WANT TO DODGE DIABETES? WALK. WANT TO STRENGTHEN YOUR HEART? WALK. WANT TO LOWER YOUR RISK OF BREAST OR COLORECTAL CANCER? WALK.

Growing evidence suggests that taking a brisk walk every day—or at least on most days—can also shore up your brain, elevate your mood, and increase your mobility.

It may even lengthen your life.

Continued on page 3.

BY DAVID SCHARDT

WALK THIS WAY, PLEASE

7 REASONS TO LACE UP YOUR SNEAKERS
Once upon a time (1958 to be exact), Congress passed a law that required chemicals or other substances to be adequately tested before companies could put them into our food. At the same time, legislators carved out a sensible exemption for common substances—like vinegar, citric acid, and ascorbic acid (vitamin C)—that were “generally recognized as safe,” or GRAS.

Fast-forward to 2015. Contrary to what Congress intended, many chemicals that companies are adding to our foods are not generally recognized as safe, and have not ever been reviewed by (or are not even known to) the Food and Drug Administration.

How did the government drop the ball and allow the once-reasonable GRAS exemption to swallow the rule?

In 1997, the Food and Drug Administration weakened its rules, which opened the floodgates for companies to do their own secret safety evaluations.

Companies can “self-affirm” that a new substance is GRAS without showing any evidence to the FDA. Instead, they show it to a panel of “experts” who evaluate the additive. But in many cases, the experts are company consultants. Now there’s a group with no conflicts of interest!

And when companies tell the FDA about these new substances—something they’re not required to do—if the agency asks tough questions about safety, the companies can withdraw their “GRAS notifications” and quietly add the substances to foods anyway.

In other words, companies get to decide—by themselves and in secret—what’s safe for me and for you.

Since 1997, companies have introduced hundreds of new GRAS substances into the food supply without telling the FDA. That has to stop. The FDA needs to enforce the 1958 law. The agency needs to be informed of, and have a chance to vet, every new substance that companies want to market.

Take taste modifiers, which enable companies to use less salt or sugar. (They show up on ingredient labels as “artificial flavorings.”) How can they be “generally recognized as safe,” when the FDA told me that it has no safety information about them? Clearly, it doesn’t have a clue how much is being used.

Shouldn’t the FDA have to review the safety of taste modifiers, to make sure that we’re not trading one public health problem for another?

The FDA is now mulling over what to do about the GRAS-certification process. The Center for Science in the Public Interest (publisher of Nutrition Action) recently wrote a lengthy memo to the FDA, explaining why the current program is illegal.

Here’s what the FDA needs to do:

■ Require companies to produce adequate scientific proof that their substances are safe.
■ Require companies to publicly disclose their safety evidence, and put a halt to the rampant conflicts of interest in the GRAS-certification process.
■ Assess the safety of substances that companies have secretly declared GRAS over the past two decades.

Bottom line: the FDA needs to generally recognize that its job is to keep consumers safe.

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

**WALK THIS WAY, PLEASE**

7 REASONS TO LACE UP YOUR SNEAKERS

“We were made to walk,” says researcher Charles Matthews of the National Cancer Institute. “You can’t say enough about its benefits.”

Here are seven to start with.

1. **Build a bigger, sharper brain.**

   “Walking definitely affects the brains of adults in their 60s, 70s, and 80s,” says University of Illinois psychologist Arthur Kramer.

   Studies that track people’s behavior for years see healthier brains in more-active people.

   “Older folks who walk more, like a mile to two miles a day versus less than a quarter of a mile, tend to have about a 35 percent lower rate of developing Alzheimer’s disease and other dementias,” Kramer points out.1,2

   Studies that randomly assign sedentary older people either to an aerobic activity (like walking) or to a control group (that does stretching or toning) have yielded mixed results on memory, attention, and decision-making.3,4

   But Kramer notes that some studies actually see changes in the brains of the walkers. “We find larger volumes of the areas of the brain controlling reasoning and memory, which are signs of increased brain health.”5

   And you don’t have to speed-walk.

   “These are very deconditioned older adults when they start off,” Kramer explains. “I would call them professional couch potatoes.”

   The goal is to get them moving.

   “Nobody’s winning any races here,” says Kramer. Most people average about three miles an hour.

   Kramer’s bottom line: “Exercising by walking tends to buy you a few extra years of avoiding Alzheimer’s and other dementias. If we had a drug that would do that, we’d pay anything for it.”

2. **Live longer.**

   “Americans typically spend two-thirds of their day sitting,” says epidemiologist Charles Matthews of the National Cancer Institute. That’s equivalent to almost two full-time jobs every week.

   “It’s a lot of sitting. And it has a really negative effect on our health,” Matthews notes. (See Dec. 2009, p. 9.)

   What if you replaced just one hour of sitting each day with walking or with routine chores that require standing and moving round?

   Matthews and his colleagues took a stab at answering that question by tracking 150,000 people in the NIH-AARP Diet and Health Study who had filled out questionnaires about how active they were.6

   “Nearly half were inactive,” says Matthews. “They were physically active less than two hours a day. They probably weren’t getting out much and were watching a lot of television and reading.”

   Compared to those inactive participants, study participants who walked or exercised for just one more hour a day were about 40 percent less likely to die over the next seven years. Those who did household chores, gardening, or other tasks for one more hour were about 20 percent less likely to die.

   That’s consistent with the findings of a new European study of 334,000 men and women. Those who exercised for the equivalent of just 20 minutes of brisk walking a day were about 20 percent less likely to die during the next 12 years than people who didn’t do brisk walking or other moderate exercise.7

   In the NIH-AARP Study, increased activity also helped people who started out active, but not as much.

   “Compared to people who were active for at least two hours a day, those who did one more hour of exercise, usually walking, cut their risk of dying by about 10 percent,” notes Matthews. “But doing an extra hour of household chores or gardening wasn’t enough exertion to cut their risk.”

3. **Ease your aching knees.**

   “Mobility is really key as we age,” says Stephen Messier.

   “When you lose your mobility, you lose your independence and things can go downhill pretty quickly.”

