

## Cancer Fighting Foods/Spices

The National Cancer Institute estimates that roughly one-third of all cancer deaths may be diet related. What you eat can hurt you, but it can also help you. Many of the common foods found in grocery stores or organic markets contain cancer-fighting properties, from the antioxidants that neutralize the damage caused by free radicals to the powerful phytochemicals that scientists are just beginning to explore. There isn't a single element in a particular food that does all the work: The best thing to do is eat a variety of foods.

The following foods have the ability to help stave off cancer and some can even help inhibit cancer cell growth or reduce tumor size.

**Avocados** are rich in glutathione, a powerful antioxidant that attacks free radicals in the body by blocking intestinal absorption of certain fats. They also supply even more potassium than bananas and are a strong source of beta-carotene. Scientists also believe that avocados may also be useful in treating viral hepatitis (a cause of liver cancer), as well as other sources of liver damage.

**Broccoli, cabbage, and cauliflower** have a chemical component called indole-3-carbinol that can combat breast cancer by converting a cancer-promoting estrogen into a more protective variety. **Broccoli, especially sprouts**, also have the phytochemical sulforaphane, a product of glucoraphanin - believed to aid in preventing some types of cancer, like colon and rectal cancer. Sulforaphane induces the production of certain enzymes that can deactivate free radicals and carcinogens. The enzymes have been shown to inhibit the growth of tumors in laboratory animals. However, be aware that the Agriculture Department studied 71 types of broccoli plants and found a 30-fold difference in the amounts of glucoraphanin. It appears that the more bitter the broccoli is, the more glucoraphanin it has. Broccoli sprouts have been developed under the trade name BroccoSprouts that have a consistent level of sulforaphane - as much as 20 times higher than the levels found in mature heads of broccoli.

**Carrots** contain a lot of beta carotene, which may help reduce a wide range of cancers including lung, mouth, throat, stomach, intestine, bladder, prostate and breast. Some research indicated beta carotene may actually cause cancer, but this has not proven that eating carrots, unless in very large quantities - 2 to 3 kilos a day, can cause cancer. In fact, a substance called falcarinol that is found in carrots has been found to reduce the risk of cancer, according to researchers at Danish Institute of Agricultural Sciences (DIAS). Kirsten Brandt, head of the research department, explained that isolated cancer cells grow more slowly when exposed to falcarinol. This substance is a polyacetylen, however, so it is important not to cook the carrots.

**Chili peppers and jalapenos** contain a chemical, capsaicin, which may neutralize certain cancer-causing substances (nitrosamines) and may help prevent cancers such as stomach cancer.

**Cruciferous vegetables** - broccoli, cauliflower, kale, Brussels sprouts, and cabbage contain two antioxidants, *lutein and zeaxanthin* that may help decrease prostate and other cancers.

**Figs** apparently have a derivative of benzaldehyde. It has been reported that investigators at the Institute of Physical and Chemical Research in Tokyo say benzaldehyde is highly effective at shrinking tumors, though I haven't seen this report. In addition, the U.S. Department of Agriculture says figs, which contain vitamins A and C, and calcium, magnesium and potassium, may curtail appetite and improve weight-loss efforts. Fig juice is also a potent bacteria killer in test-tube studies.

**Flax** contains lignans, which may have an antioxidant effect and block or suppress cancerous changes. Flax is also high in omega-3 fatty acids, which are thought to protect against colon cancer and heart disease. See [Budwig diet](#) for a specialized diet using flax seed oil and cottage cheese. For studies about flax seed and flax oil, go to our [Important News](#) or [Archives](#) Page.

**Garlic** has immune-enhancing allium compounds (diallyl sulfides) that appear to increase the activity of immune cells that fight cancer and indirectly help break down cancer causing substances. These substances also help block carcinogens from entering cells and slow tumor development. Diallyl

sulfide, a component of garlic oil, has also been shown to render carcinogens in the liver inactive. Studies have linked garlic — as well as onions, leeks, and chives — to lower risk of stomach and colon cancer. Dr. Lenore Arab, professor of epidemiology and nutrition at the UNC-CH (University of North Carolina at Chapel Hill) schools of public health and medicine and colleagues analyzed a number of studies and reported their findings in the October 2000 issue of the American Journal of Clinical Nutrition. According to the report, people who consume raw or cooked garlic regularly face about half the risk of stomach cancer and two-thirds the risk of colorectal cancer as people who eat little or none. Their studies didn't show garlic supplements had the same effect. It is believed garlic may help prevent stomach cancer because it has anti-bacterial effects against a bacterium, *Helicobacter pylori*, found in the stomach and known to promote cancer there.

