

Nutrition Action[®]

MAY/JUNE 2026 | cspi.org

CENTER FOR SCIENCE IN THE PUBLIC INTEREST



The Certainty Illusion

WHAT YOU DON'T KNOW
AND WHY IT MATTERS

**VACCINES DON'T
CAUSE AUTISM**

Constipation
What moves you

**CHICKEN FROM
PLANTS?**

Fulfilling a promise to fortify



**PETER G. LURIE
MD, MPH**

President, Center
for Science in the
Public Interest

Since 1998, “enriched” flours, pastas, rice, and breads sold in the United States have been required to contain folic acid. The goal of this fortification policy is to help people who may become pregnant get enough vitamin

B9 to prevent spina bifida and other neural tube defects in newborns.

In contrast, corn masa, the main ingredient in corn tortillas and other dietary staples of many Hispanic Americans, was not allowed to contain folic acid until 2016.

Since then, the Center for Science in the Public Interest (*Nutrition Action*’s publisher) has been fighting for corn masa fortification. In “Failure to Fortify,” a report published in 2023, CSPI found that most companies were still not fortifying their corn masa products and were thereby missing an opportunity to help cut the higher rates of devastating birth defects among Hispanic Americans.

Following publication of the report, Gruma, the largest US corn tortilla manufacturer, agreed to fortify its core brands by 2024. Our recent follow-up report found that Gruma not only lived up to its commitment, but also seems to have paved the way for other compa-

nies to also offer fortified corn masa products.

But misinformation about the safety and benefits of folic acid threatens to undermine that progress.

Some believe (incorrectly) that people with a common gene variant can’t process folic acid. And genetic testing services and dietary supplement companies are capitalizing on that fiction to sell unnecessary, expensive, and potentially harmful products.

The folic acid deniers happen to have a champion with a big megaphone: Health and Human Services Secretary Robert F. Kennedy Jr. In late 2025, Kennedy denounced a new law in California

requiring corn masa fortification and spread false claims about the risks of folic acid.

Kennedy called California’s fortification law “insanity.” Of course, what’s insane is that our nation’s top health official is spreading misinformation and frightening people into

avoiding a nutrient that has been proven to prevent birth defects and save babies’ lives.

CSPI applauds Gruma and the other companies that are offering fortified corn masa products. That’s a *real* health and human service.



Learn more about fortified corn masa products and public health at cspi.org/fortify.

Peter

For more *Nutrition Action* articles, recipes, and advocacy opportunities, visit CSPI.ORG



The contents of *Nutrition Action* are not intended to provide medical advice, which should be obtained from a qualified health professional. For permission to reuse material, go to marketplace.copyright.com and search for *Nutrition Action*. The use of information from *Nutrition Action* for commercial purposes is prohibited without written permission from CSPI. © 2026 Center for Science in the Public Interest.



PETER G. LURIE, MD, MPH
Executive Editor
MICHAEL F. JACOBSON, PhD
Founder & Executive Editor (1974–2017)

EDITORIAL

ADRIENNE CREZO
Senior Editor
LINDSAY MOYER, MS, RDN
Deputy Editor & Senior Nutritionist
CAITLIN DOW, PhD
Senior Science Communication Officer
MADDY BENNETT, MS
Senior Associate
JESSIE SEILER, PhD, MPH
Senior Associate
JORGE BACH
Art Director
MARLENA KOCH, BS
Project Associate
KATE SHERWOOD
Consulting Culinary Director
BONNIE LIEBMAN, MS
Consulting Contributor
STEPHEN B. SCHMIDT
Consulting Editor

BUSINESS & MARKETING

JENNIFER GREEN-HOLMES
Director of Business Operations
CHRIS SCHMIDT
Senior Circulation & Marketing Manager
DEBRA BRINK
Senior Production Manager

SCIENCE ADVISORY BOARD

KELLY D. BROWNELL, PhD
Duke University
EMILY CHEW, MD
National Eye Institute
BESS DAWSON-HUGHES, MD
USDA Human Nutrition Research Center on Aging, Tufts University
A. HEATHER ELIASSEN, ScD
Harvard T.H. Chan School of Public Health
CHRISTOPHER D. GARDNER, PhD
Stanford University School of Medicine
KEVIN HALL, PhD
JOANN E. MANSON, MD, PhD
Harvard Medical School
J. GLENN MORRIS, MD, MPH & TM
Emerging Pathogens Institute
University of Florida
FRANK SACKS, MD
Harvard Medical School
DEIRDRE K. TOBIAS, ScD
Brigham and Women’s Hospital

Nutrition Action (ISSN 0885-7792) is published 6 times a year by the Center for Science in the Public Interest (CSPI), 1250 I Street NW, #500, Washington, DC 20005. CSPI reserves the right to modify the frequency, content, availability, and media of *Nutrition Action* at any time without notice. Periodicals postage paid at Washington, DC, and additional mailing offices.

POSTMASTER: Send address changes to *Nutrition Action*, 1250 I Street NW, Suite 500, Washington, DC 20005.

SUBSCRIBER SERVICES

The cost of a one-year subscription or gift subscription is \$34.99. For bulk subscriptions: please write for details. To change your address: send us your subscriber number and your old and new address. If you don’t want us to exchange your name: send us your name and mailing-label information. Mail: CSPI, 1250 I Street NW, Suite 500, Washington, DC 20005
Phone: 1-866-293-CSPI (2774)
Email: customer@nutritionaction.com
Online: service.cspinaction.com
For more offerings from *Nutrition Action*: store.nutritionaction.com

The Certainty Illusion

WHAT YOU DON'T KNOW AND WHY IT MATTERS



In an era of hot takes and wellness fads, confidence often masquerades as truth. We're surrounded by bold claims delivered with unwavering assurance—even when the evidence is shaky at best. In *The Certainty Illusion*, Timothy Caulfield unpacks why humans crave simple answers, how misinformation exploits that instinct, and what it means for our health and our culture.

The information ecosystem

We're hearing more and more about misinformation. Is that new?

TC: Misinformation has been with us forever, but over the last few decades, the problem has become more acute.

Today, we get so much of our information from social media and online sources. We've never had as much access to knowledge as we have now. That creates a huge paradox.

On one hand, access is good. There is carefully evaluated, independent information out there that can answer questions about everything from black holes to how cancer spreads.

On the other hand, there's just so much information. It's chaos. We're constantly being bombarded with it.

By one estimate, an average person living in the modern world processes roughly the same amount of information in a single day that a highly educated person living 500 years ago processed in a lifetime.

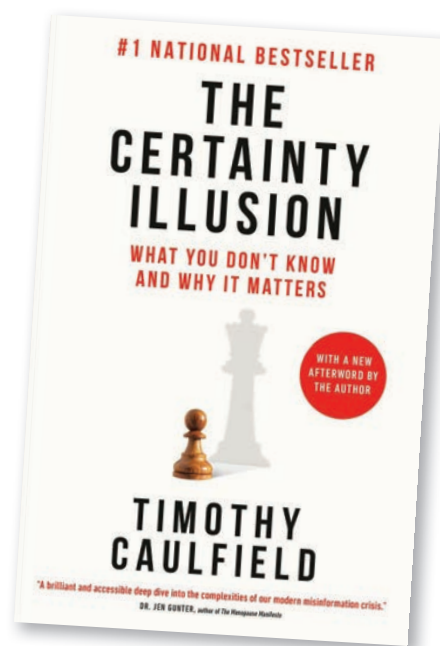
And it's not just about more information, right?

TC: Right. It's also all the algorithms that drive what we see. An algorithm is a set of rules that social media platforms use to prioritize what you see based on how relevant and engaging

the content is likely to be. Those algorithms play to our cognitive biases, so that our information environment is increasingly shaped by emotions like rage and fear and our political leanings.

The frenetic nature of that environment makes those algorithms more powerful. This is a fire hose of information, and we can't really engage with all the content we see in a thoughtful way.

Of course, that's not the goal of the



TIMOTHY CAULFIELD

is research director of the Health Law Institute at the University of Alberta in Canada. Caulfield is cofounder of the ScienceUpFirst initiative, which fights misinformation. He spoke with *Nutrition Action's* Caitlin Dow.

algorithm creators. They want us to be rats on a wheel. An algorithm that keeps you scrolling is doing its job because it lets the platform sell ads or behavioral data. A calm, unworked-up user who doesn't keep coming back for more doesn't generate as much value.

What else has changed?

TC: We've seen the rise of bad science that's published by either fake or poor-quality predatory scientific journals. The journals have a lax peer review process, if they have one at all, they charge high fees to publish, and they publish just about anything.

Why is that a problem?

TC: It's becoming increasingly difficult to talk about a body of evidence. Good research is still out there, but that knowledge base is becoming polluted and more difficult to sift through. Add to that the fact that ChatGPT can write believable study

abstracts. Even academics can't tell they were written by AI.

One of the most important ways to counter misinformation is to have trustworthy evidence. And now that part of the equation is getting rigged too.

Here's how it could play out: Some outlandish claim is made, and then someone does what I always tell them to do, which is to click on a post, read the article, and see if there is science on the topic. And when they do, they're met with fraudulent science that legitimizes whatever claim is being made. That's really scary.

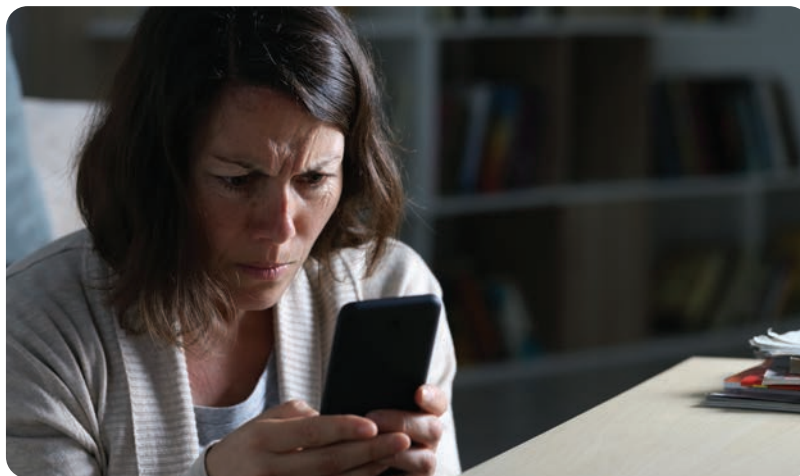
How big is the problem with these journals?

TC: One group estimated that there are more than 15,500 predatory journals. It's hard to estimate the financial cost of this, but likely billions of dollars in research budgets have been wasted by publishing in these journals.