   Messier directs the J.B. Snow Biomechanics Laboratory at Wake Forest University.

   “Our objective is to help people restore some of their mobility lost because of osteoarthritis and improve their quality of life,” Messier explains.

   You can do that, he says, with an exercise like walking.

   “Walking for 40 to 60 minutes three to five times a week can reduce the pain of arthritic knees by about 30 percent,” notes Messier. “And if you combine walking with weight loss, the reduction in pain can be up to 50 percent. That’s greater than what you’d get from taking NSAID medications like ibuprofen.”

**Photos:** © Hoda Bogdan/fotolia.com (top), © celeste.choclard/fotolia.com (bottom).
Messier and his colleagues have conducted two large, long-term studies in overweight or obese sedentary men and women aged 55 and older with osteoarthritis of the knees.

In the Fitness Arthritis and Seniors Trial (FAST), 293 people were randomly assigned to walk for 40 minutes three times a week or to participate in an exercise-free program with information about controlling arthritis.8 After 18 months, the walkers reported less pain and less difficulty with the activities of daily living than the non-exercisers. They also walked 53 yards farther during a six-minute test, could get out of a car much faster, and had stronger knees.

The Intensive Diet and Exercise for Arthritis (IDEA) study tested whether diet plus exercise was better than either one alone. Roughly 400 participants were randomly assigned to do 30 minutes of walking and 20 minutes of strength training three times a week for 18 months, to cut 800 to 1,000 calories a day, or to do both.9 At the end of the study, the exercise-plus-diet group had lost an average of 23 pounds. Nearly 40 percent of them—but just 20 percent of the diet-only group and 20 percent of the exercise-only group—reported little or no pain in their knees.

And the people in the exercise-plus-diet group, who averaged around 70 years of age, were walking as fast as healthy 40-to-60-year-olds, says Messier.

“Increasing your walking speed when you’re older is a big deal,” he notes, “because it helps maintain your mobility.”

Improve your mood. “Walking for exercise can help people who have been diagnosed with mild or moderate depression as much as drugs or psychotherapy sessions,” says exercise psychologist Panteleimon Ekkekakis of Iowa State University.

In one study, researchers randomly assigned 80 overweight, sedentary people with mild to moderate depression to do aerobic exercise on a treadmill or stationary bicycle or to do stretching exercises.10 After 12 weeks, those who did the equivalent of brisk walking for roughly 180 minutes a week reported a greater reduction in symptoms than those who exercised for around 80 minutes a week or did stretching. And nearly half of those who spent the most time each week doing aerobic exercise were no longer depressed.

Exercise appears to work in a way similar to antidepressant medications, notes Ekkekakis.

The drugs correct an imbalance in levels of serotonin, a chemical messenger that helps keep mood balanced. “In animals where we can observe what’s happening in their brains,” says Ekkekakis, “we see significant increases in serotonin levels with exercise.”

And exercise is the surest way to produce brain-derived neurotropic factor, or BDNF, “which we presume to be therapeutic for depression,” says Ekkekakis.

Like psychotherapy, exercise also helps patients feel that they have regained some control over their lives. “Individuals who suffer depression and who exercise report feeling greater self-efficacy and empowerment,” says Ekkekakis.

Since 2010, American Psychiatric Association guidelines have recognized that exercise may be valuable for treating mild depression, notes Ekkekakis.

“But exercise is largely ignored by psychiatrists and primary care physicians in the United States.”

THE BOTTOM LINE

So how much should you walk or do other exercise? Here’s what the Centers for Disease Control and Prevention recommends for adults:

To improve your health, do 150 minutes a week of moderate-intensity aerobic activity like:

- walking briskly (3 mph or faster, but not race-walking)
- swimming laps
- singles tennis
- aerobic dancing
- bicycling slower than 10 mph
- doubles tennis
- ballroom dancing

OR

75 minutes a week of vigorous-intensity aerobic activity like:

- race-walking, jogging, or running
- water aerobics
- bicycling 10 mph or faster
- jumping rope
- hiking uphill or with a heavy backpack
- doubles tennis
- ballroom dancing

To improve your health even more, increase your activity to 300 minutes a week of moderate-intensity OR 150 minutes a week of vigorous-intensity activity. If you go beyond either, notes the CDC, “you’ll gain even more health benefits.”

The CDC also recommends that all adults do “muscle-strengthening activities on 2 or more days a week that work all major muscle groups (legs, hips, back, abdomen, chest, shoulders, and arms).”

Photos: © Junial Enterprises/fotolia.com (top), © arekmalang/fotolia.com (bottom).
Lower your risk of cancer.

“People who are more physically active, including those who walk for exercise, are less likely to develop one of the major cancers,” says researcher Christine Friedenreich of the University of Calgary in Canada.

“There is consistent evidence that physical activity can reduce the risk of breast, colorectal, and endometrial cancers.” (Exercise may only help prevent endometrial cancer if it helps keep women lean, though.)

Take the Women’s Health Initiative Observational Study, which tracked some 74,000 U.S. women aged 50 to 79. Those who exercised the equivalent of 75 to 150 minutes a week of brisk walking had an 18 percent lower risk of being diagnosed with breast cancer over five years than those who were inactive.11

“Even if someone hasn’t been physically active before in their lives, they can still reduce their risk of those cancers by doing moderate-intensity activity like brisk walking,” notes Friedenreich.

Walking may also help cancer patients. “Physical activity can be of benefit to people who have breast or colorectal cancer,” says Friedenreich. “It can help them recover more quickly after their treatments and it improves their quality of life.”

In fact, says Friedenreich, “we’re seeing 30 to 40 percent improved survival among patients treated for these cancers if they are also physically active.”

During the five-year Women’s Health Initiative study, for example, women with breast cancer who walked briskly for at least three hours a week were 40 percent less likely to die of the disease than those who were inactive.12

And in a meta-analysis of five studies that tracked more than 5,500 colorectal cancer patients for five to 12 years, those who exercised the equivalent of walking briskly for at least 2½ hours a week were 35 percent less likely to die of their cancer than those who did similar exercise for less than one hour a week.13

Brisk walking may also lower the risk of recurrence or progression of tumors in men with prostate cancer.14

How might exercise affect cancer? For starters, it can help people stay lean. Excess weight increases the risk of cancers of the colon, esophagus, kidney, uterus, pancreas, and, in postmenopausal women, of the breast.

