

Nutrition *Action*

SEPTEMBER 2013 \$2.50

HEALTH LETTER®
CENTER FOR SCIENCE IN THE PUBLIC INTEREST

PROSTATE CANCER

WHICH ONES MATTER?

BY BONNIE LIEBMAN

One out of six American men will be diagnosed with prostate cancer in his lifetime. And autopsy studies suggest that at least half of all men over 50 have prostate cancer. Among men older than 85, three out of four have the disease.

Yet only about three out of every 100 men will die of prostate cancer. That's because the vast majority of prostate cancers are indolent—that is, they are so small and slow growing that they're unlikely to cause harm.

The pressing question for those who have been diagnosed with prostate cancer and for those trying to find its cause: How can we prevent—and treat—only those cancers that matter?

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Nutrition Action Healthletter (ISSN 0885-7792) is published 10 times a year (monthly except bi-monthly in Jan./Feb. and Jul./Aug.).

POSTMASTER: Send changes to *Nutrition Action Healthletter*, 1220 L Street, N.W., Suite 300, Washington, DC 20005.

Application to mail at Periodical postage rates approved at post office of Washington, DC, and at additional offices.

Subscriber Services

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MEMO FROM MFJ

Helping Kids Eat Better



Hurray! I've been waiting for this day since the mid-1970s. Junk food is on its way out of schools!

Last September, the U.S. Department of Agriculture dramatically improved the nutritional quality of feder-

ally subsidized school meals when it required schools to add more fruits and vegetables, use bread and other grain products that are at least 50 percent whole grain, get rid of artificial trans fat, and steadily lower sodium.

Then in June, as a result of the 2010 Healthy Hunger-Free Kids Act, the USDA gave schools one year to ensure that all the foods sold *outside* of subsidized meals—both in cafeterias and school hallways—contain actual *food* (like vegetables, milk, and whole grains). That will be coupled with limits on salt, sugar, and other nutrients.

I'm proud that CSPI's nutrition policy director, Margo Wootan, led the push for the new law and regulations. (CSPI is the nonprofit publisher of *Nutrition Action*.)

While it was the tripling of childhood obesity since 1980 that provided the impetus for the improvements in school fare, healthier foods also will help prevent tooth decay, high blood pressure, and other diet-related problems. And children who are accustomed to eating more plant-based meals, whole grains, and less salty foods won't have to learn new habits as adults.

But if we want to turn out healthy kids, we have to do even more.

■ At home. Parents need to keep as much junk food out of the home (and their kids' hands) as possible. And they need to teach their children the basics of preparing meals. Youngsters who can't cook will have to rely on food companies

and restaurants for the rest of their lives. Need recipe ideas? Pick up a copy of Sally Sampson's beautiful new cookbook, *ChopChop: The Kids' Guide to Cooking Real Food with Your Family*, which is loaded with fun and (mostly) healthy recipes. (Thanks to Sally for publicizing Food Day—October 24—in *ChopChop* magazine.)

■ In schools. Since many parents don't cook, let's make sure that every child gets age-appropriate lessons in school. Cooking is a fun, hands-on activity that nicely balances the reading, writing, and arithmetic. And while they're at it, schools could teach kids how to garden.



Companies need to stop marketing unhealthy foods to kids.

■ In corporate boardrooms. The food industry isn't an innocent bystander. Why don't fruit and vegetable producers mount humorous ad campaigns to tempt kids with the taste and texture of bell peppers and crisp apples?

And the industry also could be doing less—less advertising of unhealthy foods on TV and wherever else kids congregate.

■ In Washington & state capitals. The federal government and the states need to pressure companies to stop marketing unhealthy foods—sugary breakfast cereals, cheeseburgers on white buns, and fatty, salty pizzas—to children, and to make healthy meals the standard kids' meals at restaurants.

Since Congress prevented the government from issuing even voluntary guidance on food marketing two years ago, this would be the time for the President and First Lady to use their bully pulpit and demand that companies do the right thing.

C'mon! It's our kids we're talking about.

Michael F. Jacobson, Ph.D.
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CSPI is seeking a Director of Health Promotion Policy (M.P.H., Ph.D., or M.D.) to push for government policies and actions that prevent diet-related chronic disease.

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PROSTATE CANCER

WHICH ONES MATTER?

Prostate cancer kills 33,000 American men each year—more than any cancer except lung. Yet most prostate cancers are essentially harmless. In decades past, men would never have known about them.

But over the last 25 years, a simple blood test that measures levels of PSA (prostate-specific antigen) has been able to detect both low-risk and life-threatening cancers. And that has complicated efforts to prevent and treat the disease.

Here's the latest on how to protect your prostate from cancers that matter...and from treatments that don't.

THE PSA ERA

"There's a lot of confusion in the whole prostate field that is basically due to PSA screening," says Meir Stampfer, professor of epidemiology and nutrition at the Harvard School of Public Health.

"Half or more of older men have prostate cancer," he explains. "But the vast majority of those cancers are indolent. With PSA screening, many cases that never would have come to light in the old days are being diagnosed and treated. That's the over-treatment problem."

And the cost of unnecessary surgery or radiation isn't just short-term pain.

"If being treated for prostate cancer were like having an appendectomy, where you have a procedure and it heals and you're back to normal, it would be a different story," says Laurence Klotz, chief of urology at the Sunnybrook Regional Cancer Centre in Toronto.

"But both surgery and radiation have a major impact," he adds. "Erectile function is affected in the majority of patients. Even if it's preserved, the quality of erections goes down in most patients. Incontinence can be a problem, and diarrhea can occur with radiation."

In fact, in 2012 the U.S. Preventive Services Task Force recommended that, because the harms outweigh the benefits, men shouldn't get PSA tests at all.¹

Some doctors disagree, however.

"The problem isn't that PSA is a bad test," says Stampfer. "PSA is a good test. It provides a 12-year lead time."

In other words, a PSA test can detect cancers 12 years earlier than if doctors had

intense research. However, there's enough data now to identify with sufficient confidence men who don't need treatment right away and can instead be watched with repeated PSA testing and repeated biopsies."

That approach—called active surveillance—was recommended in 2011 by a National Institutes of Health State-of-the-Science Conference called "Role of Active Surveillance in the Management of Men with Localized Prostate Cancer."²

Its key conclusion: "Active surveillance has emerged as a viable option that should be offered to patients with low-risk prostate cancer." (See "To Treat or Not to Treat?" p. 6.)

PSA screening hasn't just led to over-treatment. It has also made it harder to tease out which foods, nutrients, or other factors are linked to prostate cancers that are likely to spread.

"Most of the studies were done before the PSA screening era, when a substantial number of cases were already advanced," says Stampfer. "Many were diagnosed because a man would go to the doctor for urinary symptoms. Nowadays, it's very rare for prostate cancer to be advanced at the time of diagnosis."

And what causes those bad cancers may not cause the indolent ones.

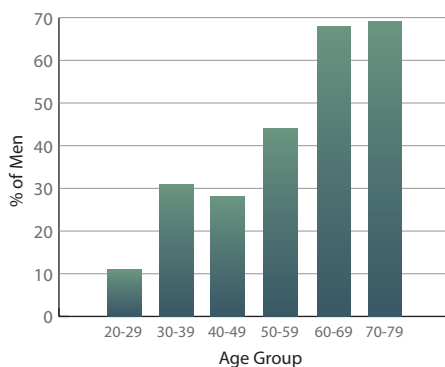
"If you look at total prostate cancer incidence, the life-threatening cases are mixed together with the indolent cases," notes Stampfer. "So many of the associations with foods or nutrients that we've seen in the past are no longer there."

DEATHS ONLY

To solve the problem, Stampfer's group focuses on factors that are linked to cancers that spread or kill.

In those studies, "we know for sure that the men who died or had metastatic disease had bad cancer," he notes. "Many researchers use these shaky definitions like advanced or aggressive cancer. Most of

THE AGING PROSTATE



In autopsy studies of men who die of causes other than prostate cancer, more than half of those over 60 have the disease.

found the tumors using a rectal exam. The trick is to figure out which of those early cancers to treat.

"At the time of diagnosis of a localized cancer, we cannot distinguish with certainty if it is indolent or potentially lethal," says Stampfer. "This is an area of



those cancers are indolent.”

Since most studies don't have many men with fatal cancers, there's less data. For example, there's little or no consistent data on the link between fatal prostate cancer and tomatoes, soy, or green tea.

“That really shrinks your evidence base,” says Stampfer. “But it shrinks the evidence to what we care about.”

Here's what researchers are learning about diet, exercise, and other risk factors that are linked to fatal prostate cancers.

OBESITY & SMOKING

“Men who are overweight have a higher risk of lethal prostate cancer than men who are not,” says Stampfer. “And the risk is even higher if you're obese.”

In a meta-analysis of six studies that followed 1.2 million initially cancer-free men, being overweight meant a higher risk of dying of prostate cancer.³

“Overweight and obesity aren't related to the risk of getting prostate cancer,” explains Stampfer. “But they're strongly related to the risk of dying of prostate cancer.”

The same holds true for cigarette smoking. “It's not a driver of prostate cancer incidence, but men who smoke currently or who have quit in the last 10 years have a higher risk of lethal prostate cancer,” says Stampfer.

How might extra pounds make prostate cancer spread? They may boost inflammation, raise levels of growth factors, and lower levels of testosterone, all of which may make tumors proliferate.⁴

“Apparently, things that drive metastases aren't always associated with the initial tumor,” notes Stampfer. “The mechanisms are unclear, but it seems like obesity and smoking are somehow working in that vein.”

EXERCISE

“Exercise is emerging as a pretty strong protective factor both for the incidence of bad disease and for decreasing the progression of disease,” says Stampfer. “Several studies now have looked, and they see a pretty pronounced effect.”

