

# Nutrition Action

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## Didn't See That Coming

When a woman's risk is greater than she thinks

BY DAVID SCHARDT

Chest pain, cold sweat, light-headedness. They're the classic signs of a heart attack. But in women, upper-body discomfort, difficulty breathing, fatigue, and nausea are also likely signs of danger.

A stroke may also show up differently—and cause more lasting damage—in women than in men.

Here's what women should know about how their risk or signs of heart attack, stroke, arthritis, and osteoporosis may differ from men's.

*Continued on page 3.*



# Close to My Heart

I hope you don't find this issue's cover story on heart disease in women as useful as my family did.

Over the long July 4th weekend, my wife, Donna, and I were enjoying several beautiful days at the Delaware beach. A highlight was taking a long bike ride through Cape Henlopen State Park, where the hot sun was tempered by a cool ocean breeze. The park abounds with red-winged blackbirds, great egrets, and other gorgeous birds.

When we got back to our friends' house, Donna felt an unusual pain in her chest and left arm. She asked a question that she had never before asked: "Am I having a heart attack?"

That seemed so bizarre, but I gave her a draft of the cover article, which I had recently edited.

Donna's symptoms were distressingly similar to those described in the article, so she checked the websites of the American Heart Association and the Women's Health Alliance, the group co-founded by Barbra Streisand. The take-away message from all three sources: "Don't take a chance; get thee to a hospital fast."

It seemed so strange for this youthful, 64-year-old woman, whose symptoms were not all that severe, to be having a heart attack. But because she had never experienced those symptoms before, Donna wisely decided to go to the hospital.

So, even though the beach beckoned us from the east, we drove a few miles west to the Beebe Medical Center. The nurses quickly examined Donna and did several tests, including an electrocardiogram and a blood test for an enzyme that reflects heart damage.

The next morning the cardiologist confirmed that Donna had indeed had a heart attack. What shook both of us the most

was his suggestion that she might need coronary bypass surgery. Thankfully, that didn't come to pass.

Within two hours, Donna had an angioplasty and was the new owner of two stents, one in an artery that was about 70 percent blocked and one in another that was nearly 80 percent closed.



Donna came out of the ordeal fine. She was amazingly alert and chipper two hours after the medical procedure and went back to work several days later.

The experience made her more determined to eat an even healthier diet (lunches, snacks, and restaurants are her challenges) and to exercise more. Heart disease and diabetes run in Donna's family, so she has to work especially hard to compensate for those genes.

So, women—and your spouses and friends—read the cover story carefully! If you ever have even mild symptoms of a heart attack, call 9-1-1 and go to the hospital immediately.

And, symptoms or not, please, please, try even harder to eat the kind of diet we have long recommended (see p. 11). Load up on fruits and vegetables, add some beans, nuts, whole grains, and seafood, and minimize the salt, red meat, egg yolks, and sugary foods and beverages.

A healthy diet won't guarantee that you'll live forever, but it will certainly increase the odds that there will be many more bike rides in your future.

Michael F. Jacobson, Ph.D.  
President  
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# Didn't See That Coming

When a woman's risk is greater than she thinks



## Heart Attack

What causes a heart attack in women? Pretty much the same things that cause a heart attack in men. Smoking, high cholesterol levels, high blood pressure, inactivity, excess weight, diabetes, and a family history top the list.<sup>1</sup>

But what signals that a woman may be *having* a heart attack can be quite different. For example, women are more likely than men to describe their chest pain as sharp and burning, and they more frequently report nausea, fatigue, or difficulty breathing, dizziness, or jaw, neck, or upper body pain.<sup>2</sup>

What's more, a woman's symptoms are more likely to be triggered by stress and less likely by exertion.<sup>3</sup>

"I was going through a lot of stress at the time of my heart attack," says Sue Chlebek, 56, of La Porte, Indiana. (See "I Won't be Here to Raise Our Kids," p. 4.)

"It's something I still struggle with. I can control what I put in my mouth and how often I exercise. Controlling stress is harder."

Then there's the notion that only men have to worry about heart disease. "Many women think that it's a man's disease and that it can't happen to them," says Mary Ann Bauman, an Oklahoma City internist and the American Heart Association's 2012 Physician

Heart disease is a "man's disease." A woman is likely to recover as well as a man after suffering a stroke. Men are as likely as women to have debilitating arthritis. Alcohol poses the same risk to men and women. All wrong.

of the Year. So they may ignore the risk.

"Women are far more likely to bug their husbands about getting to the doctor than they are to do the same for themselves," notes Bauman.

"If you ask, the majority of women will say breast cancer is their major risk for a fatal disease," she adds. "And 40,000 American women do die of breast

risk for me.' But not when I had barely turned 50, with a six-year-old."

It also can be difficult for physicians to tell that a woman has heart disease, notes Bauman. "That's because the disease may develop differently in women, and the common diagnostic tests are more accurate in men."

Men are more likely to have obstructive coronary artery disease, where a blood vessel that brings oxygen to the heart muscle gets blocked, says Bauman.

Those kinds of blockages can readily be seen on an angiogram, which tracks blood flow with an X-ray and a dye injected into the bloodstream.<sup>3</sup>

But in women, heart disease is more likely to occur in the tiny blood vessels, which may be no wider than the diameter of a human hair.<sup>4</sup>

The problem isn't that plaque blocks the tiny vessels, but that their inner walls become damaged. The damage can

cause spasms and cut off blood flow to the heart muscle. That's a heart attack.

"Our blood vessels are more than just pipes that blood flows through," Bauman explains. "They're actually organs that expand and contract in response to the need for blood flow."

The type of heart disease that's more common in women, called small artery disease or coronary microvascular dis-

## KNOW THE SYMPTOMS



These symptoms can signal a heart attack in men or women. But women are more likely than men to report upper body discomfort, difficulty breathing, fatigue, or nausea. Stress is also more likely to trigger a heart attack in women.

Source: Office of Women's Health (womenshealth.gov).

cancer each year, which is terrible."

But by age 55, heart disease deaths surpass breast cancer deaths, and after age 75, heart disease kills eight times more women than breast cancer.

"I thought breast cancer was my greatest risk," says Sue Chlebek. "Every year I'd have my mammogram and my pap smear. I always thought, 'Oh, heart disease. When I'm 70 or 80, it may be a



# “I WON’T BE HERE TO RAISE OUR KIDS”



The day Sue Chlebek almost died began uneventfully.

“I had dropped off my kindergarten and

seventh grader at school and had met a friend for a 3-mile walk, as we did a few times a week. I felt a little out of breath while walking, but I thought that was because I was talking too much or hadn’t exercised enough lately.”

But on the drive home, the 50-year-old stay-at-home mom and community volunteer from La Porte, Indiana, felt chest pain. “I thought a heart attack couldn’t happen to me because I was young, didn’t smoke, and never had signs of heart disease.”

And the chest pain came and went. “It wasn’t like an elephant standing on my chest, which is what I had heard a heart attack feels like. It was a sharp pain that was over very quickly.

“I thought, maybe it’s just an anxiety attack.” So when she got home, Sue tried to calm down. But after she felt another sharp chest pain, she rushed to the emergency room. “I thought about calling 9-1-1, but I figured I could get to the hospital before they could get to my house.”

A block from the hospital, she felt another sharp pain. “I ran a red light, parked in front of the ER doors, walked in, and said ‘I think I’m having a heart attack.’”

The last thing she remembers was an ER worker asking about her symptoms. “I never answered because I went into sudden cardiac arrest.”

Sue’s heart had stopped beating. “If I hadn’t run that red light, I would have died in my car.” ER workers gave her CPR and shocked her heart back into a regular rhythm with a defibrillator.

As it turned out, “I had a 95 percent

blockage in an artery that supplies blood to a large area of the heart.” (That artery has been called “the widow maker.”) And the heart attack flipped her heart into an irregular rhythm. “That’s the electrical part, the sudden cardiac arrest. It stopped my heart from pumping blood.”

Doctors inserted a stent to open Sue’s blocked artery and a balloon pump to help her heart pump better. A week later, she was back home. That was five years ago.

Soon after, Sue looked up the statistics on how long people live after a heart attack. “I told my husband, ‘I won’t be here to raise our kids.’” But her cardiologist told her that those numbers included people who didn’t change their lifestyles.

