

Prioritize Nutrition

Diet is one of the most important factors when it comes to cancer prevention, toleration of treatment, and prevention of recurrence. This workbook is meant to simplify what we know to be research based best practices as it relates to diet & breast cancer so you can make em**POWER**ed nutritional choices. Analysis of critical findings indicates that lifestyle factors, especially diet and physical activity, have the most robust effect on breast cancer outcomes.

Our goal with these nutrition recommendations is to cut off cancer's supply line and to create an inner terrain where cancer cannot thrive.

Nutrition is the key to building a strong body, which is crucial to endurance & longevity. Proper nutrition is the key to maintaining a healthy weight, which decreases the risk of certain cancers, including breast.

The role of GENETICS

According to Breastcancer.org only about 5% to 10% of breast cancers are thought to be hereditary, caused by abnormal genes passed from parent to child. That's GOOD NEWS because we cannot control our genes, but we can control our habits & lifestyle.

In a study published in the New England Journal of Medicine in 1988 they found that genes of *biological* parents who died of cancer before age 50 had **no influence** on adoptees' risk for cancer. The children whose *adoptive parents* died of cancer before age 50 had a **500% increased risk of cancer mortality**. Moral of the story: adoptive parents pass on lifestyle habits whereas biological parents pass on genes.

In that same journal (2000) they published a study of identical twins showing that they share every gene, but not the risk for cancer.

Immigrant data is also interesting. Among native Japanese women, breast cancer is **one quarter as prevalent** as it is among those who move to the US. And first generation immigrants to the US from Mexico, Puerto Rico, and Cuba have a **40% higher risk of cancer** than in their native land.

"Cancer genes do not necessarily express themselves. The most hereditary factor is not our family history, it's our family dinner table."

SUSAN SILBERSTEIN, PHD
Founder of Center for Advancement in Cancer Education

OBESITY & Cancer

Obesity is a known cause of cancer & can negatively affect survival. According to the American Institute for Cancer Research More than 100k cases of cancer each year are caused by excess body fat with **17% of breast cancers each year caused by excess body fat.**

According to Breast Cancer Studies from Journal of the National Cancer Institute (1993): Poor dietary habits are strongly associated with breast cancer treatment failure and dietary intervention is a worthwhile approach for improving treatment outcome.

Lifestyle factors, including diet, are among the most modifiable and important risk factors for cancer.

A low-fat plant based diet is the key. Nearly 5000 research studies have shown that fresh fruits and vegetables can help control cancer.

Why is prioritizing diet an important part of your cancer journey?

Be as detailed as possible.

What does a cancer protected diet look like?

1. **Eliminate or reduce the foods and beverages that promote cancer growth**
2. Increase the foods and beverages that prevent cancer growth

Top Foods that promote cancer growth

- Simple Carbohydrates
 - Sugar
 - White Flour
- Unhealthy Fats
 - Omega 6's
- Animal Proteins
 - Dairy
 - Alcohol



CANCER PROMOTING

- ✓ SUGAR & WHITE FLOUR
- ✓ UNHEALTHY FATS & OMEGA 6's
- ✓ ANIMAL PROTEINS & DAIRY
- ✓ ALCOHOL

NOT TODAY CANCER CLUB

Which foods from the above list is a regular part of your diet today?

Do you currently feel like your diet is supporting your overall health?

SIMPLE CARBOHYDRATES: Sugar & White Flour

"Bad" or simple carbohydrates include sugars and refined grains that have been stripped of all bran, fiber, and nutrients, such as white bread, pizza dough, pasta, pastries, white flour, white rice, sweet desserts, and many breakfast cereals.

Sugar is cancer's favorite food

Studies have shown spikes in sugar intake suppress your immune system. You may hear "there is no direct link between sugar & cancer" but the fact is, cancerous tumors are primary sugar feeders. **Cancer cells uptake glucose at a rate of 10-12 more times the rate of healthy cells.** That's why pet scans are so effective. They are one of the most accurate tools we have to detect tumor growth. With PET scans we're giving the patient sugar water tagged with a radioactive isotope, and the cancer cells light up like a Christmas tree.

