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Nutrition Action

HEALTH LETTER™
CENTER FOR SCIENCE IN THE PUBLIC INTEREST

CSPI at FORTY

It has been 40 years since the Center for Science in the Public Interest, *Nutrition Action*'s publisher, opened its doors. During that time, much has changed...in the supermarket, on food labels, in restaurants, and in our rapidly expanding waistlines. *(See article on p. 10.)*

Meanwhile, scientists have tossed out, overhauled, or generated brand new theories about food's impact on our health. *(See article on p. 3.)*

40 CSPI

MEMO FROM MFJ

Happy Birthday to *Us!*

In 1970, James Sullivan, an oceanographer, Albert Fritsch, a chemist, and I, a microbiologist, met in Washington as interns or volunteers with Ralph Nader's Center for Study of Responsive Law.

After working with each other for several months, we thought it would be useful to create an organization run by scientists and devoted to public interest advocacy and to encouraging other scientists to use their skills for the public good.

If we had considered the matter carefully, we might have realized that we had no experience running an organization, no money, no connections, and almost no chance of success. But we didn't, and so, in 1971, was born the Center for Science in the Public Interest.

"Psst! Wanna buy some healthy greens?" Me, 1972.

At first, we worked on a wide range of issues, from asbestos to air pollution to food additives. But after Jim and Al left in 1977 (Jim is still on the board of directors), we focused mostly on nutrition and food safety.

From that inauspicious beginning, CSPI has grown into an organization that is greatly respected (even by government officials and politicians we sometimes criticize and by company executives whose employers we sometimes sue), widely quoted in the media, and impressively effective. We've built a dynamic Web site that has become a go-to source for on-line information. And we publish a steady flow of reports, books, and articles. (For more on our history and current work, see the "About CSPI" video at youtube.com/CSPITV.)

CSPI has been fortunate to have had an extraordinarily talented and devoted staff. We began publishing *Nutrition Action Healthletter* in 1974, and its current writers and editors—Jayne Hurley, Bonnie Liebman, David Schardt, and Stephen Schmidt—have been together for more than 20 years (Bonnie has been at CSPI for more than 30).

Then there's George Hacker, Greg Jaffe, Caroline Smith DeWaal, Margo Wootan, and relative newcomers like litigation director Steve Gardner. Their ability to work with hard-core activists, lawmakers, government officials, and industry has been one of the keys to their—and CSPI's—effectiveness.

And there's deputy director Dennis Bass, who, for 30 years, has worked behind the scenes to help make *Nutrition Action* the world's largest-circulation health newsletter.

CSPI has changed the food landscape. Without us, there might be no Nutrition Facts labels on food packages. Because of our efforts, there is an official definition of "organic," labels have to disclose the presence of allergens, and partially hydrogenated oil, salt, olestra, sulfites, nitrite, and Violet No. 1 dye have been reduced in, or eliminated from, the food supply.

And without CSPI, legislators might not have passed last year's historic food-safety law, as well as laws to require calorie labeling on menus and to get junk foods out of schools (2010 was our biggest legislative year ever!).

One of our most exciting projects was Food Day in the mid-1970s. In this anniversary year, CSPI is reviving Food Day (on October 24th). Our goal: to expand the grassroots movement for healthy, affordable food produced in a humane, sustainable way. (If you're interested in spearheading efforts in your community, let me know at foodday@cspinet.org.)

Nutrition Action also has been fortunate to have had hundreds of thousands of loyal subscribers, some of whom fuel our advocacy efforts with (mostly small) donations. Without you, CSPI long ago would have shriveled and died.

I hope that our next 40 years will be as exciting and productive as our first 40.

Mike Jacobson

Michael F. Jacobson, Ph.D.
Executive Director
Center for Science in the Public Interest

Photo: Jacobson family.

The Center for Science in the Public Interest (CSPI) is the nonprofit health-advocacy group that publishes Nutrition Action Healthletter. *CSPI mounts educational programs and presses for changes in government and corporate policies.*

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CENTER FOR Science IN THE Public Interest

Unexpected

Surprising Findings From the Last 40 Years

BY BONNIE LIEBMAN

Does coffee cause pancreatic cancer? Do B vitamins lower the risk of stroke? Do fruits and vegetables prevent colon cancer? Those are a few of the hunches about diet and disease from the last 40 years that haven't stood the test of time.

Other ideas weren't even on the radar screen in 1971, when the Center for Science in the Public Interest—*Nutrition Action*'s publisher—was founded. Few people suspected that excess pounds could boost the risk of cancer, that vitamin D might protect more than your bones, or that too little sleep could lead to obesity. Here are a handful of findings that few researchers expected 40 years ago.

1 Excess Pounds Boost Cancer Risk

"We've known since the 1960s about the very strong relationship between weight and endometrial cancer," says Alpa Patel, an epidemiologist who directs the Cancer Prevention Study-3 at the American Cancer Society. (The endometrium is the lining of the uterus.) "But the attention to weight and many other cancers has really been drawn in the last 15 years or so."

And the list of cancers linked to extra pounds keeps growing. In addition to endometrial, the evidence is strongest for postmenopausal breast cancer, as well as cancers of the colon, esophagus, kidney, and pancreas.[1]

"And based on what we know so far," adds Patel, there is a "probable association for leukemia in adults, lymphoma, and ovarian, cervical, gallbladder, liver, and aggressive prostate cancer."[2]

It's not that researchers didn't think to look for a link between weight and cancer. They just got thrown off track.

"One reason was that more postmenopausal women were taking estrogen," explains Walter Willett, chair of the nutrition department at the Harvard School of Public Health. Higher estrogen levels—either from pills or from fat cells—raise the risk of breast cancer.

"If your estrogens are high because you're taking the hormone, it masks the effect of overweight," notes Willett. The estrogen from extra fat cells doesn't make much difference if your levels are already high.

A second reason was that being overweight lowers your risk of breast cancer *before* menopause and raises your risk of breast cancer *after* menopause.

"The relationship flips after menopause," explains Willett. "That was definitely not anticipated by anyone." So studies looked at all women, and they saw no clear link. "That made the situation murkier."

Likewise, researchers missed the links between excess weight and prostate cancer because they didn't look separately at aggressive cancers.

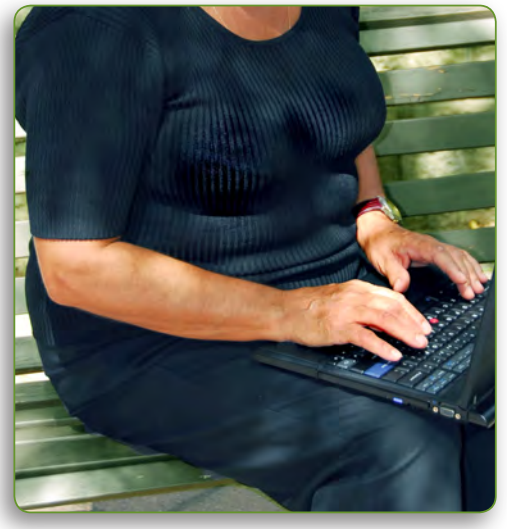
"The evidence suggests no association with localized, non-aggressive disease—what you traditionally think of as prostate cancer," explains Patel. "But when you look specifically at high-grade or fatal prostate cancer, you see very consistent relationships with increasing weight."

How much extra weight matters? "For cancers like colon and postmenopausal breast, there's a linear relationship," says Patel. "With increasing weight, there is increasing risk. For other cancers, like pancreatic, you have to reach higher levels of obesity."

And for some cancers, the risk depends on where your body puts the extra fat. As with heart disease and diabetes, a wide waist is worse than wide hips. "For pancreatic and colon cancer, being overweight and apple-shaped may be more harmful than being overweight and pear-shaped," says Patel.

Exactly how obesity might increase the risk of cancer depends on the cancer. "For prostate, breast, ovarian, and endometrial cancer, sex hormones—estrogen and testosterone—seem to drive the increase," notes Patel.

Extra fat cells may mean that the body churns out more cancer-promoting growth factors. "For example, insulin may initiate and promote the progression of cancer growth," she explains. "And insulin-like growth factor 1 is associated with increased cell growth."



