

Cabbage, the Super Food

From World's Healthiest Foods

Contents:

[Description](#)

[What's New and Beneficial About Cabbage](#)

[Health Benefits](#)

[How to Select and Store](#)

[Tips on Preparing Cabbage](#)

[A Few Quick Serving Ideas](#)

[Links to Cabbage Recipes](#)

Description

Cabbage has a round shape and is composed of superimposed leaf layers. It is a member of the food family traditionally known as cruciferous vegetables and is related to kale, broccoli, collards and Brussels sprouts. All cruciferous vegetables provide integrated nourishment across a wide variety of nutritional categories and provide broad support across a wide variety of body systems as well

The word "brassica" translates in Latin as "cabbage," and this word is being used more and more by researchers to refer to the entire group of cruciferous vegetables. You'll find many plant scientists now using the Latin word *Brassicaceae* and the phrase "brassica vegetables" instead of Latin word *Cruciferae* and the traditional phrase "cruciferous vegetables" when referring to cabbage, kale, broccoli, collards and other foods in this vegetable subgroup.

Because cabbage's inner leaves are protected from the sunlight by the surrounding leaves, they are oftentimes lighter in color. There are three major types of cabbage: green, red, and Savoy. The color of green cabbage ranges from pale to dark green. Both green and red cabbage have smooth-textured leaves. Red cabbage has leaves that are either crimson or purple with white veins running through it. The leaves of Savoy cabbage are more ruffled and yellowish-green in color. Red and green cabbage have a more defined taste and crunchy texture as compared to Savoy cabbage's more delicate nature. Bok choy as well as Chinese (Napa) cabbage are other varieties of cabbage available. Bok choy has a mild flavor and a higher concentration of vitamin A. Chinese cabbage, with its pale green ruffled leaves, is great to use in salads. Red cabbage contains additional health benefits not found in green cabbage.

Sturdy, abundant, and inexpensive, cabbage is a longstanding dietary staple throughout the world and is so widely cultivated and stores so well that it is available throughout the year. However, it is at its best during the late fall and winter months when it is in season.



What's New and Beneficial About Cabbage

- Cabbage can provide you with some special cholesterol-lowering benefits if you will cook it by steaming. The fiber-related components in cabbage do a better job of binding together with bile acids in your digestive tract when they've been steamed. When this binding process takes place, it's easier for bile acids to be excreted, and the result is a lowering of your cholesterol levels. Raw cabbage still has cholesterol-lowering ability-just not as much as steamed cabbage.
- Researchers now realize that different types of cabbage (red, green, and Savoy) contain different patterns of glucosinolates. This new knowledge means that your broadest health benefits from cabbage are likely to come from inclusion of all varieties in your diet.
- Cabbage in general-but also Savoy cabbage in particular-turns out to be an especially good source of sinigrin. Sinigrin is one of the cabbage glucosinolates that has received special attention in cancer prevention research. The sinigrin in cabbage can be converted into allyl-isothiocyanate, or AITC. This isothiocyanate compound has shown unique cancer preventive properties with respect to bladder cancer, colon cancer, and prostate cancer.
- In one recent study, short-cooked and raw cabbage were the only types of cabbage to show cancer-preventive benefits-long-cooked cabbage failed to demonstrate measurable benefits.
- New research shows that steaming is a better cooking method than microwaving if you want to maximize the health benefits of glucosinolates found in cabbage. That's because two minutes of microwaving destroys the same amount of myrosinase enzymes as seven minutes of steaming, and you need those myrosinase enzymes to help convert cabbage's glucosinolates into cancer-preventive compounds.
- Our Healthy Sauté method, which we recommend for cabbage, is very similar to steaming and enhances the flavor of cabbage. See below.

Traditional methods of steaming or boiling make cabbage watery. To retain the maximum number of nutrients and flavor we recommend Healthy Sautéing cabbage. Slice cabbage into 1/4 -inch slices and let sit for 5 minutes to enhance its health-promoting benefits before cooking. For more details see Healthiest Way of Cooking Cabbage below.

Red Cabbage

While green cabbage is the most commonly eaten variety of cabbage, we highly recommend trying red cabbage because of its added nutritional benefits and its robust hearty flavor. We don't think you will be disappointed. The rich red color of red cabbage reflects its concentration of anthocyanin polyphenols, which contribute to red cabbage containing significantly more protective phytonutrients than green cabbage. Interest in anthocyanin pigments continues to intensify because of their health benefits as dietary antioxidants, as an anti-inflammatory, and their potentially protective, preventative, and therapeutic roles in a number of human diseases.

A recent study showed that a 100 gram (about 3 ounces) serving of raw red cabbage delivers 196.5 milligrams of polyphenols, of which 28.3 milligrams are anthocyanins. Green cabbages yielded much less per 100 grams: 45 milligrams of polyphenols including 0.01 milligram of anthocyanins. The vitamin C equivalent, a measure of antioxidant capacity, of red cabbage is also six to eight times higher than that of green cabbage. Red cabbage is one of the most nutritious and best tasting vegetables around-a great addition to your Healthiest Way of Eating.

