

BY BONNIE LIEBMAN

Eat less saturated fat, salt, and sugar. Eat more whole grains, fruits, and vegetables (especially leafy greens).

Those messages probably ring a bell (whether or not you actually follow through on them).

But others just don't stick. Maybe that's because we haven't heard them enough or because they're controversial. Maybe it's because there's only so much you can remember and only so much you can think about when you're deciding what to have for lunch.

Here's a refresher on 10 topics that may have gone in one ear and out the other.

Continued on page 3.

in both children and adults. That may be due

But with two out of three adults and one

out of three children overweight or obese,

■ Trans fat. Trans fat in foods has declined

trans' appearance on Nutrition Facts labels,

local and state laws banning partially hydro-

food companies and restaurants. The change

is probably prevent-

heart attacks every

But progress has

stalled (and probably

the FDA bans partially

won't resume until

hydrogenated oil).

■ Salt. Companies

from Bumble Bee to

sodium in some of

their foods.

But they have to lower sodium much more

to prevent the high blood pressure—and heart

attacks and strokes—that their products cause.

trans fat, the use of drugs to lower cholesterol

and blood pressure, and fewer people smoking

help explain why heart attack death rates fell

But the doubling or more of obesity rates

since 1980 will surely slow—or even reverse—

The bottom line: Americans have made

exciting progress in achieving better health.

Now it's time to start doing something about

rike Jacobson

■ **Heart disease.** The decline in artificial

by 28 percent from 1997 to 2007.

that progress.

those "buts."

Michael F. Jacobson, Ph.D.

Center for Science in the Public Interest

Executive Director

Walmart have cut the

ing thousands of fatal

genated oil (the major source of artificial trans

by about two-thirds since 2000, thanks to

fat) from restaurants, and lawsuits against

excess weight remains a huge threat.

in part to fewer sugary drinks.





MEMO FROM MFJ

Good News!



suspect that I sometimes come across as the voice of doom when I highlight the problems in our food supply, be it the prevalence of foodborne illnesses, industry's relentless lobbying to prevent policy reforms, or the dangers of high-sodium

diets. For a change, I'd like to replace Gloomy Gus with Cheerful Charlie and point out some of the progress our country has made. (In

each case, Gus does manage to put in an appearance, though.)

■ Soda. After half a century of increasing consumption, it's heartening to see a 24 percent decline since 1998. That puts us back to where we were in about 1980. Regular Pepsi is down 39 percent since 1998, and Coke is down 23 percent.



Sweet progress. Regular soft drinks have virtually disappeared from schools.

Another victory: Regular soda has largely disappeared from schools. Full-calorie soft drinks in high schools, for example, plummeted from 121/2 ounces per student per week in 2004 to just half an ounce in 2009.

The drop in soft drink consumption has been paralleled by an unprecedented 14 percent decrease in sugar consumption (including high-fructose corn syrup).

But we still live in a world where sugary (and fatty) foods tempt us 24/7.

■ Obesity. Rates soared to record levels in the 1980s and 1990s, but have begun leveling off



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Still Not Getting It? 10 messages that don't seem to stick

We're doing some things right. As a nation, we've cut back on sugar and soft drinks. We've replaced much of our shortening with oil. We've switched from whole milk to lower-fat milk. We've swapped much of our beef for chicken. And we're eating more vegetables (not counting potatoes). Clearly, some messages are getting through, loud and clear.

But others, not so much. Here are 10 things that many of us have heard before, yet they just don't seem to sink in.

Extra weight increases your risk of cancer.

If you asked a thousand people why it's unhealthy to gain weight, what would you expect to hear? Maybe that extra pounds boost your odds of getting diabetes or a heart attack or a stroke.

Fewer people would guess that excess weight may increase your risk of cancer. Yet in January, the American Cancer Society (ACS) released the latest update of its *Guidelines on Nutrition and Physical Activity for Cancer Prevention.*¹ One of its key recommendations: "Be as lean as possible throughout life without being underweight."

Obesity is clearly linked to breast cancer in postmenopausal women, adenocarcinoma of the esophagus, and cancers of the colon, rectum, uterus, kidney, and pancreas. Evidence is growing that obesity is also linked to cancers of the gallbladder, liver, cervix, and ovary, along with non-Hodgkin lymphoma, multiple myeloma, and aggressive prostate cancer.



Losing extra pounds may curb the risk of getting and dying of some cancers.

"After tobacco cessation, maintaining healthy body weight through physical activity and diet is one of the main ways people can reduce their risk of developing cancer," says Marjorie McCullough, strategic director of nutritional epidemiology at the ACS and co-author of the *Guidelines*.

Losing excess weight (after treatment) may also raise your odds of keeping some cancers (like breast, colon, and prostate) from returning, says the ACS's new *Nutrition and Physical Activity Guidelines for Cancer Survivors*.² How?

"The obesity-inflammation connection is likely to be relevant for both risk and recurrence of cancer," said Andrew Dannenberg, director of the Weill Cornell Cancer Center in New York, at a recent workshop on "The Role of Obesity in Cancer Survival and Recurrence" held by the Institute of Medicine.³

Other culprits may also play a role.

"Insulin could be a major player, not just as an indicator of insulin resistance, but actually as a hormone that is driving cancer growth," suggested Derek Leroith of the Mount Sinai School of Medicine in New York at the same workshop. (When you're insulin resistant, your insulin doesn't work properly.)

To prevent cancer, the ACS doesn't just recommend that people lose excess weight, but that they avoid putting on pounds in the first place.

"For most adults, a reduction of 50 to 100 calories per day may prevent gradual weight gain," says the *Prevention* guidelines.

"It's so easy to inadvertently add 50 to 100 calories to your diet," notes Mc-Cullough. "It can really add up if you do

the math. So it makes sense to start cutting back a little bit."

That way, you can stay lean, rather than try to return to your old leaner self.

"People who maintain a healthy weight have a lower risk of cancer than people who have gained and then lost weight," McCullough points out. "So the ideal thing is not to gain in the first place."

But if you're already overweight, it's still worth trying to lose. Even if you repeatedly lose and regain the weight, your risk of dying of cancer, heart disease, or other illness is no higher than that of someone who started at the same weight.⁴

"Yo-yo dieting isn't dangerous," says McCullough. "So you might as well try to lose weight rather than not try at all."

Subtle cues can make you eat more (or less).

"Bet you can't eat just one," dared the classic Lay's potato chip ads. In fact, how many chips—or other foods—you eat may depend on cues below your radar.



People ate half as much when chips were separated by red "divider" chips.

A case in point: Researchers gave nearly 100 students at two colleges tubes of Lay's Stackables potato chips to eat while they watched a movie.⁵ Half the students got tubes of ordinary chips and half got tubes with a red (tomato-basil flavored) chip inserted after every four (or six, nine, or 13) ordinary chips.

"Students who ate from tubes with the red chip dividers cut their consumption

by more than 50 percent," says co-author Brian Wansink of Cornell University. "That meant that they consumed about 250 fewer calories."

Another benefit: "The dividers made students much better at estimating how many potato chips they ate," notes Wansink. "On average, those without red divider chips underestimated their intake by 13 chips, while those with divider chips were off by less than one chip."

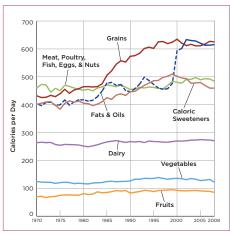
Wansink, author of *Mindless Eating* (Bantam, 2007), has found that all sorts of below-the-radar cues influence how much we eat. For example, people tend to consume more from larger plates and bowls and when food is visible and within reach. (See "Under the Influence," May 2011.)

What to do? Create your own dividers. "Repackage food into small containers, bowls, or baggies," suggests Wansink. "Don't say, 'Now that I know, it won't influence me.' Set up your environment so that you mindlessly eat less."

We're eating too many grains.

Too many grains? We've all heard the advice to switch to whole grains, to eat less sugar and bad fat, and to cut back on excess calories. But why less grains?

In 1970, the average American got 430 calories a day from wheat, corn, oats, rye, and other grains. By 2009, we were up to 620 calories a day.⁶



Source: U.S. Department of Agriculture.

Calories from grains (wheat, corn, oats, rice, etc.) have jumped by 45 percent since 1970. (The abrupt rise in fats & oils in 2000 was due to a change in the number of companies reporting, not to a steep increase in consumption.)

Chalk up the increase to more bread, pasta, rice, tortillas, crackers, cereal, pancakes, pizza crust, pretzels, pastries, and other foods made with grain. And an estimated 90 percent of the grain we eat is refined flour.

"Refined grains are a big part of the imbalance in our diets," says Susan Krebs-Smith of the National Cancer Institute, who analyzed diet data on more than 16,000 Americans.⁷

The other parts: We eat too many servings from the "meat" group (which also includes poultry, fish, and eggs) and too few servings of fruits, vegetables, and low-fat dairy. We also don't come close to making at least half of our grains whole. And we eat too much of what health authorities call SoFAS (solid fats and added sugars).