Extra pounds raise the risk of postmenopausal breast cancer, as well as colon, esophageal, kidney, pancreatic, uterine, and other cancers.

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Photo: © Elenathewise/fotolia.com.

In other cases, nearby fat cells may be to blame. "For adenocarcinoma of the esophagus or cancer of the liver or gallbladder," Patel points out, "local fat deposits may be detrimental."

What's more, obesity may promote leukemia and lymphoma by boosting inflammation. "In obesity, you have a constant relatively mild inflammatory state," says Patel.

Whatever the mechanism, many people are still surprised to hear that staying lean may trim your odds of getting cancer.

"I don't think the message is out there yet the way it is for heart disease or diabetes, where people clearly know that if I'm heavier, I increase my risk for those chronic diseases," says Patel. "The cancer message is much newer."

And weight matters more than people realize. "Even 15 years ago, it wasn't really appreciated how much weight is related to so many cancers," says Willett. "The number of cancers is increasing."

For any one person, smoking boosts cancer risk more than being overweight, he notes. But for the nation as a whole, obesity matters as much.

"There are probably as many cancers caused by overweight and obesity in the United States as caused by cigarettes, because there are fewer smokers than overweight people."

2 Coffee Gets a Makeover

"Study Links Coffee Use to Pancreas Cancer," announced the headline in *The New York Times* in March 1981. Earlier studies had raised alarms that coffee might cause heart attacks.

These days, coffee is sounding more like a wonder drug...er, beverage.

"It's turned out to be remarkably safe," says Harvard's Walter Willett. "The evidence is very clear that coffee doesn't increase the risk of pancreatic cancer, and it probably reduces the risk of liver cancer."

In a 2007 meta-analysis, Swedish researchers estimated that people who drank two cups of coffee a day had about a 30 percent lower risk of liver cancer than those who drank none.[3] (Researchers don't know whether people who drink decaf also have a lower risk.)

That's not all. "Coffee almost for sure reduces the risk of type 2 diabetes," adds Willett. When researchers combined nine studies on a total of nearly 200,000 people, they found that those who drank four to six cups of regular or decaffeinated coffee a day had about a 30 percent lower risk of diabetes than those who drank up to two cups a day.[4]

Regular or decaf coffee may lower your risk of diabetes and gout. Only regular coffee is linked to a lower risk of Parkinson's disease and gallstones.

"It looks like coffee reduces insulin resistance," notes Willett. If your cells are insulin resistant, they don't respond well to the hormone, and you have a higher risk of diabetes, heart disease, and gout. That could also explain why people who drink either decaf or caffeinated coffee have a lower risk of gout.[5]

Only caffeinated coffee may lower the risk of Parkinson's disease and gallstones.[6,7] "The mechanism is not clear, but the evidence is quite strong for Parkinson's," explains Willett.

His bottom line: "Coffee has turned out to be a health-promoting beverage rather than a carcinogen."

3 Vitamin D May (or May Not) Work Wonders

Forty years ago, vitamin D was just another ho-hum, run-of-the-mill nutrient. It was good for bones because it helps the body absorb calcium. Nothing special.

These days, you can scarcely pick up a nutrition journal or magazine without finding a study about the benefits of vitamin D. From cancer, heart attacks, and stroke to type 2 diabetes, depression, and autoimmune diseases, it seems as though vitamin D can prevent almost anything.

"It's unquestionable that vitamin D has far more extensive biological effects than just the relationship with fracture risk," says Harvard's Walter Willett.

"A study recently found over 2,700 places for vitamin D binding sites on the genome," he notes. "And there was a heavy concentration around genes related to autoimmune diseases like lupus, multiple sclerosis, and rheumatoid arthritis. That was pretty remarkable."

That's one reason why researchers at Harvard and elsewhere have launched the VITAL trial, which is giving either a placebo or 2,000 IU a day of vitamin D to 20,000 healthy older men and women.

"We're looking primarily at cancer and cardiovascular disease, but also at diabetes, depression, cognitive function, and autoimmune disease," says JoAnn Manson of the Harvard Medical School, who is leading the study. "Results are expected in 2016 at the earliest."

What to do in the meantime? In November, a panel of scientists at the National Academy of Sciences' Institute of Medicine announced that most people don't need to take vitamin D supplements.[8]

"There's concern that vitamin D deficiency and inadequacy have been overestimated in the United States and Canada," explains Manson, who served on the panel.

The problem: "People go to the doctor for a physical and for blood tests and are told that their vitamin D level is below 30 nanograms per milliliter, so they should take high doses," she notes. (It's difficult to get more than 200 or 300 IU of vitamin D from foods, even if they're fortified, so many people have to rely either on sun exposure, which can damage skin, or on a supplement.)

"Then they're told to come back for another test and to take higher doses of supplements until their vitamin D blood levels rise above 30 or 40 nanograms per milliliter. That is not a good idea."

Why? The panel was worried that taking high doses of vitamin D may be harmful. "There's increasing evidence that there may be risk at both low and high blood levels," says Manson.

For example, a 2006 study of Finnish male smokers found a higher risk of pancreatic cancer among those with higher

New Advice on Vitamin D & Calcium

Vitamin D

Age	RDA *(IU)*	Upper Level *(IU)*
1 to 3 years	600	2,500
4 to 8	600	3,000
9 to 70	600	4,000
71 and older	800	4,000

Calcium

Age	RDA *(mg)*	Upper Level *(mg)*
1 to 3 years	700	2,500
4 to 8	1,000	2,500
9 to 18	1,300	3,000
19 to 50	1,000	2,500
51 to 70 *(men)*	1,000	2,000
51 to 70 *(women)*	1,200	2,000
71 and older	1,200	2,000

Source: Institute of Medicine.

What got lost in some headlines: The new Institute of Medicine report *raised* the Recommended Dietary Allowances and safe upper intakes for vitamin D and calcium.

blood levels of vitamin D.[9] A 2009 study of (mostly non-smoking) U.S. men and women found a similar link, but curiously, it only showed up in people from states with low sun exposure.[10]

Harvard's Willett isn't concerned. "If you do enough studies, you'll always find some associations," he notes. The National Academy of Sciences' vitamin D report misinterpreted some evidence and raised alarms unnecessarily, he argues. "It was like they were dredging the whole data set to look for harm and to discount any benefit."

Randomized trials should answer the question, says Manson. "Until we have large-scale trials of high doses of vitamin D, we should be cautious. We shouldn't forget the lessons of other nutrients—like beta-carotene—where large doses showed no benefit and even caused harm in smokers."

But the controversy shouldn't matter to most people. What got lost in many headlines is that the panel actually *raised* the Recommended Dietary Allowance for vitamin D from 400 to 600 IU a day for adults up to age 70 and from 600 to 800 IU for people over 70 (see "New Advice on Vitamin D & Calcium").

Our advice: take a daily supplement with the new RDAs. They should be safe. In fact, the report boosted the Tolerable Upper Intake Level (the highest safe daily dose) from 2,000 to 4,000 IU.

That way, if vitamin D turns out to prevent disease, you're covered.

What's more, taking a supplement is safer than getting more sun. "UV exposure is a carcinogen that's related to skin cancer and skin aging," warns Manson.

4 Too Little Sleep Can Lead to Too Much Fat

Thirty or 40 years ago, who would have suspected that too little sleep could show up on your bathroom scale? Today, we sleep less and weigh more…and the two may be related.

The average American now sleeps one or two hours less per night than he or she did 40 or 50 years ago. In 1960, an estimated 16 percent of young adults slept fewer than seven hours a night. Today it's 37 percent.

"We now have lots of studies on sleep and obesity," explains Kristen Knutson, assistant professor of medicine at the University of Chicago. "And most find that short sleepers are more likely to be obese than longer sleepers."

A "short sleeper," she notes, is "someone who typically sleeps fewer than six hours a night." But the link is stronger if you look at just five-hour-a-nighters.

