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NOVEMBER/DECEMBER 2024

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Do the AIs have it?

CAN YOU TRUST GOOGLE'S
ARTIFICIAL INTELLIGENCE
FOOD ADVICE?



Wellness trends
that won't quit

**HIGH BLOOD
PRESSURE**
How to lower it

Healthy takeout
101

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NOVEMBER/DECEMBER 2024 Volume 51 Number 8

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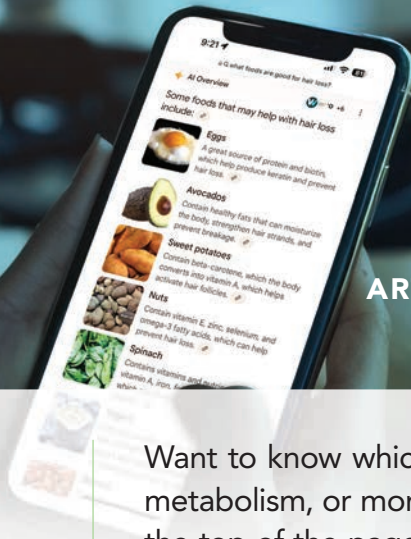
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Do the AIs have it?

CAN YOU TRUST GOOGLE'S ARTIFICIAL INTELLIGENCE FOOD ADVICE?

BY BONNIE LIEBMAN



Want to know which foods are good for your memory, metabolism, or more? If you ask Google, the answers at the top of the page are from its “AI Overview.” Is Google’s artificial intelligence credible...or just popular? We checked AI’s sources. They may surprise you.

1 Check the source. Start by clicking on the link symbol after each statement. Don’t be surprised if it’s a company that sells something that AI is recommending.

Your best bets are guidelines from health authorities like the National Institutes of Health, Centers for Disease Control and Prevention, and American Heart Association, especially if they cite evidence.

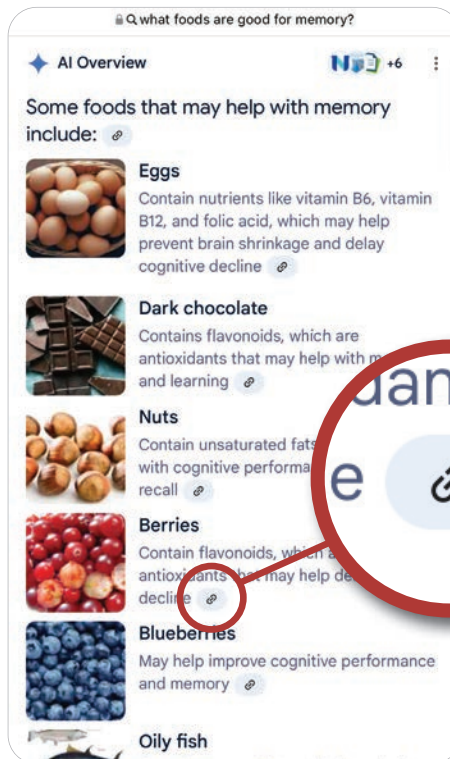
They’re better sources than websites like WebMD, MedicalNewsToday, or VeryWellHealth, which don’t always cite the strongest evidence.

And don’t be impressed by advice from hospitals, healthcare systems, or universities. They have experts on staff, but their websites may post articles written by staffers who don’t know the research, even if what they write has been reviewed by a health professional.

2 AI isn’t necessarily intelligent. Google’s AI Overview gathers info from the internet. It doesn’t vet the information to see what’s based on the best evidence.

So if many websites make the same claim, it shows up on AI. In other words, it’s more a measure of what’s popular than what’s accurate. (We didn’t look at ChatGPT or Copilot.)

And websites copy each other. Why else would bell peppers, broccoli, and sweet potatoes show up on so many lists of foods that are rich in vitamin A



Always click on the link to see the source of Google AI’s info.

or C? Plenty of other fruits and vegetables also fit the bill.

And nuts, fish, eggs, and dark chocolate appear on lots of lists for *whatever* ails you. They’re having a moment!

3 It’s a jungle out there. Every website is competing for eyeballs. The more clicks they get, the more ad revenue, product sales, or subscribers they can get.

And there’s a built-in bias. If people want to know, say, what foods are good for skin, a website that offers a list of skin-friendly foods gets more clicks than one that says that foods won’t do a thing for your skin. Beware of the bias in favor of “this-food-is-good-for-whatever!” advice.

4 Don’t fall for the vitamin trap. Yes, some foods are rich in vitamins you need. But unless you’re suffering from a true vitamin deficiency—which is extremely unlikely in the U.S.—don’t assume that those foods (or vitamins) can fight infections, protect your vision, prevent hair loss, etc.

And keep in mind that some studies can’t tell if a low vitamin intake *causes*, say, depression or memory loss...or if those *problems* cause people to eat fewer vitamin-rich foods.

5 AI’s answers keep changing. Ask a question like “What foods are good for immunity?” on two different days—or on two different devices—and you’ll get somewhat different answers.

As Google says, “Generative AI is experimental.” Indeed.

Turn the page to see what we found on a few days in September and October.

Good for memory?

Foods may help, says AI. Its evidence? Not too reliable.

■ **Eggs.** Their vitamins B-6, B-12, and folic acid “may help delay cognitive decline.” *Source:* [MaxHealthcare.in](#) (a healthcare system in India).

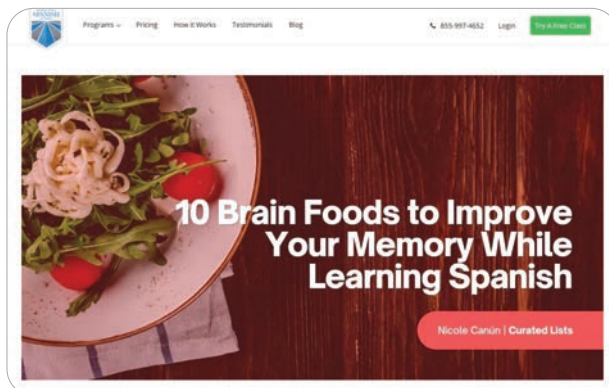
But in multiple clinical trials, B vitamins had no impact on cognition.¹

■ **Dark chocolate.** Its flavonoids “may help with memory and learning.” *Source:* [Spanish.academy](#) (a website for learning Spanish).

Yet in the COSMOS trial, cocoa flavanols had no benefit for memory.² (The daily dose was what you’d get in 600 calories’ worth of dark chocolate.)

■ **Nuts.** They improve memory recall. *Source:* [Nuts ‘N More](#) (an online nut store). No bias there!

True, in an industry-funded trial, 28 older adults who ate 2 ounces of



mixed nuts a day for 16 weeks scored better on 2 out of 6 memory tests than when they ate no nuts.³ (On 1 of those 2 tests, though, they could recall only 1 more word after eating nuts.)

But in another industry-funded trial, on 657 older adults, those who were randomly assigned to eat 1 to 2 ounces a day of walnuts for 2 years scored no better on memory or overall cognition tests than those who ate none.⁴

■ **Oily fish.** Its omega-3 fats “may help improve short-term and long-term

memory.” *Source:* [the Hindustan Times](#).

But a trial that randomly assigned 4,218 people to take either fish oil (1,000 mg a day) or a placebo for 2 to 3 years reported no difference in memory.⁵

BOTTOM LINE: No foods have been proven to help memory. What about berries, which AI also lists? They’re part of the MIND diet, which has been linked to slower brain aging in studies that track people for years. MIND is a mix of a healthy Mediterranean diet and a DASH diet. But the only trial to test MIND on memory came up empty (see Nov./Dec. 2023, p. 3).⁶ Stay tuned.

¹ *Cochrane Database Syst. Rev.* 12: CD011906, 2018.

² *Am. J. Clin. Nutr.* 119: 39, 2024.

³ *Clin. Nutr.* 42: 1067, 2023.

⁴ *Am. J. Clin. Nutr.* 111: 590, 2020.

⁵ *Alzheimer’s Dement.* 8: e12288, 2022.

⁶ *N. Engl. J. Med.* 389: 602, 2023.

Good for speeding up metabolism?

Want to burn more calories? AI has answers!

■ **Coffee & green tea.** “Caffeine in coffee can stimulate your metabolism and increase energy expenditure.” *Source:* [MedicalNewsToday.com](#).

In the study cited by MedicalNews, people burned about 100 calories more per day after high doses of caffeine (270 to 1,600 mg, but not 150 mg).¹ But neither caffeine nor green tea cause significant weight loss.^{2,3}

■ **Bell peppers.** Their lycopene “is good for your heart” and their fiber “can help lower cholesterol.” Huh? *Source:* [IndiaTVnews.com](#).

