

# Nutrition Action<sup>®</sup>

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## BONE BUILDERS

How to keep your skeleton strong

**Beyond or Impossible?**

Rating plant-based meats

**PUSHING PROBIOTICS**

*Hype vs. science*

'Tis the season

**Fruit & veg to eat now**



Photo: Christian Müller/stock.adobe.com



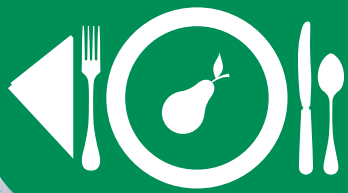
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# BONE BUILDERS

## How to keep your skeleton strong



**R**oughly 20 percent of women and 4 percent of men aged 50 or older have osteoporosis, or brittle bones. Another 50 percent of women and 30 percent of men 50 or older have osteopenia, or low bone mass.

People with brittle bones can break a bone after a minor fall. And the consequences aren't trivial. A year after fracturing a hip, many older people are still unable to walk independently, more than half need help with daily living, and roughly one in four have died. Here's how to protect your bones.

### BONE BASICS

#### **Q: How does bone change as we age?**

**A:** Bone is constantly remodeling. We form bone and then we resorb—or dissolve—and rebuild, bit by bit.

That process is very important for overall bone integrity because microfractures and little vascular changes can make bone less structurally sound. So it's a healthy, normal process.

#### **Q: And the balance changes over time?**

**A:** Yes. Until we reach our peak height, we are laying down more bone than we're taking away. So there's a net bone gain.

Once we reach our peak bone mass—which is around 25 to 30 years of age—there is a balance between what is formed and what is resorbed. So bone mass is pretty stable until menopause for women and until about age 50 for men.

#### **Q: Then we start to lose?**

**A:** Right. Men will lose about 1 percent a year from age 50 or so throughout their lives. Women at menopause will lose bone rapidly for about five to eight years. You see a 2 percent—or sometimes even 3 percent—loss per year. That's triggered by the loss of estrogen. After that, women also lose at a steady, slow rate of around 1 percent a year.

#### **Q: Do some people lose more?**

**A:** Yes. There's a small imbalance between formation and resorption in the general population. But there's a bigger imbalance in those who develop osteoporosis. Most people won't know about the imbalance until it shows up on a bone density test a few years later.

#### **Q: Should everyone get their bone density measured?**

**A:** The [National Osteoporosis Foundation](#) recommends a bone density test at age 65 for women and at 70 for men, or at younger ages if you've had a fracture. Some groups say that we have insufficient evidence to know if men should get tested,



**Bess Dawson-Hughes** is director of the Bone Metabolism Team at the Jean Mayer 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 she has served on the Advisory Council of the National Institute of Arthritis and Musculoskeletal and Skin Diseases. Dawson-Hughes spoke with *Nutrition Action's* Bonnie Liebman.

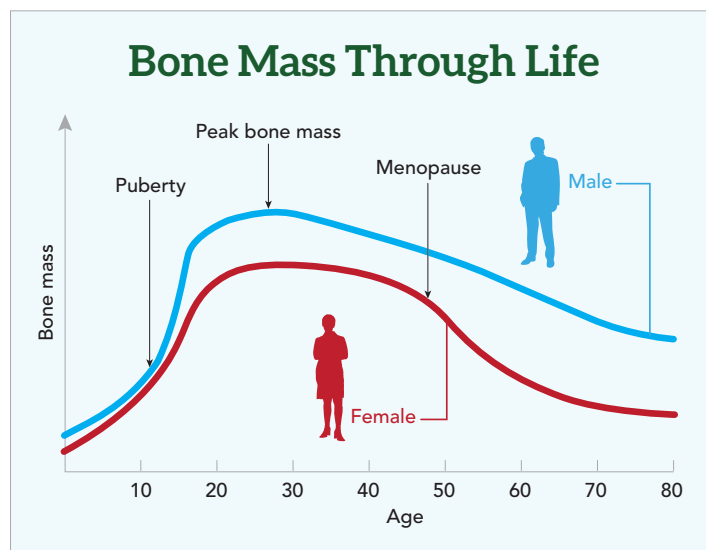
but I recommend that men get tested or at least use a tool to estimate their risk. [See "What's Your FRAX?" p. 6.]

#### **Q: Is height loss a sign of osteoporosis?**

**A:** You can lose up to about 1½ inches of height as you age, because the intervertebral discs in your spine lose water content, and that shrinks those discs. But any height loss above that is a good indicator of a compression [fracture](#) in your spine. [See illustration, p. 4.]

#### **Q: And that can cause a curved spine?**

**A:** Yes, it's very common. You see it in a lot of older people—especially women—as you're walking down the street.



Bone mass peaks by age 30 and then declines, especially in women.



## 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 foods with less calcium than you might think.

Food	Calcium (mg)
Dunkin' latte, almondmilk (medium)	530*
Lactaid Calcium Enriched Milk (1 cup)	500*
Silk Original Almond or Soymilk (1 cup)	450*
Silk Original Protein (1 cup)	450*
Starbucks latte, 2% milk (grande)	430†
Dunkin' latte, oatmilk (medium)	380*
Fairlife ultra-filtered milk (1 cup)	380
Oatly Oatmilk (1 cup)	350*
Orange juice with calcium (1 cup)	350*
Dairy milk (1 cup)	300
Silk Organic Unsweet Soymilk (1 cup)	300*
Swiss cheese (1 oz.)	250
Yogurt, plain, nonfat or lowfat (5.3 oz.)	250
Starbucks cappuccino, 2% milk (tall)	210†
Cheddar or mozzarella cheese (1 oz.)	200
Salmon, canned with bones (3 oz.)	200
Sardines, canned with bones (3 oz.)	200
Greek yogurt, plain, 0% or 2% (5.3 oz.)	170
Ricotta cheese, part-skim (¼ cup)	170
Greek yogurt, fruit, 0% or 2% (5.3 oz.)	140
Cheerios (½ cups)	130*
Tofu, firm or extra-firm (3 oz.)	130*
Frozen yogurt (⅔ cup)	120
Cottage cheese, 2% (½ cup)	100
Ice cream (⅔ cup)	100
Mozzarella, fresh (1 oz.)	100
Kale (½ cup cooked)	90
Bok choy (½ cup cooked)	80
Feta cheese (1 oz.)	70
Edamame, shelled (½ cup cooked)	50
Cream cheese (2 Tbs.)	40
Goat cheese, soft (1 oz.)	40
Broccoli (½ cup cooked)	30

\* Contains added calcium. † Estimate.

Sources: USDA and company information.

## VITAMIN D

### Q: What's the latest on whether vitamin D prevents bone loss or fractures?

**A:** About 20 years ago we knew from several large classic studies that you could decrease rates of bone loss and even fracture rates with a modest daily supplement of calcium and vitamin D.

Those studies were done in populations that had insufficient intakes of calcium and vitamin D. So if you are deficient in calcium and vitamin D and you take a supplement, you can expect a benefit.

However, since that time, enthusiasm for vitamin D has gotten ahead of the science.

### Q: What has the science showed?

**A:** In the last 10 years or so, we've had a spate of huge clinical trials looking at vitamin D's effect on everything from falls to fractures, heart disease, cancer, and infections. And in general, these mega-D trials have found no benefit.

### Q: What might explain that?

**A:** When you look at the trials on bone density or fractures in the U.S., Europe, and Australia, many people entering the studies had vitamin D levels in the adequate range. So there was very little room for improvement.