For example, in a study that tracked more than 68,000 women, those who slept fewer than five hours a night were 32 percent more likely to gain roughly 30 pounds over the next 16 years than those who slept for at least seven hours a night.[11]

To find out how sleep deprivation might alter fat deposits, Knutson and her colleagues enrolled volunteers who slept overnight in a laboratory. When they were allowed to sleep for just four hours a night for one or two nights, the researchers saw more ghrelin (a hormone that increases appetite) and less leptin (a hormone that tamps down appetite) than when the volunteers were allowed to sleep for nine hours.[12]

"We also asked each person, 'Are you hungry?' during the day," notes Knutson. "After two days of short sleep, people were hungrier than after the long sleep."

And the more ghrelin and leptin changed, the more hunger changed. "That confirmed our suspicions that these hormones are having a strong effect on appetite," she adds.

In a month-long study, volunteers averaged 1,090 calories a day from snacks when they were allowed to sleep for 5½ hours a night, but only 870 calories a day from snacks when they could sleep for 8½ hours.[13] (The participants, who couldn't leave the lab during the study, were allowed to eat as much as they wanted.)

They got their extra calories mostly from high-carb snacks like pretzels, chips, crackers, popcorn, snack bars, muffins, cookies, pudding, ice cream, and candy. And they snacked more after 7 p.m.

"The less people are allowed to sleep, the more they snack, and it's not just because they're awake for more hours," says Knutson.

Why would lack of sleep lead to less leptin and more ghrelin?

"Sleep restriction is associated with increased sympathetic nerve activity—the flight-or-fight response," explains

Getting only five or six hours of sleep a night may boost your appetite for high-carb snack foods.

Photo: © Kati Molin/fotolia.com.

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Knutson. That stress response "could explain why sleep affects not just leptin secretion but glucose metabolism and insulin resistance."

And insulin resistance—which means that the body's insulin does a lousy job of lowering blood sugar levels—raises the risk of heart disease and diabetes.

Sure enough, "In a recent meta-analysis, short sleepers were more likely to develop diabetes than normal sleepers," says Knutson. Short sleepers are also more likely to end up with high blood pressure.[14,15]

What's the next step? "To see if extending sleep will make good things happen," she says. "Does it benefit insulin resistance, blood pressure, inflammatory markers, and appetite hormones?"

Time will tell.

5 Sugary Beverages, Even Fruit Juices, Cause Trouble

"People have known for a long time that sugary beverages weren't necessarily good for you," acknowledges Harvard's Walter Willett. But 40 years ago, most experts were largely worried that sodas would rot your teeth.

Studies now link soft drinks and other sugar-sweetened beverages to a higher risk of weight gain, diabetes, the metabolic syndrome, heart disease, and gout.[16-19]

"Sugary beverages are much more of a problem than they were 30 years ago," adds Willett. "That's because we drink more, we've gained weight, and we're moving less.

"It's the amount of beverage consumed, and the interaction with underlying insulin resistance due to inactivity and overweight," he explains. "On top of that, we're consuming too many carbohydrate calories in general, and they're easier to overconsume in a beverage form."

Even fruit juice has lost its all-you-can-drink, clean bill of health.

In a study of 51,000 women, those who increased their juice consumption over four years gained more weight (about nine pounds) than those who cut back on juice (about five pounds).[20] And women who drink more orange juice have a higher risk of gout.[19]

Juice is clearly more nutritious than soft drinks, but it's still liquid calories that don't curb your appetite as much as solid foods do.

Sugary beverages—even fruit juice—may boost your risk of weight gain and gout.

"Juice is a little complicated because if someone is low in vitamin C and has a small glass of orange juice every day, that's a plus," says Willett. "The problem is that many people consume juices as their primary beverage." And they drink 8 to 16 ounces at a time, not the classic six-ounce juice glass.

"If you're highly lean and athletic, you can tolerate three or four glasses of juice a day," explains Willett. "But that doesn't describe much of the American public. For many people who drink multiple glasses a day, the harm starts to outweigh the benefits."

When a group of scientists issued advice on beverages in 2006, he notes, "we recommended not more than one small glass of juice a day."

6 Antioxidants (Mostly) Disappoint

Cancer, heart disease, memory loss, type 2 diabetes, cataracts, macular degeneration. Antioxidant vitamins (C, E, and beta-carotene) were supposed to help prevent all of them. So far, the three antioxidants (plus zinc) have succeeded with only one: slowing the pace of macular degeneration in older people who already have the eye disease.[21]

"The randomized trials for antioxidants have been very disappointing," says Harvard's JoAnn Manson, who led the Women's Antioxidant Cardiovascular Study, the Women's Folic Acid Study, and other major trials.

What's more, "some risks have been identified that suggest that high-dose antioxidant supplements should be avoided."

For example, the Physicians' Health Study II gave roughly 14,600 men aged 50 or older either vitamin E (400 IU every other day), vitamin C (500 mg a day), and/or a placebo.[22] The only significant difference after eight years: "Vitamin E increased the risk of hemorrhagic stroke," notes Manson.

In a recent meta-analysis of multiple trials, researchers estimated that high doses of vitamin E (200 to 800 IU a day in most studies) would prevent one ischemic stroke in every 476 people, but would cause one hemorrhagic stroke in every 1,250 people.[23]

A hemorrhagic stroke (caused by a burst artery in the brain) is more devastating than an ischemic stroke (caused by a blocked artery in the brain). But even if the damage were equivalent, the odds wouldn't justify taking vitamin E.

And in 2005, the HOPE-TOO trial—which gave vitamin E (400 IU a day) or a placebo to roughly 10,000 people with diabetes or a history of heart attack, stroke, or peripheral artery disease—reported a 13 percent higher risk of heart failure in the vitamin E takers.[24]

"Overall, most randomized trials have suggested either a neutral or adverse effect of high-dose vitamin E," says

Most studies that tested high doses of antioxidant vitamins (C, E, and beta-carotene) on the risk of heart disease and cancer have come up empty.

Manson. "So from a public health standpoint, we can't recommend taking it at this point."

Vitamin C hasn't lived up to expectations either. The Women's Antioxidant Cardiovascular Study gave vitamin C (500 mg a day), vitamin E (600 IU every other day), and beta-carotene (83,000 IU every other day) to roughly 8,100 women with a history of heart disease. After nine years, the risk of a heart attack, stroke, or other cardiovascular event was no lower in those who took vitamin C (or the other vitamins).[25]

"We have tested vitamin C rigorously," says Manson. "We've seen no benefit for cardiovascular disease or cancer."

(And, despite Linus Pauling's predictions from the 1970s, high doses of vitamin C don't seem to ward off colds. At best, they might shorten a cold by less than half a day.)

As for beta-carotene, high doses actually raised the risk of lung cancer and heart disease in Finnish smokers and American men who had been exposed to asbestos.[26,27] The only ray of hope: in the Physicians' Health Study II, which included few smokers, men who got 83,000 IU of beta-carotene every other day for 18 years had better scores on tests of verbal memory (and no higher risk of lung cancer or heart disease).[28]

"Overall, we have not seen benefits for antioxidants and diabetes, heart disease, eye diseases, and cancer," concludes Manson.

Does that kill the hypothesis that antioxidants protect the body?

"It may still be reasonable," says Manson. "We don't know how much is being absorbed and whether it's actually being delivered to the critical tissues."

Perhaps the antioxidants never reached their targets. Or maybe the trials didn't last long enough. "Our trials have been too late and too short," says Harvard's Walter Willett.

"Also, if you're giving antioxidants to people who are eating very well to begin with, then you probably don't add too much. Trials need to start with people who have low intakes, because they're the people in whom the benefit is more likely to be seen," he notes.

"But we do know that these supplements as they've been tested—the supplements that people are buying over-the-counter," says Manson, "have not demonstrated benefits for cardiovascular disease or cancer."

7 Insulin Resistance Arrives

"In 1970 or the late 1960s, insulin resistance wasn't thought to exist," says Gerald Reaven, professor emeritus of medicine at Stanford University. Between a quarter and a third of Americans now have it, he adds.

"In the last 20 years, insulin resistance has become implicated in diabetes, heart disease, sleep apnea, various cancers, nonalcoholic fatty liver disease, and polycystic ovary disease," says Reaven.

If you're insulin resistant, your pancreas secretes plenty of the hormone. But the insulin doesn't do a good job of admitting blood sugar into your cells.