“That’s when I decided to do everything in my power to be there for my kids.” Before the attack, Sue’s blood pressure and blood cholesterol were a little high, and she was about 10 pounds overweight. “I thought I ate a fairly healthy, good old American diet. But my husband and I would each polish off half a large pizza.”

At the prodding of her cardiac rehab, “I jogged for the first time in my life.” At first, she could jog for just a minute at a time. Sue had her heart attack on March 31, 2010. That Thanksgiving she ran her first 5K race.

“And I drastically changed my diet. What you eat has a huge impact on your heart. I switched to mostly fish, chicken, fruits, and vegetables. No fast food, ever. No pop. And I’ve become a huge label reader.”

Sue is now a WomanHeart Champion, which means she’s been trained to lead support groups for other women with heart disease. “I bring in dietitians, pharmacists, and exercise specialists to talk about healthy living.

“It’s really important for women to know the signs and symptoms of heart disease. If you think you’re having a heart attack, you’ve got to call 9-1-1.”

—Interview conducted by Lindsay Moyer.

ease, can’t easily be detected with the usual tests—an angiogram or cardiac catheterization—that work well in men.<sup>5</sup>

“So other tests, such as a stress test, may be necessary to make the diagnosis in women,” says Bauman.

Her bottom line: “Most heart disease is preventable if you pay attention to the risk factors. You can’t change your family history, but you certainly can exercise, lose weight, and eat better.”

## Osteoarthritis

“Women are more likely than men to suffer from osteoarthritis, particularly in the knee,” says Mary O’Connor, director of the Musculoskeletal Center at the Yale School of Medicine and Yale New Haven Hospital.<sup>6</sup>

Why the knee? Researchers aren’t sure. But they do know that women with knee arthritis have weaker muscles than men with knee arthritis, and that muscles help protect joints.

“Men have testosterone, which builds stronger muscles,” says O’Connor. And it’s the quadriceps, the group of muscles at the front of the thigh, that helps the knee absorb the impact of walking and other activities.

Arthritis is also more debilitating in women.

“If you take a group of men who are going to have a knee replacement and you compare them with men of the same age with healthy knees, the guys who are going to have surgery have weaker quad muscles in that leg,” O’Connor explains.<sup>7</sup>

“But when you do the same comparison in women, the difference in quad strength and walking speed between those having knee replacement and those with healthy knees shows that women with knee arthritis have much greater muscle weakness and walking limitations compared to men.

“The way I explain it to my female patients is that arthritis affects you more severely, particularly with more associated muscle weakness.”

Whether you have arthritis or not,



Strengthening your quads can lower your risk of arthritis.

the best thing you can do for your knees, says O'Connor, is to keep from gaining weight.

"Just 10 pounds of extra weight increases the load on the knee by 30 to 60 pounds," she notes. "That may explain why overweight women are four times more likely to develop arthritic knees than women who are a healthy weight."

Arthritis and extra weight create a vicious cycle, says O'Connor.

"When people get knee pain from arthritis, they move less. That causes them to put on weight, which puts more pressure on their knee joints and makes their arthritis worse, which makes them move less." And that makes their arthritis pain even worse.

O'Connor calls exercise "a form of therapy" for arthritis. "If you keep the knee moving, it helps the flow of synovial fluid, which lubricates the joint."

You also need to do resistance exercises to keep your quads strong. And the younger you start, the better.

"Women should look at the longer-term picture. If we want to live well into our 80s or 90s, we have to pay attention to these things in our 40s, 50s, and 60s."

## Stroke

"A man is more likely to have a stroke than a woman of the same age," says Oklahoma City physician Mary Ann

Bauman. "But more women suffer strokes than men because women usually live to an older age, when strokes are more common."

In fact, women are typically four to six years older than men when they have their first stroke.

Unfortunately, many women don't know the signs of a stroke.

In a 2012 American Heart Association survey of 1,205 women, 49 percent didn't know that sudden weakness or numbness in the face or a limb on one side of the body is a warning sign of stroke. What's more, 56 percent didn't know that sudden trouble speaking or understanding speech was a sign, and 77 percent didn't realize that a sudden severe headache could signal a stroke.<sup>8</sup>

Those are the classic warning signs. But women may also have symptoms

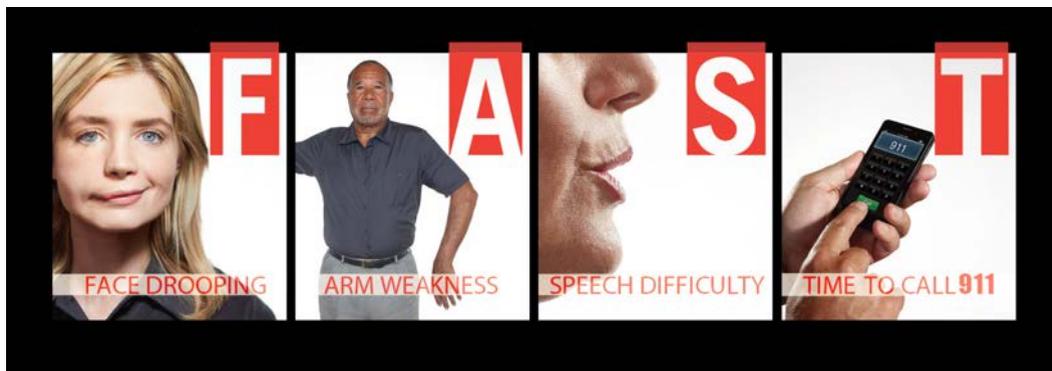
your sister or your colleague. It's about helping everybody in society."

That's because a stroke typically renders people unable to call for help.

"Over 95 percent of the stroke patients I treat didn't call the paramedics," says Hill. "It's the family or friend, or maybe the patient was on the phone with her daughter and all of a sudden her speech goes blurry and unintelligible. It's the daughter who calls 9-1-1."

Not only do women sometimes have different signs of a stroke, they also may fare worse after a stroke.

Women used to be about 25 percent less likely than men to receive tPA (tissue plasminogen activator).<sup>10</sup> That's the drug that can dissolve the blood clots that cause some strokes by blocking blood (and oxygen) from reaching brain cells. Ideally, a patient needs to



**SPOT A STROKE.** Some sudden symptoms—like numbness or weakness, trouble seeing, trouble walking or dizziness, or a bad headache—can mean a stroke in men or women. Other sudden changes—like face and arm or leg pain, hiccups, nausea, tiredness, chest pain, feeling like you can't get enough air, or pounding or racing heartbeat—are more likely to signal a stroke in women.

Source: [womenshealth.gov/publications/our-publications/fact-sheet/stroke.html](http://womenshealth.gov/publications/our-publications/fact-sheet/stroke.html).

that men typically don't have. And those—hiccups, nausea, tiredness, chest pain, shortness of breath, pounding or racing heartbeat, or sudden pain in the face, arm, or leg—can make it harder to diagnose a stroke in a woman.<sup>9</sup>

That's why it's important to know all the symptoms of a stroke.

"It's not usually about helping yourself," notes Michael Hill, a professor of neurology at the University of Calgary in Canada. "It's usually about helping your mother or your grandfather or

get tPA within three hours...and that includes the time it takes to reach the hospital and for the hospital staff to do a CT scan, take blood tests, and rule out other causes of the symptoms.

"We think the disparity between men and women is closing, but there are still studies that do show a difference," says epidemiologist Mathew Reeves of Michigan State University. "So I would be cautious about concluding that this problem is now solved."



# A STROKE OF LUCK



**C**all it the irony of ironies. “I was director of critical care in a primary stroke center hospital,” says

Jennifer Caribardi. “I’m a nurse, and I’m very well versed in stroke and neuro diseases.”

Jennifer was 58 and on her neurological rounds three years ago at that hospital in Kingwood, Texas, when she found herself thinking that “the floor looked very inviting. It also felt like I had slept in my glasses and they were a little cockeyed; I was seeing things funny.”

Jennifer wanted to go back to her office, but her nurses insisted on taking her blood pressure, which was very high. “I was irritated because I didn’t want to believe anything was wrong with me. I didn’t have time to have a stroke!” But her co-workers took her to the emergency room.

What she didn’t tell them was that the night before, she had felt very dizzy. “I went to bed instead of the ER. I knew that was wrong, but I was going down the river of denial.”

In the ER, Jennifer’s vision got worse. “I had a girlfriend sitting with me, and I kept asking her, ‘Is that cabinet crooked?’ ‘What’s wrong with that door?’”

