plant-based yogurts are high in added sugar to make up for the missing sweetness that naturally occurring milk sugar (lactose) gives to dairy yogurt. But Icelandic adds less sugar than most brands: no more than 9 grams (about 2 teaspoons) per serving.

Try blueberry, peach, strawberry, mango & passion fruit, plain, or vanilla bean. Oat-of-this-world delish!

Don't dive in

"All the joy and indulgence of a decadent ice cream sundae without the hassle of building it yourself," said Ben & Jerry's news release announcing the January launch of the company's four new Sundae pints. "Just pop open the lid!"

We did. Here's what we found.

Take the Choco-lotta Cheesecake, which layers chocolate cookie pieces and swirls, fudge-swirled whipped topping, and sea salt fudge chunks atop chocolate cheesecake ice cream. A modest 3/2-cup serving packs 380 calories plus roughly half a day's saturated fat (10 grams) and added sugar (58 grams).

"We recommend diving spoon-deep into this cookie-thrilling, cheesecake-dreamy & fudge swirl-spectacular sundae," says the company's website.

Indeed. If you want the full sundae experience, you can't just scoop some off the top. Only a "spoon-deep dive" lets you savor all the layers at once.

And eating straight out of the tub ups the odds that you end up at the bottom of an empty (2½-serving) container. Those 1,020 calories, 26 grams of sat fat, and 77 grams (18 teaspoons!) of added sugar are like eating four Krispy Kreme Chocolate Iced Glazed Doughnuts.

You've gotta hand it to the innovative pros at Ben & Jerry's for dreaming up an ultraprocessed concoction with half a day's calories layered inside.

It's not their job to worry about what's inside you.

QUICK DISH

CHOPPED SWEET & SOUR SALAD

Whisk together 1½ Tbs. red wine vinegar, 34 tsp. honey, 1 tsp. whole-grain mustard, 1 Tbs. reduced-sodium soy sauce, and 1 Tbs. extra-virgin olive oil. Toss with 3 cups each chopped salad greens and crunchy vegetables, 1/4 cup chopped sundried tomatoes, 2 sliced scallions, and 1/4 cup sunflower seeds. Serves 4.

