Top 20 Anti-Cancer Foods

ULTIMATE List Based On Tons Of Research – With Over 120 Scientific References!

HealthPowerBoost.com

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This is my full, in-depth, comprehensive free report on **anticancer foods**! I sincerely believe this is some of the most important natural health information available and may have the potential to extend lives by several years.

Here (in no particular order) are my picks for the **top 20 foods with the greatest anticancer potential**. Full reports on each of the 20 and scientific references are below.

Index:

1. Tomatoes

For the past several years, the popularity of **tomatoes** has risen because of their high lycopene content and highly-publicized association with reduced cancer risk.

Based on data collected by the National Institutes of Health between 2010 and 2012, an estimated **14 percent of men will be diagnosed with prostate cancer in their lifetime**, with a predicted 180,000 new cases to be diagnosed per year. Survival rates are pretty good for prostate cancer, 98.9 percent according to 2006 to 2012 data. On the other hand, the risk for acquiring kidney and renal pelvis cancer is lower but with lower survival rates as well. The risk for being diagnosed with renal cancer is 1.6 percent, with survival rates only at 73.7 percent. An estimated 62,000 new cases of kidney and renal pelvis cancer were estimated to have been diagnosed in 2016. [1][2]

Studies have found that lycopene found in tomatoes is able to prevent or reduce the risk for specific types of cancer, e.g. cancer that affects the prostate and kidneys. The noted 2013 study by Silberstein, Silberstein, and Saphier concluded that lycopene, a lipid soluble molecule typically found in tomatoes, was able to inhibit tumor formation in cases of prostate cancer. Similar results were seen in another study by Sahin, et. al., published in 2015, where a high lycopene diet was able to reduce the number and size of renal tumors. These studies suggest that increasing your tomato intake can

potentially be used in cancer treatment, or at the very least decrease the risk for cancer. [3][4] This information gives additional support to the previous research indicating that the *Mediterranean Diet* has benefits for longevity.

You can include tomatoes in your diet in a variety of ways. Fresh is best! Fresh tomatoes can be eaten as a side dish to your meal, either as a salad or as plain tomato slices with dressing. Tomato juice also a delicious and nutritious way to get lycopene into your diet. Mix in some herbs and lemon juice for added flavor and take it in the morning with breakfast.

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2. Alpha And Beta Carotene

Alpha-carotene: Carrots have long been considered one of the healthiest foods you can include in your diet. They are popularly known for their high **beta-carotene** content; a substance that is converted into Vitamin A inside the body. Vitamin A contributes to eye and skin health, as well as the immune system. Your parents weren't lying when they said that carrots would help you see better!

However, because of the important role beta-carotene plays in human health, its sibling – **alpha-carotene** – was often overlooked. But not anymore! Alpha-carotene was the focal point of a 1992 study on cancer that spawned *hundreds* of studies in the years that followed. [1]

The 1992 study that started it all: In 1992, Murakoshi, et. al. focused on alpha-carotene. Alpha-carotene was isolated and supplements were included in the test-subjects' diet, wherein the test subjects were affected by liver, lung, and skin cancer. The results of the study were very promising – alpha-carotene was able to decrease the number of hepatomas (liver tumors), lung tumors, and skin papillomas (skin tumors) by as much as 70 percent! The study suggests that a diet high in alpha-carotenoids could potentially play a role in the prevention of several types of cancer. [2]

After the 1992 study, more and more researchers started focusing on alpha-carotene's potential cancer-fighting properties. In 2015, Liu, et. al. focused on the effects of alpha-carotene on Lewis lung carcinoma (LLC), a kind of lung tumor. The study found that alpha-carotene was able to fight LLC in vitro, by inhibiting the tumor's growth and metastasis to other parts of the lung and the body. The researchers concluded that alpha-carotene could be used as an anti-cancer agent, alone or together with chemotherapy. [3]

A study in 2013 by Chen, et. al. focused on the effects of alpha-carotene on liver cancer, with similarly very promising results. Hepatocarcinoma cells were treated with alpha-carotene in the study. The research concluded that alpha-carotene was able to significant inhibit metastasis in liver cancer by halting further development of the cancer cells. [4] In 2015, a study conducted by Wang, et. al. found that a diet rich in alpha-carotene was able to **significantly lower the risk of invasive breast cancer**. According to the study, there was an inverse relationship between plasma alpha-carotene levels (alpha-carotene in the blood) and invasive breast cancer cases. [5]

Beta-carotene: Beta-carotene has long been associated with carrots and the name of this organic compound was of course lifted from the Latin word "carota", meaning carrot. However, beta-carotene is also found in an abundance of other vegetables and fruits. It is responsible for giving them a bright orange color. Beta-carotene is considered a precursor

to vitamin A, meaning it becomes metabolized in the body into Vitamin A which helps promote eye health. [6]

In recent years, cancer prevention has been highlighted as beta-carotene's major benefits. There are numerous studies that have supported this claim, revealing that beta-carotene may be able to prevent cancer entirely or slow its progression. In 2014, a study by Kim, et al. found that beta-carotene was able to inhibit the invasion of neuroblastoma, a kind of neurologic cancer, and its subsequent metastasis. They concluded that beta-carotene could be an effective chemotherapeutic agent against neuroblastomas. Neuroblastomas mainly affects children, accounting for six percent of total childhood cancers in the US. It is a fast-moving cancer, often metastasizing quickly into the lymph nodes. [7]

A similar study was published this year, 2016, by Teng, et. al.. The study found that beta-carotene was able to modify multi-drug resistant cancer cells, making them more sensitive to chemotherapy. The researchers suggested that beta-carotene might be used in conjunction to chemotherapy for severe cases of cancer. [8]

Beta-carotene is found in orange, green and yellow fruits and leafy vegetables – including carrots, pumpkin, winter squash, tomatoes, sweet potato, collard greens, broccoli and kale. [6] In the green veg its color is masked by that of chlorophyll. These studies are just a few that focus on the numerous health benefits of carrots (and its compounds). Try to include carrots

(ideally raw!) in your daily meals or eat them as snacks to boost the quantity of both alpha and beta-carotene in your diet.