Sugar, Insulin, IGF

Sugar ingestion leads to insulin release

The more sugar eaten, the higher levels of insulin in the body

Obesity & lack of exercise increase insulin and IGF levels

High levels of IGF & insulin may be CAUSATIVE of cancers of the breast, colon, prostate, endometrium, and pancreas

Artificial Sweeteners

Potentially have even more cancer causing properties. Aspartane, saccharine, sucralose have been implicated in risk for bladder cancer, lymphoma, leukemia at levels well below acceptable doses. Patients with those types of cancers who continue to consume those types of sweeteners/sugar substitutes will have increased growth of tumors

White flour has very little nutritional value is stripped of its nutrients during processing

It's high in carbohydrates and calories, and low in everything else like fiber, protein and vitamins. During processing the bran and germ part of the grain are removed leaving only the endosperm. **The consumption of refined flour raises blood sugar and insulin, causing metabolic dysfunction.**

Energy Balance and Cancer: the role of insulin & insulin growth factor-I
Kaaks R. Proc Nutr Soc 2001 Feb; 60(1):91-106

raises blood glucose is like trying to put out a forest fire
while somebody's throwing gasoline on the trees ."

PATRICK QUILLIN, PHD

Cancer Treatment Centers of America

Begin to notice when/where sugar and flour are creeping into your diet Reduce
and/or eliminate foods with "added sugar or sugar substitutes on the label
Reduce or eliminate foods with white flour

How will you benefit from removing refined sugar & flour from your diet?

Why is this important to you?

Traditional plant based diets only contain about 15-20% of total calories coming from fat - whereas a typical western diet has about 40-50% coming from fats.

A typical western diet has a lot of foods high in unhealthy fats: fried foods, french fries, hamburgers, steak, pork, butter, cheese, ice cream, chips, donuts, etc.

High levels of these types of foods high in dietary fat are linked to increased hormone levels, increased carcinogens, increased mutagens because these compounds are lipophilic - they like the fat, they live in the fat, they don't metabolize out of the fat.

Saturated Fats (bad)

The American Heart Association recommends limiting saturated fats – which are found in butter, cheese, red meat and other animal-based foods, and tropical oils. Decades of sound science has proven it can raise your “bad” cholesterol and put you at higher risk for heart disease. So, regardless of cancer, this is something to watch.

A high-fat diet (HFD) induces changes in gut microbiota leading to activation of pro-inflammatory pathways, and obesity, as a consequence of overnutrition, exacerbates inflammation, a known risk factor for cancer.

In our "foods to include" recommendations we'll be placing an emphasis on unsaturated fats (good/plant source).

Omega 3 /Omega 6 Ratio

We need both omega 3 & 6 fatty acids, but we need to optimize the ratio. A little bit of inflammation is ok, like a fireplace in a house, but we don't want to overdo it and burn the house down.

Omega 6: inflammatory

Omega 3: anti inflammatory

Back in the hunter gatherer days the ratio of Omega 3 to 6 was 1:1, today it is more like 16:1 in favor of Omega 6's which we know are inflammatory.

Vegetable oils didnt exist pre-industrial revolution, but today they account for a huge percentage of calories

OMEGA 6

Suppresses Immunity + Promotes Inflammation

<input checked="" type="checkbox"/> Sunflower Oil	<input checked="" type="checkbox"/> Cottonseed Oil
<input checked="" type="checkbox"/> Safflower Oil	<input checked="" type="checkbox"/> Sesame Oil
<input checked="" type="checkbox"/> Soybean oil	<input checked="" type="checkbox"/> Peanut Oil
<input checked="" type="checkbox"/> Corn Oil	

OMEGA 3

Prevents Disease

<input checked="" type="checkbox"/> Wild Fish	<input checked="" type="checkbox"/> Walnuts
<input checked="" type="checkbox"/> Sea Vegetables	<input checked="" type="checkbox"/> Pumpkin Seeds
<input checked="" type="checkbox"/> Grass Fed Animals	<input checked="" type="checkbox"/> Ground Flaxseeds
<input checked="" type="checkbox"/> Free Range Hens/Eggs	

NOT TODAY CANCER CLUB

Quality of Fats

Expressed concentrated oils, especially those rich in omega 6, are very unstable. They denature very quickly when exposed to air, heat, or light. They produces lipid peroxides, rancidity and free radicals which are definitely implicated in cell damage and cancer.