"Refined grains are not only consumed in excess, but tend to be carriers of So-FAS," says Krebs-Smith. "They show up in grain-based desserts, cakes, cookies, grain-based chips, and snacks."

And the U.S. Department of Agriculture may be too generous when it recommends six servings a day of grains for a 2,000-calorie diet. (A serving is just a half cup of cooked pasta or rice or one slice of bread.)

The healthiest diets in the OmniHeart study—which lowered blood pressure, triglycerides, and LDL ("bad") cholesterol—had only four servings of grains a day (see October 2009, p. 1).8 Instead, the diets' carbs came from fruits, vegetables, and beans. But that's a quibble when most people get far more than six servings of grains a day.

"It's not as though people were having either extra grains or extra solid fats and added sugars," says Krebs-Smith. "People were having quite a bit extra of all three."

Animal protein can help, not hurt, bones.

Does animal protein leach calcium from bones, as some people claim?

"Protein does increase calcium excretion," says Sue Shapses, professor of nutrition at Rutgers University in New Jersey.
"But with a higher protein intake, there's also a higher absorption of calcium."

Whether that leads to a net loss or gain in bone seems to depend on how much calcium you consume.

Researchers divided more than 3,700 residents of Framingham, Massachusetts, by how much calcium they got from food and supplements. Among residents who consumed less than 800 milligrams of calcium a day (they averaged about



Protein is good for bones, as long as you get enough calcium.

500 mg), those who ate the most animal protein had nearly three times the risk of a hip fracture than those who ate the least animal protein.

However, among those who consumed at least 800 mg of calcium a day (they averaged about 1,000 mg), those who ate the most animal protein had an 85 percent *lower* risk of a hip fracture than those who ate the least animal protein.⁹

"As long as there's adequate calcium, protein is good for bones," says Shapses.

Shapses has also looked more closely at what protein does to bone in dieters.

"In the past, we found that there's a decrease in calcium absorption when you're dieting," she notes. "And when you're dieting, you may be decreasing your calcium and protein intake, too."

In a study funded by the National Institute on Aging, Shapses and her colleagues assigned 47 overweight postmenopausal women to either a high-protein or a normal-protein diet. ¹⁰ All the women cut 500 to 600 calories a day and got 1,200 mg a day of calcium (from food and supplements) and 400 IU of vitamin D. The protein came mostly from fish, lean meat, poultry, beans, and dairy foods.

After one year, the high-protein group lost less bone from the hip, spine, and wrist.

"All three are high-risk sites for fracture," notes Shapses, who adds that "I think the results would be even more significant in older people. Fractures don't generally begin until after 70 years of age, so they were still a youngish group for osteoporosis." (The average age was 58.)

"And older people may not eat enough protein," notes Shapses. That can lead to loss of muscle too.

Even the women in her study had trouble getting enough protein.

"Our goal was to have the higher-protein group get 30 percent of their calories from protein, but they only reached 24 percent," says Shapses. They averaged 86 grams of protein a day, while the normal-protein group got 18 percent of their calories from protein, or 60 grams a day.

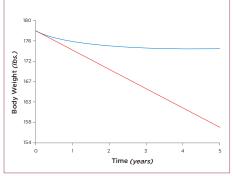
Shapses' bottom line: "Getting about 25 percent of your calories from protein seems like a good target to reduce bone loss."

5 Eating 3,500 fewer calories doesn't mean you'll lose a pound.

"If you google how many calories are in a pound, you'll get something like 11 million hits, and they all basically say the same thing," explained Kevin Hall at the 2012 annual meeting of the American Association for the Advancement of Science in Vancouver in February.

"They all say there's 3,500 calories in a pound," continued Hall, who is an obesity researcher and physicist at the National Institute of Diabetes and Digestive and Kidney Diseases.

For decades, people have used the 3,500-calorie rule to estimate how much weight they'll lose.



Source: Lancet 378: 826, 2011.

Using the 3,500-calorie rule, weight keeps dropping (red line). In reality, weight loss plateaus (blue line).

The usual assumption: If you cut, say, 500 calories a day from your diet, said Hall, "then after a week, I'm going to get one pound of weight change, and that will keep going forever." But that's not what happens (see graph). Why?

The 3,500-calorie rule assumes "that there's going to be no change in the number of calories that you're expending," said Hall. In fact, the body starts burning fewer calories as you lose weight.¹¹

"The resting metabolic rate drops," Hall noted. Resting metabolic rate—the rate at which your body burns calories to

keep you alive at rest—accounts for 60 to 75 percent of the calories that a typical person burns.

When you lose weight, your resting metabolic rate drops because your body thinks you're starving, so it tries to burn fewer calories. And that's not all.

"The physical activity cost also drops," added Hall. That's because your body doesn't need to burn as many calories to move the new, lighter you.

What happens if you don't just cut calories, but get out and walk or run a few miles every day?

"Let's say I start cranking up my physical activity and start burning a lot more calories," said Hall. "In some people, that's going to cause them to eat more, and our model doesn't know how much that's going to be, because in other people, that's going to cause them to eat less."

In carefully controlled studies where people participate in supervised exercise, weight loss varies. The studies "see this large range of weight changes, from people who gain weight...to people who lose more weight than would be expected," said Hall.

The bottom line: Don't expect to lose weight quickly.

"We have a new weight-loss rule of thumb, which is 10 calories per day per pound of weight change," said Hall. "About half of this weight change will occur after one year and about 95 percent will occur after three years."

So if you want to lose, say, 10 pounds, you have to permanently cut 100 calories a day. After a year you will have lost 5 of the 10 pounds and after three years you will have lost nearly all 10 pounds.

To estimate how long it will take to reach your weight goal, try using Hall's body weight simulator (bwsimulator .niddk.nih.gov).

We don't get enough potassium.

How much potassium are you supposed to get? The Recommended Dietary Allowance (RDA) is 4,700 milligrams a day. The average American gets roughly half that much.

And potassium matters. "Many randomized trials have shown that an increase in potassium intake lowers blood pressure," says Graham MacGregor, professor of cardiovascular medicine at the London School of Medicine and Dentistry.¹²

But potassium may do more than help blood pressure.

For four weeks, MacGregor and his colleagues gave an extra 2,500 milligrams of potassium a day or a placebo to 42 people with high blood pressure who were already getting about 2,200 mg of potassium from their food.¹³ The participants' arteries were less stiff when they got the extra potassium than when they got the placebo.



Want more potassium? Eat more fruits and vegetables.

People with stiffer arteries have a higher risk of heart attacks, strokes, and memory loss. (See "Keep it Supple," October 2010.)

What's more, they also had less thickening of the heart muscle when they were given potassium. A thicker muscle around the left ventricle—left ventricular hypertrophy—is linked to a higher risk of heart disease. (The left ventricle is the chamber of the heart that pumps oxygenrich blood throughout the body.)

"High blood pressure and left ventricular hypertrophy are both important risk factors for heart failure," says MacGregor, who heads World Action on Salt and Health, which is working to gradually reduce salt intake in 85 countries.

In a U.S. study of 1,000 healthy young adults without high blood pressure, those who consumed more potassium *and* less sodium also had less thickening of the heart muscle.¹⁴

"The best way to increase potassium intake is to increase the consumption of fruits and vegetables," says MacGregor.

Why? Fruits and vegetables have other nutrients that may lower blood pressure, and they displace foods with more saturated fat and cholesterol. The Omni-Heart diets, which lowered blood pressure and LDL ("bad") cholesterol, included 11 (half-cup) servings of fruits and vegetables a day.8

And don't forget salt. "For the most effective blood pressure control, reduce



sodium intake and increase potassium intake," says MacGregor.

Don't expect vitamins to prevent cancer.

"With bone & breast health support," says the One A Day Women's Formula multivitamins box.

"Supplementing with [selenium] may decrease your prostate cancer risk," says GNC's Web site. ("GNC provides the information as a service but does not endorse it," notes the site. The information comes from Aisle7, an "integrated wellness marketing" firm that promises to "drive in-store sales." How convenient.)

In fact, few studies have found that multivitamins, selenium, or other supplements prevent cancer. Yet half of all U.S. adults take them.

"Undoubtedly, use is driven by a common belief that supplements can improve health and protect against disease, and that at worst, they are harmless," wrote five cancer researchers in the *Journal of the National Cancer Institute* in April.¹⁵

But that belief may be wrong. For example, selenium (200 micrograms a day) raised the risk of squamous cell skin cancer in one trial. And high doses of beta-carotene (33,000 to 50,000 IU a day) raised the risk of lung cancer in heavy smokers in two others. It

"Antioxidants may well be a two-edged sword," wrote the researchers, because they "could serve as pro-oxidants or interfere with any of a number of protective processes."



"Breast health"? What could that mean except "helps prevent breast cancer"?

But so far, it appears that most supplements are neither harmful nor helpful.

