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**FABULOUS
FOODS
YOU DIDN'T
KNOW FIGHT
CANCER**

BY JAMES TEMPLETON

One in three Americans will hear the words “I’m sorry, but you have cancer” in their lifetime. I was one of them. In 1985, I was diagnosed with [Stage IV melanoma](#). I began learning firsthand about the healing power of foods when I abandoned what felt like never-ending rounds of chemotherapy to try healing myself through diet. Talk about a leap of faith!

Now almost 4 decades later, I am here to tell you that foods are the most powerful medicine on the planet.

Cancer is responsible for 25 percent of all deaths in the United States, and thankfully I managed to avoid contributing to that statistic. Worldwide, the number of newly diagnosed cancer cases per year is expected to rise to 23.6 million by 2030. Trillions of dollars have been funneled into cancer research to date, yet it remains an undeterrable threat.

Conventional treatments often end up doing more harm than good, eroding away the patient’s immune defenses and leaving the door open for relapse. Part of the problem is that cancer remains poorly understood.

One of the most extraordinary scientific breakthroughs in cancer research in recent years was the discovery of cancer stem cells.

Scientists discovered that cancer stem cells are the key to cancer’s resilience—its ability to spread to other parts of the body (metastasize), resist chemotherapy and radiation treatments, and “seed” new tumors years or even decades down the road. Cancer stem cells comprise a very small proportion of the overall tumor cell population: about 1 in 1000. They are characterized by classic stem cell characteristics such as self-renewal and ability to differentiate into multiple cell types.

But, are you ready for some good news? Many foods are natural stem cell killers! It is likely that this attribute is a major factor explaining the ability of many foods to help prevent and even reverse cancer.

A remarkable study published in 2015 in the journal *Anticancer Research* identified the top 25 foods that target cancer stem cells, along with their associated cytotoxic compounds. (Moselhy et al 2015) Many of these foods also possess other cancer-fighting properties such as triggering cancer cell apoptosis (cellular suicide), cutting off a tumor’s blood supply, inhibiting proliferation, stimulating the immune system, and more.

The remainder of this report is devoted to six impressive cancer-fighting foods. These six are merely a starting point to illustrate how powerful foods can be in the battle against cancer. I am talking about ordinary foods you can find at your favorite local grocery or farmer’s market—and some of them may surprise you!

Watercress

1

Let's start with a mighty but often ignored cruciferous vegetable: watercress.



Watercress is increasingly gaining attention from medical scientists for its wealth of cancer fighting compounds. According to Dr. Mark Fogarty who headed up a watercress study at Edinburgh Napier University, watercress contains ten times as many beneficial chemicals as any other fruit or vegetable. (Fogarty et al, 2013)

What is watercress? Think of it as the forgotten stepchild of the cruciferous family—a peppery-flavored perennial cousin to cabbage, broccoli, arugula and mustard greens.

Watercress grows naturally around slow-moving water and has been used medicinally for centuries. In fact, it is reported that around 400 BC, Hippocrates located the first hospital on the island of Kos close to a stream so that he would have continuous access to fresh watercress for his patients!

This nutrient-dense leafy green packs impressive amounts of vitamins A and C, manganese, calcium, potassium, the carotenoids lutein and zeaxanthin, vitamin K, alpha-lipoic acid, and chlorophyll. Manganese is a critical cofactor for superoxide dismutase (SOD), an important antioxidant enzyme in the body. Chlorophyll can help block the carcinogenic effects of heterocyclic amines (HCAs) that form when grilling foods at high temperatures—so a watercress salad would be a great addition at your next BBQ.

Watercress's cancer-fighting chemicals are most potent when the bitter green is consumed raw.

Watercress shows promise against breast, prostate, colon, and lung cancer. This is in large part due to its treasure-trove of isothiocyanates—compounds that protect against a variety of cancers because they kill cancer stem cells. One isothiocyanate is sulforaphane, which is abundant in many cruciferous vegetables.