In earlier studies, men who reported doing vigorous activity—like jogging, biking, tennis, and squash—for at least three hours a week had a lower risk of being diagnosed with metastatic prostate cancer than men who reported no vigorous activity.⁵

More recently, when Stampfer and

others tracked roughly 2,700 men with prostate cancer for four years, those who reported at least three hours a week of vigorous activity had a 61 percent lower risk of dying of prostate cancer than those who got less than an hour a week.⁶

“We saw a strong association with a lower risk of lethal disease,” says Stampfer. “But with exercise, you always worry whether inactivity causes men to die or whether illness causes men to be inactive.”

So researchers looked at 1,455 men in the Cancer of the Prostate Strategic Urologic Research Endeavor (CaPSURE) study. The study follows men who have been diagnosed with—and, in most cases,



Men who are active and normal weight have a lower risk of dying of prostate cancer.

treated for—prostate cancer to see whose cancer is more likely to “progress.”

In most cases, that means a rise in PSA (though it can also mean metastases or dying of prostate cancer).

“A rise in PSA is an imperfect marker of prostate cancer progression,” says Stampfer. “But when PSA levels go up, that doesn't cause symptoms.” So there's no worry that illness is making men inactive.

Among the men in CaPSURE, those who walked briskly for at least three hours a week had a 57 percent lower rate of progression than those who walked at an easy pace for less than three hours a week.⁷

Why would brisk walking matter for these men when only vigorous exercise mattered in earlier studies?

“Brisk walking is considered moderate exercise based on a younger, healthy adult population,” says Erin Richman of the University of California, San Francisco, lead author of the CaPSURE study.

“When we work in older populations, the standard should be how the body is responding. If you elevate your heart rate and breathing when you walk briskly, that may be sufficient.”

Very few men in the study reported running, biking, or other vigorous activity. “But for someone who is capable of running, running is what they should do,” says Richman.

DIET

■ **Calcium.** Too little calcium can weaken bones. But too much calcium could spell trouble for the prostate.

Among 47,750 men in the Health Professionals Follow-Up Study, those who took more than 400 mg a day of calcium from a supplement had a 50 percent higher risk of dying of prostate cancer than those who took no calcium.⁸

“We looked at calcium supplements, which allows you to separate the calcium from the dairy, and we found an increased risk of lethal disease,” says Stampfer.

However, another study looking at fatal prostate cancer didn't see a clear link.⁹

“And in small randomized trials giving people calcium to reduce the risk of precancerous colon polyps, they actually found a decreased risk of prostate cancer,” says Stampfer. “But those were almost all screen-detected, indolent cases, so it's hard to know what it means.”

“We went back to look at our own data, and we saw essentially the same thing—a decreased risk of low-grade, indolent disease and an increased risk of lethal cancer. So the calcium studies are difficult because there's this potential dual effect.”

Stampfer suggests that men skip calcium supplements to play it safe unless a doctor says otherwise for a specific indication.

“People need enough to hit that sweet spot to reduce the risk of colorectal cancer, but most men get enough in their diet, so I would not recommend separate calcium supplements.”

■ **Dairy.** “The dairy story can be confusing,” says June Chan, professor of epidemiology & biostatistics and urology at the University of California, San Francisco.

She and others followed nearly 4,000 health professionals with localized prostate cancer for eight years to see which men were more likely to “progress.”¹⁰

“Men who drank whole milk more than four times a week had about twice the risk of lethal prostate cancer compared to men who rarely or never drank whole milk,” says Chan. “But there was a suggestion of a reduced risk for low-fat dairy intake.”

Similarly, when researchers tracked nearly 22,000 physicians—including 2,800 who were diagnosed with prostate cancer—for 28 years, “they saw an elevated risk for prostate cancer death with whole milk intake,” notes Chan.¹¹

Although something else about men who drink whole milk may explain the link, there’s good reason to avoid it.

“We don’t recommend whole milk because of the cardiovascular risks associated with a high saturated-fat intake,” says Chan.

■ **Eggs.** In the CaPSURE study, men who reported eating the most eggs (about six a week) were twice as likely to have their prostate cancer progress than men who ate the fewest (less than half an egg a week).¹²

“That was unexpected,” says Richman. “So it prompted us to look at eggs a little further.” That led to choline, a nutrient in egg yolks that is highly concentrated in prostate cancer cells.

“We were also interested in choline because it has been used as an indicator of prostate cancer recurrence at the UCSF urology clinic,” explains Richman.

Researchers also looked at roughly 27,600 men who had no prostate cancer when they entered the Health Professionals Follow-Up Study in 1994. Those who reported eating at least 2½ eggs a week had an 81 percent higher risk of dying of prostate cancer than those who consumed less than half an egg a week.¹³

Still, it’s too early to tell if eggs or choline matter. Few studies have looked at either one, and something else about egg eaters could increase their risk.

“If it holds up, it would be an important finding,” says Stampfer.

■ **Coffee.** “There are now a few studies suggesting a protective association for coffee,” says Stampfer.

For example, among 48,000 health professionals, those who drank more than six cups of coffee a day had a 60 percent lower risk of lethal prostate cancer than those who drank no coffee.¹⁴ Coffee, not caffeine, seemed to matter.

Few other well-done studies have

looked at fatal prostate cancer. The NIH-AARP study found no link, but it asked participants about coffee only once over 11 years. The health professionals study asked about coffee every four years over a 28-year period.¹⁵

“Under those conditions, we wouldn’t



Vegetables may lower your risk of heart disease even if they don’t prevent prostate cancer.

have found a link in the health professionals either,” says Stampfer, who was a co-author of both studies.

■ **Cruciferous vegetables.** In the CaPSURE study, which tracked 1,560 men with prostate cancer for two years, cruciferous vegetables—like broccoli, cabbage, cauliflower, brussels sprouts, kale, mustard greens, and swiss chard—stood out.¹⁶

“Men who consumed a high amount of cruciferous vegetables after diagnosis had a reduced risk of having their disease recur,” says Richman.

And in another study, men who consumed the most cruciferous vegetables had a 40 percent lower risk of tumors that had spread beyond the prostate.¹⁷ In particular, men who ate more than one serving of broccoli or cauliflower a week had roughly half the risk of men who consumed less than one serving a month.

Why cruciferous vegetables? Their isothiocyanates and indoles may matter.

“When you expose prostate cancer cells in a test tube or animals that have an implanted prostate tumor to isothiocyanates or indoles, it inhibits the cells’ growth,” says Richman. “But there’s very little data in men.”

■ **Fish & fish oil.** It’s a puzzle. In July, researchers reported that men with higher blood levels of long-chain omega-3 fats (mostly DHA and EPA) had a higher risk of “high-grade” prostate cancer.¹⁸

Although those scientists found similar results before, others have found a lower risk or no link at all.¹⁹⁻²¹

What’s more, “high-grade” cancers aren’t necessarily lethal. And the results don’t quite fit with studies on fish intake. In a meta-analysis of four studies, people who ate the most fish had a 63 percent lower risk of dying of prostate cancer than people who ate the least.²²

“We found an increased risk of indolent cancers in fish eaters because the men who were eating more fish also had more PSA tests, biopsies, and more prostate cancer diagnosed,” says Stampfer. “But when we looked at lethal disease, we saw a lower risk.” Stay tuned.

The Bottom Line

- Lose (or don’t gain) excess weight.
- Quit (or don’t start) smoking.
- Don’t take calcium supplements unless you eat few calcium-rich foods.
- Until we know more about food and fatal prostate cancer, eat a diet that’s good for your heart. That means lots of vegetables and fruit, low-fat instead of high-fat dairy, whole instead of refined grains, fish and poultry instead of red meat, egg whites instead of whole eggs, and oils instead of shortening or butter.

¹ www.uspreventiveservicestaskforce.org/prostatecancerscreening/prostatefinalrs.htm.

² consensus.nih.gov/2011/prostate.htm.

³ *Cancer Prev. Res.* 4: 486, 2011.

⁴ *Eur. Urol.* 63: 800, 2013.

⁵ *Cancer Res.* 58: 5117, 1998.

⁶ *J. Clin. Oncol.* 29: 726, 2011.

⁷ *Cancer Res.* 71: 3889, 2011.

⁸ *Cancer Epidemiol. Biomarkers Prev.* 15: 203, 2006.

⁹ *Am. J. Epidemiol.* 166: 1270, 2007.

¹⁰ *Cancer Epidemiol. Biomarkers Prev.* 21: 428, 2012.

¹¹ *J. Nutr.* 2012. doi:10.3945/jn.112.168484.

¹² *Am. J. Clin. Nutr.* 91: 712, 2010.

¹³ *Cancer Prev. Res.* 4: 2110, 2011.

¹⁴ *J. Natl. Cancer Inst.* 103: 876, 2011.

¹⁵ *Cancer Causes Control* 2013. doi:10.1007/s10552-013-0229-6.

¹⁶ *Int. J. Cancer* 131: 201, 2012.

¹⁷ *J. Natl. Cancer Inst.* 99: 1200, 2007.

¹⁸ *J. Natl. Cancer Inst.* 2013. doi:10.1093/jnci/djt174.

¹⁹ *Am. J. Epidemiol.* 173: 1429, 2011.

²⁰ *Cancer Epidemiol. Biomarkers Prev.* 16: 1364, 2007.

²¹ *Cancer Causes Control* 20: 211, 2009.

²² *Am. J. Clin. Nutr.* 92: 1223, 2010.

To Treat or Not to Treat?

Jim Cassell felt fine when he went for his annual checkup in March 2011. But his PSA had jumped to 2.5 from just 1.8 in 2010.

"I had another test in June, and it had gone up to 3.1," says Cassell, a health care writer and editor who lives in Silver Spring, Maryland. "That's when my internist suggested that I see a urologist."