Exercise may also curb high insulin levels and inflammation.

“It’s likely that physical activity is going to have an impact on many pathways,” notes Friedenreich.

Exercise also empowers people, she adds. “They can take control over their lives a bit more. And it doesn’t have to be something complicated—just walking as much as you can.”

Strengthen your heart.

“A large number of epidemiological studies have consistently demonstrated that regular physical activity reduces the risk of heart attack, stroke, sudden cardiac death, atrial fibrillation, and congestive heart failure,” says Howard Sesso, an epidemiologist at the Harvard School of Public Health.15 (Atrial fibrillation is an irregular heart rhythm.)

One of the longest: the Nurses’ Health Study, which tracked more than 72,000 women aged 40 to 65 for eight years.16 Those who walked briskly for three or more hours a week were 35 percent less likely to suffer a heart attack or die from coronary heart disease than those who walked infrequently.

“Ideally, the greater the intensity of physical activity the better,” notes Sesso. “So the more you sweat the better.”

But no sweat doesn’t mean no benefit. Walking around the block or hitting a shopping mall is better for your heart than sitting around the house.

And don’t worry if you can’t do too much at one time. “It’s the total amount that matters,” says Sesso.

“If you have time for only a half-hour brisk walk during lunch and then another half-hour walk at the end of the day, you’ll essentially get the same benefit as taking an hour-long walk.”

Exercise like walking helps the heart pump more efficiently, explains Sesso. It also improves the strength of the heart and the way blood vessels respond to increased demands on the heart.

Worried that exercising more might trigger a heart attack?

“The rate at which that happens is quite low, and should not preclude exercising in the first place,” notes Sesso.

“And if you’ve had a heart attack or some sort of cardiovascular procedure, cardiac rehabilitation programs do a great job monitoring and ensuring that the types of exercises that are being done are safe.”

While walking is the most natural way to begin to exercise, says Sesso, you can do whatever you enjoy. “It can be sports, going to the gym, social activities like dancing, or joining a walking group and doing a daily route.”
If you walk at least 7,500 steps a day,
you’re in the money because you’re likely to be meeting the national
guidelines for moderate physical activity,” says Catrine Tudor-Locke.

“Walking includes stepping, running, hopping, dancing, anything
that’s moving with one step following the other,” notes Tudor-Locke,
who is a researcher at the Walking Behavior Lab-
oratory at the Pennington Biomedical Re-
search Center in Baton Rouge, Louisiana.

While you should aim for at least 7,500 steps a day, “it’s not like there’s
a single value where the heavens open up and the angels sing or anything
like that,” says Tudor-Locke. “It’s a continuum.” The more steps you take,
the better. (The goal of 10,000 steps a day became popular after a Japanese
company introduced a pedometer whose name translates as “10,000
Steps Meter,” she notes.)

“Adults in the United States average just 5,000 to 6,000 steps per day,” says Tudor-Locke. “Falling below 5,000 steps is definitely a red flag, and less
than 2,500 steps is a very big concern. It puts you at greater risk for chronic
diseases like diabetes and for prema-
ture death.”

But it’s not just the number of steps
that counts, she adds. It’s also the in-
tensity. “Make sure that at least 3,000
of your daily steps are at more than
100 steps per minute. People who
walk at that pace in our studies are
walking purposely and going some-
place. That’s like taking a brisk walk.”

How to count your steps? You
don’t need more than a simple work-
horse pedometer, says Tudor-Locke.

“It can have a single button, it should
have a battery that lasts at least three
years, and when you put it on and take
20 steps, it should say you took 19, 20, or 21, which is
reasonably close.” You needn’t pay
more than $20 or $25 for it.

Step counters that you wear on your
wrist are also fine, adds Tudor-Locke.

“Just know that they will consistently
record a higher count.”

New York Times columnist and No-
bel laureate Paul Krugman uses a de-
vice to record his steps. “What fitness
devices do, at least for me, is make it
harder to lie to myself,” he recently
wrote on his blog.

“It’s all too easy to convince your-
self that you’ve done enough walking,
that shuffling around filing books is a
pretty good workout...But there’s your
Fitbit telling you that you only walked
6,000 steps.”

Dodge diabetes.

“If people don’t stay physically
active as they get older, their
muscles become insulin resis-
tant,” says Loretta DiPietro. That means
their insulin does a poor job of moving
blood sugar into their muscle cells.

“And when people reach their 70s,
the pancreas doesn’t work as well as it
used to, so insulin secretion becomes
sluggish,” adds DiPietro, who heads the
exercise and nutrition sciences depart-
ment at George Washington University.

With less or less-effective insulin,
blood sugar levels stay elevated for a
longer time after a meal, and even fast-
ing blood sugar creeps up over the years.

“Exercise is very effective at improv-
ing insulin sensitivity in the muscles,” DiPietro explains. (What’s more, when
you exercise your muscles contract,
which lets them take in blood sugar
even without insulin.)

“So we thought, Why not exercise
when it’s needed the most, about a half
hour after people finish eating?” says
DiPietro. That’s when digested food gets
absorbed into the bloodstream. “It’s the
perfect time to use muscle contractions
to help clear glucose from the blood.”

DiPietro and her colleagues recruited
10 sedentary older adults who had pre-
diabetes to go for a short (15-minute)
walk after breakfast, lunch, and din-
er or a long (45-minute) walk either
at 10:30 a.m. or at 4:30 p.m.

“It was all barely moderate-intensity
walking, about three miles per hour on
a treadmill,” says DiPietro.

