



You Say Tomato...

Scoring Veggies

BY BONNIE LIEBMAN & JAYNE HURLEY

How do you rank vegetables? It's a bit like ranking the cuteness of the three-year-olds in a preschool class. Not easy.

We tallied up the vitamins, minerals, and fiber in a (modest) serving of 73 vegetables and let the scores fall where they may. As expected, the leafy greens and dark orange veggies led the pack. But that's no reason to leave the mushrooms out of your sauté or the cucumber out of your salad. When it comes to a 20-calorie vegetable, you can double the serving—and the score—without any downside.

Here's our ranking of vegetables...and 10 things you may not know about them.

The information for this article was compiled by Emily Caras.

1. They're a calorie bargain. Vegetables are mostly water. That's why most range from 10 to 50 calories per serving. Sure, there are exceptions (like potatoes, avocado, and lima beans). But you can eat an entire bell pepper, a cup of grape tomatoes, or half a sliced cucumber, and add no more than 20 to 60 calories. And you won't find a more filling snack.

TOP 5 VITAMIN C

Red bell pepper
Broccoli
Green bell pepper
Green chili pepper
Brussels sprouts



To lose—or not gain—weight, the key is to eat veggies instead of (not on top of) other foods, and to go easy on the salad dressings, sauces, butter, or sauté oils.

2. They've got more than just vitamin C. Everyone knows that vegetables have vitamins. But if that leads you to think that an energy bar or a bottle of Vitaminwater or a vitamin pill can take the place of a bowl of broccoli, think again.

Vegetables not only supply vitamins that are often added to pills or foods (like A, C, and folate), they're also rich in potassium, lutein, magnesium, vitamin K, fiber, and

TOP 5 FOLATE

Spinach
Asparagus
Curly endive
Romaine lettuce
Turnip greens



other nutrients that aren't so easy to find. And vegetables have other phytochemicals that may turn out to protect your health.

3. They may protect your heart.

People who eat more vegetables have a lower risk of heart disease. In a meta-analysis of 12 studies that tracked roughly 278,000 people for 11 years, those who averaged more than three servings of vegetables a day had a 16 percent lower risk of heart disease than those who averaged less than 1.7 servings a day.¹

Maybe that's because healthier people eat more vegetables. But it's also possible that potassium, carotenoids, or something else in kale or spinach or other veggies makes a difference. For example, feeding people more fruits and vegetables makes their arteries more flexible.²

TOP 5 FIBER

Artichoke
Peas
Avocado
Lima beans
Jicama



4. They may lower your risk of stroke.

In 2006, British researchers examined eight studies that monitored more than 235,000 people for an average of 13 years. Those who ate more than five servings of vegetables a day had a 19 percent lower risk of stroke than those who ate less than three servings.³

Of course, you'd expect as much. High blood pressure boosts your risk of stroke more than anything else, and a healthy

diet rich in vegetables (and fruits) lowered blood pressure in the Dietary Approaches to Stop Hypertension (DASH) and Omni-Heart studies.^{4,5}

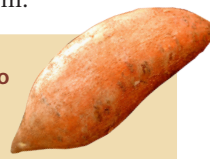
In fact, a 2002 study found a four-point drop in blood pressure among people who ate just 1½ more servings of vegetables and fruit a day.⁶

5. They're potassium depots.

Potassium explains, at least in part, why vegetables help lower blood pressure and the risk of stroke. And most Americans don't get enough potassium.

TOP 5 POTASSIUM

Sweet potato
Lima beans
Spinach
Swiss chard
Portobello mushrooms



Experts now recommend 4,700 milligrams a day. That'll take more than a banana (420 mg). In fact, of the five vegetables that have at least 10 percent of a day's potassium, only two (spinach and Swiss chard) are low in calories.

The other three (lima beans, white potatoes, and sweet potatoes) have roughly 100 calories per serving. And those are *small* potatoes. Expect about 200 calories in a typical white or sweet potato. (We left white potatoes out of our Top 5 list because Americans already eat too many fries and potato chips.)