The urologist did a biopsy. "I can tell you now, it's not a lot of fun," says Cassell. "The urologist said, 'We've found a small tumor in one area of your prostate. It's not big.'"

And it was a Gleason score 6, which means that the cells looked only slightly abnormal (see "Gleason Grades," p. 7).

Cassell expected the urologist to recommend active surveillance, which means repeated biopsies and PSA tests. (In contrast, an earlier strategy, called "watchful waiting," meant simply waiting for symptoms to show up.) But he didn't.

"The urologist said that surveillance is tricky because you're never sure, and some people can't live with the anxiety of not knowing," says Cassell.

Instead, the urologist recommended brachytherapy—inserting radioactive seeds into the prostate gland. That can still lead to short-term urinary incontinence and bowel irritation and long-term erectile dysfunction.

By that time, Cassell had heard of two other options. A clinical trial led by Peter Pinto at the National Cancer Institute (NCI) was using MRI (magnetic resonance imaging) to locate and track tumors, but it would take months to get an appointment. In contrast, a surgeon at the active surveillance program at The Johns Hopkins Hospital in Baltimore was able to see him right away.

"I thought I had a pretty good shot at getting into active surveillance at Hopkins, but I was mistaken," says Cassell.

"The doctor didn't come out and say I should have surgery. But doctors sometimes have a way of recommending something by raising enough reservations about the alternatives."

Cassell and his wife, Marilyn Fenichel, were getting discouraged. "She said, 'Maybe you should just have the surgery and

get it over with,'" says Cassell. "But I knew that prostate cancer isn't aggressive in most men. And I knew that I had a small tumor and that my PSA wasn't skyrocketing. I thought, 'I have time to think about this and do more research.'"

So they called some of the surgeon's patients, as he had suggested. "There were a lot of problems," says Cassell. "The incontinence issues aren't always long term, but erectile dysfunction is."

Then, at a local hospital support group for prostate cancer survivors, the Cassells met a man in his 80s who had been in Pinto's NCI active surveillance MRI study for about 10 years, until his prostate grew so large that it caused urinary problems.

"That's 10 years of not having to worry about erectile dysfunction or inconti-



Jim Cassell chose active surveillance after months of research.

nence," says Cassell. "He pushed me over the edge. I said, 'Damn it. I'm going to see if I qualify.'"

By then, six months had passed since Cassell's diagnosis. But it was worth the wait.

"After the MRI, they do a biopsy that's steered by the MRI," he explains. "In both cases the results were good. They found a very microscopic cancerous area, and I was able to go into active surveillance. I get an MRI every year, and if they see anything, they'll follow up with a biopsy."

(Unfortunately, only a few hospitals—like NCI and UCLA—now offer what doctors call an MRI/ultrasound-fusion biopsy like the one Cassell had. The doctor locates the tumor on an MRI ahead of time and then fuses the MRI with the real-time

ultrasound image to steer the biopsy.¹)

Cassell's bottom line: "One size doesn't fit all. There are guys who maybe are alive today because they had surgery.

"You have to understand that cancer for you is not necessarily the same as cancer for the guy down the street. The uncertainty and anxiety are difficult, but you've got to be informed, because the whole system is driving you to do things that may or may not be in your best interest."

DO NOTHING?

Unlike Cassell, few men choose active surveillance, at least in the United States.

"In Canada, active surveillance has been very widely adopted for low-risk cases," says Laurence Klotz, professor of surgery at the University of Toronto. "In the United States, it's still an uphill battle.

"The last objective U.S. data we have is from the CaPSURE study from 2010.² Then it was only about 10 percent of patients with low-risk disease being offered surveillance. I'm sure it's higher now, but I'm pretty confident it's not the majority."

The change may be due in part to the 2011 National Institutes of Health State-of-the-Science Conference that recommended active surveillance as a viable option for patients with low-risk prostate cancer.³

"More than 100,000 men a year diagnosed with prostate cancer in the United States are candidates for this approach," said the conference report.

"Low-risk," according to the National Cancer Institute, is a Gleason score of 6 or lower, a PSA less than 10, and a tumor that is small and local (stage T1 or T2a).⁴

Why are so many Americans still being treated?

"There's pressure from both physicians and patients," says Meir Stampfer, professor of epidemiology and nutrition at the Harvard School of Public Health. "The patient thinks, 'You diagnose cancer, and you're going to do nothing, Doctor?' And the doctor is trained to do something."

Then there are what Klotz calls "drivers for intervention."

"There's the threat of untreated cancer," he notes. "And doctors make their living by treating patients, surgeons by operating, and radiation oncologists by radiat-

ing, so those are economic drivers.”

In fact, which treatment men receive depends in part on the hospitals or clinics where they’re treated, not on their risk.²

“Another driver is probably fear of litigation from a patient who is treated conservatively but progresses to metastatic disease and then sues,” notes Klotz.

WHAT IF IT GETS WORSE?

In fact, it’s unlikely that low-risk cancers “progress.” But that word is often used incorrectly.

“The way it’s used correctly is in patients who progress to higher-grade cancer and then metastatic or incurable disease,” says Klotz, who is chairman of the World Urological Oncology Federation and chair of the Canadian Urology Research Consortium. “That happens quite rarely.”

Since 1995, Klotz has tracked roughly 1,000 men with localized cancer. Each got a PSA test every 3 to 6 months and a biopsy 6 to 12 months after diagnosis and every 3 to 4 years until the age of 80.⁵

“In our cohort, with about 1,000 patients, we had 14 deaths due to prostate cancer,” he notes. “In our latest analysis, the men had a 10 times greater chance of dying of causes other than prostate cancer, and that’s following some of these patients out 20 years.”

And most of the patients who died of prostate cancer didn’t “progress.”

“In retrospect, at least 10 of the 14 patients who died were incurable at diagnosis,” says Klotz. “They looked favorable, but they were the 1 percent of outliers who had high-grade disease that was missed on the initial biopsy when it had already spread.”

It’s not unusual for doctors to find a higher-grade cancer on a second biopsy. “It happens in about 30 percent of cases,” says Klotz. “Their repeat biopsy shows higher-grade cancer or their PSA rises, and an MRI shows a larger tumor.”

But that’s not as ominous as it sounds. “They get treated, and most of them are cured,” says Klotz. “We don’t call that progression. We call that risk reclassification.”

Most men whose cancer actually progresses also have good odds.

“The men who go from Gleason 6 to Gleason 7 over a period of five to 10 years

have done quite well,” says Klotz.

“Patients are always worried that they’re going to progress to incurability while they’re being observed. That is exceptionally uncommon in our cohort.”

A GOOD GLEASON?

When a man is diagnosed with prostate cancer, a pathologist gives the biopsied tissue a Gleason score. The *score* is made up of two Gleason *grades*: the most prevalent grade and the most abnormal grade in the tissue, each on a scale of 1 to 5. So a Gleason 6 score is typically made up of two Gleason 3 grades.

“A Gleason 3 grade is a completely different animal than Gleason 4 and 5,”

pathologically confirmed Gleason 6, zero of 14,000 had lymph node metastases,” says Klotz.⁶ “I don’t know how much more evidence you need. Zero out of 14,000 is pretty convincing that this is not a metastatic condition.”

And it’s not rare. According to the NIH Conference, 63 percent of all cancers had a Gleason 6 score in 2002, and the percentage has probably increased since then.

What about men with a Gleason 7 score?

“That’s a more complicated story,” says Klotz. “A Gleason 3 plus a little bit of 4 is a gray zone. In older patients, we treat them with surveillance. Three long-term studies all show that those patients do

fine for 15 years or more. Cancers that contain very small amounts of Gleason 4 are often quite indolent, and many will remain stable if they are managed conservatively.”

THE PIVOT TRIAL

More powerful than studies that follow men for years are trials that randomly assign men to be treated or not. Only one trial has finished since PSA screening began.

In July 2012, researchers reported the results of the Prostate Cancer Intervention Versus Observation Trial (PIVOT), which assigned 731 men with cancer that had not spread—no matter what their Gleason score or PSA—to either prostate surgery or “observation.”⁷

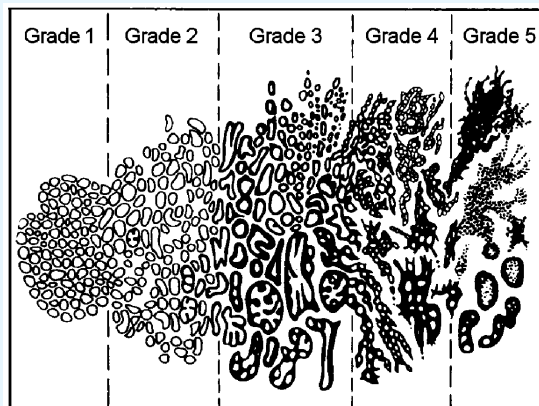
Observation meant a bone scan every five years (to see whether the cancer had spread), but no further PSA tests or biopsies. So it was closer to what doctors call “watchful waiting” than to active surveillance.

And, since the trial began early in the PSA era, only 40 percent of the men were “low-risk” (PSA less than 10, Gleason 6 or below, and tumor stage T1 or T2a). Another 34 percent were “intermediate-risk” (PSA of 10 to 20, Gleason 7, and tumor stage T2b), and 21 percent were “high-risk” (PSA over 20, Gleason 8 or higher, and tumor stage T2c).

After 10 years, surgery didn’t reduce the risk of dying in the group as a whole.

“For every 100 men treated with surgery, there were three fewer deaths due to prostate cancer, but the difference was not statistically significant,” PIVOT investiga-

Gleason Grades



A Gleason *score* is made up of two Gleason *grades* (the most prevalent grade and the worst grade). Grade 3 cells may be much less dangerous than Grades 4 or 5.

says Klotz. “We have mounting evidence from molecular, genetic, and clinical studies that Gleason 3 has no potential to metastasize. It’s no threat.”