The ER staff was trying to figure out what was wrong, when “all of a sudden the left side of my face felt like it fell off.” When Jennifer touched her face, it was numb. When she tried to talk, “nothing came out.” And when she was being moved from a stretcher to a bed, “my left arm and left leg wouldn’t listen to me. It was very frightening.” That’s when she knew. “I was having a stroke.”

Doctors couldn’t administer the clot-dissolving drug tPA until they brought Jennifer’s blood pressure

down. Luckily, they were able to do that within three hours. After that window, tPA may not work as well.

Within 45 minutes, Jennifer was able to move her left side. “And I was able to put some sentences together.” But she was still having trouble with language. “I couldn’t name things immediately. I had to think about what they did. Like I couldn’t think of the word ‘table,’ but I knew that it was a flat surface with four legs that you eat off of.” Even today, “especially if I’m tired, that still can happen.”

A few days after she was discharged from the hospital, “I still had some balance problems, and my left leg every once in a while just wanted to drag unless I really concentrated on it. And I continued to have speech issues.”

But after working with speech, physical, and occupational therapists for two weeks, Jennifer recovered most of what she had lost. Still, there were bumps along the way when she returned to work.

“I thought I was invincible. But fatigue was a huge issue, and when I got tired, I had difficulties with speech and walking. And I didn’t see any vowels when I was reading.” More speech therapy seems to have taken care of that. “And I was angry and depressed, and went through the ‘Why me’s.’”

Jennifer was lucky. “I got the clot-buster early, which is why we want people to dial 9-1-1. Everybody kept telling me, ‘You got the tPA in time. You’re going to get it back.’ And for the most part, I have.

“I’m thrilled to be back to work...not my old job, because that was too taxing. I’m in a job where I make sure that our stroke victims get the right kind of care.” And she has time for walking, swimming, and bike riding. “It took me a long time because I had balance issues, but I’m back on a bicycle.”

Jennifer’s message: “If you have vision problems, speech problems, weakness problems, call 9-1-1. Don’t wait to see if it goes away.”

—Interview conducted by Lindsay Moyer.

And whether women get clot-busting drugs is critical. “When both men and women get tPA, the women do as well as the men,” says Hill. “But among men and women who don’t get tPA, women fare worse. We don’t know why.”

And tPA isn’t the right treatment for all strokes. “In our hospital, we treat only about 25 percent of our strokes with tPA or other clot-dissolving procedures,” says Hill. “So on average, women would fare worse than men in a majority of cases.”

In a registry that tracked 1,370 stroke patients for a year, women had worse outcomes than men—they were less mobile, less able to take care of themselves or do their usual activities, and they reported more depression, anxiety, and pain.<sup>11</sup>

“These are reasons why women need to lower their risk factors for stroke, which is the leading preventable cause of disability,” says Bauman.

To do that, the American Stroke Association recommends keeping a lid on blood pressure and cholesterol, staying at a healthy weight, exercising regularly, eating a DASH diet (to lower blood pressure), and limiting alcohol to one drink a day (two a day for men).<sup>12</sup>

“For every 10-point drop in your systolic blood pressure, which is the top number,” says Bauman, “you lower your risk of stroke—and heart disease—by 30 to 50 percent.”

The American Heart Association also recommends that all women over age 75 get screened for atrial fibrillation, notes Bauman, who is a spokesperson



A veggie-rich DASH diet can lower the risk of stroke and heart attacks (see p. 11).

for the association. Atrial fibrillation is an irregular heartbeat in the upper heart chambers. After age 75, it's more common in women, and it increases the risk of stroke fourfold.<sup>13</sup>

"Sometimes my patients tell me, 'Okay, if I die, I die,'" says Bauman. "But I tell them, 'You don't always die. You sometimes wind up not living very well.' Women need to recognize that about strokes."



Want to keep your bones strong? Walk briskly, run, hike, dance, climb steps.

## Osteoporosis

"A hip fracture is a terrible thing to have happen to you toward the end of your life," says Yale University's Mary O'Connor.

"It's miserable for the patient, it's miserable for the family, and sometimes it's the straw that breaks the camel's back."

Women between the ages of 70 and 79 who break a hip are twice as likely to die within a year of the fracture than women of the same age who didn't break their hip, notes O'Connor.

And women are more likely to fracture a hip than men.<sup>14</sup> Men also fracture their hips, but typically at an older age.

"It's a race to keep your bones strong enough so they don't fracture before you die," says O'Connor.

Peak bone mass for both women and men occurs in the early 20s. That's the strongest your bones will ever be.

"We're all on a downward slope after that," explains O'Connor. "We lose bone,

bone strength, bone density."

Women start out behind men because they have lower peak bone mass. "Men are genetically programmed to have bigger and stronger bones," says O'Connor.

When women hit menopause, their bone loss accelerates and they lose bone faster than men do as they age. That's why more women end up with "fragility" fractures like a broken hip.

"We tend to think of bone as just inert, but it's living tissue," says O'Connor.

"We can work to minimize the decline in bone mass with weight-bearing exercises, calcium, and vitamin D."<sup>15</sup> Eating a diet rich in fruits and vegetables may also help by neutralizing acid in the body (see p. 9).

"And then when you're older, see your primary care doctor and get a bone density test," says O'Connor. If it's low, a prescription drug may help slow the loss of bone.

## Alcohol

"A woman reaches a higher blood alcohol level than a man after drinking the same amount of alcohol, even if they're the same height and weight," says George Koob, director of the National Institute on Alcohol Abuse and Alcoholism at the National Institutes of Health.

That's mostly because women's bodies contain less water, notes Koob. And less water means a higher concentration of alcohol in their blood and in their cells after drinking the same amount as men.

But it's not just a matter of becoming impaired more easily. Women who drink regularly are at increased risk of breast cancer.

In one of the best studies, Harvard researchers tracked more than 105,000 nurses from 1980 to 2008. For every one drink per day the women had, their breast cancer risk rose by 10 percent.<sup>16</sup>

"It's the alcohol content that matters," says Koob. "We don't see any dif-

## BOTTOM LINE

- Eat a DASH-like diet that's rich in fruits and vegetables, that includes low-fat dairy, beans, nuts, and seafood, and that's low in sugar and salt (see p. 11).
- Do weight-bearing exercise at least 30 minutes a day and strength training 2 or 3 times a week.
- Get enough vitamin D. That's 600 IU a day for adults up to age 70 and 800 IU a day if you're older.
- Eat a DASH-like diet to get enough calcium. Take a supplement only to reach 1,000 mg a day or 1,200 mg if you're over 50 (see Dec. 2014, cover story).
- Get your blood pressure and blood sugar checked. Ask your doctor if you should get your bone density checked.
- If you're over 75, get screened for atrial fibrillation.
- Limit alcohol to as little as possible.

ference among wine, beer, or distilled spirits in their health effects."

And drinking can have more consequences for women.

"Females tend to suffer more toxicity associated with alcohol across the board," says Koob. "It makes them more susceptible than males to alcohol-induced liver inflammation, cardiovascular disease, accidents, and sexual assault."

Why are women's livers more sensitive to alcohol?

"Truthfully, we don't know," says Koob. "But it's a high priority for research at NIAAA." 🍷

<sup>1</sup> [nhlbi.nih.gov/health/health-topics/topics/hd](http://nhlbi.nih.gov/health/health-topics/topics/hd).

<sup>2</sup> [nhlbi.nih.gov/health/health-topics/topics/hdw/signs](http://nhlbi.nih.gov/health/health-topics/topics/hdw/signs).

<sup>3</sup> *Circulation* 130: 350, 2014.

<sup>4</sup> *J. Am. Coll. Cardiol.* 47 (3 Suppl): S21, 2006.

<sup>5</sup> *Am. J. Manag. Care.* 7: 959, 2001.

<sup>6</sup> *Osteoarthritis Cartilage* 13: 769, 2005.

<sup>7</sup> *J. Bone Joint Surg. Am.* 89: 2327, 2007.

<sup>8</sup> *Stroke* 45: 1180, 2014.

<sup>9</sup> [womenshealth.gov/publications/our-publications/fact-sheet/stroke.html](http://womenshealth.gov/publications/our-publications/fact-sheet/stroke.html).

<sup>10</sup> *Stroke* 40: 1743, 2009.

<sup>11</sup> *Neurology* 82: 922, 2014.

<sup>12</sup> *Stroke* 45: 3754, 2014.

<sup>13</sup> *Stroke* 45: 1545, 2014.