In fact, we're seeing an increasing signal that high-dose vitamin D supplements may increase the risk of falling in older adults, especially those with a recent history of falls. That's been documented in several carefully done trials.

### Q: How high were the doses?

**A:** The first trial with this bad news reported an increase in falls and fractures in Australian women given 500,000 IU once a year.

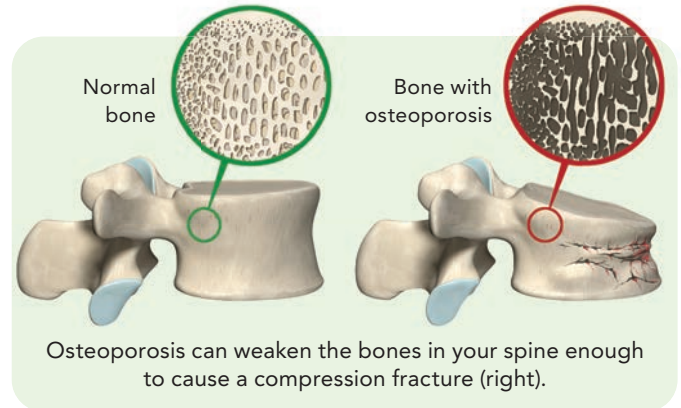
And I was involved in a trial in [Switzerland](#) that gave frail older people either 24,000 or 60,000 IU a month. That is equivalent to 800 or 2,000 IU a day. And there were more falls at the higher dose than at the lower dose.

In contrast, the recent [VITAL trial](#) gave U.S. adults 2,000 IU a day and didn't document any adverse effect on falls.

### Q: Could high monthly or yearly doses be more risky than daily doses?

**A:** It's hard to know. But when we look at these and other studies, it seems that you may be increasing your risk of falling if the level of vitamin D in your blood is much over 40 nanograms per milliliter. But that's a rough estimate, not a solid number.

And that's if you're an older person. These studies have mainly included people aged 70 or older. We don't know about younger people, because falls are a phenomenon of aging and frailty.



### Q: Is there a safe dose of vitamin D?

**A:** My conclusion is to go with the [National Academy of Medicine's](#) 2011 advice to get 600 IU of vitamin D a day up to age 70 and 800 IU if you're older.

That's based on studies that showed favorable effects on bone health. The recent mega-D trials assumed that if some is good, more may be better. As with many nutrients and supplements, that's not true for falls and fractures.

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

**A:** No. If people are in a special category—for example, if I had an older, frail



## Which Exercise?

The exercises listed in Group 1 are great for keeping bones strong. If you have osteoporosis, fall easily, or are frail, choose safer options from Groups 2 and 3. Muscle strengthening (Group 3) is important for everyone.

### 1. High-impact weight-bearing exercises (most days of the week)



Aerobic dancing	Hiking	Jumping rope
Basketball	Jogging or running	Racquet sports
Dancing		Stair climbing

### 2. Low-impact weight-bearing exercises (most days of the week)



Elliptical trainers	Low-impact aerobics	Walking briskly (on a treadmill or outside)
StairMaster		

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



Exercise bands	Weight lifting/ Resistance training	Pilates*
Weight machines		Yoga*

\* Avoid certain moves if you have osteoporosis. For details, go to [nof.org/patients/treatment/exercisesafe-movement](http://nof.org/patients/treatment/exercisesafe-movement).

Source: Adapted from the [National Osteoporosis Foundation](http://NationalOsteoporosisFoundation.org).

patient with osteoporosis or if someone were taking a drug that alters the metabolism of vitamin D—I would measure their 25-hydroxyvitamin D level, treat them, and then retest them after 3 to 4 months to make sure that their blood level is sufficient. But this business of routine testing in primary care settings is not warranted.

**Q: Is a blood level below 30 nanograms per milliliter too low, as most labs say?**

**A:** No. Most lab reports set the normal range as 30 nanograms per milliliter or higher because that's the range set by the Endocrine Society. Those guidelines are now under review.

But the National Academy of Medicine considers 20 nanograms per milliliter or higher to be adequate. To get there, you need to get 600 to 800 IU a day of vitamin D, depending on your age. And since trials have shown a benefit at 800 IU—but no benefit or an increased risk of falls at higher doses—20 nanograms per milliliter seems adequate for the general population.

## CALCIUM

**Q: Do we need calcium supplements?**

**A:** The average adult in the U.S. has a pretty hefty calcium intake—about 900 milligrams a day. If you're in that range, that's terrific.

If you're on the low end, you may need a boost of, say, 400 to 500 milligrams a

day. But many doctors used to recommend taking 500 milligrams twice a day to reach the Recommended Dietary Allowance. Almost no one needs that much from a supplement.

**Q: Should people worry that calcium supplements cause kidney stones?**

**A:** The [Women's Health Initiative](http://Women'sHealthInitiative.org) randomly assigned postmenopausal women to take 1,000 milligrams of calcium—along with 400 IU of vitamin D—or a placebo every day for seven years. The trial reported a 17 percent increase in kidney stones in the calcium-and-D group compared with the placebo group.

But let's look more closely at the study. The women were also allowed to take their own personal calcium supplements. So the average intake of the women entering the trial was 1,100 milligrams a day.

And the calcium group got an additional 1,000 milligrams a day, so they were up at 2,100 milligrams on average. Some were even higher.

So it's not surprising to see a higher risk of stones after seven years. It took several years for the risk of stones to emerge. Stones haven't been seen in studies that used smaller doses of calcium or that didn't allow high doses of personal supplements.

**Q: What about claims that calcium supplements cause heart disease?**

**A:** Those claims were based on a few scientists cherry-picking the data. Other

researchers have looked carefully and have seen [no increase in risk](#).

## ACID-PRODUCING DIETS

**Q: How can diet harm bones?**

**A:** A typical U.S. diet loads the body with acid. When the body metabolizes grains—bread, pasta, tortillas, rice, cereal—or protein, it produces acids. In contrast, metabolizing fruits and vegetables produces potassium bicarbonate and other alkali.

**Q: How does acid lead to bone loss?**

**A:** A very subtle increase in the body's acid levels will trigger the process of bone breakdown, or resorption.

Why would that be useful to the body? Bone is a very large alkali reservoir. So if you dissolve bone, you are allowing that



Country: US (Caucasian) Name/ID: \_\_\_\_\_ About the risk factors

**Questionnaire:**

1. Age (between 40 and 90 years) or Date of Birth  
 Age: 65 Y: \_\_\_\_\_ M: \_\_\_\_\_ D: \_\_\_\_\_  
 Date of Birth: \_\_\_\_\_

2. Sex:  Male  Female

3. Weight (kg): 59

4. Height (cm): 163

5. Previous Fracture:  No  Yes

6. Parent Fractured Hip:  No  Yes

7. Current Smoking:  No  Yes

8. Glucocorticoids:  No  Yes

9. Rheumatoid arthritis:  No  Yes

10. Secondary osteoporosis:  No  Yes

11. Alcohol 3 or more units/day:  No  Yes

12. Femoral neck BMD (g/cm<sup>2</sup>): Select BMD: \_\_\_\_\_  
 Clear Calculate

**BMI: 22.2**  
 The ten year probability of fracture (%)

without BMD	
Major osteoporotic	9.6
Hip Fracture	1.7

## 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](http://sheffield.ac.uk/FRAX) and click on "Calculation Tool.") Many doctors consider prescribing medication if your risk of a major fracture (a spine, arm, or hip fracture) is at least 20 percent—or your risk of a hip fracture, specifically, is at least 3 percent—over the next 10 years.

alkali to enter the bloodstream and neutralize the acid. The unfortunate byproduct is that you lose bone.