Solution: double those servings of broccoli, cauliflower, mushrooms, zucchini, and other veggies that have 5 percent of a day's potassium but only around 20 calories. And eat more vegetables (and fruit), period. After all, potassium can counter the blood-pressure-raising sodium that you consume. Doctor's orders: Eat your portobellos!

6. They may shield your eyes.

Spinach, kale, broccoli, collards. Green vegetables are rich in lutein and its cousin zeaxanthin, which are the main carotenoids in the lens of the eye.

In a study of roughly 35,000 postmenopausal women, those who consumed the

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most lutein and zeaxanthin had an 18 percent lower risk of cataracts over the next 10 years.⁷ It would take more evidence to nail down whether lutein—and not something else about vegetable eaters—protects the eye. But why wait when that bowl of garlicky sautéed spinach beckons?

It's not just the lens. The retina is also loaded with lutein. The Age-Related Eye Disease Study 2 (AREDS2) is testing supplements that contain lutein (along with vitamins and fish oil) on macular



degeneration. The macula, which is the center of the retina, is responsible for detailed vision. Macular degeneration is the most common cause of blindness in older people.

7. They may not prevent cancer.

It's a disappointment. The largest studies have found no lower risk of cancer in people who eat more vegetables and fruit.⁸ (Veggies would help lower your cancer risk if they helped you stay trim, but the studies looked for protection beyond any impact on weight.)

Still, there are a few hints that some vegetables might protect against some cancers. For example, a recent study found a 13 percent lower risk of estrogen-negative breast cancers—tumors that don't



respond to estrogen—among women who eat more red, yellow, orange, and dark green fruits and vegetables.⁹

But overall, don't expect that salad or spinach to ward off cancer.

8. Greens may prevent diabetes.

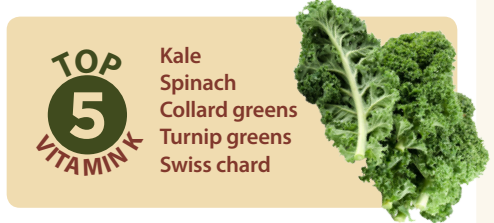
Studies don't find a lower risk of type 2 diabetes in people who eat more vegetables. (Those studies compare people of the same weight, though. If veggies helped keep you



lean, they would lower your risk.)

But eating more of some kinds of vegetables may make a difference. In a meta-analysis of six studies, for example, people who ate the most green leafy vegetables (at least 1½ servings a day) had a 14 percent lower risk of diabetes than those who ate the least (one serving every five days).¹⁰ That could be because green leafies are so rich in magnesium, which may keep insulin working...or because people who eat them do something else to lower their risk.

9. Don't fear vitamin K. Green leafy vegetables—like kale, spinach, and collards—are the places to get vitamin K, which is best known for its role in helping blood clot. But that has led many people



who take Coumadin or other blood thinners to steer clear of leafy greens.

In fact, Coumadin takers just have to avoid huge swings in their intake of vitamin K from one day to another. If you typically have a spinach or green leafy salad with lunch or dinner, your doctor can adjust your dose of medicine to account for the extra vitamin K.

10. They're delish. Veggies are used to being the butt of jokes. But the joke's on people who miss out on broccoli in garlic sauce, roasted Brussels sprouts, sautéed spinach, and braised asparagus tips. Mmm. 🍴

¹ *J. Hum. Hypertens.* 21: 717, 2007.
² *Circulation* 119: 2153, 2009.
³ *Lancet* 367: 320, 2006.
⁴ *N. Engl. J. Med.* 336: 1117, 1997.
⁵ *JAMA* 294: 2455, 2005.
⁶ *Lancet* 359: 1969, 2002.
⁷ *Arch. Ophthalmol.* 126: 102, 2008.
⁸ *Brit. J. Cancer* 104: 6, 2011.
⁹ *Am. J. Clin. Nutr.* 95: 713, 2012.
¹⁰ *BMJ* 341: c4229, 2010.