<sup>14</sup> *Clin. Orthop. Relat. Res.* 469: 1900, 2011.

<sup>15</sup> [nof.org/learn/prevention](http://nof.org/learn/prevention).

<sup>16</sup> *JAMA* 306: 1884, 2011.



## Thrifty or Spendthrift?

**S**ome people have more trouble losing weight than others. New clues may explain why. Scientists studied 12 obese people who were housed in an inpatient unit where they could eat only what the researchers provided. After three weeks—which included one day of fasting and one day of overfeeding—the participants had their calories cut in half for six weeks. People whose metabolism (calorie burning) slowed the least on their fast day lost the most weight on the

low-calorie diet. The researchers called them the “spendthrifts.” In contrast, those whose metabolism slowed the most on their fast day lost the least weight. They were dubbed the “thrifty.” The thrifty also burned fewer extra calories than the spendthrifts on the day they were overfed.

**What to do:** Don’t blame yourself if you take longer to lose weight than others. It’s not clear why some people are “thriftier.” They may have less calorie-burning “brown fat,” they may fidget less, or their metabolism may have slowed from dieting in the past. You can’t assume it’s because they cheated on their diets.

*Diabetes* 2015. doi:10.2337/db14-1881.

## Could Citrus Fruit Cause Skin Cancer?

**P**eople who consume more orange juice and grapefruit have a higher risk of melanoma skin cancer, says a new study.

Researchers tracked roughly 64,000 female nurses and 42,000 male health professionals for roughly 25 years. Those who reported drinking orange juice at least five times a week had about a 22 percent higher risk of melanoma than those who drank orange juice less than once a week.

Those who ate grapefruit at least once a week had a 30 percent higher risk than those who never ate grapefruit. The risk was 40 percent higher in those who ate grapefruit at least three times a week.

Oddly, people who ate oranges or drank grapefruit juice had no increased risk.

The authors noted that citrus fruits, especially grapefruit, contain psoralens, which are deposited in the skin, where they can interact with ultraviolet light to

promote melanoma. European companies stopped using psoralens as “tanning activators” in 1996, after studies reported that people who used psoralen-containing sunscreens had a higher risk of melanoma. (They’re not used in sunscreens here.)

**What to do:** To play it safe, eat a variety of fruit. It’s too early to know if you should stop eating grapefruit. Ditto for orange juice (though you’re better off eating fruit than drinking any juice).

*J. Clin. Oncol.* 2015. doi:10.1200/JCO.2014.57.4111.



## Sugars & Uric Acid

**P**eople with high blood levels of uric acid have a higher risk of type 2 diabetes, and added (refined) sugars may bear some of the blame.

Danish researchers randomly assigned 47 overweight or obese people who didn’t have diabetes to drink about a quart a day of regular cola, reduced-fat milk, diet cola, or mineral water. The regular cola (it was Coca-Cola) contained 25 teaspoons of ordinary sugar, not high-fructose corn syrup.

After six months, uric acid levels climbed (by 15 percent) only in the sugar-sweetened-cola drinkers.

**What to do:** Shoot for no more than 6 teaspoons of added sugars a day if you’re a woman, and 9 teaspoons if you’re a man. Minimize sugar-sweetened beverages.

*Eur. J. Clin. Nutr.* 2015. doi:10.1038/ejcn.2015.95.

## B-12 & the Brain

**S**evere vitamin B-12 deficiency can cause irreversible neurological damage. In some people, it can mimic dementia. But taking the vitamin doesn’t seem to prevent those problems in people who are only moderately deficient.

British scientists randomly assigned roughly 200 people aged 75 or older who had moderate vitamin B-12 deficiency to take either B-12 (1,000 micrograms a day) or a placebo. None of the people had anemia or symptoms of severe B-12 deficiency like tingling, numbness, difficulty walking, or memory loss.

After one year, those who got the B-12 did no better on memory or other cognitive tests and had no better nerve function than those who got the placebo.

**What to do:** Anyone aged 50 or older should get B-12 (at least 2.4 mcg a day) from a multivitamin or fortified food (like cereal), in case a lack of stomach acid makes them unable to absorb the B-12 in foods (dairy, meat, poultry, and fish). If you have symptoms of B-12 deficiency, get your blood levels tested. 🍷

*Am. J. Clin. Nutr.* 2015. doi:10.3945/ajcn.115.110775.

# 2 LITTLE?

## 2 nutrients to get more of

BY BONNIE LIEBMAN

**T**oo much salt. Too much sugar. Too much saturated fat. We often hear about what we get *too much* of. But we also get *too little* of some nutrients. Here are two that you're better off getting from food than from a pill.

### POTASSIUM

Too much salt raises blood pressure. Most people know that. But far fewer know that getting enough potassium *lowers* blood pressure.

"The evidence is very strong and very consistent," says Paul Whelton, a hypertension expert and professor of epidemiology at the Tulane School of Public Health and Tropical Medicine.

"A higher potassium intake may blunt the effect of excess salt on blood pressure." And most Americans get too much salt.

In 1997, Whelton combined the results of 29 trials that randomly assigned people to get high or low levels of potassium, largely from supplements.<sup>1</sup> Recent meta-analyses have echoed his findings.<sup>2,3</sup>

"They found a 3 to 5 point reduction in systolic blood pressure in those who got a potassium supplement," he notes. "That's not to be sneezed at."

In people with hypertension who reached a total of 3,500 to 4,700 mg a day of potassium, the drop was 7 points.<sup>2</sup>

"Potassium's effect is bigger in people who have higher blood pressure, bigger in older people, and bigger in people who are consuming a lot of salt," Whelton explains.

Potassium doesn't just lower blood pressure. It may also make blood vessels

less stiff, so they expand as the heart pumps blood through them.<sup>4</sup>

What's more, "a higher potassium intake is very closely linked to a lower risk of stroke," says Whelton.

In a recent meta-analysis of nine studies, people who consumed the most potassium (3,500 to 4,700 mg a day) from foods had a 30 percent lower risk of stroke.<sup>2</sup>

With evidence mounting, the World Health Organization and the American Heart Association have advised people to get potassium from foods, especially fruits and vegetables.<sup>5,6</sup> (See "Potassium on Tap," p. 10.)

"Citrus fruits, bananas, cantaloupe, prunes, apricots, raisins, and kiwi are all high in potassium," notes Whelton, "as are all the dark green leafy vegetables, broccoli, beans, peas, squash, and tomatoes. And potato is a great source if you eat the skin."

Milk and yogurt are also good sources, he adds, as are nuts, soy foods, salmon, cod, flounder, and sardines.

The daily target is 4,700 milligrams, according to the National Academy of Medicine. But more than 95 percent of Americans get less than that.<sup>7</sup>

"The average is just over 3,000 mg a day for men and 2,300 mg a day for women," says Whelton. "If we could

just bump that up by 1,500 mg a day, we'd be doing pretty well."

In theory, you could get potassium from a supplement or a (potassium chloride) salt substitute. You could also get it from foods that replace some salt (sodium chloride) with potassium chloride. Odds are, more of those foods will start popping up on shelves if the Food and Drug Administration goes ahead with its proposal to require potassium numbers on Nutrition Facts labels.

"Supplements are extraordinarily safe as long as you don't have kidney disease and aren't taking a drug that interferes with potassium excretion in the kidney," says Whelton. "If you're taking an ACE inhibitor for high blood pressure, for example, you should consult your physician."

But there's no need to talk to your doctor about eating more fruits and vegetables. And getting potassium from produce has another advantage: it may protect your bones. Why?

"Potassium-rich fruits and vegetables generate alkali in the body," says Bess Dawson-Hughes, director of the Bone Metabolism Laboratory at the Jean Mayer USDA Human Nutrition Research Center on Aging at Tufts University.

In fact, it's not the potassium, but the citrate, malate, or other compounds that the potassium in fruits and vegetables is bound to, that makes the body produce alkali.<sup>8</sup> Why does alkali matter?

"If you don't have adequate alkali to balance the acid load from the grains and protein in a typical American diet, you lose calcium in the urine and you have bone loss," says Dawson-Hughes.

"When the body has more acid than it is easily able to excrete, bone cells get a signal that the body needs to neutralize the acid with alkali," she explains. "And bone is a big alkali reservoir, so the body breaks down some bone to



The potassium in fruits and vegetables may prevent strokes, and their citrate may strengthen bones.