Watercress is an exceptionally rich source of gluconasturtiin, the precursor of a chemical called PEITC (phenethyl isothiocyanate), which improves the body's excretion of carcinogens. (Life Extension Magazine 2007) In a study published in the British Journal of Nutrition and Biochemical Pharmacology, PEIC was found to suppress breast cancer development by turning off the cellular signaling that's necessary for cancer cell growth. (Alwi et al 2010)

According to scientists at University of Ulster, eating watercress daily was shown to reduce oxidative damage in blood cells, which is considered an important trigger in the development of cancer. (Smith 2007)

In another study, researchers from the University of Minnesota examined the effects of the gluconasturtiin/PEITC in watercress on a group of 82 chain smokers. They found that, after just one week, watercress produced significantly higher NNK metabolism. NNK is a carcinogen and the leading cause of cancer from smoking, so its increased metabolism would imply an inhibition of carcinogenesis in smokers. (Fogarty et al 2012)

2



Coffee

You might be surprised to see coffee on this list after hearing decades of warnings about its “health risks,” but recent science has busted many myths and highlighted copious health benefits of this wonder-bean.



As is true with many things, you risk losing these benefits if you use it in excess, but as part of a healthy, whole foods-based diet—in moderation—coffee can give your health a generous boost.

A multitude of studies now indicate that coffee offers protection against a myriad of cancers from oral and skin cancer to breast, uterine, endometrial, prostate, colon, liver, lung, and brain. (Caffeine Informer) This is courtesy of its high antioxidant content. Coffee also contains anti-inflammatory and antiangiogenic compounds.

Coffee has another cancer-destroying weapon. Like soybeans and pomegranate, coffee contains the isoflavone genistein. Genistein is one of the top 25 food compounds found to kill cancer stem cells in the 2015 article cited above!

Chlorogenic acid is the primary source of antioxidants in coffee. Unlike most fruits and vegetables, roasted coffee beans actually have higher antioxidant content than raw. As the beans roast, chlorogenic acid breaks down and other beneficial antioxidants are created. Chlorogenic acid (CGA) is also what makes coffee so good for your waistline! CGA is thermogenic so it helps your body burn fat for fuel, as well as suppressing appetite, balancing blood sugar, and improving your lipid profile. And that means it's heart-healthy.

There are many positive coffee studies to be found, but here are just a few to illustrate how powerful coffee can be as part of your anticancer arsenal:

1. Men who consume six cups of coffee daily enjoy a 60 percent lower risk for prostate cancer (Science Daily 2009)
2. Drinking five cups of coffee per day can reduce your risk for certain types of brain cancer (gliomas) by 40 percent (Holick et al 2010)
3. Three cups of coffee daily significantly lower a woman's risk for breast cancer (Science Daily 2008)
4. A meta-analysis revealed that coffee drinkers have 41 percent less liver cancer (Bosetti et al 2007)
5. Individuals who drink four or more cups of coffee daily have HALF the risk of dying from oral or pharyngeal cancer than those who drink it only occasionally or not at all (Hildebrand et al 2013)

All coffee is not created equal. As with all your foods, take care to avoid coffee beans contaminated with pesticides and other chemicals, mold, flavorings, etc. For the greatest health benefits, keep the following in mind. If you want more information, Superfoodly has a great article, including brand comparisons. (2018)

- Choose organic Arabica instead of Robusta beans.
- Choose darker roast beans versus lighter roast to reduce acrylamide content. This sounds counterintuitive because acrylamide forms during roasting, but something interesting happens. Acrylamide forms early in the Maillard reaction —then during the later roasting stages, it is actually broken down.
- Espresso is probably higher in acrylamide than brewed coffee due to filtering, but there are no studies yet to confirm this.
- Drink your coffee black.
- Choose organic, earth-friendly beans.
- For a high-antioxidant, low-acrylamide, low-mold coffee bean, check out [Purity Coffee](#). They hand pick their coffee beans with this in mind. For a 20% discount on your first order, enter **DETOX20** when you check out.



