Nutrition Action

The changing American diet

THE BEST DIPS

Are heartburn drugs safe?

COLORECTAL CANCER

A disease on the decline

Thanks to efforts by Katie Couric and others, more than half of all adults now get screened. But that’s not the only reason death rates have dropped.
Hold the Bacon, Ham, & Hot Dogs

Could things get any worse for the beleaguered meat industry? Over the years, we’ve learned that:

- red-meat eaters have a higher risk of heart disease,
- most farm animals are raised in miserable conditions, and
- the land, water, fertilizer, feed grains, and antibiotics used to raise cattle and pigs pollute our air and water and create greenhouse gases.

Then, a year ago, a report from the International Agency for Research on Cancer (IARC) concluded that red meat probably causes cancer in humans…and that processed meat does cause cancer (see cover story).

What’s processed meat? Bacon, hot dogs, sausages, ham, and deli meats. Most are made from pork or beef. They are typically cured with sodium nitrite, salt, and sometimes smoke.

But don’t be fooled by the “No Nitrates or Nitrites Added” that’s in large print on packages of Wellshire Dry Rubbed Uncured Pork Bacon and other “uncured” meats. How many people notice the tiny disclosure next to those words—“Except for those naturally occurring in sea salt and celery powder,” that is.

require the labels of all processed meats to say “USDA Notice: Frequent consumption of processed meat and poultry may increase your risk of cancer. To protect your health, limit your consumption of those products.”

And it’s time for the USDA to make sure that labels don’t deceive consumers into thinking that meats preserved with celery powder are safer than those preserved with nitrite.

Mike F. Jacobson, Ph.D., President Center for Science in the Public Interest

Vegetarian Solutions
From White Beans with Roasted Cherry Tomatoes to Eggplant & Quinoa Stuffed Peppers, 31 vegetarian main dishes from Nutrition Action’s Healthy Cook.


MEMO FROM MFJ

From Eggplant White Beans with Roasted Cherry Tomatoes & Quinoa Stuffed Peppers, 31 vegetarian main dishes from Nutrition Action’s Healthy Cook.


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“This is good news,” says Gilbert Welch, professor of medicine at Dartmouth’s Geisel School of Medicine. Colorectal cancer death rates in people aged 50 and older are half what they were in 1975. “There’s nothing ambiguous about it,” adds Welch. “This disease is clearly on the decline.”

That said, colorectal cancer is still the third leading cause of cancer death in men (after lung and prostate) and in women (after lung and breast).

A Success Story

“My father died of metastatic colon cancer when I was in medical school, so I have more than a passing interest in this disease,” says Dartmouth’s Gilbert Welch. “There’s no question that something good has happened with colorectal cancer.”

The average American’s risk of dying or being diagnosed with colorectal cancer has plummeted in the last 40 years (see graphs). The question is: Why?

“Screening has without a doubt had an impact,” explains Welch. He’s talking about colonoscopies and other measures to look for cancer or precancers in people without symptoms.

“But the decline started long before screening,” he notes. “And until around 2005, less than half the U.S. population had been regularly screened. So it’s only recently that we would begin to see screening’s effect.”

Better treatment has also played a role. “The surgery is safer, and we’ve improved the care of people who have more advanced disease,” says Welch.

But that’s not the whole story. “We’ve known for a long time that lifestyle and perhaps other aspects of the environment have a profound effect on risk of colorectal cancer,” says Walter Willett, chair of the nutrition department at the Harvard T.H. Chan School of Public Health.

“Back in the ’60s, there were roughly ten-fold differences in colorectal cancer rates across countries. Yet those huge differences pretty much disappeared when people migrated from low-incidence countries like Japan to high-incidence countries like the U.S.”

Now it’s a different story. “U.S. colorectal cancer incidence and mortality are down by about half what they were in the ’60s,” says Willett.

“At the same time, in East Asian countries, colorectal cancer rates are skyrocketing. Rates in Japan now actually exceed those in the U.S. It’s hard for me to believe that so much has happened since I started researching the topic.”

It’s good news that colorectal cancer is on the decline here. But that’s no excuse to avoid screening...or other steps to lower your risk.

Get Screened

“Making sure you get screened is the optimal way to reduce your colorectal cancer risk,” says Andrew Chan, associate professor of medicine at Harvard Medical School.

In June, the U.S. Preventive Services Task Force issued new recommendations on screening.

The task force “strongly recommends that adults 50 to 75 be screened for colorectal cancer,” Douglas Owens, professor of medicine at Stanford University and a task force member, explained in an interview with the Journal of the American Medical Association.

“The bad news about colorectal cancer screening is that about a third of the people who should be screened are not.”

If you’re 76 to 85, the decision depends on who you are, said the task force.

“The people who are most likely to benefit,” explained Owens, “would include people who have never been screened before,” as well as people who...
are healthy enough to be treated if cancer is diagnosed and people who don’t have other illnesses that may shorten their lives. “We don’t recommend screening after 85,” Owens added. “The risks associated with screening go up with age.” And because colorectal cancer takes about 10 years to develop, screening has a smaller payoff in people over 85.

Which screening test is best? A colonoscopy is the gold standard.

“It’s best because you can see the whole colon,” says Harvard’s Walter Willett. “I had a colleague who would still be alive if he had gotten one at age 50.”

But the task force recommended several options, ranging from a colonoscopy every 10 years to a stool sample analysis looking for hidden blood (with one of three types of tests) every year.

“An ongoing trial at the VA is testing whether a colonoscopy has an advantage over a simple fecal occult blood test—which is about a hundredth of the cost,” says Dartmouth’s Gilbert Welch.

“It’s one of the biggest randomized trials going on now, with about 50,000 veterans who will be followed for 10 years.”

If vets assigned to a yearly fecal immunochemical test (FIT) show signs of hidden bleeding, they will then get a colonoscopy.

In the meantime, any test is better than no test. “What matters is that you get screened,” says Owens.

Keep a Lid on Insulin

“We have lots of data showing that physical activity is related to a lower risk and obesity is related to a higher risk,” says Willett.

“They’re very important, but it’s interesting that the striking decrease in the U.S. incidence of colorectal cancer has occurred despite the obesity epidemic.”

What’s more, Asians have gained weight, but nowhere near as much as Americans.