### Q: Do studies show that giving people alkali prevents fractures?

**A:** We have no trials measuring fractures, but we've completed [two trials](#) where we gave people potassium or sodium bicarbonate and we saw markers of bone resorption go down. In an older population, that is the closest thing to saying that bone density isn't dropping as it normally would.

### Q: You don't advise people to add bicarbonate to their diet, do you?

**A:** No. I advise people to eat more fruits and vegetables and to cut back on grains. We consume more refined grains and half as much fruits and vegetables as the [Dietary Guidelines for Americans](#) recommends.

We're close to the recommended amount of protein, so I don't advise cutting back, especially for older people.

I also recommend a DASH diet. It's an acid-base balanced diet, and it's favorable for blood pressure, blood cholesterol, and everything else researchers have looked at.

## WHAT ELSE MATTERS

### Q: Should people avoid spinach because it's so high in oxalates?

**A:** No. Spinach is loaded with oxalates, which bind calcium in the gut. Let's say you have some cheese in the same meal as the spinach. The cheese's calcium gets bound by the oxalates when it all mixes in the gut.

But you'd still absorb the calcium in foods you consume at other meals. So you don't need to avoid spinach entirely.

### Q: Why does exercise matter?

**A:** Bone cells are extremely responsive to gravitational force. So exercise in the upright position is critical for bone health. Swimming or biking isn't as good as doing something in a stand-

ing position. And when you exercise with weights, that's even more effective because you're loading the skeleton.

### Q: Is that why astronauts lose bone and muscle over time?


**A:** Yes. It's a huge problem. They lose muscle mass so fast that it's just stunning. To maintain bone and muscle on the International Space Station, astronauts do resistance exercise for 2½ hours a day, much of it on a bike set at high resistance that's attached to the inner wall of the space station.

### Q: Should people with osteoporosis worry about the side effects of drugs like Fosamax?

**A:** For someone with osteoporosis, the chances of having a hip, spine, or other common fracture far exceed potential side effects like an atypical fracture of the thigh bone or osteonecrosis of the jaw.

People who are taking steroids or immune-compromised or cancer patients have a much higher risk of osteonecrosis of the jaw. For others, the risk of those adverse effects is very low compared to the risk of a fracture caused by osteoporosis. 🚫

## The Bottom Line

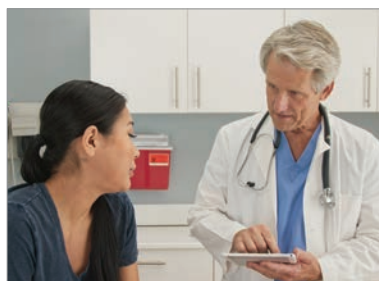
Food or Nutrient	NAH's Daily Target	What You Need to Know
<b>Calcium</b> 	Women: 1,000 mg if 19 to 50 1,200 mg if over 50  Men: 1,000 mg if 19 to 70 1,200 mg if over 70	The targets include what you get from food. Count 250 mg for each serving of dairy you eat (150 mg for Greek yogurt) and 250 mg for the rest of your diet. Then see if you need a supplement.
<b>Vitamin D</b>	Adults up to age 70: 600 IU (15 mcg) Over age 70: 800 IU (20 mcg)	In some studies, older people who took doses equal to 2,000 IU (50 mcg) or more per day had an increased risk of falls.
<b>Protein</b>	A 2,000-calorie DASH diet has roughly 80 to 100 grams of protein.	For more on the DASH diet, go to <a href="http://nutritionaction.com/DASH">nutritionaction.com/DASH</a> .
<b>Fruits &amp; Vegetables</b>	At least 10 servings (a serving is just ½ cup)	There's no better way to neutralize excess acid.
<b>Exercise</b>	30 minutes or more	See "Which Exercise?" p. 5.



# Quick Studies

A snapshot of the latest research on diet, exercise, and more.

## Got Diabetes or Prediabetes?



Anyone aged 35 to 70 with overweight or obesity should get screened for type 2 diabetes or prediabetes every three years, says the U.S. Preventive Services Task Force.

Doctors should consider screening American Indians/Alaska Natives, Blacks, Hispanics/Latinos, and Hawaiians/Pacific Islanders at even younger ages, because those groups have a higher risk, said the task force. Ditto for Asian-Americans in the upper half of the “normal” weight range, anyone who had gestational diabetes, or anyone with polycystic ovarian syndrome or a family history of diabetes.

**What to do:** Get screened...with a blood test for hemoglobin A1c, a fasting blood sugar test, or a glucose tolerance test. The task force had no advice for people over 70, but the American Diabetes Association [recommends](#) screening for everyone age 45 or older and for adults of any age with overweight or obesity and at least one other risk factor (like family history).

[JAMA 326: 701, 736, 744, 2021.](#)

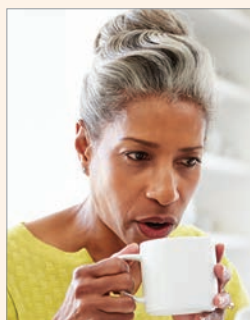
## Coffee & the Heart

In a study that tracked roughly 386,000 people for 4½ years, drinking coffee wasn’t linked to a higher risk of irregular heart rhythms like atrial fibrillation or ventricular tachycardia.

Though the study couldn’t prove that coffee is safe for the heart, the authors accounted for factors like smoking, exercise, and genes that affect caffeine intake.

**What to do:** Relax. It’s unlikely that coffee causes irregular heart rhythms.

[JAMA Intern. Med. 181: 1185, 1193, 2021.](#)



## Less Sodium + More Potassium = Fewer Strokes

Replacing some ordinary salt with potassium salt can cut the risk of stroke.

Researchers randomly assigned roughly 21,000 people living in 600 rural Chinese villages to use either ordinary salt (sodium chloride) or a salt that was 75 percent sodium chloride and 25 percent potassium

chloride. All the participants had a history of stroke or were 60 or older and had poorly controlled blood pressure (140 or higher with drugs or 160 or higher without drugs).

After 4½ years, those using the potassium salt had a 14 percent lower risk of stroke than those who used only the ordinary salt.

**What to do:** Try a potassium-sodium mix like Morton Lite Salt and load up on (potassium-rich) fruits and vegetables. 🍌

[N. Engl. J. Med. 385: 1067, 2021.](#)

## Use It or Lose It



Staying mentally active may delay Alzheimer’s disease.

Researchers followed 1,903 older people—the average age was 80—for seven years.

Of the 457 who were later diagnosed with dementia, those who initially reported more mental activity—like reading, writing

letters, doing puzzles, and playing cards or board games—were diagnosed at an average age of 94, while those who were less mentally active were diagnosed at age 89.

Brain autopsies found no evidence that those who initially reported less mental activity were in the very early stages of dementia.

**What to do:** Though this kind of study can’t prove that mental activity delays dementia, what have you got to lose?

[Neurology 2021. doi:10.1212/WNL.00000000000012388.](#)

# PROBIOTICS?

## 5 things to know about probiotics hype

BY CAITLIN DOW

### 1 The microbiome is a goldmine.

“Beverages offering ‘-biotics’ are on-trend,” [reported](#) *Food & Beverage Insider* in July.

“Interest in digestive health is driving product opportunities,” [says](#) ingredient supply giant Cargill in its pitch to food companies.

Probiotics in “products such as muffins, cheese, chocolates, and sausages [are] projected to bring new market opportunities,” [noted](#) *foodindustryexecutive.com* in 2020.

“Biotics” are clearly good for companies’ bottom line. The question is: Are they actually good for your gut (or anything else)?

