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A SCIENCE-BASED PROTOCOL TO SLOW, STOP OR REVERSE CANCER GROWTH

The world of cancer research and treatment changed in 2005 with the publication in the Journal of Urology of a science study with 19 co-authors from three highly respected medical centers (University of California San Francisco Medical Center [UCSFMC], University of California Los Angeles Medical Center [UCLAMC], and Sloan-Kettering Cancer Institute in New York City [SKCI]) showing that dramatic diet and lifestyle changes developed by Dr. Dean Ornish at UCSFMC had been 100% effective in halting and generally reversing the progression of slow-growing but potentially fatal prostate cancer over a period of one year. Subjects were 93 men with biopsy-documented prostate cancer who took part in a randomized controlled clinical trial at those 3 institutions, 47 men in the control (“watchful waiting”) group, and 46 in the Ornish group. Very few doctors or members of the public have heard about this remarkable study because there is little profit potential in a diet-and-lifestyle program, and therefore no person or organization is financially incentivized to publicize its effectiveness. Doctors don’t put their patients on the Ornish program because drug companies exert heavy influence on what is taught in medical education. In addition the control of curriculum exerted by grants from drug companies to medical schools that can be withdrawn any time, most MDs get most of their yearly continuing education requirements at free seminars put on by drug companies, where they are taught about drugs, of course. Not even I knew about the study for five years after it was published, and only found out about it in May of 2010, when I wondered what Dr. Ornish had been doing lately. You can read the abstract (summary) of this 2005 Ornish study here: <http://www.ncbi.nlm.nih.gov/pubmed/16094059> . This study covered a period of one year. During the second year of the study, compliance with the Ornish Program fell from 108% to 95%, and 5% of subjects on the Ornish protocol had cancer progression, apparently because they thought they were cured, and eased up on those dietary restrictions in the belief that they were out of danger. Obviously, they were wrong. These findings suggest that the Ornish diet’s suppression of cancer lasts only as long as the person remains on that very strict diet.

When considered in the context of other scientific findings on nutrition, lifestyle and cancer, this study presents a remarkable opportunity in cancer treatment, because:

- 1). There is very little about this study that is specific to prostate cancer. It appears to attack cancer at a weak point that is shared by all cancers, and should work on any cancer that grows slower than Gleason 7 growth rate. (“Below Gleason 7” is how the Ornish study defined “slow-growing prostate cancer”.)
- 2). The Ornish study incorporated almost none of the substantial number of nutritional factors that have been demonstrated in peer-reviewed medical science studies to slow the growth of cancer in humans, animals, and/or laboratory cultures.
- 3) Because, unlike traditional cancer chemotherapy agents, the nutritional and lifestyle interventions that inhibit cancer are nontoxic or nearly so, and can therefore be combined, one after another, and their effects multiplied, one after another, until it is quite probable that the

combined inhibition will result in the growth rate of many—and perhaps most—cancerous tumors being slowed to a growth rate below Gleason 7 by incorporating these nutritional cancer-inhibiting agents in combination, and that the Ornish program will then stop further growth and promote tumor regression for an extended or indefinite period of time. Faster growing cancers and cancers that are more resistant to inhibiting agents can be expected to require more of these growth-inhibiting interventions, and some very aggressive tumors will only be slowed in their progression. Based on the combined scientifically-documented power of these interventions, this protocol is offered as a means enhancing the effectiveness of mainstream anticancer therapeutics and substantially or dramatically extending the lifespan, and quality of life, of terminal cancer patients.

The protocol presented here starts with the diet-exercise-stress management program developed by Dr. Ornish at UCSFMC, and adds more than 20 cancer-inhibiting, mostly nutritional, interventions. These interventions are readily-available from health food stores and supermarkets, gardens, beaches, tanning salons, pharmacies and exercise facilities, and have been repeatedly demonstrated by multiple research teams to impede the growth of various cancers.

During the last 30 years of following the cancer-inhibition research, a pattern has emerged that agents which are found inhibit one cancer are usually soon found to inhibit other cancers, although the degree of inhibition will vary according to the particular cancer. The expected result of combining these agents is that, with most cancers, the effect of one agent will further inhibit the already inhibited growth rate that has resulted from another cancer-inhibiting agent. It is expected that some highly-responsive cancers will be cured, many faster-growing cancers will be slowed to the point that the Ornish diet will stop them for a protracted time period, and the progression of less-responsive cancers will be substantially or dramatically slowed, allowing the terminal patient a better quality of life and substantially more time to enjoy being on this planet.

The diet used by Ornish and associates (and advocated by many other prominent doctor-researchers like Drs. T. Colin Campbell, Neal Barnard, John McDougall and Caldwell Esselstyn) can be viewed as a 3-legged stool, with each leg representing a necessary essential aspect that is needed for the diet to be effective. As in the case of a 3-legged stool, if any leg is missing, the Ornish diet-and-lifestyle program will not function and is worthless. All three of the following rules must be assiduously followed:

- No animal products in the patient's diet. No meat, dairy, eggs, seafood, fish, or poultry.
- No fatty vegetable foods. No nuts, nut butters, seeds, avocados, olives, etc.
- Only whole foods. The 100% success of this study was achieved by eliminating all added sugars and corn syrup, all grain products that aren't whole grain, all oils, and all products containing protein concentrates and isolates. Sugar naturally present in a food is acceptable (pears, grapes, dates, raisins). As Dr. Neal Barnard says: "The new 4 basic food groups are fruits, vegetables, whole grains and legumes." That's the diet! Read their books, follow their recipes, and you'll enjoy it. I recommend starting with Barnard's books because they are of a more readable size. This diet halts many of the worst diseases of our time—cancer, heart disease, strokes, diabetes...—, so "DR NEAL BARNARD'S PROGRAM FOR REVERSING DIABETES" is a good starting point.

One way of looking at the rigors of this diet is that it is a test of how much a cancer patient wants to have those extra years of life beyond the expected termination date. This program is obviously not for people who say, "I'd rather die than give up _____ (insert steaks, ham, cheese, nuts, avocados, burgers, Kentucky Fried Chicken, etc.), or "I'd rather die than take all those pills and swallow all those weird drinks". They will indeed die on schedule, and there is nothing anyone can do about that. This diet, supplement and lifestyle protocol is a lot of trouble

and often requires a lot of change. Therefore it's also not for those who have become resigned to their fate. It will only be effective for those who are unwilling to die on schedule, who love life, and who are willing to change the way they live to get more time on this Earth.

Other than the very-low-fat, no-animal-products, whole foods diet, the nutritional part of the Ornish Program also included moderate supplements of selenium and vitamins C & E. Also, like many doctors in the health recovery business, Ornish advises walking an hour a day as a necessary part of restoring the body to health. Additionally, Ornish recommends meditating for 15 minutes twice a day, and doing 45-55 minutes of yoga 2-3 times a week. Other notable authors with different religious backgrounds (Ornish follows the teaching of an Indian holy man) describe these practices as “praying” and “stretching”. Probably, it all works.

The unusual diet appears to be the main anti-cancer factor of the Ornish program, which was originally developed to reverse heart disease, and was proven effective for dissolving plaque off of the inner surface of coronary arteries in 1990 with before-and-after x-rays of those arteries. <http://www.ncbi.nlm.nih.gov/pubmed/1973470> . In Ornish's 2005 prostate cancer study, this program was shown to enhance the body's immune response to cancer by 778%, while making scarce the supply of proteins and, especially, fats that are required building materials for all new cells, including new cancer cells.