What makes muscle insulin resistant?

"We tried to find the cause," says Reaven, whose team was the first to identify insulin resistance and show that it played a role in diabetes.

But after years of searching, he acknowledges, "my guess is that it's never going to be one thing. We've been looking for insulin resistance genes, but it's hard to find any one jumping out."

Genes probably explain half of your risk, he estimates. The other half is lifestyle. "If you gain 15 or 20 pounds, you get worse. If you become sedentary, you become worse."

High triglycerides and low HDL ("good") cholesterol are signs of insulin resistance. Too many carbs may make triglycerides and HDL worse.

If you are insulin resistant, eating too much may matter more than *what* you eat, adds Reaven. "If you lose weight, it doesn't matter a great deal which diet you lose weight on." But if you're not losing weight, too many carbs can cause trouble.[29]

"If you're eating more carbohydrates, one of two things is going to happen," says Reaven. "You can put out even more insulin to maintain blood sugar levels. Or, if you can't, blood sugar goes up." Both mean a greater risk of diabetes and heart disease.

How do you know if you're insulin resistant? High triglycerides (above 150) and low HDL (below 40 for men and below 50 for women) are the best clues.

"If I know that a patient has high triglycerides and low HDL, I tell them to eat less carbohydrate," explains Reaven. He suggests replacing carbs with unsaturated fats like oils, salad dressings, fatty fish, nuts, avocado, mayonnaise, etc.

"If you're not insulin resistant, then it doesn't make much difference," says Reaven. "You're so good at putting away blood sugar that increasing the load is going to have a trivial effect."

8 Fruits and Vegetables Switch Diseases

"Not so long ago many people believed that eating five servings of fruits and vegetables a day would cut the risk of cancer by as much as half," says Harvard's Walter Willett.

In particular, experts agreed that there was "convincing" evidence that vegetables could prevent colon cancer.

But by 2000, the National Cancer Institute's Polyp Prevention Trial reported no fewer pre-cancerous colon polyps in people who had upped their fruits and vegetables from four to six servings a day for four years.[30] (The participants also cut back on fat and boosted whole grains and beans.) Disappointing studies on other cancers followed.

"It's pretty clear now that the relationship between fruits and vegetables and overall cancer is pretty weak," acknowledges Willett. "The 50 percent reduction was way off target."

But that doesn't mean you can forget broccoli and cantaloupe. For starters, fruits and vegetables are remarkably low in calories. "And there is a clear benefit for heart disease and stroke," adds Willett.

He cites two kinds of evidence. The

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Fruits and vegetables may help prevent heart disease and obesity, but are unlikely to lower your risk of most cancers.

Dietary Approaches to Stop Hypertension (DASH) study measured blood pressures on different diets.[31] "The DASH study showed that fruits and vegetables reduce blood pressure," notes Willett.

"And in cohort studies, people who consume more fruits and vegetables have a lower risk of heart attack and stroke."

For example, in a study of 37,000 men and 72,000 women, those who ate at least five servings of fruits and vegetables a day had a 28 percent lower risk of heart attacks and strokes than those who averaged only 1½ servings a day.[32]

"When both kinds of evidence are reproducible and firm, that makes a very strong case," argues Willett.

9 B Vitamins Win Some, Lose Some

Each year, neural tube birth defects strike roughly one in 1,000 pregnancies. Those born with spina bifida (a hole in the spine) survive. Those with anencephaly (no brain) don't.

In randomized trials, the B vitamin folic acid prevents roughly half of neural tube defects. But there's a catch: the defects occur so early that women have to take the folic acid before they know that they're pregnant.

"Folic acid prevents neural tube defects," says Harvard's JoAnn Manson. "So it's very important that women of childbearing age—not just those who know that they're pregnant—take a daily multivitamin to ensure that they have adequate folic acid in early stages of the pregnancy. I hope that point doesn't get lost."

But researchers had other hopes for B vitamins. They had clues that a mix of three B vitamins (folic acid, B-6, and B-12) could cut the risk of heart disease and stroke by lowering blood levels of a harmful amino acid called homocysteine. The vitamins struck out.[33]

"The randomized trials of B vitamins have been very disappointing," says Manson. "A recent meta-analysis looked at all trials to date for B vitamins and heart disease, stroke, and cancer and found no benefit across the board."[34]

Only two findings have given researchers hope.

When Manson and colleagues gave roughly 5,000 women at high risk for heart disease folic acid (2,500 mcg), vitamin B-6 (50 mg), and vitamin B-12 (1,000 mcg) every day for seven years, their risk of macular degeneration was 30 to 40 percent lower than the risk of placebo takers.[35] Macular degeneration—a deterioration of the retina—is the leading cause of blindness in older people.

"That was a very exciting finding," recalls Manson. "This is only one trial, but I think there will be much more research in that area."

The other promising result came in a study that gave B vitamins to roughly 2,000 healthy women aged 65 or older for five years.[36]

Folic acid can prevent birth defects, but it and other B vitamins won't lower your risk of heart attack or stroke.

As a group, the vitamin takers did no better on memory tests. "But in people who started out with low intakes of the B vitamins," notes Manson, "there was a suggestion of less decline in cognitive function than in those who got a placebo."

A suggestion is far from proof. But "a recent study suggested some benefit for high-dose B vitamins," adds Manson.

British researchers reported that among people over 70 with mild cognitive impairment—which often turns into Alzheimer's—those who took B vitamins for two years had less brain atrophy than those who took a placebo, but only among people who started out with high levels of the amino acid homocysteine.[37]

"The findings are promising enough that more research should be done," says Manson.

Why wait before rushing out to buy B vitamins? "Concerns have been raised that doses of folic acid over 400 mcg a day may increase tumor cell growth and proliferation once there's a pre-existing cancer," cautions Manson.

"So until more research is done, we can't assume that high doses of folic acid are harmless when it comes to cancer."

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[18] *Am. J. Clin. Nutr. 89*: 1037, 2009.
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[23] *BMJ 341*: c5702, 2010. doi: 10.1136/bmj.c5702.
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[28] *Arch. Intern. Med. 167*: 2184, 2007.
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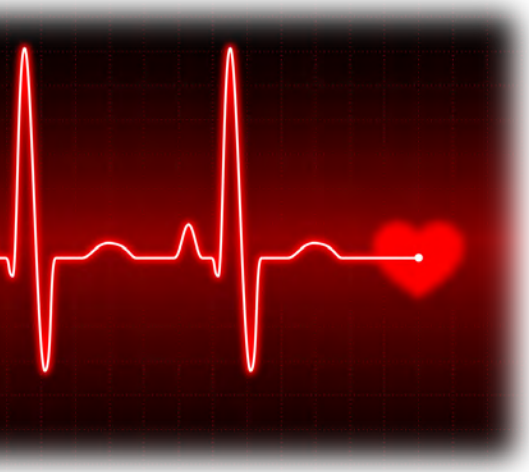
[37] *PLoS One 5*: e12244, 2010.



Magnesium & Sudden Death

Sudden cardiac death accounts for more than half of all heart disease deaths. And roughly 55 percent of men and 68 percent of women who die of sudden cardiac death have never been diagnosed with heart disease.

In animal studies, magnesium keeps heartbeats regular, leading scientists to speculate that it could protect the heart. So researchers tracked roughly 88,000 women for 26 years to see if their magnesium intake was linked to sudden death. It was.

Those who reported consuming the most magnesium (more than 345 mg a day) had a 34 percent lower risk of sudden cardiac death than those who consumed the least (260 mg or less a day). (The Recommended Dietary Allowance is 320 mg a day for women and 420 mg a day for men.) And women with the highest concentrations of magnesium in their blood had a 77 percent lower risk than those with the lowest concentrations.

What to do: This study doesn't prove that magnesium can prevent sudden cardiac death. But it can't hurt to eat more leafy greens, beans, whole grains, nuts, and other magnesium-rich foods.

Am. J. Clin. Nutr. doi:10.3945/ajcn.110.002253.

Omega-3s Miss the Mark

Low doses of omega-3 fats failed to lower the risk of a second heart attack in people who survived their first.

