Broccoli and Beyond! Fresh ideas about cruciferous vegetables and their health benefits.

If you close your eyes and think of the word “vegetable,” what image springs to mind? Odds are, it’s broccoli. When nutrition experts and moms tell us to eat more vegetables, the archetypal example on the ideal dinner plate is usually broccoli.

It’s no wonder: Those little green “branches”—the word “broccoli” derives from the Latin *brachium*, “branch” or “arm”—are nutritional overachievers. Just one 44-calorie cup of cooked broccoli delivers:

- 5 grams of fiber
- 4 grams of protein
- 50% of your daily vitamin A (as carotenoids such as alpha and beta carotene)
- 170% of daily vitamin C
- 23% of daily folic acid
- 505 milligrams of potassium

Plus broccoli packs significant amounts of riboflavin, vitamin B6 and iron. It’s a good source of lutein, which has been shown to help prevent the “wet” type of age-related macular degeneration. Broccoli stems as well as florets are nutritious, although the florets are higher in phytochemicals (such as I3C and DIM, see below) that may have cancer-fighting properties. Cooking sacrifices some of broccoli’s vitamin C, but the trade-off is that cooking makes its beta carotene and lutein more readily absorbed by the body. Even the leaves, often discarded, are edible and a good source of beta carotene.

In short, it’s hard to go wrong with broccoli, nutrition-wise.

And yet not everyone is a broccoli fan, to put it mildly. The first President George Bush famously voiced many Americans’ feelings about broccoli: “I do not like broccoli. And I haven’t liked it since I was a little kid and my mother made me eat it. And I’m president of the United States and I’m not going to eat any more broccoli.”

Maybe the president’s mom didn’t know how to buy broccoli at its prime, or simply overcooked it. Young broccoli is best, before the plant converts too much sugar to lignins—which cooking can’t tenderize—and begins to smell, well, “cabbage-y.” For best flavor as well as nutrition, look for firmer, slimmer, almost snappable stems and tightly packed, dark green florets with no trace of yellow. Refrigerate broccoli when you get home from the grocery store to stall lignin development and protect vitamin C; wait until you’re ready to use it before washing, to forestall mold. Frozen broccoli tends to suffer in texture, but if mostly florets it’s actually higher per pound in beta-carotene than fresh, and can be used in soups or stews. If you’re cooking stems and florets together, split the stems about halfway up to speed cooking or add the florets after the stems have a head start.

Cruciferous Cousins

But some people simply can’t be convinced to like broccoli, despite its versatility and nutritional virtues.

Fortunately, this best-known “cruciferous” vegetable—named for their cross-shaped flowers—has plenty of cousins in the produce aisle that may appeal to broccoli-haters instead.

Cruciferous vegetables, which all belong to the botanical genus *Brassica*, bring a bunch of nutrients to the table and have a wide range of health benefits. In the plants, the compounds that give cruciferous vegetables their sometimes-bitter taste act as natural pesticides and discourage herbivores. In the human digestive system, however, the very compounds that make, say, cooked cabbage smell bad break down into beneficial chemicals with long names like indole-3-carbinol (I3C) and 3,3’-Diindolylmethane (DIM). These are being studied for possible effects against not only cancer but also infections, inflammation and arterial plaque.

A 2005 European study found that people who ate cruciferous vegetables at least weekly were 72% less at risk for lung cancer than those who seldom ate them. Another study in 2007 showed that nonsmokers who ate three or more monthly servings of raw cruciferous vegetables had a 73% reduced risk of bladder cancer than those eating the least. In April, a study by the Roswell Park Cancer Institute likewise found a protective benefit against bladder cancer from raw cruciferous vegetables, even for smokers.

Even your brain might benefit from cruciferous veggies: A 2006 study found that eating at least 2.8 servings of vegetables daily slowed the rate of cognitive decline in subjects age 65 and older by about 40% compared to those averaging less than one serving a day. Fruit consumption did not show a similar benefit, and the association was strongest for vegetables high in vitamin E. Besides good old broccoli, researchers singled out as beneficial its cruciferous cousins kale and collard greens; another cruciferous choice, kohlrabi, is unusually high in vitamin E, though it wasn’t specifically analyzed.

The Broccoli Bunch

So if you don’t like broccoli—or are hungry for veggie variety—try branching out among the cruciferous vegetables. For starters, you might experiment with some of broccoli’s closest relatives, botanically or in name:

- **Broccoflower**—A trademarked hybrid between broccoli and another cruciferous vegetable, cauliflower, this looks like a green cauliflower. Tasters are split on which parent the hybrid’s flavor most resembles.
- **Broccolini**—Looking like stretched-out broccoli, this hybrid with Chinese kale can be used like a sweeter, more tender version of broccoli. Or broccolini can be prepared much like asparagus, trimming the bottom inch of the stem. It’s high in vitamin C.
- **Broccoli rabe**—All the rage, these nutty, bitter greens are actually only distantly related to broccoli. One cup provides more than 100% of your daily vitamin A and C.
- **Chinese kale**—Also known as “Chinese broccoli” or “kai-lan,” this looks like a broccoli stalk with leafy greens on the end. Similar to broccoli in taste but sweeter, Chinese kale is typically eaten by chopping stems, leaves and tiny florets and tossing all in a stir-fry.
- **Purple broccoli**—These small purple florets turn familiar green when
cooked. Taste and nutrition are similar to regular green broccoli.