## Potassium on Tap

Most people get less potassium than experts recommend (4,700 mg a day). Go for fruits and vegetables so you can eat bigger servings—the ones below are small—without piling on calories.

	Calories	Potassium (mg)
Baked potato with skin (1 small)	130	750
Clams (4 oz. cooked)	170	710
Beet greens (½ cup cooked)	20	650
Halibut (4 oz. cooked)	130	600
Yellowfin tuna (4 oz. cooked)	150	600
Sweet potato with skin (1 small)	130	540
Wild Coho salmon (4 oz. cooked)	160	490
Swiss chard (½ cup cooked)	20	480
Lima beans (½ cup cooked)	110	480
Acorn squash (½ cup cooked)	60	450
Farmed Atlantic salmon (4 oz. cooked)	230	440
Non-fat plain yogurt (6 oz.)	100	430
Spinach (½ cup cooked)	20	420
Banana (1)	110	420
Low-fat plain yogurt (6 oz.)	110	400
Dried apricots (¼ cup)	80	380
Fat-free milk (1 cup)	80	380
Cantaloupe (¼)	50	370
Lentils (½ cup cooked)	120	370
Pinto beans (½ cup cooked)	120	370
Tomato sauce (½ cup)	30	360
Kidney beans (½ cup cooked)	110	360
Avocado (½ cup)	120	360
Great Northern beans (½ cup cooked)	100	350
Prunes (¼ cup)	110	350
Navy beans (½ cup cooked)	130	350
Spinach (2 cups raw)	10	340
Shelled edamame (½ cup cooked)	100	340
Pacific cod (4 oz. cooked)	100	330
Tomato paste (2 Tbs.)	30	320
Pistachios (¼ cup)	170	310
Low-fat fruit yogurt (6 oz.)	170	300
Tomato (1)	20	290
Butternut squash (½ cup cooked)	40	290
Peach or nectarine (1)	60	290
Raisins (¼ cup)	110	270
Boston or bibb lettuce (2 cups raw)	10	260
Beets (½ cup cooked)	40	260
Brussels sprouts (½ cup cooked)	30	250
Artichoke hearts (½ cup cooked)	50	240
Orange (1)	70	240
Apple (1)	100	200
Grapes (1 cup)	60	180

Sources: USDA and manufacturers.

add alkali to the system.”

Over time, those minute losses of bone and calcium can lead to osteoporosis, or brittle bones.

Unlike the potassium citrate, malate, etc., in fruits and vegetables, the potassium *chloride* in many supplements doesn't stem bone loss.

How much fruit or vegetables do you need?

“In our recent trial, we identified people who were in the neutral range for net acid excretion—that is, they weren't excreting acid or alkali, indicating that they were in pretty good balance,” notes Dawson-Hughes.<sup>9</sup>

“We estimated that they were getting a little over 8 servings of fruits and vegetables and 5½ servings of grain a day. After rounding, you come up with half as many servings of grains as fruits and vegetables.

“That's close to the fruit-and-vegetable-to-grain serving ratio in the DASH diet. And when other researchers fed people a DASH diet, they saw reductions in bone loss markers similar to ours.”<sup>10</sup>

(The DASH—Dietary Approaches to Stop Hypertension—study, which was designed to lower blood pressure, is rich in fruits and vegetables, low in added sugars and refined grains, and includes fish, beans, nuts, oils, and low-fat dairy.)

“The ratio was just the reverse in people in our trial who had the most acid-producing diets,” adds Dawson-Hughes. “They ate 5½ servings of fruits and vegetables and just over 7 servings of grains.”

Just remember: a “serving” of grain is smaller than a restaurant bagel, tortilla, pizza crust, muffin, or bowl of pasta, rice, or cereal. Many restaurants serve not half a cup, but 3 or 4 cups, of spaghetti.

Protein also produces acid in the body, but people in the study who consumed more meat, poultry, fish, or dairy didn't excrete more acid than those who ate less.

“So we didn't have to say that older people should eat less protein, which is important for

their bone and muscle,” says Dawson-Hughes. “Instead, we can just say, ‘Add some fruit and vegetables and drop some grains.’”

## MAGNESIUM

People know that losing excess weight and eating less sugar may lower their risk of type 2 diabetes. But few know that getting enough magnesium may also ward off the disease.

“In one observational study after another, we see that a higher magnesium intake is associated with a lower incidence of type 2 diabetes,” says Adela Hruby, a research fellow at the Harvard School of Public Health.

For example, when she and her colleagues followed roughly 2,500 participants in the Framingham Heart Study for seven years, those who consumed the most magnesium (around 400 milligrams a day) had about half the risk of type 2 diabetes of those who consumed



Want more magnesium? Try more beans and greens.

the least (around 240 mg).<sup>11</sup>

“We looked at people who were initially healthy and also at people who were prediabetic, so they were at higher risk,” explains Hruby. “Magnesium appeared to be particularly beneficial for those with higher than normal blood sugar when they entered the study.”

And it's not just Framingham. After looking at 13 studies on more than 536,000 people, researchers estimated that the risk of diabetes was 14 percent lower for every 100 mg of magnesium the people consumed.<sup>12</sup>

But something else about people who

## The Bottom Line

A diet based on the DASH & OmniHeart studies is rich in potassium (4,700 mg) and magnesium (500 mg). Bonus: it protects your arteries (see March 2015, p. 1). Here's a 2,100-calorie version.

### Daily Servings

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

eat more magnesium could explain why they have a lower risk of diabetes. So scientists do trials to see if giving people magnesium lowers their blood sugar or insulin.

“In some studies on people who have metabolic syndrome or prediabetes, magnesium lowers fasting blood glucose or insulin or HbA1c,” notes Hruby. (Hemoglobin A1c is a long-term measure of blood sugar levels.)

But not all studies agree.<sup>13</sup> What's more, “there haven't been sufficient numbers of trials in humans,” says Hruby. “That is really the bottom line.”

How might magnesium help prevent diabetes? “It might help beta-cells in the pancreas secrete insulin,” says Hruby. “And it may also make cells more sensitive to insulin, so that your muscles and other tissues respond better to it.”

Millions of people get less magnesium

than experts recommend.<sup>7</sup>

“Fifty percent of the country is underconsuming magnesium,” notes Hruby. But that doesn't mean they're deficient. “We don't have great data on magnesium levels in the body,” she adds.

Fortunately, most magnesium-rich foods are healthy. And a growing body of evidence suggests that people who get more magnesium have a lower risk of stroke and heart disease.<sup>14,15</sup>

“Magnesium is at the heart of the chlorophyll molecule, so every leafy green has it,” explains Hruby. “Whole grains and beans are also good sources. My favorite sources happen to be chocolate and coffee.”

In fact, an 8 oz. cup of coffee has only 7 mg. But a 1 oz. shot of espresso, which is more concentrated, has 24 mg. (Cappuccinos, lattes, mochas, and macchiatos are typically made with espresso.)

And taking a magnesium supplement has a drawback: more than 350 mg a day from pills may cause diarrhea. “You can't get too much magnesium from foods,” adds Hruby.

What's more, if it's not magnesium but something else in beans, leafy greens, whole grains, and coffee that protects your health, you won't get it from a pill. 🍌

<sup>1</sup> JAMA 277: 1624, 1997.

<sup>2</sup> BMJ 2013. doi:10.1136/bmj.f1378.

<sup>3</sup> J. Hum. Hypertens. 17: 471, 2003.

<sup>4</sup> Hypertension 55: 681, 2010.

<sup>5</sup> who.int/nutrition/publications/guidelines/potassium\_intake\_printversion.pdf.

<sup>6</sup> Stroke 45: 3754, 2014.

<sup>7</sup> www.health.gov/dietaryguidelines/2015-BINDER/meeting2/docs/refMaterials/Usual\_Intake\_072013.pdf.

<sup>8</sup> J. Clin. Endocrinol. Metab. 94: 96, 2009.

<sup>9</sup> J. Bone Min. Res. 2015. doi:10.1002/jbmr.2554.

<sup>10</sup> J. Nutr. 133: 3130, 2003.

<sup>11</sup> Diab. Care 37: 419, 2014.

<sup>12</sup> Diab. Care 34: 2116, 2011.

<sup>13</sup> Diab. Med. 23: 1050, 2006.

<sup>14</sup> Int. J. Cardiol. 196: 108, 2015.

<sup>15</sup> J. Am. Heart Assoc. 2: e000114, 2013.