In fact, he prefers not to call Gleason 3 cancer. “I tell patients, ‘You have a pseudo-cancer,’” says Klotz. “It’s part of the aging process.”

(The NIH State-of-the-Science Conference also suggested a name change for low-risk cancers, though its definition of low-risk includes Gleason score, PSA, and tumor stage.³ Its recommendation: “Because of the very favorable prognosis of low-risk prostate cancer, strong consideration should be given to modifying the anxiety-provoking term ‘cancer’ for this condition.”)

“In one study of 14,000 men who had

tor Timothy Wilt of the University of Minnesota told the NIH Conference.

However, in some groups, surgery did matter. Among men with high-risk cancer, 18 percent of those who were observed, but only 9 percent of those who had surgery, died of prostate cancer. Men with a PSA over 10 also did better with surgery.

And the PIVOT trial started early in the PSA era, when doctors only worried about a PSA over 4.

“Men currently being diagnosed have smaller-volume tumors and lower PSA,” said Wilt. “So outcomes...are likely to be much better with observation because we pick the disease up earlier.”

The men who had surgery were more likely to suffer erectile dysfunction and urinary incontinence. And both occur even with robotic surgery, notes Klotz.

“That’s another driver for over-intervention,” he says. “These expensive robots are sitting in the operating room sending out this siren song: ‘I’m a very expensive piece of equipment, and I don’t want to be gathering dust.’”

MRI & BIOMARKERS

PSA? Gleason score? The real challenge is finding a better way to know which cancers are life threatening. An MRI can help.

“In the long run, the goal would be to have every patient going under surveillance have a multi-parametric MRI,” says Klotz. “Then we’ll find the bad ones right at the get-go.”

If the MRI finds nothing worrisome, your odds are good. “If you have a patient on active surveillance, and let’s say his PSA is rising, the question is whether to treat him,” explains Klotz.

“Until the MRI came along, we had to flip a coin. Do we believe in the PSA, which looks bad? Or do we believe the pathology, which looks very favorable? If we treated the patient, we’d be right about 50 percent of the time.

“Now we go to the MRI. If it’s negative, or if it only shows a very small lesion, that patient has more than a 95 percent chance of not having anything bad.⁸ That’s extremely reassuring. And you still have wiggle room if his PSA continues to rise.”

Researchers are also looking for bio-

markers that detect the dangerous cancers.

“This area is hot,” says Klotz. “Two companies have FDA-approved biomarker assays that predict more-aggressive

But the MRI gives doctors a huge advantage, he adds. “Think about the world of oncology, with breast, lung, colon, kidney, and other cancers. The image drives the management to a tremendous degree. And we are now entering that era in prostate cancer.”

Another goal: the MRI could lead to what doctors call focal therapy.

“That means just treating the lesion, and leaving the rest of the prostate alone,” says Klotz. “You can treat the cancer without causing adverse effects. It’s essentially a male lumpectomy.”

Focal therapy was possible before MRIs, “but it was like shooting in the dark,” notes Klotz. “Being able to see the lesion makes a huge difference. Now we can target it.”

So far, it’s too early to know if focal therapy will work. “There’s a huge danger of under-treatment,” says Klotz. “If the treatment isn’t done very, very well, it could be useless.”

Meanwhile, Klotz’s goal is to get more patients a multi-parametric MRI. “In Canada, access to MRI is somewhat more limited than in

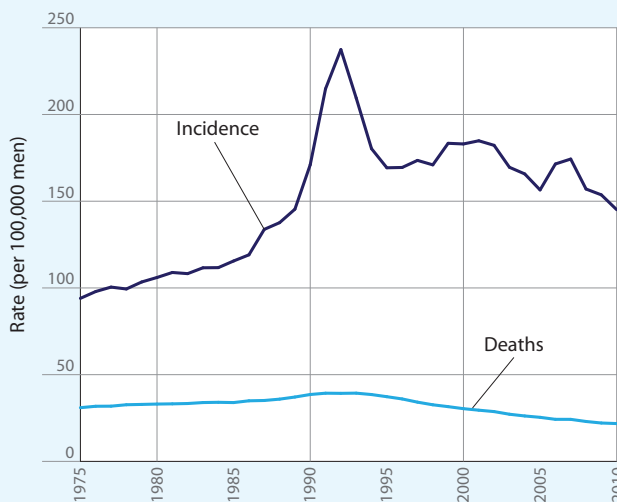
the U.S.,” he says. “You can’t just snap your fingers and get it. Some of my U.S. colleagues are now getting MRIs on every new prostate cancer patient.”

But as Jim Cassell found, waiting months for an MRI isn’t as risky as it sounds.

“Maybe we should train people to not be so scared of prostate cancer anymore,” says Stampfer. “And maybe we need to train doctors that they don’t have to have a knee-jerk reaction for aggressive treatment.”

As men grow older, half or more have prostate cancer, Stampfer notes. “As people understand that, hopefully they’ll be more comfortable to just watch it, knowing that they have a 12-year lead time from their PSA testing. Even if they wait two years, they still have 10 years of lead time. That’s a long time.” 🍷

Diagnoses vs. Deaths



Far more men are diagnosed with prostate cancer than die of it. The incidence spiked when PSA tests were introduced.

prostate cancer.” The tests—Oncotype DX by Genomic Health and Polaris by Myriad—look at which genes in the tumor are turned on, or expressed.

“The MRI and the biomarker worlds are both trying to identify the bad actors,” says Klotz. “The main difference is that the MRI gives you a picture of what is there currently. The biomarker assays have the promise of saying, ‘Okay, even if this is a very small lesion, it has bad molecular characteristics.’ A similar one is widely used in breast cancer, and it’s had a huge impact there.”

But the tests haven’t yet been incorporated into widespread clinical practice. “They’re expensive—\$3,000 to \$4,000—and we don’t know if providers will pay for them,” says Klotz.

The Bottom Line

If you’ve been diagnosed with low-risk prostate cancer (PSA less than 10, Gleason score 6 or less, and tumor stage T1c or T2a), ask your doctor about active surveillance.

¹ *Eur. Urol.* 2013. doi:10.1016/j.eururo.2013.05.059.

² *J. Clin. Oncol.* 28:1117, 2010.

³ consensus.nih.gov/2011/prostate.htm.

⁴ www.cancer.gov/cancertopics/treatment/prostate/prostate-cancer-treatment-choices.pdf.

⁵ *J. Clin. Oncol.* 28:126, 2010.

⁶ *Am. J. Surg. Pathol.* 36:1346, 2012.

⁷ *N. Engl. J. Med.* 367:203, 2012.

⁸ *Eur. Urol.* 63:125, 2013.

Eat Early, Weigh Less?



Eating lighter at night may help you lose more weight.

When—not just how much—you eat may make a difference in how much you weigh.

Israeli scientists gave 74 overweight or obese women advice to eat one of two 1,400-calorie diets. The “breakfast diet” had 700 calories for breakfast, 500 calories for lunch, and 200 calories for dinner. The “dinner diet” had 200 calories for breakfast, 500 calories for lunch, and 700 calories for dinner. All the women had metabolic syndrome. That is, they had at least three of the following: low HDL (“good”) cholesterol; elevated blood pressure, blood sugar, and/or blood triglycerides; and increased waist size.

After 12 weeks, the women on the breakfast diet had lost 18 pounds, while those on the dinner diet had lost 8 pounds. What’s more, triglycerides fell by 34 percent on

the breakfast diet and rose by 15 percent on the dinner diet, while HDL (“good”) cholesterol rose only on the breakfast diet. In addition, blood sugar and waist size fell in both groups—but more so on the breakfast diet—and the women on the breakfast diet were less hungry.

What to do: One study isn’t enough to prove that a bigger breakfast leads to more weight loss than a bigger dinner. What’s more, the results may apply only to people with metabolic syndrome. Also, this study didn’t keep the women in a laboratory to make sure that they ate only 1,400 calories a day. Still, the results suggest that if people try to eat less later in the day, they may lose more weight (even if they cheat here and there).

Just remember: none of these meals were big. A typical day’s food for the breakfast diet: *Breakfast*—4 oz. of light tuna on whole wheat bread, 2 cups of skim milk, ½ cup of tomato-mozzarella salad, a 200-calorie chocolate bar, and coffee. *Lunch*—a 5 oz. grilled chicken breast, melon, green salad, beef broth, and Diet Coke. *Dinner*—2 scrambled egg whites, 5 slices of turkey breast, and coffee.

Obesity 2013. doi:10.1002/oby.20460.

Diabetes Defense

People with pre-diabetes who lose weight can slash their risk of full-blown diabetes.

Researchers monitored 3,000 overweight people with pre-diabetes—that is, their blood sugar levels were above normal, but not high enough to be diabetes. All were participants in the Diabetes Prevention Program, which randomly assigned more than 3,200 people to an intensive lifestyle intervention, the diabetes drug metformin, or a placebo. The lifestyle intervention included a goal of 150 minutes of exercise a week and diet counseling.

People in the lifestyle group who lost at least 10 percent of their body weight within

six months of being diagnosed with pre-diabetes had an 85 percent lower risk of being diagnosed with diabetes over the next three years than those who lost no weight. Those who lost 7 to 9 percent of their body weight lowered their risk by 66 percent, and those who lost 5 to 6 percent of their body weight lowered their risk by 54 percent.

What to do: If you’ve been told that you have pre-diabetes, try to lose weight and boost your exercise before your next doctor’s appointment. The Diabetes Prevention Program is now offered at many YMCAs.

J. Gen. Intern. Med. 2013. doi:10.1007/s11606-013-2548-4.

Gallstones in Dieters

A very-low-calorie diet may mean more weight loss...but a higher risk of gallstones.

Swedish researchers monitored 6,640 overweight or obese people (mostly women) who chose either a very-low-calorie diet (500 calories a day) or a low-calorie diet (1,200 to 1,500 calories a day) for three months. Then both groups entered the same weight maintenance phase—including exercise and diet advice—for nine months.