"For most people, who are basically well nourished, these supplements don't have the role in preventing cancer that people expect," says John Baron, professor of medicine at the University of North Carolina and one of the article's authors.

Granted, the studies testing supplements may have been too short for a disease that can take a decade to develop.

"Trials on vitamin C or E found no benefit after five or six years," notes Baron.
"It's conceivable that there's some benefit after a longer period, but it's unlikely."

That's not to say that all supplements are dangerous or useless. In one of Baron's trials, for example, calcium lowered the risk of precancerous colon polyps. And trials are under way to find out if vitamin D can lower the risk of several different cancers.

Just remember: when you see claims that a vitamin "maintains a healthy prostate" or "supports breast health," what it really means is "there's no good evidence that the vitamin lowers the risk of prostate or breast cancer."

Omega-6 fats don't cause inflammation.

"The anti-inflammatory diet counteracts the chronic inflammation that is a root cause of many serious diseases that become more frequent after age 60," explains Dr. Andrew Weil's Web site.

"We now know that inflammation also plays a causative role in heart disease, Alzheimer's and Parkinson's diseases," the site adds, "as well as other age-related disorders, including cancer."

One cause of inflammation, says Weil: "Most people consume an excess of omega-6 fatty acids from which the body synthesizes hormones that promote inflammation."

In contrast, he continues, "omega-3 fatty acids have an anti-inflammatory effect and are found in oily fish, walnuts, flax, hemp, and to a smaller degree in soy and canola oils and sea vegetables."

Weil's advice: "Avoid regular safflower and sunflower oils, corn oil, cottonseed oil, and mixed vegetable oils." Instead, he recommends olive or canola oils, which are lower in omega-6 fats than those other oils. (Oddly, he implies that soy oil is largely omega-3s, even though it's much higher in omega-6s.)

Weil isn't alone in his criticism of omega-6 fats.

"If you've got too much omega-6, inflammation wins," explains Dr. Mehmet Oz on his Web site. "Not only do you lose the power of the omega-3s...but you do serious damage to your body."

Only one problem: omega-6 fats don't



Dr. Oz shows how omega-6s (yellow) fight omega-3s (blue) in the body.

seem to promote inflammation.

"Eating less omega-6 vegetable oils doesn't matter for two reasons," explains William Harris of the University of South Dakota Sanford School of Medicine.

"First, the body converts so little of the omega-6's linoleic acid into arachidonic acid that its levels don't budge." (Arachidonic is the fatty acid that supposedly leads to inflammation.)

"And second, the body converts arachidonic acid into both pro- and antiinflammatory compounds, so it can't be pigeonholed as one or the other," adds Harris.

In a recent Swedish study, 61 people with abdominal obesity were fed a diet that got 15 percent of its calories from either saturated fat (butter) or omega-6 fat (sunflower oil).¹⁹ The omega-6 diet had 14 times as much omega-6 as omega-3 fat.

Yet after 10 weeks, the researchers saw no rise in inflammation or in arachidonic acid in either group. What's more, the people eating the omega-6 diet had less liver fat, which suggests that their insulin was working better.

Similar findings led the American Heart Association to caution consumers in 2009 not to cut back on omega-6 oils.²⁰

"So far, there is no good evidence that omega-6 fats cause inflammation in people," says Harris, who chaired the panel of scientists who wrote the Heart Association's advice.

"Eating less omega-6 fats is more likely to increase than to decrease the risk of heart disease," adds Harris. One reason: omega-6 fats lower LDL ("bad") cholesterol.

It's still important to get omega-3 fats from fatty fish (like salmon) or, if you're a vegetarian, from DHA pills made from algae or yeast. Omega-3s lower LDL and may also lower the risk of heart disease in other ways. (See "From Sun & Sea," Nov. 2009.)

And don't worry that the omega-6 fats from the soybean oil in most salad dressings, mayonnaise, and restaurant foods cause inflammation.

You need to cut calories as you get older.

Still eating the same-size sandwich, plate of pasta, or bowl of cereal that you always have? Maybe that's why your waist is starting to spread out.

"Food lover that I am, the worst part about getting older is that I can't eat as much as I used to without putting on weight," says Marion Nestle, professor of nutrition, food studies, and public health at New York University.

"I hate this," she adds. "But the reality is that bodies change with age in ways that reduce calorie needs."

Resting metabolism—the rate at which we burn calories to keep our lungs, heart, kidneys, brain, and other organs running—starts to drop appreciably



Want to stay trim? Cut back on portions as you get older.

at around age 40 in men and age 50 in women.

"Muscle mass is replaced by fat—which burns fewer calories than muscle—and people generally become less active," notes Nestle. Exercise helps, "but some of the change seems to be inevitable," she adds. "I consider this the worst dirty trick about aging."

The only consolation: You're not alone. "Every postmenopausal woman I know complains about how hard it is to main-

tain weight," says Nestle. "It's no fun to feel as though you can't even look at food without adding on pounds."

That's one of the topics she addresses in Why Calories Count: From Science to Politics (University of California Press, 2012), her new book co-authored by Malden Nesheim, professor emeritus of nutritional sciences at Cornell University.

"We wrote the book in part to help everyone realize that we are all in this together," says Nestle.

Magnesium may lower your risk of diabetes.

Want to avoid type 2 diabetes? Lose extra pounds, exercise daily, and limit sweets, especially sugary drinks. That's no surprise.

But eating more magnesium-rich foods like leafy greens, beans, whole grains, nuts, and wheat bran may also help. Yet many people fall short. A typical woman gets 250 milligrams of magnesium a day, but should get 320 mg. A typical man gets 335 mg, but should get 420 mg.

"We have very consistent evidence from population studies that higher magnesium status is associated with lower risk of type 2 diabetes," says Yiqing Song, assistant professor of medicine at Harvard Medical School.

For example, in a meta-analysis of seven studies that tracked more than 286,000 people for 4 to 17 years, the risk of diabetes was 15 percent lower for each 100 mg a day of magnesium that people reported eating.²¹ That's how much you'd get in four slices of whole wheat bread, one cup of beans, a quarter cup of most nuts, half a cup of cooked spinach, or half a cup of Original All-Bran cereal.

Still, questions remain because those studies weren't designed to prove cause-and-effect. Something else about people who eat magnesium-rich foods may lower their risk of diabetes.

So researchers have tried to give people magnesium to see if it lowers their blood sugar or makes their insulin work better.

For example, a recent German study gave either magnesium (365 mg a day) or a placebo to 52 overweight people with insulin resistance.²² (If you're insulin resistant, your insulin doesn't work efficiently, and you have a higher risk of diabetes and heart disease.)

After six months, the magnesium takers had lower fasting blood sugar levels and less insulin resistance than the placebo takers.

Magnesium hasn't worked in all studies, though. "We have inconsistent results from small trials," says Song.

"But they used different doses and most were short term and tested people who already have diabetes. We'd like to do a larger and longer trial in people who don't have diabetes to see if magnesium supplementation prevents the disease."



Beans, greens, whole grains, and nuts are good sources of magnesium.

How might magnesium keep diabetes at bay? Some enzymes that regulate blood sugar need magnesium to work.

"Magnesium is also anti-inflammatory," says Song. "And its antioxidant function may protect beta-cells."

Diabetes occurs when blood sugar rises because beta-cells in the pancreas can no longer secrete enough insulin.

In the meantime, "we don't have direct and conclusive evidence to recommend that people take magnesium supplements for preventing type 2 diabetes," says Song.

"But it's safe to consume magnesiumrich foods like green leafy vegetables, which are beneficial for many chronic diseases."

- ¹ CA Cancer J. Clin. 62: 30, 2012.
- ² CA Cancer J. Clin. DOI:10.3322/caac.21142.
- 3 www.iom.edu/Reports/2012/The-Role-of-Obesity-in-Cancer-Survival-and-Recurrence.aspx.
- ⁴ Am. J. Epidemiol. 175: 785, 2012.
- ⁵ Health Psych. DOI:10.1037/a0027221, 2012.
- 6 www.ers.usda.gov/Data/FoodConsumption/ FoodGuideSpreadsheets.htm#calories.
- ⁷ J. Nutr. 140: 1832, 2010.
- 8 JAMA 294: 2455, 2005.
- ⁹ J. Bone Min. Res. 25: 2770, 2010.
- ¹⁰ J. Bone Min. Res. 26: 1339, 2011.
- ¹¹ Lancet 378: 826, 2011.
- ¹² JAMA 277: 1624, 1997.
- ¹³ Hypertension 55: 681, 2010.
- ¹⁴ Hypertension 58: 410, 2011.
- ¹⁵ J. Natl. Cancer Inst. 104: 1, 2012.
- ¹⁶ J. Natl. Cancer Inst. 104. 1, 2012. 16 J. Natl. Cancer Inst. 95: 1477, 2003.
- ¹⁷ N. Engl. J. Med. 330: 1029, 1994.
- ¹⁸ N. Engl. J. Med. 340: 101, 1999.
- ¹⁹ Am. J. Clin. Nutr. 95: 1003, 2012.
- ²⁰ Circulation 119: 902, 2009.
 ²¹ J. Intern. Med. 262: 208, 2007.
- ²² Diab. Obes. Metab. 13: 281, 2011.