Avoid these

- Trans fats
- Hydrogenated fats
- Margarine
- Oxidized fats
- Free radicals

POWER Plan

Throw away everything with soybean oil, canola oil, safflower oil, etc. (use olive oil, coconut oil, avocado oil, etc)

Replace butter & margarine with Ghee

Include more Omega 3's in your diet (flaxseed, walnuts, pumpkin seeds, etc) Limit Saturated & Trans Fats

*How will you reduce unhealthy fats & improve your Omega 3/Omega 6 Ratio?
Be specific with your plans.*

Animal Proteins: Meat

Research shows that a **high animal protein diet will increase our risk for cancer** and for spread of cancer. Overloading your diet with protein can mess up your macronutrient balance and induce Mtor activation. Eating high amounts of protein is usually achieved by eating lots of meat and dairy products, which are often high in saturated fat and low in fiber. Too much saturated fat can increase “bad” LDL cholesterol, according to the American Heart Association. Saturated fat can also **trigger inflammation in the body**.

Protein turns on MTor. MTor Activation is associated with nearly every cancer.

Signaling through the mammalian target of rapamycin (mTOR) is activated by amino acids, insulin, and growth factors, and impaired by nutrient or energy deficiency. mTOR plays key roles in cell physiology. Under normal circumstances, mTOR is a major regulator of cell growth and division. However, **in tumor cells, abnormally activated mTOR sends signals that encourage tumor cells to grow, metastasize, and invade new healthy tissues.**

“Of all the nutrients that stimulate Mtor, amino acids, which are derived from protein are the most potent. Stimulating Mtor by eating large amounts of protein, is also one of the quickest ways to suppress cellular and mitochondrial autophagy, which prevents your body from effectively cleaning out debris and damaged cells.”

DR. MERCOLA
"Fat for Fuel!"

If you are doing everything to keep glucose and insulin levels low - eating excessive protein will still activate the Mtor pathway. If your goal is to treat disease & live long you want to avoid doing this chronically.

Shoot for adequate protein - not high or even moderate - enough to do the repair work needed, but no more.

You need 0.8 grams of protein per kilogram of your body weight. (You can convert your weight from pounds to kilograms by dividing by 2.2.)

This amounts to about 56 grams per day for the average man, and 46 grams per day for the average woman - with no more than 4oz of that coming from animal protein per day

No more than 4oz of that coming from animal protein per day

Calculate your daily protein intake needs

$\text{Current Weight } \underline{\hspace{2cm}} / 2.2 = \underline{\hspace{2cm}} \text{ kg}$ $\underline{\hspace{2cm}} \text{ kg} * 0.8 = \underline{\hspace{2cm}} \text{ grams of protein/day}$

Japanese women who followed western diet based on meat were 8 x more likely to develop breast cancer than those who remained on a plant based diet

National Cancer Research Institute of Tokyo

Animal Proteins: Dairy

Cow's milk is another dangerous protein source, including ice cream, cheese, and other dairy products. Milk contains a protein known as casein which is a problem because mothers milk contains intrinsic growth factors to help their babies grow. Naturally, most milk proteins including casein can promote the growth of both normal cells and cancer cells.

Insulin-like growth factors found in all milk can take existing cancer cells and help them grow.

According to beatcancer.org, there is a significant correlation between a history of heavy dairy consumption and poorly controlled leukemia, lymphoma, breast, ovarian and prostate cancer.

Not only that, **dairy has over 60 different hormones in it.** And as Chris Wark says from Chris Beat Cancer, " The purpose of cow's milk is to grow from a 65 lb new newborn calf to a 500 lb cow in a matter of a month . "

POWER Plan

Stick to 0.8 grams of protein per kilogram of your body weight. (Convert your weight from pounds to kilograms by dividing by 2.2.)

No more than 4oz of animal protein/day

Eliminate factory farmed animals from your diet (Grass fed is best)

Consider meat a side rather than main course

Reduce/eliminate dairy

Why is reducing animal protein important to you?

Alcohol

More than 100 studies have looked at the association between alcohol consumption and breast cancer risk in women.

These studies, although observational – meaning they draw on inferences from researchers, but worth paying attention to because they have *consistently* found an increased risk of breast cancer associated with alcohol intake.

Alcohol is empty calories and can lead to unwanted weight gain. Excess fat can lead to increased cancer risk.