■ **Ginger.** It “increases metabolism.” *Source:* [Vitality4life.co.uk](#) (which sells kitchen wares, fitness equipment, etc.). Yet in recent studies, ginger did squat for metabolism.^{4,5}

■ **Eggs.** “The body needs to use more



energy to digest protein-based food like eggs.” *Source:* [VMEALS.ae](#) (which sells meal plans in the UAE).

That may be true, but an egg has only 6 grams of protein, which supplies 24 calories. In theory, you’d use 20 to 30 percent of those calories to metabolize the protein, which works out to just 5 to 7 calories.

■ **Water.** “One study found that drinking 500 ml of water increased metabolic rate by 30%.” *Source:* [MyJuniper.co.uk](#) (a weight-loss web-

site).⁶ But in later studies, water had little or no effect.⁷

■ **Nuts.** “One study found that there was an elevation of energy expenditure after eating them.” *Source:* [HollandandBarrett.com](#) (which sells wellness and weight-loss supplements).

Yet according to a 2023 review funded by the nut industry, “There was no evidence to suggest that the long-term consumption of nuts affects [resting energy expenditure].”⁸

BOTTOM LINE: Want to boost your metabolism? Get moving. The more you move, the more calories you burn.

¹ *Obes. Rev.* 12: e573, 2011.

² *Cochrane Database Syst. Rev.* 12: CD008650, 2012.

³ *Int. J. Obes.* 21: 1143, 1997.

⁴ *Clin. Nutr. ESPEN* 41: 168, 2021.

⁵ *Nutrition* 103-104: 111803, 2022.

⁶ *J. Clin. Endocrinol. Metab.* 88: 6015, 2003.

⁷ *J. Clin. Endocrinol. Metab.* 91: 3598, 2006.

⁸ *Adv. Nutr.* 14: 77, 2023.

Good for preventing depression?

Foods can help, says AI. Really?

■ **Eggs.** “The yolks contain B vitamins, which may help reduce depression symptoms.” *Source:* [Piedmont Healthcare in Atlanta](#).

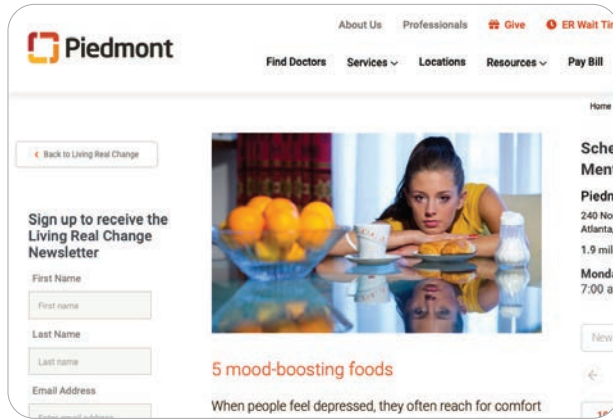
But in two large trials, vitamins B-6, B-9 (folic acid), and/or B-12 had no impact on the risk of depression.^{1,2} Nor did folic acid prevent depression in people with depressive symptoms.³

■ **Seafood.** Fatty fish “contain omega-3 fatty acids, which may help with mood.” *Source:* [WebMD.com](#).

But in a 5-year trial on 18,353 people, those who were randomly assigned to take fish oil (465 mg of EPA and 375 mg of DHA) every day had a 13 percent *higher* risk of depression than placebo takers.⁴

Nor did fish oil prevent depression in people with depressive symptoms.⁵

■ **Bananas.** Their vitamin B-6 “helps produce serotonin and dopamine,



neurotransmitters that can help improve mood.” *Source:* [MEDvidi.com](#) (an online mental health center).

Yet in a large trial, taking 50 mg a day of B-6 for 7 years didn’t prevent depression.¹ A banana has 0.4 mg.

■ **Berries.** They “may help decrease depression and anxiety levels.” *Source:* [StraightTalkCounseling.org](#) (a mental health clinic in California).

Yet in five small trials, dried blueberries (or juice or powder) either raised, curbed, or had no effect on depressive symptoms.⁶

■ **Dark chocolate.** “A 2019 study found that people who ate dark chocolate had a lower chance of reporting depressive symptoms than those who didn’t.” *Source:* [Deseret.com](#) (a Utah news organization).

Did dark chocolate *cause* less depression? That study can’t tell.

■ **Milk.** It’s “a good source of vitamin D, which may help ward off depression symptoms.”

Source: [VeryWellHealth.com](#).

Yet in a large trial, vitamin D didn’t prevent depression in people at average or high risk for depression.^{5,7}

BOTTOM LINE: To prevent or curb depression, try exercising for 75 to 150 minutes a week (see Oct. 2021, p. 3).

¹ Br. J. Psychiatry 206: 324, 2015.

² Nutrients 8: 748, 2016.

³ JAMA 321: 858, 2019.

⁴ JAMA 326: 2385, 2021.

⁵ J. Clin. Psychiatry 84: 22m14629, 2023.

⁶ Eur. J. Nutr. 63: 1071, 2024.

⁷ JAMA 324: 471, 2020.

Good for preventing a UTI?

What foods can prevent a urinary tract infection? Just ask AI!

■ **Cranberries and blueberries.** They “contain plant compounds that prevent *E. coli* from attaching to urinary tract cells.” *Source:* A 2015 article from [Urology Specialists of the Carolinas](#) ([urologyspecialistsnc.com](#)).

But in 2020, the FDA found only “limited and inconsistent” evidence that cranberry products could prevent UTIs.

■ **Foods high in vitamin C.** It “makes urine more acidic, which may prevent bacteria from growing.” *Source:* [Urology San Antonio](#) ([urologysanantonio.com](#)).

Even huge doses of C (2,000 mg a day) don’t make urine more acidic.¹

■ **Probiotics.** Good bacteria in fermented foods like plain Greek yogurt, cheese, kefir, sauerkraut, kimchi, pickles, and apple cider vinegar “prevent



bad bacteria from growing.” *Source:* [urologysanantonio.com](#). Trials proving that those foods can prevent UTIs? Zip.

■ **D-mannose.** This sugar, which is found in “cranberries, apples, oranges, peaches, broccoli, and green beans...prevents bacteria from sticking to the lining of the urinary tract system.” *Source:* [urologysanantonio.com](#).

But in clinical trials, D-mannose supplements didn’t prevent UTIs.^{2,3}

■ **Cauliflower.** It has “anti-inflammatory compounds that can help control inflammation throughout your body and your urinary tract.” *Source:* [UGA Urology of Greater Atlanta](#) ([ugatl.com](#)).

Trials to back that up? None.

■ **Water.** “Drink plenty of water.” *Source:* [Hackensack Meridian Health](#), a health care network ([hackensackmeridianhealth.org](#)).

Yes! Women assigned to drink an extra 1½ liters of water a day for one year had fewer UTIs (1.7) than those who drank no extra water (3.2).⁴ (Some authors worked for Danone Research. Danone sells bottled water.)

BOTTOM LINE: Urologists are entitled to their professional opinions, but, water aside, the evidence for foods to ward off a UTI is skimpy at best. 🚫

¹ J. Urol. 170: 397, 2003.

² Cochrane Database Syst. Rev. 8: CD013608, 2022.

³ JAMA Intern. Med. 184: 619, 2024.

⁴ JAMA Intern. Med. 178: 1509, 2018.

Quick Studies

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

Tirzepatide for sleep apnea



Tirzepatide—which is sold as Zepbound for weight loss and Mounjaro for type 2 diabetes—also helps treat sleep apnea.

Researchers randomly assigned 234 people with obesity and sleep apnea who didn't use a PAP (positive airway pressure device) to take either tirzepatide

(10 or 15 mg) or a placebo every day and did the same with another 235 people who did use a PAP. (The study was funded by Eli Lilly, which sells tirzepatide.)

After one year, the tirzepatide-plus-PAP group averaged 24 fewer apnea events per hour—and the tirzepatide-only group averaged 20 fewer apnea events per hour—than the placebo groups. The tirzepatide takers also lost more of their weight (19 percent) than the placebo takers (2 percent), and their systolic blood pressure fell by 4 to 8 points more.

WHAT TO DO: Got obesity and apnea? Ask your doctor about tirzepatide.

N. Engl. J. Med. 391: 1193, 1248, 2024.

Blood pressure done right

When researchers took blood pressure readings on 133 people, systolic pressure (the upper number) averaged 6.5 points higher if the cuffed arm was hanging by the person's side—and 4 points higher if the arm was supported on a lap—than if the arm was supported on a desk (as it should be).

WHAT TO DO: Take your blood pressure with your arm resting on a desk or table (see p. 15).



J. Intern. Med. 2024. doi:10.1001/jamainternmed.2024.5213.

Don't ignore symptoms of ovarian cancer

UK guidelines advise women with ovarian cancer symptoms to get a blood test for CA-125 and, if it's abnormal, an ultrasound within two weeks.