At the end of the 12 months, the very-low-calorie dieters had lost more weight (24 pounds) than the low-calorie dieters (18 pounds). However, there were 48 gallstones requiring hospital care in the very-low-calorie dieters, but only 14 in the low-calorie dieters.

What to do: If you’re thinking about going on a very-low-calorie diet, consider gallstones as a possible downside. Although rare, they were roughly three times more common than on the low-calorie diet. (And don’t assume that a very-low-calorie diet leads to greater weight loss. It’s possible that the more-ambitious dieters picked that option.)

Int. J. Obesity 2013. doi:10.1038/ijo.2013.83.

Guilty or Innocent?

Are people more likely to find a defendant guilty if he or she is obese? It depends.

In an online study, researchers gave 471 adults a vignette describing a case of check fraud beneath a mug shot of one of four defendants: a lean male, an obese male, a lean female, and an obese female. (The obese male and female were digitally altered versions of the lean male and female.)

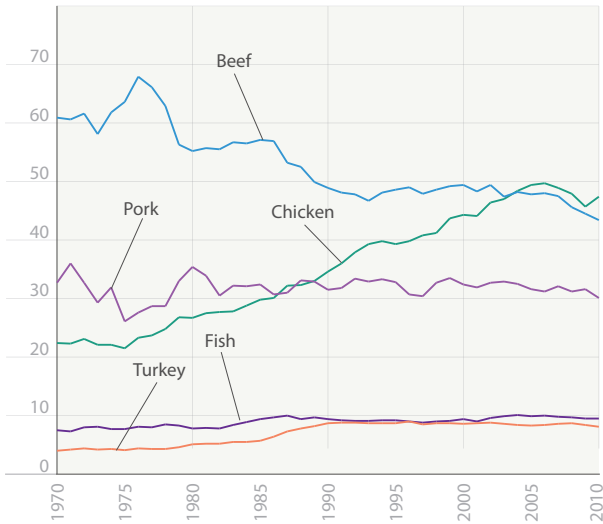
When the defendant was female, men were more likely to find her guilty if she was obese than if she was lean. The bias held whether the men doing the judging were lean or obese. However, obesity had no impact on how the men viewed male defendants or on how women viewed male or female defendants.

What to do: Defense lawyers (and others), take note: weight bias may influence how we perceive other people. 🍷

Int. J. Obesity 2013. doi:10.1038/ijo.2012.211.

Meat, Poultry, & Seafood: B

Pounds per person



The good news: beef hasn't been this low since the 1950s. That may cut the risk of heart disease and colon cancer and help curb greenhouse gas emissions.

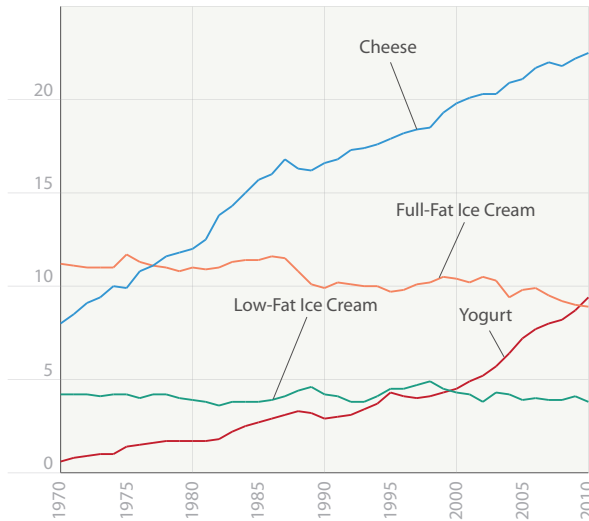
On the downside, chicken can't seem to pull away from beef. What's more, red meat (mostly beef plus pork) is at 74 pounds per person per year. That still trumps white meat (poultry plus seafood), at 65 pounds.

We're on the right track, but we're moving too slowly away from burgers and friends.

Dairy: C-

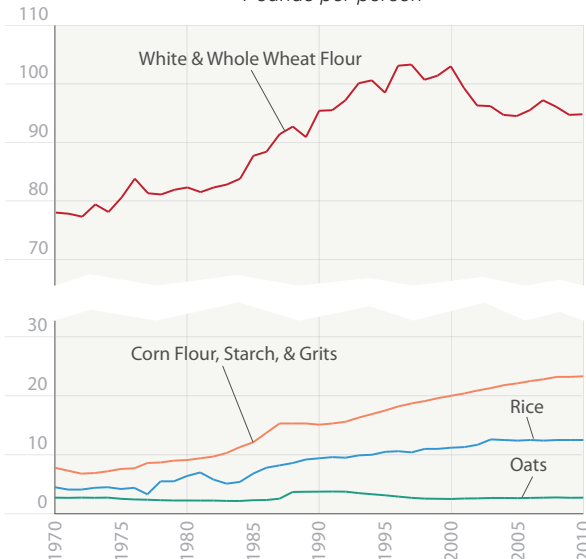
Pounds per person

Pizza, burgers, burritos, nachos, quesadillas. There's cheese in our salads, our sandwiches, our soups, and our pizza crust. Since 1970, we've gone from 8 pounds per person per year to 23 pounds. That's bad news for our arteries and waistlines. On the bright side, full-fat ice cream is dipping, and (mostly low-fat) yogurt is booming. We're up to 9 pounds per person. If only it weren't so sugary.



Grains: C

Pounds per person



Breads, bagels, cereal, pasta, rice, crackers, granola bars, pizza, burritos, wraps, pretzels, paninis, cookies, scones, muffins, and other grain foods are still going gangbusters. All told, we eat 109 pounds of flour per year. Thanks to the rise in corn flour, that's not too far from the 116-pound peak of 2000 (right before the low-carb craze).

We need to switch to whole grains...and cut back on *all* grains.

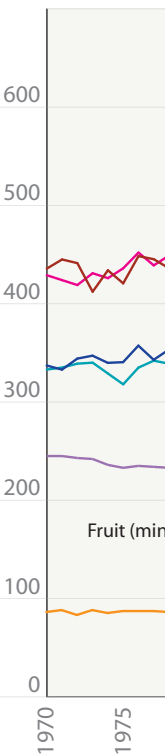
The Ch America

A REPORT BY BONNIE

This isn't a report card you'd want to post on the fridge. Fruits and vegetables have barely budged, the cheese craze shows no signs of slowing down, and we're eating 450 calories more per day than we did in 1970.

Yes, there are some signs of improvement. We're cutting back on sugars, shortening, beef, whole milk, and white flour. And we're eating more chicken and yogurt. But we're moving slowly.

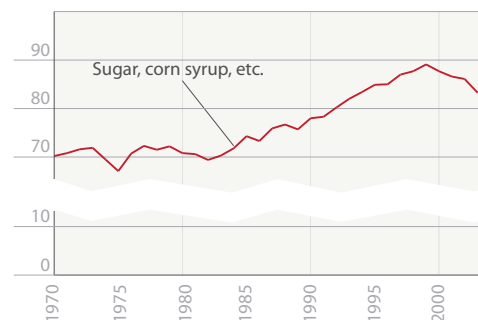
One way to see the bigger picture is to look at where our calories come from. Americans have gone from eating an estimated 2,075 calories a day in 1970 to scarfing down 2,535 calories in 2010. (From 2000 to 2007 we were as high as 2,600 calories a day.) Most of the increase has come from eating more flour, more



Source for all graphs: U.S. Department of Agriculture.

Sweeteners:

Pounds per person



Changing an Diet

T CARD

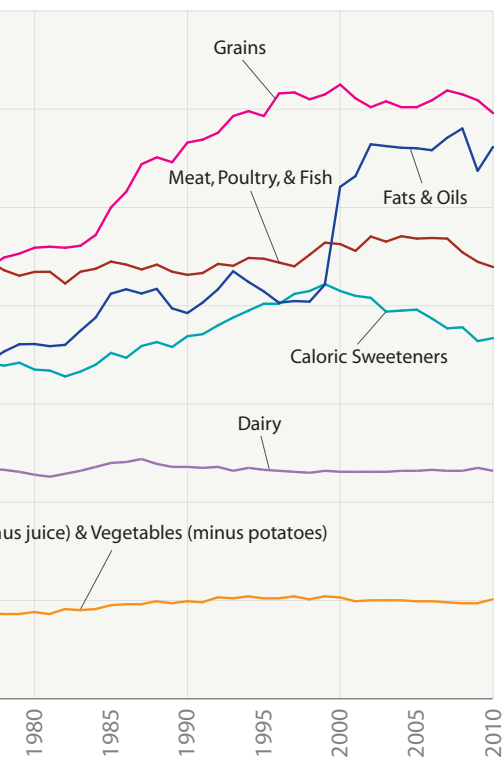
LIEBMAN

cheese, and more fats, with an extra shot of sugar thrown in.

Bottom line? It's time to eat less—less red meat, less cheese, less starches, and less sweets (and the shortening that they often contain).

