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H E A L T H L É T T É R CENTER FOR SCIENCE IN THE PUBLIC INTEREST



Food Rumors

Have vou heard.

BY BONNIE LIEBMAN

re calcium and vitamin D useless for your bones? Will taking fish oil prevent heart attacks and strokes? Will cutting back on salt promote them? Does sugar cause cancer? Does eating more fiber help you lose weight?

When it comes to diet and health, everyone has heard something or other from somewhere or someone. Here's the science behind the rumors.

Continued on page 3.

End the Gridlock



ewspapers write about "gridlock in Washington," referring to the virtual imposand Republicans in Congress to agree on anything. But there's another kind of gridlock going on: the

Obama administration's failure to issue new

regulations to implement laws that have already been passed.

Twenty months ago, the Center for Science in the Public Interest (the non-profit publisher of Nutrition Action Healthletter) helped successfully shepherd three important laws through Congress. One aimed at making the food supply safer, another at requiring chain restaurants to list calories on their menus, and a third at making school foods healthier.

But passing a law isn't enough. The government has to issue regulations that say precisely what the legislation will require. And that has

happened for only one of the laws.

The Healthy, Hunger-Free Kids Act will start going into effect this month (albeit with weaknesses inflicted by the frozen-pizza and potato industries). Soon our children will be eating more whole grains, vegetables, and fruit and less salt and trans fat at school.

But the other two laws have been victims of gridlock. The Obama administration appears to be afraid that every new regulation will bring cries of "job killing" from Republicans. So most new regulations are being put

sibility of getting Democrats

Make the FDA Food Safety Modernization Act a reality now. MakeOurFoodSafe.org

In July, The Pew Charitable Trusts, CSPI, and others ran full-page newspaper ads urging the Obama administration to act on food safety.

in the deep freeze.

The administration is ignoring the deadlines in the food-safety law, notwithstanding support even from the food industry. The White House is also delaying rules on menu labeling, in part because the supermarket industry and movie-theater and vending-machine operators are trying to escape the full force of the law.

The paralysis may go even deeper. The White House's fear of offending industry and trigger-

> ing a backlash in Congress has apparently kept the Food and Drug Administration from reducing sodium levels in packaged and restaurant foods and getting rid of partially hydrogenated oil—the source of artificial trans fat.

Likewise, the U.S. Department of Agriculture is sitting on its proposals for getting rid of junk foods from school vending machines, hallways, and stores.

And thanks to lobbying by food manufacturers, restaurants, and broadcasters, the government has dropped its proposed voluntary guidelines to discourage companies from marketing junk foods to kids.

Will the logjams break after the November election? Stay tuned.

hike Jacobson Michael F. Jacobson, Ph.D. Executive Director

Center for Science in the Public Interest



Celebrate Food Day, Oct. 24 www.FoodDay.org

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Food Rumors Have you heard...

ood rumors can start anywhere: a newspaper article, a TV show, a food label, something your mother or co-worker or friend says is absolutely true.

Some rumors are backed by decent evidence. Others sound more solid than they are or are wrong. Here's the real story behind some of the latest crop.



Don't bother taking calcium or vitamin D

"Healthy women advised not to take calcium and vitamin D to prevent fractures," ran the headline in The New York Times last June.

The U.S. Preventive Services Task Force, an independent panel of scientists appointed by the Department of Health and Human Services, had issued a draft statement that left many people baffled.1

"It is clear that lower doses of calcium and vitamin D do not prevent fractures, and there is a small but measurable risk of



If you eat too few calcium-rich foods, take a supplement...but only to reach the RDA.

kidney stones," Kirsten Bobbins-Domingo, a member of the task force and an associate professor of medicine at the University of California, San Francisco, told The Times.

A "low dose" is up to 1,000 milligrams of calcium and 400 IU of vitamin D, said the task force. What about higher doses? The evidence was "insufficient" to know.

However, the largest trial testing calcium and vitamin D-which had a huge impact on the task force's conclusions wasn't a realistic test of whether calcium would help most women.

The trial randomly assigned more than 36,000 healthy postmenopausal women to take either 1,000 mg of calcium and 400 IU of vitamin D or a placebo every day for seven years.² But the women in both groups were averaging 1,150 mg of calcium a day from food and supplements they took on their own, so the trial actually compared roughly 1,000 mg to 2,000 mg a day.

"Does taking an extra 1,000 milligrams of calcium help? That's not the question on the table here," notes Bess Dawson-Hughes, director of the Bone Metabolism Laboratory at the USDA Human Nutrition Research Center on Aging at Tufts University in Boston.

"The question is: If you're below the RDA, does it help to get to the RDA?"

In 2010, the Institute of Medicine of the National Academy of Sciences issued new RDAs (Recommended Dietary Allowances) for calcium and vitamin D.3

"The IOM did a thorough evaluation of the evidence and used good judgment in setting those RDAs," says Dawson-Hughes. "The average calcium intake from food for adults is in the vicinity of 750 milligrams. So there's a clear gap between the recommended 1,000 to 1,200 milligrams and what people are getting."

If you include calcium from supplements, a typical postmenopausal woman gets about 1,000 mg of calcium a day.3 But if she followed the task force's advice to stop taking calcium, she'd be back to 750 mg a day. The RDA is 1,200 mg.

"The appropriate reaction to a gap is to encourage food sources of calcium to the greatest extent possible," explains Dawson-Hughes. "And for those who cannot or will not fill the gap with food, a supplement should be used only to fill the gap."

Dawson-Hughes cautions against higher intakes. "We have enough of a signal that there may be adverse effects for cardiovascular disease at higher intakes that I would say don't go over the RDA. And no one has demonstrated any even faint possibility of benefit above that threshold, so there's no point in taking any risk at all."

In fact, that may be the one plus from the task force report.

"Many physicians, out of busyness, say 'Take 600 milligrams twice a day,' thinking, 'Oh, that will cover them,'" she says. "That should stop."

Vitamin D is a different story. "This task force says there is no need for low-dose supplements," says Dawson-Hughes. "But what about other doses?"

Even the task force acknowledged that 400 IU "would not be considered sufficient today."

"Two trials that used 400 IU a day found no effect on fractures," explains Dawson-Hughes. Another trial that gave 800 IU a day also found no lower risk. "But two years into that five-year study, people were taking only half of their pills, so in essence, that was a low dose."

In contrast, she says, "trials using doses of 700 to 800 units that have reasonable compliance do show benefit." When she and other researchers looked at 11 trials on more than 31,000 people, they found a 30 percent lower risk of hip fracture in those who were given at least 800 IU a day of vitamin D.4

What's more, she notes, a different U.S. Preventive Services Task Force concluded in May that 800 IU a day of vitamin D helps prevent falls in people aged 65 or older.5

"People should take vitamin D for falls but not fractures?" asks Dawson-Hughes. "Falls are how you get to the fractures."

The Real Story: To prevent fractures, shoot for the RDA for calcium (1,200 mg a day) and vitamin D (600 IU a day up to age 70 and 800 IU a day over 70) from food and supplements.



"Fiber can help satisfy your appetite & manage your weight," says the Fiber One 90 Calorie Chocolate Fudge Brownies box. "Research suggests that people who have



higher fiber intakes tend to have healthier body weights."

People who eat fiber-rich foods like fruits, vegetables, and beans may stay leaner. But that doesn't mean that the fiber is responsible. And there's little or no evidence that most processed fibers—mostly white powders—that companies add to many foods keep you lean.

"We fed people whole breakfasts where we tested oatmeal, blueberries, and nuts versus Naked Juice with Fibersol," says Joanne Slavin, a fiber expert at the University of Minnesota. (Slavin used Naked's Blue Machine Juice Smoothie, which is mostly apple juice, banana and blueberry purée, and Fibersol-2, which is the processed fiber maltodextrin.⁶)

"The breakfasts had the same amount of fiber, calories, protein, carbohydrate, and fat," adds Slavin. Nevertheless, "people felt fuller on the whole foods."

One possible explanation: "The wholefood breakfast stayed in the stomach longer," she says. Other results also sug-



Don't expect a food with processed fiber to "help satisfy your appetite."

gest that not all fibers can "satisfy your appetite."

In another study, Slavin fed people muffins with no added fiber or 10 grams of one of three processed fibers: resistant starch, polydextrose, or beta-glucan from oats.⁷ "All of the muffins were applecinnamon, and you couldn't taste the difference," she notes.

The results: "Resistant starch seemed to affect satiety, beta-glucan was in the middle, and polydextrose didn't at all," explains Slavin. "So that got me thinking that these fibers are very different even

when we give the exact same amount." Another study led to more surprises.