Both the three short walks after meals
and the one long morning walk helped
control blood sugar levels through-
out the day, lowering the average to
117 instead of about 128 on the days
they didn’t walk. In contrast, the late
afternoon 45-minute walk had a small-
er impact (which wasn’t statistically
significant in this small study).18

“The only catch is that on the days you
don’t do the three 15-minute walks, you
don’t get the benefit,” cautions DiPietro,
who notes that “you can use a 15-minute
bou to walk a dog or run an errand.”

One advantage of the longer walk: as
long as you’re walking briskly, you may
not have to do it every day.

“If you can consistently walk briskly
for 45 minutes to an hour, it would
train your muscles to clear glucose
more efficiently, so that you might be
able to skip a day or two every week.”

But no matter how you choose to
walk, “doing it consistently may delay
the onset of type 2 diabetes.”

4 Cochrane Database Syst. Rev. 2015.
14 Cancer Res. 71: 3889, 2011.
“T he First Amendment does not protect...deceptive and misleading advertisements.” With those words, a federal appeals court in January put an end to attempts by POM Wonderful to claim that its ads about pomegranate juice are free speech protected by the Constitution.

POM was appealing a 2013 Federal Trade Commission judgment that the company made “false and unsubstantiated claims that their products will prevent or treat heart disease, prostate cancer, and erectile dysfunction.”

In its January ruling, the appeals court also prohibited POM Wonderful from making any claims that pomegranate juice can prevent or treat any disease unless the claims are supported by at least one randomized controlled trial. (A trial would compare POM to a placebo in people randomly selected—from the same pool—to be in each group.)

In its decision, the appeals court described how POM misled consumers for years by misrepresenting the results of the studies the company paid for.

Here’s some of what the court charged.

**PROSTATE CANCER**

POM Wonderful claimed that drinking 8 oz. of its pomegranate juice every day slowed increases in PSA levels in men who had undergone surgery or other treatment for prostate cancer. POM based the claim on a pilot study it funded at UCLA.

But the study lacked a placebo group that drank a look-alike but pomegranate-free beverage. So there was no way to tell if the pomegranate juice did anything. As the study’s lead author pointed out, PSA scores often rise more slowly in men who have been treated with surgery or radiation.

POM failed to mention that in its promotional materials. Oops.

**HEART DISEASE**

For at least five years, POM Wonderful claimed that its pomegranate juice was “proven” to be good for the heart because it reduced plaque in the arteries.

The claim was based on a preliminary study of 19 men. But POM failed to tell consumers that pomegranate juice didn’t reduce plaque any more than a placebo drink in two larger studies that the company funded.

And POM kept one of those studies from being published for three years, while it continued to claim that pomegranate juice was a plaque fighter.

**ERECTILE DYSFUNCTION**

POM Wonderful is “proven to fight for...erectile health,” claimed the tags on some POM bottles. As proof, the company cited a study of 53 men by a Beverly Hills urologist.

But POM didn’t help the men any more than a placebo drink, according to the two questionnaires that the physician had the men fill out.

Some proof. 🍓
QUICK STUDIES

**Risky Sugar**

In just two weeks, even modest doses of high-fructose corn syrup (HFCS) raise LDL (“bad”) blood cholesterol and other risk factors for heart disease and gout.

Researchers fed 85 adults aged 18 to 40 beverages sweetened with enough high-fructose corn syrup to supply 0, 10, 17.5, or 25 percent of their calories for two weeks. Beverages with 0 percent HFCS were sweetened with aspartame. (On average, adults aged 20 to 60 get about 13 percent of their calories from HFCS, table sugar, and other added sugars, but some get far more.) The results: the higher the dose, the higher their LDL cholesterol, after-meal triglycerides, and average uric acid levels. (High uric acid is linked to a higher risk of gout.) The differences held up after the researchers accounted for the slight weight gain in the group that got the highest dose of HFCS.

**What to do:** Cut back on all added sugars. Although this study didn’t test ordinary table sugar, it has roughly the same amounts of fructose and glucose as HFCS.


**Vitamin D & Fractures**

Low vitamin D levels may increase the risk of bone fractures during menopause.

Researchers studied 1,756 menopausal women (their average age was 49) from five cities who had participated in the Study of Women’s Health Across the Nation. Those who had vitamin D blood levels of at least 20 ng/mL had a 46 percent lower risk of a non-traumatic bone fracture over 10 years than those with vitamin D levels below 20 ng/mL.

(The researchers called a fracture traumatic if it occurred in a car accident, while playing sports, if something fell on the participant, or if she fell from higher-than-standing height. A non-traumatic fracture was due to falling from standing height or less.)

**What to do:** Ask your doctor if you should get your vitamin D blood level tested. While some experts argue that levels should reach 30 ng/mL, all agree that less than 20 ng/mL is low.

Forty three percent of the women in this study had blood vitamin D levels lower than 20 ng/mL. (The study had too few women at higher levels to test whether 30 ng/mL lowers the risk of fractures even more.)


**Pump Up Potassium**

Eating potassium-rich foods can help protect your arteries from high-salt foods.

On three occasions, scientists gave 39 people one of three tomato soups: high in sodium and low in potassium, high in both, or low in both. (The high-sodium soup had about 1,500 mg of sodium. The high-potassium soup had about 1,500 mg of potassium—what you’d get in 3 to 6 servings of fruit.)

For 90 minutes after the participants ate the high-sodium, low-potassium soup, their arteries’ ability to dilate—or expand—when blood flowed through them was impaired. But that didn’t happen when the soup was high in both potassium and sodium.

**What to do:** Cut the salt and eat more potassium-rich foods like fruits, vegetables, fish, beans, and low-fat milk and yogurt.


**Why it’s Hard to Break the Sugar Habit**

Sugar may help curb stress, and that may keep us coming back for more.

Researchers randomly assigned 19 women aged 18 to 40 to drink beverages (supplied by the study) three times a day with meals. About half got drinks that were sweetened with sucrose (table sugar), while half got drinks sweetened with aspartame. After two weeks, the participants were given a math test that’s designed to cause stress.

After the test, the women who had been drinking the sugar-sweetened drinks had lower levels of cortisol (a hormone that’s secreted by the adrenal gland when people are stressed) than those who had been drinking the aspartame-sweetened beverages.

