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MEMO FROM MFJ

We Deserve Better



t Domino's, an eight-Apiece order of bread sticks has almost twice the calories of an eight-piece order of chicken wings. At TGI Fridays, a side of rice pilaf has close to twice the calories of a side of mashed potatoes.

Who knew? Beginning on May 5th, you or any other customer who looked at the chains' menus would have known. That was the date on which calories were supposed to show up on menus in chain restaurants (and on prepared foods at supermarkets and con-

venience stores) nationwide.

But on May 4th, the FDA delayed the deadline for at least a year.

Why? Because some pizza chains didn't want calories on their menus.

CAESAR SALAD 1330 cal 13.95 @Upon Request The Almost Traditional Recipe with Croutons, Parmesan Cheese and Our Special Caesar Dressing with Chicken add 170 cal 14.95 SHEILA'S CHICKEN AND AVOCADO SALAD 1930 cal Grilled Chicken, Fresh Avocado, Mixed Greens, Crisp Tortilla Strips, Carrots, Cilantro and Cashews Tossed in a Citrus-Honey-Peanut Vinaigrette

Calories on menus (like this one from a Cheesecake Factory in Maryland) helps diners.

(Domino's led the fight against labeling, while Pizza Hut favored it.) And supermarkets and convenience stores didn't want to divulge calories in their prepared foods...or at least not in ways that made the numbers easy to find.

(Don't think restaurants have anything to hide? Check out our Xtreme Eating Awards on pages 13-15.)

The fight to get calories on menus has produced some strange bedfellows. This year, we (the Center for Science in the Public Interest, Nutrition Action's publisher) found ourselves lobbying alongside the National Restaurant Association. The NRA's member chains would rather deal with a single national standard than with dozens of different local and state regulations.

Fortunately, some of the largest chains, including McDonald's and Starbucks, started posting calories on their menu boards in anticipation of the law's going into effect.

It's no coincidence that the proliferation of fast-food restaurants and the super-sizing of meals at table-service chains paralleled

Why do calories on menus matter?

soaring obesity rates in the 1980s and 1990s. While restaurants weren't solely to blame, their triple cheeseburgers, 2,000-calorie appetizers, and bucket-sized sodas definitely contributed.

In happier news, the courts in New York City have given the go-ahead for requiring salt-shaker icons next to menu items that contain at least a day's worth of sodium.

I hope that other health departments do

the same. Those symbols don't just let diners know what's in their food; they also encourage restaurants to cut the salt. Bravo!

Meanwhile, in Iune the FDA said that it would delay the deadline for

improved Nutrition Facts labels to appear on packaged foods. (The food industry's biggest lobby, the Grocery Manufacturers Association, is pushing for at least a threeyear delay.)

Those new labels, which make calories big and bold, also include a line for "Added Sugars." (We lobbied for that line for more than a decade.) Kudos to the companies that are switching to the new labels anyway.

Americans deserve calories on menus and added sugars on food labels. CSPI is working hard to make sure we get both. We and other groups have sued the FDA to try to force it to reverse its calorie-labeling delay.

hike Jacobson

Stay tuned.

Michael F. Jacobson, Ph.D., Fresident Center for Science in the Public Interest

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Even the experts were surprised

n March, a DXA scan showed that my hip had reached the osteoporosis range that is, my bones were porous and more likely to break.

It didn't come as a shock. My mother and my brother—like me, only in his mid-60s were being treated for osteoporosis. And my mother's sister should have been. We're not alone. One out of four women—and one out of 18 men—aged 65 or older have osteoporosis. Another one out of two adults have low bone mass, or osteopenia.

Yet news reports about the pros and cons of taking calcium, vitamin D, and drugs to protect bones have left many people, including doctors, confused. I spoke to one of the nation's top bone experts to help clear up the confusion.

— Bonnie Liebman

CALCIUM

Q: Why are people so confused about calcium?

A: Starting back in 2008, there was a lot of noise raised by three researchers who suggested that calcium causes heart attacks and doesn't prevent fractures. That created a wave of additional analyses by other investigators.

Those claims made big news in the media. You know the game—the pendulum swings way over here to make some news and then, boom, it swings back to make some more news. We got a big dose of that.

Q: Does calcium cause heart attacks?

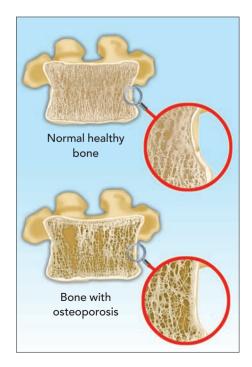
A: No. In 2015, some top researchers did a huge meta-analysis of clinical trials in which women got 600 mg to 1,500 mg of calcium a day, and they concluded that the evidence does not show that calcium causes heart attacks. So the fire has been put out. But that message didn't make the news.

Q: Does calcium protect bones?

A: Calcium alone has not been demonstrated to reduce fracture rates. It does lower bone turnover rate—a measure of bone loss—by about 10 percent, however. And calcium together with vitamin D is effective in lowering fracture rates.

Q: If calcium prevents bone loss, why wouldn't it also prevent fractures?

A: I think if you had enough people and followed them for long enough, you would probably see fewer fractures. But who's going to do a trial looking for fractures in thousands of people with calcium up against a placebo? It's not going to happen.





Bess Dawson-Hughes is director of the Bone Metabolism Laboratory at the Jean Maver USDA Human Nutrition Research Cen-

ter on Aging at Tufts University in Boston and a professor of medicine at Tufts. She is a former president of the National Osteoporosis Foundation and served on the Council of the International Bone and Mineral Society and the Advisory Council of the National Institute of Arthritis and Musculoskeletal and Skin Diseases.

Q: Did calcium plus vitamin D prevent fractures in the Women's Health Initiative?

A: Overall, that <u>large trial</u> found no lower risk of fractures among postmenopausal women who got 1,000 mg of calcium and 400 IU of vitamin D a day. But among women in the study who took at least 80 percent of their pills, there was a 29 percent lower risk of hip fractures in those who got calcium plus D.

