

The Health Benefits of Cruciferous Vegetables

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Cruciferous vegetables are good sources of vitamins C, E, and K; folate; minerals; and fiber.

Key Points

- Cruciferous vegetables contain compounds that help the body produce enzymes that destroy cancer-causing compounds.
- Compounds in cruciferous vegetables may protect against some cancers.
- Cruciferous vegetables can be consumed raw or cooked.

What Are Cruciferous Vegetables?

“Cruciferous” is a Latin word for a family of plants that includes:

- Broccoli
- Brussels sprouts
- Cabbage
- Cauliflower
- Kale
- Collard greens
- Radishes
- Turnips

The word “cruciferous” is used because the blossoms of these plants resemble a cross or crucifix.

What Nutrients Do Cruciferous Vegetables Provide?

Cruciferous vegetables are good sources of vitamins C, E, and K; folate; minerals; and fiber. They contain several forms of vitamin A called beta-carotene, lutein, and zeaxanthin. They are also rich in antioxidants that protect the body from damage by compounds called free radicals. Antioxidants also help repair cells in the body after they have been damaged.

How Do Cruciferous Vegetables Protect Against Cancer?

Cruciferous vegetables contain compounds called phytochemicals that lower your risk of getting cancer. These compounds (isothiocyanates and dithiolthiones) can:

- Produce enzymes that destroy cancer-causing compounds in the body.
- Increase the activity of some enzymes that stop the growth of cancer-causing and other foreign compounds.
- Delay the onset of cancer and reduce the size and growth of tumors.



Many breast cancers are sensitive to the hormone estrogen. This means that estrogen causes the breast cancer tumor to grow. Such cancers have estrogen receptors on the surface of their cells. A compound found in cruciferous vegetables (Indole-3-carbinol) produces certain substances that protect against estrogen-related cancers. Cruciferous vegetables are also protective against prostate cancer. Researchers reported that men who ate at least 1½ cups of cruciferous vegetables a week reduced their prostate cancer risk by more than 40 percent. Cruciferous vegetables may also be protective against cervical cancers.

How Should Cruciferous Vegetables Be Purchased?

When purchasing green cabbage, look for light green compact leaves and a round head. For red cabbage, the leaves should be purple-red and should have a round compact head. As

a general tip, when purchasing cabbage select those that have firm heads and are heavy for their size.

Cauliflower should be firm and compact. If leaves are attached, they should be bright green and crisp. Yellow coloring or spreading florets mean that the cauliflower is overly mature.

When purchasing Brussels sprouts, look for very small heads with dark green compact leaves and firm texture.

Kale should be crisp, with a grayish-green color.

Broccoli should be compact with bud clusters on light green stalks. The bud clusters are dark green with a purple tinge. Clusters should not be open showing yellow flowers.

When purchasing red globe radishes, look for red and white radishes that are small, round, or oval shaped. Radishes are usually about one inch in diameter and are hard and solid. If there are leaves attached, they should be crisp and green. Radishes with a pithy or spongy texture are old.

How Should Cruciferous Vegetables Be Stored?

Cruciferous vegetables should be stored in refrigeration under high humidity away from avocados, cantaloupe, and tomatoes.

How Should Cruciferous Vegetables Be Prepared?

Cruciferous vegetables need to be washed thoroughly when being prepared. These vegetables can be consumed raw or cooked. The recommended

cooking method for cruciferous vegetables is steaming.

To steam vegetables, place a half-inch of water in the bottom of a sauce pan. Bring water to boil, add vegetables, then cover. Let vegetables steam for approximately five minutes or until preferred tenderness is achieved. Remember, less cooking time means more nutrients remain in the vegetables. Do not overcook cruciferous vegetables as they produce a strong odor and are not as appetizing.

How Can I Eat More Cruciferous Vegetables Each Day?

- Buy more cauliflower, broccoli, cabbage, Brussels sprouts and radishes. They are power-packed with nutrients.
- Wash and place them in ready to eat pieces in a container in the refrigerator. Serve them for snacks with a low-fat dip or salad dressing.
- Add broccoli and cauliflower to salads or make broccoli slaw or coleslaw.
- Add these vegetables to stews, casseroles, and soups.
- Steam and use them as a side dish.
- Look for and try new recipes with these vegetables.
- Stir fry a mixture of broccoli, cauliflower, and cabbage. Add some grated ginger and garlic for a boost of flavors.
- Use cauliflower instead of potatoes. You can substitute all or some of the potatoes for cauliflower when making mashed potatoes. You can gain more health benefits and fewer calories.

Broccoli and Beef Stir-fry

Ingredients

- 1 pound lean beef steak, sliced diagonally across the grain into thin strips
- 1 tablespoon plus ½ cup stir-fry sauce
- 1 clove minced garlic
- 4 tablespoons canola oil, divided
- 1 medium red onion, cut into ½ inch dice
- 1 sweet red pepper cut into ½ inch dice
- 1 medium yellow squash, cut into ¼ inch slices
- 2 cups fresh broccoli florets
- 1 cup cauliflower florets
- ½ teaspoon crushed red pepper flakes

Instructions

- Combine 1 tablespoon stir-fry sauce and minced garlic in a bowl. Add the beef strips. Let stand 15 minutes.
- Heat 1 tablespoon canola oil in a large skillet or wok.
- Add beef and stir fry for one minute. Remove beef from skillet.
- Heat the remaining 3 tablespoons canola oil in the skillet or wok. Add vegetables. Stir-fry for four minutes or until vegetables are crisp-tender.
- Return beef to skillet.
- Add the remaining half cup stir-fry sauce and red pepper flakes. Cook and stir 1 to 2 minutes longer, until heated through.

Yield: Eight 1-cup servings

Nutrition Analysis: 180 calories; 10 g fat; 1.5 g saturated fat; 0 g trans fat; 25 mg cholesterol; 630 mg sodium; 9 g carbohydrate; 2 g fiber; 3 g sugar; 15 g protein. 90 percent recommended allowance for Vitamin C.

Buying Kentucky Proud is easy. Look for the label at your grocery store, farmers' market, or roadside stand.



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