All the women also had an MRI to measure activity in a part of the brain (the hippocampus) that gets inhibited by stress. On average, those who got the sugary drinks had a more active hippocampus than those who got the diet drinks, suggesting that they were less stressed.

The results may explain why many people seek out sugary foods when they’re stressed.

**What to do:** When you’re stressed, think twice before you reach for sweets…or stop after just a few bites and go for a walk. There’s more than one way to deal with stress.

Unscrambling Eggs
Health food...or bad yolk?

BY BONNIE LIEBMAN

Love to eat eggs? U.S. panel now says they’re not a health risk,” reported Reuters in February.

“Cholesterol in the diet: The long slide from public menace to no ‘appreciable’ effect,” ran the headline in the Washington Post.

Both articles were referring to a report from a panel of scientists that the government will rely on this year as it revises its Dietary Guidelines for Americans. Did the report get it right? And should you avoid eggs—the food that supplies our biggest dose of cholesterol?

Cholesterol Confusion

“Cholesterol: And Now the Bad News,” announced the March 1984 TIME magazine cover.

“Cholesterol is proved deadly, and our diet may never be the same,” the magazine reported.

Oops. Not for the first (or last) time, the media mixed up the dangers of cholesterol in blood and cholesterol in foods.

The article was about a major study showing that reducing high blood cholesterol lowers the risk of heart disease. It wasn’t about eggs. But since eggs contain more cholesterol than most other foods, eggs got more than their share of the blame, even though foods rich in saturated fat (like red meat, cheese, and butter) are bigger culprits.

“The saturated fat in foods has a greater effect on the average person’s LDL, or bad, cholesterol levels than the cholesterol in foods,” says Frank Sacks, professor of cardiovascular disease prevention at the Harvard School of Public Health.

And the confusion hasn’t disappeared. This past February, when the Dietary Guidelines Advisory Committee issued its report, the New York Daily News mangled the distinction between foods that are high in cholesterol and foods that are high in saturated fat.

“It’s ok to dig in to red meat,” explained the newspaper. “Embracing red meat and eggs marks a shift from previous versions of the report, which used to cap cholesterol consumption at 300 milligrams a day—the amount in a stick of butter, a 10-ounce steak or two eggs.”

In fact, the report urged Americans to eat less red meat. And it urged us to limit saturated fat. But the panel did scrap the previous 300-milligram daily cap on cholesterol in food.

Why?

The Evidence

“After reviewing scores of studies that showed no correlation between dietary cholesterol and serum cholesterol, or ‘bad’ cholesterol present in the blood, the committee determined that cholesterol was not ‘a nutrient of concern for overconsumption,’” reported Reuters.

Really? If the panel reviewed scores of studies, it didn’t say so.

The panel’s only explanation was brief: “Available evidence shows no appreciable relationship between consumption of dietary cholesterol and serum cholesterol, consistent with the conclusions of the AHA/ACC report.”

Only one problem: that’s not consistent with the 2013 report from the American Heart Association and American College of Cardiology. That report concluded that there was “insufficient evidence” to know if eating less cholesterol would lower LDL cholesterol in blood.

“No evidence doesn’t mean the evidence is no,” says Robert Eckel, a professor of medicine at the University of Colorado Denver who chaired the AHA/ACC panel.

“A three-to-four-egg omelet isn’t something I’d ever recommend to a patient at risk for cardiovascular disease,” adds Eckel, who says that he still uses only egg whites for his omelets.

For decades, experts have relied largely on studies in which people were fed or sent home with either eggs or cholesterol-free egg substitutes.

“When we looked at 17 of those high-quality studies, we showed that eating one egg a day raises LDL cholesterol by 4 points,” says Martijn Katan, an expert on diet and cardiovascular disease.
All that business about whether foods have “high-quality” protein—that is, which amino acids make up their protein—doesn’t matter for most Americans, because we get protein from a variety of foods. But even if “quality” did matter, soy, dairy, fish, poultry, and meat protein can go toe-to-toe with eggs.

And it’s not clear that protein makes you stay full longer...unless you think it will. Extra protein didn’t make people eat less (or feel more full) when they weren’t told how much they were eating.\(^1\)

In a study funded by the egg industry, dieters lost 2½ more pounds after eating an egg breakfast instead of a bagel breakfast for two months.\(^2\) But “eggs weren’t pitted against a high-fiber whole-grain cereal with low-fat milk or another breakfast like that,” notes Barbara Rolls, director of the Laboratory for the Study of Human Ingestive Behavior at Penn State. Not so incredible, after all.


**Tracking Egg Eaters**

What about studies that ask people what they eat and count heart attacks years later? When Harvard researchers tracked roughly 38,000 men for eight years and 80,000 women for 14 years, those who ate the most eggs had no higher risk of heart disease or stroke than those who ate the fewest.\(^3\)

But “the most” wasn’t much. “In these studies, intakes only ranged from around zero to one egg per day,” says Sacks.

And some studies find a risk even for one-a-day egg eaters. For example:

- **Heart disease if you have diabetes.** Women with type 2 diabetes who ate at least one egg a day had a 44 percent higher risk of heart disease than those who ate less than one egg per week. Worse yet, men with diabetes who ate at least one egg a day had double the risk—a 100 percent higher risk—of heart disease.\(^4,5\)

  “We don’t know exactly why,” says Luc Djoussé, associate professor of medicine at Harvard Medical School. “People with diabetes have a higher risk of heart disease.” Maybe they’re more sensitive to cholesterol.

  Type 2 diabetes is no small matter. One out of three people with the disease don’t know they have it. And experts predict a diabetes tsunami now that one out of three Americans have prediabetes. (See July/August 2014, cover story.)

- **Diabetes.** Djoussé and his colleagues tracked roughly 20,700 men in the

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**Egg**

- (1 large)

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<th>Egg (1 large)</th>
<th>Calories (72)</th>
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<th>Magnesium (% DV) (2)</th>
<th>Potassium (% DV) (2)</th>
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Source: U.S. Department of Agriculture.
Physicians’ Health Study for 20 years and roughly 36,300 women in the Women’s Health Study for 12 years.7

“We found that men who ate five or more eggs a week had about a 50 percent higher risk of diabetes compared to those who didn’t eat eggs,” he notes. “And women who ate seven or more eggs per week had a 77 percent increased risk.”