What's more, we know that women are unresponsive to calcium in the first five years after menopause.

Q: Why?

A: When estrogen levels decline, the receptors in bone read that drop as, "We don't need so much skeleton, so let's ratchet down."

So the drop in estrogen breaks down bone, which makes blood levels of calcium go up just a touch. And the body reads that as, "We've got a lot of calcium. Let's turn off the system that brings in more."



Calcium Counter



Shoot for 1,000 to 1,200 milligrams of calcium a day from foods and supplements combined. Here's what's in some popular calcium-rich foods...and a few that have less than you think.

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Broccoli, chopped (½ cup cooked) 30			50
	Broccoli, chopped (½ cup cooked)		30
O. Carr. C. (2 100.)	Cream cheese (2 Tbs.)		30

*Contains added calcium. ¹Average. Sources: USDA and company information.

Q: Did calcium and vitamin D help older women in that study?

A: Yes. When the researchers included only women who were at least five or six years past menopause—that is, in their 60s or older—those taking calcium and vitamin D had a 21 percent lower risk of fractures than those who took the placebo.

VITAMIN D

Q: How does vitamin D help lower the risk of fractures?

A: One way is by promoting calcium absorption and therefore bone mass and strength. The other is that vitamin D affects muscle performance, balance, and the risk of falling. People who are insufficient or deficient in vitamin D have reduced balance, measured by sway tests.

Q: What is a sway test?

A: You put a person on a platform, and you measure how much the body is swaying. The more people sway, the poorer their balance. Two trials have found that vitamin D decreased sway in people who are deficient in D.

Q: How does vitamin D help?

A: It promotes type 2 muscle fibers. They're the ones that help to catch you when you're about to fall. They're your rapid responder muscle fibers. So vitamin D is working through muscle as well as through bone.

Q: My lab report called my vitamin D level "insufficient" because it was below 30. Is that correct?

A: It depends. The labs go with the Endocrine Society guidelines, which recommend 30 nanograms per milliliter. They're for people with osteoporosis or some other endocrine problem, so they're reasonable for you.

But the National Academy of Medicine concluded that 20 nanograms per milliliter is sufficient for the general population of adults. So I think a lot of people are being treated excessively.

Q: What about people with osteopenia, or low bone mass?

A: They're part of the general popu-

lation. The weight of the evidence is that most people are going to be fine with blood levels in the mid-to-high 20s. And the doses of vitamin D that get you to 30 are where we start seeing more falls.

Q: That must have been a surprise.

A: Yes. Several years ago, researchers in Australia thought, "When seniors come in for a flu shot, we'll give them a big blast of vitamin D, and that'll take care of them for a year so they won't have to remember to take their D pills."

So they gave 500,000 IU as a single oral dose or a placebo once a year to 2,250 women over 70. And lo and behold, the women who got vitamin D had a 15 percent <u>higher risk</u> of falls than those who got the placebo.

Q: Could one huge yearly dose be worse than its daily equivalent?

A: I would expect that giving even 300,000 IU once a year—which is close to 800 IU per day—would also lead to more falls, but no one knows.

Q: Have studies also found more falls with high monthly or daily doses?

A: Yes. I was involved in a study run out of Zurich that gave people 24,000 IU or 60,000 IU of vitamin D a month. If you round them to their daily equivalents, we would be comparing 800 IU a day—which is the standard of care in Switzerland—with 2,000 IU a day. And we found more falls in the 2,000 IU group than in



Greek yogurt has more protein, but less calcium (150 mg), than non-greek (250 mg).

Which Exercise?

The exercises listed in Group 1 are the best for keeping bones strong. If you the 800 IU group. We have osteoporosis, fall easily, or are frail, choose safer options from Groups 2 and 3. Muscle strengthening is important for everyone.

were shocked.

A few years earlier,

we had done a study with those dosesbut given daily—in patients with acute hip fracture. And there were more falls in the 2,000 IU versus the 800 IU group. But it wasn't statistically significant, so it might have been due to chance.



1. High-impact weight-bearing exercises (daily)

Aerobic dancing Basketball Dancing

Hiking Jogging or running

Jumping rope Racquet sports Stair climbing



2. Low-impact weight-bearing exercises (daily)

Cross-country ski machines* Elliptical trainers

Low-impact aerobics Skiing (any)*

StairMaster Walking briskly

* Avoid if you have balance problems or are at risk of falls.



3. Muscle-strengthening exercises (2-3 days a week)

Exercise bands Pilates**

Weight lifting/ Resistance training Weight machines Yoga**

** Avoid forward-bending exercises if you have osteoporosis in your spine. Source: Adapted from National Osteoporosis Foundation.

Q: Did people on higher doses also get more fractures?

A: In the Australian study that gave 500,000 IU once a year to seniors, they saw a 26 percent higher risk of fractures.

The two Zurich studies didn't see an increase in fractures, but it takes huge numbers of older people to see enough fractures. And in those studies, we didn't even get close.

However, the **DO-HEALTH** study of roughly 2,100 Europeans aged 70 or older, and the VITAL study of about 25,000 Americans aged 50 or older, are looking at fracture risk, and more. Both trials are giving people 2,000 IU a day of vitamin D or a placebo and will end by 2018.

So we should have some answers soon. And that's good, because many people are taking doses higher than 800 IU.

Q: Should people even get their blood levels of vitamin D checked?

A: The International Osteoporosis Foundation guidelines, which I helped to write, say that most people don't need to get their vitamin D tested. They just need to aim for 800 IU to 1,000 IU a day.

But there are categories of people who do need to be measured: people with malabsorption, people with osteoporosis, obese people, very dark-skinned people,

people who have absolutely no sun exposure—for example, nursing home residents who don't sit outside much.

Q: But not everyone else?

A: No. This business of measuring vitamin D in all healthy people—the walking well—is excessive. If people live in a northern climate and are not getting sun exposure that is effective—which would be the case between fall and spring—then they should take a supplement with 800 IU to 1.000 IU.