Researchers tracked 1,741 women who were tested via this fast-track pathway. Roughly 7 percent were diagnosed with high-grade serous ovarian cancer. In 76 percent of those

women, surgery and/or chemotherapy removed all or nearly all of the detectable cancer cells.

WHAT TO DO: It's too soon to know if diagnosing and treating ovarian cancer earlier improves survival. But don't ignore symptoms like abdominal or back pain, bloating, or feeling full quickly.

Int. J. Gynecol. Cancer 2024. doi:10.1136/ijgc-2024-005371.

Beans, peas, & LDL



Green or yellow split peas may not lower LDL ("bad") cholesterol like black, navy, pinto, or great northern beans do.

Scientists randomly assigned 180 adults to eat $\frac{3}{4}$ cup of cooked beans, split peas, or white rice (in foods like vegetable soup or chicken casserole) five days a week. The participants had moderately elevated LDL levels—roughly 115 to 195 mg/dL—and were not taking statins or other drugs to lower their LDL. (The study was partly funded by the Alberta Pulse Growers. Beans and peas are pulses.)

After six weeks, LDL levels in the bean group averaged 8 points lower than in the rice group. And LDL levels in the split pea and rice groups did not differ.

WHAT TO DO: Eat more beans. And don't give up on split peas. They have less fiber than beans, but they're still a healthy, planet-friendly plant protein.

J. Nutr. 2024. doi: 10.1016/j.tjnut.2024.09.011.





Seafood & tinnitus

Seafood eaters may have a lower risk of tinnitus, a phantom ring, buzz, whistle, hum, or similar sound that people persistently hear.

Researchers tracked 73,482 women for 30 years. Those who ate one serving of seafood per week had a 13 percent—and those who ate at least five servings a week had a 21 percent—lower risk of tinnitus than those who rarely or never ate seafood. Women who took fish oil had a 12 percent *higher* risk.

WHAT TO DO: Something else about seafood eaters may explain their lower risk of tinnitus. But for protein and healthy fats, seafood can't be beat.

Am. J. Clin. Nutr. 2024. doi:10.1016/j.ajcnut.2024.09.028.

Probiotics for irregularity?

Heard that probiotics can help if you're irregular?

Researchers randomly assigned 229 people with constipation to take either a daily probiotic (*Bifidobacterium animalis lactis* HN019) or a placebo. (The study was industry funded.) After eight weeks, the probiotic takers had no more bowel movements than the placebo takers.

WHAT TO DO: Irregular? Eat more fiber-rich fruits, vegetables, beans, and whole grains or try over-the-counter laxatives. Don't rely on probiotics, fiber gummies, or drinking extra water (see Jun. 2020, p. 8).

JAMA Network Open 7: e2436888, 2024.



Broccoli vs. carrots?



Are all vegetables equally good at lowering blood pressure?

Researchers had 18 people with high blood pressure eat a soup made with either cruciferous vegetables (broccoli, cabbage, cauliflower, and kale) or root and squash vegetables (potatoes, sweet potatoes, carrots, and pumpkin) as part of their lunch and dinner every day for two weeks. After a two-week break, the participants switched to soups made with the other vegetables. (Each soup contained 10 oz. of veggies.)

Average 24-hour systolic blood pressure was 2.5 points lower while eating the cruciferous vegetables than while eating the root and squash vegetables. And average daytime systolic pressure was 3.6 points lower during the cruciferous period.

WHAT TO DO: Fill half your plate with vegetables (and fruit), especially non-starchy vegetables, which fill you up with fewer calories. It's not clear why cruciferous vegetables may lower blood pressure more than their root and squash cousins. (Potassium intakes didn't differ.)

BMC Med. 22: 353, 2024.

Predicting heart disease risk over 30 years

Three blood tests can help predict the risk of a future heart attack, stroke, or other major cardiovascular event.

Researchers tracked 27,939 women for 30 years. Those who started the study with the highest levels of high-sensitivity C-reactive protein (a measure of inflammation) had a 70 percent greater risk of a cardiovascular event, those with the highest LDL ("bad") chole-

sterol levels had a 36 percent greater risk, and those with the highest lipoprotein(a) levels had a 33 percent greater risk than those with the lowest levels over the next 30 years.

WHAT TO DO: Lipoprotein(a) levels are largely genetic, but a healthy diet and, if necessary, statins or other drugs can lower LDL and inflammation. 🚫

N. Engl. J. Med. 2024. doi:10.1056/NEJMoa2405182.



Takeout 101

TIPS & TRICKS TO ORDER HEALTHY

BY LINDSAY MOYER

Whether you're in the mood for a Thai curry or Chinese stir-fry, what—and how—you order matters. Here's our cuisine-by-cuisine guide to healthier menu items and takeout tweaks.

Upgrade your takeout meal

Choose one starch (or none). The default at many restaurants is double refined carbs. Think burger buns & fries, chips & tortillas, pasta & bread, or pita & rice. Solution: Pick your favorite. (Bonus points if it's a whole grain!)

Replace red meat. Get beans, tofu, poultry, or seafood instead of beef, lamb, or pork.

Pump up the veggies. Add a salad or some veggies from the menu's sides...or save a few bucks and use up what's about to wilt in your fridge. Sauté or steam some broccoli, spinach, etc., while you wait for the delivery person. If your order is a stir-fry or curry, you might wind up with enough sauce to toss everything together.

Mind the sodium. Nearly all restaurant food is too salty. Adding more vegetables bumps up the potassium...and eating a potassium-rich diet can help counter sodium's blood pressure damage (see p. 15). It also stretches your meal into more (lower-sodium) portions.

Save half for later. When researchers analyzed takeout from non-chain restaurants in Boston in 2011, the average entrée with sides had roughly 1,300 calories. It wasn't just burgers or pasta, but dishes from Mexican, Vietnamese, Thai, and other restaurants. To see dozens of examples—from chicken fajitas (1,320 calories) to beef pho (940 calories)—go to cspinet.org/TakeoutCalories.

Watch out for app fees. Take UberEats. It displays a "delivery fee" when you pick a restaurant but may also add a "service fee" when you check out. (Neither fee includes your tip for the driver.) Uber also charges the restaurant fees, even if you're only using the app to place a pickup order. So call or check the restaurant's website first. It may offer its own takeout or delivery options.

Thai



• **Garden rolls beat spring rolls.** Most entrées have enough food so you can skip the appetizer, but if you get one, go unfried with garden rolls, papaya or green salad, chicken satay, or larb gai.

• **Vegetable stir-fries are winners.** Try pad pak (mixed veg), pad king (ginger, mushrooms, onions), or pad prik king (green beans) with chicken, seafood, or tofu. They can shave hundreds of calories off the oily rice noodles in pad see ew, pad Thai, or pad kee mao (drunken noodles).

• **Creamy curries are swimming in saturated fat.** Blame their coconut milk. Just ½ cup of the stuff has 15 to 20 grams of sat fat. So that red, green, yellow, panang, or massaman curry could rack up more than a day's supply (20 grams). What's a coconut curry fan to do? Spoon the vegetables and meat over your rice and leave most of the sauce in the dish.

Indian



• **Pick bread or rice.** Before ordering a side of naan, consider whether your dish is made with rice (like biryani) or comes with it.

• **Bread basics.** Naan is usually white flour. Roti or chapati is typically whole wheat.

• **Pick plants.** Try dal (lentils) or chana masala (chickpeas). Mmm.

• **Ghee or oil?** Does the restaurant cook with ghee (clarified butter) or oil (typically unsaturated)? You can't tell unless you ask.

• **Go grilled.** Chicken tikka is grilled boneless chicken chunks that have been marinated in yogurt and spices. (Tandoori chicken is similar.) Both are a healthier bet than chicken tikka masala, which sauces its chicken chunks in a tomato curry made with cream.

Salads

- **Start with darker greens.** Spinach and kale pack more nutrients per serving than romaine or iceberg.
- **Get mostly veggies (or fruit).** They lower the calories per bite.

What bumps up the calories: grains, cheese, dressing, avocado.

- **Lose the refined flour.** Get some crunch from nuts or seeds rather than fried wontons, pita crisps, or croutons.
- **Get the dressing on the side.** It's good fat but probably more tablespoons than you need. Try half to start.
- **Hold back on salty toppings like olives, cheese, and pickled veggies.** Pick just one. Instead of cheese, try avocado. It's sodium-free and rich in healthy fat (but not protein).
- **Make it your own.** Salad chains like Sweetgreen make it easy to modify—put dressing on the side, nix the cheese, swap a topping, etc. Its website or app even counts the calories in your customized dish.