Note: Everything in balance…. excessive consumption of Beta-carotene, particularly associated with its use as a food coloring, has possible adverse health effects – and excess beta-carotene, once stored in the liver, cannot be converted in the body to vitamin A. In particular, excessive beta-carotene has been linked to increased lung cancer risk in smokers. [9]

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3. Cabbage

Ovarian cancer is one of the most dangerous cancers, with 22,500+ cases being diagnosed annually in the USA alone. All too often, the diagnosis is too late for treatment to be effective. [1] However, a large number of recent studies have indicated that a particular substance in **cabbage** may help fight cancer. This substance, 3,3′-diindolylmethane (DIM) is abundant in cabbage but also found in other **cruciferous vegetables** (see section 7). Cabbage is rich in a substance called diindolylmethane or DIM. DIM is now described as a "promising supplement" in the fight against not only ovarian but also breast cancer. [2]

A factor called STAT3, typically seen in cases of ovarian cancer, permits cancerous cells to *metastasize* (spread throughout the body). [3] A 2012 study found that diindolylmethane was able to not only promote death of cancer cells but protect them from the activation of STAT3. [4] This study also highlighted that diindolylmethane was not similarly active against healthy, normal cells. This **selective action against cancer cells is a profoundly important result** which solves the main problem with chemotherapeutic drugs, wherein both cancer and healthy cells are affected. Clinical trials of DIM have shown very promising results. In a USA-based trial, 50% of cervical cancer patients were reported to show improvement, and after 6 months an astonishing 85% of the test subjects no longer needed surgery. [5] DIM is also being evaluated in clinical trials for

prostate cancer [6] and has shown particular potential for breast cancer prevention. [7]

Including more cabbage (and vegetables from the same family!) in your daily meals may have potential to reduce your risk for ovarian cancer or even give support when fighting cancer if you have already been diagnosed. The quantity of 3,3′-diindolylmethane in vegetables seems quite variable and dependent on the cultivar, age of the plant, storage and methods of preparation, though reviews have asserted that there is still much work to do in order to understand and optimize DIM content in the diet. [7] Aside from eating fresh vegetables raw, steaming them is the best way to preserve nutritional content – so try to have a side of lightly steamed cabbage daily!

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4. Olives

The "Mediterranean diet" – rich in fresh fruit, vegetables and olive oil – has for many years been associated with longevity. This is now well established. Areas of the world found to have the longest living inhabitants are called "blue zones" and are the subject of much study. It's also been established that the Mediterranean diet is linked to a significantly reduced risk of colorectal and other cancers. [1]

Studies have examined different olive oils, with varying molecular composition, and a 2008 study observed that pinoresinol, a predominant component in one olive oil, exhibited an anticancer effect, whereas an olive oil with oleocanthol predominant did not exhibit the same effect. Interestingly however, the study found that the effect was stronger in pure olive oil than for the equivalent concentration of purified pinoresinol – leading researchers to conclude that there was a synergistic effect at work between the various polyphenols present in the oil. [2]

A different study identified further components with anticancer effects and concluded that consumption of both whole olives and olive oil may be beneficial. [3]

Since these studies, many further studies have been undertaken to further our understanding of the benefits of olive oil. It's one of the more widely accepted anticancer foods and is now even used not only as a preventative

strategy but post-diagnosis *in combination with orthodox anticancer drugs*. [4]

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5. Ginger

Over the past two decades a number of studies have been published that report on *6-Gingerol*, a substance found in fresh ginger and *6-shogaol*, the dehydrated form of this substance – and their action against cancer cells. Much attention has now been focused on 6-shogaol because of its widely reported highly selective action against a variety of cancer cells. A 2014 study noted that 6-shogaol had an action 2 to 5x stronger than that of taxol, a standard chemotherapy medicine, against breast cancer cells while finding that healthy cells were resistant to 6-shogaol. [1] More recent studies [2] have supported these conclusions.

In vitro studies (cell cultures "in the dish" in the lab) are interesting, but do not accurately convey the actual anti-cancer potential of the substance: If the active component is broken down by the body and does not reach the target site in sufficient quantity, then it may prove to be of no anticancer benefit. The bioavailability of 6-shogaol has been studied and it has been found that it is absorbed after ingestion, but is **bioconverted** and eliminated after a number of hours. [3] However due to the anti-cancer potential of ginger and the attention it has received, studies have analyzed the metabolism of 6-Shogaol in very great detail. Interestingly, it was found that some of the metabolites (substances formed when 6-Shogoal is metabolized in the body) retain some of the anticancer effects, though this is noted to not be as strong as the direct action of 6-Shogaol. [4] It is also possible that the

metabolites work in a synergistic manner against cancer cells. In other words, ginger does have anticancer potential, although further work is still required to understand this in full.