Q: Can you get enough from food?

A: No. There's not much vitamin D in foods. It's in foods that people don't tend to eat daily, like fatty fish. And a serving of most fortified cereals provides only 40 IU, and a cup of milk has just 100 IU.

EXCESS ACID

Q: Do foods that create acids in the body lead to bone loss?

A: Yes. In bone-forming cells, which are called osteoblasts, there are receptors for hydrogen ions, which come from acids. And when hydrogen circulating in blood binds to osteoblasts, it stimulates the production of osteoclasts, which break down bone.

In mouse experiments, the animals lose bone when their diet is acid-producing. But if you knock out the hydrogen receptor, the mouse no longer loses bone.

So that's the proof, at least in the mouse, that what's going on at that receptor is triggering bone loss. It's fascinating.

Q: Is there evidence in people?

A: In short-term studies, when researchers put

healthy older people on bicarbonate or citrate pills—which supply alkali to neutralize acid—they consistently see less bone breakdown.

Q: Any longer studies?

A: Yes, two. A leading group in Switzerland saw improved bone mineral density and less bone loss in elders treated with alkali than in those treated with a placebo. And they saw improved bone strength and quality at every skeletal site.

But a previous British study used a lower dose of alkali and saw no improvement, and no one has figured out why. Maybe the dose was too low or maybe their diets didn't produce much acid at the beginning of the study. The researchers didn't assess acid excretion in urine at entry, so nobody knows what went on there.

Q: Which foods produce alkali and which produce acid?

A: Fruits and vegetables are the big sources of alkali in the diet. Protein-rich foods and grains like bread, rice, cereal, pasta even whole grains—produce acid. But I would advise older people to cut back on grains rather than protein, because



What's Your FRAX?

You can use the FRAX (Fracture Risk Assessment Tool) to estimate your risk of fracture, whether or not you've had your bone mineral density (BMD) tested. (Go to sheffield.ac.uk/FRAX and click on "Calculation Tool.") Many doctors consider prescribing medication if your risk of a hip fracture is at least 3 percent—or your risk of any major bone fracture is at least 20 percent—over the next 10 years. Most women (and men) do not cross either of those thresholds until their 70s.

protein is extremely important for muscle and indirectly for bone.

Q: Important how?

A: There's a fair amount of protein in bone. And consuming protein stimulates IGF-1, a growth factor that builds both bone and muscle.

In some observational studies, people who consume more protein have more lean mass and higher bone density than others. Wake Forest has an NIH grant to test a protein intervention on lean mass, muscle strength, muscle performance, and bone density, which is exciting.

WHAT ELSE MATTERS

Q: I love biking and hiking, but not strength training. Does that matter?

A: Walking is good, but cycling won't help your bones much, because it's not weight bearing. Strength training is more effective than just aerobic. But we need aerobic for heart and lungs, so a well-balanced exercise program is best.

Q: Should everyone get their bone density measured?

A: I'd go with the National Osteoporosis Foundation guidelines. Women aged

65 and older and men aged 70 and older should get a bone density scan. Younger people should get a scan if they have a high-risk profile. That's the crux of it.

Q: When should people consider taking drugs to build bone?

A: The guidelines say that if your bone density in either the spine or hip is in the osteoporosis range, that qualifies you for treatment. Or if vou've had a spine or hip fracture, that qualifies you.

If you have

so-called low bone mass, or osteopenia, or if you've never had a bone density scan, you can use the FRAX to estimate your risk of fractures. It gives weight to

risk factors like family history and steroid use. [See "What's your FRAX?"]

If the FRAX indicates that you have at least a 20 percent risk of a major fracture or at least a 3 percent risk of a hip fracture over 10 years, it's a good idea to get treatment.

Q: Should I worry about taking Fosamax to treat osteoporosis?

A: Fosamax and other bisphosphonates have a very low risk of two side effects: osteonecrosis of the jaw and atypical leg fracture. But those risks are minuscule compared to the risk of fracture.

Q: Do those risks increase over time?

A: Yes. But the risk of atypical leg fracture is statistically significant only after eight years, so many women stop taking the drugs after five years.

Just keep your eyes open. If you get pain in your leg, hip, or knee, speak up. Atypical femoral fractures are almost always preceded by pain in that region.

And if you have rotten teeth and horrible gum disease, then you're at a greater risk for osteonecrosis of the jaw, so get your teeth fixed. The risk of those side effects is low and manageable. 💣

The Bottom Line

Food or Nutrient	NAH's Daily Target	What You Need to Know
Calcium	Women: 1,000 mg if 19 to 50 1,200 mg if over 50 Men: 1,000 mg if 19 to 70 1,200 mg if over 70	The targets include what you get from food. Count 250 mg for each serving of dairy you eat (150 mg for greek yogurt) and 250 mg for the rest of your diet. Then see if you need a supplement.
Vitamin D	Adults up to age 70: 600 IU Over age 70: 800 IU	If you live north of the line between Los Angeles and Atlanta, your skin can't make enough vitamin D during the winter.
Protein	Women: At least 60 grams Men: At least 80 grams	Rule of thumb: Your protein target in grams is roughly equal to half your weight in pounds.
Fruits & Vegetables	At least 10 servings (a serving is just ½ cup)	There's no better way to neutralize excess acid.
Exercise	30 minutes or more	See "Which Exercise?" p. 5.

Dying for a Burger?



eople who eat more red meat—beef, lamb, and pork may have a higher risk of

Researchers tracked nearly 537,000 AARP members who were 50 to 71 when they entered the study. After 16 years, those who reported eating the most red meat (nearly

five ounces a day for a 2,000-calorie diet) had a 26 percent higher risk of dying during the study than those who ate the least (about five ounces a week).

People who ate the most red meat had a higher risk of dying of cancer, heart disease, stroke, respiratory disease, diabetes, infections, chronic kidney disease, and chronic liver disease. In contrast, those who ate the most white meat (poultry and fish) had a 25 percent lower risk of dying. Only Alzheimer's disease was largely unrelated to red or white meat intake.