Alcohol can increase levels of estrogen and other hormones associated with breast cancer.

Alcohol drinkers are more likely to have increased amounts of folic acid in their systems, which can lead to increased cancer risk.

Red Wine

Some studies suggest that red wine may help reduce your chances of getting cancer. Yet, other research has shown that drinking even a small amount of alcohol increases your chances. Even though some studies suggest that a glass of wine may lower your risk of heart disease, researchers can't say for sure that a glass of red wine lowers your risk for cancer. **Either way, heavy drinking does damage your cells and can increase your chances for cancer. So, if you choose to drink red wine, do so in moderation.**

Red wine may have health benefits

The skin and seeds of grapes may have healthy properties. A big part of this power comes from the antioxidant resveratrol. This natural plant chemical protects your cells from damage that could lead to cancer.

Red wine is full of resveratrol because it's made from grapes. But researchers are still trying to confirm whether the resveratrol in red wine actually reduces cancer risk.

Wine selection and serving size matters

Want to reap wine's possible health benefits? Stick to this advice:

Choose red wine over white. The red and purple grapes used to make red wine may have more benefits. That's because they contain more resveratrol than green grapes.

Look at the vineyard. Before choosing a wine, dig a little deeper to learn about the vineyard that makes the wine. Vineyards located in cool, moist climates produce grapes with larger amounts of resveratrol than those in warm, dry climates.

Stick to the recommended serving size of 5 ounces. Women should have no more than one drink per day, and men should have no more than two drinks per day.

POWER Plan

Avoid alcohol as often as possible - enjoy it on occasion, just don't make it routine

Select low-calorie options to avoid unwanted weight gain

Stay away from 100-proof liquor. Researchers believe that it's the ethanol or alcohol in beer, wine and liquor that causes increased cancer risk

Stick to a glass of Red Wine with meals

What is your current relationship with alcohol?

What changes, if any, would you like to make regarding alcohol?

Why?

Intermittent Fasting

Intermittent Fasting: episodic periods of little or no calorie consumption

Recent animal studies and a few preliminary human trials have shown a decrease in risk for cancer or a decrease in cancer growth rates.

These studies indicate this may be due to the following effects from fasting: •
decreased blood glucose production

- stem cells triggered to regenerate the immune system
- balanced nutritional intake
- increased production of tumor-killing cells

POWER Plan

Allow a window of 13-14 hours each evening for Intermittent Fasting

It's Time to Get Curious!

Reflect on all of the information above and what each section means to you, and how you currently align (or don't) with the recommendations. No self-judgment here; just exploration.

Which POWER Plan recommendations come easily to you? Which ones will be more difficult?

What does a cancer protected diet look like?

1. Eliminate or reduce the foods and beverages that promote cancer growth
2. Increase the foods and beverages that prevent cancer growth.

Top Foods that prevent cancer growth

Fruits
Vegetables
Healthy Fats
Omega 3's
Legumes
Whole Grains
Fiber
Soy
Turmeric, Garlic
Green Tea
Cacao

Which foods from the above list is a regular part of your diet today?

Do you believe incorporating more of these into your diet will have a positive impact on your health? Why or why not?

Fruit

Natural sugars in fruits and vegetables are good for you - it's the isolated, refined white sugar and corn syrup that's unnatural and unhealthy.

Many fruits provide antioxidants to help fight the growth of cancer cells and may even offer other health benefits to help ease certain side effects of treatment.

Berries

Mounting evidence reports a variety of health benefits of berry fruits that are usually attributed to their non-nutritive bioactive compounds, mainly phenolic substances such as flavonoids or anthocyanins. Although it is still unclear which particular constituents are responsible for the extended health benefits, it appears that whole berry consumption generally confers some anti-oxidant and anti-inflammatory protection to humans and animals. With regards to cancer, studies have reported beneficial effects of berries or their constituents including attenuation of inflammation, inhibition of angiogenesis, protection from DNA damage, as well as effects on apoptosis or proliferation rates of malignant cells. Berries extend effects on the proliferation rates of both premalignant and malignant cells. Their effect on premalignant cells is important for their ability to cause premalignant lesions to regress both in animals and in humans.