Dutch researchers randomly assigned roughly 4,800 men and women aged 60 to 80 who had survived a heart attack to consume one of four margarines. One had 225 milligrams of EPA plus 150 mg of DHA (the two omega-3 fats in fish oil) in an average serving of about four teaspoons a day. Another had 1,900 mg of ALA (an omega-3 fat found in canola and soybean oil). A third had EPA, DHA, and ALA, and the last had no omega-3s.

After nearly 3½ years, there was no difference in heart attacks, strokes, and other cardiovascular events among the four groups. Among women, who comprised only 22 percent of all participants, those who got the ALA-enriched margarine had 27 percent fewer heart attacks than those who got no ALA, but the difference wasn't quite statistically significant.

The findings contradict two earlier studies—in Italy and Japan—that saw a lower risk of second heart attacks in people who were given fish oil pills. Why?

Fish oil may have had less impact in the new study because the Dutch participants were older, 78 percent were male, and 85 percent were taking cholesterol-lowering statin drugs (vs. 5 percent in the Italian and 46 percent in the Japanese study). What's more, many were also taking drugs to lower blood pressure and the risk of blood clots. Omega-3 fats may matter less when people are taking drugs to treat those risk factors.

A large study is now under way to see if omega-3s protect the hearts of people who have never had a heart attack.

What to do: Aim for two fish meals per week if you've never had a heart attack. If you've had a heart attack, check with your doctor.

N. Eng. J. Med. 363: 2015, 2010.

Don't Just Walk

If you have type 2 diabetes, you're better off splitting your exercise time between aerobic activities (like brisk walking) and strength training than spending the same amount of time on either activity alone.

Researchers assigned roughly 260 middle-aged, sedentary, obese men and women with diabetes to one of four groups: (a) walking on a treadmill for 140 minutes a week, (b) strength training (bench presses, leg presses, etc.) three days a week for a total of 140 minutes, (c) strength training twice a week for a total of 30 to 40 minutes plus 110 minutes a week on the treadmill, or (d) no exercise program.

After nine months, levels of hemoglobin A1c (a long-term measure of blood sugar levels) fell significantly only in the combined-exercise group. And waist size and weight shrank slightly more in the combined exercise group than in the other groups.

What to do: Shoot for at least 20 minutes a day of walking or other aerobics and 15 to 20 minutes of strength training twice a week. Other studies suggest that a mix of exercise is best for everyone.

JAMA 304: 2253, 2298, 2010.

Protein, Carbs, & Weight

Eating more protein and picking the right carbs may help dieters avoid regaining lost weight, says an eight-country study funded by the European Commission.

Researchers studied nearly 800 overweight adults who had lost an average of 24 pounds on a low-calorie diet (800 calories a day) over the previous two months. Those who were then assigned to eat a lower-protein diet (43 grams per 1,000 calories) with high-glycemic carbs (like sugars, white bread, and white rice) regained nearly four pounds over the next six months. Those who ate either more protein (55 grams per 1,000 calories) or lower-glycemic carbs (like oats, beans, and bulgur) regained only two pounds.

What to do: A two-pound difference after six months isn't much, but it could add up over time. To play it safe, limit sweets and white breads and don't cut back on protein if you're trying to stay trim.

N. Eng. J. Med. 363: 2102, 2159, 2010.

It Was 40 Years Ago Today...

BY DAVID SCHARDT

In 1971, when the Center for Science in the Public Interest—the nonprofit consumer-advocacy group that publishes *Nutrition Action Healthletter*—hung out its shingle in Washington D.C., the food world looked very different from what it is today.

Foods like tofu, whole wheat bread, and brown rice were hard to come by. People made their own yogurt, smoothies, and granola. Salads were mostly iceberg lettuce, milk was mostly whole, and coffee was either black or with cream and sugar. We cooked more and snacked less. We ate less and weighed less.

Here's a brief stroll down memory lane to remember how much things have changed.

Zahra Hassanali helped compile the information for this article.

Everyone Gets a Microwave

In 1971, fewer than one out of every 100 U.S. households owned a microwave oven. Today, only five out of 100 *don't*. Still, microwaves are only used to make about 20 percent of all meals that are prepared at home. While that's double what it was 25 years ago, the stove top remains the most popular appliance for cooking dinner.

Eating Out Becomes In

In the early 1970s, Americans spent a third of their food dollars on meals prepared outside the home. Today, eating out eats up half of our food money.

While convenient, the shift has left its mark on the national waistline. Food prepared away from home typically has more calories (and sodium). That, coupled with ever-expanding restaurant portions, has made eating out one of the main culprits in the alarming rise in obesity.

Big Mac's Legacy Lingers

McDonald's Big Mac was four years old in 1971. The company invented it to compete with a large two-patty hamburger sold by rival Big Boy.

Today, the Big Mac doesn't seem so big. Its 540 calories are dwarfed by, among others, Burger King's Whopper (670 calories), McDonald's Angus burgers (750 to 790 calories), and Wendy's Bacon Deluxe Triple hamburger (1,150 calories).

Dietary Supplement Sales Explode

In 1994, Congress passed landmark legislation giving companies a free hand to make claims about a staggering variety of nutrients, herbs, hormones, and other chemicals, without needing much, if any, evidence.

Within a few years, sales had tripled. In 2010, the industry sold more than $25 billion worth of supplements in vitamin shops, supermarkets, drug stores, and on-line.

Supermarkets Expand

In 1971, a typical supermarket carried just under 8,000 items. In 2009, it was more than 48,000.

At many supermarkets, you can pick up dinner at the cooked-food bar, grab some Kalamatas at the olive bar, cash a check at the in-store bank branch, and fill a prescription at the in-store pharmacy.

In 1988, Walmart introduced its first Supercenter, which put groceries and countless other merchandise under one roof. Fourteen years later, the company became the nation's largest grocer.

We're Eating More Food ...*and* More Calories

In 1970, there were 1,675 pounds of food available for every person in the United States to eat.

Photos: (clockwise from upper left) Schenectady Museum, © Shirley Hirst/fotolia.com, lyzadanger, © Roman Sigaev/fotolia.com, © Kuvien/fotolia.com, © elnariz/fotolia.com.

In 2003, it was up to 1,950 pounds. That means an extra 500 calories a day was being produced for every man, woman, and child. The increase in available food is more than enough to account for our steadily rising weight.

What are we eating more of? Just about everything, though fats and oils (200 more calories a day), grains (190 more calories), and sugars (75 more calories) lead the way.

Nutrition Facts Labels Ride to the Rescue

If you read a typical food label in 1971, you wouldn't have had a clue how many calories or how much fat or sodium was in each serving.

Shopping for healthy foods got a whole lot easier with the introduction of the "Nutrition Facts" label on food packages in 1993. Today, two out of three shoppers say that they use the labels to help figure out what to buy.

Organic Foods Go Mainstream

By 1971, Rachel Carson's book *Silent Spring*, which exposed the damage that pesticides could do to wildlife, had been out for nine years. And the Rodale family was preaching sustainable farming in its magazine *Organic Gardening*. But you couldn't buy organic produce in your grocery store, no matter what you were willing to spend.

In 1990, a coalition of groups (including CSPI) persuaded Congress to pass the Organic Foods Production Act. But it took 12 more years of negotiations before the U. S. Department of Agriculture finally issued rules that farmers had to follow to call their foods "organic."

Today, organic food is a $25-bllion-a-year industry, fresh and processed organic food is available in virtually every supermarket, and a third of U.S. consumers say that they buy organic foods at least once a month.

Imported Foods Soar

In the early 1970s, imported food typically meant something like a jar of Spanish olives, a bottle of Italian olive oil, or a bar of Swiss chocolate. And, of course, bananas from Central America. Today, it could be anything from fresh mozzarella from Italy to frozen peas from China.

The average American eats roughly 260 pounds of imported food every year. Imports account for close to 15 percent of our diet. They bring us peaches and cherries in the winter and fresh salmon all year round. About a quarter of our fruit, half of our nuts, and more than two-thirds of our fish and shellfish come from overseas.

But the ability to eat *whatever* we want *whenever* we want has its downside. The Food and Drug Administration, which oversees roughly 80 percent of the food supply, inspects only about 1 percent of the food that enters the United States.