The authors estimated that roughly 20 percent of the link between dying and unprocessed red meat (steaks, hamburgers, chops, etc.) was due to its heme iron, which can help create carcinogenic compounds in the GI tract. And they estimated that roughly 50 percent of the link between dying and processed red meat (sausage, ham, bacon, etc.) was due to its nitrites and nitrates.

What to do: It's worth cutting back on red meat, even though this type of study can't prove cause and effect. The researchers took age, weight, exercise, and many other factors into account, but something else about meat eaters might explain their higher risk of dying.

BMJ 2017. doi:10.1136/bmj.j1957.

The Whole Advantage

re there any advantages of eating whole grains that you can see in a matter of weeks? Yes, says a new study.

Researchers randomly assigned 81 men and women aged 40 to 65 to eat either refined or whole-grain breads, cereals, pasta, crackers, and other foods for six weeks. (All meals

were provided by the authors, who included scientists from Tufts University, General Mills' research institute,

and elsewhere.) Compared to those eating refined grains, the whole-grain eaters:

- lost 92 more calories a day because they burned more calories at rest and excreted more calories in their stool,
- had higher stool weights and frequency, and
- had lower levels of a gut bacterium that's linked to inflammation.

What to do: Look for 100% whole grains. Foods that claim to be "made with whole grain" may not have much.

> Am. J. Clin. Nutr. 105: 589, 635, 2017.

Do It Right

ould losing weight harm obese older people by causing them to lose muscle and bone? Not if they do the right kind of exercise.

Scientists randomly assigned 141 obese, sedentary people aged 65 or older to a control group (which got healthy eating advice) or to a weight-loss diet plus one of three exercise programs aerobic, strength training, or both. The diet cut 500 to 750 calories a day.

After six months, all three diet + exercise groups had lost the same weight (about 20 pounds). However, those who got strength training (with or without aerobic exercise) gained the most strength and lost the least muscle and bone. And those who got aerobic exercise (with or without strength training) got the biggest increase in aerobic fitness.

What to do: Do both aerobic and strength training, no matter your age or fitness. The combination group in this study had three weekly exercise sessions, including 30 to 40 minutes each of aerobic and strength training plus 10 minutes each of flexibility and balance.

N. Engl. J. Med. 376: 1943, 2017.

Bad Belly?

bigger belly may boost your risk of dying even if you're normal weight. Researchers tracked more than 130,000 British people aged 60 to 69 for about seven years. They excluded current smokers and people with recent weight loss (which, in older people, is often due to dementia, cancer, heart failure, etc.).

Normal-weight people with a larger waist had a 33 percent higher risk of dying than those with a smaller waist. And overweight people with a larger waist had a 41 percent higher risk of dying—and a 64 percent higher risk of heart disease—than normal-weight people with a smaller waist.

What to do: Women in this study were best off with a waist that was at least 20 percent smaller than their hips. Men were best off with a waist that was at least 10 percent smaller.

Am. J. Clin. Nutr. 2017. doi:10.3945/ajcn.116.147157.

What's in a name?

BY CAITLIN DOW & DAVID SCHARDT

people think that probiotics are all effective for the same health issues," says researcher Lynne McFarland. "That's not the case."

But you'll never hear that from some probiotic manufacturers, who are happy to have you believe that their products are good for whatever ails you.

Bug basics

Probiotics are "live microorganisms that, when administered in adequate amounts, confer a health benefit on the host," notes

the World Health Organization. The host? That would be you. So the bacteria that are added to foods to ferment them—think sauerkraut, pickles, kombucha, and kimchi—are out because they have no proven health benefits. In are bacteria (or yeast) that, in scientific

studies, help relieve diarrhea, irritable bowel syndrome, or other problems.

Most bacteria have a first, middle, and last name. The microbe in Dannon's Activia yogurt, for example, is Bifidobacterium (the genus) lactis (the species) DN-173 010 (the strain).

All three parts are important. Lactobacillus reuteri NCIMB 30242, for example, may lower cholesterol (modestly), while Lactobacillus reuteri RC-14 can help with vaginosis.

"Consumers seeking help for a particular health problem should look only

for the specific strains that have been successfully tested for that condition," says Mary Ellen Sanders, executive science officer for the International

> Scientific Association for Probiotics and Prebiotics (which includes both academic and industry scientists).

But that's not easy, since the Food and Drug Administration doesn't

require companies to disclose which strains they use.

For example, we recently asked Stonyfield which strain of Lactobacillus rhamnosus it adds to its yogurt. The information is "proprietary," a company representative e-mailed us.

Good for what ails you?

"The time to think about probiotics is when your gut bacteria has been disrupted —like when you take antibiotics, travel, or have a chronic condition like irritable bowel syndrome," says University of Washington probiotics expert Lynne McFarland.

What about taking them just to reinforce your normal intestinal bacteria?

For a start, new bacteria are unlikely to take up residence in your gut. "Your normal bacterial flora does a great job of keeping foreigners out," says Sanders.

That doesn't necessarily mean there's no benefit. Even though the probiotics haven't colonized your gut, "they may still prevent disease-causing bacteria from gaining a foothold in the intestinal tract," notes McFarland. "Some also produce their own antibiotics to kill other bacteria, or they may prime our immune cells for defense against invaders."

Even so, "we don't have good evidence that probiotics do any good on a day-today basis for healthy adults," she adds.

Looking for a probiotic?

- Find the strain for what you need. We describe some probiotics with the best evidence—and some that don't do much—on the next two pages.
- Take enough. "You have to take a lot because your body is pretty good at destroying bacteria," says McFarland. The FDA doesn't require companies to list the amount of probiotics in foods or supplements, and many don't. Labels that list bacteria give the amounts as "living cells," "viable cells," or "CFU" (colonyforming units). How much do you need? It depends (see pages 9 and 10).
- **Follow storage instructions.** Some probiotics need to be refrigerated; others don't. As long as you follow the package directions, one is no better than the other.
- Check the expiration date. To increase your chances of getting the most live cells, look for probiotics that have months to go before their expiration date.
- Try foods or supplements. Either is fine, though supplements generally have higher concentrations of probiotics and are more stable.