"We did a dose-response study where we used a mix of fibers," says Slavin. They used viscous—gummy—fibers like guar gum baked into muffins because studies had reported that viscous fibers would increase satiety.8

"We got very strange results," says Slavin. "You'd think that the highest amount of these fibers would have had the most effect on satiety." But it didn't.

Why? "I think by the time we had them baked into muffins, there wasn't any hint that they were viscous any more," she suggests. "The whole physical chemistry of those fibers was gone."

And a new study also was disappointing.⁹ "We gave chocolate crisp bars with two processed fibers—inulin and soluble corn fiber," says Slavin. "We found no difference in satiety versus a bar with no added fiber."

Her bottom line: "Eat whole foods. Keep pushing the fruit, vegetables, legumes, whole grains. Wheat bran works because you chew it and you will probably feel fuller longer. Eat real whole-grain bread, not fake high-fiber foods with inulin and soluble corn fiber.

"Many fibers don't affect satiety at all. The FDA shouldn't allow claims for satiety just because companies put fiber into products. It's much more complicated than that."

The Real Story: Don't assume that foods with added processed fiber will help you eat less and keep weight off.



"Over the course of a day, the subjects burned more than 300 additional calories on average when on the very low carbohydrate diet compared with the low-fat diet," explained a *Los Angeles Times* article in June.

"That's roughly equal to an hour of moderate physical activity—without lifting a finger," David Ludwig, director of the New Balance Foundation Obesity Prevention Center at Boston Children's Hospital, told the newspaper.

Ludwig was describing the results of his four-week study on 21 people. ¹⁰ Though some media, like the *LA Times*, called the

study preliminary, it couldn't resist raising a perennial question.

"A calorie is a calorie is a calorie—or is



Over the long term, a low-carb diet doesn't burn more calories than other diets.

it?" asked the paper. "A traditional low-fat diet seemed to make the metabolism more sluggish than a high-protein one during the most difficult part of weight loss: keeping fat off once it's shed." Here's what got lost in some news reports:

- Adverse effects. The very-low-carb diet (which was higher in protein and fat) raised c-reactive protein (a marker of inflammation), cortisol (a marker of stress), and non-HDL ("bad") cholesterol.
- More calorie burning? A much longer (two-year) study on 811 people found no difference in calorie burning on higher- vs. lower-carb diets (though none were very low).¹¹
- Long-term studies. Most importantly, three studies that lasted one or two years have tested low-fat versus low-carb diets on a total of more than 1,200 people. 12-14 The results: no difference in long-term weight loss or regain. Period.

"In the studies that were one or two years long, a very-low-carb diet led to no more weight loss than other diets," says Frank Sacks, professor of cardiovascular disease prevention at the Harvard School of Public Health, who ran the largest twoyear diet study.

If, as Ludwig's study reported, people burned more calories on the low-carb diet, adds Sacks, "it's odd that body weight was exactly the same after 30 days."

The Real Story: The best long-term studies show that people lose—and keep off—

Photos: \otimes Alexstar/fotolia.com (left), \otimes evgenyb/fotolia.com (right).

as much weight on high-carb diets as they do on low-carb diets. So you need to lift not just a finger, but your feet.



Popcorn beats fruits and vegetables

"Popcorn packed with antioxidants," announced CBS News in March. "Popcorn, already known to be a good source of fiber, has higher levels of healthy antioxidants than some fruits and vegetables."

Whoa! So a bucket of popcorn at the movie theater or a bag of popcorn from your microwave beats cantaloupe, carrots, or nectarines?

"Based on fiber, whole grains, and antioxidant levels, popcorn is the king of snack foods," said Joe Vinson, the chemistry professor at the University of Scranton who carried out the tests that got so much press.

Well, except for the caveats:

- **Absorbed?** Vinson analyzed what's *in* popcorn, not how much gets absorbed into the body.
- Vitamins? Most fruits and vegetables are far richer in vitamin A, vitamin C, vitamin K, folic acid, potassium, and lutein than popcorn.
- Antioxidants? In theory, antioxidants should protect the body from damage done by unstable molecules known as free radicals. But so far, no studies have shown that antioxidants lower the risk of



With about 1,000 calories in a large, it's the king of *high-calorie* snack foods.

heart disease, cancer, or diabetes.

■ Calories, calories. Most fruits and vegetables have around 30 to 100 calories per serving. And lower-fat microwave

popcorns like Pop Secret Butter 94% Fat Free and Orville Redenbacher's Smart Pop! Butter have around 100 calories per serving (6 cups).

But most microwave popcorn hits 250 calories per serving. And the last time we looked at movie theaters (December 2009), a small (6 cups) at AMC had 400 calories and a large (16 cups) had about 1,000 calories. That's without "butter." Caloriewise, a large is like eating an 8 oz. bag of potato chips.

The king of snack foods? Fruits and vegetables still rule.

The Real Story: Fruits and vegetables are a better snack than popcorn.



Fish oil doesn't prevent heart attacks

"Fish oil delivers few benefits, study finds," reported ABCNews.com in April.

The news was a meta-analysis by Korean scientists of 14 trials conducted on more than 20,000 people that showed that fish oil was no better than a placebo at preventing a second heart attack, stroke, or other cardiovascular event. ¹⁵ The meta-analysis came on the heels of other disappointing studies. ^{16,17}

"The Korean meta-analysis looked at only placebo-controlled trials, which excluded the large-scale GISSI and JELIS trials," notes JoAnn Manson, chief of preventive medicine at Brigham and Women's Hospital in Boston, who cowrote an editorial that accompanied the meta-analysis.¹⁸

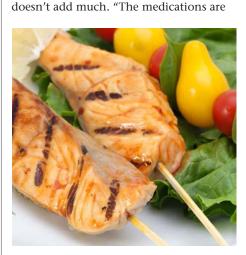
Most advice to take fish oil relies heavily on GISSI (Gruppo Italiano per lo Studio della Sopravvivenza nell'Infarto Miocardico) and JELIS (Japan EPA Lipid Intervention Study) because they were so large. 19,20

"But even when the meta-analysis included those trials, it didn't see clear evidence for a benefit," adds Manson. Why?

"One reason is that the more recent trials in the meta-analysis were small and short duration," she explains. "Many were only one to two years, which is too short to see benefits for atherosclerosis."

Another reason: "The management of people with a history of heart attack, stroke, or other cardiovascular events has improved tremendously in the past couple of decades," Manson notes. "Many of these people are on high-dose statins, aspirin and other anti-platelet medications,

ACE inhibitors, and other medications." So taking fish oil with those drugs



Fish oil may only help if you don't take heart medications. Stick with fish for now.

working through similar pathways as fish oil—decreasing lipids, clotting, and inflammation," says Manson. "So it's possible that the improved treatment of heart disease is obscuring the benefits of omega-3s."

It's also harder to see a difference between the placebo and fish-oil takers because both have fewer heart attacks than they used to.

But fish oil may help people who have not had a heart attack.

"Omega-3s may still have a benefit for a population that's not high-risk where the use of statins and aspirin and other anti-platelet medications is relatively infrequent," says Manson.

Her Vitamin D and Omega-3 Trial (VI-TAL) is testing 1,000 mg a day of the two major fish oil omega-3s, EPA and DHA, on men aged 50 and older and women aged 55 and older with no history of heart disease or stroke.

"In VITAL, fewer than half of the participants are using statins or aspirin," notes Manson. In contrast, roughly 80 percent of people who have had a heart attack are taking statins, and nearly all use aspirin.

The study will look at far more than heart disease.

"We now have 14 ancillary studies," says Manson. "In addition to looking at cancer and cardiovascular disease—the trial's main goal—we'll be looking at diabetes, memory loss, depression, atrial fibrillation, cardiac function, bone health,

fractures, falls, knee pain, asthma, and autoimmune conditions like thyroid disease, rheumatoid arthritis, and lupus."

What to do until the results are out, which is likely to be 2017?

"Go ahead and eat two or more servings of fish a week," suggests Manson. "Not only has fish intake been linked to a reduced risk of cardiovascular disease in many populations, it often replaces less healthy sources of protein in the diet such as red meat."

But fish oil capsules? "The jury is still out," says Manson. "The early evidence was promising for secondary prevention, but now with better treatments, there may be only a small incremental benefit. But it's still appropriate to treat very high triglyceride levels" with fish oil capsules.

For people who haven't had a heart attack, it may be a completely different story. "We're still holding out hope that omega-3s will have benefits for preventing first cardiovascular events."

The Real Story: Eat fish at least twice a week. For people who have already had a heart attack or stroke and are on medication, taking fish oil may not help. For others, the jury is still out.