Mushroom Math

We calculated a score for each vegetable by adding up its percentage of: (1) the Recommended Dietary Allowance (RDA) or Adequate Intake (AI) for seven nutrients, (2) the Daily Value (DV) for fiber, and (3) the daily targets that we've devised for lutein (plus zeaxanthin) and carotenoids other than lutein.

For example, half a cup of cooked spinach has 320 percent of our target for lutein and 178 percent of our target for other carotenoids, 8 percent of the DV for fiber, plus 350 percent of the RDA (or AI) for vitamin K, 31 percent for folate, 18 percent for magnesium, 17 percent for iron, 10 percent for calcium, 9 percent for vitamin C, and 8 percent for potassium. That gives it a score of 949 points.

We counted calcium, iron, folate, and magnesium in our scores but they're not in the chart. Ditto for carotenoids other than lutein, which include alpha-carotene, beta-carotene, and lycopene. We included lutein in the chart because of growing evidence that it may help prevent cataracts. There is no RDA or AI for lutein, so we set our own (3,000 micrograms) based on studies on cataracts. (The RDAs and AIs—daily targets set by the Institute of Medicine—vary slightly by age and gender. We picked the highest level for adults, excluding pregnant and lactating women.)

Key

- ⊕ Contains 100% or more of the Recommended Dietary Allowance (RDA)
- ⊕ Contains 20%-99% of the RDA
- ⊕ Contains 15%-19% of the RDA
- ⊕ Contains 10%-14% of the RDA
- ⊕ Contains 5%-9% of the RDA
- ⊕ Contains less than 5% of the RDA

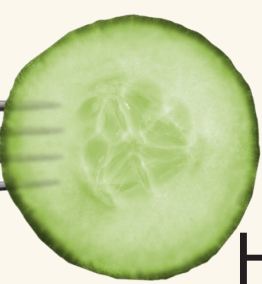
Recommended Dietary Allowances (RDAs)

Calcium: 1,200 mg
Fiber: 25 g¹
Folate: 400 mcg
Iron: 18 mg
Lutein: 3,000 mcg²
Magnesium: 420 mg

Other carotenoids: 3,000 mcg²
Potassium: 4,700 mg³
Vitamin C: 90 mg
Vitamin K: 120 mcg³

¹ Daily Value (DV). ² Level based on available research.

³ Adequate Intake (AI). (We used AIs for nutrients that don't have RDAs.)



Mind Your Peas and Cukes

(3 oz. —about ½ cup—cooked, unless noted)

How can you fit in the recommended 11 servings a day of vegetables and fruits? It's easy. A serving is usually only half a cup, so just eat two—or three—servings at a time. Don't like our Superstars? Ignore the rankings and eat your faves.

Superstars (Score = 150+)

	Score	Calories	Vitamin K	Lutein	Vitamin C	Potassium	Fiber
Kale	1,392	20	+	+	+	+	+
Spinach, raw (2 cups)	968	20	+	+	+	+	+
Spinach	949	20	+	+	+	+	+
Collard greens	737	20	+	+	+	+	+
Swiss chard	717	20	+	+	+	+	+
Turnip greens	714	20	+	+	+	+	+
Pumpkin, canned	577	40	+	+	+	+	+
Mustard greens	550	10	+	+	+	+	+
Sweet potato, with skin (1 small)	492	100	+	+	+	+	+
Radicchio, raw (2 cups)	467	20	+	+	+	+	+
Carrots	399	30	+	+	+	+	+
Broccoli rabe (4 stalks)	392	30	+	+	+	+	+
Romaine lettuce, raw (2 cups)	340	10	+	+	+	+	+
Baby carrots, raw (8)	335	30	+	+	+	+	+
Red leaf lettuce, raw (2 cups)	304	10	+	+	+	+	+
Green leaf lettuce, raw (2 cups)	298	10	+	+	+	+	+
Arugula, raw (2 cups)	293	20	+	+	+	+	+
Broccoli (2 spears)	268	30	+	+	+	+	+
Curly endive, raw (2 cups)	264	10	+	+	+	+	+
Brussels sprouts	247	30	+	+	+	+	+
Broccoli, raw (3 spears)	246	30	+	+	+	+	+
Red bell pepper	225	20	+	+	+	+	+
Butternut squash (½ cup)	208	30	+	+	+	+	+
Bibb or Boston lettuce, raw (2 cups)	201	10	+	+	+	+	+
Red bell pepper, raw (½ large)	198	30	+	+	+	+	+
Peas	173	70	+	+	+	+	+
Bok choy	154	10	+	+	+	+	+