Tropicana describes the benefits of all probiotics, but savs little about the Bifidobacterium lactis HN019 that it adds to its Probiotics juices...perhaps because it has nothing impressive to say.

Constipation

Only two probiotics have helped (slightly) with constipation in more than one study.

Among 126 Chinese women reporting fewer than three bowel movements a week, those who ate yogurt



Don't expect more than modest help.

containing 12.5 billion cells of Bifidobacterium lactis DN-173 010 (the probiotic in Dannon Activia) for two weeks averaged 1½ more bowel movements during the second week than those who drank a placebo beverage. (How much DN-173 010 is in Activia? "Billions," was all Dannon, which funded the study, would tell us.)

And among 1,248 Europeans who reported two to four bowel movements a week, those who took daily capsules with 1 billion Bifidobacterium lactis BB-12 for four weeks averaged about one more bowel movement every 18 days than those who took a placebo.²

² Br. J. Nutr. 114: 1638, 2015.



On antibiotics for BV? Probiotics could help.

Bacterial Vaginosis

Bacterial vaginosis (BV), the most common vaginal infection in young and middle-age women, increases the risk of miscarriage and sexually transmitted infections.

"Normally, the vagina is sparsely populated with a few different strains of Lactobacilli that help keep harmful bacteria and yeast at bay," says Gregor Reid, of the University of Western Ontario in Canada. "Bacterial vaginosis may occur when the

bacteria are out of balance."

After 20 years of trial and error, Reid and his colleagues found a two-probiotic treatment that may help women with BV who are being treated with antibiotics. (Reid no longer owns the patent.)

In two studies in Nigeria and Brazil, researchers randomly assigned 170 women on antibiotics for BV to take 2 billion live cells each of Lactobacillus rhamnosus GR-1 and Lactobacillus reuteri RC-14 or a placebo daily. After a month, roughly 90 percent of the probiotic takers were cured, compared with 40 or 50 percent of the placebo takers.^{1,2}

The two-probiotic combination is sold as a supplement. Femdophilus and RepHresh are two popular brands.



If it works, you'd need 12 bottles a day

Colds & Flu

Yakult, a dairy drink that contains Lactobacillus casei Shirota, can prevent upper respiratory tract infections (URTIs) like colds and

NATURE'S BOUNTY

Cardio-Health

Probiotic Support

May deliver a modest

drop in LDL.

DIETARY SUPPLEMENT

HEART HEALTH

60 Capsules

the flu, according to its manufacturer. At least that's what it says in India, which allows the claim. The European Union and the United States don't.

In two company-funded studies, 451 people aged 65 or older who drank the equivalent of two or five bottles of Yakult daily for five or six months had no fewer URTIs than 440 similar people who drank a placebo. 1,2 (URTIs ended 1¾ days sooner in the smaller, but not the larger, study.)

In another company-funded study, Yakult employees gave 49 men the equivalent of 12 bottles of Yakult each day. Over three months, the men reported about half the number of URTIs as 47 similar men who were given placebo drinks.³ Twelve bottles of Yakult cost about \$7 and contain 600 calories and an estimated 25 teaspoons of added sugar. Even Yakult Light has 360 calories. Oops.

High Cholesterol

Nature's Bounty Cholesterol Formula Cardio-Health contains Lactobacillus reuteri NCIMB 30242, "a probiotic strain that helps your body maintain cholesterol levels already within the normal range," according to the box.

While no studies have ever looked at that claim, in people

with high cholesterol, "the probiotic did reduce LDL cholesterol moderately," says Richard Ostlund, of Washington University in St. Louis.

In a company-run trial, LDL ("bad") cholesterol fell from 175 to 164 in those taking capsules with 2.9 billion CFU of NCIMB 30242 twice a day for nine weeks, while LDL rose from 160 to 168 in those given a placebo. ¹ The results were similar when the probiotic was added to yogurt.²

If that small drop is confirmed by independent researchers, it will be a start. But it won't be enough to move most people with high LDL into healthy territory.



¹ World J. Gastroenterol. 14: 6237, 2008.

¹ Microbes Infect. 8: 1450, 2006.

² Can. J. Microbiol. 55: 133, 2009.

¹ Am. J. Clin. Nutr. 95: 1165, 2012.

Am. J. Infect. Control 41: 1231, 2013.

³ Eur. J. Nutr. 56: 45, 2017.

¹ Eur. J. Clin. Nutr. 66: 1234, 2012. ² Br. J. Nutr. 107: 1505, 2012.

Minor Digestive Problems

"Activia's billions of probiotics help take care of what's inside so we can be our best self and face all of life's challenges," says the Dannon Activia website. (Maybe that claim sells better than Activia's old regularity claims did.)

Activia, which contains *Bifidobacterium lactis* DN-173 010—the company calls it *Bifidus Regularis*—helps relieve minor digestive annoyances like bloating, gas, rumbling, and discomfort, says Dannon. Yet the only two studies of people with those kinds of complaints (both funded by Dannon) didn't find much to crow about.

In Germany, 100 women ate two servings of Activia every day, while 97 similar women ate a placebo yogurt. After four weeks, 41 percent of the Activia consumers reported that their GI symptoms had improved, versus 34 percent of the placebo takers. In a similar study in France, Activia was no better than a placebo in relieving GI symptoms in 162 women. Dannon hasn't done a third study to see which of the first two was a fluke.

Another probiotic, GanedenBC30, "supports a healthy digestive system," according to its manufacturer's website. GanedenBC30 (aka *Bacillus coagulans* GBI-30, 6086) is



GanedenBC30? Yes. Healthy? Not with 220 calories and 7 grams of sat fat in just 1/3 cup.

arguably the most-used probiotic in the world. It's in everything from granola to tea bags to chocolate bars.