That's outrageous. Resources that could be used for rigorous research are instead lining the pockets of fraudsters. And studies that are published in those journals can be used to legitimize climate change denial, anti-vaccine crusades, chem-trail conspiracy theories, and other fringe and harmful ideas.

How can you spot predatory publications?

TC: It's not easy. It takes time and effort to figure out if a journal or study is credible. I recommend looking at how others in the scientific community reference the research. If others aren't mentioning it, be suspicious.



Misinformation can be appealing because it offers a sense of certainty. Before sharing an article or social media post, try to verify its accuracy.

The drive for certainty

How does the information ecosystem work against our psychology?

TC: We have access to more knowledge than ever, but we also have access to more misinformation. And that makes many people feel less certain about the things they care about, because it's hard to tell what's up from what's down.

The human mind craves certainty. And I think this desire for certainty has become more acute because our information environment is so messy and chaotic.

One of the reasons misinformation is so attractive is because it satisfies our desire for an easy answer.

Conspiracy theories are a great example. The embrace of conspiracy theories is often about trying to find certainty or clarity in a chaotic world.

Guess what? Sometimes it's just a chaotic world.

We're looking for signals of clarity and certainty that can guide us through this really dark and messy forest. And that drive for certainty is easy to exploit.

How so?

TC: Take health halos, which are simple words or claims that play on our desire for goodness. They are a shortcut to certainty.

"Non-GMO" and "organic" are good examples.

There are really interesting and complex questions about biodiversity, sustainability, and so on that we need to grapple with. The problem is that the claims are presented as definitive. Something that's "Non-GMO" must be better. "Organic"? Better. "Natural"?

Better. "Clean"? Better. But, in fact, they may not be.

What's a good example of that?

TC: Natural American Spirit cigarettes have boasted that they're made with "100% additive-free natural tobacco" and "organic tobacco."

Not surprisingly, a study found that a majority of Natural American Spirit smokers wrongfully believed that the brand was less harmful than other cigarettes. That's despite the fact that the package explicitly stated that "Organic tobacco does not mean a safer cigarette."

That's the power of a health halo.

Scienceploitation

How else can words be used to exploit our desire for certainty?

TC: I use the term "scienceploitation" to describe the use of real science that is often new and has gotten a lot of attention in the press to push unproven approaches.

One of my favorite examples is "stem cells," which has become code for "cutting edge" or "scientifically exciting."

It's a genuinely exciting area of science, but despite decades of work, there are almost no stem cell therapies that are ready to treat diseases or conditions. Yet you'll see "stem cells"

marketed for everything from relieving joint pain to repairing damaged tissue to improving memory.

Any other words that should make us suspicious?

TC: There's "longevity," which is really just Wellness 2.0. Cold plunges, supplements, and wearable devices are sold as these fountains of youth, though there's very little evidence in people that any of these things extends lifespan or healthspan.

"Microbiome" is another favorite example of mine. There are very few, if any, bona fide microbiome therapies, yet you even see the term on shampoo bottles now. It's everywhere.

And science-y language is used because it works.

TC: Right. I sometimes joke that The Enlightenment won, not as a way of thinking or seeing the world—that is, the embrace of reason and critical thinking—but as a brand.

That's why you see misinformation purveyors saying that something is "clinically proven" or that it's based on "the latest research."

They don't say that it's based on tea leaves. Instead, they use the language of science.

Combine that with fear, and the impact can be huge. We see that with claims about gluten, vaccines, fluoride in water, and restrictive diets that claim to prevent inflammation, blood sugar spikes, and so on.

Why is fear so powerful?

TC: We're wired to be driven by fear. In one 2019 study, researchers showed BBC video news content to people in 17 coun-

tries around the world. On average, participants were more activated and attentive to negative news. It's because of that response that more headlines are negative. As they say in journalism, "If it bleeds, it leads."

Are people good at identifying misinformation?

TC: It's pretty complex because there are so many different kinds of misinformation, and there's nuance to the answer.

But research pretty consistently tells us that people think they're better at identifying misinformation than they are. This is a pretty common psychological predisposition.

In fact, a number of cognitive biases make us more likely to fall for bad information. There's overconfidence bias, which is where humans routinely believe we're better at complex tasks than we are.

There's also something called illusory superiority, where we think other people can be duped, but not us.

And then there's motivated reasoning. That's when our skepticism weakens when we're shown information that supports our identity or values.

And we know that misinformation is having an impact on how we behave and what we believe, right?

TC: We do. That tells us that we're not great at identifying misinformation and that misinformation is very effective.

For example, in one study, researchers found that only 32 percent of Americans think that mRNA vaccines like some Covid vaccines are "generally safe." In fact, the mRNA Covid vaccine is one of the most studied biomedical interventions in human history, and there's overwhelming evidence that it's safe. And "generally safe" is a pretty modest way to describe them. So that tells us that misinformation is having an impact in a very broad way.

What we can do

How can people evaluate whether claims that use science-y words are reliable?

TC: We need to avoid what I call single study syndrome. If a claim rests on literally one study, be very suspicious. A single study can be interesting and may cause us to revisit previous work on the topic, but a single study almost never upends an entire body of evidence.

I say this all the time, but you need to think about the body of evidence. Ask yourself: How does this claim or product relate to the broad body of evidence for whatever thing is being sold or idea is being pushed?

If a significant scientific breakthrough happens, I promise you'll know about it. It won't be just a single influencer on YouTube talking



Is that influencer reliable? Ask yourself if they're an expert in the topic. And be wary if they're trying to sell you something...like supplements.

about it. It'll be reported by multiple reputable sources.

Do scientific breakthroughs happen often?

TC: No. I used to ask my classes to name 10 genuine breakthroughs in health and medicine in the last decade, where a breakthrough means something that had broad impact on human health. It ain't easy to do.

I'd put GLP-1 drugs for weight loss on that list. Also the Covid vaccine. But those are rare. So you should be suspicious as a default when you're seeing promises about medical breakthroughs.

What about emerging areas where we don't have a solid body of evidence?

TC: This one is a little trickier. Psychedelics for mental health, the role of probiotics in gut health, and the long-term health outcomes of GLP-1 drugs are good examples of areas where the science is still emerging.

In these cases, I recommend that people seek out trusted voices—good science communicators, science journalists, university resources—that pull together the science in a responsible way.

How can you tell if a voice is trustworthy?

TC: There isn't a perfect gauge, but it's a good idea to start by asking yourself: Is this person an expert in this specific area? And do they have something to gain by having me believe what they're saying?

You should be suspicious of people



Beware of "science-y word salads" that are used to make a product or idea sound more evidence-based than it is.

who are trying to sell you supplements or something preposterous like an exercise plan that promises to give you ripped abs in only 10 minutes a day.

Another good question: Do they use overly complex language and what I call science-y word salads? That's a sign that they're not trying to inform, but to impress, confuse, or manipulate you.

A good science communicator will try to simplify things, describe nuance, and highlight the uncertainty in the evidence.

And be suspicious if someone claims to know something that mountains of data and decades of inquiry haven't uncovered. Remember: Extraordinary claims require extraordinary evidence.

What else should people watch out for?

TC: It's such a cliché, but if something sounds too good to be true, it just is. And be leery of claims like

"Scientists don't want you to know this" or "Doctors were baffled."

Scientists *want* you to know things, and doctors have probably never heard of the thing they're allegedly baffled by because it's bunk.

What can people do to slow the spread of misinformation?

TC: The most important thing you can do is pause before you share something and verify its accuracy. I'm sorry, I know it's a little bit of work, but it's so important.

This is especially true if something makes you feel

enraged or self-righteous. One recent study that looked at over a million posts on social media found that outrage is a driving factor in sharing misinformation.

And another study of 35 million Facebook posts found that 75 percent of shared news content was done so without clicking on it to see what it said.

Misinformation won't spread if no one spreads it.

And having some humility can help?

TC: That's right. I call it the humility fix, where I keep a running list of the things that I've shifted my mind-set on as more information has come out.

Changing your mind because the science changed should be a badge of honor. This is not flip-flopping. This is you being rational. We should embrace more of that mentality. 🧠

Selling health

HOW 5 NEW PROCESSED FOODS DO IT

BY LINDSAY MOYER

What's a good way to sell processed foods that are made with added sugars, salt, juice, or refined grains? Slap on a healthy-ish buzzword.



The naked truth

Are **Simply NKO Cool Ranch Doritos** better than regular Cool Ranch Doritos?

Yes. That's largely because they're "naked of dyes." So you don't need to worry about ingesting the Red 40, Blue 1, and Yellow 5 that are in non-naked Cool Ranch Doritos (see chemicalcuisine.org).

Just don't confuse "better than" with "healthy." Compared to original Cool

Ranch Doritos, a 1 oz. serving of the NKD chips has almost as much sodium (140 vs. 160 milligrams), the same main ingredients (corn and oil), the same calories (150), and the same paltry dose of fiber (1 gram).

Zero sense

Sugar is the main ingredient in Double Stuf Oreos, and a two-cookie serving has 13 grams. **Zero Sugar Double Stuf Oreos** have none. But what about empty calories?

The No. 1 ingredient in the Zeros is refined flour. And the sugar alcohol maltitol, which helps replace the cookies' sugar, isn't calorie-free. So two Zeros end up with just 20 fewer calories than two regular Double Stufs (120 vs. 140). Sigh.



Protein ploy

"32G protein per pouch," touts **JUST Power Jacks** pancake batter. The catch: The pouch holds eight servings...so you'd have to eat more than 1,000 calories' worth of Power Jacks to get all that protein. A single serving (a 2 oz. pancake) has just 4 grams of protein...and zero grams of fiber. (Most of the batter's calories come

from refined—not whole-grain—flour.)

Now *that's* some powerful marketing.

Hydrate hype

Tropicana **Hydrate Strawberry Watermelon** is made "with electrolytes."

Ding ding ding! "Hydrate" is a no-brainer buzzword for beverages. Never mind that pretty much *any* fluid (like water, juice, coffee, tea, or milk) will hydrate you. And unless you're doing prolonged, sweaty exercise, all you need to stay hydrated is plain water plus the electrolytes that are naturally present in the food you eat.

But if you *are* reaching for a drink to replace the electrolytes lost in sweat, you'll probably want one that has more sodium. Tropicana's juice drink has only 15 milligrams per cup (it adds magnesium chloride, but not sodium chloride).



Fiber fluff

FIBER POP Toffee & Sea Salt Popcorn has "6g fiber per serving" only because **Smartfood** adds 5 grams of processed soluble corn fiber.

The company also adds enough sugar (6 grams) and oil to boost the calorie density (the calories per bite) higher than that of many popcorns. Why does that matter? Because it means that it only takes 1½ cups of FIBER POP to reach a 1 oz. serving (and 130 calories).