3



Pomegranate

Pomegranate is a nutrient-dense fruit that has been the focus of much research for its abundant health-supportive properties. Studies have emerged suggesting pomegranate may be a heavy hitter in cancer prevention.

The slightly six-sided pomegranate is the fruit of the shrub *Punica granatum*. Botanically, the pomegranate is a berry, but inside it's unlike anything else! You will find chambers upon chambers of "arils," the term used for those juicy ruby-red pods you recognize as pomegranate seeds. The seeds are actually inside of those tasty pods. A single pomegranate can hold more than 600 arils!

Laboratory studies point to seven major avenues by which pomegranate extracts can inhibit cancer (Life Extension Magazine 2016):

- 1.Preventing DNA damage
- 2.Impeding proliferation
- 3.Reducing inflammation
- 4.Promoting cancer cell apoptosis (cellular suicide)
- 5.Inhibiting angiogenesis (new blood vessels feeding a tumor)
- 6.Reducing metastasis
- 7.Reducing hormone-stimulated cancer growth (e.g., breast and prostate)

Pomegranates contain three types of antioxidant polyphenols: tannins, anthocyanins and ellagic acid, with the most notable being punicalagins and punicalins. Punicic acid, known also as pomegranate seed oil, is the main fatty acid in the arils and is actually a type of conjugated linoleic acid (CLA). This special polyphenol potion offers three times the antioxidant punch of red wine or green tea, making it a great asset for detox. (Gil et al 2000) Punicic acid has been shown to inhibit the spread of cancer, including skin, breast, prostate, lung, colon, and others. (Sharma et al 2017; Zarfeshany et al 2014)

In lab and animal studies, pomegranate extracts have been found to selectively inhibit the growth of skin, breast, prostate, colon, and lung cancer cells. Human studies demonstrate how pomegranate extracts can slow the progression of prostate cancer.

Two recent studies have examined the effects of pomegranate on cancer stem cells. The first, published in the journal *Food and Chemical Toxicology*, looked at how colon metabolites of polyphenols from pomegranate interact with and affect cancer stem cells. The researchers confirmed that these mixtures were able to suppress colon stem cells derived from the primary tumor of a patient with colorectal cancer. They showed pomegranate extracts altered the characteristics of the stem cells in a way that is consistent with cancer suppression. (Nunez-Sanchez et al 2016)

The second study, published in the journal Nutrition and Cancer, examined pomegranate extract's effects on breast cancer stem cells. Researchers found the extract effective in suppressing two different breast cancer cell lines. (Nallanthighal et al 2017)

Pomegranate also contains an antioxidant called delphinidin (also found in blueberries and raspberries), which made the list of top 25 cancer stem cell killers. (Noda et al 2002)

In North America, pomegranate season is generally September through December. They grow in hotter, drier parts of the US such as the Southwest. In addition to adding pomegranate seeds to salads and consuming pomegranate juice, you can make "pomegranate molasses" by simmering down pomegranate juice into a thick syrup, then storing it in your fridge in an airtight glass jar. A drizzle of pom syrup imparts a powerful nutritional blast to sauces, dressings and marinades.



4

Sesame

When it comes to superfoods, there may be nothing that packs as much healing power into a small package as the humble sesame seed.





Studies have revealed that sesame seeds are a superior source of cancer-fighting lignans. Lignans are chemoprotective, anti-carcinogenetic, and pack a serious anticancer punch.