“Scientists have not defined what a healthy human microbiome looks like,” says Geoffrey Preidis, a pediatric gastroenterologist at Texas Children’s Hospital. (The microbiome is the ecosystem of bacteria and other microbes that live in your gut.)

So far, experts believe that a healthy gut has many different families of bacteria. But there is no single “best” combination.

“A healthy gut microbiome is constantly changing and adapting,” notes Preidis.

Cereals. Snack bars. Muffins. Juices. Trail Mixes. Teas. Cheeses. “Wellness” shots. Walk down just about any aisle in the supermarket, and you can’t miss the growing number of foods sprouting “probiotics” claims.

Why? Companies want you to believe that a chocolate bar or sausage link or whatever that contains “beneficial” bacteria is healthier than one that doesn’t. Spoiler: It isn’t.

“Everybody’s microbiome is different, and it’s impacted by many factors like age, genetics, diet, exercise habits, environment, and so on. There’s

It’s all very individual.”

And even if you wanted to retool your microbiome, no one knows how to do that. Scientists haven’t figured out how to reliably change the microbiome with diet, exercise, or anything else.

(Exception: fecal transplants may help people with intractable *Clostridioides difficile* infections, but that’s a far cry from getting some random probiotic from your coffee.)

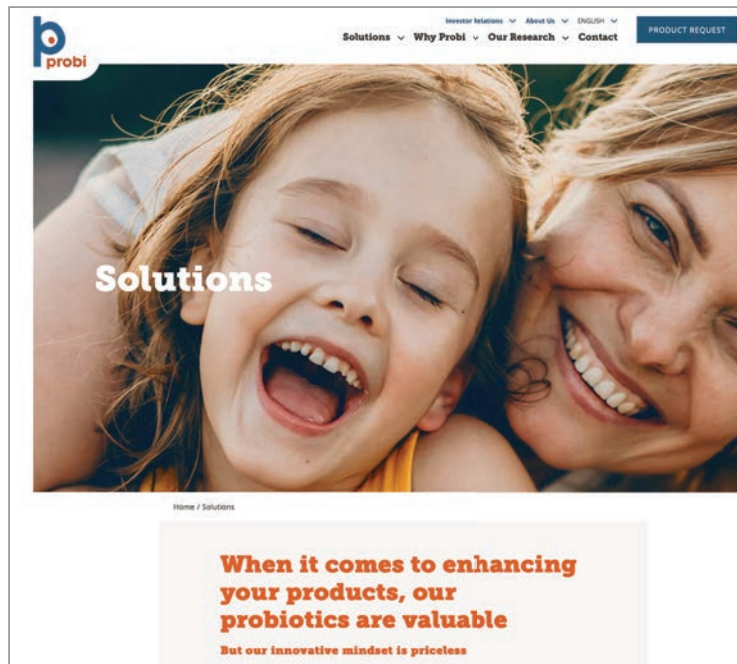
What’s more, it’s not clear what changing the beneficial bacteria in your gut would lead to. Less bloating? Fewer colds? Better mood? Who knows?

So far, the most likely route to a healthy microbiome, say most researchers, is to eat a diet rich in fiber from fruits, vegetables, whole grains, and beans.

Of course, that’s no help to food companies that sell soda, snack bars, cereal, or muffins.

“Whenever companies see an opportunity to boost profits, they use the science, no matter how good it is,” says Marion Nestle, the Paullette Goddard professor emerita of nutrition,

food studies, and public health at New York University.



Probiotic maker Probi promises companies “probiotic solutions that add a unique competitive edge to your product.”

this misconception that you need to make your microbiome look more like X, Y, or Z, and that’s just not the case.



## 2 Probiotics don't do much for your gut.

In 2020, Preidis led a panel of experts who reviewed the evidence on probiotics for the American Gastroenterological Association.<sup>1</sup>

"Our team looked at hundreds of randomized controlled trials that used specific strains of probiotics to treat or prevent eight different gastrointestinal conditions," he notes.

"We found a few, very specific circumstances in which probiotics might be helpful."

For example, the panel found that several particular probiotics may help prevent *Clostridioides difficile* infections (which can cause severe diarrhea) in people taking antibiotics. But even that conclusion was based on low-quality evidence, the experts cautioned.

"The take-home message is that we did not find enough evidence to recommend probiotics in people with Crohn's disease, ulcerative colitis, irritable bowel syndrome, or to treat *C. difficile* infection or acute gastroenteritis," says Preidis.

"The public's enthusiasm for probiotics is just not matched by the evidence," says Pieter Cohen, an associate professor of medicine at Harvard Medical School.

"Don't be swayed by the word 'probiotic' on a food label."

## 3 Marketers pick popular probiotics.

Scan the labels of foods with added probiotics, and you'll see the same handful of strains again and again. But don't assume that there's anything special about them.

"If the same strain of *Lactobacillus* has been used for decades, many manufacturers see that as a great reason to use it, despite the lack of evidence," says Preidis.

Why? Consumers may be more likely to buy a food if they recognize the probiotic's name.

"Other people see the word 'probiotic' on the label and assume all probiotics are the same," Preidis adds. "They don't realize that different bacteria can have very different effects."

In fact, most consumers would probably be shocked by the skimpy evidence for the probiotics most often found in foods.

For example:

### ■ *Bacillus coagulans* GBI-30, 6086 (aka BC30).

"May help support digestive health," says Ocean Spray Probiotic Blend dried fruit.

"May" is right. In a company-funded study, researchers randomly assigned 61 adults who reported having symptoms like gas or distension after eating to take 2 billion colony-forming units (CFU) of BC30 or a placebo every day. After four weeks, the probiotic takers reported slightly less abdominal pain, but no less gas, distension, or bloating.<sup>2</sup>

### ■ *Lactobacillus rhamnosus* GG (LGG).

"Evidence suggests that the LGG probiotic strain helps support the immune system of healthy adults when consumed daily along with a balanced diet and healthy lifestyle," says Babybel Plus+Probiotic cheese.

Good thing Babybel doesn't have



Junk food with probiotics is no healthier than junk food without.



Don't expect Special K's probiotics to help you "start your day right."

to show that evidence, since no good studies have ever tested whether LGG can help prevent colds, the flu, or any other infection in adults. (LGG supplements may lower the risk of diarrhea caused by antibiotics, but possibly only in children.)<sup>3</sup>

### ■ *Bifidobacterium lactis* HN019.

"Start your day right with the perfect blend of sweetness and probiotics," says Kellogg's website about its Special K Probiotics cereal.

Kellogg is careful to keep the claims vague, likely because the evidence is unimpressive. In one study (funded by HN019's manufacturer and co-authored by two of its employees), among 228 adults with constipation, the movement of food through the colon was no faster in those who took 1 billion CFU of *Bifidobacterium lactis* HN019 for four weeks than in the placebo takers.<sup>4</sup>

### ■ *Bifidobacterium lactis* BB-12.

"Gives your gut good stuff with 1 billion BB-12 probiotics," says GoodBelly Probiotics's website about

the company's yogurt.

What a brilliant name!

Does "GoodBelly" imply no gas? No constipation? No diarrhea? If you've got those complaints—or just about any



Do Babybel's probiotics help you fight off colds or the flu? There's no good evidence.



## How We Help Manufacturers

### Passionate Support for Food and Beverage Manufacturers

How does Kerry “help manufacturers”? By urging them to use its BC30 probiotic as a selling point. But the evidence that BC30 does much of anything is weak.

GI problem—it sure sounds like GoodBelly yogurt is worth a try.