“In Japan, obesity has hardly gone up, especially in women,” says Willett. “The rates are still around 5 percent, compared to 40 percent here.” (He’s counting only obese, not overweight, women.)

That may be because it’s not excess weight, but high blood insulin levels—a sign that your cells are resistant to insulin—that matters most. (How do you know if you’re insulin resistant? If your doctor says you have the metabolic syndrome, you probably are.)

“The metabolic syndrome is highly prevalent in Asia,” notes Willett. One sign of the syndrome is a large waist. However, “large” starts at 40 inches for white men and 35 inches for white women but at only 35 inches for Asian men and 32 inches for Asian women, because they’re more prone to insulin resistance.

“It’s not strapping 20 pounds on your waist that’s causing increased colorectal cancer risk,” says Willett. “It’s that increased weight is causing metabolic changes including higher insulin levels, which may fuel cancer growth.”

Cut Back on Meat

“The International Agency for Research on Cancer examined all of the evidence to date and concluded that processed meat consumption causes cancer in humans,” says Amanda Cross, a cancer researcher at Imperial College London.

One of the prime culprits: carcinogens called nitrosamines that are created both outside and inside the body.

“These N-nitroso compounds form in processed meats when they’re cured using sodium nitrite,” says Cross.

...
But since 1978, the U.S. Department of Agriculture has required bacon to contain either sodium ascorbate (vitamin C) or its chemical cousin sodium erythorbate, and many other meats with added nitrates have done the same. “That inhibits the nitrosation reaction,” says Cross.

But nitrosamines can still form inside the body. “If you’re consuming amines and amides from meats, and then you get naturally occurring nitrates from water or vegetables, nitrosamines can form in the gut,” explains Cross.

“So with red meat, nitrosamines are formed only inside the body, but with processed meats, they can form both outside—during meat processing—and inside.”

Is processed poultry like turkey bacon or chicken sausage safe? It’s not clear.

“We don’t see an increased risk for white meat,” notes Cross, “but most studies have only investigated total white meat and haven’t looked at processed white meat separately.”

Heme, a protein that carries oxygen through the blood, may explain why.

“Heme has a part in catalyzing the reaction that forms nitrosamines,” says Cross. “And heme iron levels in white meat are lower than those in red meat.”

The bottom line: “Avoid processed meat,” says Willett. “Eat it no more than a couple of times a year, not just to lower your risk of colorectal cancer, but also diabetes and cardiovascular disease.”

“And keep red meat low—again, not just to prevent colorectal cancer. Replace it with plant sources of protein like beans or nuts, or with poultry or fish.”

**Get Enough Calcium**

“Calcium is pretty clearly a beneficial factor for lowering the risk of colorectal cancer,” says Willett.

The leading explanation: calcium may bind—and neutralize—bile acids that might be toxic to the colon’s lining.

“The overall data pretty strongly suggests that calcium protects the colon,” says Willett. For example, when researchers pooled data from 10 studies on more than 534,000 people, those who consumed about 1,000 milligrams of calcium a day had roughly a 20 percent lower risk of colorectal cancer than those who consumed less than 500 mg a day.

And giving people calcium carbonate (1,000 mg a day) eliminated the increase in nitrosamines that they excreted when they were fed six ounces a day of cooked ham for four days.

“Dairy products have also been related to lower risk, likely through the calcium pathway,” adds Willett.

What has befuddled scientists are the results of two large clinical trials that gave calcium (1,200 mg a day) to people who had already had a precancerous colon polyp removed. Both studies were led by John Baron, now professor of medicine at the University of North Carolina.

In the first trial, calcium cut the risk of precancerous colon polyps by 15 percent. In the second, calcium had no impact. Why?

“John has spent many long nights trying to understand the ambiguous results,” says Willett.

In the meantime, shoot for the Recommended Dietary Allowance for calcium. (The RDA for adults is 1,000 mg a day. It jumps to 1,200 mg for women over 50 and men over 70).

“Most of the benefit comes from getting 800 or 1,000 mg a day,” says Willett.

“And you can basically get there with one or two servings of dairy on top of a healthy diet. Or you can take a calcium supplement. With their calories and saturated fat, some dairy foods are a very expensive way to get some calcium.”

**Get Your Vitamin D**

“We see a very consistent relationship between lower blood levels of vitamin D and higher colorectal cancer risk,” says Willett.

The large VITAL trial is now testing whether a high dose (2,000 IU a day) of vitamin D can lower the risk of colorectal cancer. “If there’s a benefit, the results will be definitive,” notes Willett. “But if we don’t see something, it may be because the trial didn’t last long enough or because too many people in the placebo group were already getting enough vitamin D or started to take it on their own.”

What to do in the meantime?
Consider Aspirin

“A series of randomized clinical trials has confirmed that taking aspirin for 10 years or more is associated with a lower risk of colorectal cancer,” says Harvard’s Andrew Chan.

“The evidence is so persuasive that the U.S. Preventive Services Task Force now recommends taking low-dose aspirin for the prevention of colorectal cancer as well as heart disease in people with cardiovascular risk factors.” That advice is for people aged 50 to 59 who have at least a 10 percent risk of having a heart attack, stroke, or other cardiovascular event over 10 years, who don’t have an elevated risk of bleeding, and who are willing to take aspirin for at least 10 years.1

(See tools.acc.org/ASCVD-Risk-Estimator to estimate your risk of cardiovascular disease. It’s based on your age, blood pressure, cholesterol, and other factors.)

For those people, the benefits outweigh the risks—GI bleeding and hemorrhagic stroke—from taking aspirin. Similar people in their 60s should also consider taking aspirin, said the task force.

“This represents a milestone in cancer prevention,” says Chan. “It’s the first time the task force has recommended a medicine for cancer prevention for people who are not at high cancer risk. This really reflects the strength of the data.”

WHAT ELSE MAY (OR MAY NOT) MATTER

■ Smoking. “It’s very clear that smoking is a cause of colorectal cancer, and the decline in smoking here is one factor that’s contributing to our decline,” says Harvard’s Walter Willett. “Smoking has gone up in many East Asian countries and in China, in particular, now that people can afford it.”

■ Alcohol. “It’s a risk factor, but the risk only goes up when you get beyond two drinks a day,” says Willett.