The food industry's fondness for GanedenBC30 is partly due to the microbe's hardiness. Unlike most other probiotics, it's surrounded by a tough spore that allows it to survive heating, freezing, and long storage at room temperature.

In Ganeden's small company-sponsored study of seven adults in Miami and 54

in the Dominican Republic, those who took 2 billion Ganeden-BC30 bacteria every day for four weeks reported slightly less abdominal pain, but no less gas, bloating, or distension, than placebo takers.³ So don't expect much, if any, relief.

Antibiotic-Associated Diarrhea



The best evidence? The yeast Saccharomyces boulardii.

Taking antibiotics?
Don't count on yogurt to ward off diarrhea.

Two bacteria—Lactobacillus bulgaricus and Streptococcus thermophilus—turn milk into yogurt. Only one study has tested yogurt with just those two bacteria in adults. Those who

ate 5 oz. of the yogurt every day for 12 days after starting antibiotics were just as likely to have diarrhea as those who ate no yogurt.¹

In another study, a yogurt that also contained *Lactobacillus acidophilus* lowered the risk of diarrhea due to antibiotics.² But the authors didn't say which strain they used, and neither do most yogurts that add *Lactobacillus acidophilus*, so that's not much help.

The probiotic with the best evidence: a yeast called *Saccharomyces boulardii.*³ To get it, you'll need to pick up a supplement like Florastor.

Lactobacillus rhamnosus GG, which is in supplements like Culturelle, also seems to cut the risk of diarrhea.⁴

Irritable Bowel Syndrome

Two probiotics may offer some relief from the symptoms of irritable bowel syndrome (recurring abdominal pain, gas, bloating, diarrhea, and constipation without any known cause). At least that's what studies largely funded or conducted by industry show.



May help relieve IBS symptoms.

■ Bifidobacterium infantis 35624 (sold as Align). In two trials of roughly 440 adults with IBS, probiotic takers reported more improvement in abdominal pain, distension, and (in one of the studies) gas than placebo takers.^{1,2}

■ Lactobacillus plantarum 299v (in Good Belly drinks and some supplements). In Indian and Polish IBS sufferers, the probiotic reduced pain and (in the Indian study) bloating more than a placebo. 3.4 In a study in Sweden, the probiotic helped only with gas. 5

The Swedish and Polish studies gave 20 billion live cells a day for four weeks; the Indian study 10 billion a day. (Good Belly claims to have 20 to 50 billion.)

¹ Br. J. Nutr. 102: 1654, 2009.

² Neurogastroenterol. Motil. 25: 331, 2013.

³ BMC Gastroenterol. 9: 85, 2009.

¹ Br. J. Gen. Pract. 57: 953, 2007.

² Dig. Dis. Sci. 48: 2077, 2003.

³ Aliment. Pharmacol. Ther. 42: 793, 2015.

⁴ Aliment. Pharmacol. Ther. 42: 1149, 2015

¹ Gastroenterol. 128: 541, 2005.

² Am. J. Gastroenterol. 101: 1581, 2006.

³ World J. Gastroenterol. 18: 4012, 2012.

⁴/₅ Eur. J. Gastroenterol. Hepatol. 13: 1143, 2001.

⁵ Am. J. Gastroenterol. 95: 1231, 2000.

Grilling Great

BY LINDSAY MOYER

ooking meat, poultry, or fish at high temperatures until well done can create heterocyclic amines (HCAs) and polyaromatic hydrocarbons (PAHs). Both cause cancer in lab animals. Here's how to reduce them...and avoid food poisoning.

Marinate

Marinating cuts HCAs. To prevent bacteria that can cause food poisoning from multiplying, thaw and marinate in the fridge, not on the counter. And don't brush meat with leftover marinade while it's cooking.

Don't char

Trim any visible fat, so it doesn't drip onto the heat source. That can create flare-ups that contain PAHs, and can char the meat, which creates HCAs. Or move the meat away from the heat source (push the coals to the side or turn off a burner).

Flip, flip, flip

Flip meat every minute or so. That helps it cook faster, which could cut the HCAs by 75 to 95 percent.

No needles

Unless you like your steaks well done, don't buy beef that's labeled "mechanically," "blade," or "needle" tenderized. It's been pierced by tiny blades

or needles, which can push bugs that are on the surface deep inside.

Don't overcook

The drier and more well done, the more HCAs you get.

Don't undercook

Use a food thermometer to make sure the thickest parts reach:

Chicken: 165°F

Beef, pork, lamb (ground): 160°F Beef, pork, lamb (steaks or chops): 145°F (let rest for at least 3 minutes)

Fish: 145°F (or until flesh is opaque and separates easily with a fork)

Switch utensils

Don't serve grilled meat, poultry, or seafood using the same tray or utensils that you used when they were raw.

Lose the meat

Try veggie burgers. They should have few or no HCAs. And cruciferous vegetables like broccoli and cabbage may even help the liver detoxify

Mind the bristles

HCAs. Coleslaw, anyone?

If you use a wire bristle brush to clean your grill, inspect the grill's surface closely before cooking. Wire bristles that fall out can stick into any food you grill. In rare cases, eating that food could land you in the emergency room.

Refrigerate leftovers

Don't let food sit out for more than 2 hours (1 hour if it's above 90°F outside).



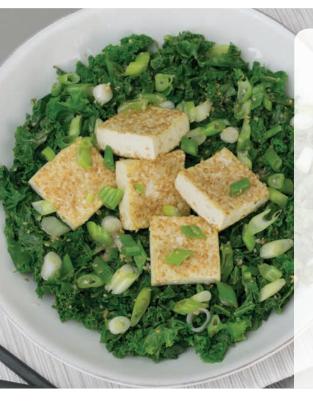
Super Supper Salads

BY KATE SHERWOOD



Nothing's easier than salad for dinner. Just whisk, chop, simmer or sauté a bit, toss, and eat. And it's on the table in half an hour, max.