"America is a constipated nation," charged Denis Burkitt more than 30 years ago. The Irish surgeon argued that our low-fiber diet was a cause of colorectal cancer, diverticulosis, appendicitis, and more.

"If you pass small stools, you have to have large hospitals," he famously said.

Burkitt suggested that "prolonged contact between concentrated stool content and the mucosa" lining the bowel gave carcinogens a chance to form and attack the colon.

"It's conventional wisdom, especially with older people," says the University of Minnesota's Joanne Slavin.

Yet large studies haven't found a greater risk of colorectal cancer in people with less frequent bowel movements. In fact, they may have a lower risk.

For example, in the Netherlands Cohort Study on Diet and Cancer, which tracked more than 58,000 men for 13 years, those



Irregularity is unpleasant, but it doesn't seem to raise the risk of colon cancer.

who reported suffering from constipation "sometimes or more often" had a 25 percent lower risk of colorectal cancer than those who reported never being constipated.21 The lower risk was mostly due to a 60 percent lower risk of rectal cancer.

What's more, the men who reported having a bowel movement once or twice a day had a 30 percent higher risk of colorectal cancer than the just-once-a-day group. Four other large studies (in the U.S., Japan, and Europe) found similar results or no link at all.22-24

"There isn't any good data that constipation is linked to a higher risk of colon cancer," says Slavin. "It's very weak."

The Real Story: No one wants to be constipated. But one consolation if you are: no need to worry that it will boost your risk of colorectal cancer.



"If you limit your sugar, you decrease your chances of developing cancer?" Sanjay Gupta asked Lewis Cantley, director of the Cancer Center at Beth Israel Deaconess Medical Center in Boston, on "60 Minutes" in April.

"Absolutely," replied Cantley.

"When we eat or drink sugar, it causes a sudden spike in the hormone insulin, which serves as a catalyst for certain types of cancers," explained Gupta. "Nearly a third of common cancers, including breast and colon, have something called insulin receptors on their surface."

Cantley explained what he believes

happens next: "If you happen to have a tumor that has insulin receptors on it, it will get stimulated to take up the glucose that's in the bloodstream. So rather than going into fat or muscle, the glucose now goes into the tumor, and the tumor uses it to grow. The cancers have evolved the ability to hijack that flow of glucose going by in the bloodstream into the tumor itself."

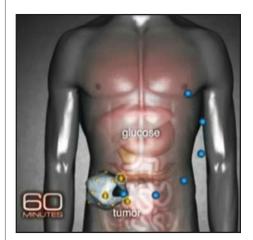
But so far, the results from studies on people are iffy.25-30

"There isn't much evidence that sugar per se is related to cancer risk," says Walter Willett, chair of the nutrition department at the Harvard School of Public Health.

Being overweight clearly raises the risk of breast, colorectal, pancreatic, kidney, endometrial, esophageal, and some other cancers. And the high insulin levels in people who are overweight may at least partly explain how a spare tire leads to cancer. But sugar alone doesn't account for high insulin levels.

"Sugar is too narrow a focus, because starch also contributes importantly to insulin response," says Willett. So does that spare tire.

"I don't think we have the final answers



Extra pounds and extra insulin may boost cancer risk. Extra sugar? It's not clear.

on this yet," he adds. "While the cancer story is not yet settled, the strongest reasons to keep sugar low are to reduce the risk of obesity, diabetes, heart disease, gout, and dental caries."

That should be enough, no?

The Real Story: Cut back on sugar, though the jury is still out on whether that will lower your risk of cancer.



Cutting back on salt is useless...or dangerous

"Salt, We Misjudged You," ran the headline of the June 3rd *New York Times* opinion piece. The inside headline: "The Truth about Salt."

In the article, freelance science writer Gary Taubes charged (among other things) that studies have failed to prove that eating too much salt "will raise our blood pressure, cause hypertension, then strokes, and then kill us prematurely." What's more, he claimed that "a slew of studies [suggest] that reducing sodium...is likely to do more harm than good."

Really? Every major health authority—from the Institute of Medicine of the National Academy of Sciences to the National Institutes of Health and the Centers for Disease Control and Prevention—got it wrong? No. Taubes did.

■ No benefit? Two recent meta-analyses are at the heart of Taubes' arguments. Each examined trials in which people were—or were not—told to eat less salt.

One of the two was suspect because many of its trials lasted only a few weeks.³¹ But in the studies that lasted four or more weeks, the meta-analysis "shows significant falls in blood pressure with salt reduction," notes Graham MacGregor of Barts and the London School of Medicine and Dentistry. Shorter studies, he adds, "are of no relevance to a public health policy."

The second meta-analysis also had flaws.³² For starters, it should have omitted a trial on people with heart failure.

"The participants were severely salt and water depleted due to aggressive diuretic therapy," wrote MacGregor and colleague Feng He in a commentary on the meta-analysis published in the medical journal *The Lancet*.³³ "A lower salt intake is likely to worsen the salt and water depletion and therefore, unsurprisingly, resulted in worse outcomes."

What's more, when the authors of the meta-analysis looked at the other six trials in the meta-analysis, they separated people who had normal vs. high blood pressure. That left each group with too few "events" like heart attacks and strokes. When MacGregor and He re-analyzed the data without breaking up the groups, they found a statistically significant 20 percent drop in events among the salt trimmers.³³

Even the meta-analysis authors noted

that they had too few people to see the impact of cutting back on salt. "Our meta-analysis only had 10 percent power to detect a 10 percent reduction in [risk]," they wrote.

But the Trials of Hypertension Prevention (TOHP)—which was part of the meta-analysis—had reported a 30 percent reduction in cardiovascular events among people assigned to cut salt.³⁴ So why did the meta-analysis find no lower risk among salt trimmers?



Less salt means a *lower* risk of heart attack, stroke, heart failure, and kidney failure.

Because TOHP made sure that its results were not due to age, race, sex, or other factors. The meta-analysis did not.

"The original TOHP analysis likely had more statistical power to see a reduced risk because it took those important factors into account," explains Jason Wu, a research associate at the Harvard School of Public Health.

■ Harm? What about Taubes' "slew" of studies on the dangers of eating less salt?

Only one of those studies—the one on people with heart failure—was a trial that randomly assigned people to either cut salt or not. The other studies simply reported that people who consumed less salt (for whatever reason) had a higher risk of heart disease.

Did they eat less salt because they were health conscious? Or because they were ill? In some of the studies Taubes cites, the low-sodium group included people who consumed only 600 mg of sodium a day. That's a red flag that they were not eating much food...or that they may not have collected all of their urine over 24 hours.

"It is well recognized among experts

that underestimating sodium intake is a common and serious problem that invalidates the results of many studies," notes Lawrence Appel, director of the Welch Center for Prevention, Epidemiology and Clinical Research at the Johns Hopkins Bloomberg School of Public Health in Baltimore.

"Taubes ignores persuasive yet inconvenient evidence which does not align with his own biases," adds Appel. Others agree.

"The facts show that our habitual high salt intake contributes to high rates of prehypertension and hypertension and the high rates of heart attack, stroke, heart failure, and kidney failure induced by adverse blood pressure levels," says Jeremiah Stamler, professor emeritus at Northwestern University's Feinberg School of Medicine in Chicago.

"Taubes espouses erroneous opinions that have the potential to do damage to the health of the population," he adds. "They need to be dismissed."

The Real Story: Cutting back on salt isn't dangerous and lowers the risk of heart attacks and strokes.

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- 30 Cancer Causes Control 22: 51, 2011.
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- 33 Lancet 378: 380, 2011.



When dieters lost weight, their fat cells shrank, but didn't disappear.

Location, Location

f you gain—and then lose—fat, do you lose it from the same place you gained it?

Researchers had 15 men and 8 women in their 20s and 30s increase their weight by 5 percent. That meant eating one, two, or three of the following each day: a 400-calorie ice-cream shake, a 510-calorie king size Snickers bar, or a 360-calorie cup of Boost Plus.

After eight weeks, the volunteers had gained about sev-

en pounds of fat and one pound of muscle. On average, 61 percent of the extra fat was upper-body subcutaneous (just below the skin), 12 percent was visceral (deep belly), and 27 percent was lower-body (hip).

Then the participants were told to cut their calories by eating less and exercising more. After eight weeks, they had lost five pounds (almost all of it fat). However, people lost less of the lower-body weight than the upper-body or visceral weight that they had gained. What's more, when they lost weight (from either the upper or lower body), the fat cells that they had added when they gained weight shrank, but didn't disappear.

What to do: Try to avoid putting on extra pounds even briefly. Odds are, the extra fat cells you build will stick around, sending "feed me" signals to your brain.