■ Folic acid. “The evidence is strong for folic acid in observational studies that track people for years,” notes Willett. On the other hand, clinical trials find no lower risk of colorectal cancer in people who take folic acid than in placebo takers, possibly because those studies last only a few years.1

In the past, some researchers feared that the folic acid that is added to white flour might raise the risk of colorectal cancer. “But we’ve seen a lower—not a higher—risk, so that hasn’t been a problem,” says Willett. “The folic acid added to white flour and multivitamins has very likely contributed to the lower risk.”

■ Sugar. “We’ve looked, but we don’t see anything big there,” says Willett.

■ Fiber. Fiber was long believed to protect against colorectal cancer, notes Willett. “It just made sense that fiber would move carcinogens more rapidly through the colon, so it would dilute them.”

And some health authorities, like the American Institute for Cancer Research, recommend fiber-rich foods to prevent colorectal cancer. But the evidence is mixed. “Some European studies find a link,” says Willett. “But interestingly, the U.S. data on fiber and colorectal cancer is not impressive.”2

■ Whole grains. “They’re not a game changer for colorectal cancer,” says Willett. “But the evidence is so strong for cardiovascular disease and diabetes that eating whole grains is still important.”

■ Constipation. In a study of more than 110,000 nurses and health professionals, neither the frequency of bowel movements nor laxative use was linked to cancer risk.3

“We didn’t see a relationship with bowel habits, which also argues against the fiber hypothesis,” says Willett.

4 Cancer Causes Control 26:1519, 2015.
QUICK STUDIES

Fish Oil & the Heart

Fish oil may protect the heart after a heart attack.

Scientists randomly assigned 358 people who had just suffered a myocardial infarction to take four capsules of either prescription Lovaza fish oil or a placebo each day with meals. (Each Lovaza had 465 milligrams of EPA and 375 mg of DHA.)

After six months, the hearts of the fish oil takers had less scarring and thickening and were able to pump blood more effectively than the hearts of the placebo takers. While that suggests that fish oil might lower the risk of heart failure, the study didn’t last long enough to say.

What to do: If you’ve had a heart attack, ask your doctor about whether to take fish oil. High doses can lead to bleeding, especially in people who take blood thinners.

The jury is still out on whether fish oil can prevent a heart attack. Earlier studies reported a lower risk, but recent studies have come up empty, possibly because drugs like statins and aspirin lower heart disease risk so much that fish oil adds nothing.


Caffeine & PMS

Avoid caffeine if you have premenstrual syndrome, says the American Congress of Obstetricians and Gynecologists. But that advice may not be based on solid evidence.

Researchers looked at caffeine intakes reported by 3,660 women in the Nurses’ Health Study II before any of them were diagnosed with PMS. Among the results:

Healthy plant-based diet. Those who ate more healthy plant foods (whole grains, fruits, vegetables, nuts, beans, oils) and fewer unhealthy plant foods (fruit juices, sugary drinks, refined grains, white potatoes, sweets, desserts) and fewer animal foods had about a 35 percent lower risk of diabetes, regardless of their weight.

Unhealthy plant-based diet. People who ate more unhealthy plant foods had a 16 percent higher risk of diabetes, regardless of their weight.

What to do: Eat more plant foods, but make sure they’re healthy.


Plant-Based and Healthy

Plant-based diets are gaining steam. But are they healthy?

Researchers looked at the risk of type 2 diabetes in 160,000 women and 40,000 men who were tracked for up to 28 years. Among the results:

Healthy plant-based diet. Those who ate more healthy plant foods (whole grains, fruits, vegetables, nuts, beans, oils) and fewer unhealthy plant foods (fruit juices, sugary drinks, refined grains, white potatoes, sweets, desserts) and fewer animal foods had about a 35 percent lower risk of diabetes, regardless of their weight.

Unhealthy plant-based diet. People who ate more unhealthy plant foods had a 16 percent higher risk of diabetes, regardless of their weight.

What to do: Eat more plant foods, but make sure they’re healthy.


Want to keep your prediabetes from dropping its “pre”? In 2002, the Diabetes Prevention Program (DPP) showed that weight loss and exercise could help. Duke University researchers wanted to see if exercise alone is almost as good.

The scientists randomly assigned 237 sedentary adults aged 45 to 75 with prediabetes to:

Diet + low-dose moderate exercise: a low-calorie, lower-fat diet plus exercise equal to brisk walking for 8½ miles per week,

Low-dose moderate exercise: equal to brisk walking for 8½ miles per week,

High-dose moderate exercise: equal to brisk walking for 14 miles per week, or

High-dose vigorous exercise: equal to brisk walking for 14 miles per week on a treadmill set to an uphill incline.

After six months, only the diet + exercise group—the gold standard set by the DPP—lowered their fasting blood sugar and insulin. However, a high dose of moderate exercise was almost as effective at improving glucose tolerance, even though people in that group lost only about 4½ pounds. (Glucose tolerance tests the body’s ability to handle the rise in blood sugar after a meal. Glucose tolerance, fasting blood sugar, and hemoglobin A1c can each be used to diagnose diabetes.) People in the diet + exercise group lost about 14 pounds.

What to do: If you have prediabetes, try to lose excess weight and walk briskly for about two miles a day. (To find a Diabetes Prevention Program near you or online, go to cdc.gov/diabetes/prevention.) Even if you don’t lose much weight, the brisk walking may help you dodge diabetes.

Diabetologia 2016. doi:10.1007/s00125-016-4051-z.

Plant-Based and Healthy
Meat, Poultry, & Seafood  D+

Chicken edged out beef starting in 2004, but red meat (beef, pork, lamb, and veal) is still king.

Red meats—especially processed meats like bacon, ham, hot dogs, and sausage—raise the risk of colon cancer, heart disease, and stroke.

At least beef continues its decades-long decline.

Dairy  C-

Cheese is on a roll...and on nearly every sandwich, salad, pizza, taco, and burrito served in restaurants.

That's not good news for arteries or waistlines. Full-fat ice cream still trounces low-fat. On the upside, yogurt has doubled since 2000 and quadrupled since 1985.

Grains  C-

You've heard the advice to replace refined grains with whole grains. But we'd also be better off with less grain, period...say, back where we were in 1970, before companies upped their servings of (mostly white-flour) bagels, buns, tortillas, pasta, muffins, cupcakes, doughnuts, cookies, pizza crusts, etc.