In contrast, 1 oz. of a popcorn with no added sugars—like Skinny Pop Original or Angie's Boomchickapop Sea Salt—has roughly double the volume (at least 3 cups) for just 20 more calories (150). That makes for a more filling snack. And you're still getting the 2 grams of intact fiber that are naturally present in the popcorn.

How's that for a smart snack? 🍿



Quick Studies

BY BONNIE LIEBMAN

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

Healthy diet, healthy brain?



What diet can benefit your brain?

Researchers tracked 159,347 health professionals for 6 to 26 years. Those whose diets most closely resembled a DASH (Dietary Approaches to Stop Hypertension) diet had a 41 percent lower risk of self-reported cognitive decline (like worsening memory, executive function, or at-

tention) than those whose diets least resembled a DASH diet. Vegetables and fish were most strongly linked to healthy brains, while processed meats and fried potatoes were tied to more decline.

Among the participants aged 70 or older who took cognitive tests, those who ate the most DASH-like diet scored roughly one year younger in verbal fluency and working memory than those who ate the least DASH-like diet.

WHAT TO DO: This study can't prove that a DASH diet can maintain your brain, since something else about those people may have lowered their risk. But if a DASH diet *only* keeps a lid on your blood pressure, it's still a win.

JAMA Neurol. 2026. doi:10.1001/jamaneurol.2026.0062.

Tirzepatide + B-12 warning

Tirzepatide that has been compounded with vitamin B-12 may contain an impurity with unknown risks, warned Eli Lilly, which recently tested samples of the compounded GLP-1 drug. (Lilly's tirzepatide—it doesn't contain added vitamin B-12—is sold as Mounjaro for type 2 diabetes and as Zepbound for weight loss.)

Some compounding pharmacies, medspas, and telehealth companies sell tirzepatide plus B-12 as "personalized" medications. But they require no FDA approval for safety or efficacy. And over 60,000 vials of compounded GLP-1 drugs have been recalled since 2023, mostly because of sterility concerns.

WHAT TO DO: Need a GLP-1 drug? Get it from a reliable source. (LillyDirect might have lower prices.) For more on compounding, see Sept./Oct. 2023, p.14.

investor.lilly.com/node/53991/pdf, medRxiv 2026. doi:10.64898/2026.03.09.26347818.



Proton-pump inhibitors & stomach cancer

Long-term use of proton-pump inhibitors (PPIs)—often used to treat gastric reflux—isn't linked to a higher risk of gastric non-cardia adenocarcinoma (a type of stomach cancer).

Using nationwide registries from 5 Nordic countries, researchers found

that roughly 10 percent of people with or without that type of stomach cancer had used PPIs for more than a year.

WHAT TO DO: This kind of study can't prove that PPIs don't raise your risk of stomach cancer, but it's reassuring.

BMJ 2026. doi:10.1136/bmj-2025-086384.

Knee brace for arthritis?



Can a knee brace curb osteoarthritis pain?

Scientists randomly assigned 466 people aged 45 or older who had knee pain due to arthritis to either:

- a 20-minute session with a physical therapist offering advice (about muscle strengthening, range of motion, weight loss, etc.), written information, and exercise instruction, or

- a 1-hour session with a physical therapist offering the same advice, info, and exercise instruction *plus* a fitted knee brace (to stabilize the area most affected by the participant's arthritis), a 30-minute follow-up 2 weeks later, and texts with reminders to use the brace.

After six months, Knee Injury and Osteoarthritis Outcomes Scores—especially the pain scores—were better in the brace group, but the differences were small and were no longer significant after a year.

WHAT TO DO: Got knee arthritis? Consider a brace...but don't expect miracles.

BMJ 2026. doi:10.1136/bmj-2025-086005.





Shoulder pain? Relax.

Got shoulder pain? Don't rush to get an MRI to look for a tear in your rotator cuff.

Finnish researchers did MRI scans on the shoulders of 602 adults aged 41 to 76. Only 18 percent had reported shoulder pain or disability.

The scans found rotator cuff abnormalities in 99 percent of all shoulders, including 96 percent of shoulders of people who reported no pain. Most of the

abnormalities (roughly 62 percent) were partial-thickness tears, 11 percent were full-thickness tears, and 25 percent were tendinopathy.

WHAT TO DO: Got shoulder pain? Think twice about an MRI. Unless you've had an acute injury (like a dislocation or fracture), try rest, pain meds (like NSAIDs), or physical therapy. Most pain resolves in two months without surgery.

JAMA Intern. Med. 2026. doi:10.1001/jamainternmed.2025.7903, doi:10.1001/jamainternmed.2025.7910.

GLP-1 drugs & endometrial cancer

Can GLP-1 drugs like semaglutide and tirzepatide curb the risk of endometrial cancer in women with benign uterine abnormalities?

Researchers examined the health records of 18,414 women who were taking GLP-1 drugs plus progestin versus 426,406 women who were taking only progestin to treat endometrial hyperplasia or benign uterine pathology. The GLP-1 takers had a 66 percent lower risk of endometrial cancer than those taking only progestin (and a 70 percent lower risk than those taking metformin plus progestin).

WHAT TO DO: This study can't prove that GLP-1 drugs prevent endometrial cancer, since something else about GLP-1 takers might lower their risk. But if you have uterine abnormalities, ask your doctor about GLP-1s.

JAMA Network Open 2026. doi:10.1001/jamanetworkopen.2025.58205.



Protein & alkali for stronger muscles?

Does whey protein boost muscle power?

Scientists enrolled 128 people aged 65 or older who were already eating the Recommended Dietary Allowance for protein (0.36 grams for every pound of body weight). Each was randomly assigned to consume either a placebo or enough whey protein to reach double the RDA.

After 24 weeks, the whey takers had no

greater muscle power, strength, or mass than the placebo takers. And those outcomes were no better in participants randomly assigned to take a daily dose of potassium bicarbonate to see if it would neutralize acid that might break down muscles.

WHAT TO DO: Want stronger muscles? Head to the gym. 🏋️

Am. J. Clin. Nutr. 2026. doi:10.1016/j.ajcnut.2026.101257.

Caffeine vs. dementia?



Can caffeine keep you sharp as you age?

Scientists tracked 131,821 health professionals, typically for 37 years. Those who reported consuming roughly 2 to 3 (8 oz.) cups of caffeinated coffee or 300 mg of caffeine a day had about a 20 percent lower risk of dementia than those who consumed none. Higher intakes of coffee or caffeine weren't linked to further protection.

One cup of caffeinated coffee or 1 to 2 cups of tea a day were linked to roughly a 10 percent lower risk. Decaf coffee wasn't linked to dementia risk.

WHAT TO DO: This study can't prove that caffeine can protect your mind. Something else about people who consume caffeine may explain their lower risk, though the researchers adjusted for many factors, including genetic risk of dementia.

But if you're a coffee or tea drinker, enjoy! Just keep in mind that many mugs hold 10 to 12 oz. At Starbucks, if you want 8 oz., you need to order a "short." (A tall has 12 oz., a grande has 16 oz., and a venti has 20 oz. if hot or 24 oz. if iced.)

JAMA 2026. doi:10.1001/jama.2025.27259.

Vaccines don't cause autism

HERE'S HOW WE KNOW

BY JESSIE SEILER

Vaccines are safe and effective. Here's how a single, deeply flawed paper ignited the longstanding myth that vaccines cause autism, and how rigorous follow-up research has conclusively debunked it.

A story of bad science

To understand the history of the false connection between vaccines and autism, you have to go back to 1998.

That's when gastroenterologist Andrew Wakefield and several colleagues at the Royal Free Hospital and School of Medicine in London published a paper in *The Lancet* that presented the cases of 12 children with symptoms of autism who had received a vaccine against measles, mumps, and rubella (MMR).¹

The children had been admitted to the hospital for tests that included spinal taps, MRIs, and scans and tissue sampling of their gut lining.

The researchers' theory: Autism is a consequence of inflammation in the intestines caused by the MMR vaccine.

But the paper was flawed. Fatally flawed.

"The biggest problem was that it was ever published," says Paul Offit, director of the Vaccine Education Center at Children's Hospital of Philadelphia. "It was like the White Queen from *Through the Looking-Glass*, asking you to imagine six impossible things before breakfast."

For starters, the number of children in the paper was tiny. And there was no control group, so Wakefield and his colleagues couldn't compare kids

who had received the MMR vaccine to kids who hadn't to see if autism diagnoses differed between the two groups.

According to an investigative report by journalist Brian Deer in 2011, there were also serious problems with how the data in the *Lancet* paper were reported.²

For example, Wakefield described 10 of the 12 children as having a diagnosis of either autism or autism spectrum disorder. But four of the 10 had no record of ever having been diagnosed with either.

What's more, the paper's reports of autism symptoms in most of the children didn't line up with the kids' medical records. Wakefield described eight children as showing symptoms of autism within two weeks after receiving the MMR vaccine, but none of their records confirmed that timing.

In fact, for the children whose medical records noted when their symptoms began, it was either *before* they received the vaccine or more than two weeks after. That was inconsistent with the authors' conclusions that the children showed immediate changes after being given the vaccine.

What about the tissue samples Wakefield had gathered to demonstrate that the MMR vaccine caused intestinal inflammation? After experts at his own hospital reviewed the



Decades of research have shown that the measles vaccine is safe and effective.

samples, they found that they were largely normal, identifying just one child who might have had bowel disease.

Of course, the researchers had no clear reason to investigate vaccines in the first place.

“You might as well have studied children who had recently eaten a peanut butter and jelly sandwich who developed symptoms of autism,” says Offit.

So why did Wakefield focus on vaccines?

One possible explanation: In 1997, a year before his paper was published, Wakefield had filed a patent application for his own competing MMR vaccine.

What’s more, according to Deer’s report, Wakefield had been contacted in 1996 by Richard Barr, an attorney who had been working with an anti-vaccine group. Barr was on the hunt for a researcher who could link vaccines with autism, which would strengthen his case against vaccine manufacturers in court.

Barr’s law firm paid Wakefield £150 an hour (roughly \$400 in 2026 dollars) for his “research.”

Also, “some of the families of the children enrolled in the paper were in the midst of suing pharmaceutical companies for damages due to injuries they said were caused by vaccines,” says Offit.

Wakefield’s impact

“There was tremendous skepticism of Wakefield’s paper,” says Offit.

In fact, two CDC scientists who were working on vaccine safety described their concerns about Wakefield’s methods and conclusions in the same issue of *The Lancet*, noting that because “vaccines are given to millions of healthy people, usually

EARLY REPORT

Early report

Ileal-lymphoid-nodular hyperplasia, non-specific colitis, and pervasive developmental disorder in children

A J Wakefield, S H Murch, A Anthony, J Linnell, D M Casson, M Malik, M Berelowitz, A P Dillon, M A Thomson, P Harvey, A Valentine, S E Davies, J A Walker-Smith

Summary

Background We investigated a consecutive series of children with chronic enterocolitis and regressive developmental disorder.