To become a problem, cancer must grow. To grow, it must make new cells. And the structure of all cells, old and new, is composed of membranes that are fat on one side and protein on the other. Therefore, in order to grow, cancer must have both the protein and fat “building materials” that are necessary to make the membrane structure of new cells. The combination of these two cancer-inhibiting effects—greatly increased immune-system attack and greatly reduced supply of protein and fat “building materials—was sufficiently powerful in the 2005 Ornish study that the growth of slow-growing cancer was halted and generally reversed. Because both of these processes apply to all cancers, this diet can be expected to affect all cancers with a similar growth rate: slower than Gleason 7.

This effectiveness on slow-growing cancer presents a huge opportunity to control the growth of other cancers, because, in recent years, scientists throughout the world have discovered a wide array of food, herbs and nutrients that greatly slow the growth rate of various cancers. It appears very promising that incorporating several or all of these cancer-slowing agents in concert will, in most cases, result in a multiplying of the suppressive effect of each specific agent, resulting in a lower and lower remaining growth rate with the introduction of each inhibiting agent. It works like this:

THE MATHEMATICS OF NUTRITIONAL CANCER SUPPRESSION:

Generally, when two cancer-inhibiting agents are combined, their cancer-inhibiting effects multiply. This has been noted many times in standard chemotherapy, where combined chemotherapy chemicals suppress cancer better than individual chemotherapy chemicals. Unfortunately, these chemicals are not only toxic to cancer cells, but are also toxic to normal body cells, so the doses of each chemical have to be greatly reduced to avoid killing the patient. Even with these reductions, the chemotherapy often kills the patient before the cancer has a chance to become fatal. However, in the case of foods and herbs, which have either no or very low toxicity, these combined effects can be multiplied many times. Where conventional chemotherapy agents would kill the patient if two were used full strength, the non-toxic cancer-inhibiting agents present in various foods, herbs, extracts, and over-the-counter drugs can be combined again and again and again, multiplying their effectiveness with each additional agent, and driving the remaining growth rate ever lower, without the combinations causing toxicity.

For example: Vitamin D3 and calcium, taken together in high doses, have been shown to reduce the all-cancer diagnosis rate (and therefore the cancer growth rate) by about 75%, so the remaining rate of growth is 25%. Several mushroom extracts have been shown to decrease breast cancer growth by about 60%, so if one of those mushroom extracts were added to the Vitamin D and Calcium, that 25% remaining growth would be reduced a further 60%, resulting in the remaining growth rate of the cancer being 10% of its original growth rate. Then, if pomegranate juice does the same thing for human breast cancer as it does for human prostate cancer—and mouse research suggests it does—it will reduce that 10% remaining growth rate by 70% to 3%. At 3% of their original growth rates, most breast cancers so influenced would be growing at a rate that is well below the growth rate of Ornish's slow growing Gleason-7 prostate cancer, and further growth would be expected to not only be stopped by the Ornish program, but reversed to some degree, at minimum for a year or two.

Nevertheless, people with serious cancers should not look upon this as a cure, but rather

- 1) As a way to diminish cancer and put it on hold for a protracted period of time, with continued adherence to the diet, supplement and lifestyle interventions.
- 2) As a way for cancer patients to increase their probability of a cure when combined with another treatment that is curative.
- 3) As a way for terminal cancer patients to feel healthier and get more time on this earth. How many extra months or years that terminal patients get to stay here is largely up to them, depending on how many of the cancer-inhibiting interventions they are willing to incorporate.

If people with cancers incorporate the Ornish diet, plus enough of the other interventions, the initial effect of most of these agents is to cause a large percentage of the cancer cells to self-destruct, so a person who adopts several of these interventions will probably experience improved health initially. Then, after a period of time, the cancer cells will start growing again, but at perhaps 2-10% of their original growth rate, which in most cases will be a growth rate that can be halted or regressed for 2 years or more by the Ornish program.

Without the whole-foods-only, ultra-low-fat, no-animal-products diet advocated by Ornish, Bernard, McDougall, Campbell and Esselstyn, this combination of cancer-inhibiting foods, herbs, nutrients and non-steroidal anti-inflammatory drugs (NSAIDs) would be much less effective. However, if a person does the diet diligently, and does many or most of the listed interventions, it appears quite likely that such a person would substantially improve quality of life and greatly extend life span.

A major risk to the success of this program is "healthy oils". There are so many authorities singing the praises of healthy oils that a person could be easily persuaded to alter the Ornish program to include these "healthy oils". However, none of those authorities have a diet that has reversed cancer growth in 100% of subjects in a well-run scientific experiment, as reported in Ornish's 2005 Journal of Urology study. A person must be willing to do this diet all the way. Healthy oils will just make the cancer healthy and strong. We have all heard of famous people who went on all sorts of vegetarian, vegan, raw foods and other such diets who went ahead and died anyway. Why? Because they didn't cut out the fat contained in those oh-so-healthy avocados, sesame seeds, almonds, olives and such. The findings of the Ornish study could not be more clear: all the fatty foods have to go if you want to stop cancer. Those healthy fats are wonderfully healthy for most people, but for someone with heart disease or cancer, they're a ticket to the grave.

Much the same can be said for adding animal protein to the diet: it just gives the cancer more building materials with which to make new cancer cells. Animal protein has been thoroughly proven to stimulate cancer growth; plant protein does not. (Read Campbell's CHINA

STUDY.) Plant foods that are considered high in protein (peas, beans & lentils) are still quite low in protein compared to animal foods. That low-protein character of plant foods is how it should be. As stated earlier, cancer must produce new cells in order to grow and threaten one's health, and the structure of all cells, including new cancer cells, is made of protein and fat. Cancer needs more protein and fat to make new cells than do normal cells because the cancer cells are dividing with abnormal rapidity and the normal cells aren't. By eating only plant foods and avoiding all fatty plant foods, the Ornish program gives normal cells enough protein and fat to reproduce normally, but does not provide enough fat and protein to enable cancer cells to grow at their abnormal rates.

Imagine that someone wanted to build a 3-story house in front of a gorgeous view from your home, and succeeded in getting all the required permits. Imagine that you could figure out a way to limit his lumber supply to 2 boards a week. It would take a very long time to get that house built, and chances are good it would never get built. That's what is done to cancer when a person eats barely enough fat and protein to keep their body healthy. The cancer doesn't get the raw materials necessary to sustain its rampant growth.

In addition to the Ornish diet's obvious ability to deprive cancer cells of the structural materials—fats and proteins—needed for cancer's excessive growth, the researchers also demonstrated another anticancer effect of his program, apparently mediated via the immune system: the ability of the blood from the Ornish-diet subjects to strongly inhibit cancer cells growing in a laboratory. When the research team mixed the blood of their patients into the nutrient environment in which prostate cancer cells were growing, the blood of the 46 Ornish-diet patients inhibited the growth of the cancer by 70% on average, which represented a 7.8-times stronger attack on the prostate cancer cells than the 9% growth inhibition that resulted when the blood of the 47 watchful-waiting controls was mixed in with the growing cancer cells. The sobering implications of this finding are that the diet would work less well on someone whose immune system has been compromised by other cancer treatments, and will be even less successful on someone who has had an organ transplant and has to take immune-suppressing drugs thereafter. Still, even in someone whose immune system has been impacted by surgery, chemotherapy and radiation, this protocol should be of substantial benefit if these treatments are stopped with sufficient time for the immune system to recover and do its work before the patient dies, still yielding substantial increased lifespan and better quality of life. Even in a person on immune-suppressant drugs, there should still be remarkable slowing of cancer progression.