How might eggs cause diabetes?

“There’s some data suggesting that eating egg yolks could lead to insulin resistance,” says Djoussé.

“But the jury’s still out. We’re not quite sure whether it’s the cholesterol in eggs or not.” Something else about egg eaters was sure whether it’s the cholesterol in eggs or not. Researchers account for every difference they can detect.

■ Prostate cancer. When researchers followed roughly 1,300 men with prostate cancer for two years, cancers were twice as likely to progress—that is, spread to bone, require more treatment, or lead to death—in those who typically ate about six eggs a week than in those who ate less than one egg every two weeks.6

“The results were interesting, but we weren’t sure if they were due to chance,” notes lead author Erin Van Blarigan (formerly Richman) of the University of California, San Francisco.

So Van Blarigan looked at roughly 27,600 healthy men in the Health Professionals Follow-Up Study. Those who reported eating at least 2½ eggs per week had an 81 percent higher risk of dying from prostate cancer over 14 years than those who said they consumed less than half an egg per week.6

“There’s too little data to make recommendations,” cautions Van Blarigan. “But if my dad were at high risk for prostate cancer, I’d think it would be prudent for him to limit his intake of whole eggs.”

How Many Eggs?

So, how many eggs (or, more precisely, egg yolks) can you safely eat? For decades, most health authorities recommended a limit of 300 milligrams of cholesterol per day. (One large egg has around 200 mg. A modest 3 oz. serving of fish, poultry, or meat has 50 to 100 mg.) For years, the American Heart Association translated that advice into no more than three or four eggs per week.

And today? “I would say limit eggs to four to five per week,” advises Djoussé. “The fact that eggs contain protein and minerals doesn’t mean we can eat uncontrolled amounts. Common sense still matters.”

Others agree. “It’s reasonable to eat eggs several times a week, but eating one or two eggs every morning may raise your risk of type 2 diabetes or your risk of heart disease if you already have diabetes,” says Sacks.

“And eggs and toast aren’t the best breakfast,” he adds. “You’re better off eating something like unsweetened yogurt with fresh fruit and nuts.”

Lost in the cholesterol hubbub was the key advice from the Dietary Guidelines panel, which was to eat a “healthy dietary pattern” like those used in the DASH study (which gave people foods with only 150 mg of cholesterol per day). That pattern is:

■ higher in vegetables, fruits, whole grains, low- or non-fat dairy, seafood, legumes, and nuts
■ moderate in alcohol (for adults)
■ lower in red and processed meats
■ low in sugar-sweetened foods and drinks and refined grains

Ain’t much room for eggs in there.
It’s Bean Great!

Chop, whisk, toss—it’s as easy as that. You can have any of these amazing bean dishes on the table in 10 minutes flat. And you never have to turn on the burner.

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

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### Tropical Black Beans

**WHISK TOGETHER**
- 2 Tbs. fresh lime juice
- 1 Tbs. extra-virgin olive oil
- ¼ tsp. kosher salt

**TOSS WITH**
- 1 cup chopped mango or pineapple
- 1 small avocado, chopped
- 1 15 oz. can no-salt-added black beans, drained and rinsed
- 1 jalapeño, seeded and minced (optional)

Makes 4 ¾-cup servings
Per serving: calories 220 | carbs 26 g  
| total fat 11 g | sat fat 1.5 g  
| sodium 140 mg | fiber 9 g | protein 7 g

### Asian Edamame

**WHISK TOGETHER**
- 2 tsp. balsamic vinegar
- 2 tsp. reduced-sodium soy sauce
- 1 tsp. toasted sesame oil

**TOSS WITH**
- 1½ cups edamame, thawed from frozen
- ½ cup chopped cucumber
- ½ cup chopped celery heart
- ¼ cup chopped radish
- 2 scallions, thinly sliced

Makes 4 ¼-cup servings
Per serving: calories 100 | carbs 9 g  
| total fat 3.5 g | sat fat 0 g  
| sodium 130 mg | fiber 4 g | protein 7 g

### Mediterranean White Beans

**WHISK TOGETHER**
- 2 Tbs. extra-virgin olive oil
- 1 Tbs. red wine vinegar
- 1 small clove garlic, finely minced
- ¼ tsp. kosher salt
- freshly ground black pepper

**TOSS WITH**
- 1 pint cherry tomatoes, chopped
- ½ cup loosely packed basil leaves, chopped
- 1 15 oz. can no-salt-added cannellini, navy, or other white beans, drained and rinsed
- 1 jalapeño, seeded and minced (optional)

Makes 4 ¾-cup servings
Per serving: calories 160 | carbs 17 g  
| total fat 8 g | sat fat 1 g  
| sodium 160 mg | fiber 5 g | protein 6 g
It’s not easy to win an Xtreme Eating award. For starters, most restaurant meals pack around 1,000 calories, so anything in that neighborhood is a yawner. To stand out in the crowd, you’ve got to hit around 2,000 calories—an entire day’s worth of food—even if it’s just dessert.

But our winners have what it takes...a total disregard for the obesity epidemic and the coming diabetes tsunami. Of course, you can’t blame restaurants for that. That would be so unfair.

The information for this article was compiled by Paige Einstein.

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**Omelot**

“Take a trip south of the border one bite at a time!” suggests the IHOP (1,564 locations) website. Its Chorizo Fiesta Omelette, which is “loaded with spicy chorizo sausage, roasted peppers, onions & pepper jack cheese, then topped with a citrus chili sauce & sour cream and served with a fresh grilled serrano pepper...will have you saying ‘excelente!’”

“Ay, caramba!” is more like it. A 1,300-calorie sausage omelette alone would strike many as a tad on the heavy side. But this one comes with three buttermilk pancakes (or hash browns, toast, or fruit; but this is IHOP, after all). Remember when three pancakes alone was a big breakfast?