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



Sesame Tofu & Greens Salad

- bunch kale, ribs removed
- ½ lb. baby spinach
- 14 oz. package extra-firm tofu, drained and blotted dry
- 2 Tbs. sesame seeds
- 2 tsp. peanut oil
- bunch scallions, sliced
- 1½ Tbs. tahini
- 1½ Tbs. reduced-sodium soy
- Tbs. lemon juice
- tsp. toasted sesame oil
- clove garlic, finely minced
- tsp. honey
- 1. Stir the kale into a large pot of boiling water. Cook until just tender, 1-2 minutes. Stir in the

- spinach and remove from the heat. Drain and run under cold water to cool. Squeeze well, then chop.
- 2. Cut the tofu into 10 slabs. Pat the sesame seeds into the tofu. In a large non-stick pan, sauté the tofu in the peanut oil until browned, 4-5 minutes. Stir in the scallions and remove from the heat.
- 3. Whisk together the remaining ingredients with 1 Tbs. of water. Toss with the greens. Top with the tofu and scallions.

Serves 2



Per serving (3 cups): calories 520 | total fat 29 g sat fat 4 g | carbs 37 g | fiber 12 g | protein 35 g sodium 600 mg

Mediterranean Tuna Salad

- ½ lb. small potatoes
- 1/4 lb. green beans, trimmed
- 2 Tbs. extra-virgin olive oil
- 2 Tbs. mayonnaise
- 1 Tbs. whole-grain mustard
- 2 tsp. red wine vinegar
- ¼ tsp. kosher salt
- 5 oz. can no-salt-added tuna, drained
- 4 cups salad greens
- cup chopped tomatoes
- 1. In a medium pot, bring the potatoes and enough water to cover to a boil. Simmer until the

- potatoes are tender, 10-15 minutes. Add the green beans and cook until tender, 3-5 minutes.
- 2. Run under cold water in a colander to cool, then drain well. Cut into bite-sized pieces.
- 3. In a large bowl, whisk together the oil, mayonnaise, mustard, vinegar, and salt. Toss with the potatoes and green beans and the remaining ingredients.

Serves 2



Per serving (3 cups): calories 410 | total fat 25 g sat fat 3.5 g | carbs 28 g | fiber 5 g | protein 19 g sodium 550 mg



FROM THE HEART | NutritionAction.com/FromTheHeart | FROM THE HEART Kate's collection of recipes that help you follow the top-rated DASH diet.



e were so close. May 5th was the deadline for menus at chain restaurants and elsewhere to post calories, a long seven years after Congress decided that Americans have a right to know what they're eating.

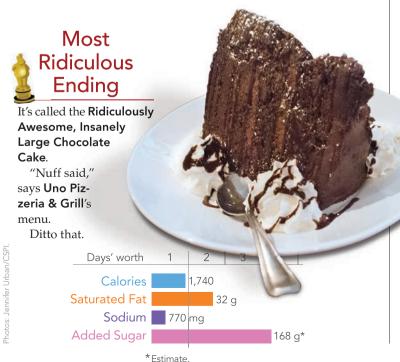
But less than a week before the deadline, lobbyists for pizza chains (led by Domino's), convenience stores, and supermarkets convinced the Trump administration not just to delay, but to reopen the rules to weaken them. Sigh.

That's why we're honoring Domino's with the first **Xtreme Putting Profits Before Public Health Award**. Who cares about the obesity and diabetes epidemics, as long as the cash keeps rolling in to one of the nation's premier purveyors of white flour and cheese?

The information for this article was compiled by Leah Ettman and Jennifer Urban.

WHAT'S A DAY'S WORTH?

Calories – 2,000 Sodium – 2,300 mg Saturated Fat – 20 g Added Sugar – 50 g





"More flavor than can fit on a plate," boasts the TV ad for **Chili's Ultimate Smokehouse Combo**. Make that more *food* than can fit on a plate. So it's served on a tray.

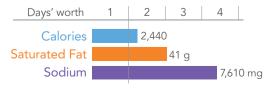
"Choose any 3 meats," says Chili's online menu. "New smoked bone-in BBQ chicken breast, new jalapeño-cheddar smoked sausage, hand-battered Chicken Crispers or a half rack of house-smoked baby back ribs." (The ribs will set you back an extra \$2.)

We went with the sausage, the Crispers (with honeymustard sauce), and the Texas Dry Rub ribs. With the sides (roasted street corn, homestyle fries, chile-garlic

toast, and garlic dill pickles), our combo was like downing *three* Chili's sirloin steak dinners—that's three 10 oz. sirloins topped with garlic butter, plus three orders of loaded mashed potatoes and three orders of steamed broccoli.

Why stop at a triple meal? Why not serve four meats and four sides? Or five?

And forget the tray. How about a trough?





Least Original Breakfast

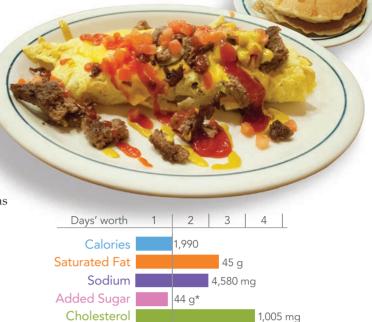
RESTAURANT CONFIDENTIAL

IHOP offers "the kind of meal you can't get anywhere else, not even at home," says the chain's website.

Well, you could make the Cheeseburger Omelette at home. But which genius at IHOP thought of adorning eggs with hamburger patty pieces, hash browns, tomatoes, onions, American cheese, ketchup, mustard, and pickles?

With a side of 3 Buttermilk Pancakes (plus butter and 2 tablespoons of syrup), it's like eating four McDonald's Sausage Egg McMuffins drizzled with 2 tablespoons

And all before lunch!



*Estimate.



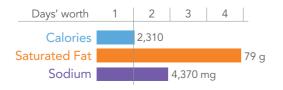
Worst Adapted Pasta

"How can we turn a meat lover's pizza into a pasta?" asked Donald Moore, Chief Culinary Officer at The Cheesecake **Factory**, in a Facebook Live video in March.