**Grapefruits**, like oranges and other citrus fruits, contain monoterpenes, believed to help prevent cancer by sweeping carcinogens out of the body. Some studies show that grapefruit may inhibit the proliferation of breast-cancer cells in vitro. They also contains vitamin C, beta-carotene, and folic acid.

**Grapes, red** contain bioflavonoids, powerful antioxidants that work as cancer preventives. Grapes are also a rich source of resveratrol, which inhibits the enzymes that can stimulate cancer-cell growth and suppress immune response. They also contain ellagic acid, a compound that blocks enzymes that are necessary for cancer cells - this appears to help slow the growth of tumors.

Studies show that consumption of **green and yellow leafy vegetables** has been associated with lower levels of stomach cancer.

**Kale** has indoles, nitrogen compounds which may help stop the conversion of certain lesions to cancerous cells in estrogen-sensitive tissues. In addition, isothiocyanates, phytochemicals found in kale, are thought to suppress tumor growth and block cancer-causing substances from reaching their targets.

**Licorice root** has a chemical, glycyrrhizin, that blocks a component of testosterone and therefore may help prevent the growth of prostate cancer. However, excessive amounts can lead to elevated blood pressure.

**Mushrooms** - There are a number of mushrooms that appear to help the body fight cancer and build the immune system - Shiitake, maitake, reishi, *Agaricus blazei* Murill, and *Coriolus Versicolor*. These mushrooms contain polysaccharides, especially Lentinan, powerful compounds that help in building immunity. They are a source of Beta Glucan. They also have a protein called lectin, which attacks cancerous cells and prevents them from multiplying. They also contain Thioproline. These mushrooms can stimulate the production of interferon in the body.

Extracts from mushrooms have been successfully tested in recent years in Japan as an adjunct to chemotherapy. PSK is made from the *Coriolus Versicolor*. Maitake mushroom extract is PCM4.

**Nuts** contain the antioxidants quercetin and campferol that may suppress the growth of cancers. Brazil nut contains 80 micrograms of selenium, which is important for those with prostate cancer. (Note: Many people are allergic to the proteins in nuts, so if you have any symptoms such as itchy mouth, tight throat, wheezing, etc. after eating nuts, stop. Consider taking a selenium supplement instead or work with someone on how to eliminate this allergy.)

**Oranges and lemons** contain limonene which stimulates cancer-killing immune cells (lymphocytes, e.g.) that may also break down cancer-causing substances.

**Papayas** have vitamin C that works as an antioxidant and may also reduce absorption of cancer-causing nitrosamines from the soil or processed foods. Papaya contains folacin (also known as folic acid), which has been shown to minimize cervical dysplasia and certain cancers.

**Raspberries** contain many vitamins, minerals, plant compounds and antioxidants known as anthocyanins that may protect against cancer. According to a recent research study reported by Cancer Research 2001;61:6112-6119, rats fed diets of 5% to 10% black raspberries saw the number

of esophageal tumors decrease by 43% to 62%. A diet containing 5% black raspberries was more effective than a diet containing 10% black raspberries. Research reported in the journal *Nutrition and Cancer* in May 2002 shows black raspberries may also thwart colon cancer. Black raspberries are rich in antioxidants, thought to have even more cancer-preventing properties than blueberries and strawberries.

**Red wine**, even without alcohol, has polyphenols that may protect against various types of cancer. Polyphenols are potent antioxidants, compounds that help neutralize disease-causing free radicals. Also, researchers at the University of North Carolina's medical school in Chapel Hill found the compound resveratrol, which is found in grape skins. It appears that resveratrol inhibits cell proliferation and can help prevent cancer. However, the findings didn't extend to heavy imbibers, so it should be used in moderation. In addition, alcohol can be toxic to the liver and to the nervous system, and many wines have sulfites, which may be harmful to your health. Note: some research indicates that alcohol is considered a class "A" carcinogen which can actually cause cancer - see <http://www.jrussellshealth.com/alccanc.html>. You should probably switch to non-alcoholic wines.