Beverages  D-

Soft drinks are still way too high, but they've dropped 23 percent since their 1998 peak, says data from Beverage Digest. (The USDA has no numbers for most beverages, but it says that sweeteners—including high-fructose corn syrup and ordinary sugar—are also down, by 14 percent, over that time.) Note: “Soft drinks” includes diet sodas, but they've stayed at about a quarter of the total. Too bad there's no line on the graph for “fruit drinks,” which are as unhealthy as soda. The upside: it looks like bottled water has resumed its upward march.
The American Diet Report Card

**Fats & Oils** INCOMPLETE

No one knows if we’re eating less (or more) fat than we ate in 2010. Only butter data is recent. But odds are, we still eat far more fat than in 1970. (In 2000, the number of firms reporting data jumped, so the real rise was likely less steep than it appears.) The good news: we’ve mostly bumped up (unsaturated) oils, not shortening, margarine, or butter (which since 2013 has climbed only 14% from its low level, says industry data, despite the “butter is back” buzz).

**Milk** B+

Total milk has slid from 21 gallons to 12 gallons per person per year since 1970. Whole (3.3% fat) and 2% fat milk still outsell 1% fat and fat-free. And we’re still eating whole milk’s milk fat...in cheese, whose rise shows no signs of slowing.

**Fruits & Vegetables** B-

Veggies (minus potatoes) climbed in the late 1980s, but have been inching down since. Fruit (minus juice) has been fairly flat. Ever heard about experts’ advice to fill half your plate with fruits and veggies? Most restaurants haven’t.

**Soft drinks** D+

Soft drinks are still too high, but they’ve dropped 23 percent since their 1998 peak, says data from Beverage Digest. (The USDA has no numbers for most beverages, but it says that sweeteners—including high-fructose corn syrup and ordinary sugar—are also down, by 14 percent, over that time.) Note: “Soft drinks” includes diet sodas, but they’ve stayed at about a quarter of the total. Too bad there’s no line on the graph for “fruit drinks,” which are as unhealthy as soda. The upside: it looks like bottled water has resumed its upward march.

**Dairy**

Total Milk

Whole

Reduced-Fat (2%)

Fat-Free (skim)

Low-Fat (1%)

**Beverages**

Soft Drinks

Sports Drinks

Beverages
SPECIAL FEATURE

ACID TEST
Are proton pump inhibitors safe?
BY DAVID SCHARDT

I take Prilosec OTC each morning for my frequent heartburn,” says Larry the Cable Guy in TV ads. What Larry doesn’t tell viewers is that most people shouldn’t take an over-the-counter proton pump inhibitor (PPI) for more than 14 days in a row. That warning appears at the bottom of the screen at the end of the ad. But who’s going to notice while Larry is waving the BBQ that he can now eat without heartburn?

When acid from your stomach backs up into your esophagus—the tube that carries food from your mouth to your stomach—it burns.

Nearly everyone suffers from an occasional bout of heartburn. But when it’s frequent, it’s more than just a nuisance.

Chronic acid reflux, or GERD (gastroesophageal reflux disease), can keep you from getting a good night’s sleep and can irritate the lining of your esophagus enough to cause ulcers.

In about 1 in 10 people with GERD, stomach acid makes the cells that line the esophagus turn into cells that resemble the lining of the intestines. One in 100 people with that condition—Barrett’s esophagus—can get a deadly cancer called esophageal adenocarcinoma.

**Bye Bye GERDie**

For years, the go-to remedy for heartburn was antacids. Tums’ calcium carbonate helps neutralize stomach acid. So do Maalox’s ingredients. But they only work on acid that’s already in the stomach.

In the mid-1970s, drug companies began marketing H2 blockers—like Tagamet, Zantac, and Pepcid—which make the stomach produce less acid. But it wasn’t until the early 1990s that they launched a game-changing class of acid reducers.

“Proton pump inhibitors are revolutionary drugs,” says Scott Gabbard, a gastroenterologist at the Cleveland Clinic.

“They’re our best treatment for patients who truly have reflux disease or who have erosive esophagitis, which is ulcers in the esophagus.”

PPIs—like Prilosec, Prevacid, and Nexium—cut acid further and for longer.

“For me, Nexium was a sure thing,” says Florida IT architect Ross Castillo. “I took one a day and it didn’t matter what I ate. I was not going to have any discomfort.”

But PPIs may come with a cost.

“Take—and keep taking—them on their own. Likewise, “many physicians prescribe them for years for people who may not need them,” says Rubenstein.

“If most patients with GERD went from taking a PPI once a day to coming off them entirely, about 60 percent would remain symptom-free months later.”

(But don’t stop taking a PPI without talking to your doctor if he or she prescribed it to prevent an ulcer, adds Rubenstein. “You may not have GERD symptoms, but you don’t want to get a bleeding or perforated peptic ulcer.”)

**Dementia**

“Does your heartburn drug make you vulnerable to dementia?” asked the Washington Post last February.

The news: In a German study of nearly 74,000 people aged 75 and older, those who took PPIs for seven years were 44 percent more likely to get dementia than those who didn’t take PPIs. Occasional users were 16 percent more likely.

A similar German study in 2015 found a 38 percent increased risk.

“These were observational studies, so they can’t prove that PPIs caused the higher dementia risk,” notes Gabbard.

“Patients prescribed PPIs may have poorer lifestyle habits and be generally unhealthier, and that, not the PPIs, may be increasing their risk.”

It’s also possible, says Rubenstein, that the more often someone seeks medical care, the more likely they are to be prescribed a PPI and, if they also have subtle symptoms of dementia, the more likely they are to be diagnosed with the disease.

“Those sorts of issues can lead to weak associations between medication use and other health problems.”

While we’re on the subject of gastric medicine, PPIs are not as safe as we once thought. If PPIs are causing problems, they might be causing other problems, to other parts of the body. Well, maybe, at least.

**Permanente patients in California, those prescribed PPIs for at least two years had a 30 percent greater risk of kidney disease over 10 years, versus 14 percent for non-users. People who took an H2 blocker had no greater risk.**

Pennsylvania, PPI users had a 16 percent additional case of kidney disease for every seven years.