If only there were GoodEvidence.

For example, in a company-funded study (co-authored by four company employees), among 1,248 adults who reported just two to four bowel movements a week, those who took either 1 or 10 billion CFU of BB-12 every day for four weeks had no more bowel movements than placebo takers.<sup>5</sup>

“You can’t just add one type of bacteria or another to a packaged food and think that makes the product healthier,” says Nestle. “That’s just wishful thinking. Count me as a skeptic on this one.”

## 4 Probiotics are just the beginning.

Why stop with *probiotics*, when *prebiotics*, *postbiotics*, and *synbiotics* can help your product stand out on the supermarket shelf?

“The whole glossary of terms is hilarious,” says Nestle.

Here’s what they mean:

■ **Probiotics:** Live bacteria, yeasts, or other microorganisms that—at least in theory—offer a health benefit when you consume enough.

The widely used “prebiotic fiber” ingredient inulin (chicory root) can cause gas.

■ **Prebiotics:** Ingredients that feed the beneficial bacteria in the gut...and that provide a health benefit. Most prebiotics are poorly digested carbohydrates like chicory root extract—sometimes called inulin—or other processed fibers.

■ **Synbiotics:** A mix of probiotics and prebiotics.

■ **Postbiotics:** The waste products (like short-chain fatty acids) made by gut microorganisms that could provide a health benefit.

Prebiotics are a win-win for food manufacturers. Take chicory root extract, which is probably added to thousands of foods.

Why?

“It can do a lot of jobs while still enabling you to maintain a clean label,” says manufacturer Cargill.

Among them: “potentially lowering overall calorie count, increasing fiber, enhancing calcium absorption, supporting gut health, reducing fat, adding bulk and increasing sweetness.”

One more job: It lets companies slap on a “contains prebiotics” claim.

Food manufacturers can add chicory root extract to cookies, cakes, pastry fillings, caramels, chocolate, gummies, ice cream, and more, says Cargill. (With prebiotic foods like those, why would people even bother with fruits and vegetables?)



What’s more, chicory root extract “is valued for its fermentation in the body,” says Cargill. Turns out that’s *not* such a win-win. When gut bacteria ferment chicory root, they release gases. Translation: chicory root can cause flatulence.

## 5 The feds are looking the other way.

The Food and Drug Administration is responsible for keeping the food supply safe and policing deceptive food labels. But the FDA has few rules about which foods can make probiotic claims and what they can promise.

“As long as companies stick to the language of the law, they can suggest that a probiotic works,” explains Harvard Medical School’s Pieter Cohen.

“They can’t claim that the probiotic prevents or treats a disease, but they can say that it supports the structure or function of the body.”

In other words, a company can’t say that a probiotic “prevents chronic constipation,” but the law gives it more leeway to say that the probiotic “supports healthy digestion.” To many consumers, the message is the same.

“No one is checking to see if the claims on a label actually hold up in a clinical setting,” says Texas Children’s Hospital’s Geoffrey Preidis. “The FDA isn’t verifying that. And no one has to confirm that the probiotic species or strain or amount that’s listed on the label is actually what’s found inside.”

Many labels don’t even bother to say which species or strain the food contains.

What *should* the FDA do?

“I would recommend starting with a basic definition,” says Cohen. “A live microorganism should only be called a probiotic if it has been shown to be beneficial to human health.”

“The agency could regulate this market if they wanted to,” adds Cohen. But that’s unlikely, given how large—and lucrative—the probiotics business is.

“The horse is out of the barn,” says Nestle. “Caveat emptor.”

<sup>1</sup> *Gastroenterology* 159: 697, 2020.

<sup>2</sup> *BMC Gastroenterol.* 9: 85, 2009.

<sup>3</sup> *Aliment. Pharmacol. Ther.* 42:1149, 2015.

<sup>4</sup> *Gut Microbes* 9: 236, 2018.

<sup>5</sup> *Br. J. Nutr.* 114: 1638, 2015.



# 'Tis the Season...

## 6 fruit & veg winners

BY KATE SHERWOOD & LINDSAY MOYER

Holiday foods (pies, latkes, cookies, etc.) aren't exactly paragons of healthy eating. Sigh. But these fruits and veggies that show up for the season are winners. Here's why...and how to enjoy them. Each recipe serves 4. 🍷

### SWEET POTATOES

It's hard to find a food with more beta-carotene (which our bodies convert to vitamin A) and potassium.

**Tip:** In the mood for a potato?

Think orange. Even without the skin, sweets have twice the fiber of white potatoes.

#### Simple Mashed Sweets

Using a fork, pierce the skin of 2 or 3 sweet potatoes or yams (about 2 lbs.) in a few places. Microwave (or bake in a 375°F oven for 45–60 minutes) until very tender. Scoop out the flesh and mash with a potato masher or purée in a food processor. Season with up to ¼ tsp. salt.



### POMEGRANATES

They're fiber-rich sparkling gems. Toss the ruby seeds with yogurt, salads, cereal, or overnight oats (see back cover). The folate and vitamins C and K are a bonus.

**Tip:** Pluck the seeds from your pomegranate in a bowlful of water (google it) to stop them from flying or spraying juice.

#### Sparkling Quinoa Salad

Whisk together 2 Tbs. extra-virgin olive oil, 1 Tbs. red wine vinegar, and ¼ tsp. salt. Toss with 2 cups cooked, cooled quinoa, ¼ cup chopped mint and/or parsley leaves, 2 peeled and sliced clementines, and ½ cup pomegranate seeds.

### BRUSSELS SPROUTS

Hello, vitamins C and K, fiber, lutein, potassium, folate, and magnesium! Brussels are hardworking little cabbage lookalikes.

**Tip:** Shred the Brussels sprouts for this recipe in a food processor—use the grating or shredding disk—or grab a bag of pre-shredded (aka “shaved”) sprouts.

#### Lemon Parmesan Brussels

Stir-fry 10 oz. (4 cups) shredded Brussels sprouts in 2 Tbs. extra-virgin olive oil until crisp-tender and browned in places, 2–3 minutes. Season with ½ tsp. salt, 1 tsp. lemon zest, and ¼ cup shaved parmesan.



### PUMPKINS

Forget sugary pumpkin spice lattes. Eat the real thing...and pile on the nutrients (see sweet potatoes).

**Tip:** Smaller, more flavorful sugar or pie pumpkins are best for roasting. (No pumpkins around? Try butternut squash.) Use canned pumpkin purée in sauces and soups.

#### Roasted Spiced Pumpkin

Halve 1 small pumpkin, remove the seeds, and cut into wedges. Toss with 2 Tbs. safflower or sunflower oil, 2 tsp. curry powder, and ¼ tsp. salt. Roast in a 400°F oven until tender, 20–30 minutes. Add any leftovers to salads or grains.

### PERSIMMONS

Their vibrant orange hue is a clue: There's that vitamin A again...plus C and fiber.

**Tip:** Acorn-shaped Hachiya persimmons (front) taste astringent until they're very ripe—that is, until they feel super soft to the touch. Save 'em for snacking. Use firmer, rounder Fuyus (back) for slicing into salads.

#### Persimmon & Pecan Salad

Whisk together 1 Tbs. white balsamic or wine vinegar, ½ tsp. honey, ¼ tsp. salt, and 1 Tbs. extra-virgin olive oil. Toss with 5 oz. baby arugula or kale and 1 firm-ripe Fuyu persimmon, cut into thin wedges. Top with ¼ cup toasted pecans or walnuts and (optional) ¼ cup feta or goat cheese.