Am. J. Clin. Nutr. DOI:10.3945/ajcn.111.033829.

Safe Call for Soy?

In the largest study done to date, soy foods were not linked to a higher risk of recurring breast cancer in women who've had the disease.

Researchers followed more than 9,500 women (roughly half in the United States and half in China) who had been diagnosed with invasive breast cancer. After seven years, those who consumed at least 10 milligrams of soy isoflavones a day had no higher risk of dying—and had a 25 percent *lower* chance of a recurrence—than those who averaged less than 4 mg of isoflavones a day. (You'd get about 25 mg of isoflavones in 4 oz. of extra-firm tofu or a cup of soy milk.)

But here's why the study isn't definitive:

■ Chinese vs. U.S. women. The evidence that large intakes of soy appear safe (or even beneficial) is based largely on the Chinese women. Only 10 percent of the U.S. women consumed at least 10 mg of soy isoflavones a day. (They averaged 3 mg.) In contrast, 90 percent of the Chinese women got at least 10 mg a day. (They averaged 46 mg.)

Could something about U.S. women (like their heavier weight) put them at greater risk from soy than Chinese women? The study couldn't say.

■ Are soy eaters healthier? The soy eaters in both countries were more likely to exercise and eat cruciferous vegetables like broccoli than those who ate less soy. The U.S. soy eaters were also more likely to be normal weight, highly educated, and nonsmokers. (In China, the soy eaters were more likely to weigh more than those who ate less soy.)

The scientists "adjusted" for those factors, but couldn't adjust for unknown differences between the women who ate more vs. less soy. And unknown differences could explain the lower risk of recurrence in soy eaters.

What to do: It's too early to know if soy foods lower the risk of breast cancer recurrence. However, it looks like women needn't worry that typical intakes of soy boost the risk of a recurrence.

Am. J. Clin. Nutr. 96: 123, 2012.

Almonds & Weight

People absorb fewer calories from whole almonds than scientists thought, says a study funded by the Almond Board of California.

Researchers fed 18 healthy adults 1½ oz. of almonds, 3 oz. of almonds, or no almonds every day for nine days. Using the standard formulas for calculating calories from fat, protein, and carbohydrates, a 1½ oz. serving of almonds has 250 calories and a 3 oz. serving has 500 calories.

However, after analyzing the contents of the participants', um, waste, the researchers found that they failed to absorb about a quarter of the almonds' calories. They absorbed 200 calories from the 1½ oz. serving and 360 calories from the 3 oz. serving.

Does that mean that whole almonds can make the pounds melt away? Not quite.

In a second study, researchers put 123 overweight or obese people on a lower-calorie diet with or without 2 oz. of almonds every day. After six months, the almond eaters had lost slightly less weight (12 vs. 16 pounds) than the non-nut eaters. But after 18 months, the difference had disappeared.

What to do: Assume that whole almonds —but *not* almond butter—have about 25 percent fewer calories than the label claims. No one has tested whether people absorb fewer calories from almond slices or slivers.

Am. J. Clin. Nutr. DOI:10.3945/ajcn.112.035782 and Am. J. Clin. Nutr. DOI:10.3945/ajcn.112.037895.

B-12 & the Brain

Older people with low levels of vitamin B-12 in their blood may have neurological damage.

Researchers studied nearly 2,300 adults aged 72 or older. Roughly 7 percent had deficient levels of B-12. Those who were deficient were less sensitive to touch, and nerve impulses traveled over their nerves more slowly than impulses in people with higher B-12 levels.

What to do: If you're 50 or older, get at least 2.4 micrograms a day of vitamin B-12 from a multivitamin or fortified food. (That form of B-12 is better absorbed than the B-12 that occurs naturally in food.) A B-12 deficiency used to show up in older people as anemia, but the folic acid that has been added to foods since 1998 can mask the anemia.

J. Am. Geriatr. Soc. 60: 1057, 2012.



Brainmakers

Can popping pills preserve memory?

BY DAVID SCHARDT

Brainstrong. Brain Support. Focus Factor. Focus Fast. Focus Formula. Neuro Nectar. Sharp Thought. Smart Pill. Thinkfast.

Looking to stay mentally sharp? Those are just a few of the dozens of brain and memory supplements that would like to help you. Most are some combination of a half dozen or more "brain-boosting" compounds. Here's the evidence behind some of the most widely used ingredients.

DHA



Typical claims:

"Clinically shown to improve memory." "Helps protect the brain against normal cognitive decline as we age."

What is it? One of the two omega-3 fats in fish oil (the other is EPA).

How companies say it works: By stabilizing brain cell membranes and suppressing inflammation.

The evidence: "There is no evidence that DHA helps the cognitive skills or memory of healthy people who don't have memory problems," says neuropharmacologist Krista Lanctôt of the University of Toronto.

In the five largest and most recent trials, which looked at a total of roughly 1,600 healthy adults aged 20 through 80, those who took 176 to 845 milligrams of DHA every day for three months to four years showed no greater improvement in memory, reasoning, or other brain function than those who were given a placebo.¹⁻⁵

And in a large trial that lasted 1½ years, DHA did nothing for people with dementia. However, DHA may make a small difference in those with mild cognitive impairment, memory complaints, or normal forgetfulness due to age.

In a recent meta-analysis by Lanctôt and her colleagues that pooled the results of three small trials and a large company-funded study of people in those three groups, taking 60 to 1,550 mg a day of

DHA for three to six months had no impact on everyday activities. But it made a small difference in three of eight cognitive tests. For example, DHA takers performed better than placebo takers at recalling lists of words immediately (though not later).⁷

(People with mild cognitive impairment, or MCI, have a diminished ability to plan and organize. Subtle lapses—asking the same question repeatedly, for example—are often apparent to friends, relatives, and co-workers. People with MCI are more likely to develop Alzheimer's.)

Bottom line: DHA may have a modest benefit for people with memory problems. "But the effect is small," cautions Lanctôt, "and needs to be confirmed by larger trials that help us understand who might benefit."

For healthy people, though, "taking a walk every day is probably better for your brain than taking an omega-3 supplement," concludes Jennifer Robinson, codirector of the Prevention Intervention Center at the University of Iowa.

Phosphatidylserine (PS)



Typical claim: "The only dietary supplement with an FDA-approved qualified health claim for helping with cognitive dysfunction and dementia." Companies that make that boast in their ads seldom show the actual wording

of the claim, though. Odds are, that's because the ads would have to include the "qualified" part: "There is little scientific evidence supporting this claim." Oops.

What is it? A fat-like compound found naturally in cell membranes, particularly in the brain. Until the mad cow scare of the mid-1990s, PS was extracted from cow brains. Today, it's made from soybeans.

How companies say it works: By keeping brain cell membranes supple and functioning properly.

The evidence: There are no published studies of soy PS in healthy people without memory problems. And in people with problems, researchers have pretty much come up empty:

- In two studies in the Netherlands and Israel on roughly 200 older adults with memory complaints, those who took 300 or 600 mg of PS every day for several months scored no better on memory tests than those who took a placebo.8 (The Israeli study has never been published in a scientific journal.)
- In a 2010 Israeli study of 78 older adults with memory complaints, those who took 300 mg of PS that was chemically bonded to 79 mg of DHA plus EPA every day for 15 weeks performed no better than placebo takers on 14 of 15 cognitive and memory tests. In the 15th test, they were able to recall an average of six words immediately after hearing them, while the placebo takers could recall an average of 4½ words—not exactly a life-altering difference.9
- In a 2010 study in Japan, researchers gave 100 or 300 mg of PS every day to 50 people in their 50s and 60s who complained about their memory. After six months, the PS takers scored no better than placebo takers on standardized tests for everyday memory (for names, places, and personal events). The researchers did report, though, that among 34 people who scored the worst on tests when they entered the study, PS takers were better able to remember a list of three words than placebo takers.¹¹0 But that modest finding would have to be tested again in a study designed to look separately at low scorers.

Bottom line: There is no good evidence that PS made from soy has any meaningful impact on memory.