A person doesn't have to choose between this program and conventional cancer treatments. Although it will work less well during any period of immune system suppression, as happens during chemotherapy, radiation and major surgery, the effectiveness of this protocol should resume thereafter, and thus be compatible with most conventional treatments. This treatment is meant to complement and coincide with ("in addition to" as opposed to "replacing") the efforts and judgment of the person with cancer and their advisors and physicians.

With so long a list of herbal-nutritional and over-the-counter (OTC) agents that are shown to inhibit cancer growth, there is a significant chance that a particular person could be sensitive or allergic to one or two of the supplements, so any food or supplement or OTC drug that causes a person to feel worse should be eliminated. However, as many of these interventions as possible should be kept in the protocol, because each one improves the prospects of regaining health. The two mandatory requirements are that the Ornish diet and lifestyle program must be followed, and enough of the listed agents that slow cancer growth must be taken to slow down a specific cancer to a growth rate similar to prostate cancers with a Gleason score of less than 7. That's it.

Here's the cancer-suppression protocol—the work of more than a thousand scientists—that I have put together. Remember, it won't work if you don't do it! Or, to put it in the positive: it will only work if you actually do it. I wish you the best that life has to offer.

1)-The Ornish diet: diet advocated by Dr Dean Ornish (University of California San Francisco Medical Center) has been proven to dissolve the plaque off of the inside of coronary arteries, reverse the progression of slow-growing cancer, and reverse the progression of diabetes. This diet also appears to work just as well on any faster-growing cancer that can be slowed down to a growth rate slower than Gleason 7, the threshold for the cancers Ornish and colleagues accepted for their study. Therefore, starting with the Ornish diet as a base, all of the interventions that follow are ones that have been shown to slow down the growth of cancer, with the intent that most faster-growing cancers can be slowed down to the point that the Ornish diet will stop or reverse progression. Other famous advocates of this same diet are Drs Neal Barnard, John McDougall, Caldwell Esselstyn and T. Colin Campbell. All have written books. I like DR NEAL BARNARD'S PROGRAM FOR REVERSING DIABETES for being the most readable. Here are the basics: Eat a whole-foods, vegan, very low fat diet. Eliminate all animal products, all refined foods, and all fatty plant products. Eliminate meat, dairy, eggs, fish and shellfish, nuts, seeds (sunflower, flax, sesame etc.), avocados, olives, all oils, sugar, corn syrup, all grain or flour products that aren't whole grain, and protein concentrates and isolates. Cancer must grow to cause a problem, and to grow it must make new cells, the structure of which is made of protein and fat. If either of those "building materials" is in short supply, it makes cancer growth difficult. This diet is quite low in protein and very low in fat. It puts the brakes on cancer growth, and greatly strengthens the immune system's attack on cancer. This diet is the basis upon which the remainder of this protocol rests. All of the agents listed below will slow most cancers to some degree, but all of the people I know of who have been saved from dying of cancer have used this diet. (Some extreme examples have been eating only fruit juices, or eating only grapes, or eating only carrots) Also, in order to duplicate as much as possible the Ornish study design, it is necessary to also take 3 Omnivate (or comparable) multivitamin tablets 2X a day (Omnivate contains the vitamin E and selenium amounts that Ornish used in his 2005 study, along with enough magnesium to help high doses of calcium not end up as kidney stones). Or you can buy the vitamin E, vitamin C, selenium and magnesium separately. The correct dose of magnesium is half as much as the calcium. Ornish also recommended an hour of walking per day, meditation and yoga. People are forever asking me, "Do you eat like that?" and I always answer, "No, but I did when I had cancer."

2)-Vitamin D and Calcium together have lowered the total cancer diagnosis rate in postmenopausal women by 77%. Separately, Vitamin D and calcium are each associated with impeding the growth of cancer, but taken together in large doses, the results are quite dramatic. Every day, take 1,500-2000 mg calcium (depending on body weight), half in the morning and half at night, and some other time of day take 300 IU of vitamin D per 10 pounds of body weight (3,000 IU for a 100-pound person, 6,000 for a 200-pounder).

3)- Pomegranate juice has slowed the progression of prostate cancer in men by 70%. Pomegranate juice and/or pomegranate extracts have been shown to inhibit growth of virtually all cancers tested, including leukemia, lymphoma, prostate, breast, colorectal, pancreatic, lung, cervical and nonmelanoma skin cancers in laboratory testing. Drink 8-16 ounces (according to body size) of pomegranate juice daily and take pomegranate extract supplements.

4)- Essiac tea and the herbs from which it is made have a spotty record in scientific research for effectiveness against cancer. However, a big pinch of those herbs 6-8 times a day,

combined with the Ornish diet, resulted in curing my own squamous skin cancer, and Essiac tea 6-8 times a day with 10 drops of colloidal silver 3x/day, enabled a patient's husband who was sent home to die of colon cancer to recover his strength, have his colon removed, finding a well-contained tumor, live another 19 years, and die at 91 of pneumonia. I have not found any scientific documentation that colloidal silver has anti-cancer properties, but it may act as a cofactor that potentiates the essiac. It's important to note that this man was involuntarily fasting when that protocol was started, which is the ultimate very-low-fat (Ornish) diet.

5)-Cruciferate vegetables—arugula, bok choy, broccoli, cauliflower, brussels sprouts, cabbage, Chinese cabbage, collards, cress, daikon, horseradish, kale, kohlrabi, Napa cabbage, turnip, radish, rutabaga, mustard greens and wasabi—contain isothiocyanate chemicals that have been shown to dose-dependently inhibit the growth of several types of cancer cells, and probably inhibit most others, under laboratory conditions in cell cultures. Human populations that eat more of these plants get less cancer. So the more one eats, the more cancer is inhibited.

6)-Turmeric and its active ingredient curcumin, and curry spice mixtures containing turmeric, have shown dramatic anticancer activity in laboratory and population studies, but not in human clinical trials, until just the last few years, : Eat lots of curried dishes, or season with plenty of curry powder or turmeric (a major ingredient in curry spice), which you can get in bulk in many health food stores and some food markets. Or take 2 turmeric concentrate capsules (95% curcumin) twice a day. Black pepper greatly boosts absorption of curcumin, the active ingredient in turmeric, and should be taken with turmeric. Most curry formulas contain black pepper. Add black pepper if you don't see it in the ingredient list of curry powder, and make sure you have a red-orange-yellow curry.

7)-Vitamins C at bowel tolerance, 4,000-15,000 mg/day (enough to get gassy), divided into 3 equal doses 8 hours apart (that's ideal, but twice daily will probably do), plus 3-6 mg vitamin K3 per day, has shown anticancer effect in vitro (under laboratory conditions). However, it may be inadvisable to use this combination therapy unless the particular cancer has been shown to be less sensitive to vitamin D than to vitamin K, because vitamins C & K3 in combination inactivate the anticancer effect of vitamin D, which has much more solid proof than C & K3 for most cancers. There is, however, no downside to taking bowel-tolerance (extra gas and looser bowels) levels of vitamin C, and vitamin C should be incorporated whether or not vitamin K is used. Correct doses create extra gas and increased bowel motility, but not enough to be a serious inconvenience.

8)-Eat, or take extracts of, the following mushrooms: reishi, shitake, maitake, Coprinus comatus, & Coprinellus (60% reduction of cancer colony formation), and Flammulina velutipes (99% reduction).

9)-Eat 8-12 ounces of Trader Joe's Roasted Garlic Spaghetti sauce daily. It contains large amounts of garlic, onions & tomatoes, all of which inhibit cancer growth.