### RUTABAGAS & TURNIPS

Their nutrients don't measure up to, say, kale, but when you want a root veg on the lighter side, try these guys. They've got less than half the calories of white potatoes and a distinctive tang (turnips) or a touch of sweet (rutabagas).

**Tip:** Try using a serrated vegetable peeler on their thick skin.

#### Roasted Roots & Fruits

Peel and chop into chunks 1 lb. rutabagas and/or turnips and 2 apples. Toss with 2 Tbs. extra-virgin olive oil and ¼ tsp. salt. Roast in a 425°F oven until lightly browned and tender, 20–30 minutes, stirring halfway.

To see nutrition info for the recipes, go to [nutritionaction.com/season](https://nutritionaction.com/season).



# The Healthy Cook

## Tofu Time



Want to see dinner come together in a flash? While the tofu and squash are broiling, stir-fry a heap of greens like bok choy, gai lan, or broccolini. Ta-da! 🍴

### Miso-Glazed Tofu & Squash

- |   |   |
|---|---|
| 1 14 oz. package firm or extra-firm tofu, drained | 1 Tbs. toasted sesame oil                                 |
| 2 Tbs. miso paste                                 | 1 Tbs. peanut oil   |
| 2 Tbs. sake or sherry                             | 2 delicata or 1 small butternut squash, seeded and sliced |
| 1 Tbs. reduced-sodium soy sauce                   | 2 scallions, thinly sliced                                |
| 1 Tbs. grated ginger                              | 1 Tbs. sesame seeds                                       |
| 1 Tbs. brown sugar                                |   |

1. Cut the tofu in half lengthwise, then crosswise into  $\frac{3}{4}$ -inch-thick squares. Blot dry.
2. Make the miso sauce: In a bowl, whisk together the miso, sake, soy sauce, ginger, sugar, and sesame oil.
3. In a large nonstick pan over medium heat, heat the peanut oil until shimmering. Sauté the tofu until browned on 1 side, 3–5 minutes. Transfer to a large rimmed baking pan.
4. In the same nonstick pan, add the squash and  $\frac{1}{4}$  cup water. Steam until the squash is tender and all the water has cooked off, 3–7 minutes, adding more water if needed. Transfer to the baking pan.
5. Spoon 1 tsp. of the miso sauce over each piece of tofu and the remaining sauce over the squash. Broil on high until the sauce is bubbly and charred in spots, 2–5 minutes. Top with the scallions and sesame seeds.



SERVES 4

PER SERVING (2 cups): calories 250 | total fat 12 g | sat fat 2 g | carbs 23 g | fiber 5 g | total sugar 9 g | added sugar 3 g | protein 13 g | sodium 430 mg



Photo: Kate Sherwood/CSPI.

**For more  
tofu recipes**

Go to [nutritionaction.com/tofu](https://nutritionaction.com/tofu)  
for **Tofu Cashew Stir-Fry**  
and **Tofu Korma**

**For cooking  
advice**

Write to Chef Kate at  
[healthycook@cspinet.org](mailto:healthycook@cspinet.org)



# BYE BYE, BEEF!

Our guide to plant-based meats

BY LINDSAY MOYER & KAAMILAH MITCHELL

**B**eyond. Impossible. Ultimate. Incogmeato. The latest crop of plant-based meats aren't just courting vegetarians. A plant-rich diet can help curb the greenhouse gases that fuel climate change...and that's good for everyone's health. Here's our guide to plant-based meats. Turn the page for our favorites.

**1 Pay attention to protein.** Typically, your plant meat is replacing beef, pork, chicken, turkey, or seafood. Look for our Best Bites. They have at least 10 grams of protein per serving (5 grams for breakfast sausages and bacon, which have smaller servings). Getting your protein elsewhere? Honorable Mentions have no protein minimum.

**2 Think of your heart.** Most vegetable oils like sunflower and canola are high in healthy *unsaturated* fats. Too bad many newer plant meats are drenched in coconut or palm oil. Both are richer in saturated fats. We capped Best Bites and Honorable Mentions at 2½ grams of sat fat per serving (1 gram for breakfast meats).

**3 Spare the sodium.** It's tough to make tasty plant meat without a little help from salt. So Best Bites and Honorable Mentions aren't exactly *low* in sodium. But our limits—no more than 400 milligrams (250 mg for breakfast meats)—weed out the worst offenders. That's one more reason to load the rest of your plate with vegetables. Their potassium helps lower blood pressure.

**4 Heads up for allergens.** If you need to avoid gluten, skip wheat meats like Field Roast and No Evil. Got peanut allergies? Mind your peas. "Peas are legumes," notes Beyond Meat. "People with severe allergies to

legumes like peanuts should be cautious when introducing pea protein into their diet because of the possibility of a pea allergy." (Beyond contains pea protein.)

**5 Check for "vegan."** If you want to skip not just meat but dairy and eggs, look for "vegan" on the label. "Veggie" isn't enough, since some contain egg whites or cheese.



No worse for you than beef...and better for the planet.

**6 Watch Quorn.** Some people report reactions—nausea, vomiting, diarrhea, and occasionally hives or difficulty breathing—after eating Quorn. Products made from Quorn's "mycoprotein" (a processed fungi) have been sold in the U.S. since 2002. With so many other options, we didn't consider the brand for Best Bites or Honorable Mentions.

**7 Shop around.** We found plant-based meats sold alongside ground beef, chicken tenders, fresh vegetables, tofu, frozen foods, you name it. Most stores don't stock them all in one place.

Tip: Check the label to see if you can thaw that frozen package in the fridge (so it cooks faster) or toss uncooked leftovers in the freezer.

**8 Hold on to your wallet.** Pound for pound, Beyond and Impossible can cost roughly twice as much as beef. Buying them "ground" instead of in 4 oz. patties saves a couple of bucks. And with ground, you can make smaller patties, which lowers the sat fat per serving.

Or mix 4 oz. of minced raw mushrooms into a 16 oz. pack of ground Beyond Meat. That stretches it to five or six burgers. (To keep the delicate patties intact, freeze them for 10 to 15 minutes before cooking them on the stovetop, not the grill.)

**9 Keep in mind that Impossible & Beyond aren't beans.** Alas, the most meat-like plant meats also come closest to beef healthwise (see p. 14). You're better off eating largely unprocessed beans, nuts, tofu (see p. 12), or tempeh.

**10 Hack the menu.** At many restaurants,

hefty white-flour buns, sauces, and (sometimes) cheese or fries push Beyond and Impossible burgers into 1,000-calorie territory.

The Cheesecake Factory's Impossible Burger, for example, hits 930 calories and nearly a full day's worth of sodium (2,090 mg)...before you tack on a side of salad, fries (530 calories), etc. The chain's SkinnyLicious version with a side salad has 560 calories and less sodium (1,520 mg).

No light menu? Go cheeseless. To cut refined carbs, get a lettuce wrap instead of a bun and a salad instead of fries.





## Veggie Burgers 2.0

Who makes a better-for-you burger: Beyond Meat or Impossible?

The short answer: Beyond.

■ **Beyond vs. Impossible.** Both have too much saturated fat (from coconut oil) for Best Bites, though the **Beyond Burger** has been

slowly dialing it down. A 4 oz. patty has 5 grams of sat fat—less than the 7 grams in a McDonald's Quarter Pounder beef patty and the 8 grams in Impossible.

Like beef, the **Impossible Burger** contains heme (but from a non-meat source). Heme may help form carcinogenic N-nitroso compounds in the gut, which could help explain why red-meat eaters have a higher risk of colorectal cancer. In contrast, Beyond Burgers are heme-free.