## Mining Magnesium

Women should shoot for 320 milligrams of magnesium a day. Men should aim for 420 mg. Rule of thumb: go for beans, greens, whole grains, and nuts.

	Calories	Magnesium (mg)
Pumpkin seed kernels (¼ cup)	180	190
Brazil nuts (¼ cup)	220	125
Kellogg's All-Bran Original cereal (½ cup)	80	100
Almonds (¼ cup)	210	95
Cashews (¼ cup)	200	90
Spinach (½ cup cooked)	20	80
Swiss chard (½ cup cooked)	20	75
Peanuts (¼ cup)	210	65
Black beans (½ cup cooked)	110	60
Quinoa (½ cup cooked)	110	60
Dark chocolate (1.4 oz.)	220	60
Peanut butter (2 Tbs.)	190	55
Hazelnuts (¼ cup)	210	55
Beet greens (½ cup cooked)	20	50
Shelled edamame (½ cup cooked)	100	50
Navy beans (½ cup cooked)	130	50
Yellowfin tuna (4 oz. cooked)	150	50
Spinach (2 cups raw)	10	45
Oat bran (½ cup cooked)	40	45
Black-eyed peas (½ cup cooked)	100	45
Great Northern beans (½ cup cooked)	100	45
Pinto beans (½ cup cooked)	120	45
Semisweet chocolate (1.4 oz.)	190	45
Walnuts (¼ cup)	200	45
Firm tofu (4 oz.)	80	40
Brown rice (½ cup cooked)	110	40
Kidney or Lima beans (½ cup cooked)	110	40
Garbanzo beans (½ cup cooked)	130	40
Sunflower seed kernels (¼ cup)	190	40
Lentils (½ cup cooked)	120	35
Pistachios (¼ cup)	170	35
Okra (½ cup cooked)	20	30
Bulgur (½ cup cooked)	80	30
Oatmeal (½ cup cooked)	80	30
Post Shredded Wheat Original (½ cup)	90	30
Haddock (4 oz. cooked)	100	30
Non-fat plain yogurt (6 oz.)	100	30
Low-fat plain yogurt (6 oz.)	110	30
Halibut (4 oz. cooked)	130	30
Fat-free milk (1 cup)	80	25
Canned light tuna in water (4 oz.)	100	25
Whole wheat bread (1 slice, 1 oz.)	70	20
Low-fat fruit yogurt (6 oz.)	170	20

Daily Value (DV): 400 mg.

Sources: USDA and manufacturers.



# A New Leaf on Life

BY KATE SHERWOOD

Here are three recipes for leafy greens that may not be staples in your kitchen. (Tuscan kale is also called dinosaur or lacinato kale or cavolo nero.) You can always substitute spinach for bok choy, baby romaine for mâche, or regular kale for Tuscan. 🍴

Got a question or suggestion? Write to Kate at [healthycook@cspinet.org](mailto:healthycook@cspinet.org).



## Baby bok choy

is a crisp, mild cabbage. Use it raw in salads, lightly steamed, or quickly stir-fried.



## Mâche is a

mild, slightly sweet lettuce. The leaves are delicate, so only dress them just before serving.



## Tuscan kale

(along with regular kale) is one of the few greens that can sit after being dressed. (It may even taste better that way.)

## Mâche & Mushroom Salad

- 1 hard-boiled egg, yolk and white separated
- 2 tsp. whole-grain mustard
- 2 tsp. white wine vinegar
- 1/3 tsp. kosher salt
- 2 Tbs. extra-virgin olive oil
- 6 button mushrooms, thinly sliced
- 8 cups mâche (4-5 oz.)

Mince the egg white. ● In a medium bowl, mash the egg yolk into a paste. Whisk in the mustard, vinegar, salt, oil, and 1 Tbs. of water until the dressing becomes creamy. ● Arrange the mushrooms and mâche on 4 plates. Drizzle with the dressing. Sprinkle on the egg white.

Serves: 4 | Total Time: 15 minutes 🕒

Per serving (2 cups): calories 100 | carbs 3 g  
total fat 9 g | sat fat 1.5 g | sodium 125 mg  
fiber 1 g | protein 3 g



## Stir-Fried Baby Bok Choy

- 1 Tbs. finely minced ginger
- 1 tsp. reduced-sodium soy sauce
- 1/2 tsp. balsamic vinegar
- 1 tsp. dark toasted sesame oil
- 1 Tbs. peanut oil
- 3 cloves garlic, thinly sliced
- 1 lb. baby bok choy, chopped

In a small bowl, mix together the ginger, soy sauce, vinegar, and sesame oil. ● Heat the peanut oil in a large skillet until shimmering hot. Stir-fry the garlic for 30 seconds. Add the bok choy and stir-fry until tender-crisp, 1-2 minutes. ● Remove from the heat. Toss with the soy sauce mixture.

Serves: 4 | Total Time: 10 minutes 🕒

Per serving (1 cup): calories 60 | carbs 4 g  
total fat 4.5 g | sat fat 0.5 g | sodium 120 mg  
fiber 1 g | protein 2 g



## Tuscan Kale Caesar Salad

- 1 Tbs. fresh lemon juice
- 1 clove garlic, finely minced
- 1 tsp. dijon mustard
- 1/4 tsp. kosher salt
- 3 Tbs. mayonnaise
- 3 Tbs. extra-virgin olive oil
- 1 bunch Tuscan kale (10-12 oz.), stems removed and discarded, leaves thinly sliced
- 1/4 cup shredded parmesan cheese
- Freshly ground black pepper

In a large bowl, whisk together the lemon juice, garlic, mustard, salt, mayonnaise, and oil. ● Toss the kale with the dressing. Sprinkle with the parmesan cheese and season with black pepper.

Serves: 4 | Total Time: 10 minutes 🕒

Per serving (2 cups): calories 230 | carbs 8 g  
total fat 20 g | sat fat 3.5 g | sodium 320 mg  
fiber 2 g | protein 4 g

# BEST THING SINCE...

What's new with bagels, buns, wraps, and more

BY JAYNE HURLEY & BONNIE LIEBMAN

**P**anera Bread and Dunkin' Donuts sell flatbread sandwiches. Starbucks and McDonald's offer wraps. At Extreme Pita and Pita Pit, bread slices are nowhere to be found.

In the supermarket, bagels, buns, naan, tortillas, English muffins, and other sliced-bread stand-ins are all over the bread aisle. Here's how to find the best ones. That means avoiding an oversized serving, refined grains, and too much salt.

Information compiled by Paige Einstein.

## English Muddle



Thomas' rules the English muffin aisle. But don't be conned

by its tricky labels.

The company knows that whole grains are in. (They're richer in unprocessed fiber, magnesium,

zinc, potassium, and vitamins E and B-6, and they may lower the risk of heart disease and stroke.) So Thomas' makes some of its English muffins sound whole-grainier than they are. Here's what the names really mean:

■ **Original Made With Whole Grain.** "Made with whole grain" is code for "made with *very little* whole grain." They've got more white flour and water than whole wheat flour.

■ **Multi Grain.** "Multi grain" also means more white than whole wheat flour. And they've got more salt than rye, corn, brown rice, oats, triticale, barley, or millet.

■ **100% Whole Wheat.** Finally! At least they're whole grain. But the 220 mg of sodium and sucralose mean no Best Bite.

You're better off with 100% whole wheat English muffins from Nature's Own, Pepperidge Farm, Trader Joe's, or Whole Foods. All keep a lid on calories (120 to 140) and sodium (200 mg or less) without skimping on taste.

Or check the freezer case for Food For Life Ezekiel 4:9 Sprouted Grain or Cinnamon Raisin English Muffins. Their nutty, sprouted-grain texture makes them well worth the 160 calories. (The Nutrition Facts label gives calories, sodium, etc., for half a muffin. Seriously?)

## Think Thin

The average American ate about 450 calories more per day in 2010 than in 1970, when the obesity epidemic took off.

And much of the increase has come from eating flour, not just in breads but in pizza crusts, burritos, pasta, muffins, paninis, etc. (Most of that flour is white. But even if we switched to whole grains, we wouldn't be cutting calories.)

A case in point: Pepperidge Farm's line of P.F. Deli "unique, premium deli rolls" weighs in at about 3 oz. a roll and creeps up to 230 to 290 calories (plus 350 to 540 milligrams of sodium). La Brea Ciabatta Rolls hit 4.5 oz., which helps explain their 340 calories (and 900 mg of sodium).