10)-Take saw palmetto extract, 2 capsules twice a day. It causes prostate cancer cells to self-destruct & probably does so with other cancers too.

11)- Take 1,000 mg triple ginseng (Korean, Siberian & American), plus 500 mg Korean (Panax) red ginseng extract twice daily.

12)-Go to a tanning salon every 3-5 days, and tan in a low-pressure (fluorescent lamp) bed producing 4% or higher ultraviolet B. Start at 4 minutes and work up to 10-25 minutes, depending on the comfort and tolerance of your skin. Sunbathing without sunscreens or clothing may be substituted when the sun is 35 degrees or higher in the sky. Position body perpendicular to the sun, and rotate regularly.

13)-Season food liberally with rosemary and/or take a tablespoon of rosemary (fresh is best—it's very easy to grow your own) two or three times a day, if no ill effects. The active

component of rosemary is carnosic acid, which impedes cancer growth and augments the anti-cancer effects of vitamin D.

14)-Go to a health food store and get supplements that contain genistein, quercetin and EGCG (epigallocatechin gallate). Take them as recommended on packaging. Assume that the dose is for a 100-pound person, and increase or decrease the dose according to person's weight to keep the dose-per-pound constant.

15)- Eat a can of asparagus spears each day, ½ can in the morning, ½ can at night. This is an old folk remedy that, much to my surprise, has scientific documentation of anticancer activity. (I guess I shouldn't be surprised that a folk remedy has now found support from science.)

16)-Eat ocean vegetables in abundance. There are no mineral deficiencies in the ocean, which means the immune system can operate at full strength.

17)- Avoid alcohol unless/until cancer is completely under control. Then, you may cautiously reintroduce wine & beer, if no negative signs arise. A woman with cancer of a female organ should avoid alcohol entirely. Distilled alcohol is always a negative influence.

18)-Hops and hops extracts have anticancer properties, but also have a plant estrogen that might promote female cancers, so it is definitely helpful in cancers other than female-specific cancers, with the reservation that it may have a mild temporary feminizing effect on men.

19)-Non-Steroidal anti-inflammatory drugs (NSAIDs). Aspirin, ibuprofen, naproxen and celecoxib (Celebrex) have all been shown to delay the progression of various cancers. Apparently, this is because cancer tumors produce chemicals that inflame and soften surrounding healthy tissues, which enables the tumor tissue to invade those healthy tissues. NSAIDs diminish that inflammation, making it more difficult for the cancer to invade surrounding tissue.

20) Rub in DMSO (purchased at a farm supply store) once or twice daily on an area of skin about the size of the person's palm. DMSO (dimethylsulfoxide) is a universal solvent and will carry the above agents across barriers within the body, including the barriers that tumors use to hide from the immune system. This is especially important in brain cancer because many types of molecules are excluded from the brain by the "blood-brain barrier".

21) Marijuana (Cannabis) has been shown to have strong anticancer activity in humans, animals and laboratory cultures and chemistry. Consider high-dose marijuana use, best inhaled as a heated vapor, but also eaten, or soaked in 151 rum and worked up from tiny sips. (Oral doses can overload the liver and cause intense vomiting, but no lasting damage has been reported.) Smoking marijuana results in an increased risk of lung cancer many years down the road, but could be the preferred method for putting the brakes on an already existing non-lung cancer. The research on marijuana as an effective cancer treatment got quite a boost as a result of Libertarian politician Steve Kubby's smoking of vast quantities of marijuana to hopefully forestall high blood pressure that always causes death within 4 years with the kind of adrenal cancer Kubby had in the early 1980s. More than 30 years after diagnosis with this invariably-deadly cancer, and continuing large marijuana intake, Kubby is still with us, quite healthy, showing no signs of cancer, and still causing problems for the political establishment.

http://en.wikipedia.org/wiki/Steve_Kubby and <http://ije.oxfordjournals.org/content/9/3/227.short>

21) Frankincense, graviola and bitter melon have anticancer reputations, but I haven't looked them up to see if anticancer activity is documented in the medical science literature.

If you suspect you have cancer, it makes perfect sense to start doing all of the above interventions that aren't invasive or expensive, while you decide what diagnosis and treatment approach to pursue. Other than hops and marijuana in some cases, the side effects of these lifestyle, diet and supplement interventions are all beneficial, like a lower risk of heart attack, stroke, diabetes, arthritis and osteoporosis, and a higher risk of living longer than normal.

If you have signs of cancer, doctors will recommend a biopsy. You may wish to question having a needle biopsy done for internal cancer, because the cancer is spread through the wound channel of the needle as the needle is withdrawn. Other diagnostic methods are MRI, ultrasound, thermography, CT scan, and regular x-ray, or evaluating a suspected tumor after it's been cut out. Thermography is always harmless but may not do deep tissues. Ultrasound and MRI are generally harmless. CT scans and x-ray may cause cancer 12-25 years later.

There are some mainstream treatments that are worth looking into with some cancers. Getting an appointment to evaluate whether proton therapy is appropriate to your situation is a good idea. These medical centers that do proton can map tumor tissue with MRI, and tell if cancer can be treated without surgery using proton radiation, which will destroy tumors with very little harm to surrounding tissue. It's good for both patients and doctors to peruse the web sites listed below for proton therapy for cancer. Loma Linda pioneered this non-surgical elimination of internal tumors, and I've heard they do it best.

<http://www.protons.com/>, <http://www.proton-therapy.org/> ,
<http://www.mdanderson.org/patient-and-cancer-information/care-centers-and-clinics/specialty-and-treatment-centers/proton-therapy/index.html>,
<http://neurosurgery.mgh.harvard.edu/ProtonBeam/NPTCbrochure.pdf> .

Gamma knife treatment is another non-surgical therapy worth investigating.

I didn't include references to the scientific documentation of effectiveness against cancer for the preceding interventions, but some people are asking for the proof. So I am slowly looking up the studies again and logging the literature citations into the list of references below. Be patient and bear with me. I don't get paid for this. It's what I do "for fun" in my spare time.

Be aware that there are always negative studies on any intervention. However, when the agents in question are nontoxic, there is no good reason not to try interventions that have positive studies, especially when the alternative is misery leading to death. Most of these agents have more positive studies than I would care to list, or you would care to read. Here's just a sampling:

REFERENCES:

Except for the books and videos cited, all science studies listed below are from peer-reviewed medical science journals that can be accessed through the PubMed website of the U.S. National Library of Medicine. An internet link is provided for each of these studies. To avoid having this reference list be ridiculously long and unwieldy, I have limited each intervention to 4 references. Other similar studies may be accessed by going to the web address for each article (in blue at the end of each study cited below), and then entering "cancer" and, for instance "ginseng" or "pomegranate" into the search window located above the abstract (summary) of the article, or by going to the list of related studies along the right margin of the page and clicking "see all". By the way, the "ncbi.nlm.nih.gov/pubmed" internet address at the end of each citation stands for "National Center for Biotechnology Information . National Library of Medicine . National Institutes of Health . government . Public Medicine". PubMed is one of the best things our government has ever done to improve the health of the populace. It contains every scientific study from every peer-reviewed medical journal in the world going back to 1967, and even farther back in many instances.