Some recent studies have focused on ginger / 6-Shogaol supplementation used in conjunction with cancer medicines and very positive effects have been reported. Example – [5] So if you want to give your immune system a boost and potentially help fight against cancer, add some ginger to your diet! Fresh is best, but dried ginger also has benefits: You can opt to add ginger to your drinks like ginger tea or even water with some ginger and mint. If you cook, you can add ginger as a spice to your stir-fry or even try grated ginger in salads, bread and cupcakes as well.

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6. Bitter Melon

Bitter Melon *(Momordica charantia)*, also referred to as balsam pear, karela, is a vine in the same plant family *(Cucurbitaceae)* as pumpkin, squash and watermelon. It has been in use in traditional remedies since old times as an herbal diabetes remedy. [1] The flesh of the bitter melon fruit is typically included in the diet as part of a vegetable dish or drink, with the seeds and pith being removed. Because of the abundance of Vitamin C and other phytonutrients in bitter melon, it is thought to be able to help boost the body's immune system and help fight against disease. Recent science has given much support for bitter melon's cholesterol-lowering ability and potential for use in combating diabetes. [2][3][4][5]

There are various studies that have been published in the recent years, showing the **cancer-fighting properties of bitter melon**. For example a 2013 study in *Carcinogenesis* reported that oral administration of diluted bitter melon juice for 6 weeks reduced the size of pancreatic tumors by 64% without apparent toxicity to normal cells. [6]

An interesting effect is that bitter melon has been found to increase the quantity of **natural killer (NK) cells**, a natural component of the body's immune response which is often compromised in those with cervical cancer. [7] Bitter melon

has also been found able to arrest the progress of prostate tumors. [8]

This is tremendous scientific data that most people are simply unaware of. The studies strongly suggest that you can help fight against cancer and give your immune system a boost by included bitter melon in your diet. However, because of the inherent bitterness of the vegetable, it can be unpleasant. After you slice the bitter melon, soak the slices in salt water for a 15 to 30 minutes before cooking to get rid of some of the bitterness. You could also drink the juice significantly diluted in water. Alternatively, add a few slices to your smoothie for an added boost. It can even be an important ingredient in your green juice. Try to mix different fruits and vegetables in your juice to get a balanced taste.

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7. Cruciferous Vegetables

According to Breastcancer.org, a shocking **one in eight women in the US will experience breast cancer in their lifetime**. That's 12 percent of the total population of women in the country. [1]

Making changes to your diet is one of the many potential ways to reduce breast cancer risk. While genetics are thought to contribute to breast cancer, lifestyle factors are now established to play an important role.

Beneficial effects of **cruciferous vegetables** in cancer risk reduction have been reported by numerous studies [2] – including a meta-analysis of 13 human studies indicated that high cruciferous vegetable intake was significantly associated with reduced breast cancer risk. [3]

Cruciferous vegetables are those of the *Brassica* family, which includes a number of the popular green vegetables in diets worldwide. The list of cruciferous vegetables includes kale, collard greens, broccoli, cabbage brussels sprouts, horseradish, cress (incl. watercress), mustard, radish, kohlrabi, cauliflower, bok choi, maca, rutabaga (swede), mustard, arugula, tatsoi and wasabi.

Broccoli has been associated by numerous studies with **reduced risk of breast cancer** in pre-menopausal women for several years. [2] Steaming broccoli – a little on the light side

– is a better way than boiling, to preserve its cancer-fighting substances. If you're going to choose an easy side dish to include in your meals, organic broccoli is an excellent option.

Several studies have now found beneficial possibilities for **cabbage** against cancer. White cabbage and sauerkraut were studied and discovered to inhibit aromatase, a substance which breast cancer cells depend on to multiply. Through aromatase-inhibition, cabbage is able to interrupt the reproductive process of breast cancer cells. This suggests that cabbage intake could help slow (or prevent!) the growth and spread of cancer cells throughout the body. [4] Cabbage has some important potential and so it has its own full section in this guide.

Other studies have also focused on cruciferous vegetable intake as a whole, linking it to decreased risks for different cancers. Liu, et. al. in 2013 concluded that eating cruciferous vegetables could decrease your risk for bladder cancer. [5]

Similar results were found by Wu, et. al. in a recent publication in 2015, wherein pre-diagnosis intake of cruciferous vegetables was associated with higher survival rates for people with lung cancer. [6] The protective effects of cruciferous vegetables against colorectal cancer were seen in the results of Tse and Eslick's study in 2014. [7]

There are plenty of cruciferous vegetables that are easily found in your local supermarket or grocery so including them

in your diet won't be too much a hassle. If you think you don't like vegetables, note that you generally start liking them by starting to eat them regularly. Get into the habit of adding a side of steamed veggies to your meal with a thin sliver of butter or dash of olive oil and a sprinkle of freshly ground black pepper – and you'll learn to love them in no time!

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8. Citrus Fruits

Diets with a high proportion of **fruits and vegetables** have been associated (by large-scale studies) with a lower incidence of cancer. This is well established. But why?

It might be because of the diverse beneficial compounds they contain. **Bioflavonoids**, a group of polyphenolic compounds which occur in diverse fruit and veg, have been the subject of much research for their anticancer qualities. [1] There are over 60 **citrus flavonoids** in total, while the overall number of flavonoids so far identified numbers around 6,000!

This is another "deep rabbit-hole" – just the topic of the citrus flavonoids alone could fill volumes (and it's really fascinating!) but I'll do my best to give a rapid summary.

Citrus flavonoids such as **Poncirin**, **Hesperidin**, **Naringin**, **Nobiletin**, **Pectolinarigenin** and **Tangeretin**, found abundantly in various citrus fruits (and / or other parts of the plant such as the leaves and fruit peels), have been demonstrated to exhibit anticancer effects by numerous lab studies.