Obesity Rates Spin Out of Control

In 2008, when the producers of "Taking Woodstock" began casting for their movie dramatizing the 1969 concert, their biggest challenge was to find extras who were as skinny as the original concertgoers.

Not that everybody was lean back then. In the 1970s, one out of two American adults was overweight or obese. Today, it's two out of three. And the obese have gone from one out of seven to one out of three Americans between the ages of 20 and 74.

Excess weight increases the risk of type 2 diabetes, cancer, heart disease, high blood pressure, and osteoarthritis.

And youngsters aren't immune. The percentage of overweight children and adolescents has tripled over the past 40 years. Public health experts worry that extra pounds may make today's children the first generation of Americans to have a shorter lifespan than their parents.

Food Advertising Swamps Eat-Healthy Messages

In 2008, McDonald's spent $1.2 billion on advertising in the United States. That's 12 times as much as it spent in the 1970s. And Coca-Cola spends 13 times more than it did back then. In 1972, total domestic food, beverage, and restaurant advertising was $2.5 billion. In 2004, it hit $11 billion.

For every $1 spent on ads that urge us to eat at least five fruits and vegetables a day, the food and beverage industries spend $1,100 enticing us to buy fast-food meals, soft drinks, sugary breakfast cereals, and a host of other foods that have led to massive waist sprawl.

Trans Fat Plummets

In the 1970s, consumers began replacing their Crisco and other vegetable shortening with soybean, olive, and other vegetable oils. At the same time, restaurants, potato chippers, bakers, and other food manufacturers started using more—not less—shortening.

But by the early 1990s, researchers had discovered that trans fat, which is created when oil is partially hydrogenated to make shortening and stick margarine, raises LDL ("bad") cholesterol and lowers HDL ("good") cholesterol. That's a double whammy for your heart.

In 2003, the Food and Drug Administration announced that, starting in 2006, food labels would have to disclose the amount of trans fat in each serving. So it's no surprise that food manufacturers began to seriously cut out shortening in 2005.

Since then, we estimate that two-thirds of the trans fat in the American diet has been eliminated. Bravo!

Photos: (clockwise from upper left) ©Stephen VanHorn/fotolia.com, ©Claude Beaubien/fotolia.com, wendys.com, ©SunnyS/fotolia.com, ©Sheila Eames/fotolia.com, ©monamakela.com/fotolia.com.

BEYOND BREAD
THINK THIN

BY JAYNE HURLEY & BONNIE LIEBMAN

White, wheat, or rye? Years ago, that was pretty much all you had to decide in the bread aisle.

Now sliced bread has to share shelf space with a growing cadre of wraps, flatbreads, pitas, naans, bagels, English muffins, and other breadoids. More are whole grain (if not 100 percent) and higher in fiber (if not the best kind) than ever before. And many are thinner, which is a boon for consumers who aim to stay that way themselves. Thinner also means they're lower (if not low) in sodium.

Best Bites (which are whole grain and have no more than 200 milligrams of sodium) are out there, but they're not easy to find. Here's what to look for in the breadish aisle.

Information compiled by Melissa Pryputniewicz.

100% whole wheat and just 100 calories.

Thin is In

Bread is bigger than it used to be. Just two slices—not counting what's *inside* your sandwich—can total 250 calories. That's why thin (or flat or slim) rolls have taken the bread aisle by storm. Each has just 100 calories, but plenty of room for your sandwich filling. Use them and save 150 calories that most of us could do without.

As usual, you have to look for thins that are 100% whole wheat, not imposters that are "made with whole grain," "whole grain white," "7 grain," or an "excellent source of fiber."

The thins' only disadvantage: several brands—like Pepperidge Farm Deli Flats, EarthGrains Thin Buns, and Trader Joe's Slims—pack their rolls in a hard plastic container. It's recyclable, but why add to the nation's hard-plastic burden when other brands—like Arnold (or Oroweat) Sandwich Thins or Nature's Own Sandwich Rounds—do just fine without it?

Then again, Arnold and Oroweat Whole Wheat Thins have more sodium (about 230 mg) than Pepperidge Farm (170 mg), EarthGrains (150 mg), or Trader Joe's (150 mg).

Get your act together, folks. Cut the sodium *and* the hard plastic.

When it comes to bagels, small is beautiful.

Not-So-Big Bagels

If you're used to honest-to-goodness bagels, especially New York bagels, you know that supermarket brands just don't have the right texture. (Sorry to be bagel snobs, but honestly. They call *those* bagels?)

On the other hand, it's easier to find a whole-grain, lower-sodium, slimmed down bagel in the supermarket than in a bakery. Thomas' 100% Whole Wheat Bagel Thins, for example, have no white flour and just 110 calories and 190 milligrams of sodium per bagel.

Like all "thins," they're lower in calories and sodium largely because they're smaller—about 1½ ounces apiece. They're essentially flatter versions of Thomas', Sara Lee, or Pepperidge Farm 100% Whole Wheat Mini Bagels (which are also Best Bites). The difference is that the thins have more surface area for spreads or sandwich fillings (and they're less likely to get stuck in a stand-up toaster).

Since when do we need to eat mini-bagels or bagel thins? Since most regular bagels ballooned to 3½ ounces, which is nearly twice as much bread as you'd get in an old-fashioned sandwich (made with two sensible 1 oz. slices).

A ballooned-up whole wheat bagel from Thomas', Sara Lee, or Pepperidge Farm packs about 250 calories (and 400 to 500 milligrams of sodium). A typical bagel at Einstein Bros., Starbucks, or Dunkin' Donuts has 250 to 350 calories, without toppings.

Like bagel, like belly?

Muffin Madness

100% Whole Wheat—Thomas' healthiest English muffin.

The marketing mavens at Thomas' must get a bonus every time they come up with a new kind of English muffin. Here's how to decode some of the names:

- **Original Made With Whole Grain:** mostly white flour, with more water than whole white wheat flour.
- **Hearty Grains Double Fiber Honey Wheat:** more white than whole wheat flour, plus inflated fiber numbers from added isolated fibers like modified food starch and polydextrose. (They're not harmful. They just may not be as beneficial as naturally occurring fiber.)
- **Hearty Grains 12 Grain:** mostly white flour, with more water than whole wheat flour, more yeast than millet seed, more salt than cracked wheat, and more preservatives than oats, barley, triticale, kamut, amaranth, buckwheat, rice, rye, or cornmeal.
- **Fiber Goodness Multi-Grain:** white flour, with more salt than any of its "multi" grains and a slew of isolated fibers.

Instead, look for Thomas' Hearty Grains 100% Whole Wheat English Muffins or Fiber One 100% Whole Wheat English Muffins. Both are only Honorable Mentions (thanks to their sodium—about 220 milligrams), and Fiber One has added isolated fibers. For a Best Bite, try Pepperidge Farm 100% Whole Wheat English Muffins (190 mg of sodium).

Pick a Pocket

Perfect for a salad sandwich.

It's the pocket that makes pita breads worth buying. Unlike two separate slices of bread or a sliced roll or bagel, a pita can hold any veggie-rich sandwich filling—or even a dressed salad—without cucumber or red pepper slices or tomato slipping onto your lap.

And, unlike most breads and bread-like objects, pitas aren't typically loaded down with misleading 7-grain, high-fiber, and made-with-whole-grain claims.

The hard part: finding pitas with less sodium.

Who needs the 320 milligrams in a 2 oz. Thomas' Sahara 100% Whole Wheat Pita Pocket when a 2 oz. Toufayan Whole Wheat Pita gets away with 230 mg and a 2½ oz. Trader Joe's 100% Whole Wheat Apocryphal Pita has 140 mg? If you don't live near a Trader Joe's, look for whole wheat pitas from local brands like The Perfect Pita and Middle East Bakery. Just keep in mind that some companies list Nutrition Facts for just *half* a pita.

As for naans, the Indian flatbreads are starting to show up in supermarkets nationwide. Unfortunately, Trader Joe's Whole Wheat Tandoori Naan is the only 100% whole-grain version we found.