In a 2012 study, researchers found that sesame lignan was even more effective than flaxseed lignan in reducing breast tumor growth, possibly because sesame lignan was more adept at inducing apoptosis of breast cancer cells than flaxseed lignan. (Truan et al 2012)

The primary bioactive lignan in sesame seed is sesamin. Research has shown that sesamin can be converted by human intestinal microflora to the mammalian lignans, enterolactone and enterodiol, both of which may have protective effects against hormone-related diseases such as breast cancer. (Liu et al 2006; Coulman et al 2005)

Sesamin has been linked to prevention of hyperlipidemia, hypertension, and carcinogenesis (Harikumar et al 2010) This lignan has been shown to fight cancer in the following five ways (Majdalawieh et al 2017):

- 1.Reducing proliferation and invasion of cancer cells
- 2.Promoting cancer cell apoptosis
- 3.Stimulating autophagocytic activities
- 4.Reducing angiogenesis
- 5.Reducing oxidative stress and inflammation

In terms of stem cell activity, sesamin was found cytotoxic to gallbladder carcinoma stem cells. (Kong et al 2014) The compound inhibits the proliferation of a wide variety of tumor cells including leukemia, multiple myeloma, and cancers of the colon, prostate, breast, pancreas, and lung. High concentrations of sesamin and sesamol (another lignan) in sesame oil have been found to induce mitochondrial apoptosis in colon cancer, as well as in prostate, breast, lung, leukemia, multiple myeloma and pancreatic cancers. (Khamphio et al 2016; Xu et al 2015)

5

Miso

The next cancer superfood on our list is miso. Miso is a salty, earthy fermented food, traditionally made from soybeans, originating in Japan.



This food is often overlooked in cancer prevention, but there is compelling research about its benefits not only for discouraging cancer but for protecting the body from radiation, lowering blood pressure, and improving digestion. Due to its unique fermentation process, miso is rich in immune-enhancing probiotics, vitamins, and antioxidants such as phenolic acids.

Research suggests probiotic foods can exert an antitumor effect, which makes sense considering the fact that at least 80 percent of your immune system is housed in your gut.

According to renowned cancer expert Dr. William Li, fermented soybeans such as miso have four times the anticancer kick of regular soybeans. Dietary miso is found to inhibit the development of cancerous colon cells. Animal research also indicates miso can suppress mammary, lung, stomach and liver tumors. Miso's anticancer action seems to be enhanced by longer fermentation periods—several months to even years. (Ito et al 1993)

Besides soybean, many varieties of miso can be found on the market today such as chickpea, lima bean, adzuki bean and farro, among others. Soybeans and other beans contain an isoflavone called genistein, which is shown to offer a number of health benefits—only one of which is tumor inhibition. Genistein is number eight on the list of cancer stem cell killing food compounds discussed above. It also improves blood glucose and insulin control, hot flashes, heart health, and helps prevent bone loss.

Miso is available in most nutrition stores—just make sure the one you buy is organic (non-GMO). Make sure not to boil miso because excess heat will destroy those wonderful live microorganisms that contribute to its health benefits. Here are a few great ways to enjoy miso:

- Dissolve a teaspoon of miso in hot water for a quick, light plant-based broth, or finish off any soup by mixing in a teaspoon of miso prior to serving
- Add light miso to your favorite vinaigrette, and drizzle over bitter greens to give your salad an Asian flair
- Miso adds depth of flavor to many glazes, sauces, and marinades
- Miso makes a great addition to stir fry (add at the end)
- Upgrade your pesto with a little miso—and the same goes for hummus!

6



Seaweed

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Last but not least is seaweed. When thinking about cancer prevention, seaweed might not be the first food that comes to mind. However, evidence suggests compounds in seaweed exert cancer-fighting effects through multiple mechanisms of action, including inhibiting cancer cell growth, preventing metastasis, and triggering cancer cell apoptosis.

High consumption of seaweed and other marine organisms has been suggested as a major factor behind the low incidence of cancer in Japan and other countries with similar dietary proclivities.