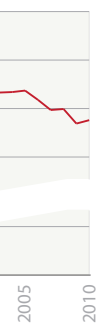
If Americans want straight A's, they've got a little work to do. 🍌

Calories per person per year



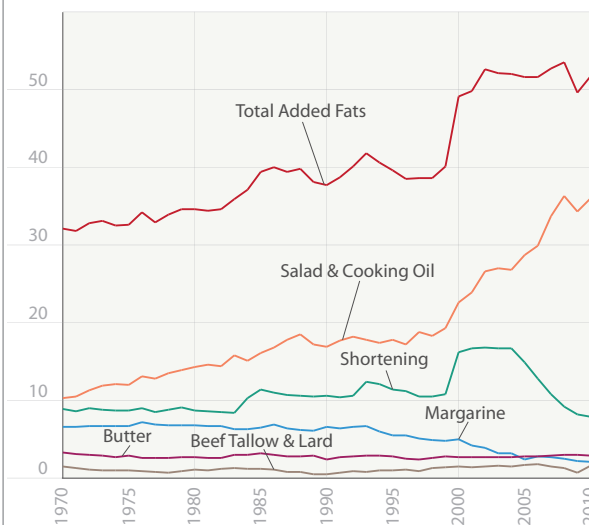
D+

We're coming down from a sugar high of 89 pounds per person in 1999. That mirrors the drop in sugary soft drinks over the last decade or so. Still, 78 pounds of mostly sugar and high-fructose corn syrup is too much. A big chunk of our added sugar comes from sodas and other sugar-sweetened beverages, which are linked to a higher risk of obesity, diabetes, and heart disease. Who needs 'em?



Fats & Oils: B+

Pounds per person



Ignore people who say that we've been on a low-fat diet. Total fats and oils have climbed fairly steadily since 1970. (In 2000, the number of companies reporting data to the USDA jumped, so the rise was probably less steep than it appears.)

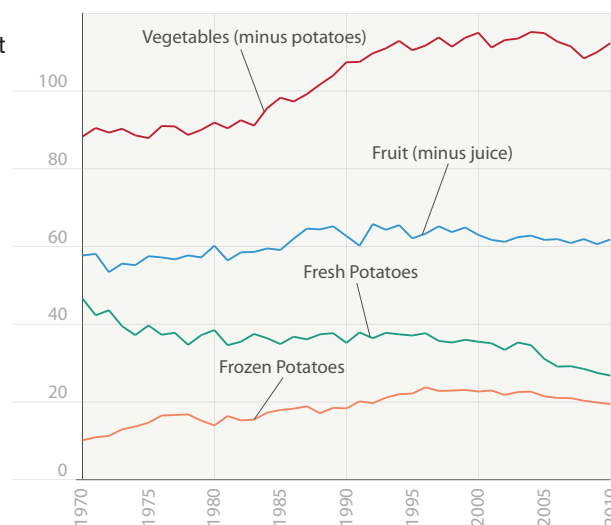
The good news: shortening and margarines now have less trans. And (largely unsaturated) salad and cooking oils have replaced (more saturated) shortening. Less shortening would be even better. Who needs all those pies, pastries, and cookies?

Fruits & Vegetables: B-

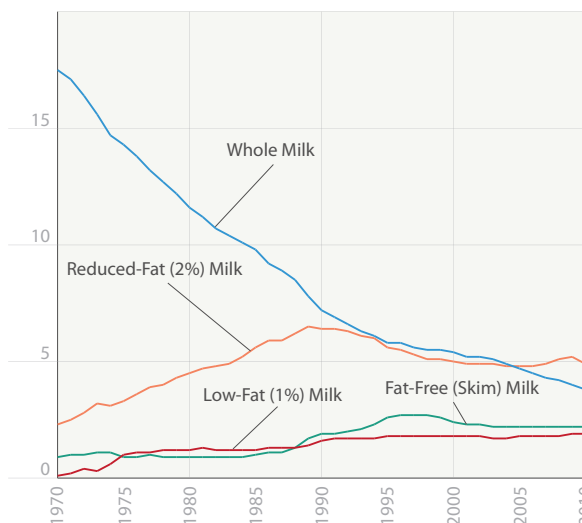
We started eating more vegetables (not counting potatoes) in the 1980s, but the rise has stalled. And fruit (not counting juice) is still pretty much where it was in 1970. We need to replace sandwiches with salads, swap starches for veggies, and trade cookies, cupcakes, and chips for fresh fruit.

Potatoes have been flat (if you add fresh plus frozen). At least we're not eating *more* french fries.

Pounds per person



Gallons per person



Milk: B

In 1970, the average American drank 21 gallons of milk per year. Now we're down to 13 gallons. And whole milk has plummeted from 18 gallons to just 4. That's a success story. But fat-free and low-fat (1%) milk still account for only a third of the milk we drink, so we could do even better.

Unfortunately, we're still consuming much of the butterfat we used to get from whole milk. The difference: now we get it from cheese.



Veggies All Around

BY KATE SHERWOOD

Want leftovers of tonight's main dish for lunch tomorrow? No problem. Just serve one or two of these veggie sides with dinner. Then take cover as everyone at the table scrambles for seconds (and thirds). 🍴

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

Snap Peas with Coconut Lime Dressing

Serves: 4 | Total Time: 20 minutes



- ¾ lb. snap peas, trimmed
- ¼ cup light coconut milk
- 2 tsp. reduced-sodium soy sauce
- 2 tsp. lime juice
- 1 jalapeño, minced (optional)
- ¼ cup unsalted roasted peanuts, chopped
- 1 shallot, thinly sliced

The secret to this dish is the contrast of textures and flavors, so be sure to use roasted peanuts and don't overcook your snap peas.

Lightly steam the snap peas until tender-crisp, about 2 minutes, then rinse under cold water. Drain well and transfer to a serving platter. • In a small bowl, whisk together the coconut milk, soy sauce, lime juice, and jalapeño (if using). • Drizzle the dressing over the snap peas and top with the peanuts and shallots.

Per serving (1 cup): calories 80 | sodium 95 mg | total fat 4.5 g
sat fat 1 g | carbs 9 g | protein 4 g | fiber 3 g

Three-Bean Salad

Serves: 6 | Total Time: 15 minutes



- ½ lb. green beans, cut into ½-inch pieces
- 2 Tbs. extra-virgin olive oil
- 2 Tbs. red wine vinegar
- ¼ cup minced red onion
- 1 Tbs. country dijon mustard
- ¼ tsp. sugar
- ¼ tsp. salt
- 1 cup frozen edamame, thawed
- 1 15 oz. can no-salt-added kidney beans, drained and rinsed

Serve these well-dressed beans on romaine or butter lettuce. Love white beans, chickpeas, or black beans? You can substitute 3 cups (about 2 cans) of any combination of beans for the kidneys and edamame.

Steam the green beans until tender, about 5 minutes. Rinse under cold water and drain well. • In a large bowl, whisk together the olive oil, vinegar, onion, mustard, sugar, and salt. • Mix in the green beans, edamame, and kidney beans.

Per serving (1 cup): calories 140 | sodium 150 mg | total fat 6 g
sat fat 0.5 g | carbs 15 g | protein 7 g | fiber 8 g

Broccoli with Lemon Parmesan Sauce

Serves: 4 | Total Time: 15 minutes



- 1 Tbs. extra-virgin olive oil
- 3 cloves garlic, minced
- 1 lb. broccolini, chopped
- 1 Tbs. lemon juice
- 1 Tbs. mayonnaise
- 3 Tbs. parmesan cheese
- freshly ground black pepper

Broccolini is also called baby broccoli or broccoletti. Don't ignore the tender (and delicious) stems.

Heat a large sauté pan over medium heat until hot enough for a drop of water to sizzle. • Add the oil and sauté the garlic until golden, stirring constantly, about 1 minute. • Add the broccolini to the pan with ¼ cup of water. Turn the heat to high and allow the water to steam the broccolini until tender and all the water has evaporated, about 2 minutes. Add up to another ¼ cup of water if the pan is dry before the broccolini is tender. • In a small bowl, whisk together the lemon juice, mayonnaise, parmesan, and black pepper. • Drizzle over the broccolini.

Per serving (1 cup): calories 110 | sodium 110 mg | total fat 8 g
sat fat 1.5 g | carbs 7 g | protein 5 g | fiber 3 g

Going Greek

Yogurt gets a makeover

BY JAYNE HURLEY & BONNIE LIEBMAN

The yogurt aisle isn't what it used to be. In the last few years, greek yogurt has taken over a sizeable chunk of the refrigerator case, leaving non-greeks to compete for the remaining real estate.

Meanwhile, both greek and non-greek yogurts are branching out. Fat-free? Cream on top? You got 'em. Fruit purée or fruit mousse? Check. Lactose-free or no dairy at all? Got you covered. And as for toppings and mix-ins, strawberry and vanilla are battling for shelf space with fig with orange zest and chocolate-coated corn flakes.

Here's your guide to yogurt 2.0.

Information compiled by Paige Einstein.

Yogurt for Newbies

1. What makes yogurt? *Lactobacillus bulgaricus* and *Streptococcus thermophilus* are the two strains of bacteria that companies add to milk to make yogurt. Many brands also add other bacteria.

2. How can you tell if the bacteria are alive? The label will say something like "live cultures" or "active cultures." It may or may not carry the National Yogurt Association's "Live & Active Cultures" seal, which requires a yearly fee. Live cultures decline over time, so the sooner you eat your yogurt, the more live cultures you'll get.

3. What can yogurt's cultures do? So far, the only clear benefit is their ability to change milk's naturally occurring sugar (lactose) into lactic acid. So people with lactose intolerance should have less diarrhea, gas, or other symptoms when they eat yogurt.

Does yogurt help restore beneficial bacteria to the gut after a course of antibiotics or help treat yeast infections? No good studies have looked.

4. Which yogurts are best? Yogurt should be a good source of protein and calcium without loading you down with saturated fat, added sugars, or possibly unsafe sweeteners. What's too much or too little? It depends on the type and the serving size (see chart on p. 15).

One caution: companies don't say how much of the "Sugars" number on their Nutrition Facts labels comes from added sugar and how much comes from naturally occurring sugars in the yogurt's milk and fruit. That's why our Best Bites are plain, no-sugar-added yogurts. We set a limit on calories for our Honorable Mentions, which knocks out yogurts with the most added sugars. But many are still way too sugary. Until companies disclose the amount of added sugars, that's the best we can do.