Methods 12 children (mean age 6 years [range 3–10]; 11 boys) were referred to a paediatric gastroenterology unit with a history of normal development followed by loss of acquired skills, including language, together with diarrhoea and abdominal pain. Children underwent gastroenterological, neurological, and developmental assessment and review of developmental records. Ileocolonoscopy and biopsy sampling, magnetic resonance imaging (MRI), electroencephalography (EEG), and lumbar puncture were done under sedation. Barium follow-through radiography was done where possible. Biochemical, haematological, and immunological profiles were examined.

Findings Onset of behavioural symptoms was associated with measles, mumps, and rubella vaccination in eight of the 12 children, with measles infection in one child, and diphtheria in one. All 12 children had intestinal abnormalities ranging from lymphoid nodular hyperplasia to chronic inflammation. Histology showed patchy chronic inflammation in 11 children and reactive lymphoid hyperplasia in seven, but no granulomas. Colic, diarrhoea, and abdominal pain were present in all children. EEG included seven normal, two abnormal, and one with significant raised urinary porphobilinogen and compared with age-matched controls (n=20), low haemoglobin in four children, and low serum IgA in one child.

Interpretation The identified associated gastrointestinal disease and regressive disorder in a group of previously healthy children, which was generally associated in time with possible environmental triggers.

Lancet 1998; 351: 637–41
See Commentary page 637

Informational Bowel Disease Study Group, University Departments of Medicine and Paediatrics (A J Wakefield, S H Murch, A Anthony, J Linnell, D M Casson, S E Davies, M Malik, M Berelowitz, A P Dillon, M A Thomson, P Harvey, A Valentine, S E Davies, J A Walker-Smith), Child and Adolescent Psychiatry (S H Murch), Paediatrics (J Linnell), Paediatric Gastroenterology (S H Murch), and Paediatric Radiology (A P Dillon), Royal Free Hospital and School of Medicine, London NW3 2QG, UK
Correspondence to Dr A J Wakefield

Introduction

We saw several children who, after a period of apparent normality, lost acquired skills, including language. They all had gastrointestinal symptoms, including abdominal pain, diarrhoea, and vomiting, and some cases, food intolerance. We describe clinical, imaging, and gastroenterological features of these children.

Patients and methods

12 children, consecutive referrals to the department of paediatric gastroenterology, with a history of a pervasive developmental disorder with loss of skills and associated symptoms, including abdominal pain, bloating and food intolerance, were recruited. All children were admitted to the ward for a full medical history and physical examination.

Clinical investigations

Look history, including details of immunisations and exposure to infectious diseases, and assessed the children. In 11 children, known or suspected psychiatric disorders (PDS). Neurological and psychiatric assessments were done by a paediatric neurologist and a paediatric psychiatrist. Developmental records were reviewed. All children had been assessed professionally elsewhere, so these assessments were used as the basis for their behavioural diagnosis.

After bowel preparation, ileocolonoscopy was performed by SHM or MAT under sedation with midazolam and pentidine. Paired frozen and formalin-fixed mucosal biopsy samples were taken from the terminal ileum, ascending, transverse, descending, and sigmoid colons, and from the rectum. The procedures were recorded by video or still images, and were compared with images of the previous seven consecutive paediatric colonoscopies. Their normal colonoscopies and those on children with ulcerative colitis, in which the physician reported normal appearance in the terminal ileum. Barium follow-through radiography was possible in some cases.

After sedation, cerebral magnetic resonance imaging (MRI), electroencephalography (EEG) including visual, brain stem auditory, and sensory evoked potentials (where compliance made this possible), and lumbar punctures were done.

Laboratory investigations

Thyroid function, serum long-chain fatty acids, and cerebrospinal fluid lactate were measured to exclude known causes of childhood neurodegenerative disease. Urinary porphobilinogen was measured in random urine samples from eight of the 12 children and 18 age-matched and sex-matched normal controls. Urinary methylmalonic acid concentrations in patients and controls were compared by a two-sample t test. Urinary creatinine was estimated by routine spectrophotometric assay.

Children were screened for antimeasles antibodies and boys were screened for hepatitis B. All data had not been done

THE LANCET • Vol 351 • February 28, 1998 637

Wakefield’s flawed paper was retracted in 2010. But by then, the damage had been done.

infants, extremely high standards for vaccine safety are demanded.”³

They pointed out some of the problems with Wakefield’s paper and warned that “vaccine-safety concerns such as that reported by Wakefield and colleagues may snowball into societal tragedies” when the public avoids vaccines as a result.

That was in 1998. And snowball they have. In 2000, measles was declared “eliminated” in the United States. In 2025, there were more than 2,200 confirmed cases of the highly contagious disease.

Despite the flaws in Wakefield’s work, it would take more than a decade before he faced any consequences.

In 2010, Wakefield was found guilty of professional misconduct by the General Medical Council, the group that sets standards for medical care in the United Kingdom. The Council found that he had abused his position and subjected the children in his research to invasive tests (including

spinal taps) that were not medically necessary. The Council revoked Wakefield’s license to work as a doctor in the UK.

That same year, Wakefield’s paper was finally retracted. But the damage had been done. The myth that vaccines cause autism had embedded itself in the collective consciousness.

What good studies show

After Wakefield’s article was published in 1998, other researchers started to look into the potential link between vaccines and autism.

Long story short: They found nothing.

For example, in a study published in 2002, researchers examined the medical records of all 537,303 children born in Denmark between 1991 and 1998. Of those children, 440,655 had received the MMR vaccine and 96,648 had not.⁴

The researchers found no difference in the rate of autism diagnoses between the two groups. They concluded that their study “provides strong evidence against the hypothesis that MMR vaccination causes autism.”

And a 2014 analysis of five studies (including the one from Denmark) that followed more than 1.2 million children for an average of eight years also found no connection between vaccines and autism.⁵

Despite that solid evidence, the fear that Wakefield incited hasn’t gone away. In fact, it continues to grow.

The bottom line

Wakefield’s debunked paper caused enormous damage, but the evidence has been clear for decades: Vaccines don’t cause autism. 🚫

¹ Lancet 351: 637, 1998.

² BMJ 342: c5347, 2011.

³ Lancet 351: 611, 1998.

⁴ NEJM 347: 1477, 2002.

⁵ Vaccine 32: 3623, 2014.



Metabolism magic?

WHAT TO MAKE OF LUMEN

BY CAITLIN DOW

"See lasting weight loss with Lumen," says the company's website. "Breathe into your Lumen to get a real-time view of whether you're burning mostly fat or carbs." Spoiler: It's not clear that understanding what you're burning translates into weight loss...or any other health benefit.

What is Lumen?

Lumen is a handheld device (similar in appearance to a vape pen) that you breathe into every day. It estimates how much fat and how much carbs you're burning by measuring the amount of carbon dioxide you exhale (a method called indirect calorimetry). More carbon dioxide means you're burning more carbs.

Does it work? Two studies—both at least partly funded by Lumen's parent company and partly authored by its employees—have looked.

In one, the Lumen device worked reasonably well compared to the gold standard method for measuring how much fat and carbs people burn, though the study only included 33 young people.¹ Another small study found that the device could pick up on differences in exhaled air when people followed a low-carb or a high-carb diet for a week.²

Translation: The Lumen device can apparently do what it claims with reasonable accuracy, keeping in mind that the research was conducted at least in part by company employees.

Lumen uses the data its device collects to provide app-based services like "customized nutrition plans and AI-powered meal logging."

To be clear, Lumen claims to be

more than just a weight-loss program.

It's "the world's first handheld metabolic health coach," and it has "tracks" that offer advice to boost metabolic health or fitness performance, according to the company's website (which provides no evidence from controlled trials that tinkering with carb intake will improve either of those).

It's also important to keep in mind what Lumen can and can't do. For example, it's only measuring whether you're primarily using carbs or fat as fuel. It can't (and doesn't claim to) tell you how many calories you're burning.

It also can't distinguish between whether the fat you're burning is body fat or fat from your diet. So a score that reflects a high fat burn might just mean you're eating a high-fat diet, not that you're burning off your body's fat stores.

And Lumen doesn't come cheap. In one recent deal, the device plus a two-month subscription cost \$219.

Is the program easy to follow?

It's not clear how the company uses the data it collects from you

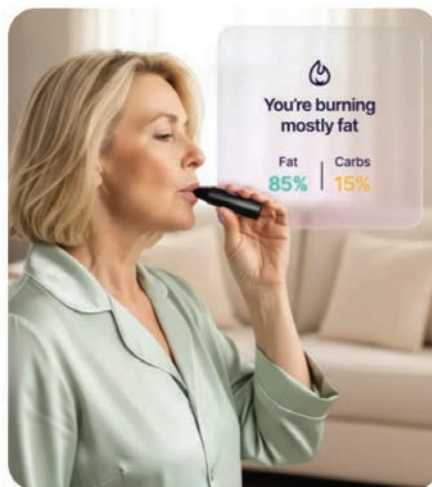
breath to make its recommendations.

Nor does Lumen's website reveal much about what users have to do to follow the program.

But reviews from people who have tried it suggest that it's not as simple as breathing into the Lumen device and getting some diet advice.

One thing is clear: Lumen is no quick fix. You have to be diligent about using it.

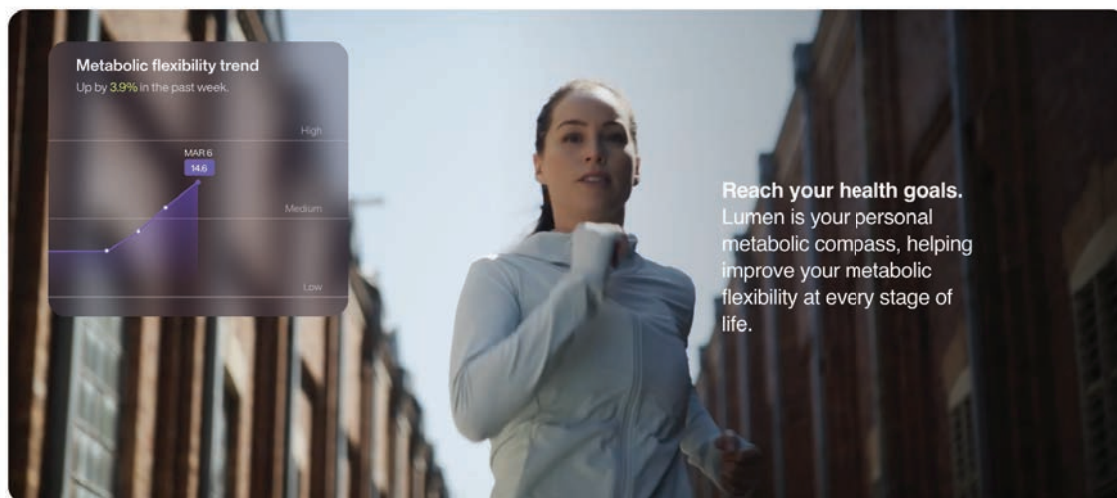
Lumen only requires you to use the device first thing in the morning in order to receive guidance, though it also encourages you to give samples



Step 1

Take a breath. Anytime.
In 20 seconds, Lumen reveals what your body is burning for energy: carbs or fats.