**Rosemary** may help increase the activity of detoxification enzymes. An extract of rosemary, termed carnosol, has inhibited the development of both breast and skin tumors in animals. We haven't found any studies done on humans. Rosemary can be used as a seasoning. It can also be consumed as a tea: Use 1 tsp. dried leaves per cup of hot water; steep for 15 minutes.

**Seaweed and other sea vegetables** contain beta-carotene, protein, vitamin B12, fiber, and chlorophyll, as well as chlorophyllones - important fatty acids that may help in the fight against breast cancer. Many sea vegetables also have high concentrations of the minerals potassium, calcium, magnesium, iron, and iodine.

**Soy products like tofu** contain several types of phytoestrogens — weak, nonsteroidal estrogens that could help prevent both breast and prostate cancer by blocking and suppressing cancerous changes. There are a number of isoflavones in soy products, but research has shown that genistein is the most potent inhibitor of the growth and spread of cancerous cells. It appears to lower breast-cancer risk by inhibiting the growth of epithelial cells and new blood vessels that tumors require to flourish and is being scrutinized as a potential anti-cancer drug. However, there are some precautions to consider when adding soy to your diet. Eating up to 4 or 5 ounces of tofu or other soy a day is probably ok, but research is being done to see if loading up on soy could cause hormone imbalances that stimulate cancer growth. As a precaution, women who have breast cancer or are at high risk should talk to their doctors before taking pure isoflavone powder and pills, extracted from soy.

**Sweet potatoes** contain many anticancer properties, including beta-carotene, which may protect DNA in the cell nucleus from cancer-causing chemicals outside the nuclear membrane.

**Teas: Green Tea and Black tea** contain certain antioxidants known as polyphenols (catechins) which appear to prevent cancer cells from dividing. Green tea is best, followed by our more common black tea (herbal teas do not show this benefit). According to a report in the July 2001 issue of the *Journal of Cellular Biochemistry*, these polyphenols that are abundant in green tea, red wine and olive oil, may protect against various types of cancer. Dry green tea leaves, which are about 40% polyphenols by weight, may also reduce the risk of cancer of the stomach, lung, colon, rectum, liver and pancreas, study findings have suggested.

**Tapioca** is derived from the **cassava** plant. It is one of the many plants that manufactures cyanide by producing a chemical called linamarine which releases hydrogen cyanide when it is broken down by the linamarase enzyme. Spanish researchers have been studying the cassava and attempting to clone the genes from the plant which are responsible for producing the hydrogen cyanide and then transfer it to a retrovirus. However, funding for the project has run out. [http://news.bbc.co.uk/1/hi/english/health/newsid\\_317000/317467.stm](http://news.bbc.co.uk/1/hi/english/health/newsid_317000/317467.stm) for more information on this. For a list of other foods that contain B17, go to our [laetrile page](#).

**Tomatoes** contain lycopene, an antioxidant that attacks roaming oxygen molecules, known as free radicals, that are suspected of triggering cancer. It appears that the hotter the weather, the more

lycopene tomatoes produce. They also have vitamin C, an antioxidant which can prevent cellular damage that leads to cancer. Watermelons, carrots, and red peppers also contain these substances, but in lesser quantities. It is concentrated by cooking tomatoes. Scientists in Israel have shown that lycopene can kill mouth cancer cells. An increased intake of lycopene has already been linked to a reduced risk of breast, prostate, pancreas and colorectal cancer. (Note: Recent studies indicate that for proper absorption, the body also needs some oil along with lycopene.)

**Tumeric** (*curcuma longa*), a member of the ginger family, is believed to have medicinal properties because it inhibits production of the inflammation-related enzyme cyclo-oxygenase 2 (COX-2), levels of which are abnormally high in certain inflammatory diseases and cancers, especially bowel and colon cancer. In fact, a pharmaceutical company Phytopharm in the UK hopes to introduce a natural product, P54, that contains certain volatile oils, which greatly increase the potency of the turmeric spice.

Turnips are said to contain glucose molaes which is a cancer fighting compound. I haven't confirmed this.

Consumption of **fruits and vegetables** has been associated with decreased risk of cancers of the colon and rectum.

There are many good books on this topic, including Vern Verona's book on "Cancer Fighting Foods."