QUICK STUDIES



Time for just one? Aerobic exercise trumps strength training.

Exercise Run-Off

ou're best off doing both aerobic exercise (like walking, cycling, or running) and strength training (like lifting weights). But what if you can barely get yourself to do just one?

Researchers assigned roughly 150 overweight, sedentary adults with elevated LDL ("bad") cholesterol or low HDL ("good") cholesterol to one of three groups. The aerobic group did the equivalent of 12 miles of brisk walking per week (using treadmills, elliptical trainers, or stationary cycles and a heart rate monitor to make sure that they were at 75 percent of their oxygen capacity). The strength group did three sets of eight weight-lifting exercises using major muscle groups three days a week. The aerobic + strength group did both.

After eight months, both the aerobic and the aerobic + strength groups had less liver fat, less visceral (deep) and subcutaneous (just below the skin) abdominal fat, and less insulin resistance. The strength group only had less subcutaneous abdominal fat.

What to do: Strength training helps prevent muscle loss as you age. But if you're overweight and only able to do one kind of exercise, go for aerobic. It's most likely to curb the insulin resistance that boosts the risk of heart disease and diabetes.

Am. J. Physiol. Endocrinol. Metab. 301: E1033, 2011.

Get Some Sleep...or Else

People who sleep less have a higher risk of diabetes and obesity. Now researchers have more evidence that lack of sleep helps *cause* those health problems.

Scientists told 11 young (average age: 23) and 10 older (average age: 60) healthy adults to get adequate sleep for three weeks before the study started. For the next five weeks, each lived in an individual laboratory suite with dim light and no time cues.

For three of the weeks, they were allowed only 6½ hours of sleep every 28 hours. They were kept awake for 21½ hours at a time because the researchers wanted to disrupt their circadian rhythm (like it is when people perform shift work or experience jet lag).

During those three weeks, the participants' resting metabolic rate fell by 8 percent, which could lead to weight gain over time (though they lost, on average, about 2½ pounds during the study because they were more active).

Another ominous finding: The volunteers had higher blood sugar levels after meals

and before breakfast during the weeks of sleep deprivation. And their blood insulin levels in response to meals were 32 percent lower, which indicates that the lack of sleep left their pancreatic beta-cells unable to secrete enough insulin.

What's more, their levels of the hormone ghrelin (which stimulates appetite) were higher and their levels of the hormone leptin (which curbs appetite) were lower when they were sleep deprived.

"The participants' glucose control went haywire...in some cases at a level considered pre-diabetic," wrote the editor of the journal. That and the lower metabolic rate "could easily set the stage for development of diabetes and obesity."

What to do: Try to get enough sleep. The evidence is growing that a lack of sleep is harmful, even if you don't disrupt your circadian rhythm (see April 2012, p. 9).

Sci. Transl. Med. 4: 129ra43, 2012.

D & Prostate Cancer

Men with higher blood levels of vitamin D have a lower risk of lethal prostate cancer.

Researchers compared vitamin D levels in the blood of 1,260 men from the Health Professionals Follow-Up Study who were later diagnosed with prostate cancer to vitamin D levels in 1,331 study participants who were not. (All the blood samples were drawn years before the men were diagnosed.)

Men with the highest vitamin D levels had a 57 percent lower risk of lethal prostate cancer than those with the lowest levels. (Only 5 percent of the 1,260 men with prostate cancer had died by the end of the 15-year study.) The researchers found no link between vitamin D levels and overall prostate cancer or prostate cancers that were "aggressive" (those with a high Gleason score) or advanced.

What to do: Whether you're a man or a woman, shoot for the recommended vitamin D intake: 600 IU a day if you're 70 or younger and 800 IU a day if you're over 70.

J. Natl. Cancer Inst. 104: 1, 2012.

Sneaky Screensavers

Oh, those subtle cues.

Researchers gave 96 people (aged 16 to 70) a bowl holding 20 pieces of chocolate to sample and rate (for taste, sweetness, etc.) for five minutes. Off to the side was a computer with one of two screensavers: either three of the ultra-thin human-like sculptures by Alberto Giacometti or a painting by Mark Rothko (essentially orange and yellow rectangles).

Participants who sat near the Rothko averaged 6.4 chocolates, while those near the Giacomettis averaged 4.7 chocolates. Most people said they hadn't even noticed the screensavers.

Then the researchers gave another 80 people bowls of chocolate. Half were asked to write their weight (and gender and age) before the tasting, while the others wrote the information after the tasting.

Women who recorded their weight before the tasting averaged 4.4 chocolates, while those who recorded it after averaged 6.8 chocolates. Men ate the same number no matter when they wrote down their weight.

What to do: Watch out for subtle cues that make you eat more.

Appetite 58: 1109, 2012.

the saga continues

BY DAVID SCHARDT

The Food and Drug Administration announced early this spring that it would not ban BPA from food containers. "The scientific evidence at this time does not suggest that the very low levels of human exposure to BPA through the diet are unsafe," the agency said.

FDA officials stressed that they would continue to assess the safety of BPA and expect to issue another update later this year. Here's what you need to know now.

PA, short for bisphenol A, is used to make some hard plastic containers and the linings of food and drink cans (it protects the metal from reacting with the contents). It's also found in a slew of consumer products, from CDs to eyeglass lenses to cash register receipts. Nearly everyone in the United States has traces of it in their body.

What's wrong with that? BPA is an estrogen "mimic" that may disrupt the normal hormonal control of tissues by activating the same receptors on cells that naturally occurring estrogen activates.

Traditional toxicity tests typically find no harm from BPA. However, the National Institute of Environmental Health Sciences, a part of the National Institutes of Health,

continues to have "some concern"—based on newer kinds of toxicity studies in animals—about BPA's "effects on the brain, behavior, and prostate gland in fetuses, infants, and children."

Researchers are now looking at BPA in humans. Here's what they're finding:

■ The higher the levels of BPA in the urine of pregnant Cincinnati mothers, the more their daughters were anxious, depressed, and hyperactive and the poorer their emotional control when they were three years old.¹

- British men and women who were diagnosed with cardiovascular disease were more likely to have had higher levels of BPA in their urine 11 years earlier than similar people who weren't diagnosed with heart disease.²
- Men and women in the U.S. National Health and Nutrition Examination Surveys who had higher levels of BPA in their urine were more likely to have coronary heart disease or type 2 diabetes, though the surveys couldn't tell which came first, higher BPA levels or the diseases.^{3,4}
- Among men seeking treatment at a Massachusetts fertility clinic, higher urinary levels of BPA were linked to lower sperm concentration and motility and to greater damage to sperm DNA.⁵

Bottom line: There's no smoking gun, but it makes sense to try to avoid BPA.

HOW TO MINIMIZE YOUR EXPOSURE

PA is everywhere in the environment, so you can't avoid it entirely. "But if you're concerned, you can take steps to reduce your exposure," says Linda Birnbaum, director of the National Institute of Environmental Health Sciences (NIEHS).

Here's how:

1. Avoid polycarbonate. Polycarbonate is a plastic that contains BPA, and the compound can leach into food that comes into contact with the plastic.

Polycarbonate is typically hard and clear, and carries the recycling No. 7 on the bottom. Not everything labeled 7 is polycarbonate, though. The number is a grab bag category for miscellaneous plastics.

One big change that has already taken place: BPA is no longer used in baby bottles and sippy cups, according to the FDA.

2. Watch the heat. Since heat can accelerate the leaching of BPA, "do not put very hot or boiling liquid that you intend



Eden Organic was one of the first companies to switch to BPA-free cans. Others have now started to do the same.

to consume in plastic containers made with BPA," cautions the FDA. And "discard all bottles with scratches, as these may harbor bacteria and, if BPA-containing, lead to greater release of BPA."

3. Be gentle. Don't microwave polycarbonate food containers or run them through the dishwasher, says NIEHS, because the plastic can break down with repeated exposure to high temperatures.

4. Minimize canned foods and drinks.

"Consumers concerned about BPA in canned food can eat fresh or frozen foods," suggests NIEHS' Linda Birnbaum. There's also bottled or dried food or food in shelf-stable packaging. Last year, Harvard researchers found that when volunteers ate a serving of canned soup every day for five days, BPA levels in their urine jumped more than tenfold.¹

Some companies—Amy's, for example—have switched entirely to BPA-free cans. So has Eden for most of its canned foods. Still others, like Del Monte, Muir Glen, Trader Joe's, and Whole Foods, have started to use BPA-free cans. Ditto for brands like Campbell's Soup and Hunt's Tomatoes.

To find out about a specific food, you'll need to check the company's Web site or call customer service.

¹ Pediatrics 128: 873, 2011.

² DOI:10.1161/CIRCULATIONAHA.111.069153.

³ PLoS 5: e8673, 2010.