Lumen tells you whether you're burning more fat or more carbs. But burning more fat may just mean you're eating a high-fat diet, not that you're burning your body's fat stores.



Lumen's premise hinges on the concept of metabolic flexibility, which is your body's ability to switch efficiently between burning carbs and burning fat. But there's no good evidence that improving metabolic flexibility boosts weight loss, exercise performance, energy levels, sleep, or much else.

before and after exercise and eating.

And, as many users reported, you have to track everything you eat to get optimal results, a time-consuming exercise that can feel cumbersome.

After two weeks of measurements, the app will give you a "Flex score," which tells you how flexible your metabolism is (more on that below).

Does Lumen help people lose weight?

In one study (co-authored by employees of—and funded by—Lumen's parent company), 27 adults with excess weight and prediabetes used the Lumen device every morning.

The volunteers were then given instructions about their food for the day, which typically meant following a low-to-moderate-carbohydrate diet (about 20 to 45 percent of calories from carbs, depending on each day's Lumen results) and eating about 500 calories less per day than their "estimated requirements."

After 12 weeks, the volunteers had lost an average of 13 pounds. They also lowered their hemoglobin A1c, a long-term measure of blood sugar.³

But those results may just mean that cutting 500 calories a day leads to weight loss and lower A1c. (No surprises there.) Because there was no "control" group that cut calories but

didn't use Lumen, the study doesn't tell us whether Lumen had any impact on weight (or blood sugar).

Does understanding your metabolism matter?

"The key factor in your metabolic health is metabolic flexibility," says Lumen.

That's the body's ability to efficiently switch between burning mostly fat when fasting, at rest, or engaging in low-intensity activity or prolonged exercise, and burning mostly carbs after eating or higher-intensity exercise.

Some studies suggest that people with obesity or type 2 diabetes have reduced metabolic flexibility, meaning their bodies are sluggish in shifting between fuel sources.^{4,5}

That could mean, for example, that after you eat a meal your body struggles to turn the carbs you ate into fuel, which could result in prolonged high blood sugar levels.

But it's not clear that knowing how metabolically flexible you are adds much insight into your health.

Part of the problem is a classic chicken-and-egg conundrum. Metabolic inflexibility often occurs hand-in-hand with insulin resistance (difficulty moving sugar from your blood into cells). But it's not clear if meta-

bolic inflexibility causes insulin resistance...or if it's the other way around.⁵

Some researchers suggest that signs of metabolic inflexibility may precede markers of worsening metabolic health like high blood sugar and insulin resistance, but more research is needed to flesh that out.⁶

What's more, there is no single test that captures metabolic flexibility.⁶ Nor is there an agreed-upon threshold that signals when someone has crossed into "inflexible" territory.

Compounding the problem: Many studies measure and define metabolic flexibility differently, making it challenging to compare their results.

All of that makes us skeptical of Lumen's "Flex score."

The same goes for the company's assertions that better metabolic flexibility means easier weight loss, better sleep, optimized workout performances, more lean mass, and feeling more energized and less sluggish.

Wouldn't it be great if there were something solid to support any of those claims!

Bottom line

Skip the expensive metabolism trackers. There's no good evidence that focusing on metabolic flexibility will lead to better sleep, better workouts, or more energy, muscle, or weight loss. 🚫

¹ *Interact. J. Med. Res.* 10: e25371, 2021.

² *J. Int. Soc. Sports Nutr.* 20: 2185537, 2023.

³ *Obes. Facts* 16: 53, 2023.

⁴ *Am. J. Physiol.* 277: E1130, 1999.

⁵ *Cell Metab.* 25: 1027, 2017.

⁶ *Obes. Rev.* 22: e13131, 2021.

The Healthy Cook



Waking up...

Looking for a new spin on breakfast? Here's how you might start your day if you woke up in the Middle East, in Greece, or in Switzerland. 🌱

ZESTY CUCUMBER HUMMUS BOWL

This combo is inspired by fatteh, a Middle Eastern dish layered with chickpeas and pita. Great for brunch, it's spicy, cool, herby, and lick-the-plate-clean delicious.

- | | | | | | | | |
|---|---|---|--|---|---|---|---|
| 1 | 15 oz. can no-salt-added chickpeas, drained | ½ | cup plain lowfat Greek yogurt | 1 | Make the hummus: In a small food processor, combine the chickpeas, tahini, lemon juice, and garlic with 2 Tbs. of the oil and ¼ tsp. of the salt. Blend until smooth. | 3 | Mince the cilantro and mint. In a small bowl, combine them with the cucumber, pepper, and remaining 1 Tbs. oil. |
| ¼ | cup tahini | ¼ | bunch cilantro | 2 | In a small bowl, whisk together the yogurt and the remaining ¼ tsp. salt. | 4 | Spread the hummus in a serving bowl. Top with the yogurt, then with the cucumber-herb mixture. |
| 2 | Tbs. fresh lemon juice | 1 | sprig mint | | | 5 | Serve with the pita. |
| 1 | clove garlic, minced | 1 | mini cucumber, diced | | | | |
| 2 | Tbs. + 1 Tbs. extra-virgin olive oil | 1 | serrano or jalapeño pepper, minced | | | | |
| ¼ | tsp. + ¼ tsp. kosher salt | 4 | 2 oz. whole wheat pitas, toasted and cut into pieces | | | | |

TIME: 15 MINUTES | SERVES 4

PER SERVING (⅔ cup + 1 pita): calories 460 | total fat 21 g | sat fat 3 g | carbs 56 g | fiber 9 g | total sugar 4 g
added sugars 0 g | protein 17 g | sodium 540 mg

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

GREEK SCRAMBLED EGGS

I love any scrambled eggs, but especially eggs with tomatoes, feta, and fresh dill. They whisk me off to Corfu, my favorite Greek island.

- | | | | |
|-----|--------------------------------------|---|---------------------------------------|
| 1 | tsp. + 1 tsp. extra-virgin olive oil | 4 | eggs |
| 1 | clove garlic, minced | 2 | Tbs. milk |
| | pinch of dried oregano | 2 | Tbs. crumbled feta |
| 4 | plum tomatoes, diced | | freshly ground black pepper, to taste |
| 1/4 | tsp. kosher salt | 1 | sprig dill, leaves plucked |

TIME: 15 MINUTES | SERVES 2

PER SERVING (1½ cups): calories 240 | total fat 17 g
sat fat 5 g | carbs 7 g | fiber 2 g | total sugar 4 g | added sugars 0 g
protein 16 g | sodium 500 mg



- 1 In a small nonstick pan over medium heat, heat 1 tsp. of the oil until shimmering. Sauté the garlic, oregano, and half the tomatoes until soft, 3–5 minutes. Season with the salt.
- 2 In a medium bowl, whisk the eggs and milk together. Add to the pan and stir until cooked, 2–3 minutes.
- 3 In a small bowl, toss the remaining tomato with the feta and the remaining 1 tsp. of oil. Spoon the eggs onto two plates and top with the tomato-feta mixture. Season with the pepper and top with a few dill leaves.

SWISS OVERNIGHT OATS

You'll find this simple but satisfying chilled porridge on most breakfast tables in Switzerland. If you use regular (non-Greek) yogurt, increase the amount to 1 cup and skip the water.

- | | | | |
|-----|--------------------------------|-----|-------------------------------|
| 3/4 | cup plain lowfat Greek yogurt | 3/4 | cup rolled oats (not instant) |
| 1 | Tbs. fresh lemon juice | 1 | cup berries |
| | pinch kosher salt | 1/2 | cup nuts or seeds |
| 1 | large apple (unpeeled), grated | 4 | tsp. honey (optional) |

TIME: 10 MINUTES + OVERNIGHT | SERVES 4

PER SERVING (½ cup plus toppings): calories 250 | total fat 12 g
sat fat 1.5 g | carbs 31 g | fiber 5 g | total sugar 16 g | added sugars 6 g
protein 8 g | sodium 75 mg



- 1 In a large bowl, whisk together the yogurt, lemon juice, salt, and ¼ cup water. Stir in the apple.
- 2 Add the oats and gently stir until just combined.
- 3 Transfer to a container with a lid. Cover and refrigerate overnight.
- 4 In the morning, scoop a generous ½ cup into a bowl, sprinkle with ¼ cup berries and 2 Tbs. nuts or seeds, and drizzle with 1 tsp. honey (if using).

Time to go?

WHAT WORKS FOR CONSTIPATION

BY MADDY BENNETT



Constipation is so common that it's easy to write off the symptoms. But for some people, occasional irregularity can eventually become a chronic, debilitating disorder. What can you do to not get backed up? And what can help if you already are? Here's the science behind what works.

Constipation isn't one thing

What's the first thing to know about constipation?

"It's not a one-symptom disorder," says Satish Rao, a gastroenterologist and professor of medicine at the Augusta University Medical College of Georgia.

"Infrequent bowel movements, excessive straining, hard stools, using fingers to assist bowel movements, feeling a sense of blockage. All of these are constipation."

Roughly 15 percent of adults in the U.S. have chronic constipation.¹ How do you know if you're one of them?

"Your own best judge is you," says William Chey, a professor of gastroenterology, internal medicine, and nutritional sciences at the University of Michigan. "What's normal for you determines what's abnormal for you."

Worry that you're not going often enough? Having a bowel movement every other day is normal for some people. Having up to three a day is normal for others.

But other symptoms also matter.

"Constipation is a change in frequency from your normal habit, along with symptoms like lumpy stools, a sensation of incomplete emptying, or straining," Chey notes.

Almost everyone has constipation at some point. It can last for a few days to a few weeks and is often due

to changes in diet or routine, travel, medications, or stress.

In most cases, it resolves on its own or after a short course of over-the-counter medications or supplements like psyllium fiber or magnesium.

But constipation that lasts for three months or longer is likely a more complicated disorder.

From occasional to chronic

In some people, frequent episodes of occasional constipation may culminate in the chronic form, says Rao.