Notably, a series of phytochemicals abundantly found in berries such as cyanidin, delphinidin, quercetin, kaempferol, ellagic acid, resveratrol, and pterostilbene have been shown by in vitro and in vivo studies to interact and interfere with key pathways in breast cancer as well as induce apoptosis and autophagy thus reducing risk for breast cancer development and recurrence

Antioxidants (Basel). 2016 Dec; 5(4): 37.

Published online 2016 Oct 19. doi: 10.3390/antiox5040037

Raspberries & Strawberries contain a large amount of the polyphenol ellagic acid. Ellagic acid has potent anti-angiogenesis activity that can slow down the production of blood vessels that feed new tumor cells

Researchers at Ohio State University found that black raspberries inhibited cancer of the esophagus, mouth, colon

Blueberries are particularly effective in forcing cancer cells to commit suicide (apoptosis) - especially effective against colon cancer

POWER Plan

Don't shy away from fruit, especially berries

Cruciferous Vegetables

Cruciferous vegetables are rich in nutrients, including several carotenoids (beta-carotene, lutein, zeaxanthin); vitamins C, E, and K; folate; and minerals. They also are a good fiber source.

Protect against (and reverse) breast, prostate, bladder and lung cancer Many anticancer properties due to their content of indol and sulfur compounds which support important liver enzyme systems & detoxification pathways that can neutralize dangerous hormones and carcinogens very quickly

- Arugula
- Bok choy
- Broccoli
- Brussels sprouts
- Cabbage
- Cauliflower
- Collard greens
- Horseradish
- Kale
- Radishes
- Rutabaga
- Turnips
- Watercress
- Wasabi

Carotenes/Cartenoids

Phytochemicals in plant-based food linked to lower breast cancer risk. You can get it from orange, yellow, dark green vegetables and fruits.

Carotenes play 2 essential roles in our health

1. They have the ability to support our immune system - thousands of studies on file with the us national cancer institute demonstrating that carotenes have an inhibitory effect on cancer:

Boost immune function

Stimulate t-cells (esp t helper cells)

Natural killer cells

Macrophage cells

Help the body produce its own interferon which is an immunotherapy

2. Serve as Antioxidants - they are able to neutralize free radicals which are dangerous c compounds that damage our cellular DNA with 10s of thousands of hits per cell per day. Free radicals are directly implicated in the cancering process of every cell in our body - antioxidants contained in whole foods like fruits and vegetables can help protect against this damage.

Lycopene

Lycopene exhibits antioxidant and anticancer properties. Results from several epidemiologic studies suggest a strong association between high intake of lycopene-rich foods and reduced risk of several cancers

Found in tomatoes, beets, watermelon, and all red fruits and vegetables

Flavonoids

These chemicals, which you find in certain plants, are linked to lower breast cancer odds. The evidence is strongest for two specific types, flavonols and flavones, especially for women who are past menopause.

You can find flavonoids in berries, red cabbage, kale, onions, broccoli, tea

DARK chocolate is one of the top 10 foods with high flavonoids

Flavones come in parsley, celery and drinks with chamomile

POWER Plan

Load up on cruciferous vegetables daily

Look to include more carrots, pumpkins, winter squash, spinach, kale, sweet potatoes and cantaloupe in your diet

Think red for lycopene: tomatoes, beets, watermelon, and all red fruits and vegetables

Eat berries, red cabbage, kale, onions, broccoli, tea, and DARK chocolate (88% Cacao) for flavonoids

Flavones come in parsley, celery, and drinks with chamomile

List all of the fruits and vegetables you enjoy and/or are willing to try.

Why will this be beneficial?

Healthy fats are essential for nutrient absorption, proper cell division and regulating inflammation. They also have a big influence in preventing cancer.

"Dietary fats give you energy, support cell function and help your body to absorb nutrients from vegetables, fruits and other foods."

Erma Levy
research dietitian

Research shows that it's not the amount of fat that's important, but rather the type of fat you eat that is important for your health.

Healthy monounsaturated fats – from nutrient-dense avocados, and avocado oil, nuts (especially macadamias and macadamia nut oil) and olive oil – were the primary fat source in the diets of our disease-free ancestors.