“Even though it isn’t recommended by any specific guideline, I check vitamin B-12 in my patients on PPIs every two years,” adds Gabbard.

B-12 is critical for brain health. Low B-12 can cause the higher dementia risk observed in PPI users.

“Although these are observational studies and can’t prove that PPIs caused the B-12 deficiency,” Gabbard says, “they suggest that PPIs may be contributing to B-12 deficiency.”

B-12 deficiency is also linked to other health problems, he explains.

“But PPIs may well contribute to that deficiency, too.”

There’s mounting evidence that long-term use might be associated with health problems, says Joel Rubenstein, researcher scientist at the Ann Arbor Veterans Affairs Center for Clinical Management Research and director of the Barrett’s Esophagus Program at the University of Michigan. “It’s just not clear that the drugs are causing those problems.”

But the stakes are higher now that so many people take PPIs. They’re sold over the counter, and many people decide to take—and keep taking—them on their own. Likewise, “many physicians prescribe them for years for people who may not need them,” says Rubenstein.

“If most patients with GERD went from taking a PPI once a day to coming off them entirely, about 60 percent would remain symptom-free months later.”

(But don’t stop taking a PPI without talking to your doctor if he or she prescribed it to prevent an ulcer, adds Rubenstein. “You may not have GERD symptoms, but you don’t want to get a bleeding or perforated peptic ulcer.”)
associations that aren’t cause and effect between PPI use and the diagnosis of other health problems,” he explains.

What could PPIs have to do with memory?

One possibility: We need stomach acid to absorb the vitamin B-12 in most foods. If PPIs suppress stomach acid enough to cause a B-12 deficiency, that could lead to dementia (though not the Alzheimer’s seen in some of the PPI-taking Germans).

Among more than 200,000 Kaiser Permanente patients in California, those prescribed PPIs for at least two years were 65 percent more likely to have a B-12 deficiency than those not prescribed PPIs.

“Even though it isn’t recommended by any specific guideline, I check vitamin B-12 in my patients on PPIs every two years to make sure they’re not becoming deficient,” says Gabbard.

Kidney Disease

In a study of 249,000 people in rural Pennsylvania, PPI users had a 16 percent risk of kidney disease over 10 years, versus 14 percent for non-users. People who took an H2 blocker had no greater risk than non-users. Results were similar in a second study of nearly 10,500 people.

The increased risk amounts to one additional case of kidney disease for every 80 nurses. “That’s a very weak association that could be due to something else besides PPIs,” says Rubenstein.

Bone Fractures

“No more Nexium. These are the only bones I’ve got,” Ross Castillo says he told his doctor six years ago, after he heard that long-term use of PPIs increases the risk of bone fractures.

Castillo, then in his late 40s, was overweight, out of shape, smoking cigarettes, eating greasy foods, and had been suffering from GERD for years.

Should Castillo have worried? When researchers looked at nine studies in the United States, Canada, Sweden, and Australia, they found that PPI users were 24 percent more likely than non-users to fracture a hip.

How might PPIs weaken bones? They may reduce the absorption of calcium (and magnesium) from food or supplements.

“But the evidence tying bone fractures to PPI use is inconsistent, and there is reason to be suspicious about the link between the two,” says Rubenstein.

What’s more, a 24 percent increase in risk isn’t huge. For example, in the Nurses’ Health Study of 80,000 women, one in every 100 nurses who weren’t taking PPIs broke a hip over an eight-year period. A 24 percent increase would make it one in every 80 nurses.

No Good Proof

■ Probiotics. “It shouldn’t be a surprise that probiotics may help for GERD,” says powerofprobiotics.com. That’s because probiotics excel at “encouraging proper functioning of the digestive tract.”

Really? No good studies have tested probiotics to treat GERD in adults.

■ Melatonin. According to a hard-to-believe 2006 Brazilian study of GERD sufferers, symptoms disappeared in all 176 who took 6 milligrams of melatonin a day, plus vitamins and amino acids, for 40 days, while they vanished in just two-thirds of the 175 people who took the PPI Prilosec. Too good to be true? No good studies have pitted melatonin against a placebo since then.

What Helps?

Here’s how to reduce GERD symptoms:

● Lose excess weight
● Don’t smoke
● Elevate your head while sleeping

Some people also believe that avoiding chocolate, spicy foods, caffeine, alcohol, or late dinners helps, though good studies haven’t looked (see Nutrition Action, June 2014, p. 9). In a small U.S. trial, walking or chewing gum for an hour after a meal reduced the length of time stomach acid remained in contact with the esophagus in GERD patients.

“When you give patients real numbers, the risks sound less scary,” says Gabbard.

The Bottom Line

“People should be on the lowest dose of the least potent medication that controls their symptoms,” says Rubenstein.

Gabbard agrees. “If someone has heartburn and the symptoms disappear when they take a PPI, they should try to see if a safer H2 blocker works.”

That’s what Ross Castillo did. After taking a PPI for about 10 years, he switched to the H2 blocker ranitidine. He also lost weight, stopped smoking, started exercising, and watched what he ate.

Castillo’s GERD disappeared. Today he takes ranitidine only when he visits his family. “You gotta eat what they dish out and when they eat it,” he explains.

“Overall, PPIs are very safe, but only a select few patients should be taking them long term,” concludes Gabbard.

“The overuse of PPIs is very common,” adds Rubenstein. “But people who truly need them for GERD shouldn’t live miserably because they fear the very small possible risks.”

The Sweet Taste of Fall

Welcome to the best of fall—the super crisp, sweet-tart bite of apples, the luxury of ripe pears, and the juicy pop of grapes.

Got a question or suggestion? Write to Kate at healthycook@cspinet.org.

Curried Chicken & Fall Fruit Salad

The lightly spicy dressing pairs perfectly with mild, sweet lettuces like butter or romaine.

1. In a large bowl, make the dressing: whisk together the mayonnaise, yogurt, curry powder, and salt.
2. Toss the chicken, celery, and apple with the dressing.
3. Divide the lettuce onto four plates. Spoon the chicken salad onto the lettuce.
4. Top with the grapes.

Per serving (2 cups)
calories 260 | total fat 13 g | sat fat 2.5 g | carbs 12 g | fiber 2 g | protein 24 g | sodium 280 mg

Sweet & Savory Pear Salad

I like to contrast the sweetness of the pear with slightly bitter lettuces like radicchio and frisée.