5. Should you look for added vitamin D? Dannon, Silk, So Delicious, Stonyfield, YoCrunch, and Yoplait add 40 to 120 IU of vitamin D to many of their yogurts. If you need D from yogurt to help you reach your daily target—600 IU for adults up to age 70 and 800 IU for people over 70—check the label. Vitamin D is listed as a percent of the Daily Value (400 IU). So a yogurt with 20% of the DV, for example, has 80 IU.



An authentic and delicious greek yogurt.

Good Greek

"Experience the myth," says The Greek Gods Yogurt Web site.

"Myth" is right. The company is one of the few whose "greek" yogurts aren't made the traditional way—that is, by straining ordinary yogurt.

The straining removes some of the liquid whey and leaves more concentrated solids behind. That makes greek yogurts thick and rich—even if they're fat-free—and higher in protein (about 17 grams for a 6 oz. fat-free plain) than non-greeks (about 8 grams).

The Greek Gods creates its faux greek yogurts by thickening regular yogurt with pectin and/or inulin. Since the yogurt isn't strained, a 6 oz. serving ends up with only 6 to 8 grams of protein. Quaker thickens its new Müller Greek Corner yogurt with corn starch and gelatin, but adds milk and whey protein concentrates to bump the protein up to around 9 grams.

Those aside, most greeks are strained. So is Icelandic-style skyr—like Siggi's, Skyr, and Smári.

The only downside: by straining out calcium-rich whey, the greeks end up with less calcium (about 15 to 20 percent of a day's worth) than the non-greeks (25 to 30 percent). So do the icelandics.

That's why our Best Bite and Honorable Mention criteria require more protein for greek and more calcium for non-greek yogurt. Pick the nutrient that matters more to you.

Which 0% plain greeks taste best? Fage Total 0% and Dannon Oikos 0% were our faves, but let your taste buds be your guide.

Don't Mix In!



As good as you'll get with mix-ins.

Yogurt that's been thickened with corn starch and gelatin.

Companies are tossing all sorts of mix-ins into (or in a separate chamber next to) their yogurts. Unfortunately, most add more sugar (as granola, fruit preserves, cookies, or candy) to already-sweetened yogurt. Think granola with chocolate milk.

The best of the bunch: Alpina Revive Plain 0% Greek pairs 100 calories' worth of unsweetened non-fat greek yogurt with 40 calories' worth of granola (mostly oats, honey, pumpkin seeds, walnuts, and dried blackberries and cherries). You get 17 grams of protein and 15 percent of a day's calcium, with much less added sugar (no more than half a teaspoon, we estimate) than usual.

Want fewer calories? Try 3.5 oz. containers of Chobani Bite (yogurt with sweetened fruit, caramel, and/or chocolate) or YoCrunch Yopa! Greek (sweetened flavored yogurt plus whole-grain granola or chocolate). They hover around 100 calories, but only because they're so petite. Still, if you're looking for a snack, they've got more protein (8 grams) and calcium (10 percent of a day's worth) and less saturated fat than an ice cream or candy bar.

Or you could add your own fruit, nuts, or unsweetened muesli to plain, unsweetened yogurt. *Now* you're talking.

"Chocolate-covered balls of crispy rice cereal. What could possibly be more fun?" asks the Müller Corner with Choco Balls Web site. "Dipping and swirling them into smooth, creamy, lowfat vanilla yogurt, that's what."

Yup. It's hard to think of anything more fun than stirring (mostly) sugar, cocoa butter, milk, white rice flour, and milled wheat into sugar-laden

Cream Top, Fat Bottom

Fat has found its way back to the yogurt aisle. Look for code words like "indulgently silky" (Liberté Méditerranée), "traditional" (The Greek Gods), "authentic" (Fage Total), "reminiscent of the old days" (Brown Cow Cream Top), and "hand-crafted" (Noosa).

The buzzwords are warm and fuzzy, but the yogurt is made from whole milk or whole milk plus cream. That means some 170 to 250 calories and 5 to 10 grams of saturated fat in a 6 oz. serving.

What's more, Brown Cow Cream Top Greek and The Greek Gods have about half the protein of other greeks. That's because neither is strained, and cream has less protein than milk.

With so many creamy 0% greeks (or icelandics) out there with roughly half the calories, going "indulgent" seems like a lose-lose.



Twice the calories of Liberté Greek.

Sugar Blues

"Not so much sugar," say the pull-off labels that are wrapped around Siggis Icelandic Style Skyr containers.

We estimate that each (5.3 oz.) tub of Siggis's flavored 0% and 2% yogurts has just 1½ teaspoons of added sugar. Compare that with the estimated 3 to 4 teaspoons that most companies add to their flavored yogurts (or the 5 or 6 teaspoons in most greeks that come with honey in a separate chamber).

Instead of a heavily sweetened dose of goopy fruit, Siggis offers just the honest-to-goodness flavor of pomegranate, passion fruit, blueberries, or other fruit. And a serving of Siggis's has only about 100 calories (yet 14 grams of protein). It's the closest you can get to mixing your own fruit into plain yogurt. Exception: Siggis's 2% Coconut has 200 calories and 10 grams (half a day's supply) of saturated fat.

Why all the sugar "estimates"? Because companies don't have to disclose on their Nutrition Facts labels how many grams of sugar they've added and how many are naturally occurring in their milk or fruit ingredients.

Of course, "light" yogurts cut calories by replacing added sugars with (very sweet-tasting) artificial sweeteners. But acesulfame potassium and aspartame are poorly tested, and a new (still unpublished) mouse study suggests that sucralose (Splenda) may also be unsafe. Caution: Yoplait Greek 100 Calories is sweetened with sucralose and acesulfame potassium (in addition to sugar), but you wouldn't know that without studying the ingredient list.

What to do? If unsweetened yogurt is too tart for your taste (even with added fruit), try adding Truvia, a natural sweetener that you can buy in packets or tubs. Or mix an unsweetened yogurt with a sweet one.

Or try Siggis's. Yum. 🍓



Siggis slashes the sugar.

Moo-less Marvels?

Dodging dairy? Make sure you know what else you're missing—or gaining.

■ **So Delicious Cultured Coconut Milk.** Don't expect much protein (there's just 1

to 2 grams in a 6 oz. tub). It's mostly coconut milk, sugars, gums, starches, flavors, and added calcium, magnesium, vitamin B-12, and processed fiber. Even the Plain has added sugar:

—1½ teaspoons (Greek Style) to 3 teaspoons (regular). And all have 3½ to 6 grams of saturated fat.

■ **So Delicious Greek Style Cultured Almond Milk.** Protein hits 6 grams only because there's added pea and rice protein (plus calcium, magnesium, vitamins B-12 and D, and processed fiber). You get the equivalent of about seven almonds per serving, plus dried cane syrup, thickeners, flavors, and the high-potency natural sweetener monk fruit extract.

■ **Amande Cultured Almondmilk.** Only 3 grams of protein. And its "fruit juice concentrate" is essentially the same as plain sugar.

■ **Silk Fruity & Creamy, Stonyfield Organic O'Soy, WholeSoy & Co.** Soy yogurts match milk's protein, and all add calcium. Unlike Stonyfield, all Silks and most WholeSoy make our calorie cutoff. And WholeSoy makes an Organic Unsweetened Plain, if you're lucky enough to find it.



As much calcium and protein as regular yogurt.

Culture Club

Best Bites (✓✓) are plain unsweetened yogurts. Honorable Mentions (✓) can have added sugar. Other than that, both have the same criteria, which we've listed—*maximums* for calories and saturated fat and *minimums* for protein and calcium—at the beginning of each section. We disqualified products with artificial sweeteners. Within each section, yogurts are ranked from least to most calories, then least to most saturated fat, most to least protein, and most to least calcium.

	Criteria:	Calories	Saturated Fat (g)	Protein (g)	Calcium (% DV)	Sugars (g)
Greek (less than 5 oz.)	110	1.5	7+	5+	—	—
✓ Brown Cow 0% (4 oz.) ¹	90	0	9	10	3	
✓ Chobani Bite or YoCrunch Yopa! (3.5 oz.) ¹	110	0.5	8	10	3	
Greek (5.3 oz., unless noted)	160	2	10+	10+	—	—
The Greek Gods Nonfat Plain (6 oz.)	60	0	6	25	1.5	
✓✓ 0% Plain—Dannon Oikos, Liberté, Siggis, Stonyfield Organic, or Voskos ¹	80	0	15	15	1	
Dannon Light & Fit ^{1,A}	80	0	12	15	1.5	
✓✓ 0% Plain—Chobani, Brown Cow, Fage, Skyr, Smári, or Wallaby Organic (6 oz.) ¹	100	0	18	20	1.5	
✓ Siggis' 0% ¹	100	0	14	20	2.5	
Yoplait 100 Calories ^{1,A}	100	0	11	10	2	
✓✓ Stonyfield Organic Low Fat Plain	100	1.5	13	15	1.5	
✓✓ Siggis' 2% Plain	100	2	17	20	1.5	
✓ Fage Total 0%, except Honey ¹	120	0	13	15	4	
✓ 0% Flavored—Brown Cow, Liberté, Stonyfield Organic, Voskos, or Wallaby Organic ¹	120	0	12	15	4	
✓ Siggis' 2% Pineapple	120	1	13	15	2	
✓ Smári (6 oz.) ¹	130	0	17	20	3.5	
✓ Dannon—Activia 0% or Oikos 0% ¹	130	0	12	15	4.5	
✓ Stonyfield Organic Low Fat ¹	130	1	11	15	4.5	
✓✓ 2% Plain—Chobani or Wallaby Organic (6 oz.) ¹	130	2	17	20	1.5	
So Delicious Greek Style Cultured Coconut Milk (6 oz.) ¹	130	4	2	30	2.5	
✓ Alpina Revive 0% Plain (6 oz.)	140	0	17	15	1.5	
✓ Chobani 0% (6 oz.) ¹	140	0	14	15	4.5	
✓ Fage Fruyo 0% (6 oz.) ¹	140	0	14	15	5	
So Delicious Greek Style Cultured Almond Milk (6 oz.) ¹	140	0	6	30	2.5	
Müller Greek Corner, except Caramelized Almonds ¹	140	1	9	25	4.5	
✓ Wallaby Organic Lowfat, except Honey ¹	140	1.5	12	15	3.5	
✓ Fage Total 2%, except Honey ¹	140	1.5	12	10	4	
✓ Skyr (6 oz.) ¹	150	0	17	20	5	
✓ Chobani Flip—Honey Bee Nana, Raspberry Choco Fix, Strawberry Sunrise, or Vanilla Golden Crunch ¹	150	1	11	15	4	
✓ Chobani 2% (6 oz.) ¹	160	2	14	15	4.5	
Dannon Oikos Traditional ¹	160	3	11	15	4.5	
Greek with honey—Fage Total 0%, Fage Total 2%, or Wallaby Organic Lowfat ¹	180	1	12	15	6.5	
Fage Total ¹	180	4.5	11	10	4.5	
YoCrunch Yopa! ¹	190	1	13	15	4.5	
YoCrunch (6 oz.) ¹	200	0.5	11	25	5.5	
Siggis' 2% Coconut	200	10	12	15	2	
Brown Cow Cream Top (6 oz.) ¹	210	7	6	25	5	
The Greek Gods (6 oz.) ¹	230	8.5	7	20	5.5	