HOW TO KEEP SHARP

- Avoid strokes. "Try to prevent strokes and transient ischemic attacks—also knows as TIAs or mini strokes—which affect cognitive function," says the University of Iowa's Jennifer Robinson. Keep your blood pressure normal and your LDL ("bad") cholesterol and triglycerides down, and don't smoke.
- Lose excess weight to prevent type 2 diabetes. "Studies have consistently shown that people who have type 2 diabetes when they're older have worse cognitive function than people who don't have the disease," says Francine Grodstein of Brigham and Women's Hospital. "They have accelerated rates of cognitive decline."
- Cut saturated and trans fats. "In several epidemiological studies, they seem to be associated with worse cognitive decline," Grodstein points out. Those kinds of studies can't prove that the fats caused the decline, though.
- **Eat fish.** Studies have found that people who eat more fish have better cognitive function. But it's possible that other things that fish eaters do account for the difference.
- Move. People who are more physically active—even those who simply walk regularly for exercise—maintain their cognitive function better as they get older, says Grodstein. "The more active one can be, both physically and mentally, the better," says Robinson. "You're exercising your brain muscles and if you don't use it, you lose it."

aged 65 and older either a placebo or a daily dose of 2,500 micrograms of folic acid (more than six times the government's Daily Value), 50 mg of vitamin B-6 (25 times the DV). and 1,000 mcg of vitamin B-12 (more than 150 times the DV).

After six years, the vitamin takers performed no better on several memory tests, including one of "executive retrieval function" (naming as many animals as possible in one minute, for example), or on a general test of different types of memory (with questions like "What's today's date?" and "Who's the President of the United States?").11

"However, there was a hint that B-vitamin supplements might help the cognitive function of

those with low dietary intake of B vitamins in our study, or with high homocysteine levels in other studies," says Grodstein.

For example, when people with mild cognitive impairment and higher levels of homocysteine in their blood were given high doses of B vitamins for two years, they declined more slowly—and showed a slower rate of brain atrophy—than similar people who were given a placebo.12

Studies of B vitamins in people with Alzheimer's have come up empty.

Bottom line: B vitamins are not likely to help your memory, except possibly if you have high homocysteine levels because you're not getting enough B vitamins. "But the evidence isn't definitive and needs further study," concludes Grodstein.

Red light: Too much folic acid may spur the growth of precancerous colorectal polyps. Our advice: don't get more than 800 to 1,000 micrograms a day of folic acid from a multivitamin, other supplements (like memory pills), breakfast cereals (some contain 400 mcg, which is 100% of the Daily Value), and other fortified foods combined.

B Vitamins



Typical claim: "Plays a role in the functioning of the brain and nervous system."

What are they? Typically, high doses of vitamins B-6 and B-12 and the B vitamin folic acid.

How companies say **they work:** By lowering homocysteine levels in the blood. High levels of homocysteine increase the risk of cardiovascular

disease, which affects the brain as well as the heart.

The evidence: "There have been many trials testing B vitamins for their effects on thinking and memory, and generally they haven't shown any difference between those given the supplements and those given a placebo," says epidemiologist Francine Grodstein of Brigham and Women's Hospital in Boston.

Grodstein's own study is typical. She and her colleagues gave 2,000 women

Vinpocetine



Typical claim: "Powerful memory enhancer."

What is it? A compound used in Eastern Europe and Asia to treat stroke victims (though the evidence is inconclusive, according to the Cochrane Collaboration, an international network of scientists who review medical therapies¹³).

How companies say it works: By increasing blood flow in the brain.

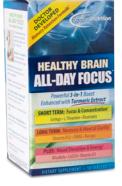
The evidence: None. No studies have looked at vinpocetine alone in healthy people or those with mild memory problems. Companies are relying on the unproven notion that whatever increases circulation in the brain will improve thinking.

"In healthy people, brain tissue that's being used efficiently in the performance of a cognitive task actually requires less blood," explains Stanford University neurologist Victor Henderson. "So something that increases blood flow without showing at the same time a cognitive benefit doesn't mean very much."

For example, researchers in the UK recently saw increased blood flow in the brains of 46 young men and women who took 1,000 to 2,000 mg of fish oil every day for three months. But the fish-oil takers performed no better on a battery of 20 cognitive tests than 20 similar young adults who were given a placebo.14

Bottom line: There is no good evidence that vinpocetine can help your memory.

Huperzine A



Typical claim: "Supports memory retention."

What is it? A compound extracted from a moss and used in China to treat Alzheimer's disease.

How companies say it works: By increasing levels of

Photos: Jorge Bach/CSPI

the neurotransmitter acetylcholine in the brain.

The evidence: There have been no trials of huperzine A in healthy people in the English-speaking world. A handful of studies in China—none are available through the National Library of Medicine or online—have reportedly found that the compound improves the memory of elderly patients suffering from forgetful-

Bottom line: There is no verifiable evidence that huperzine A can help your memory.

Red light: Consumerlab.com, a Web site that tests supplements, points out that huperzine A is a relatively expensive ingredient, which creates an economic incentive for manufacturers to use less. One brand it analyzed consistently had less than 15 percent of the amount listed on the label.

Ginkgo



Typical claim: "Promotes mental alertness and memory."

What is it? Extracts from the leaves of the Ginkgo biloba tree.

How companies say it works: Improves blood flow and functions as an

antioxidant to prevent damage to brain cells from free radicals.

The evidence: In the largest trial testing ginkgo on cognition, U.S. researchers gave a daily dose of 240 mg of ginkgo or a placebo to 2,587 healthy men and women and 482 people with mild cognitive impairment. All were between the ages of 72 and 96. After six years, ginkgo hadn't improved either group's memory, attention, use of language, or ability to organize thoughts and prioritize tasks. 15

What's more, "we found no evidence that ginkgo slowed the rate of cognitive decline," says study co-author Beth Snitz of the University of Pittsburgh.

As for younger people, there is "no convincing evidence that ginkgo has a positive effect on any aspect of cognitive performance in healthy people under

the age of 60," concluded the Complementary Medicine Research Group at the University of Exeter in the UK after reviewing the results of 15 randomized clinical trials.16

The same is true for people with dementia. "There is no convincing evidence that Ginkgo biloba is efficacious," noted a 2009 Cochrane Collaboration review.¹⁷

Bottom line: In most good studies, ginkgo has no impact on memory.

Antioxidants



Typical claim: "Especially beneficial for those concerned with maintaining optimal brain health and func-

What are they? Vitamin C, vitamin E, and beta-carotene (vitamin A).

How compa-

nies say they work: By preventing oxidative damage to brain cells from free radicals.

The evidence: "There have been several large randomized trials of antioxidant supplements and cognitive function, and they have largely found no difference between them and a placebo," says Brigham and Women's Hospital's Francine Grodstein.

Exception: male physicians who took 50 mg (83,333 IU) of beta-carotene every other day for at least 15 years were better at recalling words and scored higher on other cognitive tests than those who took a placebo.18

"It is possible that antioxidant vitamins are important for memory over very long periods of time," says Grodstein, "but that requires further study."

Bottom line: Don't count on antioxidants to help your memory.

Red light: Don't take a supplement with more than the Daily Value for

beta-carotene—3 mg (5,000 IU) a day. In two large studies, smokers who took 20

DIABETES OF THE BRAIN?

Alzheimer's and diabetes? Could there be a connection? After all, people with diabetes have an increased risk of Alzheimer's. So do those who have insulin resistance but not yet diabetes.

Insulin allows your cells to take up glucose from the bloodstream and use it as fuel for your muscles or to be stored in fat cells. If you have insulin resistance, the glucose can't easily enter cells, and blood sugar starts to rise. If it gets high enough, you have diabetes.

This year, researchers at the University of Pennsylvania showed for the first time that insulin resistance is also present in the brains of Alzheimer's patients.

"Our research clearly shows that the brain's ability to respond to insulin, which is important for normal brain function, is going offline at some point," says Steven Arnold, director of the Penn Memory Center.

"We believe that brain insulin resistance may be an important contributor to the cognitive decline associated with Alzheimer's disease."

In May, the National Institutes of Health announced a five-year study to see if insulin inhaled through the nose—that way it's delivered directly to the brain can slow the decline of patients with mild cognitive impairment or early Alzheimer's disease. That's what happened in a pilot trial in similar people in 2011.¹

¹ Arch. Neurol. 69: 29, 2012.

or 30 mg a day for four to six years were more likely to die than smokers who took a placebo. 19, 20

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- ¹¹ Am. J. Clin. Nutr. 88: 1602, 2008.
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TOFU, OR NOT TOFU...

BY KATE SHERWOOD

If tofu's not a staple around your kitchen because you have no idea what to do with it, are you in for a treat. And if you're still not convinced after trying these three dishes, you can always use a pound of shrimp or chicken the next time.

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

Coconut Peanut Tofu







- oz. extra-firm tofu, drained
- 2 Tbs. canola oil

14

- ½ cup thinly sliced shallots
- 1 jalapeño, seeded and minced
- 2 tsp. brown sugar
- ²/₃ cup light coconut milk
- 1 Tbs. Thai fish sauce
- 1 Tbs. fresh lime juice
- 1/4 cup salted peanuts, chopped
- 2 cups cooked brown rice
 - lb. steamed sugar snap peas

This Thai-inspired dish is the perfect balance of savory, spicy, sweet, and tart. No fish sauce? You can substitute 2½ Tbs. of lower-sodium soy sauce.