⁴ J. Clin. Endocrinol. Metab. 96: 3822, 2011.

⁵ Reprod. Toxicol. 30: 532, 2010.

¹ JAMA 306: 2218, 2011.

BY DAVID SCHARDT

uperpowers" are what coconut oil has, Dr. Mehmet Oz told his TV audience last year. The benefits of coconut oil are "near miraculous," says Internet osteopath and entrepreneur Joseph Mercola.

"Protect against cancer," "dissolve kidney stones," and "lose excess body fat," promises a coconut oil distributor on its Web site. And, if you believe a new book and the Internet buzz, coconut oil might even cure Alzheimer's disease.

Thinking about switching to this hot tropical fat? Here's what you need to know.

What makes coconut oil stand out from other oils?

First, 92 percent of its fat is saturated. That makes coconut oil far more saturated than most other oils and fats. Olive and soybean oils, for example, are about 15 percent saturated, while beef fat is about 50 percent saturated and butter is 63 percent saturated. (Only palm kernel oil, at 82 percent saturated, rivals coconut oil.)

All those saturated chemical bonds explain why coconut oil is solid at room temperature and doesn't go rancid quickly. That makes it attractive to many candy makers, who use it in chocolate, yogurt, and other coatings that don't melt until they hit your mouth. (It's also why some vegans—who eat no meat, fish, eggs, or dairy foods—use it as a butter substitute.)

Coconut oil is also unusual because it contains a high percentage of mediumchain triglycerides, or MCTs.

Most oils consist entirely of long-chain triglycerides, or LCTs, which are more than 12 carbons long. Soybean oil, for example, is 100 percent LCTs. Mediumchain triglycerides are 6 to 12 carbons long. Coconut oil contains roughly 40 percent LCTs and 60 percent MCTs.

The difference matters because our bodies metabolize MCTs differently than LCTs.

"MCTs are transported directly from the intestinal tract to the liver, where they're likely to be directly burned off as fuel and raise the metabolic rate slightly," explains researcher Marie-Pierre St-Onge of Columbia University. That means less is available to be circulated throughout the body and deposited in fat tissues.

So if you use coconut oil instead of other oils, will those extra pounds melt away?

WEIGHT LOSS

"The first of the health benefits of coconuts—the one you're going to care about a lot—is weight loss," Mehmet Oz announced on his TV show last year.

By eating more coconut oil, "you might slim your waist in one week," notes health guru Joseph Mercola. (Mercola sells coconut oil for \$65 a gallon on his Web site.)

But the evidence behind their claims is pretty thin. Only one published study, a master's thesis in Brazil, has tested whether coconut oil could help people lose weight. It didn't.



Can coconut oil help you lose weight? There's no good evidence.

Forty obese women cut their food intake by 200 calories a day and exercised four days a week. Half of them used two tablespoons of coconut oil (about 240 calories' worth) every day in their cooking and half used soybean oil.

After three months, both groups had lost the same amount of weight, about two pounds. And, contrary to what Mercola claims, the average waist circumference at the end of the study was the

same—about 38 inches—in both groups.¹

"People may be attributing to coconut oil the results from studies of MCT oil," suggests St-Onge.

MCT oil is specially formulated—often from coconut oil extracts—to consist of 100 percent medium-chain triglycerides. In several small studies that typically lasted one to four months, dieters who used small amounts of MCT oil lost more weight than dieters who used liquid vegetable oil.

In the largest and longest of St-Onge's studies, for example, she and her colleagues told 31 overweight or obese men and women to eat 1,500-to-1,800-calorie-a-day diets that got 12 percent of their calories either from MCTs (11/2 to 2 tablespoons a day of MCT oil) or from olive oil.

Over the four months of the study, the people getting MCT oil lost about four more pounds than those getting olive oil.² There's no way to tell whether the MCT users would have continued to lose more weight beyond four months, though.

St-Onge's bottom line: "The effect of MCT oil on weight loss is modest." Since coconut oil contains only about half as much medium-chain triglycerides as MCT oil, would coconut oil have just half of that "modest" impact on weight? The studies haven't been done.

ALZHEIMER'S

Florida pediatrician Mary Newport was desperately trying to enroll her husband, Steve, in a clinical trial of a promising new Alzheimer's drug in 2008. But he couldn't score high enough on a mental screening test to qualify, Newport wrote in Alzheimer's Disease: What If There Was a Cure? The Story of Ketones (Basic Health Publications, 2011).

Then she remembered reading on the Internet that a company claimed promising results from giving medium-chain triglycerides made from coconut oil to Alzheimer's patients. Thinking they had nothing to lose, Newport bought a jar of coconut oil from a health food store and put several tablespoons in her husband's oatmeal the next morning, hours before another test.

That afternoon she was astonished to learn that Steve had passed and was accepted into a study of an experimental drug. He could remember things like the day of the week, the month, the season, and what city he was in, all of which he had trouble doing the day before.

"He said he felt as if a light had switched on," she recalled.

So began the Newports' journey, with Steve eating coconut oil every day (sometimes mixed with MCT oil) and Mary spreading the word about coconut oil's potential as an Alzheimer's cure through her blog, a new book published last year, and by lobbying scientists and politicians.

Unfortunately, the evidence doesn't match the level of Newport's enthusiasm.

"Our brains normally use only glucose for energy," explains National Institutes of Health researcher Richard Veech, who has worked with the Newports.

"But during fasting or starvation, when we draw on our fat stores for energy, our brains can switch to using products of fat metabolism called ketones as a replacement for glucose, provided the ketone levels get high enough in the brain."

Early on in diseases like Alzheimer's and Parkinson's, the brain starts to lose its ability to use glucose, which leads to a kind of starvation of the brain. But the brain can still use ketones.

"If we could get the level of ketones in the brain up high enough in Alzheimer's patients, the hope is that they can use this for energy in place of glucose and we may be able to restore some of the brain's mental functions," says Veech.

But don't expect that to happen from consuming coconut oil or MCTs, Veech cautions. While cells produce ketones when they metabolize the medium-chain triglycerides in coconut oil, "that doesn't lead to levels anywhere near high enough in the brain to do much good," he notes.

Three years ago, a Colorado company—Accera, Inc.—tested a powder consisting of 100 percent MCTs extracted from coconut oil and palm kernel oil on 140 patients with mild to moderate Alzheimer's disease. According to Accera, the MCT takers scored better than the placebo takers on a test of cognitive impairment given after 45 days (though the study found no difference after 90 days).³

However, that was only true if the researchers included 17 patients who were assigned—but not *randomly* assigned—to get MCT powder or the placebo. In a good study, patients are all randomly assigned. Otherwise, scientists might stack the placebo group with sicker people.

When Accera looked only at the 123 randomized patients, the MCT takers scored no better than the placebo takers.

Accera did find one group of patients that scored better when taking MCT powder than the placebo, though the effect seemed to weaken by the end of the 90-day study. It was the patients without



Don't count on coconut oil to ward off or cure Alzheimer's.

ApoE4, a version of a gene that increases the risk of Alzheimer's fourfold.

Veech wasn't impressed with the results. "We're trying to interest food companies in producing ketones directly, bypassing the MCT stage," he says.

Accera sells its MCT powder, under the name Axona, as a prescription "medical food" for the "clinical dietary management of mild-to-moderate Alzheimer's disease." (A medical food needs far less evidence than a drug does.)

HEART DISEASE

Conventional coconut oil—the kind used in some candies, coffee creamers, and movie theater popcorn—is made from dried coconut that is pulverized, cooked, and treated with chemicals to produce a bleached, refined oil for use in foods.

"It's bad stuff," says Cornell University researcher Tom Brenna. "This kind of coconut oil jacks up cholesterol levels in laboratory animals like rats, rabbits, and hamsters, which scientists use to study the effects of fats in humans."

The Bottom Line

- There is no good evidence that coconut oil can help you lose weight or help cure Alzheimer's disease.
- MCT oil may lead to modest weight loss when substituted for other oils.
- There is no good evidence that "virgin" coconut oil does less damage to your heart than conventional coconut oil.

About ten years ago, "virgin" coconut oil started to become a popular alternative. "It's made with a mild extraction procedure from fresh coconut meat," says Brenna. "You purée it, heat it gently, and skim off the fat that rises to the top."

Proponents of this "cold-pressed" virgin coconut oil say that it's a healthier, more natural fat than conventional coconut oil. But there's little evidence for that.

For one thing, both virgin and conventional coconut oils contain the same saturated fats. In fact, their chemical compositions are so similar that only trained experts can tell them apart, using color, aroma, and taste.⁴

Nor is there evidence that cold-pressed oils are healthier than highly processed ones. "I am not aware of any studies," says Brenna. But he also notes that "we see no data suggesting that heart disease is rampant in several small islands in Polynesia, where people consume most of their fat as coconut fat from fresh coconuts."

Of course, it's possible that something else about the islanders' diets or physical activity or genes neutralizes the rise in cholesterol that coconut oil produces.