Poncirin is a natural bitter-tasting bioflavonoid that is found in many citrus fruits. It has been found to be active in a dose-dependent manner on human gastric cancer cells. [1] It's also been found to be hepatoprotective (protecting the liver against toxin induced injury). [2]

Nobiletin is a bioflavonoid found in *Citrus folium*, which is an ethanol extract from the leaves of the tangerine plant. Nobiletin has been found active against lung cancer cells in vitro and in vivo. *Citrus folium* has been used in Traditional Chinese Medicine since old times. Interestingly, citrus folium has also been found to reduce the side effects of chemotherapy drugs. [4] Nobiletin is also found in the peel of various citrus fruits, including Mandarin orange *(C. nobilis, Lour)*, King orange *(Citrus nobilis)*, Seville orange *(Citrus aurantium)*, and of the round kumquat *(Fortunella japonica)*. It has no known adverse reactions. [5]

Naringin is a natural flavanone glycoside found in abundance in citrus fruits – especially in grapefruit and bergamot, of which its bitter taste is a noted flavor component. It's been found to have antioxidant activity which may be beneficial in Rheumatoid arthritis. [6] It has also been demonstrated to have significant dose-dependent inhibition and cell-cycle arrest on bladder cells [7], inhibition of thyroid cancer cell proliferation [8] and inhibition of breast cancer cell migration. [9]

Hesperidin is found in oranges / tangerines, most particularly in the peels, though to a small extent in the fruit and fresh juice. Tangerine peel may be 5-10% hesperidin by dry weight. Hesperidin is considered a safe bioflavonoid with very few reports of adverse effects. [10] It has been found to have promising anticancer qualities by numerous studies. [10][11][12][13]

Pectolinarigenin is a natural flavonoid found in some citrus fruits, as well as in *Cirsium* species (plume thistles). Pectolinarigenin has been found to induce apoptosis in gastric cancer cells [14] and to have anti-proliferation activity in breast cancer cells. [15]

Tangeretin, as you can easily guess from the name, is found in tangerines. It is one of the main flavones found in tangerine peel, but is also found in the peel of mandarins, grapefruits and oranges. [16] Tangeretin has been demonstrated to cause apoptosis in leukemia cells while not being cytotoxic against normal immune cells – perfect! It has also been found to be antiproliferative against cancer cells (preventing replication). [16][17]

Summary: To "an apple a day" let's add "a citrus a day"! For best results, **choose fresh organic fruit**, wash the produce very well before use and eat a variety of varieties! In general, unpeeled fruit and veg are considered more healthful and it is well established that many of the beneficial compounds are often found in higher concentration in the peels. However, fruit and veg that has been pesticide-sprayed also is well established to contain much higher levels of pesticide residue in the peel! Researches have also established that levels of beneficial compounds in organic fruit and veg are typically much higher.

Of particular value would be to explore culinary and herbal preparations that call for the use of dried peels. Dried grated peels "zest" are called for in various recipes. Ethanol extracts

of the peels may be a fruitful (sorry, couldn't resist it) avenue for herbalists to explore.

Safety note – grapefruit interacts in **potentially dangerous ways with numerous prescription medications**, for example SSRIs (antidepressants). Grapefruit can inhibit the body's breakdown of some medications, leading to significantly elevated concentration of the medication in the body. If this is relevant to you, you would probably have been notified about this – however **if you are taking any meds**, please check with your healthcare provider that there is no contraindication **before consuming grapefruit in any form** (fruit, juice, etc). This also includes the "mectin" antiparasitic medications – a strong and potentially dangerous interaction that most people don't know about!

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9. Anthocyanins (found in red, purple, blue and black fruit and veg)

Anthocyanins are a category of flavonoid molecules. They are the pigments responsible for the rich, deep colors of fruits and veg. These substances occur naturally to some extent in leaves, flowers, stems and fruits of all higher plants, but are found in abundance in red, purple, blue or black vegetables and fruits.

Examples of foods with high anthocyanin content include **black rice**, **eggplant/aubergine**, **purple cauliflower**, **purple broccoli**, and of course **berries**. Berries such as **blueberry**, **bilberry**, **cranberry**, **elderberry**, **raspberry** and **strawberry** are *anthocyanin rich* and have been found by researchers to have anti-carcinogenic effects through their high antioxidant levels.

One study focused on the extracts from the six berries, finding significant cancer-fighting properties. The berries were able to promote cancer cell death and prevent the vascularization of tumors – two factors which contribute to the rapid growth and spread of cancer cells (known as metastasis). [1]

Black raspberries were discovered to have an inhibitory effect on cancer cells – specifically for a kind of cancer that affects the esophagus, called **Barrett's esophagus**. In a 2006 study by Kresty, et. al., freeze-dried raspberries were found to reduce oxidative stress in the body because of high antioxidant activity. The study concludes that raspberries might help patients diagnosed with or at risk for cancer and cancer recurrence by protecting tissues from mutations. [2]

Blueberries have been found to inhibit breast cancer metastasis by reducing inflammation and tumor growth (in vitro and in vivo studies). Mak, et. al. in 2013 found that blueberries, specifically a bioactive component called Pterostilbene, could effectively halt the growth and metastatic potential of cancer cells. Very similar results were seen in Kanaya, et. al.'s study in 2014 wherein blueberries (blueberry powder was used) were able to stop the spread of breast cancer cells. [3][4]