1. Vegan, very-low-fat, whole foods diet;

- a. *Very low fat vegan diet and elimination of simple carbohydrates cause anticancer changes in tumor biology.* Curr Opin Urol. 2009 May;19(3):263-7. Dietary intervention strategies to modulate prostate cancer risk and prognosis. Freedland SJ, Aronson WJ. <http://www.ncbi.nlm.nih.gov/pubmed/19300265>
 - b. *Prostate cancer stopped or reversed in 100% of patients for one year by Ornish diet.* Ornish, Weidner, et al. Intensive lifestyle changes may affect the progression of prostate cancer. J Urol. 2005 Sep;174(3):1065-9
<http://www.ncbi.nlm.nih.gov/pubmed/16094059>
 - c. *Plant-based high-fiber low-saturated-fat diet slows PSA-prostate cancer progression 63%.* J Urol. 2001 Dec;166(6):2202-7. Can diet in conjunction with stress reduction affect the rate of increase in prostate specific antigen after biochemical recurrence of prostate cancer? Saxe GA1, Hébert JR, Carmody JF, Kabat-Zinn J, Rosenzweig PH, Jarzobski D, Reed GW, Blute RD. <http://www.ncbi.nlm.nih.gov/pubmed/11696736>
 - d. *Prostate cancer stopped or reversed in 95% of patients over two years by Ornish diet.* Frattaroli, Weidner, Ornish. Clinical events in prostate cancer lifestyle trial: results from two years of follow-up. Urology. 2008 Dec;72(6):1319-23.
<http://www.ncbi.nlm.nih.gov/pubmed/18602144>
2. Vitamin D and calcium
 - a. *Reviews a large body of research showing that vitamin D slows progression of cancer and exerts a strong preventive effect.* Sorenson, Marc; Vitamin D and Solar Power for Optimum Health. 2008
 - b. *Prof. Garland discusses computer modeling program predicting that 75% of breast and colon cancer deaths can be prevented by adequate intake of vitamin D and calcium.* Interview with Prof. Cedric Garland, University of California Video.
<http://www.ucsd.tv/search-details.aspx?showID=16454>
 - c. *After one year of making up deficiency, vitamin D and calcium reduced cancer diagnosis by 77%.* Lappe, Heaney, et al. Vitamin D and calcium supplementation reduces cancer risk: results of a randomized trial. Am J Clin Nutr. 2007 Jun;85(6):1586-91. <http://www.ncbi.nlm.nih.gov/pubmed/2857364>
 - d. *Vitamin D and calcium in diet together lower colorectal cancer risk as much as 63%.* Garland C, Barrett-Connor E. Dietary vitamin D and calcium and risk of colorectal cancer: a 19-year prospective study in men. Lancet 1985; 325(8424): 307–309
<http://www.ncbi.nlm.nih.gov/pubmed/2857364>
 - e. *Sun exposure lowers risk of stomach, colorectal, liver and gallbladder, pancreas, lung, female breast, prostate, bladder and kidney cancers.* Eur J Cancer. 2007 Jul;43(11):1701-12. Does solar exposure, as indicated by the non-melanoma skin cancers, protect from solid cancers: vitamin D as a possible explanation. Tuohimaa P, Pukkala E, Scélo G, Olsen JH, Brewster DH, Hemminki K, Tracey E, Weiderpass E, Kliewer EV, Pompe-Kirn V, McBride ML, Martos C, Chia KS, Tonita JM, Jonasson JG, Boffetta P, Brennan P. <http://www.ncbi.nlm.nih.gov/pubmed/17540555>
 - f. *Increasing sun exposure saves 30 lives from internal cancer for every life lost to all skin cancers.* Prev Med. 1993 Jan;22(1):132-40. Beneficial effects of sun exposure on cancer mortality. Ainsleigh HG. <http://www.ncbi.nlm.nih.gov/pubmed/8475009>
 3. Pomegranate juice, pulp, rind, seed oil, and fruit extracts.
 - a. *Pomegranate extract inhibits proliferation of pancreatic cancer cells better than paclitaxel.* Nair V, Dai Z, Khan M, Ciolino HP. Pomegranate extract induces cell cycle arrest and alters cellular phenotype of human pancreatic cancer cells.

Anticancer Res. 2011 Sep;31(9):2699-704.

<http://www.ncbi.nlm.nih.gov/pubmed/21868510>

- b. *Pomegranate juice increases PSA doubling time 3.6-fold, a 72% decrease in prostate cancer growth rate.* Pantuck AJ, Leppert JT, Zomorodian N, Aronson W, Hong J, Barnard RJ, Seeram N, Liker H, Wang H, Elashoff R, Heber D, Aviram M, Ignarro L, Beldegrun A. Phase II study of pomegranate juice for men with rising prostate-specific antigen following surgery or radiation for prostate cancer. *Clin Cancer Res.* 2006 Jul 1;12(13):4018-26. <http://www.ncbi.nlm.nih.gov/pubmed/16818701>
 - c. *Pomegranate products inhibit mouse breast cancer 40-87%.* Mehta R, Lansky EP. Breast cancer chemopreventive properties of pomegranate (*Punica granatum*) fruit extracts in a mouse mammary organ culture. *Eur J Cancer Prev.* 2004 Aug;13(4):345-8. <http://www.ncbi.nlm.nih.gov/pubmed/15554563>
 - d. *Pomegranate juice inhibits breast cancer metastasis; mechanisms of action discussed.* Rocha A, Wang L, Penichet M, Martins-Green M. Pomegranate juice and specific components inhibit cell and molecular processes critical for metastasis of breast cancer. *Breast Cancer Res Treat.* 2012 Dec;136(3):647-58. <http://www.ncbi.nlm.nih.gov/pubmed/23065001>
4. Essiac herbs
- a. *Essiac tea caused tumor regression in 84-year-old woman with hopeless lung cancer.* Gladwish A, Clarke K, Bezjak A. Spontaneous regression in advanced non-small cell lung cancer. *BMJ Case Rep.* 2010 Dec 29;2010. pii: bcr0720103147. doi: 10.1136/bcr.07.2010.3147. <http://www.ncbi.nlm.nih.gov/pubmed/22802473>
 - b. *Essiac shows dose-related inhibition of prostate cancer, stimulation of normal spleen cells in vitro.* Ottenweller J, Putt K, Blumenthal EJ, Dhawale S, Dhawale SW. Inhibition of prostate cancer-cell proliferation by Essiac. *J Altern Complement Med.* 2004 Aug;10(4):687-91. <http://www.ncbi.nlm.nih.gov/pubmed/15353028>
 - c. *Essiac tea scavenges +80% free radicals, prevents DNA damage and lipid peroxidation.* Leonard S, Keil D, T Mehlman, Proper S, Shi X, Harris GK. Essiac tea: scavenging of reactive oxygen species and effects on DNA damage. *J Ethnopharmacol.* 2006 Jan 16;103(2):288-96. Epub 2005 Oct 13. <http://www.ncbi.nlm.nih.gov/pubmed/16226859>
 - d. *Essiac herbs have 3 modes of anticancer activity.* *Anticancer Res.* 2007 Nov-Dec;27(6B):3875-82. In vitro analysis of the herbal compound Essiac. Seely DI, Kennedy DA, Myers SP, Cheras PA, Lin D, Li R, Cattley T, Brent PA, Mills E, Leonard BJ. <http://www.ncbi.nlm.nih.gov/pubmed/18225545>
5. Cruciferous vegetables
- a. *Cruciferate-vegetable isothiocyanates dose-dependently inhibit cancer cells from cervix, pancreas, liver & ovary.* de Figueiredo SM, Filho SA, Nogueira-Machado JA, Caligiorno RB. The anti-oxidant properties of isothiocyanates: a review. *Recent Pat Endocr Metab Immune Drug Discov.* 2013 Sep;7(3):213-25. <http://www.ncbi.nlm.nih.gov/pubmed/23978168>
 - b. *A cruciferate vegetable chemical, phenethylisothiocyanate, inhibits cancer proliferation, progression & metastasis.* *Biochim Biophys Acta.* 2014 Dec;1846(2):405-24. Phenethyl isothiocyanate: a comprehensive review of anti-cancer mechanisms. Gupta P, Wright SE, Kim SH, Srivastava SK. <http://www.ncbi.nlm.nih.gov/pubmed/25152445>
 - c. *Prostate cancer PSA doubling time reduced 36% in humans by broccoli sprout extract;* Alumkal 2014; *Invest New Drugs.* 2014 Nov 29. A phase II study of