Studies looking at the effect of coconut oil—virgin or conventional—on heart disease in humans are scarce.

In the only study done in people in the last 17 years, Malaysian researchers last year found that when they fed young men and women 20 percent of their calories from coconut oil for five weeks, LDL ("bad") cholesterol was 8 percent higher and HDL ("good") cholesterol was 7 percent higher than when the participants were fed 20 percent of their calories from olive oil. 5 (The researchers didn't respond to inquiries about whether they used virgin or conventional coconut oil.)

But just because HDL went up along with LDL doesn't mean that coconut oil is healthy, points out Frank Sacks, professor of cardiovascular disease prevention at the Harvard School of Public Health in Boston. "We know that raising LDL levels increases the risk of heart disease," he notes, "but we can't say that raising HDL with diet or drugs can lower the risk of cardiovascular disease."

Sacks' bottom line: "Since polyunsaturated oils lower LDLs and coconut oil raises LDLs, we can't recommend that people replace olive, canola, or other liquid oils with coconut oil."

¹ Lipids 44: 593, 2009.

² Am. J. Clin. Nutr. 87: 621, 2008.

³ Nutr. Metab. 6: 31, 2009.

⁴ Trends Food Sci. Tech. 20: 481, 2009.

⁵ Am. J. Clin. Nutr. 94: 1451, 2011.



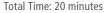
JUST FOR GRAINS

BY KATE SHERWOOD

Stretching quick-cooking whole grains is a snap. We added combinations of crunchy nuts or seeds, raw or roasted veggies, robust cheese, or citrus fruit. In each case, you end up with a great-tasting, great-for-you side dish that's ready to hit the table in 30 minutes or less. Add grilled chicken or fish and a tossed salad and you're in business.

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

Cool Quinoa







- cup quinoa
- cup diced red onion
- Tbs. red wine vinegar
- large navel orange
- 1 Tbs. extra-virgin olive oil
- avocado, diced
- cup roasted unsalted sunflower seeds
- tsp. kosher salt

Look for fair-trade quinoa or use bulgur or whole wheat couscous instead. Pick a firm but ripe avocado. (For Hass avocados—the most common variety—the skin should be black and it should yield just slightly to gentle pressure.)

Prepare the quinoa according to the package instructions, then allow to cool. • Combine the onion and vinegar in a large bowl and set aside until the onion turns pink, about 5 minutes. • Cut the peel, pith, and outer membrane off the orange, then slice it. Cut the slices into bite-size pieces. • Toss all the ingredients except the salt in the large bowl with the onion, then season with up to ½ tsp. salt. • Serves 4.

Per Serving (1 cup): Calories 260; Total Fat 13 g; Sat Fat 1.5 g; Protein 7 g Carbs 30 g; Fiber 6 g; Cholesterol 0 mg; Sodium 250 mg

Badda-Boom Bulgur







cup bulgur

2

- 1 Tbs. extra-virgin olive oil
- 1/2 hothouse cucumber, diced
- cup sun-dried tomatoes, diced
- 3 scallions, thinly sliced
- cup reduced-fat crumbled feta cheese
- Tbs. lemon juice, more to Freshly ground black pepper

Bulgur is wheat kernels that have been steamed, dried, and cracked, so you get all the goodness and hearty flavor of wheat berries in just 10 minutes.

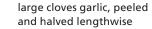
In a small pot, bring 1½ cups of water to a boil. Stir in the bulgur, turn off the burner, and cover the pot. Allow the bulgur to steep for 10 minutes, then drain and put into a large bowl. • Toss the bulgur with the oil, then stir in the cucumber, sun-dried tomatoes, scallions, and feta. Season with the lemon juice and plenty of pepper. • Serves 4.

Don't want to turn on the oven? You can toast the pine nuts

Per Serving (1 cup): Calories 180; Total Fat 7 g; Sat Fat 2 g; Protein 8 g Carbs 24 g; Fiber 6 g; Cholesterol 5 mg; Sodium 260 mg

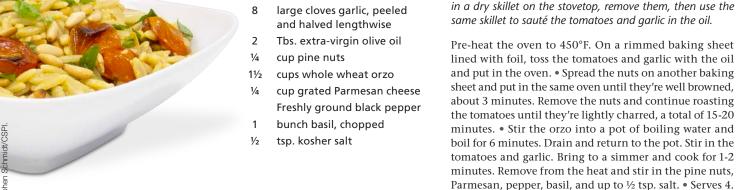
Outrageous Orzo





Total Time: 30 minutes





Per Serving (11/2 cups): Calories 310; Total Fat 15 g; Sat Fat 2.5 g; Protein 11 g Carbs 38 g; Fiber 5 g; Cholesterol 5 mg; Sodium 330 mg

ICE CREAM

WHAT'S HOT IN THE DEEP FREEZE?

BY JAYNE HURLEY & BONNIE LIEBMAN

ndulgence still rules in the frozen dessert aisle. Full-fat ice creams like Ben & Jerry's, Breyers, and Häagen-Dazs own two-thirds of the market. Light, reduced-fat, low-fat, and fat-free compete for the other third. One bright spot: frozen Greek yogurt, kefir, and TCBY are reviving the frozen yogurt category.

Can you find a frozen dessert that delivers a blissful icy blast to your taste buds without a permanent wallop to your waist and arteries? Here's what to try and what to pass on by.

Information compiled by Paige Einstein.

Frozen Desserts 101

Here's what to look for in the deep freeze.

1. Watch the serving. Really. The government's "official" serving size for ice cream is a *level* half cup. Trust us. That's smaller than you think. Picture a container from a four-pack of Dannon Activia yogurt. *That's* a half cup.

Odds are, many people eat at least a cup. That means twice the calories, saturated fat, and sugar that are listed on the Nutrition Facts label. If the limits to qualify for our Better Bites seem strict, that's why.

2. Aim for no more than 2½ grams of saturated fat. A half cup of Ben & Jerry's, Häagen-Dazs, Starbucks, or Stonyfield Organic ice cream has 8 to 11 grams of saturated fat—half a day's worth. You don't need higher math to figure out what happens if you eat a cup. And despite their healthier reputations, most gelatos and Häagen-Dazs Fives aren't far behind (6 to 8 grams of sat fat).

Yet you can find dozens of frozen treats (like the Better Bites in our chart on page 15) with just 2½ grams of sat fat or less per half cup. That's a quarter of a day's worth if you eat a cup, but at least it won't blow your limit for the next 24 hours.

3. Stop at 130 calories. Ben & Jerry's and Häagen-Dazs ice creams aren't only high in saturated fat. Each half-cup serving has 260 to 300 calories. Can you spare 500 to 600 calories on a cup of ice cream?

It's not just ice cream. Ben & Jerry's and Häagen-Dazs frozen yogurts have 180 to

200 calories per half cup. So do many flavors of (non-dairy) Purely Decadent, Luna & Larry's Organic Coconut Bliss, Julie's Organic, and Trader Joe's Soy Creamy.

Why pick such calorie-dense desserts when so many ice creams, frozen yogurts, sorbets, and non-dairy desserts clock in at 130 calories or less per half cup? Some frozen yogurts and fat-free ice creams manage to get down to 100 calories. And Arctic Zero goes even lower.

4. Beware of added sugars. That petite half cup of Ben & Jerry's or Häagen-Dazs typically comes with about 5 teaspoons of added sugars, by our estimates. (We had to estimate because the "sugar" number on Nutrition Facts labels includes the sugar from the milk and fruit ingredients.) It's not just the ice cream, but the

cookies, chocolate chunks, and other candy, that ratchet up the sugar.

The American Heart Association recommends no more than 6 teaspoons of added sugars (for women)

or 9 teaspoons (for men) in an entire day. Too much sugar can raise triglycerides, boost blood glucose, expand your waist, and supply empty calories—all of which can increase your risk of diabetes and heart disease (see "Sugar Belly," April 2012).

Most of our Better Bite ice creams and frozen yogurts have no more than 3 teaspoons of added sugars per half cup. Unfortunately, except for a few small brands like Clemmy's 100% Sugar Free, all of the no-sugar-added frozen desserts we found contain the poorly tested sweetener acesulfame potassium.

5. Look for protein and calcium. Protein and calcium may not even cross your mind when you pick a frozen dessert. Until Greek frozen yogurt arrived, that made sense.

After all, most ice creams and ordinary frozen yogurts have only around 3 or 4 grams of protein per half cup. (Dreyer's and Edy's average 2 grams.) Most premiums reach 4 to 5 grams because they're denser (but they come with 200 calories or more). That's just a fraction of the 50 to 75 grams of protein you need each day.

But now you can get 9 grams of protein in a half cup of Ciao Bella Adonia Greek Frozen Yogurt (and 6 grams in Stonyfield

Organic Oikos).
That's as much
as or more than
you'll find in the
same amount
of non-frozen
flavored yogurts
like Dannon All
Natural Lowfat
(5 grams) and Dan-

non Oikos 0% Fat Greek (9 grams).