Cut the tofu into 12 three-quarter-inch-thick slabs. Blot well with a paper towel. • In a large non-stick pan, sauté the tofu in 1 Tbs. of the oil until golden brown, 3-5 minutes per side. Remove the tofu. Sauté the shallots in the remaining 1 Tbs. of oil until they start to brown, about 3 minutes. Stir in the jalapeño, sugar, coconut milk, fish sauce, and lime juice. Simmer for 1-2 minutes. • Pour the sauce over the tofu and garnish with the peanuts. Serve with rice and snap peas. • Serves 4.

Per Serving: Calories 410; Total fat 19 g; Sat fat 4 g; Protein 18 g Carbs 45 g; Fiber 8 g; Cholesterol 0 mg; Sodium 420 mg

Total Time: 20 minutes



Ma Po Tofu



- 14 oz. extra-firm tofu, drained
 - Tbs. canola oil

2

- 5 cloves garlic, minced
- ½ tsp. red pepper flakes
- 1/4 cup finely chopped cashews
- ½ cup orange juice
- 3 Tbs. lower-sodium soy sauce
- 1 tsp. corn starch
- 2 scallions, sliced
 - cups cooked brown rice
- 6 cups steamed broccoli florets

Ma Po is a Chinese recipe for tofu in a savory sauce with ground pork. We used roasted unsalted cashews instead.

Cut the tofu into 12 three-quarter-inch-thick slabs. Blot well with a paper towel. • In a large non-stick pan, sauté the tofu in 1 Tbs. of the oil for 2 minutes per side. Remove the tofu. Sauté the garlic in the remaining 1 Tbs. of oil for 1 minute. Add the red pepper flakes and cashews and sauté for 1 minute. • In a small bowl, whisk together the orange juice, soy sauce, corn starch, and ½ cup of water. Add to the pan and simmer until thickened, about 3 minutes. • Pour the sauce over the tofu and garnish with the scallions. Serve with rice and broccoli. • Serves 4.

Per Serving: Calories 380; Total fat 18 g; Sat fat 2 g; Protein 18 g Carbs 40 q; Fiber 7 q; Cholesterol 0 mg; Sodium 440 mg

Total Time: 20 minutes

Sesame Tofu





- 2 Tbs. canola oil
- cloves garlic, minced
- 1 tsp. grated ginger
- 1 Tbs. balsamic vinegar
- 2½ Tbs. lower-sodium soy sauce
- 1 Tbs. brown sugar
 - tsp. corn starch
- 2 cups cooked brown rice
- 6 heads sautéed baby bok choy

A mix of white and black sesame seeds looks dramatic, but all white would work just fine.

Cut the tofu into 12 three-quarter-inch-thick slabs. Blot well with a paper towel. Spread the sesame seeds on a plate and press the tofu into them. • In a large non-stick pan, sauté the tofu in the oil until the sesame seeds are golden brown, about 3 minutes per side. Remove the tofu. • In a small bowl, whisk together the garlic, ginger, vinegar, soy sauce, sugar, corn starch, and ½ cup of water. Add to the pan and simmer until thickened, about 2 minutes. • Pour the sauce over the tofu. Serve with rice and bok choy. • Serves 4.

Per Serving: Calories 360; Total fat 17 g; Sat fat 2 g; Protein 17 g Carbs 37 g; Fiber 6 g; Cholesterol 0 mg; Sodium 460 mg



Reading the Bread Crumbs

WHAT TO LOOK FOR

1. Whole grain. Why bother squinting at ingredient lists to see if whole-grain claims are honest? To play it safe, stick with "100% whole grain" or "100% whole wheat."

That's your guarantee that the bread has no refined white flour (which is typically called "enriched wheat flour," "unbleached wheat flour," or just "wheat flour" in the ingredient list).

Breads with the words "whole grain" (but not with "100%") in their name *usually* contain little or no refined flour. If some appears way down on the ingredient list (near the yeast or salt), don't worry. (Exceptions: Arnold, Brownberry, and Oroweat Whole Grains are often a mix of whole and refined grain. Check the label.)

Ignore all other whole-grain claims. "Made with whole grain," "12 grain," "multigrain," "wheat," "good source of whole grain," and "8 grams whole grain" are usually code for "not much whole grain" (see p. 14).

2. Serving size. Most breads list calories and other Nutrition Facts for one slice. So make sure you double the numbers if you're making a sandwich.

3. Calories. Like our bellies, bread slices have grown. Many now hit $1\frac{1}{3}$ to $1\frac{1}{2}$ ounces, which means that just the bread for your sandwich can set you back 250 calories. Solution: shoot for breads that have no more than 100 calories per slice. And for a real calorie bargain, try a light bread with around 50 calories per slice.

Arnold, Sara Lee, Natural Ovens, Fiber One, Nature's Own, Wonder, and Weight Watchers sell 100% whole-grain lower-cal-



BY JAYNE HURLEY & BONNIE LIEBMAN

White bread, as we know it today, is at risk of becoming a niche market," the vice-president of marketing for ConAgra Mills recently told FoodBusinessNews.net.

We wish. While demand for white bread fell by 20 percent between 2005 and 2010, it still has 35 percent of the sliced-bread market. Whole grains are at 21 percent, and a grab-bag "other" category is at 44 percent.

Fresh-bread sales slid nearly 5 percent in the past year—the steepest decline ever. But bread still holds center stage on many breakfast plates and in many lunch bags. Here's how to pick the best ones.

The information for this article was compiled by Paige Einstein.

orie loaves. They're airy and they typically lack the seeds, nuts, or grain kernels that can give bread an interesting texture. But they sure can slash the calories in your sandwich.

And they sure beat old-fashioned low-cal breads like Pepperidge Farm Very Thin 100% Whole Wheat. Its 40-calorie slices are only about the size of two business cards.

Bonus: two slices of some whole-grain light breads
—Weight Watchers, Sara Lee 45
Calories & Delightful, and Fiber One 50 Calories, for example—have around 6 grams of protein in each 80- or 100-calorie serving. If you're looking for protein, that's a deal.

4. Sodium. Bread doesn't taste salty, but a single slice typically has about 220 milligrams of sodium. Why blow 30 per-

cent of your day's sodium on two slices when some brands use less and taste great?

Pepperidge Farm has cut the sodium by a quarter in 80 percent of its breads. And whole-grain breads by Natural Ovens (mostly sold online, but also available in some stores in the Upper Midwest), Fiber One, and Nature's Pride are in the same ballpark. Bravo!

The whole-grain breads from all four companies meet the National Salt Reduction Initiative's target of 100 mg of sodium *per ounce* by 2014. Our Best Bites have no more than 120 mg—and our Honorable Mentions stop at 150 mg—*per slice* (see chart on p. 15).

If you're watching every milligram, and if you live near a Trader Joe's, the company's Sodium Free Whole Wheat Bread is a real find. It's bland when eaten unadorned, but it would do any sandwich proud.

That's what to *look for*. Turn the page to find out what to *ignore*.



Any bread in Pepperidge Farm's Whole Grain line is a winner.



Just 50 calories, and not sweet like some Sara Lees and Pepperidge Farms.



One of only a handful of mostly whole-grain "multigrain" breads.



The only big brand whole wheat raisin bread we found.



In a sandwich, you'd never know that it has no sodium.

Photos: Paige Einstein/CSPI

The Grain Game

Take these two claims with a grain of salt:

■ Grams Whole Grain. "8g or more per serving," say the Arnold, Brownberry, and Oroweat Healthfull bread labels. So what?

Grains make up about half the weight of bread, so a typical 1 oz. (28-gram) slice should have around 14 grams of whole grain. A one-slice serving of the Healthfull breads (38 grams) should have 19 grams.

Why bother with all that math? Just look for "100% whole grain" on the label instead.

■ Multigrain. Who cares how many grains are in your bread? They could all be refined. Or not.

Pepperidge Farm Farmhouse 12 Grain and Light Style 7 Grain, for example, are mostly white flour. And Fiber One Multigrain has hardly any whole grain. But Roman Meal Multigrain, Sara Lee Hearty & Delicious 12 Grain, Sara Lee 45 Calories & Delightful 100% Multi-Grain, Fiber One 50 Calories Multigrain, and Weight Watchers Multi-Grain are nearly all whole grain.

How can you tell which are which? Check the ingredient list.



Twelve grains, but Not the kind of extra the first (and most abundant) is white flour.

fiber that matters.