Calories
Saturated Fat (g)
Protein (g)
Calcium (% DV)
Sugars (g)

Greek (8 oz., unless noted)	Criteria:	210	2.5	13+	15+	—
Fage Total 2% Plain (7 oz.)		150	3	20	20	2
Dannon Oikos Whole Milk Plain		190	6	20	25	2
Fage Total Plain (7 oz.)		190	7	18	20	2
Brown Cow Cream Top Plain		240	10	9	35	3
Voskos Original Plain		280	12	9	30	2.5

Regular (4 oz.)	Criteria:	110	1.5	4+	15+	—
Dannon—Activia Light or Light & Fit ^{1,A}		60	0	4	15	1.5
✓ Stonyfield Organic Smooth & Creamy Fat Free ¹		90	0	5	15	4
YoCrunch 100 Calorie Packs ¹		100	0.5	3	10	3.5
✓ Dannon Activia, except Blueberry or Mixed Berry ¹		110	1	4	15	4
YoCrunch or Yoplait Fruplait ¹		120	1	4	10	4
Yoplait Whips! ¹		140	2	5	15	5

Regular (6 oz., unless noted)	Criteria:	160	2	6+	20+	—
✓✓ Nonfat Plain—Dannon All Natural or Stonyfield Organic Smooth & Creamy ¹		80	0	9	30	3
Dannon Light & Fit or Yoplait Light ^{1,A}		90	0	5	20	2.5
✓✓ Lowfat Plain—Dannon All Natural, Emmi Swiss, Green Valley Organ. Lactose Free, or Stonyfield Organ. Smooth & Creamy ¹		100	1.5	9	30	2.5
✓ Nonfat Fruit on the Bottom—Brown Cow or Stonyfield Organic ¹		120	0	6	25	5
✓ Nonfat Flavored—Brown Cow Smooth & Creamy or Wallaby Organic Creamy ¹		130	0	7	25	5
✓ Lowfat Fruit on the Bottom—Brown Cow, Dannon, Stonyfield Organic, or Wallaby Organic Down Under ¹		140	1	6	25	5.5
✓ Lowfat Flavored—Dannon All Natural, Green Valley Organics Lactose Free, or Wallaby Organic Creamy ¹		140	1.5	7	25	5
So Delicious Cultured Coconut Milk ¹		140	5.5	1	25	4.5
✓ Stonyfield Organic Blends Fat Free ¹		150	0	8	30	6.5
✓ Silk Fruity & Creamy (5.3 oz.) ¹		150	0	6	20	4.5
Amande Cultured Almondmilk ¹		150	0.5	3	30	3.5
Müller FrütUp (5.3 oz.) ¹		150	1	7	15	5.5
✓ WholeSoy & Co., except Cherry, Mixed Berry, or Raspberry ¹		160	0.5	6	30	4.5
✓ Stonyfield Organic Blends Low Fat—French Vanilla or Peach ¹		160	1.5	8	30	6
Stonyfield Organic O'Soy ¹		170	0	7	15	6
Yoplait—Original or Thick & Creamy ¹		170	1	5	20	6
YoCrunch—Fruit Parfait or regular ¹		180	1.5	5	20	6
Dannon Activia Breakfast Blend ¹		190	2	11	30	6
Müller Corner (5.3 oz.) ¹		190	2.5	8	20	5.5
Liberté Méditerranée ¹		250	7.5	8	30	6

Regular (8 oz.)	Criteria:	210	2.5	8+	25+	—
✓✓ Nonfat Plain—Brown Cow or Wallaby Organ.		120	0	11	40	3
✓✓ WholeSoy & Co. Organ. Unsweetened Plain		130	1	10	50	0.5
✓✓ Lowfat Plain—Brown Cow or Wallaby Organ.		140	2.5	11	40	3
Whole Milk Plain—Dannon All Natural or Stonyfield Organic Smooth & Creamy ¹		160	5	9	30	3
Amande Cultured Almondmilk Plain		170	0.5	4	45	2.5
✓ Stonyfield Organic Smooth & Creamy Low Fat ¹		190	1.5	9	30	7.5
Noosa ¹		300	5.5	14	35	6.5

✓✓ Best Bite. ✓ Honorable Mention. ¹ Average.

^A Contains artificial sweeteners.

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

Calcium Daily Value (DV): 1,000 mg. **Protein Daily Target:** 50 grams.

Source: company information. The use of information from this article for commercial purposes is strictly prohibited without written permission from CSPI.

Nutrition Action Healthletter has been published since 1974 by the nonprofit Center for Science in the Public Interest, an independent consumer health advocacy organization. Founded in 1971, CSPI educates consumers about food safety and nutrition and presses food companies and the government to improve their policies and practices. CSPI's work is supported by *Nutrition Action* subscribers, individual donors, and foundation grants. CSPI does not accept funding from government or industry, and *Nutrition Action* is free of advertising.

Nutrition Action Healthletter

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RIGHT STUFF

HONEST TO GOODNESS



"Whole chicken breasts. Whole grains. Whole new reason to open your freezer."

That's how **Lean Cuisine's** Web site introduces its new **Honestly Good** frozen meals.

Each tray—they could be with the regular frozen meals or in the natural-food or health-

food case—features a chicken breast, a fish filet, or beef strips over brown rice or whole-grain pasta, paired with vegetables like broccoli, orange or yellow carrots, edamame, green beans, snap peas, or zucchini.

Since the meals are from Lean Cuisine, you know they're low in saturated fat (about 2 grams) and calories (around 300 to 400). The protein is an impressive 15 to 27 grams, which may help dieters preserve muscle as they lose weight. And the fiber (4 to 7 grams) is the unprocessed kind that comes in whole grains and vegetables, not inulin, maltodextrin, or other poorly absorbed carbohydrates.

What's more, unlike most prepared foods, Honestly Goods aren't salt heavy. Lean Cuisine keeps the sodium between 290 and 590 milligrams by relying on ingredients like garlic purée, orange peel, ginger, lemongrass purée, balsamic vinegar, sun-dried tomatoes, cilantro, and white wine concentrate. Bonus: the sauce comes in a separate pouch, so you can add only as much as you want.

Best of all, the fish is fresh, the chicken is moist, and—for a frozen meal—the taste is great.

If you think there's a frozen foodie hiding in you, give these a try. Honestly.

Lean Cuisine 800-993-8625

FOOD PORN

IT TAKES THE CAKE

If you've never heard of a **Tennessee Whiskey Cake**, maybe you've never been to **T.G.I. Friday's**. The "warm toffee cake topped with glazed pecans and vanilla ice cream" is "served with butterscotch Jack Daniel's Whiskey sauce."



What a perfect ending to a dinner from Friday's Jack Daniel's Grill menu. After you've polished off your Jack Daniel's Chicken, Jack Daniel's Ribs, Jack Daniel's Black Angus Sirloin & Half-Rack of Ribs, or one of the other eight Jack Daniel's items, nothing sounds more appealing than a Jack Daniel's dessert.

After all, the Tennessee Whiskey Cake has a mere 1,270 calories (two-thirds of a day's worth for most people), 28 grams of saturated fat (a 1 1/2-day supply), and 820 milligrams of sodium (half a day's quota; no easy feat for a dessert). No dessert at Friday's has more calories—not the Chocolate Peanut Butter Pie, not the Vanilla Bean Cheesecake, not the Brownie Obsession. It's like finishing your meal with four McDonald's Hot Fudge Sundaes.

Even if you split your Whiskey Cake with a dining companion, you're still looking at over 600 calories and 14 grams of sat fat. That's on top of, say, your Jack Daniel's Ribs and Shrimp (1,730 calories without sides), your New York Cheddar & Bacon Burger (1,410 calories), your Jack Daniel's Chicken Sandwich (1,140 calories without sides), or your Cajun Shrimp & Chicken Pasta (1,110 calories).

"In here, it's always Friday," says the chain. It's also always Fattening.

T.G.I. Friday's: (800) 374-3297

dish OF THE MONTH

Super Green Three-Bean Salad

Steam 1/2 lb. of trimmed snow peas, 1/2 lb. of trimmed snap peas, and 2 cups of shelled frozen edamame for 2 minutes. Rinse under cold water until cool. Toss with 1 Tbs. of toasted sesame oil and 1 Tbs. of reduced-sodium soy sauce. Sprinkle with 1 Tbs. of sesame seeds.