Cancer – Prevention and Treatment - January 2012

Great Sources of Information:
http://cancertutor.com/
http://www.cancertutor.com/Link_S4.html
http://www.drtanton.com/pdfs/TakingTheMysteryOutOfCancer.pdf or http://www.drtanton.com/

Preventing Cancer

Diet

Avoid Fructose and Sugar

As a standard recommendation, keep your TOTAL fructose consumption below 25 grams per day including fruits. But for most people it would also be wise to limit your fructose from fruit to 15 grams or less, as you're virtually guaranteed to consume "hidden" sources of fructose if you drink beverages other than water and eat processed food. *High Fructose Corn Syrup* (HFCS), at the top of the list of dangerous food ingredients, is made by treating a large quantity of glucose (a sugar) with an enzyme that changes part of the glucose into a much sweeter fructose. It's quite clear that if you want to avoid cancer, or are currently undergoing cancer treatment, you absolutely MUST avoid all forms of sugar -- especially fructose -- and this is largely due to its relation to insulin resistance.

References: http://www.naturalnews.com/029905_fructose_cancer.html
http://www.living-a-healthy-lifestyle.com/dangerous-food-ingredients.html
http://www.sparkpeople.com/mypage_public_journal_individual.asp?blog_id=4426396

Optimize Vitamin D

There's overwhelming evidence pointing to the fact that vitamin D deficiency plays a crucial role in cancer development. Researchers within this field have estimated that about 30 percent of cancer deaths -- which amounts to 2 million worldwide and 200,000 in the United States -- could be prevented each year simply by optimizing the vitamin D levels in the general population.

On a personal level, you can decrease your risk of cancer by MORE THAN HALF simply by optimizing your vitamin D levels with sun exposure. And if you are being treated for cancer it is likely that higher blood levels—probably around 80-90 ng/ml—would be beneficial.

Omega-3 Fats – Krill Oil

Get appropriate amounts of high quality animal-based omega-3 fats. Smaller fish, such as herring, sardines, and anchovies fare better than larger fish since they don't have time to accumulate much mercury in their tissues. GotMercury.org is a good website if you're curious to see just how high your intake of mercury might be. Not only do they have a handy mercury calculator, but they also perform independent testing on various sources of fish. The antioxidant potency of krill oil is actually 48 times higher than fish oil, and krill oil also contains astaxanthin — a unique marine-source flavonoid — that creates a special bond with the EPA and DHA, which allows direct metabolism of the antioxidants, making them more bioavailable for you.

http://aimbodyfitness.com/2010/04/are-you-getting-the-right-type-of-omega-3-fats/

Eating oxidized or rancid fats and sugar will increase inflammation in your body. Conversely, eating healthy fats such as animal-based omega-3 fats or the essential fatty acid gamma linolenic acid (GLA) tends to reduce inflammation.

The **Omega-3 Fats Help Curb Inflammation** featured study in the American Journal of Clinical Nutrition revealed that women with the highest intake of omega-3 fats had a 44 percent reduced risk of dying from inflammatory disease compared with women with the lowest intake. It is also because omega-3s interfere with inflammation that they are able to help cancer patients maintain and even regain lost muscle mass. Omega-3 fats have also been shown to reduce T-cell-mediated inflammation, in part, by suppressing T-cell (a key immune system white blood cell) activation and proliferation.

The Benefits of Omega-3 Fat

Omega-3 is one of the most important essential nutrients out there. Three recent studies even found that omega-3 deficiency can cause or contribute to serious health problems, both mental and physical, and may be a significant underlying factor of up to 96,000 premature deaths each year.

In 2008, three other studies also highlighted the vital importance of omega-3 fats for optimal health, underscoring the importance of maintaining a high dietary omega-3 intake throughout your life.

The results showed that low concentrations of EPA and DHA resulted in an increased risk of death from all causes and accelerated cognitive decline. Those suffering from depression have also been found to have lower levels of omega-3 in their blood than nondepressed individuals.

It's even been found to save the lives of children suffering from short bowel syndrome *(SBS)*, and tests on children with learning disabilities has shown omega-3 to be an effective treatment.

So the benefits of omega-3 fats truly run the gamut, from mental and behavioural health at any age, to preventing premature death from any number of diseases, including:

- Coronary heart disease and stroke
- Essential fatty acid deficiency in infancy *(retinal and brain development)*
- Autoimmune disorders *(e.g., lupus and nephropathy)*
- Crohn's disease
- Cancers of the breast, colon, and prostate
- Mild hypertension
- Rheumatoid arthritis
- Parkinson's disease
- Preventing premature delivery

http://aimbodyfitness.com/2010/04/are-you-getting-the-right-type-of-omega-3-fats/

Krill Oil review - http://www.krilloilreview.org/?gclid=CPW1vaaJrKsCFWsEQAodCFZd4w

Sources: http://www.krilloil.com/?gclid=CLvMqKmKrKsCFYjBKgodFjMv6g

http://www.vitacost.com/productResults.aspx?previousText=krill+oil+capsules&ntk=products&ss=1&Ntt=krill%20oil

Other foods that help prevent cancer

Are you afraid that trying to eat healthily will drain your wallet? Not to worry -- some of the healthiest foods in the world are actually very, very cheap. Planet Green lists a number of foods that are great for your body but won't break the budget:

Kale is loaded with vitamin C, vitamin B, and calcium, and costs just over a dollar a bunch.