Similar to berries, the anthocyanins in **peaches** and **plums** exhibited strong cytotoxic effects against breast cancer cells – and only against cancer cells! The study by Vizzotto, et. al. in 2014 showed that **extracts from peaches and plums targeted cancer cells specifically, and did not affect normal cells at all**. This **selective action** against cancer cells suggests that these fruits could play an important role in chemotherapy. [5]

To kick start your day, have some oatmeal with real organic fruit! Take your pick from a variety of berries, peaches, and

plums. You can also make or purchase pure fruit juice to add more of these fruits in your diet. **Note that a British Journal of Nutrition study found anthocyanin content to be 51% higher in organic fruit than in non-organic**. [6] There's also the lack of pesticide residues…

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10. Salmon

Fish has long been regarded as one of the healthiest meats you can include in your diet – and not without good reason! Not only is it a good alternative protein source, it is also low in calories, while being high in vitamins and minerals. Fish, specifically **salmon** and other "oily fish" are also a great source of omega-3 fatty acids; substances that have been found to improve cardiovascular health and help protect against cancer. Yes, the omega-3s found abundantly in salmon have been linked to cancer prevention and improved quality of life for people already diagnosed with cancer.

According to Fabian, et. al. in 2015, intake of marine omega-3 fatty acids, EHA (eicosapentaenoic acid), and DHA (docosahexaenoic acid) has been linked to a decreased risk for breast cancer and increased survivorship (human studies). [1] Omega-3s are found in salmon – and **the beneficial ratio of omega-3 to omega-6 has been found far superior in wild salmon than farmed salmon**.

A similar study published in 2016 by Aucoin, et. al. concluded that omega-3 fatty acids could potentially help prevent prostate cancer or slow its progression. One of the main characteristics of omega-3 fatty acids is their anti-inflammatory powers, which can help prevent the inflammation of prostate cells and cancerous mutations due to inflammatory damage. Because of their findings, the

researchers suggest omega-3 supplementation to people at high risk for prostate cancer.

Jump, et. al. in 2015 found that dietary omega-3s could reduce the risk of primary liver cancer, specifically hepatocellular carcinoma, by preventing non-alcoholic fatty liver disease. Omega-3s are known for regulating the body's cholesterol levels – which can exert a protective effect on the liver. [2][3]

If you want to include fish in your diet (and you should!) opt for **wild-caught, fresh salmon** and boost your omega-3 intake to help protect yourself from different kinds of cancer.

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11. Pumpkin

Several studies have found over the last decade that **pumpkin** may prove to play a very important role in cancer prevention. In 2012 a study reported that **cucurmosin**, a molecule which is found in the edible flesh of the pumpkin, strongly inhibited liver cancer cells both in vitro and in vivo. [1] Previous studies had already noted *selectivity* – the ability of cucurmosin to target the cancerous cells while having minimal effect on healthy cells. It was also found that the cucurmosin had a **preventative** effect: with cucurmosin-fed mice developing 78.4% less tumors than the control group. The results of the study concluded that pumpkin was able to kill cancer cells by arresting the cell's normal cycle. Before a tumor is formed, the pumpkin extract was able to stop growth and development at the roots – a very important discovery in the field of cancer treatment.

In a 2013 study, the same team reported similar results with pancreatic cancer cells – and this is a highly sought after result because of the poor prognosis for pancreatic cancer. [2] Studies have also been done on how pumpkin and its extracts affect other types of cancer, with a 2011 study reporting similar effects on leukemia cells. The pumpkin extract was able to cause cause cell death through mitochondria dysfunction, sapping the energy powerhouse of the leukemia cell and causing its death. [3]

Pumpkin is a very versatile vegetable. You can steam it with other vegetables, add a little salt and pepper, and eat it as is. There are also the seeds and seed oil, which are also now being studied for potential anticancer effects. [4] More popular ways to eat pumpkin include baking it in a pie or making a drink with it (with the former requiring more work than an easy stir-fry).

Note that major brand "pumpkin spice lattes" aren't worth it – they may contain little or even *no actual pumpkin* (but a ton of additives)!

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12. Coffee

An amazing scientific study has indicated that **dark roast coffee decreases the level of spontaneous DNA strand breaks**. [1] Breaks in DNA (aka mutation) are the primary characteristic of cancer, and can lead to the formation of tumors through rapid cell growth. Because of this surprising ability of coffee to strengthen DNA, including coffee in the diet implies a potential to reduce cancer risk.

According to the study by Bakuradze, et. al. (2014), **coffee was able to improve the health of DNA strands (in white blood cells) in the human body**. Reportedly, coffee **decreases oxidative damage in white blood cells**, part of the immune system responsible for fighting infection. In the study, 84 male respondents were instruction to consume dark roast coffee every day for four weeks. The blend of coffee used in the study contained high levels of caffeoylquinic acid and N-methylpyridinium. Another group was instructed to drink the same quantity of water daily. [1]

After four weeks, the control group (water intake) exhibited an increase in DNA strand breakage. On the other hand, DNA breakage in the intervention group (coffee intake) was significantly decreased – by 27%! There were no diet differences between the two groups, nor were there any changes in weight – which meant that the improvement in DNA health could be attributed directly to the intake of coffee. [1]

Other studies have also focused on the cancer-fighting abilities of coffee: In a 2011 study by Prasad, et. al., Caffeic acid, found in not only coffee but also olive oil and some fruits and vegetables, has been discovered to have a "potent anticancer effect" on the HT-1080 human fibrosarcoma cell line. The researchers suggest that coffee may play an important role as an anti-cancer agent. [2]

Despite caffeine being one of the major active components of coffee, there is much more to this beverage than just the stimulating effect. It is also rich in other bioactive compounds like vitamin B3, magnesium, potassium, and a variety of phenols – all needed by the body to function normally. A study in 2011 revealed that coffee was able to improve the body's immune response to an allergic reaction by suppressing interleukin-12 (IL-12) and promoting anti-allergic activities. [3]

While coffee may play role in the development of hypertension and cardiovascular problems, it also possesses many characteristics that can help fight chronic disease such as cancer. If you choose to include coffee in your diet in order to decrease cancer risk, keep in mind that everything must be kept in moderation. Try to have coffee at the start of your day to boost your energy and your DNA health! But for best results, skip the sugar.