That head-scratching challenge inspired the chain's new Pasta Napoletana, which piles Italian sausage, pepperoni, meatballs, and bacon on pasta that's been greased with butter

As it turns out, it is like eating a Pizza Hut Meat Lover's Personal Pan Pizza...as long as you top the pizza with three cups of pasta and a cup of heavy cream.

Check with your waiter for a list of nearby cardiac care units.



Worst Cheese in a Leading Role

Battered, deep-fried cheese curds are a delicacy in Wisconsin. But we doubt that anyone has piled them on a burger, tossed on cheese and two bacon strips, and drenched the whole mess with a mayo-rich "cool heat sauce."

That is, not until **Buffalo Wild Wings** started serving its Cheese Curd Bacon Burger. With a side of fries, you're looking at the equivalent of roughly five Burger King Bacon Double Cheeseburgers.

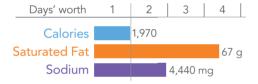
Nothing like a Curdburger. Yum! Days' worth Calories Saturated Fat Sodium 4,700 mg



"You've never tasted food & drinks like these," says Dave & Buster's website.

Ain't that the truth. We can safely say that the world has never before witnessed "a super-cheesy 12" quesadilla served pizza-style in eight slices, stuffed with Manchego and cheddar cheeses, pepperoni, and Italian sausage, then topped with even more pepperoni and Italian sausage, plus bacon, marinara, and mozzarella and Parmesan cheeses."

To your arteries and waistline, a Carnivore Pizzadilla looks like 100 slices of pepperoni layered atop two Taco Bell Cheese Quesadillas, or half a stick of butter melted over three Mc-Donald's Quarter Pounders with Cheese. Mmm...



Most Damage from a Supporting Vegetable

"We provide larger portions so you get more food for your dollar," says Texas Roadhouse.

More, indeed. The massive 16 oz. Prime Rib alone has 1,570 calories. And one of the possible sides—you get your choice of two—is a real humdinger. For an extra 99¢, the Loaded Sweet Potato (770 calories) buries the tuber under a pile of mini marshmallows and caramel sauce. Congrats. You just turned your side dish into dessert!

Add a Caesar salad as your second side, and it's like eating two of the chain's 12 oz. New York strip steak dinners (with mashed potatoes and vegetables), plus a slice of strawberry cheesecake.

And that doesn't include the all-youcan-eat peanuts, rolls, and butter offered to all Roadhouse patrons. Urp.

Worst Cocktail Design

"A 'kicked-up' chocolate banana milkshake with dark chocolate and banana liqueurs." That's the Flying Gorilla cocktail. And the ever-Xtreme Cheesecake Factory adds just enough alcohol to make you forget that your glass contains 950 calories. How convenient.

It's like kicking off your meal by pouring a 20 oz. Budweiser over five scoops of Breyers Chocolate ice cream. Cheers!

Days' worth Calories Saturated Fat Added Sugar 60 g* *Estimate





RIGHT STUFF

Positive Spin



"Sparkling water & real squeezed fruit. Yup, that's it," say the cans. And that *is* it. That's all the ingredients in **Spindrift Sparkling Water**.

No added sugar. No sweeteners (artificial or otherwise). Just water and a touch of fruit juice (or juice and purée).

And we mean a *touch*. Juice comprises just 5 to 8 percent of each 12 oz. can. That's no more than

a couple of tablespoons—enough to deliver a delightful hint of fruit (and even a bit of pulp in some flavors), but only 0 to 15 calories.

Speaking of flavors, one's better than the next. You've got Blackberry (our favorite), Cucumber, Grapefruit, Lemon, Orange Mango, Raspberry Lime, and Strawberry.

Lest this end up sounding like an ad, there *is* a small fly in the fizzy: Spindrift's cans—like most cans—contain BPA in their lining. The National Institute of Environmental Health Sciences has expressed "some concern" about BPA's "effects on the brain, behavior, and prostate gland in fetuses, infants, and children at current exposure levels."

So Spindrift isn't perfect. But if it's replacing a daily Coke, you could do a lot worse.

If you can't find Spindrift at your local supermarket, try Target.

Then get spinning.

spindriftfresh.com—(617) 391-0356

FOOD PORN



Royal Mush

A "Blizzard breakthrough," trumpeted the 2016 TV commercial.

And just in time. **Dairy Queen**'s iconic desserts—a staple on the menu since 1985—must have been getting a bit stale.

By now, everyone knows that Blizzards—soft serve blended with pieces of candy, cookies, brownies, or other sweets—are so thick that the server can turn the cup upside down before handing it to you.



So what did DQ do?

It added a core of sweet, sticky goo (fudge, strawberry, or peanut butter "topping"). Woo-hoo.

True to their name, the **Royal Blizzards** have regal numbers. The large (21 oz.) **Royal Reese's Brownie**, for example, hits the palace at 1,510 calories, 31 grams of saturated fat (1½ days' worth), and, we estimate, 27 teaspoons of added sugar.

You could eat *three* DQ Banana Splits and be no worse off.

At roughly 1,300 calories, the large **Royal OREO**, **Royal New York Cheesecake**, and **Royal Ultimate Choco Brownie** aren't much better. Even the (6 oz.) mini Royal Blizzards sock you with some 450 to 550 calories.

Memo to Her Royal Highness: Maybe it's time to get off the throne.

dairyqueen.com—(866) 793-7582



Tomato Basil Sauce

In a food processor, purée
1 cup chopped ripe tomatoes, 10 basil leaves, 2 Tbs.
extra-virgin olive oil, 1 tsp.
red wine vinegar, 1 clove
garlic, and ¼ tsp. kosher salt
until smooth. Makes about
1 cup. Great with chicken,
fish, or whole grains.

quick tip

Buy corn with tightly wrapped husks, golden silks, and firm kernels. (The cob shouldn't yield to gentle pressure. Don't peel back the husk: It dries out the corn.) Store unshucked in an open plastic bag in the fridge for up to two days.