Pizza



- **Flatten out.** Order a thin or flatbread crust instead of deep-dish, pan, or hand-tossed to save on refined carbs (and calories) per slice. Whole-grain crust available? Try it.
- **Bypass pepperoni, sausage, bacon, ham, etc.** Skipping the processed red meats is a no-brainer. Chicken is better, but it adds sodium to already-salty pizza. Load up on peppers, mushrooms, onions, etc., and ask for less cheese.
- **Split a personal pie.** At customizable pizza-for-one spots like Pieology, MOD, and Blaze Pizza, a typical 11-inch pizza has 700 to 1,100 calories (the crust alone has 400 to 600!). "Cauliflower" crusts may be no lower, thanks to their rice flour and gluten-free starches...plus cheese *inside* the crust. So split a pie and get a cheeseless side salad to add a decent dose of vegetables that helps fill you up.

Bowls

- **Bowl pros & cons.** Bowls can pack whole grains, vegetables, lean proteins, and plenty of toppings to keep things interesting. On the flip side, that can sometimes add up to more food than you may need in one meal.

- **Go half & half.** If you want a smaller grain portion, ask for half grains, half greens as your bowl's base.
- **Swap a starch.** At Dig (a fast-casual chain in the Northeast), for example, the "Vegan Dig Classic" (crispy tofu, sweet potatoes, broccoli, brown rice, garlic aioli) delivers a surprising 1,000 calories. Subbing salad greens for either the rice or potatoes saves 200 to 250 of them. You can also skip the aioli's 80 calories or use less.



Chinese



- **Veg out.** Chinese restaurant menus feature an impressive number of stir-fries that are made with more vegetables than meat (or noodles). We're talking Buddha's delight, moo goo gai pan, home style tofu, chicken with broccoli or snow peas. Without rice, expect 500 to 900 calories per order, rather than the 1,000 to 1,500 in many other dishes on the menu.
- **Leave some rice behind or save it for later.** Every cup of rice adds 200 calories. A typical takeout carton holds two cups.
- **Play sodium defense.** Use a fork or chopsticks to transfer your takeout to a plate

so you leave some sauce (and its sodium) behind. Or mix in a side of steamed vegetables to stretch the sauce into more servings.

- **Don't coat your protein.** Order chicken, tofu, or seafood stir-fried rather than breaded, battered, or deep-fried. 🚫

Wellness trends that won't quit

BY CAITLIN DOW

Some wellness trends are a blip on the radar, fading into the recesses of the internet as quickly as they appeared. (Celery juice, anyone?) Others have serious staying power. Here's a handful of potions, powders...and one reputed poison...that have secured a foothold in the wellness zeitgeist.

Vinegar magic?



What makes apple cider vinegar different from other vinegars?

All vinegar is diluted acetic acid. But apple cider vinegar is often sold unfiltered, so it has an intact “mother”—a cloudy mixture of yeast and bacteria.

While there's no evidence that the mother does anything for your health, the acetic acid in *any* vinegar might.

Take vinegar's touted ability to lower blood sugar. In several small studies, pre-meal vinegar blunted the rise in post-meal blood sugar.¹ For example, when 12 volunteers drank about 1½ tablespoons of vinegar diluted in water before a high-carb meal, their post-meal blood sugar rose roughly 30 percent less than when they drank just water before the meal.²

Can vinegar help lower blood sugar over the long term? That's an open question. Only a handful of studies have looked, and they were either too short, too small, or not well designed.¹

BOTTOM LINE: Vinegar might help lower blood sugar after meals, but longer and larger studies are needed. Just keep in mind that undiluted vinegar can burn the esophagus and diluted vinegar can erode tooth enamel. So if you try it, mix a tablespoon of vinegar in one cup of water and drink it through a straw.

¹ *Am. J. Clin. Nutr.* 116: 335, 2022.

² *J. Nutr. Metab.* 2020. doi:10.1155/2020/9098739.

A detoxifying tonic?

Want to shed pounds, flush away toxins, boost your energy, and eliminate cravings? Try a detox or cleanse, say some websites.

Most detoxes involve consuming only fruit and vegetable juices, or limiting food to just soups (or some solid foods while cutting out ingredients like gluten, soy, dairy, and more), or taking supplements like niacin, probiotics, and/or digestive enzymes, or mixing those tactics for a few days to a few weeks.¹

But no randomized trials have tested detox or cleanse diets. And don't kid yourself; they're not weight-loss magic. You may lose a few pounds because you're taking in so few calories for a short period. But you're likely to regain any lost weight once the cleanse is over.

What about flushing out toxins? Our kidneys, liver, gut, skin, and lungs have impressive detoxifying systems. It's true that our bodies *can* store some pollutants and heavy metals like lead, mercury, and cadmium. But there's no evidence that a cleanse can bolster the body's ability to purge any of those.

In fact, getting enough minerals like calcium, zinc, iron, and selenium in your usual diet can blunt your absorption of heavy metals. But even if juices were rich in those minerals—they're not—that wouldn't get rid of whatever you've already absorbed.

BOTTOM LINE: Skip the detoxes and cleanses. Your body doesn't need a detox assist.



¹ *Front. Nutr.* 9: 960922, 2022.



Bone broth...a healing potion?

“Bone broth contains collagen and gelatin, which help seal the gut lining and promote proper digestion,” says Google’s AI overview. Not quite.

Bone broth is the stock made from simmering animal bones (often with meat, vegetables, or herbs) for 24 hours or so. The

result: a liquid rich in gelatin that’s touted not just for gut health but also to boost the immune system.

No trials have tested gelatin on the gut lining in people. Nor have studies tested other claims about bone

broth’s healing or immune-boosting potential. And the animal evidence on gut health isn’t encouraging.

Gelatin tannate is a powder made of gelatin and tannins that’s marketed in Europe for the relief of short-term diarrhea. Animal studies suggest that it reinforces the lining of the gut. In one (partially company-funded) study, when researchers used a toxin to make the gut lining of rats more permeable, gelatin tannate did protect and reinforce the lining. But gelatin alone didn’t.¹

BOTTOM LINE: Like bone broth? Great! Just don’t expect it to “seal the gut lining” or do much else.

¹ *Gastrointest. Disord.* 4: 324, 2022.

Raw milk: friend or foe?

When you buy milk at the supermarket, you can trust that it’s been pasteurized—that is, briefly heated to kill dangerous microbes. Pasteurization is one of the world’s greatest public health successes.

In 1938, before the widespread adoption of pasteurization, roughly 25 percent of food poisoning outbreaks in the U.S. were due to raw (unpasteurized) milk. By 2018, that number had plunged to less than 1 percent.¹

Still, raw-milk enthusiasts insist that unpasteurized milk is a wellspring of health and vitality, capable of curing lactose intolerance, asthma, and allergies while boosting the immune system.

In fact, none of that is true.^{2,3} Nor is raw milk richer in nutrients than pasteurized milk.³

And raw milk isn’t harmless. Between 2013 and 2018, it was linked to 75 outbreaks caused by bugs like *Campylobacter jejuni*, *Cryptosporidium*, and *Salmonella*.¹ Hundreds of people were sickened and nearly 100 were hospitalized.

BOTTOM LINE: There are no health benefits—and plenty of risks—from drinking raw milk.

¹ *Epidemiol. Infect.* 150: e183, 2022.

² [fda.gov/food/buy-store-serve-safe-food/raw-milk-misconceptions-and-danger-raw-milk-consumption](https://www.fda.gov/food/buy-store-serve-safe-food/raw-milk-misconceptions-and-danger-raw-milk-consumption).

³ *Nutr. Today* 50: 189, 2015.



Seed oils—like canola, corn, soy, sunflower, and safflower—have gotten a bad rap in some circles.

They’re “toxic” because they cause inflammation that leads to obesity, heart disease, type 2 diabetes, and more, critics charge.

The main villain: linoleic acid, an omega-6 fat found in seed oils. The logic goes like this: The body con-

verts linoleic acid into arachidonic acid, which then gets converted into prostaglandins. And prostaglandins set off inflammatory responses throughout the body.

The problem? Only about two-tenths of 1 percent of the linoleic acid we consume is converted to arachidonic acid.¹

What’s more, in an analysis of 30 studies that tracked roughly 70,000 people, those with the highest blood levels of linoleic acid—and arachidonic acid—had a *lower* risk of cardiovascular disease.² (The analysis was partly funded by Unilever, which makes mayo and margarine.

Toxic oils?

Both are rich in omega-6 fats.)

Most seed-oil critics recommend swapping them for butter and olive, avocado, or coconut oil. Olive and avocado oils are fine, but coconut oil and butter are loaded with saturated fat.

Replacing saturated fat with omega-6 fats not only lowers LDL (bad) cholesterol; it slashes the risk of cardiovascular disease by roughly 30 percent.³

BOTTOM LINE: Ignore the seed-oil-is-toxic hype.

¹ *J. Lipid Res.* 46: 269, 2005.

² *Circulation* 139: 2422, 2019.

³ *Circulation* 136: e1, 2017.

Feeling basic?

Alkaline waters have been a mainstay in the bottled-water aisle for years. Are they worth the higher price tag? No.