■ **Better than Beyond.** Some Beyond copycats have replaced Beyond's coconut oil with healthier fats. Try **Dr. Praeger's Perfect Burger** or **Whole Foods 365 Plant-Based Patties**. Both Best Bites are made with pea protein (like Beyond), but they use sunflower oil (Dr. Praeger) or canola oil (Whole Foods). And both are surprisingly perfect tastewise.

■ **Turkey burgers.** If Beyond made a turkey burger, it would taste like **Trader Joe's Turkeyless Protein Patties**. They're made with sunflower oil, have an impressive 23 grams of protein, and miss a Best Bite by just 20 mg of sodium.

■ **Veggie burgers 1.0.** Don't forget the old freezer-case standbys. **MorningStar Prime Grillers** might not fool a meat eater, but they're delicious. For a vegan version, try **Whole Foods 365 Traditional Plant-Based Burgers**.

Couldn't care less about mimicking meat? Yummy **MorningStar Mediterranean Chickpea, Spicy Black Bean**, and **Garden Veggie Burgers** offer 9 to 11 grams of protein.



## Solid Ground

Plenty of plant-based grounds or crumbles

can make a fine beefless Bolognese, but **Whole Foods 365 Plant-Based Ground** leads the pack. It's beefy-tasting and coconut-oil-free. Use it to whip up some veggie meatloaf, meatballs, you name it. Short on time? Juicy, savory **Gardein Classic Meatless Meatballs** go straight from freezer to skillet.



## Fakin' Bacon?

There's a good reason to replace processed meats like bacon and sausage: They raise the risk of colorectal cancer.

■ **Breakfast sausage.** Like the company's burger, **Impossible Sausage** is made with plant-based heme. Why go there, when (heme-free) Best Bite **MorningStar Original Sausage Patties** hit the spot?



## Links to Love

Planning a cook-out?

■ **Hot dogs. Worthington**

**Deli Dogs** have it all: classic hot dog taste *and* texture. Too bad they're not more widely available (check [eatworthington.com](http://eatworthington.com)). Runner-up: **Field Roast Signature Stadium Dogs**. Mmm.

■ **Dinner sausage.** Most brands are too salty for a Best Bite. (So are most chicken or pork sausages.) But **Sweet Earth** adds potassium chloride, which cuts sodium, not flavor. Its **Chorizo-Style** sausage would add a welcome jolt of heat and spice to rice & beans with peppers and onions or white beans with carrots, tomatoes, and garlic.

## Playing Chicken

You like breaded? Unbreaded? We've got you covered.

■ **Breaded patties, tenders, etc.** It's hard to go wrong. **Gardein, Whole Foods, MorningStar**—you name it, we liked it. Since most "chick'n" is breaded in white flour, add a salad or side of veggies.

■ **Unbreaded.** We found two clear winners. Sauté pleasantly chewy **No Evil Comrade Cluck** shreds in oil until lightly browned. Or treat softer, gluten-free **Gardein Chick'n**

**Scallopini** like a chicken breast: Sauté and eat as is or with your favorite topping. Or slice it up for salad or fajitas.



■ **Bacon.** Too bad ultra-crispy **MorningStar Veggie Bacon Strips** use risky food dyes. Otherwise, they'd get an Honorable Mention.

Don't expect Best Bite **Sweet Earth Benevolent Bacon** to crisp up quite like bacon, but it does come with flavor to spare. A few strips would be right at home on your breakfast sandwich, BLT, or Cobb salad. Ditto for a tempeh (fermented soy) "bacon" like **Tofurky Smoky Maple Bacon**. 🍌





# Pass the Plants

**Best Bites** (✓✓) have at least 10 grams of protein. **Honorable Mentions** (✓) have no protein minimum. Both have no more than 400 milligrams of sodium and 2.5 grams of saturated fat, and are free of food dyes. Best Bites for breakfast meats have at least 5 grams of protein and no more than 250 mg of sodium and 1 gram of sat fat. Within each category, products are ranked from least to most sat fat, then sodium, then most to least protein, then least to most calories. We adjusted some serving sizes for consistency, so numbers may not match packages.

	Calories	Sat Fat (g)	Sodium (mg)	Protein (g)
<b>Burgers</b> (weight of 1 patty)				
✓✓ Whole Foods 365 Plant-Based—Smoky & Spicy or Traditional (2.5 oz.) <sup>1</sup>	90	0	320	11
✓✓ Gardein Plant-Based Be'f (3 oz.)	130	0	340	14
✓ Gardein Garden Veggie (3 oz.)	110	0	370	4
✓ Gardein Chipotle Black Bean (3 oz.)	150	0	380	5
✓ Dr. Praeger's—Asian, Black Bean Quinoa, California, Heirloom Bean, Korean, Mushroom Risotto, or Tex Mex (2.5 oz.) <sup>1</sup>	140	0.5	260	4
✓✓ MorningStar Mediterranean Chickpea (2.4 oz.)	120	0.5	280	11
✓ Amy's Organic Black Bean (2.5 oz.)	130	0.5	300	6
✓ MorningStar Spicy Black Bean (2.4 oz.)	110	0.5	320	9
✓✓ MorningStar Original Grillers (2.3 oz.)	130	0.5	390	16
✓✓ MorningStar Garden Veggie (2.4 oz.)	110	0.5	390	11
Gardein Ultimate Black Bean (4 oz.)	170	0.5	430	9
Amy's Organic California (2.5 oz.)	150	0.5	550	6
✓✓ Dr. Praeger's Kale (2.5 oz.)	150	1	260	10
✓✓ Dr. Praeger's Super Greens (2.5 oz.)	160	1	260	10
✓✓ Whole Foods 365 Plant-Based Patties (4 oz.)	210	1	350	20
✓✓ MorningStar Prime Grillers (2.5 oz.)	150	1	400	16
✓✓ MorningStar Tomato Basil Pizza (2.4 oz.)	120	1.5	330	11
Trader Joe's Turkeyless (4 oz.)	240	1.5	420	23
✓✓ Dr. Praeger's Perfect Burger (4 oz.)	230	2	380	20
MorningStar Incogmeato Patties (4.2 oz.)	250	5	370	21
Beyond Meat Beyond Burger (4 oz.)	230	5	390	20
Lightlife Plant-Based (4 oz.)	250	5	390	20
Beyond Meat Cookout Classic (4 oz.)	290	7	340	18
Impossible Burger Patties (4 oz.)	240	8	370	19
Gardein Ultimate Plant-Based (4 oz.)	210	9	450	20
<b>Chick'n Patties</b> (weight of 1 patty)				
✓✓ Gardein Chick'n Scallopini (2.5 oz.)	110	0	360	11
✓✓ Gardein Crispy Chick'n (3.1 oz.)	150	0.5	350	12
✓✓ Whole Foods 365 Chicken-Style (2.5 oz.)	130	0.5	380	11
✓ MorningStar Buffalo Chik (2.5 oz.)	170	1	260	9
✓ MorningStar Original Chik (2.5 oz.)	160	1	280	9
<b>Strips, Tenders, etc.</b> (No. closest to 3 oz.)				
✓✓ Gardein Seven Grain Crispy Tenders (3)	140	0	350	11
✓✓ No Evil Comrade Cluck (3 oz. shreds)	180	0	400	30
✓ Gardein Mini Cr'b Cakes (3)	140	0.5	330	9
✓✓ Gardein Be'f Tips (8)	140	0.5	350	14
✓✓ Gardein Chick'n Strips (6)	130	0.5	370	15
✓✓ MorningStar Chik'n Nuggets (4)	190	1	300	13