1. In a large bowl, make the vinaigrette: whisk together the vinegar, mustard, honey, salt, and oil.
2. Toss the lettuce and pear with the vinaigrette.
3. Sprinkle with the seeds.

Per serving (2 cups)
calories 150 | total fat 11 g | sat fat 1.5 g | carbs 12 g | fiber 4 g | protein 4 g | sodium 210 mg
Skinny Dipping?

Diving for the healthiest dips

BY LINDSAY MOYER & BONNIE LIEBMAN

Hummus has conquered the dip aisle. It’s now a staple in one out of four homes. Annual sales top $725 million, up from just $5 million in the mid-1990s, according to the USA Dry Pea & Lentil Council.

It’s not just hummus. A slew of yogurt dips, guacamoles, and salsas are ready to gussy up those crisp veggies or jazz up that chicken or fish. Here’s our guide to the best dips. (See the photos for some of our taste favorites.)

The information for this article was compiled by Jennifer Urban.

**Hummus**

We just got home. We wanna eat, we wanna hang out. Can’t we squeeze an unofficial meal in there?” asks the TV ad for Sabra hummus (which is partly owned by PepsiCo). Solution: “Put out the Sabra and call everyone to the kitchen.”

With two out of three American adults either overweight or obese, it’s not clear that most of us need an extra meal.

But hummus—typically a blend of chickpeas (garbanzo beans), tahini (sesame seed butter), oil, garlic, and salt—can add a satisfying savory kick to your baby carrots, sliced red peppers, crisp cucumbers, and other raw veggies.

Just remember: a serving (usually 40 to 80 calories) is two level tablespoons.

Sabra’s single-serve containers hold twice that much (1/4 cup), and they don’t look excessive. You can’t just dip ‘til you drop.

And don’t think that a serving of hummus is synonymous with a serving of chickpeas. Each two-tablespoon serving of hummus—any brand—has just 1 to 2 grams each of fiber and protein. A half-cup serving of chickpeas has about 6 grams of each.

Our Best Bites (for all dips) have no more than 130 milligrams of sodium and 1½ grams of saturated fat in two tablespoons. (We didn’t set a sat-fat limit if a dip’s fat comes largely from oil, avocados, olives, or other sources of unsaturated fat.)

Luckily, it’s not hard to meet those limits.

- **Sabra.** Reliably good flavor, in part because tahini—not oil or water—is usually the second ingredient. Sabra, Eat Well Embrace Life, and some other brands add (safe) potassium sorbate so their hummus doesn’t spoil quickly, a bonus if you’re just an occasional dipper.
- **Cedar’s.** Nice and creamy. And every bit as tasty as Sabra.
- **Eat Well Embrace Life.** Why stop with chickpeas? Eat Well offers hummus made from a base of lentils, black beans, edamame, or white beans. And bravo for its labels, which clearly state, for example, that its Beet Hummus is 30 percent beets and its Zesty Sriracha Carrot Hummus is 25 percent carrots.

**Greek Yogurt**

“80% less fat and 65% fewer calories than the leading hummus,” say Chobani’s new Mezé Dips, which are made with greek yogurt.

“75% Less Fat than Hidden Valley Ranch,” says Sabra’s website about its Farmer’s Ranch Greek Yogurt Dip.

Move over, ranch dressing and hummus.

Make room for greek yogurt dips.

Cedar’s Tzatziki is the traditional Greek dip made with yogurt, cucumber, garlic, dill or mint, and salt. Others, like Chobani Mezé Smoked Onion & Parmesan or Chili Lime, break new ground (for yogurt).

Sabra’s Spinach Parmesan Greek Yogurt Dip is a (better-for-you) dead ringer for the cheesy spinach dips on many restaurant menus.

At 25 to 60 calories in two tablespoons, yogurt dips are slightly better for your waistline than hummus (40 to 80 calories). Chobani’s surprisingly thick and creamy Mezés are lowest in calories (25).

All four flavors are Best Bites.

Just don’t expect the wallop of protein you’d get in a tub of greek yogurt. You’re talking 2 or 3 grams in two tablespoons. Not bad for a dip, but not the 13 to 15 grams in a 5 oz. plain greek yogurt.

What if you eat 5 oz. (10 tablespoons) of one of Chobani’s Mezé Dips? The calories (130) and protein (15 grams) are good, but the sodium (480 to 650 mg) isn’t.

And don’t think you’re getting so many veggies in the dip that you can reach for the chips. “Half a serving of...”
farm market-fresh vegetables per container,” boasts Sabra’s Tzatziki Greek Yogurt Dip. That’s about ¼ cup of veggies in the entire nine-serving container.

**Guacamole**

If you’ve ever made your own guacamole, you won’t be wowed by guacamole from a package. (For a can’t-be-beat homemade guacamole from our Healthy Cook, Kate Sherwood, see “Take a Dip.”)

But if there’s no ripe avocado in sight, here’s your Plan B:

- **Wholly Guacamole.** Classic, Organic, Spicy, Hatch Chile. Take your pick. All seven of the company’s guacs are Best Bites.
- **Trader Joe’s.** Think of Avocado’s Number as Trader Joe’s version of Wholly Guacamole. Trader Joe’s Reduced Guilt Chunky Guacamole cuts the calories (from 60 to 30) by adding greek yogurt. Too bad Joe also triples the sodium (from 90 to 280 mg).
- **Sabra Veggie Fusions.** “Guacamole + Veggies = 30% Less Fat,” say the labels. Less avocado cuts the calories (to about 40), but Sabra’s Classic guac isn’t much higher (50), and you want more, not less, of avocado’s unsaturated fat. Also, the Fusions’ taste didn’t exactly wow us.

**Salsa**

Too much salt. That’s the problem with most salsas, especially your run-of-the-mill ones that come in jars and typically have a base of tomato paste or purée.

Solution: try salsa fresca or pico de gallo. That’s Spanish for fresh (refrigerated) salsa, which is mostly diced tomatoes, onions, jalapeños, and salt. (Some companies add corn or beans.) You get less salt and more flavor.