On the pH scale of 0 to 14, which measures how acidic or alkaline a substance is, water sits smack in the middle, with a neutral pH of 7. Alkaline water typically has a pH between 8 and 9.

Most claims hinge on the idea that alkaline water can neutralize acid. For example, you might have heard that alkaline water can neutralize stomach acid and ease gastric reflux.

Stomach acid has an extremely acidic pH (1.5 to 3.5). Sure, you might be able to *briefly* and *slightly* raise that pH if you gulp down, say, a liter of alkaline water. But would that translate to less reflux? Who knows? No randomized trials have looked.



And don't expect alkaline water to change the pH of your blood. The average adult body contains about 30 to 50 liters of water, so drinking a liter or two of mildly alkaline water is trivial. But more importantly, your body is incredibly good at keeping your blood's pH within a very tight range (7.35 to 7.45), regardless of what you eat or drink.

BOTTOM LINE: There's no evidence that you can—or reason why you should try to—change your body's pH.



A probiotic for your problems?

From "probiotic-boosted popcorn" to hydration powders, dried fruit, bars, cereals, and more, the flood of new probiotic-spiked packaged foods seemingly knows no bounds.

Are probiotics a magic health wand? Nope. They're a stellar marketing tool.

To start with, many people assume that probiotics are interchangeable and that all are equally good for you. In reality, different bacteria have different effects.

What's more, the evidence that specific strains can treat or ease symptoms in

people with health problems is skimpy. (See Nov. 2021, p. 8.)

And in a recent industry-funded review, after experts combed through the research on probiotics for the prevention of disease in healthy people, they concluded that "The evidence is not yet sufficiently robust for recommendations for prevention in the general population."¹

BOTTOM LINE: Don't assume that a granola bar—or any other food—with added probiotics is healthier than one without.

¹ Adv. Nutr. 15: 100265, 2024.

Going green?

Interested in hacking your way to wellness? Look no further than the latest magic fairy dust: powdered greens.

Depending on which pricey powder you purchase, you can expect promises to support digestion and immunity, relieve bloat, or boost energy.

Many companies also sprinkle in, for good measure, a mix of powdered fruits and other vegetables, probiotics, prebiotics, adaptogens, and antioxidants.

But there's no evidence (or reason

to believe) that powdered greens, other powdered vegetables, or powdered fruits hold a candle to the real deals.

All are low in the unprocessed fiber and the potassium you'd get in whole greens, fruits, and veggies. And despite claims like "2 servings of fruits and vegetables," the powdered stuff doesn't fill you up or



help lower blood pressure like a hearty salad or a bowl of stir-fried broccoli.

We'd love to see a head-to-head trial pitting powdered versus

intact greens on all those promised health benefits. Odds are, we'll be waiting a while.

BOTTOM LINE: Powdered greens are a sad substitute for the real things. 🚫

Pop Quiz!

ARE YOU UP ON THE LATEST?

BY BONNIE LIEBMAN

Want to test your smarts about all sorts of issues we've covered in *Nutrition Action* over the years? Here's a quick quiz. Each question has only one correct answer. Good luck!

1. Which is **MOST** likely to contain PFAS ("forever" chemicals)?

- a. Microwave popcorn
- b. Filtered tap water
- c. Tuna or salmon
- d. Freshwater fish

2. Which has the most cadmium (a toxic metal) per serving?

- a. Raw spinach
- b. Raw leaf lettuce
- c. Raw iceberg lettuce
- d. Cooked kale
- e. Cooked collards

3. Microplastics have been linked to what health problem in humans?

- a. Brain tumors
- b. Heart attacks
- c. Dementia
- d. Colorectal cancer
- e. Liver cancer

4. Which processed fiber is most likely to cause gas?

- a. Chicory root fiber (inulin)
- b. Cellulose
- c. Maltodextrin
- d. Soluble corn fiber
- e. Polydextrose

5. Which colorectal cancer test detects the most precancerous polyps?

- a. Stool DNA-FIT test
- b. FIT stool test
- c. Colonoscopy
- d. Shield blood test



6. Which has the most lactose per serving?

- a. Butter
- b. Feta cheese
- c. Hard cheese
- d. Ice cream

7. Which food additive may damage DNA?

- a. Carboxymethyl-cellulose
- b. Lecithin
- c. Polysorbate 80
- d. Titanium dioxide

8. Which is most likely to lower the risk of prostate cancer?

- a. Getting vigorous exercise
- b. Eating 5 vegetables a day
- c. Taking selenium
- d. Taking vitamin D
- e. Taking vitamin E

9. What cuts the risk of ovarian cancer?

- a. A blood test for CA-125
- b. Having your fallopian tubes removed
- c. Taking hormones after menopause
- d. Taking bioidentical hormones after menopause

10. Which low-calorie sweetener has raised no health concerns?

- a. Allulose
- b. Aspartame
- c. Stevia extract
- d. Erythritol
- e. Xylitol

11. A DASH diet lowers all but one of these. Which one?

- a. Cardiac troponin (a marker of heart muscle damage)
- b. C-reactive protein (a marker of inflammation)
- c. Blood pressure
- d. Headaches

12. What does NOT usually lead people to consume more calories?

- a. Artificial sweeteners
- b. The calories in a beverage
- c. Large serving sizes
- d. More calories per bite

13. Which is NOT linked to a higher risk of breast cancer?

- a. A daily serving of alcohol
- b. A daily serving of soy foods
- c. Having dense breasts
- d. Having a first child after age 30
- e. Being tall

14. Which supplement shortened Covid in clinical trials?

- a. Vitamin C
- b. Vitamin D
- c. Zinc
- d. None of the above

15. Which food has the kind of fat that's likely to lower your LDL ("bad") cholesterol?

- a. Cherry pie
- b. Dark chocolate
- c. Ranch salad dressing
- d. Light cream cheese
- e. Plant-based cheese



ANSWERS

1. d (Freshwater fish). Freshwater fish is far more likely to have PFAS than (largely imported) cod, crab, salmon, shrimp, tilapia, or tuna. (The FDA did find high levels in some canned clams, though.) Companies no longer use PFAS in microwave popcorn bags or food packaging, but it may take a

year or so to use up old stocks. A filter can remove PFAS from your tap water. (See Jul./Aug. 2024, p. 3.)

2. a (Raw spinach). A 3 oz. serving of raw spinach has more cadmium (19 micrograms) than leaf lettuce (5 mcg) or iceberg lettuce or cooked kale or collards (2 to 3 mcg). A 150-pound person should aim for no more than 15 mcg per day, says the FDA. High levels may lower your bone density or damage your kidneys. (See Mar./Apr. 2024, p. 9.)

3. b (Heart attacks). Microplastics have been found in the lungs, intestines, liver, bloodstream, and olfactory bulb of the brain, but their impact on human illness is still unclear. And it's too early to know if they cause heart attacks or strokes. (See May/Jun. 2024, p. 14.)

4. a (Chicory root fiber). Health-wise, no processed fibers can match the intact fiber in fruits, vegetables, beans, and whole grains. Chicory root fiber (also called inulin or oligofructose) is most likely to cause gas. (See Jul./Aug. 2023, p. 3.)

5. c (Colonoscopy). A FIT test detects 23 percent, a Stool DNA-Fit detects 43 percent, and a Shield detects 13 percent of polyps seen in colonoscopies, which detect 75 to 89 percent of polyps. All detect most cancers. The Shield test is now FDA approved and may be covered by Medicare. (See May/Jun. 2024, p. 3.)

6. d (Ice cream). No dairy food matches milk (12 grams per cup). Expect 0 grams

in butter and hard cheeses and 0 to 1 gram in feta. We estimate that typical ice creams have 5 to 7 grams. If an ice cream has no fruit, subtract "Added Sugars"

from "Total Sugars" on the label to estimate lactose. (See Jul./Aug. 2022, p. 3.)

7. d (Titanium dioxide). It's been banned by the European Union because it might damage DNA. Carboxymethylcellulose and polysorbate 80

are emulsifiers that may disrupt the intestines' lining. Lecithin is a safe emulsifier. (See Sept./Oct. 2023, p. 3.)

8. a (Getting vigorous exercise). Trials are needed to see if exercise cuts the risk of high-grade prostate cancer. Vegetables, vitamins D or E, and selenium had no benefit in clinical trials. (See Mar. 2022, p. 3.)

9. b (Having your fallopian tubes removed). Oral contraceptives also lower your risk. Taking hormones after menopause raises your risk. CA-125 levels are not a good screening tool for women without symptoms. (See Jan./Feb. 2023, p. 3.)

10. c (Stevia extract). Aspartame is a possible carcinogen. Allulose is safe, though high levels could lead to GI discomfort. Erythritol and xylitol were linked to blood clots in recent test-tube studies, but it's unclear if clots are more likely in humans. (See Jun. 2023, p. 11; Mar. 2023, p. 8; Jul./Aug. 2024, p. 11.)