- sulforaphane-rich broccoli sprout extracts in men with recurrent prostate cancer. <http://www.ncbi.nlm.nih.gov/pubmed/25431127>
- d. *Leukemia growth indicators suppressed by cruciferous phytochemical*. *Tumour Biol*. 2015 Jan 15. Indole-3-carbinol suppresses NF- κ B activity and stimulates the p53 pathway in pre-B acute lymphoblastic leukemia cells. Safa M, Tavasoli B, Manafi R, Kiani F, Kashiri M, Ebrahimi S, Kazemi A. <http://www.ncbi.nlm.nih.gov/pubmed/25589462>
6. Curcumin, turmeric, turmeric-containing curries
- a. *Turmeric/curcumin anticancer activity reviewed*. Aggarwal BB, Kumar A, Bharti AC. Anticancer curcumin: preclinical and clinical studies. *Anticancer Res*. 2003 Jan-Feb;23(1A):363-98. <http://www.ncbi.nlm.nih.gov/pubmed/12680238>
- b. (Curcumin at 4,000-8,000 mg/day caused histologic improvement at 3 months in 7 or 25 cancerous and precancerous patients) Cheng AL, Hsu CH, Lin JK, Hsu MM, Ho YF, Shen TS, Ko JY, Lin JT, Lin BR, Ming-Shiang W, Yu HS, Jee SH, Chen GS, Chen TM, Chen CA, Lai MK, Pu YS, Pan MH, Wang YJ, Tsai CC, Hsieh CY. Phase I clinical trial of curcumin, a chemopreventive agent, in patients with high-risk or pre-malignant lesions. *Anticancer Res*. 2001 Jul-Aug;21(4B):2895-900. <http://www.ncbi.nlm.nih.gov/pubmed/25665066>
- c. *Curcumin is one of several phytochemicals that show effectiveness against cancer*. *Semin Cancer Biol*. 2015 Jan 16. Broad targeting of angiogenesis for cancer prevention and therapy. Wang Z, Dabrosin C, Ciriolo MR, Aquilano K, Chen S, Halicka D, Mohammed SI, Azmi AS, Bilsland A, Keith WN, Jensen LD, Yin X, Fuster MM, Arreola A, Rathmell WK, Generali D, Nagaraju GP, El-Rayes B, Ribatti D, Chen YC, Honoki K, Fujii H, Georgakilas AG, Nowsheen S, Amedei A, Niccolai E, Amin A, Ashraf SS, Helferich B, Yang X, Guha G, Bhakta D. <http://www.ncbi.nlm.nih.gov/pubmed/25600295>
- d. *Curcumin suppresses cancer initiation, growth and metastasis*. *Molecules* 2015, 20(2), 2728-2769; Review: The Multifaceted Role of Curcumin in Cancer Prevention and Treatment. Muthu K, Shanmugam, Grishma Rane, Madhu Mathi Kanchi, Frank Arfuso, Arunachalam Chinnathambi, M. E. Zayed, Sulaiman Ali Alharbi, Benny K. H. Tan, Alan Prem Kumar and Gautam Sethi. <http://www.ncbi.nlm.nih.gov/pubmed/25665066>
- e. *Osteoarthritis study shows that adding piperine [from black pepper] to curcumin in 1:100 ratio overcomes non-bioavailability problem of oral doses of curcumin*. *J Diet Suppl*. 2015 Feb 17. Mitigation of Systemic Oxidative Stress by Curcuminoids in Osteoarthritis: Results of a Randomized Controlled Trial. Panahi Y1, Alishiri GH, Parvin S, Sahebkar A. <http://www.ncbi.nlm.nih.gov/pubmed/25688638>
- f. *Enhanced-bioavailability curcuminoids improves quality of life and depresses markers of tumor growth and inflammation in cancer patients on traditional treatment*. *Phytother Res*. 2014 Oct;28(10):1461-7. Adjuvant therapy with bioavailability-boosted curcuminoids suppresses systemic inflammation and improves quality of life in patients with solid tumors: a randomized double-blind placebo-controlled trial. Panahi Y, Saadat A, Beiraghdar F, Sahebkar A. <http://www.ncbi.nlm.nih.gov/pubmed/24648302>
7. Vitamins C with vitamin K3
- a. *(Vitamins C & K3 anticancer action promoted by curcumin & quercetin, but anticancer activity of D3 nullified.)* *Altern Med Rev*. 2010 Dec;15(4):345-51. The vitamin C: vitamin K3 system - enhancers and inhibitors of the anticancer

- effect. Lamson DW, Gu YH, Plaza SM, Brignall MS, Brinton CA, Sadlon AE. <http://www.ncbi.nlm.nih.gov/pubmed/21194250>
- b. *Very high doses of vitamin C show effectiveness against Pancreatic cancer.* *Curr Pharm Biotechnol.* 2015;16(9):759-70. Treatment of Pancreatic Cancer with Pharmacological Ascorbate. Cieslak JA, Cullen JJ. <http://www.ncbi.nlm.nih.gov/pubmed/26201606>
 - c. *Terminal cancer patients receiving vitamin C survived nearly twice as long.* *Med Hypotheses.* 1991 Nov;36(3):185-9. Innovation vs. quality control: an 'unpublishable' clinical trial of supplemental ascorbate in incurable cancer. Cameron E, Campbell A. <http://www.ncbi.nlm.nih.gov/pubmed/1787807>
 - d. *Cancer cell death by vitamins C and K3 is magnified by adding vitamin E succinate.* *PLoS One.* 2012;7(12):e52263. Epub 2012 Dec 18. Alpha-tocopheryl succinate inhibits autophagic survival of prostate cancer cells induced by vitamin K3 and ascorbate to trigger cell death. Tomasetti M1, Nocchi L, Neuzil J, Goodwin J, Nguyen M, Dong L, Manzella N, Staffolani S, Milanese C, Garrone B, Alleva R, Borghi B, Santarelli L, Guerrieri R. <http://www.ncbi.nlm.nih.gov/pubmed/23272231>
8. Mushrooms' anticancer activity
- a. *Breast Cancer colony formation impeded 99% by Flammulina velutipes, and 66% by Coprinus comatus and Coprinellus sp. mushroom water extracts.* *Oncol Rep.* 2006 Feb;15(2):417-23. In vitro effects on proliferation, apoptosis and colony inhibition in ER-dependent and ER-independent human breast cancer cells by selected mushroom species. Gu YH, Leonard J. <http://www.ncbi.nlm.nih.gov/pubmed/16391863>
 - b. *Among medicinal mushrooms, Ganoderma lucidum and Hericium erinaceus have the strongest anticancer activity.* *Int J Med Mushrooms.* 2015;17(3):287-95. Comparison of antioxidant and antiproliferation activities of polysaccharides from eight species of medicinal mushrooms. Chen P1, Yong Y1, Gu Y1, Wang Z1, Zhang S1, Lu L1. <http://www.ncbi.nlm.nih.gov/pubmed/25954912>
 - c. *Basidiomycete mushroom extract is cytotoxic to pancreatic cancer cells and furthers the cytotoxic effects of chemotherapy.* *Anticancer Res.* 2014 Jan;34(1):141-6. Active hexose-correlated compound down-regulates HSP27 of pancreatic cancer cells, and helps the cytotoxic effect of gemcitabine. Suenaga S1, Kuramitsu Y, Kaino S, Maehara S, Maehara Y, Sakaida I, Nakamura K. <http://www.ncbi.nlm.nih.gov/pubmed/24403454>
 - d. *PSA doubling time increased (cancer growth decreased) with administration of Lentinula edodes mushroom extract in men.* *Jpn J Clin Oncol.* 2010 Oct;40(10):967-72. Dietary administration of mushroom mycelium extracts in patients with early stage prostate cancers managed expectantly: a phase II study. Sumiyoshi Y1, Hashine K, Kakehi Y, Yoshimura K, Satou T, Kuruma H, Namiki S, Shinohara N. <http://jjco.oxfordjournals.org/content/40/10/967.long>
9. Anticancer activity of garlic, onion & tomato
- a. *Sulfur-containing compounds in garlic and onions promote self-destruction of cancer cells.* *Enzymes.* 2015;37:167-92. doi: 10.1016/bs.enz.2015.05.003. Anticancer Mechanism of Sulfur-Containing Compounds. De Gianni E1, Fimognari C2. <http://www.ncbi.nlm.nih.gov/pubmed/26298460>
 - b. *Thyroid cancer cells inhibited by compound contained in garlic.* *Technol Health Care.* 2015 May 27;23(s1):S89-S93. Garlic-derived compound S-allylmercaptocysteine (SAMC) is active against anaplastic thyroid cancer cell line