Many stores carry their own brand of refrigerated fresh salsa. If you can’t find them, try one of our Best Bite national-brand faves:

- **Trader Joe’s Pico de Gallo.** If you like it hot, you’ve got a Best Bite (115 mg). The mild version is a near miss (140 mg).
- **Wholly Guacamole.** The Avocado Verde—it just misses a Best Bite—is more like a (delicious) avocado salsa than a guacamole. It has more tomatillo than avocado, which cuts the calories in two tablespoons from 50 or 60 to 25.
- **Newman’s Own.** If you want a jarred salsa and you’re not a heatnik, try Newman’s Own Medium or Mild. If you can take some fire, go with Green Mountain Gringo Roasted Chile Pepper, our taste favorite.

**Bruschetta**

Bruschetta usually consists of chopped tomatoes, garlic, olive oil, basil, and salt spread on crusty bread, but it can also have olives, artichokes, roasted red peppers, or sun-dried tomatoes.

Too bad almost all brands have too much salt. And our only Best Bite, DeLallo Roasted Pepper, was nothing to write home about.

If you’re buying bruschetta anyway, check the label. Calories range from 15 (Sabra) to 150 (DeLallo Sun Dried Tomato), depending on how much oil you’re getting.

On the upside, disappointment in the bruschetta aisle may prompt you to try our easy, to-die-for homemade recipe (see “Take a Dip”). You’ll never look back.

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**Take a Dip**

**Guacamole**

2 avocados
¼ cup minced white onion
½ cup finely chopped tomato
2 Tbs. lime juice
1 jalapeño pepper, minced (optional)
¼ tsp. kosher salt

Mash all ingredients with a fork. Makes 2 cups.

Per 2 Tbs: 30 calories, 30 mg sodium.

**Bruschetta**

1 cup chopped tomato
1 tsp. minced basil
1 tsp. extra-virgin olive oil
1 small clove garlic, finely minced
¼ tsp. kosher salt

Mix all ingredients and allow the flavors to meld for 10 minutes. Makes 1 cup.

Per 2 Tbs: 20 calories, 60 mg sodium.

**Yogurt-Tahini**

½ cup 0% greek yogurt
¼ cup extra-virgin olive oil
2 Tbs. tahini
2 Tbs. fresh lemon juice
1 small clove garlic, finely minced
½ tsp. kosher salt

Whisk all ingredients together in a small bowl. Makes 1 cup.

Per 2 Tbs: 90 calories, 125 mg sodium.

**Fresh Salsa**

1 pint cherry tomatoes
¼ cup chopped white onion
¼ cup cilantro sprigs
1 jalapeño pepper (optional)
1 Tbs. lime juice
½ tsp. kosher salt

Combine all ingredients in a food processor and pulse until uniformly minced. Makes 1½ cups.

Per 2 Tbs: 5 calories, 75 mg sodium.
Decoding Dips

**Best Bites** have more than 130 milligrams of sodium and 1½ grams of saturated fat in two level tablespoons. (Sat fat isn't shown because no dips in the chart exceeded our limit.) There's no sat-fat limit if the dip's fat comes largely from oil, avocado, olives, or other sources of unsaturated fat. Within each section, dips are ranked from least to most sodium, then calories.

### Hummus (2 Tbs., refrigerated)
- **Engine 2 Plant-Strong (Whole Foods)**: 25/50
- **Cedar’s Fat Free**: 30/55
- **Trader Joe’s Mediterranean**: 70/80
- **Cedar’s—except Chipotle, Everything, Pineapple Jalapeño, Sriracha, or Sundried Tomato & Basil**
  - **Eat Well Embrace Life—except Edamame or Wasabi Edamame**: 60/95
- **Hope Organic—Kale Pesto, Spicy Avocado, Sriracha, or Thai Coconut Curry**: 50/110
- **Trader Joe’s Hummus Dip—Spicy or Tomato & Basil**: 45/120
- **Trader Joe’s—Beet, Organic, Roasted Garlic, or Three Layer**: 60/120
- **Tribe—Roasted Garlic or Zesty Spice & Garlic**: 70/120
- **Tribe Swirl—except Fiery Sriracha or Sweet Red Pepper**: 70/120
- **Cedar’s Organic—Original or Garlic**: 60/125
- **Sabra—except Olive Tapenade or Sun Dried Tomato**: 70/125
- **Tribe—Everything, Lemon Rosemary Focaccia, or Mediterranean Olive**: 60/130
- **Trader Joe’s Smooth and Creamy Roasted Red Pepper**: 80/130
- **Trader Joe’s White Bean & Basil**: 60/135
- **Tribe—Classic or Mediterranean Style**: 70/135
- **Trader Joe’s Hummus Dip**: 80/135
- **Tribe Swirl Sweet Red Pepper**: 50/140
- **Trader Joe’s Smooth and Creamy—except Roasted Red Pepper**: 80/140
- **Cedar’s—Chipotle, Pineapple Jalapeño, Sriracha, or Sundried Tomato & Basil**: 50/150
- **Eat Well Embrace Life—Edamame or Wasabi Edamame**: 60/160
- **Cedar’s Organic Roasted Red Pepper**: 70/160
- **Sabra—Olive Tapenade or Sun Dried Tomato**: 80/170
- **Cedar’s Everything**: 50/190
- **Tribe Swirl Fiery Sriracha**: 60/190

### Greek Yogurt Dips (2 Tbs., refrigerated)
- **Cedar’s Tzatziki**: 30/95
- **Sabra—Cucumber Dill, Spinach Parmesan, or Tzatziki**: 40/110
- **Chobani Mezé**: 25/120
- **Sabra—Farmer’s Ranch or French Onion**: 45/140
- **Cedar’s Spinach**: 50/140
- **Trader Joe’s Reduced Guilt Spinach & Kale**: 30/150
- **Marzetti Otra**: 60/190

### Guacamole (2 Tbs., refrigerated)
- **Trader Joe’s (Trader Joe’s) Avocado’s Number**: 60/90
- **Del Monte Fresh Guac**: 40/100
- **Trader Joe’s (Trader Joe’s) Chunky Spicy Auténtico**: 40/105
- **Wholly Guacamole—except Guacamole & Spicy Pico**: 50/110
- **Wholly Guacamole Guacamole & Spicy Pico**: 35/115
- **Sabra Veggie Fusions**: 40/125
- **Sabra**: 50/150
- **Trader Joe’s Reduced Guilt Chunky**: 30/280