Because naans are large (typically 3 oz.), you're unlikely to find any with less sodium than Trader Joe's 310 mg. Solution: eat just half.

It's a Wrap

Wrap & roll away with this 50-calorie tortilla.

Wraps, tortillas, flatbreads. The names are different, but they're all designed to cradle your chicken or tuna salad, beans and salsa, grilled or marinated vegetables, you name it. Some even make a good pizza crust.

Virtually every company offers a whole wheat version, though the only way to be sure it's really whole wheat is to check the ingredients, not the name. Mission Life Balance Whole Wheat Tortillas, for example, are mostly white flour.

Many "low-carb" varieties contain more added oat fiber or other isolated fibers than whole wheat flour. The added fiber cuts the calories roughly in half (and seems to keep the wraps moist). A La Tortilla Factory Smart & Delicious Low Carb High Fiber Large Tortilla made with Whole Wheat, for instance, has just 80 calories.

The extra isolated fiber won't hurt you, but it may not have the same impact on regularity or your risk of heart disease or diabetes as the intact fiber in whole grain. Our advice: ignore the "high fiber" claims that many low-carb tortillas slap on their labels. Buy them for their lower calories, not their artificially inflated fiber.

Unfortunately, companies are better at cutting calories and carbs than salt. Many medium and large tortillas and wraps hover around 300 milligrams of sodium. Only a handful of medium tortillas—like Trader José's Whole Grain Flour Tortillas and Tumaro's Low in Carbs Tortillas—manage to fall below our 200 mg sodium cut-off for a Best Bite.

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Photos: Stephen Schmidt.

The Whole Truth

All (or just about all) of the grain in our Best Bites (✔✔) and Honorable Mentions (✔) is whole. Best Bites have no more than 200 milligrams of sodium. Honorable Mentions have no more than 250 mg. Within each section, products are ranked from least to most sodium, then least to most calories, then most to least fiber.

Bagels

	Calories	Fiber (grams)	Sodium (milligrams)
Trader Joe's Mini, Whole Wheat *(1.3 oz.)*	110	3	150
✔✔ Pepperidge Farm Whole Grain Mini, 100% Whole Wheat *(1.4 oz.)*	100	3	180
✔✔ Thomas' Mini, 100% Whole Wheat *(1.5 oz.)*	110	3	180
✔✔ Sara Lee Soft & Smooth Mini, 100% Whole Wheat *(1.3 oz.)*	100	3	190
✔✔ Oroweat 100% Whole Wheat *(1.6 oz.)*	110	5	190
✔✔ Thomas' Bagel Thins, 100% Whole Wheat *(1.6 oz.)*	110	5*	190
✔ Nature's Own Thin-Sliced, 100% Whole Wheat *(2 oz.)*	140	5	210
Lender's Original 100% Whole Wheat *(2 oz.)*[F]	150	4	300
Sara Lee Delightful, 100% Whole Wheat *(2.2 oz.)*	130	8*	330
Thomas' Hearty Grains, 100% Whole Wheat *(3.4 oz.)*	240	7	400
Pepperidge Farm Whole Grain, 100% Whole Wheat *(3.5 oz.)*	250	6	450
Sara Lee Heart Healthy, 100% Whole Wheat *(3.7 oz.)*	260	7	480

English Muffins *(2 oz. unless noted)*

✔✔ Oroweat Whole Grain & Flax *(2.4 oz.)*	150	5	160
✔✔ Nature's Own 100% Whole Wheat	120	3	180
✔✔ Trader Joe's British Muffins—Whole Wheat or Whole Wheat Cinnamon Raisin[1]	130	4	190
✔✔ Pepperidge Farm 100% Whole Wheat	140	3	190
Thomas' Hearty Grains, 12 Grain	140	2	200
Thomas' Fiber Goodness Multi-Grain *(2.1 oz.)*	110	9*	210
Thomas' Hearty Grains, Double Fiber Honey Wheat	120	5*	220
✔ Thomas' Hearty Grains, 100% Whole Wheat	120	3	220
Thomas' Original Made With Whole Grain	130	2	220
✔ Fiber One 100% Whole Wheat	100	6*	230
✔ Oroweat Whole Grain, 100% Whole Wheat *(2.3 oz.)*	150	4	250

Thin Buns *(1.5 oz.)*

✔✔ Trader Joe's Whole Wheat Slims	100	5*	150
✔✔ EarthGrains Thin Buns[1]	100	4*	150
✔✔ Pepperidge Farm Deli Flats—Soft 100% Whole Wheat or Soft Honey Wheat[1]	100	5*	170
✔✔ Nature's Own Sandwich Rounds—100% Whole Grain or 100% Whole Wheat[1]	100	5*	190
✔ Arnold Sandwich Thins Fill 'ems, 100% Whole Wheat	100	5*	230
✔ Arnold Select or Oroweat Sandwich Thins, 100% Whole Wheat[1]	100	5*	230

Buns & Rolls

✔✔ Nature's Own 100% Whole Wheat Hot Dog Rolls *(1.6 oz.)*	110	3	170
✔✔ Pepperidge Farm Classic Hamburger Buns, Soft 100% Whole Wheat *(1.5 oz.)*	120	2	190
✔✔ Nature's Own 100% Whole Wheat Sandwich Rolls *(1.9 oz.)*	130	4	190
✔ Trader Joe's Whole Wheat Hamburger Buns *(1.5 oz.)*	110	2	220
✔ Trader Joe's Whole Wheat Hot Dog Buns *(1.5 oz.)*	110	2	220
✔ Nature's Own Sugar Free Sandwich Buns, 100% Whole Grain *(1.9 oz.)*	110	4	240
✔ Nature's Pride 100% Whole Wheat Bakery Buns *(2.6 oz.)*	180	4	250
Sara Lee Hearty & Delicious Bakery Buns, 100% Whole Wheat *(2.9 oz.)*	210	5	330

Pitas

✔✔ Trader Joe's 100% Whole Wheat Apocryphal Pita *(1 oz.)*	80	3	60
✔✔ Trader Joe's 100% Whole Wheat Organic Pita *(1 oz.)*	80	3	60
✔✔ Trader Joe's 100% Whole Wheat Apocryphal Pita *(2.6 oz.)*	200	7	140
✔✔ Trader Joe's Whole Wheat Mini Pitas *(6 pitas, 1.5 oz.)*	120	4	180
✔ Toufayan Whole Wheat Pita *(2 oz.)*	150	3	230
✔ Whole Foods 100% Whole Wheat Pita Mini's *(5 pitas, 1.8 oz.)*	150	3	230
Weight Watchers 100% Whole Wheat Pita *(2 oz.)*	100	9*	260
Thomas' Sahara 100% Whole Wheat Pita Pockets *(2 oz.)*	140	4	320

Naans

Trader Joe's Whole Wheat Tandoori Naan *(3 oz.)*	240	8	310
365 Whole Foods Whole Wheat Tandoori Naan *(3 oz.)*	260	5	420
Fabulous Flats Whole-Grain Tandoori Naan *(4.5 oz.)*	340	8	820

Flatbreads, Tortillas, & Wraps

✔✔ All Natural Roll-Ups *(3 oz.)*	220	8	50
✔✔ Tumaro's Low in Carbs Tortillas *(1.4 oz.)*[1]	60	7*	90
✔✔ Trader José's Reduced Carb Whole Wheat Flour Tortillas *(1 oz.)*	45	7*	130
✔✔ Trader José's Whole Grain Flour Tortillas *(1.7 oz.)*	130	5*	140
✔✔ La Tortilla Factory Smart & Delicious Low Carb High Fiber Tortillas, Garlic & Herb *(1.3 oz.)*	50	6*	180
✔✔ La Tortilla Factory Smart & Delicious Low Carb High Fiber Tortillas, Green Onion *(1.3 oz.)*	50	6*	180
✔ La Tortilla Factory Smart & Delicious Low Carb High Fiber Tortillas, Original made with Whole Wheat *(1.3 oz.)*	50	7*	210
✔ Mission Carb Balance Tortillas, Whole Wheat, Small *(1 oz.)*	80	8*	220
La Tortilla Factory Smart & Delicious SoftWraps, Multi Grain *(2.2 oz.)*	100	12*	290
Flatout Healthy Grain Flatbread *(1.9 oz.)*[1]	110	7*	290
La Tortilla Factory Smart & Delicious Low Carb High Fiber Tortillas, Large made with Whole Wheat *(2.2 oz.)*	80	12*	300
Mission Life Balance Whole Wheat Tortillas, Medium *(1.5 oz.)*	130	4*	310
Thomas' Sahara 100% Whole Wheat Wrap *(2.1 oz.)*	170	4	310
La Tortilla Factory Smart & Delicious 100 Calorie Tortillas, 100% Whole Wheat *(2.1 oz.)*	100	8*	320
Toufayan Wheat Wraps *(2 oz.)*	160	3	320
Mission Multi-Grain Tortillas, Small *(1.3 oz.)*	110	4	340
Mission 96% Fat Free Whole Wheat Tortillas, Medium *(1.8 oz.)*	130	3	340
Flatout Light *(1.9 oz.)*[1]	90	9*	350
Mission Whole Wheat Tortillas, Medium *(1.6 oz.)*	130	3	390
Mission Multi-Grain Wraps *(2.5 oz.)*	210	7	660