- **Romanesca**—Sold as “Romanesca cauliflower” or “Romanesca broccoli,” this delicate, intricately floret-ed plant has a cauliflower texture but tastes more like sweet broccoli. Some describe the flavor as a blend of green beans, cauliflower and sweet corn.

**Cauliflower Calling**

As is evident from its combinations with broccoli, cauliflower is the other mainstay of the cruciferous vegetables. Though not quite the nutritional powerhouse of its culinary cousin, one cup of cooked cauliflower nonetheless contains:

- 3 grams dietary fiber
- 2 grams protein
- 90% of daily vitamin C
- 14% of daily folate
- 13% of vitamin B6
- 176 milligrams of potassium

Cauliflower comes in the traditional white as well as **purple**, an antioxidant-rich variety that turns green when cooked, and **orange**, which adds carotenoids for vitamin A to the equation and tastes more squash-like. Look for cauliflower that's unbruised and unspotty, firm and compact; leaves should be crisp and green.

If you boil cauliflower in water, be gentle: Heat diminishes its vitamin C, and its B vitamins leach into the cooking water. Roasting, although hard on vitamin C, brings out an earthy sweetness that may appeal to people who think they don't like cauliflower. The most popular way to serve cauliflower—smothered in cheese sauce—adds enough calories and saturated fat to outweigh its nutritional advantages and overwhelm its mere 29 calories per cup. So hold the cheese, please.

**More Veggie Variety**

But the cruciferous parade is just getting started with these big two and their kin. Branching out further in the produce aisle, you can discover a cartload of veggies that don’t share the florets of broccoli or cauliflower but are cruciferous—and nutritious—nonetheless:

- **Brussels sprouts**—Though even less popular than broccoli, these tiny cabbages are nutritional standouts. A cup of cooked Brussels sprouts, with 61 calories, contains:
  - 4 grams of fiber
  - 4 grams of protein
  - 107% of daily vitamin C
  - 23% of daily folate
  - 485 milligrams of potassium
  - 23% of daily iron
  ...along with not-inconsiderable amounts of thiamin, riboflavin and B6, antioxidant flavonoids and potentially cancer-fighting phytochemicals. Pick bright-green sprouts with no cabbage-y odor; smaller sprouts are more tender and less likely to have the bitterness that makes people think they hate Brussels sprouts. Steam Brussels sprouts, braise in a flavorful liquid such as stock, toss with olive oil and roast, or even lightly steam and skewer as components in a grilled shish kabob.

- **Bok choy**—Also known as “Chinese white cabbage,” bok choy has a mere 20 calories in a cooked cup, plus:
  - 2.7 grams of fiber
  - 3 grams of protein
  - 140% of daily vitamin A
  - 70% of daily vitamin C
  - 631 milligrams of potassium

  It's also a source of folate, B6, iron and calcium. Shop for deep green, glossy leaves with no hint of yellow and firm, white stems. Cook the stalks first, tossing in the leaves (whole or sliced) shortly before serving, by steaming, sautéing or stir-frying.

- **Cabbage**—Though many Americans turn their noses up at cabbage or eat in only in cole slaw and sauerkraut, it's been a world dietary staple for at least 2,500 years. Best eaten raw—to avoid that stink justifiably dubbed “cabbage-y”—a cup of chopped green cabbage contains only 22 calories and:
  - 2 grams of fiber
  - 1 gram of protein
  - 32% of daily vitamin C

  ...plus B6, iron, calcium and those cruciferous phytochemicals. Don't store kale for more than a day or two, and wash thoroughly before using. Sauté, braise or shred and “sneak” into other dishes (see box).

Other “cooking greens” to consider from the cruciferous vegetables include Swiss chard, collard greens, mustard greens and turnip greens.

- **Kohlrabi**—Sometimes called a “cabbage turnip,” kohlrabi has dark green leaves sprouting from a lighter-green bulb. Besides 18% of your daily vitamin E, a cup of cooked kohlrabi has just 48 calories and:
  - 1.8 grams of fiber
  - 3 grams of protein
  - 99% of daily vitamin C
  - 561 milligrams of potassium
  - 15% of daily vitamin B6

  Kohlrabi comes with green or slightly spicier purple bulbs. Both leaves and bulb can be eaten, raw or cooked; peel the bulb first.

We’ve covered only the most broccoli-like of the cruciferous vegetables here. Other options include those where we eat the roots as well or instead of the greens: radishes, horseradish, Daikon, turnips, beets, rutabagas. The list goes on, long enough to give even picky presidential eaters plenty of healthy alternatives to broccoli.