Fiber Frenzy

"Twice the fiber of 100% whole wheat," boasts Nature's Own Double Fiber Wheat. Arnold Whole Grains Double Fiber and Brownberry and Oroweat Grains & More Double Fiber say pretty much the same. Yawn.

Most "double fiber" breads—and most "lights" and many regulars—add highly processed fibers like inulin (chicory root), wheat fiber, cellulose fiber, polydextrose, soy fiber, modified wheat starch, and oat fiber. They won't hurt you, but they may not improve your regularity or lower your risk of heart

disease or diabetes like the intact fiber in whole grain or bran can. Our advice: Ignore "fiber" claims. If you want more fiber than you'd get in a 100% whole-grain bread (typically 2 or 3 grams per

slice), switch your cereal to Kellogg's All-Bran Original, which has 10 grams of (naturally occurring) fiber in a half-cup serving.

Heart Scam



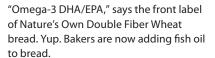
The heart just means that it's low in saturated fat.

"Heart Healthy," says the red heart on Nature's Own Specialty 100% Whole Wheat bread. "While many factors affect heart disease, diets low in saturated fat and cholesterol may reduce the risk of this disease."

Translation: Any food that's low in total fat, saturated fat, and cholesterol and that has no more than 480 milligrams of sodium per serving can make that health claim. That includes white, whole wheat, or any other bread. The criteria for the American Heart As-

sociation's Heart-Check mark are pretty much the same. Ho hum.

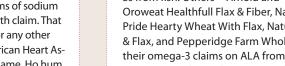
O, Really?



But they're not adding much. Each slice of Nature's Own, for example, has 15 milligrams of EPA and 10 mg of DHA. That's what you'd get from less than a teaspoon of salmon.

At least Nature's Own gets its omega-3s from fish. Others—Arnold and Oroweat Healthfull Flax & Fiber, Nature's

Pride Hearty Wheat With Flax, Natural Ovens Organic Whole Grain & Flax, and Pepperidge Farm Whole Grain Ancient Grains—hinge their omega-3 claims on ALA from flaxseed. But the evidence that ALA prevents heart disease is weaker than the evidence for EPA and DHA.



Toot Sweet

"No High Fructose Corn Syrup," brag Arnold, Brownberry, and Oroweat Whole Grains Health Nut breads, which use sugar and molasses instead. News flash: Those two are no healthier than high-fructose corn syrup. Neither is raisin juice concentrate or honey.

It's not clear why bakers are making breads sweeter. Some—like Nature's Pride 100% Whole Wheat or Sara Lee Hearty & Delicious Oat with 100% Whole Grainhave 4 or 5 grams of added sugar per slice. (Most breads have just 1 to 3 grams.)



High-fructose corn syrup is no worse than other sugars that bakers add.

Arnold, Pepperidge Farm, and Sara Lee now add sucralose to their light breads. Arnold, Brownberry, and Oroweat add stevia extract to their Healthfull line. The low-cal sweeteners are probably safe, but be warned: some would call Sara Lee's 45 Calories & Delightful 100% Whole Wheat With Honey flavor too sweet.

A good bread. Just ignore the weight-loss

How to Lose

Its omega-3 (ALA) can't

match fish oil's DHA

and EPA.

"Grains aid in weight management," says Nature's Own Specialty 12 Grain and Specialty Honey Wheat. "If you're trying to slim down, studies show that adding whole grains can help to maintain a healthier body weight."

People who eat more whole grains do tend to weigh less. But did whole grains make them thinner, or were they more healthconscious to begin with? No one knows.

"Fiber and protein to help satisfy your hunger," claim the Arnold, Brownberry, and Oroweat Healthfull breads Web site. It's not claims. clear that more protein and processed fiber make you feel more "full." (Get it?) And the

Healthfull breads aren't even 100% whole grain.

Looking to lose? Pick up a Best Bite bread with around 50 calories a slice. Ignore everything else.

Doughs & Don'ts

Best Bites (🖊) have no more than 120 milligrams of sodium per slice. Honorable Mentions () can have up to 150 mg. Both are all (or almost all) whole grain. We disqualified breads made with the poorly tested artificial sweetener acesulfame potassium. Breads are ranked from least to most sodium, then least to most calories. We didn't look at breads sold only in natural food stores. Due to regional variations, our numbers may not exactly match what's on the packages.

numbers may not exactly mater what som the packages.	.;.	
Light or Low Calorie - 100% or almost 100% whole grain (1 sl.)	G/ori	500/1
Pepperidge Farm Very Thin 100% Whole Wheat (0.5 oz.)	40	50
✓✓ Fiber One 50 Calories—Honey Whole Wheat or Multigrain (0.9 oz.)¹	50	80
Natural Ovens Whole Grain Right Wheat (0.8 oz.)	50	80
Arnold Bakery Light 100% Whole Wheat (0.7 oz.)	40	90
✓✓ Sara Lee 45 Calories & Delightful—100% Whole Wheat With Honey or 100% Multi-Grain (0.8 oz.)¹	50	90
Weight Watchers Multi-Grain (0.7 oz.) ^A	50	90
Weight Watchers 100% Whole Wheat (0.7 oz.)	40	100
Wonder Smartwheat 100% Whole Wheat (0.9 oz.)	50	100
✓✓ Nature's Own—100% Whole Grain Sugar Free or 100% Whole Wheat (0.9 oz.)¹	50	110
✓ Pepperidge Farm Carb Style 7 Grain (0.9 oz.)	60	150
Pepperidge Farm Carb Style Soft 100% Whole Wheat (0.9 oz.)	60	170
Light or Low Calorie-NOT 100% or almost 100% whole grain	(1 slic	:e)
Nature's Own 40 Calories Per Slice—9-Grain, Honey Wheat, or Wheat (0.8 oz.) ¹	40	70
Pepperidge Farm Light Style (0.7 oz.) ¹	40	80
Sara Lee 45 Calories & Delightful Wheat (0.8 oz.)	50	110
Wonder Light Wheat (0.8 oz.)	40	120
Natural Ovens Original Carb Conscious (1.3 oz.)	80	120
Nature's Own Double Fiber Wheat (1 oz.)	50	140
Regular-100% or almost 100% whole grain (1 slice)		
Trader Joe's Sodium Free Whole Wheat (1.1 oz.)	80	0
Pepperidge Farm Stone Ground 100% Whole Wheat (0.9 oz.)	70	70
Nature's Own 100% Whole Wheat Made with Real Honey (0.8 oz.)	60	80
Pepperidge Farm Whole Grain 15 Grain Small Slice (1 oz.)	70	80
Roman Meal—Multigrain or Sandwich (1 oz.) ¹	70	90
Nature's Pride 100% Whole Wheat (1 oz.)	70	100
Sara Lee 100% Whole Wheat (1 oz.)	70	100
✓✓ Wonder Soft 100% Whole Wheat (0.8 oz.)	60	110
Pepperidge Farm Swirl 100% Whole Wheat Cinnamon with Raisins (1 oz.)	80	110
Natural Ovens—Oat Nut Crunch, Whole Grain Multi Grain, or Whole Grain Sunny Millet (1.3 oz.) ¹	100	110
Pepperidge Farm Whole Grain, except 15 Grain Small Slice and 100% Natural (1.5 oz.) ¹	100	110
Arnold or Oroweat Soft Family 100% Whole Wheat (0.9 oz.)	70	120
Nature's Own 100% Whole Grain (0.9 oz.)	70	120
Sara Lee Soft & Smooth 100% Whole Wheat (1 oz.)	70	120
Sara Lee Hearty & Delicious—100% Whole Wheat, 100% Whole Wheat with Honey, 12 Grain, or Healthy Multi-Grain (1.3 oz.) ¹	100	120
✓ Arnold Stone Ground 100% Whole Wheat (0.9 oz.)	70	130
✓ Roman Meal Roman Whole Grain (1 oz.)	70	130
✓ Oroweat Grains & More Double Fiber (1.3 oz.)	80	130
✓ Natural Ovens Whole Grain—100% Whole Grain or Hunger Filler (1.3 oz.)¹	90	130
✓ Arnold Brick Oven 100% Whole Wheat (1.2 oz.)	80	140
✓ Oroweat Whole Grains—100% Whole Wheat or Honey Whole Wheat (1.3 oz.)¹	90	140
✓ Pepperidge Farm Whole Grain 100% Natural—German Dark Wheat or Stone Ground 100% Whole Wheat (1.5 oz.) ¹	100	140