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13. Garlic

According to the findings of the National Cancer Institute, people who took allium vegetables (**chives, leeks, onions, scallions and garlic**) had about **50% lower cancer risk compared to those who did not consume these foods**. [1] Garlic contains allicin – which is considered as one of the most highly valued sulfur compounds for health. It is also known to contain other highly potent substances that offer highly exemplary effects to the human body.

Garlic has been credited with a role against several types of cancer, primarily in the gastrointestinal tract, because of its ability to exert a protective effect on cellular DNA. An important study that focused on garlic's chemopreventive characteristics was published in 2007 by Shukla and Kalra. They found that constituents found in garlic were able to detoxify carcinogens from the body, as well as protect DNA from mutation. [2]

Other studies found similar results: In 2006, Galeone, et. al. concluded that *allium vegetables* – garlic and onion included – **lowered the risk for cancers of the mouth, pharynx, esophagus, colon and rectum, larynx, breast, ovary, prostate, and kidneys**. [3]

A literature review on several studies published in 2001 by Fleischauer and Arab found that **garlic consumption could significantly protect a person from stomach and colorectal**

cancers. The same set of authors, along with Poole, published a study in 2000 on garlic consumption and the vegetables protective effect against stomach and colorectal cancers. [4][5]

Research also shows that garlic is beneficial to the heart. It has been found to help in lowering the level of cholesterol, supporting the prevention of blockage and clotting within blood vessels, as well as in reducing the rate of blood pressure. [6] Aside from its anti-inflammatory properties, garlic is also known to be useful in increasing the level of antioxidants in the body.

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14. Artichokes

Many people are surprised to learn that **artichokes** are part of the thistle family. Interestingly, compounds found in both artichokes and other thistle varieties have been found to have anticancer qualities.

Studies have found that artichokes, specifically certain antioxidants in artichokes, have the potential to prevent a variety of cancers. **Silymarin** is one of these antioxidants, also found in milk thistle – and **known for its ability to fight skin cancer and ovarian cancer**. A study published in 2002 posited that silymarin was able to scavenge "free radicals" and cellular and tissue damage in the body that had been generated by environmental pollutants like cigarette smoke and radiation; thus arresting the spread of skin cancer. [1]

Similar results were seen in a 2014 study, wherein silymarin was concluded to be an excellent potential candidate for the prevention and treatment of ovarian cancer. [2]

Recently, **antioxidants (other than silymarin) in artichokes have been found to have strong cancer-fighting abilities on breast cancer and liver cancer**. The antioxidants in artichokes work by causing the death of cancer cells, arresting the "cancer-cell cycle", and protecting the tissues from further damage. Studies on breast and liver cancer, published in 2008 and 2015 respectively, both concluded that antioxidants from

artichokes could play a future role in cancer therapy because of strong cancer-fighting abilities.

Eating Artichoke: The stem and "petals" of this tasty and healthful vegetable are popularly used in salads and dips. Its appearance may be a little intimidating (more than a few people have been baffled by how to eat it!) but all you need to do is cut off the pointy bits, a.k.a. the small thorns at the end of the petals, give the artichoke head a good wash and your prep is done! You can then boil or steam the artichoke (the latter is preferred because it preserves the nutritional content of the vegetable) until it's soft – and either toss the petals in a salad or make a dip out of them. Another popular way to enjoy artichoke is to place butter in between the petals after steaming and eat it as it is!

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15. Tea

Tea – one of the world's most popular beverages – has been widely studied for its various health effects.

In a 2006 USDA study, tea was found to contain over 700 different compounds, many of which are recognized for their potential to fight disease. Among these compounds, the most widely recognized and well understood are flavonoids, amino acids, vitamins, and polysaccharides. Tea varieties – green, black, white, and oolong – were found to contain high concentrations of antioxidants, giving them antitumor and anti-aging properties. [1]

Tea leaves contain high concentrations of vitamin C, which is known to fight cancer-causing free radicals. Green tea in particular has been linked to cancer prevention because of its polyphenols – which are potent antioxidants. A review of the literature, conducted by Yuan in 2013, covered different studies that focused on cancer prevention through green tea intake. The conclusion was simple – yes, drinking green tea could help decrease cancer risk. The study concludes that consumption of green tea is a safe recommendation to increase your polyphenol intake, which may help fight off cancer. [2]

More studies have been published in recent years; Makiuchi, et. al. conducted a study on Japanese green tea (Sencha, specifically) in 2016. They focused on the effects of green tea

on biliary tract cancer (BTC) and found that high consumption of Sencha could lower the risk for BTC. Compared to other types of green tea like Bancha, Sencha worked best lower cancer risk. [3] In the same year, Huang, et. al. published a study wherein high green tea consumption was linked with a decreased risk for liver cancer. The results, however, were only significant for women and not men. [4]

Despite numerous studies on the healthy benefits of tea, there is still much more work to be done. In 2013, Lambert published a review on available literature on green tea and concluded that the scientific community needed to work harder in order to confidently announce that "Yes, green tea can prevent cancer". [5] While there have been hundreds of further studies published in the years since Lambert's review, tea is generally regarded as healthful and may provide some cancer protection.