11. d (Headaches). In clinical trials, a DASH diet lowered blood pressure, C-reactive protein, and cardiac troponin. A lower-sodium diet may help

prevent headaches. (See Jan./Feb. 2024, p. 3; Mar. 2015, p. 12.)

12. a (Artificial sweeteners). In studies that track people for years, consuming low-calorie sweeteners is linked to weight gain, but those kinds of studies can't prove cause and effect. In clinical trials, most low-calorie sweeteners do not lead to weight gain. (See Jan./Feb. 2024, p. 14; Jul./Aug. 2019, p. 7; Sept. 2017, p. 7.)

13. b (A daily serving of soy foods). A 1996 pilot study reported more abnormal cells in breast fluid after women ate the soy protein you'd get in a pound of tofu every day for 6 months, but in 2013, a larger 6-month study found no difference. (See Jun. 2021, p. 3.)

14. d (None of the above). In large trials, vitamin C or D or zinc didn't help treat or prevent Covid. Paxlovid helps prevent severe illness in people at high risk due to age or illness. Whether the drug prevents long Covid is unclear.

(See Apr. 2021, p. 7; Dec. 2022, p. 7; Jan./Feb. 2023, p. 2; Jan./Feb. 2024, p. 3.)

15. c (Ranch salad dressing). It's mostly unsaturated fat, which lowers LDL. You won't find that kind of "good" fat in pie crust, chocolate,

or cream cheese. A few plant-based cheeses are made from nuts, but most use (saturated) coconut oil (See May/Jun. 2024, p. 20; Nov. 2017, p. 3.)



HOW'D YOU DO?

- 11–15** **Whoa!** You didn't peek at the answers, did you?
- 6–10** **Not bad.** That's 10 years' worth of info to remember.
- 0–5** **Oops!** Maybe peeking isn't such a bad idea.

Under pressure

HOW YOU MEASURE BLOOD PRESSURE MATTERS

BY CAITLIN DOW

Nearly half of all U.S. adults have high blood pressure. And 90 percent of us will develop it as we get older, raising our risk of a heart attack or stroke. The good news: Eating well and exercising regularly can lower your pressure. Here's how...and why it's worth taking your pressure at home.

If your blood pressure sits at or above 130 systolic (the upper number) or 80 diastolic (the lower number), you have hypertension. (A diagnosis is based on the average of two readings taken on two separate occasions.) Ideally, your pressure should be below 120 over 80.

Of course, that assumes that your blood pressure has been measured properly. There's a good chance it hasn't.

At the doctor's office, for example, measurements may be rushed or your arm may be hanging at your side, which can bump up your readings (see p. 6).

What's more, many people have "white coat hypertension"—that is, their pressure is only elevated at the doctor's office. Others have the more dangerous "masked hypertension." Their pressure is normal at the office but elevated elsewhere.

That's why guidelines recommend that people with elevated blood pressure or with

suspected white coat or masked hypertension take their blood pressure at home.¹ Here's how to select a monitor:

■ **Use an upper-arm cuff.** Wrist cuffs and finger monitors aren't as accurate.

■ **Buy a validated brand.** In a 2020 study, only 16 percent of the top-selling upper-arm monitors on Amazon in the U.S. had been validated for accuracy.² To find a reliable monitor, go to validatebp.org.

■ **Get the right size cuff.** In one study, roughly 47 percent of men and 42 percent of women required a different cuff size than a standard adult cuff.³ And when the wrong cuff size was used, blood pressure readings were off by 4 to 20 points systolic.⁴ To find your size, measure the circumference of your arm

midway between your shoulder and elbow.

■ **Check your insurance.** Some private insurance and most state Medicaid plans cover some or all of the cost of a monitor. (Medicare typically doesn't pay, but check your plan to make sure.)

The guidelines recommend that anyone checking their high blood pressure take it twice in the morning and twice in the evening, with at least one minute between measurements.¹

Once your blood pressure is stable for several months, checking it one to three days a week is likely sufficient. 🍌

9 tips to measure blood pressure



Source: Adapted from American Medical Association (www.ama-assn.org/ama-johns-hopkins-blood-pressure-resources).

¹ *Circulation* 142: e42, 2020.

² *JAMA* 329: 1514, 2023.

³ *Blood Press. Monit.* 18: 138, 2013.

⁴ *JAMA Intern. Med.* 183: 1061, 1069, 2023.

How to keep a lid on your blood pressure

Here's how to lower your pressure, according to guidelines. (The arrows show average drops in systolic points in people who already have high blood pressure.)

EAT A DASH-LIKE DIET

Load up on fruits and vegetables and cut back on salt, bad fats, and added sugars. Here's a 2,100-calorie version. (Note: servings are small.)

↓ 11 points

	Daily Servings
 Vegetables & Fruit 1 serving: ½ cup (or 1 cup greens) or 1 piece fruit	11
 Grains 1 serving: ½ cup pasta or rice or cereal or 1 slice bread	4
 Low-fat Dairy 1 serving: 1 cup milk or yogurt or 1½ oz. cheese	2
 Legumes & Nuts 1 serving: ½ cup beans or ¼ cup nuts or 4 oz. tofu	2
 Poultry, Fish, Lean Meat 1 serving: 4 oz. cooked	1
 Oils & Fats 1 serving: 1 Tbs.	2
 Desserts & Sweets 1 serving: 1 tsp. sugar or 1 small cookie	2
 Wild Card Poultry, Fish, Lean Meat or Oils & Fats or Grains or Desserts & Sweets	1

LIMIT ALCOHOL

If you drink, stop at one drink a day for women or two for men.

↓ 4 points

EXERCISE

Both aerobic exercise and strength training can lower blood pressure.

↓ 4–8 points

Aim for 90 to 150 minutes each week of aerobic exercise like:

- Brisk walking
- Jogging or running
- Bicycling
- High-intensity interval training
- Water aerobics



AND 90 to 150 minutes each week of **strength training:**

- Weight lifting, resistance band workouts, or body-weight exercises
- Yoga (like vinyasa or power yoga)
- Pilates



LOSE EXCESS WEIGHT

Expect about a 1 point drop in pressure for every 2 pounds you lose.

↓ 5 points



GET MORE POTASSIUM

Goal: 3,500 to 5,000 milligrams a day.

↓ 4–5 points

	Calories	Potassium (mg)
Beet greens (½ cup cooked)	20	650
Baked potato (1 medium)	150	610
Sweet potato (1 medium)	100	540
Farmed Atlantic salmon (4 oz. cooked)	230	430
Banana (1)	110	420
Low-fat plain yogurt (6 oz.)	110	400
Fat-free milk (1 cup)	80	380
Lentils (½ cup cooked)	120	370
Avocado (½)	110	350
Spinach (2 cups raw)	10	330
Peach or nectarine (1)	60	290
Orange (1)	70	240
Romaine lettuce (2 cups raw)	20	230

Source: USDA Food Data Central.

CUT SALT

Cut your sodium, ideally to 1,500 milligrams a day. Most sodium comes from packaged and restaurant foods that don't even taste salty.

↓ 5–6 points

Salt Sneak	Instead
Bread 100–200 mg (1 slice)	Try Dave's Killer Bread Thin-sliced or other brands with around 100 mg per slice.
Deli meats 500–700 mg (2 oz.)	Ask for a no-salt-added meat at the deli counter.
Soup 600–900 mg (1 cup)	Look for lower-sodium lines from brands like Amy's, Imagine, Dr. McDougall's, or Plantstrong.
Restaurant entrées (1,000–2,000+ mg)	Save half for later. Add a salad or other veggies to boost the potassium. ↻

➔ For more examples, check out cspinet.org/LowerBP.

Page source: J. Am. Coll. Cardiol. 2018. doi:10.1016/j.jacc.2017.11.006.

Play the ingredient game!

BY BONNIE LIEBMAN

Splashing the right ingredients on a label can clinch a sale, regardless of how much is inside. See if you can guess the first (main) ingredient listed on the back label of each of these foods. (Don't count water.) Turn the page to see how you did.



The ingredient game



MAIN INGREDIENT:

Sugar

"Hazelnut spread with cocoa," says Nutella's front label. In fact, it has more sugar and palm oil than hazelnuts.

A two-tablespoon serving packs 200 calories and 4½ teaspoons of added sugar (nearly 40 percent of a day's max).

Nuts are heart-healthy, but thanks to its saturated-fat-rich palm oil and its sugar, Nutella isn't.



MAIN INGREDIENT:

"Pumpkin filling"

What's the main ingredient in Trader Joe's "This Pumpkin Walks into a Bar..." Cereal Bar? The label doesn't really say.

Labeling rules allow companies to group certain ingredients together...in this case, into a filling that has more brown rice syrup, cane sugar, cane syrup, and apple powder than pumpkin (which comes just before the glycerin and modified food starch).