Avocados, olive oil, grapeseed oil and walnuts are all **high in omega-3 fatty acids, which help combat inflammation and improve cardiovascular health.**

- Avocado
- Chia seeds
- Dark chocolate (88 % cacao)
- Eggs (pasture raised)
- Fatty fish (wild caught)
- Flaxseeds
- Nuts
- Nut and seed butter
- Olive Oil
- Grapeseed Oil
- Walnuts

POWER Plan

Replace unhealthy fats with the healthy ones, like monounsaturated fats & omega 3's

Whole grains contain the entire grain – which is made up of bran, germ and endosperm. Refined grains have been milled (ground into flour or meal) in a way that removes the bran and germ.

All whole grain kernels contain three parts: the bran, germ, and endosperm. Each section houses health-promoting nutrients.

The bran is the fiber-rich outer layer that supplies B vitamins, iron, copper, zinc, magnesium, antioxidants, and phytochemicals. Phytochemicals are natural chemical compounds in plants that have been researched for their role in disease prevention.

The germ is the core of the seed where growth occurs; it is rich in healthy fats, vitamin E, B vitamins, phytochemicals, and antioxidants.

The endosperm is the interior layer that holds carbohydrates, protein, and small amounts of some B vitamins and minerals.

These components have various effects on our bodies:

Bran and fiber slow the breakdown of starch into glucose—thus maintaining a steady blood sugar rather than causing sharp spikes.

Fiber helps lower cholesterol as well as move waste through the digestive tract. Fiber may also help prevent the formation of small blood clots that can trigger heart attacks or strokes.

Phytochemicals and essential minerals such as magnesium, selenium and copper found in whole grains may protect against some cancers.

Whole grains provide more protein without all the fat you'll find in animal products like meat or cheese.

whole-wheat flour
bulgur (cracked wheat)
oatmeal
quinoa
brown rice
barley
amaranth

POWER Plan

Replace refined grains with whole grains

We live in a protein obsessed world... in fact, Americans on average get about double the protein they actually need. The obsession may be somewhat warranted. Protein deficiency can be a serious health risk, and it's a common cause of malnutrition in other parts of the world. Protein is a macronutrient, meaning it is required in large amounts in the diet for proper growth, development, and overall health. But the truth is, it is very rare for people to be protein deficient in the United States. In general, **if you're eating enough calories, you're probably naturally eating enough protein.**

Plant protein is lower in saturated fat, high in fiber, and rich in micronutrients like vitamin K and potassium (which Americans tend to not get enough of).

The good news is your body can actually handle a lot of protein, and you probably won't suffer any ill from excess protein alone. Here's the problem: **Overloading your diet with protein can mess up your macronutrient balance. Eating high amounts of protein is usually achieved by eating lots of meat and dairy products, and these are often high in saturated fat, and low in fiber. Too much saturated fat can increase "bad" LDL cholesterol, according to the American Heart Association. Saturated fat can also trigger inflammation in the body, which can increase the risk of many health conditions.**

beans

nuts

legumes

soybean products like tofu, tempeh, and edamame

buckwheat

Ezekiel bread

quinoa

wheat

wild rice

nutritional yeast

chia seeds

hemp seeds

spirulina

body needs, but no more. Only 4oz daily should come from animal protein.

No meat, no problem! Protein is in everything, even fruit

Apple .5g
Bananas 1.2g
Broccoli 8.3g
Chickpeas 5.3g
Kidney beans 6.7g
Lentils 7g
Oranges 1.9g
Peas 6.7g
Spinach 12.4g
Tofu 11g

POWER Plan

Get adequate protein from plant sources

Fiber

A diet rich in high-fiber foods can reduce your overall calorie intake and help you maintain a healthy weight, which is vital to reducing cancer risk.

The typical western diet has only 4-5 grams of fiber/day but anticancer diet recommends a minimum 25g and up to 50 grams of fiber/day.

High fiber binds up and scores out circulating hormones and carcinogenic compounds It also helps to stabilize blood sugar levels - it can help maintain your body's fat-burning capacity and avoid insulin spikes that leave you feeling drained and craving unhealthy foods. Eating plenty of fiber can move fat through your digestive system at a faster rate so that less of it can be absorbed.

When you fill up on high-fiber foods such as fruit, you'll also have more energy for exercising. One of the best sources: Apples!

POWER Plan

Get plenty of fiber. At least 25g/day

Soy

Soy contains protein, isoflavones and fiber, all of which provide health benefits.