The best time to drink tea is at the start of your day, preferably before breakfast to make sure you absorb all the goodness tea has to offer. Have a cup of green tea in the morning or late afternoon.

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16. Vitamin D

Vitamin D is great for improving your bone health. It is typically found in liver and fish oils, as well as dairy products like milk, yogurt and cheese. The most popular way to get your daily dose is through the sun! Sunbathing – or rather – getting sun exposure helps the skin produce vitamin D, specifically exposure to ultraviolet B rays or UVB. Variations of this vitamin, namely vitamin D2 (or calciferol) and vitamin D3 (or cholecalciferol), are popularly taken as supplements for different diseases – including cancer! You might wonder how this vitamin can help prevent cancer but science has established that vitamin D supplementation may decrease the risk of cancer. [1]

Numerous research studies have found strong links between reduced vitamin D levels and cancers that affect the breast, prostate, and colorectal cancers, according to a review done by Giovannucci in 2005. While there is inconclusive evidence on the link between vitamin D intake and the epidemiology of cancer, it has been observed that areas with less UVB radiation do have higher cancer mortality rates – leading to the suggestion of the vitamin D link to reduced cancer levels. Decreased vitamin D in the blood (in overweight and obese people) is also associated with higher cancer mortality rates. Research conducted by Tagliabue, Raimondi, and Gandini in 2015 found that higher vitamin D intake was directly correlated with a reduced risk for cancer mortality in test subjects. [2][3]

Note that it is possible to have **too much** vitamin D. For optimal results, you can **request vitamin D testing** from your healthcare provider or order it directly online. This simple test will reveal your levels and then you can "tune them up" with supplementation and / or vitamin D rich foods, in line with your medical advisor's recommendations.

You can boost your Vitamin D intake by including the following food items in your diet:

– Have **salmon** as a main dish. Sockeye salmon has 526 IU of vitamin D.

– **Cod liver oil** has 1,360 IU of Vitamin D in a single tablespoon so use sparingly (and with medical discretion from your doctor).

– **Milk** or **cheese**. Each cup of milk contains about 125 IU of Vitamin D. [4]

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17. Nuts (Especially Walnuts, Peanuts & Almonds)

Breast cancer is one of the most dangerous forms of cancer to affect (mostly) women, especially women who are or have undergone menopause. It was estimated that almost a quarter of a million women (approximately 231,840) were diagnosed with invasive breast cancer and 60,290 were diagnosed with non-invasive breast cancer in 2015. [1]

A **human study** published in 2015 by Soriano-Hernandez, et. al. has found that high consumption of **walnuts, peanuts and almonds** in the diet reduced incidence of breast cancer by a factor of 2 to 3 – a very significant result. The study included 97 patients diagnosed with breast cancer and 104 people without. Reduction of cancer risk by 2 to 3 times was seen with high consumption but not with low or moderation consumption of walnuts, peanuts, and almonds. The researchers concluded that eating walnuts, almonds, and peanuts could exert a protective factor against breast cancer. [2]

In a review of publications conducted in 2014 by Falasca, Casari, and Maffucci, the results were unanimous – **nut consumption significantly reduced mortality risk, including mortality due to cancer**. [3] The researchers even

suggest that consumption of nuts should be used as a tool to reduce the world's cancer burden. They also suggest that nuts should have a specific serving in the diet recommended by the National Institutes of Health.

So instead of grabbing sugar-laden sweets or high-sodium chips for a snack, why not opt for nuts instead? You can find organic nuts in most groceries and markets. Raw is likely best. Nuts are not only delicious and tasty, they may help fight off cancer as well! ps. Yes I know, I know, peanuts are not technically a nut. Hopefully you are nut too upset. ;)

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18. Apples

As the saying goes – an **apple** a day keeps the doctor away; and with good reason! This popular fruit is loaded with healthy dietary fiber and vitamin C, which help with digestion and immunity. According to the USDA, a single serving of apples have about 18 percent of daily needed fiber and 14 percent of daily needed Vitamin C (based on a 2000 calorie diet).

However, science has shown that apples also play a role in cancer prevention and treatment. There have been several studies published in recent years that highlight the ability of apples to exert chemotherapeutic effects on cancer cells – suggesting that apples may greatly contribute in the management of different kinds of cancer. [1]

In a 2015 study published by Delphi, et. al., researchers focused on a substance called **pectin**. It was found that this could have very significant chemotherapeutic action against cancer cells.

Although generally known simply as "pectin", pectin in fact not one thing: It consists of a complex set of polysaccharides, that can be found in abundance in apples. Pectin also occurs naturally in the cell walls of most plants. Pectins from fruits like apples were found to produce degradation products that cause cell death when they interact with cancer cells. The

Delphi study focused on apple pectic acid and found that it could kill human breast cancer cells. [2]

Other study has supported this: In terms of cancer prevention, a 2010 study by Jedrychowski, et. al. found an inverse relationship between intake of apples and colorectal cancer risk. While the consumption of vegetables and fruits other than apples did not show significant protective effect against colorectal cancer, the increased consumption of apples did. This protective effect from apples could be due to the high flavonoid and polyphenol content of the fruit, which boosts immunity and can help prevent the onset of cancer or its metastases. [3]

There are many ways you can include apples in your diet, from apple pie through to salads and fresh juices among others. Still, the best way to get all the benefits from apples is to eat them fresh. The USDA advises you not to wash apples until you are ready to eat them and to store them in the refrigerator to prevent spoiling. Washing fruit in a bowl with apple cider vinegar will assist the cleansing process; rinse with fresh water.