Bonus: a half cup of Adonia has more calcium (20 to 25 percent of a day's worth) than non-frozen Dannon (17 percent) or Dannon Oikos (11 percent). Most ice creams have 5 to 10 percent. Most ordinary frozen yogurts have 10 to 15 percent.

A frozen yogurt with the same protein and calcium as non-frozen? That's progress.



A half cup *doesn't* runneth over. It's about the size of a tennis ball.

> > > >



Low in calories, but also in flavor.

Whey Less

"Do you ever have the urge to eat the entire pint?" asks the Arctic Zero label. "With only 150 calories per pint, Arctic Zero allows you to indulge your senses!"

Most non-premium ice creams have 150 calories per half cup. That works out to 600 calories per pint. But Arctic Zero isn't ice cream.

It's "an all natural, smooth and creamy ice cream replacement that

can be eaten guilt-free by those that want to avoid fat and calories," notes the label. Translation: Arctic Zero is mostly water and whey protein concentrate. (Whey is a liquid byproduct of cheese making.)

"We even went a step further," says the carton, "by adding chicory root to increase fiber and boost calcium absorption."

The facts: When we sent samples of Arctic Zero to a lab, the analysis showed 220 calories per pint. That's still a calorie bargain (though if further testing confirmed 220 calories per pint, claiming 150 would violate labeling regulations).

As for the chicory root, it may boost calcium absorption, but there's hardly any calcium in Arctic Zero to be boosted. (A half cup has just 2 percent of a day's worth.)

What may matter more: Our tasters didn't much care for Arctic Zero. It wasn't creamy, and the flavors we tried—Vanilla Maple and Mint Chocolate Cookie—tasted a tad fake, possibly because they contain no maple syrup or mint cookies. But if every calorie matters, you might want to give it a try.

Your Churn

"Fudge covered peanut butter filled pretzels in vanilla malt ice cream rippled with fudge & peanut butter." That helps explain why Ben & Jerry's Chubby Hubby ice cream has 340 calories per half cup (and could hit 700 in a not-so-chubby serving).

B&J's isn't alone. Most companies-witness Breyers Blasts!, Dreyer's or Edy's Maxx, or Turkey Hill Stuff'd—offer up their own



Nineteen tasty Better Bites...and just 110 calories.

version of a candy-cookie-cake-brownie extravaganza.

But it's also easy to dodge excessive calories, saturated fat, and sugar. Ice creams with half the fat—like Dreyer's or Edy's Slow Churned 1/2 The Fat, Breyers Smooth & Dreamy 1/2 The Fat, and Turkey Hill Light Recipe—have dozens of remarkably creamy flavors. And "1/2 the fat" means half of Breyers, Dreyer's, Edy's, or Turkey Hill's regular ice creams. Compared to Ben & Jerry's or Häagen-Dazs, the lighter lines have "1/4 the fat."

Breyers Smooth & Dreamy Fat Free cuts all the fat and trims the calories to 90 per half cup. Only no-sugar-added ice creams (with their poorly tested acesulfame potassium) get that low. Breyers does it by cutting some sugar. Too bad it only comes in French Chocolate, Creamy Vanilla, and Strawberry.

Nary a Dairy

Most non-dairy desserts are low in saturated fat (unless they're made with coconut). And we didn't find any with much calcium.

Some—like So Delicious Organic and It's Soy Delicious Fruit Sweetened—hover around 130 calories per half cup. Almond Dream averages 150 calories and—judging by its 1 gram of protein—just four nuts.



More (tastes-like-freshpicked) fruit than sugar.

Still, any of those brands beats calorie-laden Purely Decadent, Julie's Organic, Luna & Larry's Organic Coconut Bliss, and So Delicious Coconut Milk desserts.

Most sorbets are Better Bites. (Exception: some coconut or chocolate flavors can hit 9 grams of sat fat.) Ciao Bella is a standout because its tubs contain 65 to 85 percent fruit, according to the company. Other sorbet companies wouldn't give us numbers, but based on the ingredient lists, at least some Häagen-Dazs, Sharon's, Talenti, and Whole Fruit flavors have more fruit than sugar.



Tops in taste...and protein.

Yes or Yo

Greek yogurt has captured a quarter of the yogurt aisle. Here's our take on some frozen newbies:

■ Ciao Bella Adonia. "This creamy treat is high in protein, low in calories and sure to exalt your taste buds," boasts the label. Amen. Its "9 g protein per serving" and 20 to 25 percent of a day's calcium are probably due to

the added milk protein concentrate. All for only 130 calories per half cup and top taste ratings.

- Stonyfield Organic Oikos Nonfat. It's got twice the protein (6 grams) and more calcium (15 percent of a day's worth) than ice cream. With only around 100 calories per half cup, it "won't weigh heavy on your conscience or anything else." We liked Blueberry most, Chocolate least.
- Ben & Jerry's Greek. It's a good source of protein (6 grams) and calcium (15 to 20 percent of a day's worth), but will cost you around 200 calories per half cup. On the plus side, it's got about one-third the saturated fat (and all the taste) of Ben & Jerry's ice cream. Still, 21/2 to 5 grams of sat fat is high for a frozen yogurt.
- Lifeway Greek Style Fro-Yo. It has only 110 calories per serving. And while its 6 grams of protein are fine, it has just 6 percent of a day's calcium, probably because Lifeway adds whey protein concentrate instead of double strained milk. We much preferred the Blood Orange Swirl to the Honey Swirl.
- Lifeway Frozen Kefir. "Kefir is the smooth, tart, drinkable cousin of yogurt," says the label (though frozen kefir is spoonable). It's got 4 grams of protein and 15 percent of a day's calcium for only 90 calories. But its "tart and tangy" taste may not appeal to everyone.
- TCBY. The soft frozen yogurt shop pioneer has rolled out a line of delicious hard-pack frozen yogurts that taste like regular ice cream. Check Target or Walmart if you can't find them elsewhere.

On't Scream

No frozen desserts get a Best Bite because they're all too high in sugar (or likely made with the poorly tested artificial sweetener acesulfame potassium). Better Bites () have no more than 130 calories and 2.5 grams of saturated fat per half-cup serving. They're also free of acesulfame potassium. Within each section, frozen desserts are ranked from least to most saturated fat, then least to most calories, then least to most added sugars, then most to least protein.

Ice Cream (½ cup)	ر خ اخ	Sate	400	40
✓ Arctic Zero ¹	40	0	1	3
✓ Breyers Smooth & Dreamy Fat Free ¹	90	0	2	3
Turkey Hill No Sugar Added Recipe ^{1,A}	90	0.5	0	3
✓ Turkey Hill Stuff'd—Junior Mints, Praline Pecan Paradise, or Strawberry Cheesecake ¹	120	1.5	3	2
✓ Organicville Low Fat ¹	120	1.5	3.5	3
Dreyer's or Edy's Slow Churned ½ The Fat No Sugar Added ^{1,A}	110	2	0	3
✓ Blue Bunny Hi Lite ¹	110	2	2	3
✓ Dreyer's or Edy's Slow Churned ½ The Fat, except Chocolate Chip, French Silk, or Mint Chocolate Chip¹	110	2	2.5	3
✓ Breyers Blasts!, Oreo Cookies & Cream Mint	120	2	2.5	2
✓ Turkey Hill Light Recipe, except Chocolate Nutty Moose Tracks, Extreme Cookies 'n Cream, Moose Tracks, or Skinny Minty¹	120	2	2.5	2
✓ Breyers Smooth & Dreamy ½ The Fat, except Chocolate Chocolate Chip or Mint Chocolate Chip¹	120	2	3	3
Turkey Hill Light Recipe—Chocolate Nutty Moose Tracks, Extreme Cookies 'n Cream, Moose Tracks, or Skinny Minty ¹	140	2	2.5	3
Breyers Smooth & Dreamy ½ The Fat No Sugar Added ^{1,A}	100	2.5	0	2
Turkey Hill Stuff'd, except Junior Mints, Pecan Paradise, or Strawberry Cheesecake ¹	140	2.5	2.5	3
Dreyer's or Edy's Slow Churned ½ The Fat—Chocolate Chip, French Silk, or Mint Chocolate Chip ¹	120	3	2.5	2
Breyers CarbSmart ^{1,A}	90	3.5	0	2
Breyers Blasts!, except Oreo Cookies & Cream Mint ¹	150	3.5	3	2
Breyers Smooth & Dreamy ½ The Fat—Chocolate Chocolate Chip or Mint Chocolate Chip ¹	140	4	3.5	3
Dreyer's or Edy's Grand ¹	150	4	3	2
Breyers ¹	140	4.5	3	2
Blue Bunny—Original or Premium ¹	150	4.5	2.5	3
Turkey Hill—All Natural or Original Recipe ¹	150	4.5	2.5	2
Whole Foods 365 ¹	160	5	2.5	3
Dreyer's or Edy's Maxx ¹	190	5.5	4	3
Talenti Gelato ¹	210	6	5	4
Clemmy's 100% Sugar Free ¹	170	7	0	1
Häagen-Dazs Five ¹	220	7	4	5
Starbucks ¹	220	8	4	3
Julie's Organic ¹	230	8	4	4
Ciao Bella Gelato ¹	240	8	4	4
Ben & Jerry's ¹	270	9	5	4
Stonyfield Organic ¹	250	9.5	4.5	3
Häagen-Dazs ¹	280	10.5	4.5	5
Yogurt, Greek Yogurt, & Kefir (1/2 cup, all frozen, yo	gurt	unless	noted)