It was once thought that soy foods increase the risk of breast cancer. Soy-based food such as tofu, soy milk and edamame, have chemicals called phytoestrogens, which are similar to estrogen. This previously raised fears in women with breast cancer because soy uses estrogen as fuel to grow, but the latest studies show soy doesn't raise cancer risk...it may even lower the odds the disease will return. However, eating a moderate amount of soy foods does not increase risk of breast cancer — or other types of cancer. A moderate amount is one to two servings a day of whole-soy foods.

Phytoestrogens are structurally different and significantly weaker than human estrogen

Phytoestrogens do not turn into estrogen when you eat them

Moderate intake of soy, in food form, does not increase cancer growth

Look for organic, non-GMO Soy

POWER Plan

Add 1-2 servings of non-GMO Soy to your diet each day

Herbs & Spices

Spices have been widely used as food flavorings and folk medicines for thousands of years.

Numerous studies have documented the antioxidant, anti-inflammatory and immunomodulatory effects of spices, which might be related to prevention and treatment of several cancers, including lung, liver, breast, stomach, colorectum, cervix, and prostate cancers.

Several spices are potential sources for prevention and treatment of cancers, such as tumeric, black cumin, ginger, garlic, saffron, black pepper, and chili pepper, which contained several important bioactive compounds, such as curcumin, thymoquinone, piperine and capsaicin. The main mechanisms of action include inducing apoptosis, inhibiting proliferation, migration and invasion of tumors, and sensitizing tumors to radiotherapy and chemotherapy.

Turmeric

It's thought that turmeric, an antioxidant, can reduce the risk of many cancers as well as infections and inflammation.

Some studies suggest the curcumin in turmeric has a variety of health benefits, including fighting cancer cells. Some lab studies have found it might work against lung, breast, prostate, and colon cancers. Others suggest that curcumin might help chemotherapy work better.

Curcumin has been shown in the laboratory to have profound and diverse effects on breast cancer development, proliferation and metastasis. Furthermore, these anticancer actions have been observed against several types of breast cancer, including hormone receptor positive (ER+/PR+), triple negative (ER-/PR-/HER2-), and HER2 overexpressing (HER2+) cell lines. Some degree of selectivity for cancer cells (rather than normal breast cells) also has been observed.

Curcumin increases the effectiveness of various chemotherapy drugs

Adding curcumin to chemotherapy regimes that include Taxol (paclitaxel), Adriamycin (doxorubicin), cisplatin, or 5-Fluorouracil (5-FU) has been shown to enhance their cytotoxicity. Curcumin has also been shown to reduce cardiomyopathy in a mouse model of Adriamycin treatment. Curcumin might also protect the brain from chemotherapy, thereby reducing chemo brain. On the other hand, supplementation with curcumin has been shown to interfere with the effectiveness of tamoxifen treatment.

Tip: Mix with black pepper (piperine) and olive oil to activate and help with absorption. It can be used as a dry rub or added to soups, sauces and stews.

Garlic

Like onions, leeks, chives, scallions, shallots, and other members of the allium genus, garlic (*Allium sativum*) has been shown to have anticancer, antimicrobial, radioprotective, antithrombotic, hypolipidaemic, anti-inflammatory, antiarthritic and hypoglycemic effects, as well as improving immune function.

Garlic contains various substances reported to have anti-breast cancer effects, including ajoene, apigenin, enterolactone, allicin and the related compounds diallyl disulfide and diallyl trisulfide.

Tip: Take one daily dose - 1 clove and remember to “chop and stop” – chop and then let it sit for 10 minutes before using to allow for the formation of allicin (enzyme)

Ginger

Its antioxidant and anti-inflammatory properties protect against cancer. It is also used as a herbal remedy for upset stomach and nausea, and can serve as an appetite stimulant.

Tip: Steep a few thin slices in hot water for 10 minutes to create a soothing tea.

Cayenne Pepper

This hot pepper contains capsaicin, a powerful antioxidant that helps with weight loss and is an anti-inflammatory food. Cayenne also contains beta-carotene. It is known to be toxic to cancer cells and helps prevent growth of cancer cells.

Oregano

The richest source of antioxidants among herbs slows cancer growth and promotes apoptosis (cell death). It carries antibacterial properties and is a natural disinfectant.