Solution: Think thin. Skinny buns are becoming as fashionable as skinny jeans.

Flatter buns, like Nature's Own Sandwich Rounds and Trader Joe's Slims, have only about 100 calories, thanks to their smaller size (1½ oz.) and processed fibers like oat and sugarcane, which replace some flour. So do Arnold Sandwich Thins (sold as Oroweat in the West and Brownberry in the Midwest). Ditto for Fiber One 90 Calorie Thin Sandwich Rolls and Pepperidge Farm Deli Flats (both of which contain the questionable sweetener sucralose).

Heads up: Some flats or thins—Ozery Bakery Multi Grain & Chia Ciabatta Thins and Multi Grain Original OneBuns, for example—hover around 200 calories.



100% whole wheat... and only 100 calories.



## Wrap 'n Roll

Tumaro's Low-in-Carb Wraps are "a healthy alternative to traditionally higher-carb and calorie-laden sandwich breads."

Healthy? It depends.

■ **Calories.** Tortillas can hit 300 calories a pop at restaurants like Chipotle, and 200 calories at the grocery store...unless you pick up a pack of "low carb," "mini," "small," or "fajita"-sized wraps. Then you're talking 100 calories or less.

"Low carb" means fewer calories because companies replace some of the flour with processed fibers from oats, wheat, soy, and/or cellulose. That fiber may not keep you regular or cut your risk of heart disease or diabetes, but it does cut the calories (and keep the wraps moist).

■ **Whole grains.** Pretty much every brand has a whole wheat version. Just don't forget to check the ingredient list. La Tortilla Factory Organic Whole Wheat Tortillas and La Banderita Whole Wheat Soft Taco Tortillas, for example, also contain white flour.

■ **Protein.** "As Much Protein as Two Eggs," says Flatout's online description of its new ProteinUP flatbreads, which promises a "lasting energy boost" and "long-lasting satisfaction" from the flatbreads' added beans.

While it's not clear that extra protein will help fill you up, slim you down, or give you more energy, it may help prevent muscle loss (see November 2014, cover story).



Go low-carb to keep the calories at 100 or less.

Just don't kid yourself into thinking that you're eating a bean pancake. ProteinUPs get more of their 12 grams of protein from wheat gluten than from beans.

Other low-carb wraps hit 5 grams of protein (1½ oz. wraps) or 8 or 9 grams (2 oz. wraps). Again, it comes from added wheat gluten, wheat protein isolate, or soy flour.

■ **Veggies!** Green Leaf Foods Raw Wraps ditch the flour altogether. They blend apple, spinach or kale, quinoa, and psyllium into an herbaceous, slightly sweet, 70-calorie wrap with only around 30 mg of sodium. And each comes with 70 to 110 percent of a day's vitamin A, two to four days' worth of vitamin K, and 25 to 80 percent of a day's vitamin C. Get them from Amazon or rawwraps.org.

Just don't confuse veggie-packed Raw Wraps with impostors like Olé Xtreme Wellness! Spinach & Herbs Tortilla Wraps, which have a smidgen of "spinach seasoning" (spinach powder, Yellow 5 and Blue 1 food dyes, natural and artificial flavors, etc.). And Tumaro's Garden Veggie Low-in-Carb Wraps have no veggies—just yellow and blue food dyes to make you *think* they're there.



A real veggie wrap.

■ **Gluten-free.** To dodge the arsenic in rice, leave gluten-free tortillas on the shelf. Most are made with rice flour. Instead, try corn tortillas, which are often whole grain, nearly salt-free, and a calorie bargain (about 50 calories each), thanks to their small size.

## Pita Perfect

It's not hard to find 100% whole wheat pita (pocket) breads. The catch: some have phony serving sizes.

Thomas' Sahara and Toufayan Pita were the only ones we found that listed Nutrition Facts for an entire round. Arnold, Brownberry, and Oroweat Pocket Thins,



A classic pita. Or try Toufayan Smart Pockets.

Kangaroo Salad Pockets, Toufayan Smart Pockets, and Trader Joe's Apocryphal Pita use just half a pita. Our chart shows numbers for an entire round.

Indian food fan? Trader Joe's 100% Whole Wheat Tandoori Naan is all whole wheat. Whole Foods 365 Whole Wheat Naan and Stonefire Whole Grain Naan have white flour as the second ingredient.

## Bagel Slims

Bagels have gotten too big for our britches.

At a chain like Bruegger's, Dunkin' Donuts, Einstein Bros, or Panera, a regular (4 to 5 oz.) bagel packs 300 to 400 calories—without the cream cheese. At the supermarket, packaged bagels (closer to 3½ oz.) have about 250 calories.

Solution: Shrink 'em. Pepperidge Farm Mini Bagels, Thomas' Bagel Thins and Mini Bagels, and Trader Joe's Bagel Slims stick to around 100 calories. Bonus: a smaller size slashes the sodium in half (to 200 mg or less).

Plain whole wheat sound boring? Try Trader Joe's 100% Whole Wheat Everything Bagel Thins. 🍌



"Thin" or "mini" is the way to go.

# With the Grain

**Best Bites** (✓✓) have no more than 200 calories and 200 mg of sodium, and all (or nearly all) of their grain is whole. They're also free of sucralose. Products are ranked from least to most calories and sodium, then most to least protein. *All products are whole grain unless they are marked with an N.*

## English Muffins (2 oz., unless noted)

	Calories	Protein (g)	Sodium (mg)
Fiber One 100% Whole Wheat 100 Calories	100	5	230
✓✓ Whole Foods 100% Whole Wheat (2.2 oz.)	120	7	160
✓✓ Nature's Own 100% Whole Wheat	120	6	180
✓✓ Trader Joe's Whole Wheat British	120	6	200
Thomas' 100% Whole Wheat Whole Grain <sup>S</sup>	120	5	220
✓✓ Trader Joe's Whole Wheat Cinn. Raisin British	130	6	170
Thomas' Original Made With Whole Grain <sup>N</sup>	130	4	220
✓✓ Pepperidge Farm 100% Whole Wheat WholeGrain	140	6	180
Thomas' Multi Grain Made With Whole Grain <sup>N</sup>	150	5	160
✓✓ Food For Life Ezekiel 4:9—Cinnamon Raisin or Sprouted Grain (2.7 oz.) <sup>1</sup>	160	7	160

## Buns & Rolls

Fiber One 100% Whole Wheat 90 Calorie Thin Sandwich (1.5 oz.) <sup>S</sup>	90	6	160
✓✓ Trader Joe's Whole Wheat Slims (1.5 oz.)	100	5	150
Pepperidge Farm Soft 100% Whole Wheat Deli Flats (1.5 oz.) <sup>S</sup>	100	6	170
✓✓ Arnold, Brownberry, or Oroweat 100% Whole Wheat Sandwich Thins (1.5 oz.)	100	5	170
✓✓ Arnold or Oroweat 100% Whole Wheat Flax & Fiber Sandwich Thins (1.5 oz.)	100	5	170
✓✓ Trader Joe's 100% Stone Ground Whole Wheat Hot Dog (1.5 oz.)	100	5	170
✓✓ Ozery Bakery Whole Wheat 100 Cal OneBun (1.4 oz.)	100	4	180
✓✓ Nature's Own 100% Whole Wheat Sandwich Rounds (1.5 oz.)	100	5	200
✓✓ Nature's Own 100% Whole Wheat—Hot Dog (1.6 oz.) or Sandwich (1.9 oz.) <sup>1</sup>	120	6	180
Pepperidge Farm Bakery Classics 100% Whole Wheat Hamburger (1.8 oz.)	130	7	210
✓✓ Food For Life Sprouted Wheat—Burger or Hot Dog (2.2 oz.) <sup>1</sup>	150	6	140
✓✓ Ozery Bakery Organic Spelt OneBun (2.1 oz.)	160	5	150
Whole Foods Organic Wheat Burger (2.3 oz.) <sup>N</sup>	160	6	250
✓✓ Food For Life Ezekiel 4:9 Sprouted Grain—Burger, Hot Dog, or Sesame Burger (2.7 oz.) <sup>1</sup>	170	9	170
Ozery Bakery Multi Grain Original OneBun (2.6 oz.)	190	7	310
✓✓ Ozery Bakery Multi Grain & Chia Ciabatta Thins (2.8 oz.)	200	8	190
Pepperidge Farm P.F. Deli Ciabatta (3.5 oz.) <sup>N</sup>	260	8	540