"It may start with some irregularity that can be managed with an occasional laxative. But then it happens again and again until medications don't work anymore."

In other cases, "there is a problem somewhere outside the gut that causes the colon to stop functioning properly."

That could result from a habitually low-fiber diet, physical inactivity, or health issues like Parkinson's disease, diabetes, or low thyroid function, all of which can affect gut function.²

Medications can also do a number on the GI tract.

"It's well known that opioids will constipate you," says Rao. "But so can many other drugs—blood pressure drugs, GLP-1 drugs for diabetes or weight loss, some antidepressants, anticholinergics like those used to



Feel like you've tried everything for persistent constipation? You may have a more complicated disorder that requires special diagnostic tests and treatments.

treat overactive bladder, and so on.” Ditto for iron supplements.

Chronic constipation can also arise from the gut itself. In some people, “the colon has become lazy because of nerve or muscle damage,” notes Rao.

More often, though, “the muscles involved in the act of pooping have become uncoordinated.”

For example, the pelvic floor may contract when it needs to relax, or the abdominal muscles may not generate enough pressure to produce a bowel movement.

That’s called dyssynergic defecation, and up to 50 percent of people with chronic constipation have it.³

“It’s a learned behavioral problem,” Chey explains. “In trying to pass hard, lumpy stools, some people may actually learn abnormal defecation behavior.”

Another culprit: “Many people have what’s called irritable bowel syndrome with constipation, where they have discomfort or pain,” says Rao.

IBS-C arises from faulty communication between the brain and the gut.² In some cases, it can be triggered by a bout of food poisoning that causes pain receptors in the bowel to become overly sensitive.

The FDA has approved several drugs for IBS-C, including linaclotide (Linzess) and, for women only, lubiprostone (Amitiza).

Who’s at risk?

We all get backed up from time to time. But older adults are especially prone to chronic constipation.

“Age is one of the most potent risk factors,” says Chey. “That’s for a variety of reasons, probably related to poor diet, low physical activity, certain medications, having other health problems, and aging of the gastrointestinal tract.”

A sedentary lifestyle is a major driver of constipation, which explains why people who live in nursing homes or who have disabilities that limit movement, neurological condi-

tions like Parkinson’s disease, or spinal cord injuries are at higher risk.

Another higher-risk group: “In the U.S., women outnumber men roughly two to one for constipation,” says Rao.⁴

“Nobody knows why. Researchers have looked, but we haven’t yet found the reason.”

When to seek help

“When symptoms reach a point where they are affecting your ability to carry out daily activities or are impairing your quality of life, it’s time to see a doctor,” says Chey.

“Unexplained bleeding or weight loss or pain when you’re moving your bowels—those things should also prompt a doctor’s visit.”

Chronic constipation can be debilitating, but Rao is optimistic. “We have excellent tools to diagnose chronic constipation, and we have wonderful treatments.”

Put food first

“Diet is critically important,” Chey stresses. While fiber is key, “it’s definitely more complicated than just getting more dietary fiber.”

Overall diet quality matters, too.

Chey’s recommendation: “The Mediterranean diet is generally good for what ails you. In addition to its heart-health benefits, it’s been linked with a lower risk of developing constipation.”

An analysis of three large studies that tracked nearly 96,000 adults for two to four years found that those whose diets were most similar to a Mediterranean-style or a plant-based diet had a 16 to 20 percent lower risk of developing chronic constipation than those whose diets were the least Mediterranean or plant-based.⁵



Getting a variety of plant-based foods, like those found in a Mediterranean diet, can help stave off constipation.

But it’s not just *what* you’re eating. It’s also *how often*.

“It’s important to have three regular meals a day,” says Rao. “One meal a day won’t cut it.” That’s because meals act as “natural stimulants,” so skipping them can slow down the gut. “And missing breakfast is especially bad news.”

So far, no trials have pitted one diet against another for *treating* chronic constipation in otherwise-healthy people, so it’s not clear whether a Mediterranean or plant-based diet offers more than just prevention.

Fiber is your friend...or not

Boosting fiber from foods or supplements is often the first step in treating constipation. (See “Find the fiber,” p. 20.)

“Aim for a high-fiber diet rich in fruits, vegetables, legumes, seeds, and whole grains, with a target of 25 to 38 grams of fiber per day,” says Nicola McKeown, a research professor in nutrition at Boston University.

“That will provide a variety of fiber types that help increase stool bulk, among other health benefits.”

Fiber types? They fall into two main categories: soluble and insoluble.

If you’re talking about soluble fiber, “you want it to be viscous, meaning it forms a gel as it travels through the digestive tract,” says McKeown.

"Fibers that are both soluble and viscous—like psyllium—draw water into the stool and soften it."⁶ And larger, softer stools are easier to pass.

(Note: McKeown has received research funding from whole-grain-industry groups and from the maker of Metamucil psyllium supplements.)

Coarse insoluble fibers (like the kind you get from wheat bran) also soften stool. How?

"Coarsely milled wheat bran irritates the lining of the large intestine, causing the bowel to secrete water into the stool," McKeown explains.

The fibers that are added to packaged foods and many supplements, on the other hand, don't alleviate constipation. That's because they're highly fermentable.

Bacteria break them down—i.e., ferment them—quickly, which means they aren't around long enough to hold water through the length of the colon, notes McKeown.⁶

Fibers that are highly fermentable largely lead to gas and bloating.

That's the case with inulin (aka chicory root fiber), which is added to thousands of packaged foods, points out Bruce Hamaker, a professor of food science at Purdue University and director of the Whistler Center for Carbohydrate Research.

That means your favorite fiber-fortified "gut health" soda or protein bar may not promote regularity, he cautions.

If the fermentable fibers that are added to foods and many supplements won't help you go, why do the fermentable fibers that are naturally present in whole foods help relieve constipation?

Because they're part of the *structure* of foods like fruits, vegetables, and whole grains. They're "trapped" inside plant cell walls that resist digestion, so gut bacteria

ferment them slowly, which allows them to hold onto water in the stool as it makes its way through the colon, Hamaker explains.

His bottom line: "Taking just any fiber supplement is not as beneficial as eating a diet that's naturally high in fiber."

One caution: If you're upping your fiber, make sure to mind your hydration. "Without enough fluids, fiber can't soften your stools as effectively," says McKeown.

But water or no water, some fibers can harden stool and make constipation worse.

For example, the soluble fiber wheat dextrin "isn't viscous, so it doesn't soften stool," says McKeown. "And finely milled wheat bran is insoluble but poorly fermented. So it can make your stool drier and harder because it doesn't hold onto water."

It's also important to keep in mind that fiber is not a one-size-fits-all solution, Chey cautions.

"Patients with mild to moderate slow-transit constipation benefit from more fiber," he explains.

"But patients with severe slow-transit constipation usually will not get better and in some cases will even get worse." (More fiber won't help move stool that's already stuck in the bowel.)

Boosting fiber can also boomerang

for people with dyssynergic defecation. When you can't relax the muscles in the pelvic floor or the rectum, notes Chey, extra fiber can make constipation worse.

Squatting pretty

Should you sit or squat? Rao's verdict: "Go back to squatting!"

"The toilet that we now use was essentially invented during the Victorian era," he notes. "Suddenly, we moved from the squatting position to the sitting toilet position."

And that move wasn't good news for everyone.

"Some of us have no issue using modern toilets," says Rao, "but those of us who do have issues risk developing dyssynergic defecation."

"It's absolutely true that defecation is most efficient in the squatting position, with the knees elevated above the level of the hips," notes Chey.⁷ "Some people really benefit from using a bathroom stool."

Bathroom footstools, which let you prop up your feet, can help you achieve a squat-like position. (A stack of books can work just as well.)

If a footstool doesn't do it for you, you may need to change up your bathroom routine.

"To restore the body's rhythm that helps us poop, try to ritualize your bowel habit," suggests Rao. "There are certain times of day when the colon is more active, and you need to capitalize on those windows."

Those periods of, um, poo-portunity occur shortly after eating meals.

"In the first two hours after waking, the colon is very active," says Rao. "If we have a good breakfast, we further activate the colon. If you miss the 30-minute window after breakfast, you may have missed the boat, and the next boat may not come until after your next meal."



A bathroom footstool helps you assume a squat-like position, which makes it easier to move your bowels.

What makes psyllium special?

Quick fixes

Looking for quicker relief?

“If you’re at the point where constipation is bothering you, it’s totally reasonable to try an over-the-counter medication after you’ve tried dietary and lifestyle modifications,” says Chey.

In other words, if diet, exercise, water, and/or psyllium haven’t done the trick, it may be time to think about an OTC laxative.

There are two types: osmotic and stimulant. The osmotic variety may take a few days to work. Stimulant laxatives kick in much more quickly.

The osmotic laxative polyethylene glycol—the active ingredient in MiraLAX—is among the best-tested constipation drugs, Chey notes.⁸

“It’s not absorbed by the gut, so it causes the bowel to naturally secrete more water,” he explains. “This softens stool and increases its mass, which enhances contractions in the gut to help move stool along.”

Another osmotic option: magnesium.

“Magnesium oxide at a dose of 400 to 500 milligrams per day, for example, has a mild laxative effect and is generally safe for healthy people,” says Chey.



Psyllium fiber—the poster child of constipation relief—comes from the husk of psyllium seeds. (Metamucil is a popular brand, though there are many generic versions.)

The fiber is soluble and viscous, so it excels at softening hard stools.

“Psyllium has water-holding capacity,” says the University of Michi-

gan’s William Chey. “That means it keeps water in the stool as opposed to allowing your body to reabsorb it.”

What’s the magic dose?

A recent analysis that included four randomized trials on psyllium found that at least 10 grams a day (the FDA-approved maximum dose) improved stool frequency and consistency in adults with chronic constipation.¹

But none of the trials tested doses below 10 grams. Taking less than that might also work.

Our advice: Start low and ramp up slowly to prevent GI discomfort. Try taking about 3 grams (a teaspoon of powdered psyllium) per day at first. (And check the label for its recommended daily maximum dose.)

One note of caution: In 2024, when the supplement-testing company ConsumerLab analyzed nine brands of psyllium fiber supplements for heavy metals, it found that all of them contained lead.² (To see ConsumerLab’s results, you’ll need a subscription to its website.)

Five of the nine brands met ConsumerLab’s safety standards for minimal lead contamination. But just one serving of the most-contaminated brand contained 6.5 micrograms of lead—13 times California’s strict limit of 0.5 mcg per serving. (There’s no safe level of lead exposure, though the FDA’s daily limit is 8.8 to 12.5 mcg for adults.)