Health Benefits

Cancer prevention tops all other areas of health research with regard to cabbage and its outstanding benefits. More than 475 studies have examined the role of this cruciferous vegetable in cancer prevention (and in some cases, cancer treatment). The uniqueness of cabbage in cancer prevention is due to the three different types of nutrient richness found in this widely enjoyed food. The three types are (1) antioxidant richness, (2) anti-inflammatory richness, and (3) richness in glucosinolates.

Antioxidant-Related Health Benefits

Cabbage is an excellent source of vitamin C and a good source of vitamin A (which comes from its concentration of carotenoids such as beta-carotene). But in terms of antioxidants in the newer, phytonutrient category, cabbage is impressive, even among cruciferous vegetables. Polyphenols rank at the top of the list for phytonutrient antioxidants in cabbage. In fact, one group of researchers has described polyphenols as the primary factor in cabbage's overall antioxidant capacity. Even white cabbage (a very lightly-colored form of green cabbage and the most commonly eaten variety of cabbage in the U.S.) provides about 50 milligrams of polyphenols in a half-cup serving. Red cabbage is even more unique among the cruciferous vegetables in providing about 30 milligrams of the red pigment polyphenols called anthocyanins in each half cup. (These anthocyanins qualify not only as antioxidant nutrients, but as anti-inflammatory nutrients as well.) The antioxidant richness of cabbage is partly responsible for its cancer prevention benefits. Without sufficient intake of antioxidants, our oxygen metabolism can become compromised, and we can experience a metabolic problem called "oxidative stress." Chronic oxidative stress-in and of itself-can be a risk factor for development of cancer.

Anti-Inflammatory Benefits

Without sufficient intake of anti-inflammatory nutrients, regulation of our inflammatory system can become compromised, and we can experience the problem of chronic inflammation. Especially when combined together with oxidative stress, chronic inflammation is a risk factor for development of cancer.

Glucosinolates and Cancer Prevention

Given the roles of oxidative stress and chronic inflammation as risk factors for cancer, the antioxidant and anti-inflammatory richness of cabbage would provide anti-cancer health benefits without the addition of cabbage's glucosinolates. But glucosinolates are cabbage's trump card with regard to "anti-cancer" benefits. The glucosinolates found in cabbage can be converted into isothiocyanate compounds that are cancer preventive for a variety of different cancers, including bladder cancer, breast cancer, colon cancer, and prostate cancer

One study-from Poland-showing impressive reduction of breast cancer risk in women consuming large amounts of cabbage. (In this particular study, this reduction in risk was associated with consumption of at least 4 cabbage servings per week, in comparison with the once-per-week serving consumed by women with higher breast cancer risk.)

Digestive Tract Support

Long-established in health research is the role of cabbage juice in helping heal stomach ulcers (called peptic ulcers), but more recent studies on cabbage have looked at the overall health benefits of this food for the stomach and digestive tract as a whole. Present-day studies make it clear that cabbage

contains a variety of nutrients of potential benefit to our stomach and intestinal linings. These nutrients include glucosinolates (and the anti-inflammatory isothiocyanates or ITCs made from them), antioxidant polyphenols, and the amino acid-like substance called glutamine. In the case of ITCs, digestive tract benefits include proper regulation of bacterial populations of *Helicobacter pylori* inside the stomach. These bacteria are normal stomach inhabitants, but their populations can become too large and they can latch onto the stomach lining in an undesirable way. The ITCs made from cabbage's glucosinolates can lower the risk of these unwanted stomach events.

Cardiovascular Support

You can count on cabbage to provide your cardiovascular system with valuable support in the form of cholesterol reduction. Researchers understand exactly how this process takes place. Your liver uses cholesterol as a basic building block to product bile acids. Bile acids are specialized molecules that aid in the digestion and absorption of fat through a process called emulsification. These molecules are typically stored in fluid form in your gall bladder, and when you eat a fat-containing meal, they get released into the intestine where they help ready the fat for interaction with enzymes and eventual absorption up into the body. When you eat cabbage, fiber-related nutrients in this cruciferous vegetable bind together with some of the bile acids in the intestine in such a way that they simply stay inside the intestine and pass out of your body in a bowel movement, rather than getting absorbed along with the fat they have emulsified. When this happens, your liver needs to replace the lost bile acids by drawing upon your existing supply of cholesterol, and as a result, your cholesterol level drops down. Cabbage provides you with this cholesterol-lowering benefit whether it is raw or cooked. However, a recent study has shown that the cholesterol-lowering ability of raw cabbage improves significantly when it is steamed. In fact, when the cholesterol-lowering ability of steamed cabbage was compared with the cholesterol-lowering ability of the prescription drug cholestyramine (a medication that is taken for the purpose of lowering cholesterol), cabbage bound 17% as many bile acids (based on a standard of comparison involving total dietary fiber).

How to Select and Store

Choose cabbage heads that are firm and dense with shiny, crisp, colorful leaves free of cracks, bruises, and blemishes. Severe damage to the outer leaves is suggestive of worm damage or decay that may reside in the inner core as well.