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19. Seaweed

Scientific research has discovered a wealth of interesting substances in various seaweeds, which have some very promising anticancer qualities. This is a huge topic with a mountain of research having been undertaken into numerous seaweed varieties. Here are some examples:

Ecklonia cava (Kjellman) is an edible marine brown alga / seaweed variety which is a rich source of **Phlorotannins** [1]. Phlorotannins may typically make up around 5% to 12% by dry mass of seaweeds / brown algae. Extracts from *Ecklonia cava* have been found to be antiproliferative against various cancer cell lines. [3] Also, very interestingly – E cava has recently been demonstrated by other research models to have an anti-inflammatory effect which counteracted cognitive decline / neurotoxicity caused by ambient pollution! [4] There are further potential benefits, too: A 2010 review stated that phlorotannins had also been found to have antiallergic, antioxidant, antidiabetic, anti-HIV, antihypertensive and radioprotective activities. [1]

Hizikia fusiforme is an East Asian brown sea vegetable that has been part of the Japanese diet for centuries. Alcohol extracts have been found to work in synergy with TRAIL (TNF-Related Apoptosis Inducing Ligand) – an interesting anti-cancer substance that has shown a highly selective mechanism, being harmless to non-cancerous cells. [5][6]

Polysaccharides from H. fusiforme have also been found highly antioxidant and demonstrated potential photoprotective qualities (ability to protect the skin against UV damage) [7] ***Champia feldmannii*** is a red seaweed. In a 2009 study, a polysaccharide extracted from it showed antitumor qualities without being toxic to ordinary cells. [8]

An extract from edible kelp seaweed ***Undaria pinnantifida*** was found to be therapeutically active against Lewis lung carcinoma while again being non-toxic to non-cancerous cells. [9] While this was an early study, more recent research has supported these claims. Fucoidan – a polysaccharide found in *Undaria pinnantifida* and other brown seaweeds – has been a focal point of this anticancer seaweed research. A review of the available studies can be found at [10].

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20. Mushrooms And Green Tea (not at the same time, but both present in the diet)

Epithelial cancers, such as breast cancer, can take up to 20 years to develop, so it would be a good general strategy to improve the diet and incorporate cancer-preventing food throughout the years in order to reduce the risk of getting them. [1] One of these dietary improvements, according to recent statistical research, turns out to be an unexpected food combination – mushrooms and green tea – not at the same time, but both being included in the overall diet.

A study conducted in China among pre- and post-menopausal women showed that persons with an increased intake of mushrooms and green tea showed significantly lowered breast cancer risk and also a reduced effect on the malignancy, or progression of cancers. The researchers found out that the combination of mushrooms and green tea in the diet has significantly decreased the breast cancer risk among women from ages 20 to 87 years old. The effect is also duration-dependent: The younger a woman is when they start including both mushrooms and green tea in their diet, the significantly lower their breast cancer risk would be. [2]

Most breast tumors are responsive to estrogen because it's what makes them grow. Mushrooms contain substances that inhibit the body's estrogen production. [3] So it's theorized that eating mushrooms regularly may help in preventing breast cancer from growing and spreading, by altering the body's estrogen levels.

According to Dr. Donald Abrams, an oncologist from the San Francisco Osher Center for Integrative Medicine, stated "Mushrooms are good medicine. Cook them well before eating them and enjoy a variety rather than any one specific type." So the main idea here is to go to town on mushrooms! Try different kinds to find out which you like and which work for your palate and budget. [4]

Along with mushrooms, green tea is also said to be effective in breast cancer prevention, according to a study conducted by Li Min-Jing, et al. Breast cancer rates were found to be lower in Asia than in any other part of the world; potentially because Asians consume tea more frequently. Aside from preventing cancer, green tea is also regarded as having antioxidant effects, able to boost the immune system and get rid of toxins in the body. [3][5]

Numerous mushrooms have been researched for anticancer effects and there are a mountain of studies supporting these benefits. Specific compounds, notably polysaccharides, lectin, lentinan (a type of glucan from Shiitake, widely used in cancer treatment in China and Japan) [6] and beta glucan found in mushrooms have shown potential.

Mushrooms reported as anticancer include:

Phellinus rimosus [7][8] , ***Ganoderma oregonense*** ("Lacquer Fungus" / Oregon Polypore), ***Coprinopsis cinerea***, ***Tricholomopsis rutilans*** ("Plums and Custard"), ***Coprinellus disseminatus*** ("Crumble Cap"), ***Shiitake***, ***Maitake***, ***Ganoderma lucidum*** (Reishi), ***Agaricus blazei*** ("Royal Sun Agaricus"), and ***Coriolus versicolor***. [9]

Note that not all of these are culinary mushrooms and some, such as Reishi, would typically be consumed via powdered supplement or ethanol herbal extract.

Try a vegetable stir fry with mushrooms as the main ingredient and have a glass of green tea as your drink for one meal and see how you like it! Making an effort to include these two food items in your diet may help reduce your cancer risk – as well as keeping a healthy weight! Mushrooms are a good source of nutrients while being low calorie – same with green tea.

Important note – various medicinal mushrooms are now available in supplement form – but if you are tempted to forage and find them yourself for free, this should **only** be done by a **true** expert. Mushroom identification is complex, requires true expertise and should **only** be wild harvested by trained experts who can identify toxic species accurately!

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