It’s not clear how much risk a healthy adult faces from lead levels like those found by ConsumerLab. And psyllium fiber may bind to the lead, preventing your gut from absorbing it. Even so, if you’re concerned about lead exposure, you may want to skip psyllium (especially if you’re pregnant or plan to be).

¹ *Am. J. Clin. Nutr.* 116: 953, 2022.

² consumerlab.com/reviews/psyllium-supplements/psyllium.

magnesium oxide act more gently.⁸

But magnesium, especially at the higher doses in laxatives, isn’t for everyone.

If you have chronic kidney disease—it’s more common in older adults and you may not have symptoms—ask your healthcare provider before trying magnesium laxatives. (Healthy kidneys eliminate excess magnesium, which prevents dangerously high blood levels from building up.)

Laxatives like bisacodyl (in Dulcolax Liquid Gels) and senna (in Ex-Lax) have a more direct effect because they stimulate the colon to contract.

“But they can cause more abdominal pain or cramping,” Chey explains.

Which to choose? “If I need something to work quickly as a one-off, I’ll probably use something like bisacodyl or senna,” says Chey.

“On the other hand, if I need something I can use more frequently—maybe even every

day—I’ll use something like polyethylene glycol or magnesium oxide.”

But, Chey cautions, “if your symptoms are not responding to over-the-counter medications, you need to see your doctor.”

Other forms, like magnesium citrate and magnesium hydroxide (aka Milk of Magnesia), are also marketed for constipation.

Magnesium citrate has the strongest water-drawing effect into the colon, while magnesium hydroxide and

Biofeedback therapy

For people suffering from dyssynergic defecation—their pelvic floor and abdominal and anal muscles fail to coordinate during bowel movements—“an important part of treatment is retraining the anorectal muscles and pelvic floor using biofeedback therapy,” says Rao.

Biofeedback therapy, which builds the mind-to-muscle connection using sensors that give real-time feedback, outperforms other standard treatments like diet, exercise, and laxatives.⁹

Bottom line

Occasional constipation is a fact of life. For most people, keeping it at bay is a matter of eating enough fiber, drinking enough water, and staying active.

Stubborn bouts of constipation may require a short course of OTC meds, psyllium fiber, or magnesium.

If irregularity persists, sticking to a post-meal bathroom routine (and getting a leg up from a footstool) might do the trick.

But if you feel like every trip to the loo is a losing battle, you

may have chronic constipation—and that requires medical attention. 🚫

- ¹ Am. J. Gastroenterol. 115: 895, 2020.
- ² Nat. Rev. Gastroenterol. Hepatol. 13: 295, 2016.
- ³ J. Neurogastroenterol. Motil. 22: 423, 2016.
- ⁴ Best Pract. Res. Clin. Gastroenterol. 25: 3, 2011.
- ⁵ Gastroenterology 169: 1475, 2025.
- ⁶ J. Acad. Nutr. Diet. 117: 251, 2016.
- ⁷ Low. Urin. Tract Symptoms 2: 16, 2010.
- ⁸ Am. J. Gastroenterol. 116: 1156, 2021.
- ⁹ J. Neurogastroenterol. Motil. 22: 423, 2016.

For more info, go to cspi.org/constipation

Find the fiber

How much fiber do you need? Most adults should shoot for 25 to 38 grams a day. That target is based on a rule of thumb to eat at least 14 grams of fiber for every 1,000 calories' worth of food. For a 2,000-calorie diet, that works out to 28 grams a day (the Daily Value).

Here's how much fiber you'll find in a serving of different foods. Within each section, foods are ranked from most to least fiber, then least to most calories.

Legumes (½ cup cooked)	Fiber (g)	Calories
Black beans	8	110
Lentils, pinto beans, or split peas	8	120
Black-eyed peas	6	100
Great Northern beans	6	100
Kidney beans	6	110
Chickpeas	6	130
Edamame	4	90

Vegetables (½ cup cooked, unless noted)	Fiber (g)	Calories
Lima beans	5	100
Kale (¾ cup)	4	30
Artichokes	4	40
Green peas	4	70
Broccoli	3	25
Green beans (¾ cup)	3	30
Avocado (½ avocado)	3	80
Sweet potato, without skin	3	90
Romaine, raw (1¼ cups)	2	15
Bell pepper, raw (1 cup)	2	20
Cauliflower (¾ cup)	2	20
Spinach	2	20
Carrots	2	25
Brussels sprouts	2	30
Snow or sugar snap peas	2	35
Corn	2	70

Fruits	Fiber (g)	Calories
Asian pear, with skin (1)	10	120
Blackberries or raspberries (1 cup)	8	60
Wild blueberries, frozen (1 cup)	6	80
Pear, with skin (1)	6	100
Pomegranate arils (¾ cup)	5	110
Blueberries (1 cup)	4	80
Green kiwi, peeled (2)	4	80
Apple (1)	4	90
Strawberries (1 cup)	3	50
Orange (1)	3	60
Cherries (1 cup)	3	90
Prunes (4)	3	90
Banana (1)	3	110
Nectarine (1) or plums (2)	2	60
Gold kiwi, peeled (2)	2	100

Grains & pasta	Fiber (g)	Calories
Barley (¼ cup dry)	8	160
Chickpea pasta (2 oz. dry)	8	190
Bulgur (½ cup dry)	6	160
Red lentil pasta (2 oz. dry)	6	180
Whole wheat pasta (2 oz. dry)	5	200
Popcorn, air-popped (3½ cups)	4	110
Quinoa (¼ cup dry)	3	160
Brown rice (¼ cup dry)	2	170

Bread & crackers	Fiber (g)	Calories
Wasa Light Rye Crispbread (3)	6	90
Whole wheat bread (1 slice, 1.5 oz.)	3	100
Triscuits Original (6)	3	120
Wheat Thins Original (16)	3	140
White bread (1 slice, 1.5 oz.)	1	110
Crackers, white flour (9)	1	140

Cold cereals	Fiber (g)	Calories
Kellogg's All-Bran Buds (½ cup)	17	120
Kellogg's All-Bran Original (¾ cup)	12	120
Post Raisin Bran (1¼ cups)	9	190
Post Shredded Wheat (1½ cups)	8	210
Wheat Chex (1 cup)	8	210
Post Bran Flakes (1 cup)	7	110
Kellogg's Raisin Bran (1 cup)	7	190

Hot cereals	Fiber (g)	Calories
Oat bran (½ cup dry)	7	120
Oats (½ cup dry)	4	150
Teff (¼ cup dry)	4	180
Millet (¼ cup dry)	4	190

Nuts & seeds (amount closest to 1 oz.)	Fiber (g)	Calories
Chia seeds (3 Tbs.)	10	140
Flaxseed, ground (4 Tbs.)	8	150
Almonds (23)	4	160
Pistachios (49)	3	160
Sunflower seeds, shelled (¼ cup)	3	200
Pumpkin seed kernels (¼ cup)	2	150
Peanuts (28)	2	170
Walnuts (14 halves)	2	190
Cashews (18)	1	160
Hemp seeds, hulled (3 Tbs.)	1	170

Sources: company information, USDA.
Chart compiled by Lindsay Moyer.

Jazz it up!

14 WAYS TO ADD FLAVOR

BY LINDSAY MOYER

If you're looking for healthy ways to jazz up your meals, join the club. When we don't have time to whip up a sauce, dressing, or topping, we reach for one of our favorite flavor boosters instead. Dinner is served!

Savory sesame dressing

Need a way to make it hard to stop eating salad? Do we have a dressing for you!

Japanese toasted (or roasted) sesame dressing is seriously savory. It's not always easy to find a bottle outside of an Asian grocery store (like H Mart), but Trader Joe's has the goods. Joe's Organic Toasted Sesame Dressing is a little nutty-tasting, a little sweet, and not too salty, with just 3 grams of added sugars and 200 milligrams of sodium in each 130-calorie, two-tablespoon serving.

How to use: Spoon over a salad that features chicken or tofu and leafy greens or chopped cabbage, drizzle over steamed vegetables, or toss with a cold noodle salad.

Also try: Want to amp up the sesame goods even more, plus add some delightful crunch? Keep a shaker of toasted sesame seeds on hand for topping.

Tiny, super-sweet tomatoes

What's so special about Sunset Flavor Bombs? They're still on the vine, which amps up the flavor, sweetness, and juiciness compared to garden-variety cherry tomatoes. Don't be surprised if they steal the show in your next salad. Trust us.

How to use: Halved or whole, like you would any cherry tomato.

Also try: Sunset's Honey Bombs or Sugar Bombs. For a larger, sliceable tomato, go with the Campari variety.



Tangy balsamic glaze

With a bottle of balsamic glaze on standby, you don't need to spend 15 minutes cooking down balsamic vinegar to take the edge off and make it pleasantly sweet and syrupy.

Like Whole Foods Market's 365 Organic Glaze with Balsamic Vinegar of Modena, most brands hover around a mere 30 calories, 5 mg of sodium, and 5 grams of added sugars per tablespoon. While that may seem like a lot of sugar, don't worry. The balsamic flavor is so concentrated that you're likely to drizzle only a teaspoon or so of the glaze on each serving.

How to use: Toss with roasted broccoli or cauliflower, drizzle on a caprese salad of fresh mozzarella with tomatoes or plums, or whisk with olive oil and salt to make a vinaigrette for an arugula salad.



Zesty flavored mayo

Flavored mayos are having a moment. It's easy to see why. They make it a snap to add a pop of zest—or a blast of heat—to more than just sandwiches.

Are they healthy? Almost all mayo is low in saturated fat and typically modest in sodium (100 mg or so per tablespoon). Since it's mostly unsaturated oil, it mainly delivers calories (roughly 100 per tablespoon) from good fat. Translation: Mayo is better for you than you might think.

Many popular mayo flavors have one thing in common: heat (think spicy chipotle, sriracha, or harissa). Hellmann's, for example, offers a range of heat levels, from Mild Chipotle to Spicy. Bonus: They're lighter than Hellmann's regular mayo, so each has no more than 40 calories per tablespoon.

How to use: If necessary, first thin your mayo to a dipping-sauce or drizzling consistency by whisking in a teensy splash of water. Use any flavored mayo as a dip for breaded chicken or plant-based tenders, top fish or shrimp tacos with chipotle mayo, or mix sriracha mayo with canned salmon and use it to top a brown rice bowl with edamame, carrots, and cucumbers.



Garlicky toum

What exactly is toum? The potent (in a good way) Lebanese sauce is made from oil, garlic, lemon juice, and salt that have been blitzed together in a food processor until they're transformed into a fluffy white paste that you'll want to put on everything. As supermarket toum brand Toom puts it, "Is it a spread? Is it a snack? Is it a marinade? Yes."