## Flatbreads, Flour Tortillas, & Wraps

✓✓ Maria and Ricardo's Whole Wheat FiberRich Tortillas, Fajita (1 oz.)	50	4	130
✓✓ Trader José's Whole Wheat Reduced Carb Flour Tortillas (1 oz.)	50	4	130
✓✓ La Tortilla Factory Smart & Delicious Mini SoftWraps—Multi-Bran or White Whole Wheat (1 oz.) <sup>1</sup>	50	4	160
✓✓ La Tortilla Factory Garlic & Herb Low Carb Tortillas (1.3 oz.)	50	5	180
Tumaro's Garden Veggie Low-in-Carb Wraps (1.4 oz.) <sup>N</sup>	60	5	80
✓✓ Tumaro's Low-in-Carb Wraps—Multi-Grain or Whole Wheat (1.4 oz.) <sup>1</sup>	60	6	90
✓✓ Tumaro's Salsa Mexican Style Tortillas (1.4 oz.)	60	6	120

	Calories	Protein (g)	Sodium (mg)
✓✓ Green Leaf Foods Raw Wraps (0.7 oz.) <sup>1</sup>	70	2	30
✓✓ La Banderita 100% Whole Wheat Flour Tortillas, Fajita (1 oz.)	80	2	170
✓✓ Mission 100% Whole Wheat Flour Tortillas, Fajita (1 oz.)	80	3	180
Fiber One 80 Calorie Wraps (1.5 oz.) <sup>1N</sup>	80	6	240
✓✓ Trader José's Corn & Wheat Tortillas (1.4 oz.)	90	5	170
Flatout Light Original Flatbread (1.9 oz.)	90	9	210
Olé Xtreme Wellness! Spinach & Herbs Tortilla Wraps (1.6 oz.) <sup>N</sup>	90	5	350
✓✓ Maria and Ricardo's Sprouted Grains Tortillas, Soft Taco (1.5 oz.)	100	6	90
✓✓ Flatout Multi-Grain with Flax Flatbread (1.9 oz.)	100	9	200
La Tortilla Factory Organic Whole Wheat Tortillas (1.3 oz.) <sup>N</sup>	100	3	210
✓✓ Trader José's Whole Grain Flour Tortillas (1.7 oz.)	130	4	140
La Banderita Whole Wheat Tortillas, Soft Taco (1.6 oz.) <sup>N</sup>	130	4	230
Flatout ProteinUP Flatbread (2 oz.) <sup>1N</sup>	130	12	300
✓✓ Toufayan Wholesome Wheat Wraps (1.8 oz.)	140	4	130
✓✓ Engine 2 Organic Sprouted Ancient Grains Tortillas (1.8 oz.)	150	6	120
✓✓ Food For Life Ezekiel 4:9 Sprouted Grain Tortillas (2 oz.)	150	6	140
Mission 100% Whole Wheat Flour Tortillas, Burrito (2.5 oz.)	210	6	450

## Corn Tortillas

✓✓ 365 (Whole Foods) Organic (0.7 oz.)	50	1	10
✓✓ La Banderita (0.9 oz.)	50	1	10
Mission—White or Yellow (0.8 oz.) <sup>1N</sup>	50	1	10
✓✓ La Tortilla Factory Organic Yellow (1.1 oz.)	60	1	0
✓✓ La Tortilla Factory Hand Made Style (1.4 oz.) <sup>1</sup>	90	5	200

## Pitas & Naan

Thomas' Sahara 100% Whole Wheat Pita (2 oz.)	140	7	230
Toufayan Whole Wheat Pita (2 oz.)	150	6	230
✓✓ Toufayan 100% Whole Wheat Smart Pockets (3 oz.)	160	10	170
Kangaroo Whole Wheat Salad Pockets (2.5 oz.)	180	6	320
✓✓ Trader Joe's 100% Whole Wheat Apocryphal Pita (2.6 oz.)	200	8	150
Arnold or Brownberry 100% Whole Wheat Pocket Thins (3 oz.)	200	10	360
Trader Joe's 100% Whole Wheat Tandoori Naan (3 oz.)	210	7	340
365 (Whole Foods) Whole Wheat Naan (3 oz.) <sup>N</sup>	260	7	420
Stonefire Whole Grain Naan (4.4 oz.) <sup>N</sup>	360	10	800

## Bagels

✓✓ Pepperidge Farm 100% Whole Wheat WholeGrain Mini (1.4 oz.)	100	4	120
✓✓ Thomas' 100% Whole Wheat Mini (1.5 oz.)	110	5	160
✓✓ Trader Joe's 100% Whole Wheat Everything Slims (1.6 oz.)	110	5	180
✓✓ Thomas' 100% Whole Wheat Thins (1.6 oz.)	110	6	190
Thomas' 100% Whole Wheat (3.4 oz.)	240	9	350

✓✓ Best Bite. <sup>1</sup> Average. <sup>S</sup> Contains sucralose. <sup>N</sup> Not whole grain.

**Daily Sodium Limit:** 1,500 mg. **Protein Daily Target:** 75 grams.

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## RIGHT STUFF

### SUPER CEREAL



“Chia, hemp, and buckwheat, oh my!” says the **Nature’s Path Organic** website. It’s talking about **Qi’a** (pronounced KEE-ah), its “superfood” cereal.

The superfood business aside, Qi’a can shake up your morning routine. **Qi’a Original Flavor** and **Qi’a Apple Cinnamon** (with raisins and freeze-dried apples) have no salt or sugar added. **Qi’a Cranberry Vanilla**

(with cranberries and almonds) has a tiny bit of sugar added to the cranberries. The simplest way to eat them: mix into hot or cold cereal, yogurt, oatmeal, or a salad.

For a standalone cold cereal, mix 2 tablespoons of Qi’a with 5 tablespoons of milk, stir, and wait 5 minutes. (It’s even better if it soaks overnight in the fridge.)

If you double the recipe (2 tablespoons doesn’t make much) and use 1% milk, you get around 340 calories and an impressive 8 grams of unprocessed fiber, with 17 grams of protein and a quarter of a day’s iron.

Did we mention that it’s delish? The milk’s natural sugars give Qi’a just the right mix of sweet and nutty.

And if you’re in the market for a new hot cereal, try organic **Qi’a Cinnamon Pumpkin Seed** or **Superseeds & Grains Oatmeal**. Each has no added sugar or salt and only 150 calories per packet. Qi’ahhhh.

[naturespath.com](http://naturespath.com) — (866) 880-7284

## FOOD PORN

### A PERFECT MESS

“Our fresh-baked muffins, coffee cakes, cookies and bagel poppers are available in a variety of flavors and make the perfect snack or addition to any breakfast or lunch,” says the **Einstein Bros Bagels** website.

Talk about a perfect snack. The **Chocolate Chip Coffee Cake** at Einstein (or its sister chain Noah’s) may look snack-size, but it squeezes 830 calories between breakfast and lunch or lunch and dinner. Unless you’re also squeezing in an eight-mile run, those calories are likely to get tucked away in growing—or brand new—fat cells, where you may never burn them.

Then there’s the bonus 15 grams of saturated fat ( $\frac{3}{4}$  of a day’s worth) plus 15 teaspoons of added sugar (roughly a two-day supply) and the nice dose of white flour.

It’s like eating *two* Starbucks Classic Coffee Cakes or *four* Krispy Kreme Original Glazed Doughnuts or one (meal-size) Cinnabon Classic Roll.

What snack or addition to any breakfast or lunch could be more perfect? The closest you’d come at Einstein would be, say, a 700-calorie large (24 oz.) Frozen Caramel Macchiato or a 790-calorie Applewood Bacon & Spinach Panini.

Of course, the panini would be a meal. The coffee cake is just a snack.

[einsteinbros.com](http://einsteinbros.com), [noahs.com](http://noahs.com) — (303) 568-8000



## dish OF THE MONTH



### Swiss Muesli

Grate 1 apple or pear. Mix with  $\frac{1}{4}$  cup of dry rolled oats and  $\frac{1}{2}$  cup of 0% Greek yogurt. Allow to stand for 15 minutes or refrigerate overnight. Top with 2 Tbs. of chopped pecans or walnuts. Drizzle with 1 tsp. of honey.

## quick tip

If you thaw frozen food in the microwave, make sure to cook it right away. That will take care of any warm-temperature-loving bacteria that may have begun to grow if the food started to cook while it was thawing.