✔✔ Best Bite. ✔ Honorable Mention. [1] Average. [F] Frozen.
* Includes added isolated fiber.

Daily Limits (for a 2,000-calorie diet): ***Sodium:*** 1,500 milligrams. ***Fiber:*** at least 25 grams.

HEALTHY COOK

Under Wraps

BY KATE SHERWOOD

Think of your sandwiches as a chance to eat a salad without a fork and you'll get the right balance of shrubbery to poultry, seafood, meat, cheese, tofu, beans, etc. That way, you can try different salad dressings when you want a break from mayo and mustard.

If you're packing a brown bag, bring the salad and dressing in separate containers. Toss together, stuff, and dig in. M-m-m-m.

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

Bagels & English Muffins

- Oil-packed sundried tomatoes, cream cheese, cucumber, red onion, leaf lettuce
- Roasted red pepper hummus, cucumber, radish, lettuce *(see photo)*
- Almond butter, sliced apple, a sprinkle of cinnamon
- Cheddar cheese, baby spinach, fruit chutney
- Swiss cheese, tomato, red onion, lettuce, honey mustard dressing *(see photo)*
- Chopped egg, minced celery, chives, and radish slices mixed with mayonnaise and Dijon mustard, leaf lettuce

Thins

- Salmon mixed with chopped dill and low-fat sour cream, tomato, mixed greens *(see photo)*
- Chopped chicken, mayonnaise, a sprinkle of curry powder, celery, golden raisins, lettuce
- Veggie burger, shredded cabbage, coleslaw dressing
- Fresh mozzarella, cherry tomatoes, oil-packed sundried tomatoes, arugula

Wraps

- Sliced turkey breast, avocado, tomato, mixed salad greens, mayonnaise, Dijon mustard
- Shredded chicken, tomato, fresh basil, mayonnaise, lettuce
- Tomato, sliced mozzarella, roasted peppers, pesto, arugula
- Hummus, roasted vegetables (try peppers, onions, zucchini, and eggplant)
- Grilled chicken, hot sauce, celery leaves, lettuce, blue cheese dressing *(see photo)*

Pitas

- Vegetables (try white mushroom, radish, carrot, cucumber, tomato, and avocado), sunflower seeds, ranch dressing
- Puréed white beans mixed with roasted garlic, extra-virgin olive oil, and lemon juice, topped with oil-packed sundried tomatoes and arugula
- Cherry tomatoes, red onion, bell peppers, feta, lettuce, Greek vinaigrette *(see photo)*
- Shrimp, black beans, corn kernels, red onion, shredded romaine, spicy ranch dressing
- Edamame, radish, carrot, cabbage, avocado, sesame dressing
- Tuna, celery, carrot, radish, tomato, balsamic vinaigrette
- Marinated and grilled portobello mushroom, onion, and zucchini, topped with tomato, arugula, pesto, and mayonnaise
- Sliced provolone, red onion, tomato, green pepper, lettuce, Italian vinaigrette

Photos: Kate Sherwood.

About CSPI, publisher of Nutrition Action Healthletter

CENTER FOR Science IN THE Public Interest

The Center for Science in the Public Interest (CSPI), founded in 1971, is an independent nonprofit consumer health group. CSPI advocates honest food labeling and advertising, safer and more nutritious foods, and pro-health alcohol policies. CSPI's work is supported by *Nutrition Action Healthletter* subscribers and foundation grants. CSPI accepts no government or industry funding. *Nutrition Action Healthletter*, first published in 1974, accepts no advertising.

Nutrition Action Healthletter
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NEW ADDRESS

RIGHT STUFF

FINNTASTIC

"Packing so much goodness into something so slim and delicious takes real dedication," says the box of **Finn Crisp Plus 5 Wholegrains Thin Crispbread**.

Who knew? If you're a fan of Finn Crisp's Traditional Rye Crispbreads, you may have wondered how the company manages to squeeze so much flavor into one remarkably slender wafer. (Apparently, it's not easy.) Thank goodness Finn Crisp went to all that trouble.

The new 5 Wholegrains Crispbread adds, well, four other whole grains, "for an even tastier and healthier crunch." And, since the crisps are imported from Finland, the label reveals how much of each major ingredient you're getting. (Wouldn't *that* be handy to have on U.S. labels?)

The crackers are still mostly rye flour (65 percent), plus oat flour and oat flakes (8 percent), barley flour and wheat flour (4 percent each), and millet (1.7 percent).

Together, they deliver three grams of fiber for the two-slice (½ oz.) serving that's listed in the Nutrition Facts, or six grams for the 1 oz. serving that most cracker labels show. And those grams are intact fiber, not the isolated kind (like inulin, oat fiber, wheat fiber, or polydextrose) that bakers use to make impressive (though misleading) fiber claims. It's the real deal.

Bonus: a 1 oz. serving has just 120 calories and 140 milligrams of sodium, so it won't stick to your rib padding...or pressure your arteries.

Spread on a dollop of hummus or a thin slice of Brie, or enjoy them *sans* topping. Finn is in.

Liberty Richter: (973) 338-0300

Photos: Finn Crisp (left), Stephen Schmidt (right).

dish OF THE MONTH

Quick Quesadillas

Toss together 1 cup of black beans, 1 cup of corn kernels, ½ cup of reduced-fat shredded cheese, and ½ cup of jarred salsa. Spoon the filling onto 4 whole wheat tortillas, fold in half, and sauté each in a non-stick pan in 1 tsp. of canola oil.

FOOD PORN

PEPPERIDGE HARM

"Indulge in the perfect combination of chocolate and mocha lusciousness with **Pepperidge Farm Petite Cake**," says the **Mocha Bliss** box.

"Exquisitely baked to moist, rich, chocolatey perfection, made with premium cocoa, surrounded with smooth buttercream frosting with a touch of coffee and topped with dark and white chocolate curls...is your mouth watering yet?"

Your mouth might stop watering if you glanced over to the smaller print. The "real buttercream frosting" and "premium cocoa" touted on the front label sound like top-notch ingredients. And while the cake does have butter, cocoa, and eggs, it's mostly sugar, water, partially hydrogenated vegetable oils, white flour, and high fructose corn syrup.

Did Pepperidge Farm get a good deal on the partially hydrogenated oil that other bakers are dumping in droves? There's enough in the Mocha Bliss to supply 2½ grams of trans fat in every 2½-ounce serving. (The company's 3-Layer Cakes are also loaded with trans.) That's more than anyone should eat in a day, and it comes with 3½ grams of saturated fat and 260 calories, more than a third of them from the 6 teaspoons of added sugars. That may not sound like much, until you see the serving. It's, um, rather petite.

Chocolate Passion, the other Petite Cake, is in the same ball park. Both are "small, sweet, sinful," and "sweet satisfaction!" say the boxes.

Pepperidge Farm must be satisfied knowing that it passed off a cheap mix of sugar, water, trans-laden oils, and white flour as a classy dessert for the discriminating gastronome.

Or is *that* the sinful part?

Pepperidge Farm: (888) 737-7374