Seaweed—or marine algae—is actually a veritable goldmine of novel agents with a complex blend of polysaccharides, pigments, polyphenols, and other bioactive agents. Notable anticancer compounds found in seaweed include laminarin, dactylone, iodine, and fucoidan. (Moussavou et al 2014)

Laminarin from brown algae is found to inhibit the proliferation of colon cancer cells by inducing apoptosis. All seaweed is high in minerals which helps prevent cancer growth—colon cancer, for example. Red algae contain a compound called dactylone with proven anticancer properties.

Then there is iodine—which is also cancer preventative! Seaweed has 10 times as much iodine as any other food. Women in Japan enjoy 66 percent lower breast cancer rates than women in the US, and their diets are about 25 times higher in iodine. But when Japanese women move to the US and start eating a Western diet which is typically iodine-deficient, their breast cancer rates spike to American levels.

Iodine levels have particularly strong implications for breast cancer. Women store even more iodine in their breasts than in their thyroid, and iodine deficiency correlates with higher breast cancer risk. When levels are low, the ovaries produce more estrogen which increases a woman's risk for breast, prostate, endometrial, and ovarian cancers. Animal studies indicate that iodine can reduce breast tumor rates by 250 percent.



Seaweeds Mega-Weapon Against Cancer: Fucoidan

The most heavily researched compound in seaweed, with more than 1,000 studies behind it, is fucoidan, a polysaccharide derived from the brown algae *Fucus* spp. Fucoidan has impressive anticancer effects, especially against colorectal, gastric, and breast cancers. Fucoidan has an impressive roster of cancer fighting activities (Life Extension Magazine 2015):

1. Helping prevent metastasis
2. Stimulating cancer cell apoptosis
3. Preventing new blood vessel growth around tumors (angiogenesis)
4. Enhancing the activity of natural killer (NK) cells
5. Reducing inflammation and autoimmune reactions, restoring normal immune function

Compelling experimental evidence shows that fucoidan interferes with the migration of free-floating cancer cells, thereby preventing cancer's progression and metastasis. It does this by inhibiting molecules called selectins which facilitate the locomotion of various types of cells by allowing them to stick to blood vessel walls where they leave the circulation to enter tissues. Cancer cells, as well as many other types of cells, rely on selectins to spread to other parts of the body.

Colon cancer will often spread to the lungs. However, rats injected with human colon cancer cells that received fucoidan supplementation showed more than a 50 percent reduction in lung metastasis. (Gassmann et al 2010) Similarly, mice inoculated with leukemia cells while on fucoidan supplementation showed a 65 percent reduction in tumor development. (Maruyama et al 2006)

Interestingly, while fucoidan will cause cancer cells to die, it exerts an anti-aging effect on normal cells! Daily fucoidan use was shown to increase mobilization of stem cells to appropriate sites of illness or injury, as well as improving their overall survival rates. (Irhimeh et al 2007) Could this be the key to Japanese longevity?

When selecting seaweed products, there are a number of types and considerations. Kombu and arame (brown seaweeds), dulse (a red seaweed), kelp, wakame, and nori are common options. Avoid hijiki as it is consistently shown to possess high levels of heavy metals, particularly arsenic.

Since the 2011 Fukushima nuclear disaster, seaweed from the Japanese coast to as far away as the west coast of North America has been contaminated with radioactive fallout. Be sure to source your seaweed products from non-contaminated waters, such as the southeastern coast of Argentina or the Patagonian shores. Ideally, obtain them from a company who tests their products for contamination and harvests them sustainably.



THE POWER IS YOURS

This report is just the tip of the iceberg when it comes to cancer fighting foods. Cancer is a complex biological process that we are just beginning to understand. Conventional treatments have been an abysmal failure, weakening the body and tearing down any remaining immune defenses. Whether you have received a cancer diagnosis or you're merely trying to avert one, realize you wield more power than you know! These and other health-promoting, cancer-fighting foods are easily within your reach. For more information and inspiration, please visit the [Templeton Wellness Foundation Blog](#).