Because toum's base is unsaturated oil (Toom uses canola oil), its Nutrition Facts look a lot like mayo's. A tablespoon of



Toom, for example, has 80 calories, just ½ gram of saturated fat, and a low 85 mg of sodium.

How to use: Use toum as a spread or dip (like you would mayo or aioli) anytime you want a dollop of richness plus intense garlicky flavor. Serve on the side of grilled chicken or falafel,

slather on a sandwich, or use as a dip for toasted pita triangles.

Also try: Cedar's Toum or Roasted Red Pepper Toum or Trader Joe's Garlic Spread-Dip.

Herby chimichurri



Chimichurri looks like pesto but tastes nothing like it. The Argentinian herb condiment marries finely chopped fresh

herbs (like cilantro and parsley), minced garlic, and a hint of crushed red pepper with olive oil and red wine vinegar. The result is a tangy sauce that's traditionally served with grilled meats.

Store-bought versions aren't easy to come by, so if you shop at Trader Joe's, make sure to check out its Chimichurri Sauce. A two-tablespoon, 110-calorie serving dishes out plenty of bold flavor while keeping a lid on sodium (160 mg).

How to use: Spoon over fish or chicken, or toss with vegetables, beans, lentils, or cooked grains.

Also try: Look for Gotham Greens Chimichurri ...or make your own (see back cover).

Bright pickled vegetables



"Bold color + big flavor make every meal a celebration," says the bag of Veggie Confetti Pickled Onions. We agree. A sprinkle of Veggie Confetti's (or another brand's) tangy pickled toppings like onions, jalapeños, cabbage, or carrots makes just about any dish pop. It doesn't add much salt or sugar, either (a two-tablespoon serving of the onions, for example, has 105 mg of sodium and 2 grams of added sugars).

Another brilliant topping idea: Grillo's Mild Pickle de Gallo. Instead of the fresh chunks of tomatoes, onions, and jalapeños in the traditional Mexican salsa pico de gallo, Grillo's tub is full of finely chopped cucumber pickles, with salt, onion, bell pepper, and garlic.

How to use: Salads are just the start. Pickled vegetables make a great topping for tacos, avocado toast, sandwiches, or any other dish where you're looking for a touch of acidity to liven things up.

Smoky nuts



Spoiler: Blue Diamond Smokehouse Almonds and More (the "and More" is cashews and pistachios) haven't been smoked. Unlike, say, Applewood smoked bacon or smoked salmon, the nuts are seasoned with natural smoke flavor (and salt).

The upside: You've got a new way to add smoky, savory—dare we say bacon-y?—flavor to your dishes

without going near any processed meat.

How to use: Add chopped smoky nuts to roasted vegetables (like cauliflower), salads (try a kale caesar), or cooked vegetables (like green beans), or use them as a coating or topping for "breaded" chicken.

Also try: Make your own dukkah, an Egyptian nut-seed-spice blend, to toss with vegetables, grains, and salads and scatter on top of soups. (For a recipe, go to cspi.org/dukkah.)

A do-it-all vegan sauce



What exactly is Original Bitchin' Sauce? It's a sauce, a dip, and a dressing that's not only versatile, but plant-based.

The healthy-fat base (grapeseed oil and almonds) is seasoned with lemon juice, soy sauce, nutritional yeast, garlic, spices, and salt, so it's supersavory. And its formula keeps the sodium modest (150 mg in a two-tablespoon serving) and the saturated fat low (1 gram).

The oil-and-nut base also means that it has enough fat and calories (90) to stand in for a sauce or dressing when you want something richer than, say, hummus.

How to use: Drizzle a spoonful on salads or bowls that feature beans, tofu, or tempeh. The sauce also fares well as a dip for crackers or crunchy vegetables, even though the consistency is a bit thinner than your average dip.

Mighty microgreens



Microgreens are typically harvested when they're no more than 3 weeks old and 3 inches tall. That makes them small...but mighty.

Each little green packs the full-size flavor of deep, dark (and sometimes spicy) vegetables like cabbage, broccoli, watercress, kale, or arugula.

Bonus: Many fresh-picked microgreens are more-concentrated sources of nutrients

like vitamins C, K, E, and beta-carotene than their fully grown counterparts.

How to use: Think of microgreens as an attractive garnish with a purpose. Top salads, pizza, soups, sandwiches, avocado toast, or pasta with a handful for extra color and flavor.

Standout hummus



Hummus is a no-brainer dip. You're getting a base of chickpeas, tahini (sesame seed paste), and largely unsaturated oils (like sunflower, canola, or olive) without too much salt.

Just about any brand is healthy, but sometimes you're looking for a new spin. And few companies deliver an ultra-smooth, creamy hummus with the top-notch flavors that Little Sesame does (think Preserved Lemon, Caramelized Onion, and Herby Jalapeño). Expect no more sodium than a typical hummus—around 125 to 150 mg in two tablespoons.

How to use: Just like any hummus. For starters, spread on whole-grain crackers or dig in with raw veggies like carrot or jicama sticks, sliced cukes, bell pepper strips, mini tomatoes, or cauliflower florets.

Also try: Fabulous Ithaca Hummus in fresh-tasting varieties like Lemon Dill, Lemon Beet, and Jalapeño Lime.

Creamy yogurt dressing

If you've ever eaten at a Mediterranean-inspired fast-casual restaurant like Cava, Taim, or Roti, you know that a stellar dressing or sauce can take a salad or bowl from so-so to superb.

That's also true in your kitchen...if you keep a bottle of creamy, herby Cava Yogurt Dill on hand. Because the versatile dressing/sauce/marinade is just Greek yogurt, cucumber, lemon, dill, salt, and garlic, a two-tablespoon serving is low in saturated fat (1 gram), sodium (45 mg), and calories (30). You can find it at Whole Foods Markets nationwide.

Don't live near a Whole Foods? Try Bolthouse Farms Cucumber Ranch Yogurt Dressing & Dip. Dairy-free? Pick up a bottle of Trader Joe's Vegan Creamy Dill Dressing (its creamy base comes from puréed cauliflower instead of yogurt).

How to use: Drizzle on bowls or salads that are topped with chicken, lentils, chickpeas, falafel, or shrimp.



Perfectly seasoned beans

Nothing turns a salad or a grain bowl into a meal faster than adding perfectly seasoned beans. That's the idea behind Fillo's Topperfecto Black Beans Sofrito (with onion, bell pepper, olive oil, garlic, cumin, and bay leaf). Each 4 oz., 150-calorie pouch—it's sized for one serving—delivers 6 grams of fiber, 8 grams of protein, and 360 mg of sodium (which is pretty low if the salad or bowl is going to be your lunch or dinner).

All of Fillo's products are expertly seasoned, so if the Topperfectos aren't for you, reach for the pintos...or pinks...or Mayocobas...or garbanzos...or lentils. You get the idea.

How to use: Tear open, heat (if you want to) in a microwave-safe dish, and add to salads, bowls, or soups that could use a little excitement.



A new take on barbecue sauce

Bachan's The Original is a Japanese barbecue sauce that delivers a welcome wallop of umami. Unlike the thick, tomato-heavy barbecue sauces that coat most American cookout foods, Bachan's consistency (thinner) and taste (wow!) stand out. Thanks to its garlic, ginger, green onions, mirin (sweet rice wine), soy sauce, and rice vinegar, the sauce can impart Japanese flavors to all kinds of dishes, grilled and not.

A tablespoon (35 calories) supplies a notable dose of sodium (520 mg) and added sugars (7 grams). But Bachan's has less sugar than most barbecue sauces. And a little goes a long way.

How to use: Use as a marinade for grilling, or toss with sautéed chicken, shrimp, or tempeh or a vegetable stir-fry a minute or two before it's done cooking. 🍣





FOOD FIND

Tastes like chick'n

In May 2025, plant-based meat behemoth **Beyond** unveiled its new chicken pieces. And in November, **Daring** added two new varieties to its lineup.

For decades, plenty of brands have offered crispy breaded “chick’n” that tastes like, well, chicken. Until now, though, it’s proven more challenging to find an *unbreaded* plant-based product that dupes the taste and texture of boneless, skinless chicken breast.

But chicken breast is healthy, so why even bother?

Vegetarians may want to toss a new taste into their tofu-tempeh-beans rotation. And anyone who’s trying to lighten their impact on the planet knows that producing foods made of plant proteins is likely to emit fewer greenhouse gases than raising and processing chickens.

Most plant-based meats do have more sodium than you might add yourself. But a 3 oz. serving of any of these unbreaded “chickens” is about as good as it gets: **Daring Original Shredded Plant Chicken** (310 milligrams of sodium), **Beyond Original Chicken Pieces** (340 mg), **Abbot’s Plant-Rich Chopped Chick’n** (380 mg), and **Daring Original Diced Plant Chicken** (420 mg).

Back on the plus side, Beyond’s protein is almost as high as chicken breast’s (21 vs. 26 grams in 3 oz.) for about the same calories (130 vs. 140). Daring’s and Abbot’s range from 14 to 18 grams for roughly 100 calories, so they’re not far behind.

Winner, winner, chicken dinner!



FOOD FAIL

Arch enemy

“**McDonald’s** is going BIG. Like, really BIG,” said the chain’s March press release announcing the **Big Arch Burger**, “a premium flavor experience that delivers BIG with every bite.”

How big?

The limited-time burger has as much beef as a Double Quarter Pounder with Cheese, but with three slices of cheese instead of two, plus lettuce, onion, pickles, “Big Arch Sauce,” and “crispy” (fried) onions piled high on a white-flour bun.

So it’s no surprise that the bigger burger has more saturated fat (25 grams), sodium (1,760 milligrams), calories (1,020), and added sugars (10 grams) than a Double Quarter Pounder with Cheese...or any other burger on McDonald’s menu.

And those numbers add up to some pretty Big Damage: A Big Arch single-handedly socks you with more than a day’s worth of sat fat, three-quarters of a day’s sodium, and 2+ teaspoons of added sugars (from the sauce and the burger bun).

A Big Arch has almost twice the calories—and more than twice the saturated fat—of a Big Mac. Calorie-wise, it’s like eating a stack of four McDonald’s hamburgers. And that’s before you add a side of fries, a drink, or anything else.

What’s next? How about a BIG Extra Value Meal that bundles a Big Arch with a free Big Mac on the side!

QUICK DISH

CHIMICHURRI

In a small food processor, combine 2 cups flat-leaf parsley, 1 cup cilantro, ¼ cup mint leaves, half a serrano pepper (seeds removed), ¼ cup extra-virgin olive oil, 1½ Tbs. red wine vinegar, and ¼ tsp. kosher salt. Pulse until uniformly minced, scraping down the sides as needed. Spoon over fish or chicken, or toss with vegetables, lentils, or whole grains. Makes 8 Tbs.