Yogurt, C	Greek	Yogurt,	& Kefir	(½ cup,	all frozen,	yogurt unless noted)	

✓ Lifeway Kefir ¹	90	0	2.5	4	
✓ Dreyer's or Edy's Fat Free Yogurt Blends, Vanilla	90	0	2.5	3	
✓ Stonyfield Organic Nonfat ¹	100	0	3	4	•
Stonyfield Organic Oikos Nonfat Greek ¹	110	0	3	6	
✓ Ciao Rella Adonia Greek ¹	130	Λ	3	9	-

Turkey Hill, except Honey Vanilla Granola or Peanut Butter Pie¹

110 0.5 2.5 3

	Calorie.	Saturate	40e05	Protein
✓ Lifeway Greek Style Fro-Yo ¹	110	0.5	3.5	6
✓ Stonyfield Organic Low Fat, except Minty Chocolate Chip¹	130	1	4	4
✓ Blue Bunny ¹	110	1.5	2.5	4
✓ TCBY, except Chocolate Chocolate, English Toffee Crunch, or Mint Chocolate Chunk¹	120	1.5	3	3
Ben & Jerry's FroYo ¹	190	1.5	4	6
✓ Dreyer's or Edy's Slow Churned Yogurt Blends¹	110	2	2.5	2
✓ Julie's Organic—Chocolate, Coconut Pineapple, or Lemon	130	2	2.5	4
Stonyfield Organic Low Fat, Minty Chocolate Chip	140	2	3.5	4
Häagen-Dazs ¹	180	1.5	3.5	7
Turkey Hill—Honey Vanilla Granola or Peanut Butter Pie ¹	160	2.5	2.5	4
TCBY—Chocolate Chocolate, English Toffee Crunch, or Mint Chocolate Chunk ¹	150	3	3.5	3
Ben & Jerry's Greek ¹	200	3.5	4	6
Non-Dairy (½ cup)				
✓ So Delicious Almond Milk, except Butter Pecan, Mint Chip, or Mocha Almond Fudge ¹	130	0	1.5	1
✓ It's Soy Delicious Fruit Sweetened, except Almond Pecan, Chocolate Almond, or Chocolate Peanut Butter¹	130	0	2.5	2
✓ So Delicious Organic, except Chocolate Peanut Butter and Mint Marble Fudge¹	130	0	3	2
It's Soy Delicious Fruit Sweetened—Almond Pecan, Chocolate Almond, or Chocolate Peanut Butter ¹	150	0.5	2.5	3
Rice Dream—Organic or regular ¹	170	0.5	3.5	0
So Delicious Organic—Chocolate Peanut Butter or Mint Marble Fudge ¹	140	1	3.5	2
Almond Dream ¹	150	1	3.5	1
So Delicious Almond Milk—Butter Pecan, Mint Chip, or Mocha Almond Fudge ¹	160	1	2	2
Trader Joe's Soy Creamy ¹	190	1	5.5	2
Soy Dream ¹	160	1.5	3	1_
Purely Decadent ¹	200	2	4.5	2
So Delicious Coconut Milk ¹	160	7	3	2
Julie's Organic ¹	210	9	4	2
Luna & Larry's Organic Coconut Bliss ¹ Sherbet & Sorbet (½ cup)	220	12	3.5	2
✓ Sharon's Sorbet, except Coconut or Dutch Chocolate ¹	100	0	NA	0
✓ So Delicious Coconut Water Sorbet ¹	110	0	NA	0
✓ Ciao Bella Sorbet, except Coconut, Dark Chocolate, or Lemon Zest¹	120	0	NA	0
✓ Häagen-Dazs Sorbet, except Chocolate or Mango¹	120	0	NA	0
✓ Talenti Sorbetto ¹	120	0	NA	0
✓ Whole Fruit Sorbet—Raspberry or Strawberry¹	120	0	NA	0
✓ Häagen-Dazs Sorbet, Chocolate	130	0	5	2
Ciao Bella Sorbet, Lemon Zest	150	0	NA	0
Häagen-Dazs Sorbet, Mango	150	0	NA	0
Whole Fruit Sorbet, except Raspberry or Strawberry ¹	150	0	NA	0
✓ Dreyer's or Edy's Sherbet ¹	130	0.5	5	1_
✓ Sharon's Sorbet, Dutch Chocolate	110	1	5	0
Sharon's Sorbet, Coconut	140	4	NA	0
Ciao Bella Sorbet, Dark Chocolate	160	4	5.5	2
Ciao Bella Sorbet, Coconut	190	9	NA	1

✓ Better Bite. * Estimate. ¹Average. ^AContains acesulfame potassium. NA Number not available.

Daily Limits (for a 2,000-calorie diet): Saturated Fat: 20 grams.

Added Sugar: 25 grams (6 teaspoons). (Note: To convert teaspoons of sugar to grams, multiply by 4.2.) **Protein daily target:** 50 grams.

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Nutrition Action Healthletter

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GHT STUFF



PICK A PAPAYA

Haven't saved up enough for that Caribbean cruise yet? Your hula skirt's still at the cleaners? Don't despair.

> Just pick up a papaya. For some reason, the tropical fruit has never been popular here. Maybe that's because we're too comfortable with our old tried-and-trues: our watermelon and blueberries and the

apple-orange-banana clique. Maybe it's because you can't see a papaya's deep orange insides or because a lot of folks don't know how to eat them. For some reason, people just pass papayas by. Don't.

Papayas are nutritional powerhouses. Each cup of cubed papaya has 21/2 grams of fiber, about a 11/2-day supply of vitamin C, and 28 percent of a day's vitamin A, 14 percent of a day's folate, and 6 percent of a day's potassium, all for just 60 calories. And there's no reason to stop at one cup.

But the best part is that subtle, sweet, tropical taste. Nothing like it. Just slice one open, scoop out the seeds, cut the fruit away from the skin, and squeeze on some fresh lime or lemon juice. You can eat it alone or mix it with other fruits (think mango, melon, pineapple).

For a refreshing salsa, toss diced papaya with black beans, diced

red bell peppers, minced red onion, chopped cilantro leaves, and lime juice. Skip the black beans, and you've got the perfect topping for

grilled chicken or fish.

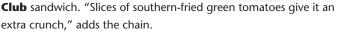
Look for papayas that are at least partly yellow on the outside. (If they're hard and green, they're immature and won't ripen properly.) They should give slightly to pressure, but not be soft at the stem-end or anywhere else. You can keep a partially yellow papaya at room temperature until it's all yellow.

That's your cue to slice the fruit open and indulge. No suitcase necessary.

TROJAN TURKEY

"Shaved turkey breast served warm on toasted 9-grain bread with melted cheddar cheese, basil pesto mayo and Applewood smoked bacon." That's

how Applebee's describes its new Fried Green Tomato & Turkey



Hmmm. The *fried* tomatoes and the bacon might give you pause. But turkey breast, 9-grain bread, and basil sure sound like less of a splurge than, say, Applebee's Reuben sandwich or its Roast Beef, Bacon & Mushroom Melt. Wrong.

The Turkey Club sandwiches 1,210 calories and 19 grams (a day's worth) of saturated fat between the existing fat globules in your belly and arteries. The Reuben and Roast Beef have "only" 850 or 950 calories and 17 or 18 grams of sat fat. And the Turkey Club's 3,980 milligrams of sodium (more than 21/2 days' worth) tops the other two (3,780 or 2,570 mg). Feeling bloated yet?

Those numbers don't include the fries that come with the Turkey Club. What's another 390 calories and 720 mg of sodium when

> you're having fun? (Ask for a healthier side? Since you ordered a good-for-you turkey sandwich, you might not.)

What to order? Applebee's has "Under 550 Calories" and "Weight Watchers" sections on its menu. All the items have far too much salt, but you could do a lot worse than a plate of Sizzling Asian Shrimp & Broccoli, Sizzling Chili Lime Chicken, or Cabernet Mushroom Sirloin.

When it comes to "healthier" items at chain restaurants, it's all relative.

Chickpea-Tomato Dream Toss together 1 drained can of no-saltadded chickpeas with 3 cups of chopped tomatoes, 1/4 cup each of chopped fresh dill

and basil, 2 Tbs. each of olive oil and red wine vinegar, and 1 clove of minced garlic. Let sit for 15 minutes, then season with up to ½ tsp. of kosher salt and freshly ground pepper. Makes four 1-cup servings.

Applebee's: (888) 592-7753