There should be only a few outer loose leaves attached to the stem. If not, it may be an indication of undesirable texture and taste. Avoid buying precut cabbage, either halved or shredded, since once cabbage is cut, it begins to lose its valuable vitamin C content.

Keeping cabbage cold will keep it fresh and help it retain its vitamin C content. Put the whole head in a plastic bag in the crisper of your refrigerator. Red and green cabbage will keep this way for about 2 weeks while Savoy cabbage will keep for about 1 week.

If you need to store a partial head of cabbage, cover it tightly with plastic wrap and refrigerate. Since the vitamin C content of cabbage starts to quickly degrade once it has been cut, you should use the remainder within a couple of days.

Tips for preparing cabbage:

Even though the inside of cabbage is usually clean since the outer leaves protect it, you still may want to clean it. Remove the thick fibrous outer leaves and cut the cabbage into pieces and then wash under running water.

If you notice any signs of worms or insects, which sometimes appears in cabbage, soak the head in salt water or vinegar water for 15-20 minutes first. To preserve its vitamin C content, cut and wash the cabbage right before cooking or eating it. Since phytonutrients in the cabbage react with carbon steel and turn the leaves black, use a stainless steel knife to cut.

To cut cabbage into smaller pieces, first quarter it and remove the core. Cabbage can be cut into slices of varying thickness, grated by hand or shredded in a food processor.

Proper cabbage preparation and cooking methods can be essential when it comes to getting the most benefits from cabbage. In one study that compared steaming to microwaving of raw cabbage, researchers found that it took 7 minutes of steaming to result in the same amount of enzyme (myrosinase) destruction that occurred with only 2 minutes of microwaving. In other words, short steaming was much better than microwaving for preserving some myrosinase activity in the cabbage. Since we need myrosinase activity to convert the glucosinolates in cabbage to cancer-preventive isothiocyanates (ITCs), preservation of as much myrosinase activity as possible when cooking cabbage seems worthwhile. Researchers have some proof that light steaming actually works because they have found higher concentrations of one particular isothiocyanate (AITC, or allyl-isothiocyanate) in lightly steamed cabbage. AITC has the ability to help lower risk of certain cancers (including bladder, breast, colon and prostate cancer). This recent research finding underscores the value of light steaming as a way to preserve anti-cancer benefits when cooking cabbage.

It's worth adding here that a little bit of bitterness in the taste of cabbage is not necessarily a bad thing when it comes to your health. Although the commercial food industry sometimes tries to remove bitter-tasting constituents from cruciferous vegetables through hybridization of different cabbage varieties, some of the bitter-tasting constituents-including sinigrin, one of the glucosinolates especially plentiful in cabbage-is the source of the anti-cancer substance AITC discussed in the previous paragraph. Rather than attempting to completely eliminate the natural bitterness of cabbage, we would be much better off from a health standpoint weaving cabbage into a recipe that included differently flavored foods in such a way that the cabbage was allowed to retain a little of its natural and noticeable bitterness but within a blended-flavor context of a delicious dish! For example, our [Gingered Cabbage](#) provides you a wonderful sweet and sour flavor.

Finally, it's important to remember that we can allow myrosinase enzymes in cabbage to do their natural work by slicing, shredding, or chopping raw cabbage and letting it sit for 5-10 minutes before cooking. Once the cells in cabbage have been broken apart through slicing, shredding, or chopping, the myrosinase enzymes in those cells can become active in converting the glucosinolates in cabbage into isothiocyanates (ITCs).

The Healthiest Way of Cooking Cabbage

From all of the cooking methods we tried when cooking cabbage, our favorite is Healthy Sauté. We think that it provides the greatest flavor and is also a method that allows for concentrated nutrient retention. To Healthy Sauté cabbage, heat 5 TBS of broth (vegetable or chicken) or water in a stainless steel skillet. Once bubbles begin to form add shredded cabbage, cover, and Healthy Sauté for 5 minutes. Turn off the

heat and let sit for 2 more minutes before transferring to a bowl and tossing with Mediterranean Dressing. (See our [5-Minute Healthy Sautéed Red Cabbage](#) recipe for details on how to prepare this dish.) Ginger is a great addition to your Healthy Sautéed cabbage; you can also add rice vinegar and sesame seeds.

A few quick serving ideas:

Braise red cabbage with a chopped apple and red wine. This is a child-friendly dish since the alcohol (but not the flavor or the flavonoids) will evaporate.

Combine shredded red and green cabbage with fresh lemon juice, olive oil, and seasonings such as turmeric, cumin, coriander, and black pepper to make coleslaw with an Indian twist.

Some WHFoods recipes that feature cabbage:

[Asian Chicken Salad](#)

[Chinese Chicken Cabbage Salad](#)

[Spicy Cabbage Soup](#)

[Poached Fish with Napa Cabbage](#)

[Sesame Braised Chicken & Cabbage](#)

[Sweet N' Sour Cod with Cabbage and Broccoli](#)

[Vegetarian Stir-Fry](#)

[Napa Cabbage Salad](#)

[5-Minute Healthy Sautéed Red Cabbage](#)

[Gingered Cabbage](#)

To learn more about cabbage and other foods, go to [World's Healthiest Foods](#).