- 8305C (HPACC). Liu Y1, Yan J2, Han X2, Hu W2.
<http://www.ncbi.nlm.nih.gov/pubmed/26410334>
- c. *Pancreatic cancer cells targeted for destruction by modified garlic compound using cancer-binding antibody*. Apoptosis. 2015 Oct;20(10):1388-409. In situ allicin generation using targeted alliinase delivery for inhibition of MIA PaCa-2 cells via epigenetic changes, oxidative stress and cyclin-dependent kinase inhibitor (CDKI) expression. Chhabria SV1, Akbarsha MA, Li AP, Kharkar PS, Desai KB.
<http://www.ncbi.nlm.nih.gov/pubmed/26286853>
 - d. *Prostate cancer risk reduction with garlic, especially, and also onions (slowing of cancer growth keeps cancer from emerging within normal life span)*. Asian Pac J Cancer Prev. 2013;14(7):4131-4. Allium vegetables and risk of prostate cancer: evidence from 132,192 subjects. Zhou XF1, Ding ZS, Liu NB.
<http://www.ncbi.nlm.nih.gov/pubmed/23991965>
 - e. *Tomato constituent lycopene stops progression of prostate cancer in men*. Nutr Cancer. 2007;59(1):1-7. Lycopene and soy isoflavones in the treatment of prostate cancer. Vaishampayan U, Hussain M, Banerjee M, Seren S, Sarkar FH, Fontana J, Forman JD, Cher ML, Powell I, Pontes JE, Kucuk O.
<http://www.ncbi.nlm.nih.gov/pubmed/17927495>
 - f. *Tomato lycopene slows rise in prostate cancer blood values and slows cancer tumor progression in bone*. Prostate Cancer Prostatic Dis. 2009;12(4):325-32. Is there a benefit from lycopene supplementation in men with prostate cancer? A systematic review. Haseen F, Cantwell MM, O'Sullivan JM, Murray LJ.
<http://www.ncbi.nlm.nih.gov/pubmed/17927495>
10. Saw Palmetto (*Serenoa repens*) anticancer activity
- a. *Newly isolated chemical component of saw palmetto opposes androgen-independent prostate cancer cell culture growth and acts as a free-radical scavenger*. Nat Prod Res. 2015;29(10):926-32. New chalconol glycoside from the seeds of saw palmetto: antiproliferative and antioxidant effects. Abdel Bar FM.
<http://www.ncbi.nlm.nih.gov/pubmed/25230777>
 - b. *Saw palmetto extract inhibits growth and promotes cancer cell self-destruction in brain and spinal cord cancer*. Technol Cancer Res Treat. 2014 Jun 16. *Serenoa Repens* Induces Growth Arrest, Apoptosis and Inactivation of STAT3 Signaling in Human Glioma Cells. Zhou T, Yang Y, Zhang H, Che Y, Wang W, Lv H, Li J, Wang Y, Hou S. <http://www.ncbi.nlm.nih.gov/pubmed/24945373>
 - c. *Saw palmetto stops growth of androgen-dependent prostate cancer and delays growth of androgen independent prostate cancer*. J Inflamm (Lond). 2013 Mar 14;10:11. Effect of *Serenoa repens* (Permixon®) on the expression of inflammation-related genes: analysis in primary cell cultures of human prostate carcinoma. Silvestri I, Cattarino S, Aglianò A, Nicolazzo C, Scarpa S, Salciccia S, Frati L, Gentile V, Sciarra A. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3653817/>
 - d. *Saw Palmetto inhibits growth and promotes self-destruction of leukemia and multiple myeloma cancer cells*. Oncol Rep. 2009 Aug;22(2):377-83. *Serenoa repens* induces growth arrest and apoptosis of human multiple myeloma cells via inactivation of STAT 3 signaling. Che Y, Hou S, Kang Z, Lin Q.
<http://www.ncbi.nlm.nih.gov/pubmed/19578780>
11. Ginseng anticancer activity
- a. *Panax ginseng component causes self-destruction and growth inhibition of primary and transplanted breast cancer in mice*. Int J Cancer. 2015 Sep 30. Panaxydol, a