		G/0,	Sodiu
/	Nature's Own Specialty—100% Whole Grain, 12 Grain, or Honey Wheat (1.5 oz.) ¹	100	150
/	Arnold or Brownberry Grains & More—Double Protein, Flax & Fiber, or Triple Health $(1.5 \text{ oz.})^1$	110	150
~	Arnold or Brownberry Whole Grains—100% Whole Wheat, Double Fiber, German Dark Wheat, or Honey Whole Wheat (1.5 oz.) ¹	110	150
'	Nature's Pride—100% Whole Wheat, Double Fiber 100% Whole Wheat, Healthy Multi-Grain, Hearty Wheat With Flax, or Stone Ground Whole Wheat with Honey (1.5 oz.)1	110	150
/	Pepperidge Farm Farmhouse 100% Whole Wheat (1.5 oz.)	110	150
	Roman Meal—Ancient 12 Grain, Healthy Whole Grain, or Honey Wheatberry (1.3 oz.) ¹	90	160
	Natural Ovens Organic Whole Grain & Flax (1.6 oz.)	120	160
	Oroweat Whole Grain & Flax (1.3 oz.)	100	170
	Nature's Own Specialty 100% Whole Wheat (1.5 oz.)	110	180
	Arnold or Oroweat Dutch Country Extra Fiber (1.3 oz.) ¹	90	190
	Wonder Stoneground 100% Whole Wheat (1.2 oz.)	90	200
	Roman Meal—100% Whole Grain or 100% Whole Wheat (1.5 oz.) ¹	100	200
	Sara Lee Hearty & Delicious Oat with 100% Whole Grain (1.5 oz.)	110	200
	Regular—NOT 100% or almost 100% whole grain (1 slice)		
	Sara Lee Breakfast Cinnamon With Raisins (1 oz.)	100	80
	Nature's Pride Honey Wheat (1 oz.)	70	100
	Wonder Made With Whole Grain White (1 oz.)	70	100
	Pepperidge Farm Swirl Raisin Cinnamon (1 oz.)	80	100
	Sara Lee Soft & Smooth Made with Whole Grain White (0.9 oz.)		110
	Nature's Own Honey 7 Grain (0.9 oz.)	70	110
	Oroweat Master's Best Winter Wheat (1.1 oz.)	90	120
	Arnold or Oroweat Soft Family Made With Whole Grain White (0.9 oz.)	70	130
	Fiber One Multigrain (1.7 oz.)	110	140
	Nature's Own Specialty Soft Oatmeal (1.5 oz.)	120	140
	Wonder Classic White (1 oz.)	70	150
	Arnold, Brownberry, or Oroweat Healthfull (1.3 oz.) ¹	80	150
	Oroweat Honey Wheat Berry (1.2 oz.)	80	150
	Oroweat Whole Grains, except 100% Whole Wheat and Honey Whole Wheat (1.3 oz.) ¹	100	150
	Arnold Country Oat Bran (1.5 oz.)	110	150
	Arnold or Brownberry Whole Grains—7 Grain, 12 Grain, Health Nut, Healthy Multi-Grain, or Oatnut (1.5 oz.) ¹	110	150
	Pepperidge Farm Farmhouse Whole Grain White (1.5 oz.)	110	150
	Nature's Pride—12 Grain or Nutty Oat (1.5 oz.) ¹	120	150
	Wonder Made With Whole Grain Wheat (1 oz.)	70	160
	Pepperidge Farm Farmhouse 12 Grain (1.5 oz.)	120	170
	Pepperidge Farm Jewish Rye Whole Grain Rye Seeded (1.1 oz.)	70	190
	Pepperidge Farm Pumpernickel Dark Pump (1.1 oz.)	80	190
	Nature's Own Specialty Double Fiber Wheat (1.5 oz.)	100	190
	Pepperidge Farm Farmhouse Oatmeal (1.5 oz.)	120	190
	Arnold Real Jewish Rye With Seeds (1 oz.)	80	220
	Pepperidge Farm Farmhouse Sourdough (1.5 oz.)	120	220
,,,	Gluten Free – 100% whole grain (1 slice)	70	100
	Udi's Cinnamon Raisin (0.9 oz.)	70	100
	Udi's—Millet-Chia or Omega Flax & Fiber (1.1 oz.) ¹ Udi's—White Sandwich or Whole Grain (0.9 oz.) ¹	80 70	140
•	Our s—writte sandwich of whole Grain (0.9 02.)	70	130

✓ Best Bite. ✓ Honorable Mention. ¹Average. ^AContains acesulfame potassium. Note: Best Bites and Honorable Mentions are based on grain content and sodium, not taste.

Daily Limit (for a 2,000-calorie diet): Sodium: 1,500 milligrams.

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About CSPI, publisher of Nutrition Action Healthletter



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

Nutrition Action Healthletter

CENTER FOR SCIENCE IN THE PUBLIC INTEREST Suite 300, 1220 L Street N.W. Washington, DC 20005 www.cspinet.org



FOOD PORN



WHAT'S NOODLES?



What'll they think of next? You may have spotted a new kind of pasta in the dairy or produce section.

House Foods Tofu Shirataki Spaghetti is a

"spaghetti shaped noodle substitute" that comes in a small, liquidfilled plastic bag. The noodles are made of water, tofu, and Konnyaku, a member of the yam family.

Why would spaghetti need a sub? As many a dedicated dieter knows, spaghetti (and most other pasta) has about 200 calories per cup. Tofu Shirataki has 40 calories per cup (one bag). To dieting pasta lovers, that's a steal.

A serving of Tofu Shirataki isn't equal to a serving of tofu, though. A cup has far less protein (2 grams) than you'd get in a 4 oz. serving of extra-firm tofu (11 grams)...or in a cup of whole- or refined-grain spaghetti (8 grams), for that matter. And you'd get more fiber in the whole-grain pasta (6 grams) than in the Shirataki (4 grams) or the extra-firm tofu (1 gram).

What's more, Shirataki has a slightly spongier texture than pasta. It's closer to rice or cellophane noodles than to semolina. And if you're serving a crowd, it's easier (and far cheaper) to buy a 16 oz.

box of whole-grain pasta for \$2 than eight bags of Shirataki for \$2 a pop.

But if you're looking for lower-calorie noodles, add some **Shirataki Spaghetti**, **Angel Hair**, or **Fettuccine** to a soup or stir-fry. Or toss them with toasted sesame oil, then a mix of minced garlic, grated ginger, vinegar, soy sauce, peanut butter, and a touch of sugar. And, of course, there's always your favorite spaghetti sauce and a dusting of Parmesan. Now *that's* using your noodle.

House Foods: (714) 901-4350



Late-Summer Gazpacho

Purée 3 cups of chopped ripe tomatoes, 2 cups of peeled, seeded, chopped cucumber, 1 roasted red pepper, 1 Tbs. of red wine vinegar, 2 Tbs. of extra-virgin olive oil, and ½ tsp. of salt in a blender. Process until very smooth. Chill for 1 hour and serve with minced chives. Makes 4 cups.

FROZEN FATTY

"Satisfy your sweet tooth and your coffee craving in one indulgent sip," urges the **Dunkin**' **Donuts** Web site.

One sip of Dunkin's **Frozen Caramel** or **Mocha Coffee** wouldn't be so bad. But an entire large (32 oz.) may be a tad more indulgence than you're looking for...unless you *want* your fat cells to find housing for another 1,050 calories, 30 grams of saturated fat (1½ days' worth), and some 30 teaspoons of added sugar. It's like drinking four Chocolate Frosted Donuts. M-m-m-m.

How can frozen coffee cause so much trouble?
For starters, it's not really frozen coffee. (Why would anyone think that?) It's a frozen coffee drink
—a "base" of sugar with coffee extract, coloring, and flavors is mixed with cream and syrup and topped with whipped cream. (Get it with whole or fat-free milk instead of cream and the calories drop to "only" around 700.)

Dunkin's Frozen Coffees make Starbucks' Frappuccinos look like diet food. A venti (24 oz.) Mocha Frappuccino with 2% milk and whipped cream at Starbucks, for example, has 80 calories, 9 grams of sat fat, and around 17 teaspoons of added sugar.

If you want a cold coffee drink at Dunkin', get a small (16 oz.) Iced Latte Lite (coffee, fatfree milk, and Splenda), and you'll escape with only 80 calories, no sat fat, and no added sugar. That's also what a grande (16 oz.) Iced Skinny Latte at Starbucks runs. For something closer to Dunkin's Frozen Coffee, try a Starbucks grande Coffee Frappuccino Light (110 calories, no sat fat, and around 4 teaspoons of added sugar).

That Dunkin'. Always tryin' to put a spare doughnut around our midsections.

Dunkin' Donuts: (800) 859-5339