Add four tablespoons of syrup, and you shuffle out with a day’s calories (1,990), plus a bonus 42 grams of saturated fat, 4,840 milligrams of sodium, and 1,035 mg of cholesterol (two to three days’ worth of each). And don’t forget the passel of white flour and the 12-or-so teaspoons of added (refined) sugar—the kind that doesn’t occur naturally in fruit and milk. It’s your lucky day!

You might as well have ordered a McDonald’s Big Breakfast (scrambled eggs, hash browns, biscuit, and sausage) with three Sausage McMuffins and five packets of grape jam on the side. Time for a siesta.

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**Pit Belly**

As Dickey’s Barbecue Pit (416 locations) “continues to expand from coast to coast, customers are wooed by the home-style flavor and family friendly atmosphere,” says the chain’s website. And nothing woos like the 3 Meat Plate.

“Can’t decide?” asks Dickey’s. “This is the perfect plate to have everything you’re craving!”

We craved the Polish sausage, pork ribs, and beef brisket (saving the pulled pork, barbecue honey ham, spicy cheddar sausage, and turkey or chicken breast for next time).

For our two sides, we went with fried onion tanglers and mac & cheese (passing up sides like the chips, fries, barbecue beans, green beans with bacon, baked potato casserole, coleslaw, fried okra, and potato salad). And along with the free roll, pickles, and onions, we tossed in a Big Yellow Cup of Miss Ollie Dickey’s Famous Southern Sweet Tea. (It’s “only” 32 oz., but don’t worry: refills are free.)

Then we noticed the sign: “Help Yourself to Some ICE CREAM! Cold Creamy Delicious And It’s Free!” Yup. At Dickey’s, you can have free soft-serve while you wait for your order, for dessert, or whenever you feel the urge. Need a palate cleanser mid-meal? Have a cone! Take one for the road! Is this a great country or what?

With just a half cup of ice cream in a cone (and no refills), your meal comes to roughly 2,500 calories, 49 grams of fat and 4,700 mg of sodium (2½ to 3 days’ worth of each), plus 29 teaspoons of (mostly added) sugar. It’s like having three Big Macs with five Vanilla Cones.

What’s for dessert?
Crime Rib

“No matter your path, a delicious destination awaits,” says the Outback Steakhouse (767 locations) menu. If your destination is the Herb Roasted Prime Rib dinner, you may want to walk home...the long way.

The 16 oz. prime rib alone delivers 1,400 calories to your rib area. For sides, let’s say you get the dressed baked potato and the classic blue cheese wedge (it’s a “premium side salad,” so it’ll cost you a buck), and that you eat just half the loaf of bread and use just a light schmear of butter.

The tab: 2,400 calories, 71 grams of sat fat (3½ days’ worth), and enough sodium (3,560 mg) for today and tomorrow. It’s like eating three Outback 10 oz. Ribeye steaks with three sides of garlic mashed potatoes. How do people survive on just one?

Pastaway

“Parmesan crusted chicken served over pasta with mushrooms, peppers and onions in a spicy New Orleans sauce” doesn’t sound excessive. Then again, you’re at The Cheesecake Factory (167 locations), which has a knack for turning its patrons into walking (make that sitting) fat-cell factories.

The Louisiana Chicken Pasta, which weighs an impressive 1½ pounds, comes topped with four slices of heavily breaded chicken (in case you didn’t get enough white flour in the mound of pasta). Add the New Orleans sauce (butter and heavy cream), and your plate is up to 2,370 calories (more than a day’s worth), plus 80 grams of saturated fat (a four-day supply) and 2,370 milligrams of sodium (1½ days’ worth).

For those numbers, you could have had two Fettuccine Alfredos plus two breadsticks at Olive Garden. Bottoms up!

Blast Off

“All meals should be topped off with dessert: it’s the SONIC way,” suggests “America’s Drive-In” (3,522 locations). Take the Pineapple Upside Down Master Blast.

“SONIC’s real, vanilla ice cream perfectly mixed with pineapple, salted caramel & pie crust pieces” comes in a 32 oz. cup topped with several inches of whipped cream.

That’s for a large, which fires 2,020 calories at your midsection, and 61 grams (three days’ worth) of sat fat and 4½ grams (two days’ worth) of trans fat (from the pie crust) at your arteries. And it comes with some 29 teaspoons of added sugar.

One Master Blast has the calories of roughly four Dairy Queen Banana Splits. Sonic offers “heaping helpings of fun,” says its website. Wouldn’t the equivalent of one banana split be enough fun?

Red Alert

For our Create Your Own Combination at Red Lobster (679 locations), we picked three shrimp dishes (Parrot Isle Jumbo Coconut, Walt’s Favorite, and Linguine Alfredo). With french fries as our side, Caesar as our salad, and just one Cheddar Bay Biscuit (such willpower!), our total came to 2,710 calories, 37 grams (two days’ worth) of sat fat, and 6,530 mg (a four-day supply) of sodium.

It’s like eating an 8-piece bucket of KFC Original Recipe chicken with four sides of mashed potatoes with gravy, four pieces of corn on the cob, and eight packets of “buttery spread.”

And since we were at Red Lobster, we had to order the chain’s namesake drink. So we added a 24 oz. Traditional Lobsterita (with its 890 calories and 860 mg of sodium). Ahoy, matey! Make room for 3,600 calories under that (newly expanded) belt.
**Pick & Lose**

“One Person, Two Dishes, Tons of Choices.” That’s the deal with the 2 For $12 Pick & Choose menu at Uno Pizzeria & Grill (131 locations), which lets you choose from five salads, four pastas, and three pizzas. Oh boy!

We started with the Baked Ziti & Sausage Pasta (“ziti and sausage in a tomato cream sauce topped with mozzarella and baked in a deep dish pan”). That’s 720 calories (a third of a day’s worth), which is high-but-reasonable...for an entire meal.