Saffron

Contains crocins (water-soluble carotenoids) that may inhibit tumor growth and progression of cancer.

POWER Plan

Incorporate more spices into your diet: Turmeric, Garlic, Oregano, Saffron, Cayenne Pepper, and Ginger will all provide benefits

Green Tea

Over 300 research studies show that green tea reduces risk of many cancers. Studies suggest that the polyphenols in tea, especially green tea, may play an important role in the prevention of cancer. Researchers also believe that polyphenols help kill cancerous cells and stop them from growing.

Green tea is packed with flavonoids, which are cancer fighters in your brew. They help punch out the cells associated with skin, breast, lung, colon, esophageal and bladder cancers.

Drinking three to five cups of green tea per day seems to be optimal to reap the most health benefits.

Tip: Tea quality matters! Look for high quality, organic tea. Commercially available green teas vary widely in antioxidant potency, scientifically expressed in EGCG levels, and may contain various pesticides. Check out the book "Cancer Hates Tea" and visit tea-for-health.com.

POWER Plan

Drink 3-5 cups of Green Tea daily

Diet Regime

Daily Dietary Regime

Vegetables	50%
Fruits	10%
Grains	20%
Seeds & Nuts	5%
Legumes	10%

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This workbook is not meant to replace medical advice. It is for informational purposes only.

It's Time to Get Curious!

Reflect on all of the information above and what each section means to you, and how you currently align (or don't) with the recommendations. No self-judgment here; just exploration.

Which POWER Plan recommendations from the cancer preventing foods come easily to you? Which ones will be more difficult?

It's helpful to create a healing mantra to lean on each day when you're setting your intentions. Ex: You can ask yourself "Does this support my healing journey?" or remind yourself "I am making healthy choices & playing an active role in my recovery." Choose what works for you!

POWER Plan Cheat Sheet

Action Items:

- Begin to notice when/where sugar and flour are creeping into your diet
- Reduce and/or eliminate foods with "added sugar or sugar substitutes on the label
- Reduce or eliminate foods with white flour
- Throw away everything with soybean oil, canola oil, safflower oil, etc. (use olive oil, coconut oil, avocado oil, etc)
- Replace butter & margarine with Ghee
- Include more Omega 3's in your diet (flaxseed, walnuts, pumpkin seeds, etc) Limit Saturated & Trans Fats
- Stick to 0.8 grams of protein per kilogram of your body weight. (Convert your weight from pounds to kilograms by dividing by 2.2.)
- No more than 4oz of animal protein/day
- Eliminate factory farmed animals from your diet (Grass fed is best)
- Consider meat a side rather than main course
- Reduce/eliminate dairy
- Avoid alcohol as often as possible - enjoy it on occasion, just don't make it routine
- Select low-calorie options to avoid unwanted weight gain
- Stay away from 100-proof liquor. Researchers believe that it's the ethanol or alcohol in beer, wine and liquor that causes increased cancer risk
- Stick to a glass of Red Wine with meals
- Allow a window of 13-14 hours each evening for Intermittent Fasting

Prioritize Nutrition | Cheat Sheet 1

NOT TODAY CANCER

This workbook is not meant to replace medical advice. It is for informational purposes only.

POWER Plan Cheat Sheet

Action Items:

Don't shy away from fruit, especially berries

Load up on cruciferous vegetables daily

Look to include more carrots, pumpkins, winter squash, spinach, kale, sweet potatoes and cantaloupe in your diet

Think red for lycopene: tomatoes, beets, watermelon, and all red fruits and vegetables

Eat berries, red cabbage, kale, onions, broccoli, tea, and DARK chocolate (88% Cacao) for flavenoids

Flavones come in parsley, celery, and drinks with chamomile

Replace unhealthy fats with the healthy ones, like monounsaturated fats & omega 3's

Replace refined grains with whole grains

Get adequate protein from plant sources

Add 1-2 servings of Non-GMO Soy to your diet each day

Incorporate more spices into your diet: Turmeric, Garlic, Oregano, Saffron, Cayenne Pepper, and Ginger will all provide benefits

Drink 3-5 cups of Green Tea daily

My Healthy Eating Mantra

Prioritize Nutrition | Cheat Sheet 2

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