	Calories	Sat Fat (g)	Sodium (mg)	Protein (g)
✓✓ MorningStar Incogmeato Chik'n Nuggets (4)	180	1	310	12
✓ Gardein F'sh Filets (2)	200	1	360	9
Gardein Ultimate Plant-Based Chick'n Tenders (2)	220	1	560	15
✓✓ Dr. Praeger's Classic Chick'n Tenders (3)	200	1.5	400	15
<b>Meatballs</b> (No. closest to 3 oz.)				
✓✓ Gardein Classic Meatless (3)	150	0.5	380	14
Trader Joe's Meatless (6)	150	0.5	490	15
✓✓ MorningStar (5)	150	1	360	15
Whole Foods 365 Plant-Based (6)	170	1	450	13
Beyond Meat Italian Style (4)	230	6	400	15
<b>Grounds &amp; Crumbles</b> (3 oz.)				
✓✓ Beyond Meat Crumbles <sup>1</sup>	140	0	190	22
✓✓ Lightlife Smart Ground—Original or Mexican	110	0	260	15
✓✓ MorningStar Chipotle Black Bean	110	0	310	12
✓✓ MorningStar Grillers Crumbles	110	0	320	15
✓✓ Gardein Ground Be'f	120	0	360	18
✓✓ Whole Foods 365 Plant-Based Ground	160	1	260	15
✓✓ Dr. Praeger's Perfect Ground	170	1.5	290	15
MorningStar Incogmeato Ground	200	3	300	15
Beyond Meat Plant-Based Ground	170	4	290	15
Impossible Burger, ground	180	6	280	14
<b>Dinner Sausage</b> (weight of 1 link)				
✓✓ Sweet Earth—Chik'n Apple, Chorizo-Style, or Ginger-Scallion (3.2 oz.) <sup>1</sup>	170	1	380	14
✓✓ MorningStar Incogmeato Original Bratwurst (2.8 oz.)	160	1.5	370	14
Beyond Meat Beyond Sausage (2.7 oz.) <sup>1</sup>	190	5	500	16
<b>Hot Dogs</b> (weight of 1 link)				
✓ Lightlife Smart Dogs (1.5 oz.)	50	0	260	7
MorningStar Veggie Dogs (1.4 oz.) <sup>D</sup>	50	0	430	7
✓ Field Roast Signature Stadium (1.7 oz.)	110	0.5	310	5
✓ Worthington Deli Dog (1.3 oz.)	80	1	390	5
Field Roast Classic Smoked (2.7 oz.)	190	2.5	540	20
<b>Breakfast Sausage</b> (weight of 1 patty or 2 links)				
✓✓ MorningStar Patties (1.3 oz.) <sup>1</sup>	80	0	220	9
✓✓ Whole Foods 365 Patties (1.3 oz.)	40	0	230	6
✓✓ Lightlife Breakfast Patties (1 oz.)	90	0.5	130	6
✓✓ Lightlife Plant-Based Links (1.1 oz.)	110	0.5	150	7
✓✓ MorningStar Incogmeato Links (1.6 oz.) <sup>1</sup>	100	1	250	6
Impossible Sausage Savory (1 oz. ground)	70	2	190	4
Beyond Meat Patties (1 oz.) <sup>1</sup>	90	2.5	135	6
<b>Bacon</b> (weight of 2 strips)				
✓✓ Sweet Earth Benevolent Bacon (1.4 oz.)	90	0	200	8
✓ Tofurky Smoky Maple Bacon (1 oz.)	50	0.5	125	4
MorningStar (0.6 oz.) <sup>D</sup>	60	0.5	220	2

✓✓ Best Bite. ✓ Honorable Mention. <sup>1</sup>Average of the entire line or the varieties listed. <sup>D</sup>Contains food dyes.

**Daily Values (DV): Saturated Fat:** 20 grams. **Sodium:** 2,300 milligrams. **Daily Protein Target:** 85 grams.

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



## FOOD FIND

### Tickled Pink



Fuji, Empire, Gala, Granny Smith, Honeycrisp. Like most apples, they're at their peak somewhere between July and September.

But there's a lady in waiting...a Pink Lady, to be exact. In fact, the

Pink Lady harvest is getting started right around now.

"Brisk, autumn nights help bring out its bright, namesake coloring," [says](#) the US Apple Association.

And its dazzling flavor. More tart and crisp than, say, Delicious apples, Pink Ladies make great snackers. (Try a wedge with a thin slice of cheddar.) They can also perk up a green salad, a bowl of oatmeal (see "Dish of the Month"), or a pan of roasted root vegetables.

Of course, Galas, Honeycrisps, Fujis, and friends can do all that, too. Thanks to cold storage, they stay fresh for months on end.

Whatever the variety, expect a typical apple to supply roughly 10 percent of a day's vitamin C plus 4 grams of fiber, all for just 90-or-so calories. (Don't skip the skin: It has about half the fruit's fiber.)

While you're at it, also look for:

- **Jazz.** Crisp and tangy-sweet. Mmm.
- **SweeTango.** It got its start in 2009 after growers crossed Zestar apples with Honeycrisps. The apple doesn't fall far from the tree, so you know it's sweet.
- **Lucy.** These newbies are also part Honeycrisp. But both the (red-skinned) Lucy Rose and (gold-skinned) Lucy Glo varieties have naturally *red* flesh. Surprise!

So many apples, so little time. What's that saying about an apple a day?

[USAApple.org](http://USAApple.org)

Photos: Elena Schweitzer/stock.adobe.com (top left), Duncan Hines (top right), Kate Sherwood/CSPI (bottom).

## FOOD FAIL



### Epic Fail

"You've had chocolate chip cookies, but you've never had them like this!" gushes the **Duncan Hines** [website](#) about the company's **Epic Cookie Dough Cookie Kit**.

Gosh. Why did it take so long for someone to think of stuffing cookies with "cookie dough flavored filling"—think frosting laced with flour and chocolate chips—plus sprinkles?

Any old chocolate chip cookie has the usual flour, sugar, butter, and chocolate. But Duncan's kit tosses in palm oil, titanium dioxide, polysorbate 60, cellulose gum, natural and artificial flavors, and caramel color. Yum.

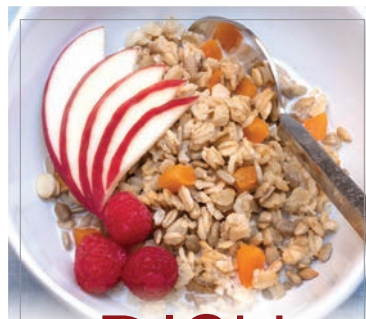
And those sprinkles! What's a cookie without carcinogenic food dyes that may worsen behavior problems in sensitive kids?

Best of all, the instructions featured on the box with big, eye-catching photos are for "larger cookies"—six cookie sandwiches per box. But most people won't notice that the numbers on the Nutrition Facts label are for "smaller cookies"—12 cookie sandwiches per box. (Instructions for *them* appear only in small print, sans photos.)

So you'd have to *double* those Nutrition Facts to see that each large cookie sandwich packs 540 calories, 54 grams (13 teaspoons) of added sugar, and 12 grams of saturated fat. You might as well eat 10 Chips Ahoy! cookies.

Deceptive? Duncan doesn't seem to care.

[duncanhines.com](http://duncanhines.com)



## DISH of the month

### Overnight Oats

Combine 1 cup rolled oats, 1 cup water or milk, ¼ cup diced dried fruit, and ¼ cup sunflower seeds. Refrigerate overnight. Serve hot or cold with fresh fruit.

Serves 2.

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