### Savory Salsa (2 Tbs., non-refrigerated unless noted)
- **Trader Joe’s Fire-Roasted Tomato**: 10/20
- **Trader José’s (Trader Joe’s) Chipotle Hot**: 10/40
- **Trader Joe’s (Trader Joe’s) Hatch Valley**: 10/70
- **Green Mountain Gringo**: 10/80
- **Newman’s Own—Medium or Mild**: 10/85
- **Trader Joe’s Corn and Chile Tomato-Less Salsa**: 45/85
- **Trader José’s (Trader Joe’s) Roasted Garlic**: 10/95
- **Desert Pepper—2 Olive Roasted Garlic or Tequila**: 10/105
- **Muir Glen Organic**: 10/110
- **Sabra Southwestern (refrig.)**: 15/110
- **Trader José’s (Trader Joe’s) Pico de Gallo Hot (refrig.)**: 10/110
- **Trader Joe’s Cowboy Caviar**: 25/115
- **Pan Restaurant Style—Garlic & Lime Verde or Org. Recipe**: 10/130
- **Wholly Guacamole Avocado Verde (refrig.)**: 25/135
- **Sabra Garden Style (refrig.)**: 10/140
- **Trader José’s (Trader Joe’s) Pico de Gallo Mild (refrig.)**: 10/140
- **Chi-Chi’s Thick & Chunky Mild**: 10/150
- **Sabra—except Garden Style or Southwestern (refrig.)**: 10/170
- **Amy’s**: 10/180
- **Newman’s Own—except Medium or Mild**: 15/180
- **Desert Pepper—except 2 Olive Roasted Garlic or Tequila**: 15/210
- **Tostitos Restaurant Style Medium**: 10/210
- **Pace Chunky**: 10/230
- **Herdez—Medium, Mild, or Salsa Verde Mild**: 10/240
- **Simply Tostitos Organic**: 15/240
- **Tostitos Chunky—Medium or Mild**: 10/250
- **Mrs. Renfro’s**: 15/250
- **Trader José’s (Trader Joe’s) Salsa Verde**: 10/280

### Fruit Salsa (2 Tbs., non-refrigerated unless noted)
- **Desert Pepper Peach Mango**: 15/25
- **Desert Pepper Pineapple**: 15/80
- **Mrs. Renfro’s—Pineapple, Pomegranate, or Raspberry Chipotle**: 15/90
- **Trader Joe’s Spicy, Smoky, Peach**: 15/90
- **Newman’s Own Peach**: 25/100
- **Sabra Mango Peach (refrig.)**: 25/100
- **Chi-Chi’s Pineapple**: 15/110
- **Cucina & Amore Piquillo Pepper & Mango**: 15/120
- **Trader Joe’s Pineapple**: 15/130
- **Newman’s Own Pineapple**: 20/135
- **Newman’s Own Mango**: 25/200

### Bruschettas & Spreads (2 Tbs., non-refrigerated unless noted)
- **DeLallo Bruschetta Roasted Pepper**: 40/120
- **Trader Joe’s Piquillo Pepper & Quinoa**: 70/135
- **Trader Joe’s Eggplant Garlic with Sweet Red Peppers**: 30/170
- **Trader Giotto’s (Trader Joe’s) Bruschetta Sauce (refrig.)**: 50/180
- **DeLallo Bruschetta—except Roasted Pepper**: 100/180
- **Sabra Bruschetta (refrig.)**: 15/200

**Best Bite.** Average.

Note: Best Bites refer to numbers only, not taste.

**Daily Sodium Limit:** 1,500 milligrams.

Source: company information. The use of information from this article for commercial purposes is strictly prohibited without written permission from CSPI.
FOOD FOR THOUGHT

FOOD PORN

RIGHT STUFF

elevEat It Up


When elevAté says “We’ve raised the salad bar,” it’s not kidding.

Pre-packaged refrigerated salads are everywhere these days. Many, though, turn out to be boring variations on the iceberg or romaine/salty ham or chicken/cheese/salty dressing theme.

Enter elevAté.

From the blue•rugula (arugula and baby greens, sorghum, aronia berries, almonds, chia seeds, and cacao nibs, with a blueberry vinaigrette) to the go•go•goji (chopped kale, carrots, red cabbage, and radicchio, adzuki beans, goji berries, cashews, broccoli and cauliflower, and black sesame seeds, with a green tea dressing), the company’s eight single-serve salads impress.

Taste? Check. Vitamins and minerals? Check. Protein? It ranges from 6 grams in the organic power grains to a decent 14 grams in the kale caesar.

Bonus: The salads were delish with just half the dressing. So you can end up with even fewer calories than the 240 to 320—and less sodium than the 125 to 560 milligrams—that are listed on the labels.

Consider the salad bar raised.

elevatesuperfoods.com—(800) 800-7822

Top Botch

“We use only TOP-NOTCH INGREDIENTS,” shout the Kraft Heinz DEVOUR frozen-entrée boxes, which evoke a trendy bistro as they try to attract millennials to dressed-up comfort foods.

Let’s see. There’s the top-notch white flour in nearly every DEVOUR. There’s the processed cheese in the White Cheddar Mac & Cheese with Bacon, the maple-less “syrup” (mostly corn syrup, water, and sugar with caramel color and natural and artificial flavor) in the Chicken & Waffles, and the “tender Angus beef” (mostly beef and water with modified food starch, sodium phosphate, and caramel color) in the Angus Beef with Cornbread.

And don’t forget the sodium hexametaphosphate, BHA, BHT, sodium nitrite, carrageenan, and other top-notch ingredients sprinkled throughout the DEVOURS.

You’ll also find top-notch numbers. It’s hard to squeeze so many calories (450 to 750) and so much sat fat (typically 7 to 17 grams) and sodium (940 to 1,770 mg) into an 8-to-12 oz. frozen entrée.

“Whatever you’re craving, the DEVOUR brand has a decadently delicious meal just waiting for your mouth to discover it!” gush the boxes.

Craving modified cornstarch and cellulose, anyone?

devour-foods.com—(877) 535-5666

quick tip

Does your cutting board slide all over the kitchen counter every time you try to chop or slice? Put a small damp cloth under it. Problem solved.