- component of *Panax ginseng*, induces apoptosis in cancer cells through EGFR activation and ER stress and inhibits tumor growth in mouse models. Kim HS, Lim JM, Kim JY, Kim Y, Park S, Sohn J. <http://www.ncbi.nlm.nih.gov/pubmed/26421996>
- b. *Ginseng components significantly inhibit gastric cancer cells but weakly inhibit gastric epithelial cells*. *Biotechnol Lett*. 2015 Oct 1. Antitumor activity of ginseng sapogenins, 25-OH-PPD and 25-OCH₃-PPD, on gastric cancer cells. Zhao C, Su G, Wang X, Zhang X, Guo S, Zhao Y. <http://www.ncbi.nlm.nih.gov/pubmed/26428367>
 - c. *Regular use of ginseng powder and extracts associated with 44% reduction in all-cancers diagnosis in humans; fresh ginseng, juice & tea were less effective*. *Int J Epidemiol*. 1990 Dec;19(4):871-6. A case-control study of ginseng intake and cancer. Yun TK, Choi SY. <http://www.ncbi.nlm.nih.gov/pubmed/2084014>
 - d. *Red ginseng powder 1 gram per week orally for 3 years resulted in 65% reduced internal cancer diagnosis in men*. *J Med Food*. 2010 Jun;13(3):489-94. Non-organ-specific preventive effect of long-term administration of Korean red ginseng extract on incidence of human cancers. Yun TK, Zheng S, Choi SY, Cai SR, Lee YS, Liu XY, Cho KJ, Park KY. <http://www.ncbi.nlm.nih.gov/pubmed/20521975>
12. Tanning beds with 3% or more ultraviolet-B light produce vitamin D and therefore have anticancer effect.
- a. *Artificial sources of UVB radiation, including low-pressure UVA&UVB tanning beds, are among the sufficient sources of vitamin D*. *Altern Med Rev*. 2005 Jun;10(2):94-111. Benefits and requirements of vitamin D for optimal health: a review. Grant WB, Holick MF. <http://www.ncbi.nlm.nih.gov/pubmed/15989379>
 - b. *Gut malabsorption problems produce vitamin D deficiency that can be corrected by an ultraviolet lamp that mimics summer sunlight*. *Photodermatol Photoimmunol Photomed*. 2007 Oct;23(5):179-85. Treatment of vitamin D deficiency with UV light in patients with malabsorption syndromes: a case series. Chandra P, Wolfenden LL, Ziegler TR, Tian J, Luo M, Stecenko AA, Chen TC, Holick MF, Tangpricha V. <http://www.ncbi.nlm.nih.gov/pubmed/17803596>
 - c. *Tanning once a week or more produced 90% higher blood vitamin D levels, 18% lower parathyroid hormone, and significantly higher bone mineral density*. *Am J Clin Nutr*. 2004 Dec;80(6):1645-9. Tanning is associated with optimal vitamin D status (serum 25-hydroxyvitamin D concentration) and higher bone mineral density. Tangpricha V1, Turner A, Spina C, Decastro S, Chen TC, Holick MF. <http://www.ncbi.nlm.nih.gov/pubmed/15585781>
 - d. *Vitamin D deficiency yields death rate increases: cardiovascular 39%, cancer 42%, respiratory 150%*; *Am J Clin Nutr*. 2013 Apr;97(4):782-93. Strong associations of 25-hydroxyvitamin D concentrations with all-cause, cardiovascular, cancer, and respiratory disease mortality in a large cohort study. Schöttker B, Haug U, Schomburg L, Köhrle J, Perna L, Müller H, Holleczeck B, Brenner H. <http://www.ncbi.nlm.nih.gov/pubmed/23446902>
13. Rosemary anticancer activity
- a. *Rosemary extracts inhibit growth of leukemia and other cancer cell lines in vitro*. *Plant Foods Hum Nutr*. 2010 Jun;65(2):158-63. Inhibitory effects of rosemary extracts, carnosic acid and rosmarinic acid on the growth of various human cancer cell lines. Yesil-Celiktas O, Sevimli C, Bedir E, Vardar-Sukan F. <http://www.ncbi.nlm.nih.gov/pubmed/20449663>

- b. *Carnosol Rosemary Extract inhibits glioblastoma brain cancer in vitro*. Int J Biochem Cell Biol. 2016 Mar 3;74:95-108. New insights into the anticancer activity of carnosol: p53 reactivation in the U87MG human glioblastoma cell line. Giacomelli C, Natali L, Trincavelli ML, Daniele S, Bertoli A, Flamini G, Braca A, Martini C. <http://www.ncbi.nlm.nih.gov/pubmed/26939786>
 - c. *Rosemary chemicals inhibit all cancers in all species tested 1996 to 2010, review*. Crit Rev Food Sci Nutr. 2011 Dec;51(10):946-54. Rosemary and cancer prevention: preclinical perspectives. Ngo SN, Williams DB, Head RJ. <http://www.ncbi.nlm.nih.gov/pubmed/21955093>
 - d. *Rosemary extract decreases chemically-induced breast cancer appearance in rats by 74%*. Cancer Lett. 1996 Jun 24;104(1):43-8. Inhibition by rosemary and carnosol of 7,12-dimethylbenz[a]anthracene (DMBA)-induced rat mammary tumorigenesis and in vivo DMBA-DNA adduct formation. Singletary K, MacDonald C, Wallig M. <http://www.ncbi.nlm.nih.gov/pubmed/8640744>
14. Genistein, quercetin and EGCG (epigallocatechin gallate).
15. Asparagus
- a. *Asparagus inhibits leukemia DNA irreversibly 41 to 84 percent*. Cancer Lett. 1996 Jun 24;104(1):31-6. Anti-tumor activity of the crude saponins obtained from asparagus. Shao Y, Chin CK, Ho CT, Ma W, Garrison SA, Huang MT. <http://www.ncbi.nlm.nih.gov/pubmed/8640742>
 - b. *Asparagus and eight other Saudi plants have anticancer activity in vitro*. J Nat Med. 2011 Sep 28. In vitro cytotoxic screening of selected Saudi medicinal plants. Almehdar H, Abdallah HM, Osman AM, Abdel-Sattar EA. <http://www.ncbi.nlm.nih.gov/pubmed/21953271>
 - c. *Asparagus extract decreases cancer initiation by 50% in rats given a cancer-causing chemical*. Int J Oncol. 2013 Aug;43(2):394-404. Methanolic extract of white asparagus shoots activates TRAIL apoptotic death pathway in human cancer cells and inhibits colon carcinogenesis in a preclinical model. Bousserouel S1, Le Grandois J, Gossé F, Werner D, Barth SW, Marchioni E, Marescaux J, Raul F. <http://www.ncbi.nlm.nih.gov/pubmed/23754197>
 - d. *Extracts of green asparagus spears have components that are toxic to cancer cells and are shown to prevent or reduce induced colon cancer in rats and mice*. Chin, C.K. and Garrison, S.A. (2008). Functional elements from asparagus for human health. Acta Hort. 776, 219-226 DOI: 10.17660/ActaHortic.2008.776.27. <http://dx.doi.org/10.17660/ActaHortic.2008.776.27>
16. Ocean vegetables
17. Alcohol avoidance
18. Hops
19. NSAIDs
20. DMSO
21. Marijuana (Cannabis sativa & Cannabis indicus)
- a. *Cannabis extracts inhibit progression of brain, breast, lung, prostate and colon cancer in animals and cell cultures*. J Neuroimmune Pharmacol. 2015 Jun;10(2):255-67. doi: 10.1007/s11481-015-9608-y. Epub 2015 Apr 28. The Antitumor Activity of Plant-Derived Non-Psychoactive Cannabinoids. McAllister SD1, Soroceanu L, Desprez PY. <http://www.ncbi.nlm.nih.gov/pubmed/25916739>
 - b. *Several cannabinoids exert anti-growth and pro-death effects on various cancer types—lung, glioma brain and spinal cord, thyroid, lymphoma, skin, pancreas,*

- uterus, breast, prostate and colorectal carcinoma—in cancer cell cultures and laboratory animals.* Br J Clin Pharmacol. 2013 Feb; 75(2): 303–312. Cannabidiol as potential anticancer drug. Paola Massi, Marta Solinas, Valentina Cinquina, and Daniela Parolaro. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3579246/>
- c. *Cannabis constituents inhibit or even regress cancer cell cultures and animal cancers of breast, prostate, lung, skin, pancreas, bone brain, lymph system, mouth and thyroid, in addition to inhibiting metastasis.* Oncotarget. 2014 Aug; 5(15): 5852–5872. Cannabinoids as therapeutic agents in cancer: current status and future implications. Bandana Chakravarti, Janani Ravi, and Ramesh K. Ganju. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4171598/>
- d. *Cannabidiol component of Cannabis demonstrated anticancer activity in neuroblastoma cell cultures and neuroblastoma tumors in animals.* Curr Oncol. 2016 Mar;23(2):S15-22. In vitro and in vivo efficacy of non-psychoactive cannabidiol in neuroblastoma. Fisher T, Golan H, Schiby G, PriChen S, Smoum R, Moshe I, Peshes-Yaloz N, Castiel A, Waldman D, Gallily R, Mechoulam R, Toren A. <http://www.ncbi.nlm.nih.gov/pubmed/27022310>