The Chicago Classic Deep Dish Pizza (“a small plate version of our famous Chicago Classic Deep Dish with sausage, mozzarella, chunky tomato sauce and romano”). Yes, it’s small next to Uno’s 1½-pound, 2,300-calorie individual Chicago Classic. But 1,470 calories is small? Really?

Add ‘em up and you get 2,190 calories, 49 grams of saturated fat (2½ days’ worth), 5,420 mg of sodium (a 3½-day supply), and white flour galore. It’s like eating three Pizza Hut Pepporoni Lover’s Personal Pan Pizzas. Our advice: think of Uno as No-no.

**Warm Crapple**

Who gets a dessert other than cheesecake at The Cheesecake Factory? Maybe someone who’s trying to avoid overdoing it. The Warm Apple Crisp looks nice.

Sigh. Between the apples, “delicious crispy nutty topping,” two scoops of ice cream, small mountain of whipped cream, and caramel sauce, you’re looking at 1,740 calories—more than any cheesecake on the menu. And don’t forget the bonus 48 grams (2½ days’ worth) of saturated fat and 32 teaspoons of sugar (much of it added).

For the same calories, you could (shudder) eat two slices of The Cheesecake Factory’s Original Cheesecake.

**Why Stop at 7?**

“It’s 7 Steakburgers and 7 slices of American cheese—a one pounder!” says Steak ‘n Shake (513 locations).

Yes, the 7X7 Steakburger ‘n Fries (available from midnight to 6 a.m. on the “Up All Night” menu) squeezes seven beef patties between its buns. The 1,330 calories in the burger make the 240 calories in the small side of fries seem puny. But what’s puny about the plate’s 47 grams of saturated fat and 4,570 mg of sodium?

If that’s not enough to keep you “up all night,” why not add a shake? With the 960-calorie Chocolate Fudge Brownie Milkshake (“What’s not to love?”), you hit 2,530 calories, plus 68 grams of saturated fat and 5,060 mg of sodium (about 3½ days’ worth of each) and 26 teaspoons of sugar.

It’s like polishing off four 9 oz. Outback sirloin steaks, each topped with two half-cup scoops of Breyers Chocolate Ice Cream.

We can’t wait until Steak ‘n Shake comes out with its 8X8 Steakburger ‘n Fries. Or its 9X9.

Restaurant Survival Tips

- **Order from the “light” menu.** IHOP calls them Simple & Fit (under 600 calories). The Cheesecake Factory calls them SkinnyLicious (590 calories or less).
- **Skip the beef burgers & fries.** Try a grilled chicken, turkey, or veggie burger. Get a green salad as your side...or main dish.
- **Want pizza? Go thin.** To cut calories, order a thin crust or flatbread pizza. (Whole grain’s better than multi-grain, which is better than white.) To cut saturated fat, ask for less cheese and veggie, chicken, or seafood toppings instead of sausage, beef, bacon, salami, or pepperoni.
- **Forget fried seafood.** Order it baked, broiled, grilled, or steamed. Ditch the complimentary bread (or biscuits) and dig into the salad instead.
- **Swap your steak.** A small filet or sirloin is a bargain compared to a New York strip, porterhouse, ribeye, or T-bone. Instead of mashed or baked potato, order a side of broccoli, asparagus, or another non-starchy veggie.
“Finally, after decades of sitting in a small corner of the freezer case, frozen fruit has landed its breakthrough role: smoothie ingredient,” the Wall Street Journal reported in February.

Why toss frozen, rather than fresh, fruit into your blender? Because it makes an icy-cold beverage with no added ice to water down your drink.

And, while you’re at it, why not add veggies to your fruit? Each cup of Wyman’s of Maine Fresh Frozen Strawberries, Blueberries & Cherries with Kale (that’s the name... and the ingredient list) packs three grams of fiber, a third of a day’s vitamin A, and half a day’s vitamin C, all for just 60 calories.

Or try Earthbound Farm Organic Smoothie Kickstart in Kale Berry or Mango Peach Carrot. Just blend a cup of any of the frozen mixes with a cup of 1% milk (not fruit juice). For a creamier smoothie, blend in a little plain 0% Greek yogurt. Like it thicker? Toss in some sliced banana. Instant heaven.

Wyman’s and Earthbound add no sugar, unlike Dole Shakers. Places like Jamba Juice and Smoothie King can turn smoothies into calorie-laden meals. A large (28 oz.) Amazing Greens smoothie from Jamba Juice, for example, has 610 calories.

Who needs ‘em? Make your own amazing smoothie instead.

wyman’s.com—(800) 341-1758
ebfarm.com—(800) 690-3200

godiva.com—(800) 946-3482

“Cool off with a Godiva Trufflelata—a cold and creamy sippable shake for the season,” says the Godiva website. Just choose your favorite truffle, “and we’ll blend it right into your Trufflelata!”

Why bother with a puny 100-calorie truffle, when you can pick your fave—like the Chocolate Lava Cake or Mint Chocolate Chip or Strawberry Crème—and drop it inside “a sip of Godiva”?

Take the Oreo Trufflelata. “This sensational shake brings together white chocolate, Oreo cookies, and our Cookie Dough Truffle—made of cookie dough ganache in a milk and white chocolate shell with dark chocolate chips. Topped with fresh whipped cream and crushed Oreo.”

Gosh, that sounds gourmet. Who’d ever guess that its ingredients include sugar, sweetened condensed milk, corn syrup, high-fructose corn syrup, coconut and palm kernel oils, emulsifiers, gums, artificial colors, artificial flavors, and preservatives?

When you’re done sipping your 12 oz. Trufflelata, you’ll need to find a home for 1,130 calories plus 27 grams of saturated fat (more than a day’s worth), 720 milligrams of sodium (about half a day’s supply), and 30 teaspoons of sugar (nearly all of it added). The other flavors aren’t much better.

It’s like having three tall (12 oz.) Starbucks Java Chip Frappuccinos. Is that sensational or what?


Cleaning up a raw meat, poultry, or egg spill? Use a paper towel spritzed with counter cleaner, toss it in the trash when you’re done, then wash your hands thoroughly. For most other spills, it’s fine to use a sponge.