Each bar has a quarter of a day's added sugar. Time to walk out of the bar?



MAIN INGREDIENT:

Apple purée from concentrate

Each bottle of Bolthouse Farms Berry Boost 100% Juice Smoothie has berries galore. On the front label, that is.

Inside, you get more apple purée and apple juice (both from concentrate) than blackberry purée, more banana than strawberry purée, and less than 2% raspberry or blueberry purée.

"Helps support immune health," says the label. Note: Selling dressed-up apple juice at berry prices helps support Bolthouse's financial health.



MAIN INGREDIENT:

Soybean oil

You might not expect raspberries to be the main ingredient in a vinaigrette, but Whole Foods 365 Organic Raspberry Vinaigrette has more water, soybean oil, apple cider vinegar, and cane sugar than raspberries.

Maybe Organic Cane Sugar Raspberry Vinaigrette didn't sound so good.

What makes it so red? We're betting on the organic fruit and vegetable juices that are added for "color."



MAIN INGREDIENT:

Corn syrup

"No high fructose corn syrup," boasts the Log Cabin Original Syrup label. "No artificial flavors."

Well, that's a relief. So what's it made of? Maybe at least a little maple syrup? Nope.

Instead of that scary high fructose corn syrup, you get...*regular* corn syrup, which is no better for your health.



MAIN INGREDIENT:

"Chocolate yogurt flavored coating"

The real main ingredient is a mystery because the (multi-ingredient) coating is listed first.

It's largely sugar, hydrogenated palm kernel oil, and four powders: cocoa, whey, nonfat milk, and yogurt.

"Made with whole fruit," says the label. But you get more coating than fruit...or actual chocolate or yogurt.

There goes 24 percent of your day's saturated fat and 14 percent of your day's added sugar. 🍬

Winter wonders

BY LINDSAY MOYER

These now-in-season fruits are ready to brighten up your winter. Most are rare finds at supermarkets in the spring and summer, so enjoy 'em while it's cold!



Satsumas

The slightly loose skin of a **satsuma** makes it a breeze to peel, but the snack-size mandarin's perks go beyond ease. A

sweet-tart satsuma tastes like you've cranked up the flavor on an everyday clementine. That makes it pricier, alas, but worth an occasional treat. To spot a satsuma, scan the supermarket for its signature green leaves, which will still be attached to the fruit.

Sumos

The uber-juicy, easy-to-peel **Sumo** is a super-sized hybrid of oranges, satsumas, and mandarins.

Thanks to its softball size, each 150-calorie Sumo delivers a nice dose of fiber and potassium (10 percent of a day's worth), and packs a 1½-day supply of vitamin C. Peak season starts in January!



Cara Caras

Pop quiz: What's an orange that's not orange inside? Answer: a Cara Cara. The citrus fruit is

seedless, juicy, and sweet-tart, with pink flesh from lycopene (a plant pigment also found in watermelons and tomatoes). Toss segments into grain sides like tabouli or quinoa pilaf for a pop of pink (see p. 21).



Pomegranates

Pomegranates are sparkling fiber-rich gems.

Pro tip: To stop the arils (seeds) from flying or spraying juice while you separate them from the inner white pith, cut your pomegranate into chunks, then submerge them in a large bowlful of water while you pluck away. The white stuff floats to the top while the edible seeds sink to the bottom.

That gives you arils galore to jazz up oats, yogurt, or The Healthy Cook's Wild Rice & Pomegranate Salad or Pomegranate & Pistachio Salad (see cspinet.org/recipes).



Meyer lemons

Why go for a wintertime **Meyer lemon** instead of an all-the-time lemon?

Pleasantly sweeter and less acidic than regular

lemons, Meyers are perfect for everything from sweet baked goods to savory dishes. Add their juice and zest to fish, lentils, salads, or chicken. Or squeeze some into your water or tea. To spot a Meyer, look for dark yellow or orange-ish skin that's smoother and thinner than a regular lemon's. Hello, winter sunshine!

Persimmons

For starters, it helps to know your **persimmons**. Acorn-shaped Hachiyas (right) taste astringent until they're very ripe—that is, until they feel super soft to the touch. Save 'em for snacking. Use firmer, rounder Fuyus (left) for green salads.

For a dynamite persimmon salad, toss a sliced Fuyu with baby arugula or kale, toasted walnuts or pecans, and a vinaigrette of 1 Tbs. white balsamic or wine vinegar, ½ tsp. honey, ¼ tsp. salt, and 1 Tbs. extra-virgin olive oil. Add a sprinkle of feta or goat cheese, if you'd like. Yum! 🍷



For more tips, go to cspinet.org/winterfruit

The Healthy Cook



Taste the rainbow

For a surefire dose of winter sunshine, add sweet-tart fruit like citrus, kiwi, or pomegranate to a leafy green or whole-grain salad. That pumps up the color, flavor, and nutrients. It's a win-win-win! 🌈

BLOOD ORANGE & AVOCADO SALAD

No blood oranges at your supermarket? You can use a navel, satsuma, or any other orange.

- | | | |
|--|---|--|
| 1 head butter lettuce | 1 avocado, sliced | 1 Tear or cut the lettuce into large bite-sized pieces. |
| 1 blood, navel, satsuma, or other orange | 1 serrano chili, thinly sliced (optional) | 2 Peel, halve, and slice the orange. |
| 1 Tbs. fresh lime juice | a handful of fresh basil leaves | 3 Make the dressing: In a large bowl, whisk together the lime juice, salt, and oil. |
| ¼ tsp. kosher salt | a handful of fresh cilantro leaves | 4 Arrange the lettuce, orange, and avocado on a platter. Spoon the dressing over the salad and sprinkle with the chili (if using) and herbs. |
| 1 Tbs. extra-virgin olive oil | a few fresh mint leaves | |

TIME: 10 MINUTES | SERVES 4

PER SERVING (2 cups): calories 110 | total fat 9 g | sat fat 1 g | carbs 9 g | fiber 4 g | total sugar 4 g | added sugar 0 g | protein 2 g | sodium 125 mg

For more winter veggies: cspinet.org/TheHealthyCook

Broccoli with Garlic Sauce
Smoked Almond Caesar Salad

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

KIWI & RADISH SALAD

A mix of green and gold kiwis—if you can find them—looks dazzling. No matter the color, their tangy flesh pairs well with my savory, zingy miso-ginger dressing.

- | | | | |
|---|------------------------------|---|---|
| 2 | green and/or gold kiwis | 1 | Tbs. rice vinegar |
| 6 | radishes | 1 | Tbs. sunflower or grapeseed oil |
| 1 | Tbs. white miso paste | 6 | cups baby arugula, spinach, and/or kale |
| 1 | tsp. minced or grated ginger | | |

TIME: 10 MINUTES | SERVES 4

PER SERVING (2 cups): calories 70 | total fat 4 g
sat fat 0 g | carbs 9 g | fiber 1 g | total sugar 6 g | added sugar 0 g
protein 2 g | sodium 180 mg



- 1 Peel, halve, and slice the kiwis. Thinly slice the radishes.
- 2 Make the dressing: In a large bowl, whisk together the miso, ginger, vinegar, and oil.
- 3 Gently toss the salad greens with the dressing. Scatter the kiwis and radishes on top.

QUINOA & WINTER FRUIT SALAD

I love the contrast between the neutral-tasting quinoa and the bursts of flavor from the orange and pomegranate. A tri-color quinoa mix (white, red, and black) makes for an even more colorful dish, but regular (white) quinoa tastes just as good.

- | | | | |
|---|--------------------------------------|---|---|
| 1 | cup tri-color or regular quinoa | ¼ | cup loosely packed fresh parsley leaves |
| 2 | Tbs. fresh lemon juice | 2 | navel oranges, peeled and chopped |
| 2 | Tbs. extra-virgin olive oil | 1 | cup pomegranate seeds |
| ¼ | tsp. kosher salt | | |
| ¼ | cup loosely packed fresh mint leaves | | |

TIME: 20 MINUTES | SERVES 6

PER SERVING (1 cup): calories 190 | total fat 7 g
sat fat 1 g | carbs 30 g | fiber 5 g | total sugar 9 g | added sugar 0 g
protein 5 g | sodium 90 mg



- 1 Rinse the quinoa thoroughly in a fine mesh strainer with cold water.
- 2 In a medium pot, bring 2 cups of water to a boil. Stir in the quinoa and reduce to a low simmer. Cover and cook until the water is absorbed and the quinoa is tender, 15–20 minutes. Rinse under cold water to cool the quinoa, then drain well.
- 3 Make the dressing: In a large bowl, whisk together the lemon juice, oil, and salt.
- 4 Chop the herbs and immediately stir them into the dressing. Toss the quinoa with the dressing.
- 5 Add the oranges and pomegranate.

