

Anti-Cancer Foods: Cruciferous Vegetables



Nutrition scientists have shown over and over that people who eat more [natural plant foods](#) – vegetables, fruits, legumes, nuts and seeds, etc. – are less likely to be diagnosed with [cancer](#). But are all vegetables equally protective? To win the war on cancer, we must design an [anti-cancer diet](#), which focuses on the foods with the [most powerful](#) anti-cancer effects – then we could eat plenty of these foods each day, flooding our bodies with the protective substances contained within them.

The [cruciferous](#) family of vegetables is full of super foods with powerful anti-cancer effects – we should eat vegetables from this family every day. This family includes green vegetables like kale and [bok choy](#) plus some non-green vegetables like cauliflower. For a full list of cruciferous vegetables, [click here](#).

Cruciferous vegetables contain glucosinolates and in a different area of the cell, an enzyme called myrosinase. When we blend, chop or chew these vegetables, we

break up the plant cells, allowing myrosinase to come into contact with glucosinolates, initiating a chemical reaction that produces isothiocyanates (ITCs) – powerful [anti-cancer compounds](#). ITCs have been shown to detoxify and remove carcinogens, kill cancer cells, and prevent tumors from growing.¹

Observational studies have shown that eating ITC-rich cruciferous vegetables protects against cancer – here are a few examples:

- Twenty-eight servings of vegetables per week decreased prostate cancer risk by 33%, but just 3 servings of cruciferous vegetables per week decreased prostate cancer risk by 41%.²
- One or more servings of cabbage per week reduced risk of pancreatic cancer by 38%.³
- One serving per day of cruciferous vegetables reduced the risk of breast cancer by over 50%.⁴

Cruciferous vegetables and breast cancer

Cruciferous vegetables are especially helpful for preventing hormonal cancers, such as [breast cancer](#), because some ITC, such as indole-3-carbinol (abundant in broccoli, Brussels sprouts and cabbage), can even help the body excrete estrogen and other hormones.⁵ In fact, new research has shown additional anti-estrogenic effects of both indole-3-carbinol and sulforaphane (most abundant in broccoli); these ITCs blunt the growth-promoting effects of estrogen on breast and cervical cancer cells.⁵⁻⁷

Eating cruciferous vegetables produces measurable isothiocyanates in breast tissue⁸, and observational studies show that women who eat more cruciferous vegetables are less likely to be diagnosed with breast cancer: In a recent Chinese study, women who regularly ate one serving per day of cruciferous vegetables had a 50% reduced risk of breast cancer.⁴ A 17% decrease in breast cancer risk was found in a European study for consuming cruciferous vegetables at least once a week.⁹ Plus, breast cancer survivors who eat cruciferous vegetables regularly have lower risk of cancer recurrence – the more cruciferous vegetables they ate, the lower their risk.¹⁰

Within an overall nutrient-dense eating style, cruciferous vegetables can provide us with a profound level of protection against cancer. Don't forget: chopping, chewing, blending, or juicing cruciferous vegetables is necessary to produce the anti-cancer ITCs. To learn more about cruciferous vegetables, read [Healthy Times Newsletter #32](#).