Veggie Good (Score = 50-149)

Savoy cabbage, raw (1 cup)	139	20	+	+	+	+	+
Tomato (½ cup)	136	20	+	+	+	+	+
Red cabbage, raw (1 cup)	135	30	+	+	+	+	+
Asparagus (6 spears)	134	20	+	+	+	+	+
Tomato, raw (½ cup)	126	20	+	+	+	+	+
Cabbage, raw (1 cup)	120	20	+	+	+	+	+
Green bell pepper	113	20	+	+	+	+	+
Green bell pepper, raw (½ large)	112	20	+	+	+	+	+
Zucchini, raw (½ medium)	103	10	+	+	+	+	+

	Score	Calories	Vitamin K	Lutein	Vitamin C	Potassium	Fiber
Red cabbage	95	30	+	+	+	+	+
Okra	94	20	+	+	+	+	+
Scallions, raw (½ cup)	91	10	+	+	+	+	+
Zucchini	88	10	+	+	+	+	+
Cauliflower, raw (7 florets)	87	20	+	+	+	+	+
Green beans	83	30	+	+	+	+	+
Leeks (¾ cup)	82	30	+	+	+	+	+
Lima beans	82	110	+	+	+	+	+
Green chili pepper, raw (½)	81	10	+	+	+	+	+
Cauliflower (5 florets)	77	20	+	+	+	+	+
Avocado, raw (½)	75	110	+	+	+	+	+
Kohlrabi	71	30	+	+	+	+	+
Artichoke (½)	69	30	+	+	+	+	+
Jalapeño pepper, raw (2)	68	10	+	+	+	+	+
Potato, with skin (1 small)	64	100	+	+	+	+	+
Celery, raw (2 medium stalks)	63	10	+	+	+	+	+
Yellow squash	60	20	+	+	+	+	+
Corn	58	80	+	+	+	+	+
Parsnips	55	60	+	+	+	+	+
Red chili pepper, raw (½)	55	10	+	+	+	+	+
Iceberg lettuce, raw (2 cups)	54	10	+	+	+	+	+
Gotta Love 'em (Score = 0-49)							
Jicama, raw (¾ cup)	48	30	+	+	+	+	+
Rutabaga	44	30	+	+	+	+	+
Beets	43	40	+	+	+	+	+
Jerusalem artichoke (sunchoke), raw (½ cup)	41	60	+	+	+	+	+
Beets, canned	33	30	+	+	+	+	+
White (button) mushrooms	33	20	+	+	+	+	+
Turnips	28	20	+	+	+	+	+
Cucumber, raw, with peel (½ med.)	27	10	+	+	+	+	+
Portobello mushrooms (¾ cup)	24	30	+	+	+	+	+
Eggplant (¾ cup)	21	30	+	+	+	+	+
Onion (½ cup)	21	40	+	+	+	+	+
Spaghetti squash	20	20	+	+	+	+	+
Shiitake mushrooms	19	50	+	+	+	+	+
White (button) mushrooms, raw (5 medium)	19	20	+	+	+	+	+
Radishes, raw (3 large)	13	10	+	+	+	+	+
Onion, raw (3 Tbs.)	9	10	+	+	+	+	+

Source: U.S. Department of Agriculture National Nutrient Database (ndb.nal.usda.gov).