Supermarket swaps

10 HEALTHY STAPLES THAT SAVE \$\$\$

BY LINDSAY MOYER



These 10 matchups between competing nuts, seeds, fruits, vegetables, grains, and proteins can shave dollars off your grocery bill. Sometimes, less is more. (Note: Approximate prices for packaged foods are based on store-brand "365" items at a Washington, DC, Whole Foods Market.)

Peanuts vs. Almonds



► **WINNER: Peanuts.** They cost half as much as almonds (about \$3 vs. \$6 a pound). And almond butter is at least twice as pricey as peanut butter.

While almonds have somewhat more vitamin E, fiber, and magnesium, those differences matter less than the benefits of *both*: each has cholesterol-lowering polyunsaturated fats and a decent dose of plant protein (about 6 grams per ounce).

The only reasons to pick one over the other: taste, money, or concern over freshwater use (it takes far more to grow almonds).

Hemp seeds vs. Sunflower seeds



► **WINNER: Sunflower seeds.** When it comes time to top off your bowl of oats or yogurt with a bit of crunch, don't forget sunflower seeds.

Hemp seeds have more protein (9 vs. 6 grams per ounce), while sunflower seeds are higher in fiber (3 vs. 1 gram). Both are decent sources of minerals (zinc, magnesium, iron), though hemp has more.

And both are rich in healthy fats, though hemp has more polys.

But 12 oz. of hemp seeds will cost you \$13. That much shelled sunflower seeds? \$5. Now *that's* a deal!

Fresh berries vs. Frozen berries



► **WINNER: Frozen berries.** Fresh raspberries are one of the most expensive fruits, says the U.S. Department of Agriculture. Their frozen cousins come a bit cheaper... and they're just as nutritious.

To save even more per pound, switch to a larger bag of mixed berries, blueberries, or strawberries. Bonus: frozen berries don't go bad, so you won't ever have to toss them out and waste food (and money).

While you're at it, try frozen dark sweet cherries instead of fresh. No pitting needed!

Cabbage vs. Brussels sprouts



► **WINNER: Cabbage.** Small is beautiful. But Brussels sprouts don't come cheap. Pound for pound, the cute mini crucifers cost about three times as much as green cabbage.

A whole uncut head of cabbage can stay fresh in the fridge for weeks. And cabbage is packed with vitamins C and K and delivers a decent dose of folate and fiber (though a bit less than Brussels sprouts), all for just 20 calories a cup.

Toss some shredded cabbage into stir-fries, Pad Thai, a green salad, and more.

Mango vs. Pineapple



► **WINNER: Pineapple.** Mango costs nearly twice as much as pineapple (75 cents vs. 44 cents per cup, in 2022 dollars). Those are the USDA's estimated costs per edible cup of fruit, which accounts for how much you lose when you cut away thick skins, leafy tops, cores, seeds, etc.

Bonus: Pineapple has extra vitamin C (75% vs. 55% of a day's worth in 5 oz.). And you can count on reliably great taste because pineapples are typically picked ripe. Just grab one with fresh-looking dark green leaves and a sweet smell.

Quinoa vs. Whole wheat pasta



► **WINNER: Whole wheat pasta.** WebMD features quinoa in its slideshow of "Foods with More Protein than an Egg." The grain has a reputation for protein, but it's no superstar. (Neither is an egg.)

In fact, a 2 oz. (dry) serving of whole wheat pasta has as much protein (8 grams) and fiber (5 grams) as the same serving of quinoa, but for only \$2 per pound (vs. \$5 for the quinoa).

It's worth paying a premium for quinoa if you prefer its taste or need to avoid gluten...but not for its protein.

Popcorn kernels vs. Veggie chips



► **WINNER: Popcorn kernels.** For a money-saving snack, pick up popcorn kernels you pop yourself (in a pot on the stovetop). Each serving costs 20 cents, vs. 50 cents for the chips.

Healthwise, popcorn wins by a mile. It's a whole grain that's low in calories per cup (30), so there's room to toss with a little oil, salt, and spices, if you like.

Typical "veggie" chips are potato flour, potato starch, oil, and salt, with only a hint of vegetable powders.

Winter squash vs. Sweet potatoes



► **WINNER: Sweet potatoes.** The winning winter vegetable yields its sweet goodness for an average of 60 cents a cup, vs. 80 cents for butter-nuts and \$1.20 for acorn squash (all in 2022 dollars), says the USDA.

If you tire of sweets, toss some carrots (a mere 30 cents a cup!) in oil and pop them in the oven to roast. Add some onions and other veggies, if you like.

Most orange-colored root veggies are a reliable (and delicious) way to get vitamin A, potassium, and fiber. So why not play the field?

Granola vs. Plain rolled oats



► **WINNER: Rolled oats.** An 18 oz. tub of oats costs \$3, vs. \$5 for the same amount of granola...if you stick with a store brand. With fancy granola brands, the sky's the limit. An 18 oz. "value size" bag of Purely Elizabeth Organic Original Ancient Grain Granola costs \$11.

Granolas contain oats, but most have 2½ to 3 teaspoons of added sugar per serving. Use plain oats to make your own hot oatmeal or cold overnight oats. You can add fruit, nuts, or seeds...and, if you want some sweetness, a teaspoon of sugar.

Tempeh vs. Plant-based grounds



► **WINNER: Tempeh.** When you're hankering for a plant-based dupe for a beef burger, it's hard to bypass Impossible or Beyond (see back cover). But if all you need is a plant protein to crumble, season, and sub in for ground meat on tacos, lettuce wraps, or bolognese, try tempeh.

A block of tempeh like Lightlife Original saves you about \$1 per serving, and its protein (18 grams) is on a par with Beyond's (21 grams).

For The Healthy Cook's Sweet & Sour Tempeh Wraps and more, go to cspinet.org/recipes. 🍷



FOOD FIND

The Great Beyond

“We are thrilled to share our 4th generation burger, **Beyond Burger IV**, a mouthwatering meaty burger built from the goodness of plants,” says the package.

The previous Beyond Burgers got their fat from an oil blend made with enough (unhealthy) coconut oil to hit 5 grams of saturated fat in a 4 oz. patty. That’s a quarter of a day’s max and close to the 7 grams you’d get in a similar-sized McDonald’s Quarter Pounder beef patty.

So it’s about time the plant-based phenom got an oil change.

The new Beyond subs avocado oil for the coconut oil blend, which slashes the sat fat to just 2 grams. That’s beyond great!

More pluses: The latest version has less sodium than the old Beyond Burger (310 milligrams, vs. 390), but just as much protein (21 grams) and no more calories (230).

Tip: Your grocer may stock Beyond patties in either the refrigerator or freezer case.

On the downside, a two-patty pack of Beyond Burgers can cost \$5 to \$8.

Less-processed tofu, tempeh, and beans are cheaper and healthier than plant-based meats. But beef creates more greenhouse gas emissions, takes more water to produce than any other food, *and* is a probable human carcinogen.

So beef eaters might want to consider looking Beyond.

QUICK DISH

ZESTY CRANBERRY-ORANGE RELISH

Wash and chop one whole orange (including the peel), discarding any seeds. Combine in a large food processor with a 12 oz. bag fresh or frozen cranberries and ¼ cup sugar. (If your cranberries are frozen, don’t thaw them before making the dish.) Pulse until uniformly minced, about 10–12 pulses. Refrigerate until cold, about one hour. Serves 10.



FOOD FAIL

Between the Buns

“For anyone looking for an extra cheesy treat, the **Bacon Mac & Cheese Burger** features hand-smashed double patties topped with thick-cut bacon, American cheese, mac & cheese, pickled hot peppers and Hatch chile aioli on a challah bun,” boasted the **Buffalo Wild Wings** news release in August.

Think about it. Would *you* want an ordinary beef burger, when you can pile two patties, plus cheese, plus thick bacon, plus mac & cheese inside your bun?

Surely, B-Dubs could have squeezed a few mozzarella sticks, onion rings, and cheese nachos in there, too. Do they want their patrons to go hungry?

Granted, the Bacon Mac & Cheese Burger with fries has 1,580 calories, 36 grams of saturated fat (nearly two days’ worth), and 3,440 milligrams of sodium (1½ days’ worth). It has more calories than two McDonald’s Double Quarter Pounders with Cheese. So skimpy, it’s not.

It’s part of the chain’s limited-time-only “Thick-Cut Bacon Menu,” which launched in time for football season. (If you’re on a diet, are you in luck! The menu also includes a 1,300-calorie **Bacon Patty Melt** and an 890-calorie **BLT Sandwich**.)

“Everything’s better with bacon,” says Buffalo. Really? Processed meats like bacon, sausage, ham, hot dogs, and lunch meats raise the risk of colorectal cancer, says the International Agency for Research on Cancer.

So...maybe not quite *everything*.