Broccoli and Cabbage These low-cost cruciferous vegetables neutralize toxins in your liver.

Winter Squash for just a few dollars a pound, it's a good source of vitamin B6 and folate.

Sweet Potatoes are full of fiber, protein, vitamin A, and vitamin C.

Adzuki Beans contain some of the highest levels of protein of any variety of beans, and they also contain high levels of potassium, fiber, B vitamins, iron, zinc, and manganese.

Black Beans are a good source of folate, dietary fiber, manganese, protein, magnesium, vitamin B1 (thiamin), phosphorus, and iron.

Raw Sunflower Seeds contain 76 percent of the RDA for vitamin E.

Almonds are good for heart health and loaded with vitamin E. Walnuts have been shown to slow the growth of brest cancer in mice. See **Study by Morgantown University Researcher W. Elaine Hardman, Ph.D., of Marshall's Joan C. Edwards School of Medicine.** **http://www.youtube.com/watch?v=r5dDqCS_NiA**

To see the rest of their cheap superfood selections, along with a recipe for each food, click on the link Planet Green January 11, 2011

DR HULDA CLARK CANCER THERAPY AND DIET SUGGESTIONS::

Aloe Vera
Essiac Tea
Papaya Leaf
Purple Grape
Soya Diet
Bruess Therapy
MMS Therapy
Sweet Wormwood
Mangosteen
Selenium

Chinese Herbs
21 Day Cure

Gerson Therapy **(Dr Max Gerson)** http://www.huldaclarkzappers.com/?page_id=206

The Gerson Therapy has been and is still the most basic, the best recognized, the most complete, and the longest existing effective cancer treatment. Patients on the Gerson therapy also know that they have to stick very exactly to the treatment. Everything you must or must not do has a very important reason. The whole Gerson Therapy is aimed at detoxifying the body and putting lots of fresh nutrients into it. The Gerson therapy is not effective with cancer only. With the Gerson Therapy, patients have seen heart disease, high blood pressure, thyroid problems, lupus, colitis, diabetes, multiple sclerosis, rheumatoid arthritis, herniated disks and many other problems disappear. Some have seen Alzheimer's disease improve if it's not too advanced.

The Gerson Therapy was established more than seventy-five years ago by Dr. Max Gerson, and described in detail in his book A Cancer Therapy: Results of Fifty Cases and the Cure of Advanced Cancer. Dr. Gerson died in 1959.

Dr. Gerson gave seriously ill patients fresh juice every hour, freshly pressed, organic, free of poisons, rich in the best nutrients, minerals and enzymes. It is all described in Dr. Gerson's book "A Cancer Therapy: Results of Fifty Cases and the Cure of Advanced Cancer ". "We give a fresh glass of juice every hour: five glasses of apple-carrot juice, three glasses of plain carrot juice and we give liver capsules with it, four glasses of juice from leafy type greens rich in chlorophyll, iron, nutrients, enzymes, everything the body has been lacking over the years

Dr Gerson Diet

Gerson Therapy: Excess protein in the diet is carcinogenic
Excess protein causes cancer. Especially when it is cooked. Doctors and nutritionists advise you that animal protein is needed for strength and tissue repair, but that is absolutely the worst advice you can get. Researchers at the Karolinska Institute in Sweden found that when any kind of flesh including red meat, poultry, pork and lamb was heated to 212 degrees, whether it was boiled, broiled, fried or baked, the protein in the meat CHANGED into toxic amides that do nothing in your body except provide you with carcinogens.

Cooked meat is strictly a carcinogen. The latest research done at the University of California at Irvine, showed that children who eat as few as three hotdogs a week had 10 to 12 times higher incidence of leukemia and brain tumors. Sausages are perhaps the worst food. They are chemically treated, dyed and preserved. They have nitrates and nitrosamines.

Potassium versus sodium in the Gerson Therapy:
Gerson found that sodium stimulates tumor growth. It interferes with body function. According to Gerson you need high potassium and low sodium, the same ratio which can be found in fresh live foods. All processed foods contain reduced potassium and

raised sodium. Sodium is necessary for tumor growth. The Gerson Therapy supplements the body with potassium

Liver regeneration and the Gerson Therapy:
The liver is the most important organ in the body. It is the filtration system for detoxification. I have heard doctors say that if your liver functions up to 35%, you are all right, but when it drops below that, disease develops, whether it is diabetes, cancer, arthritis, lupus or anything else. By the time cancer or chronic disease develops, liver function is below 35%.

So when the tumor, the cancer, arthritis or other disease symptoms are gone, that doesn't mean the body is cured. The body isn't really restored until the liver goes back to its full activity of somewhere between 90 and 100%. We never really know how long it takes to get there, but we can estimate it takes at least 1 1/2 year or 2. If you go back to eating average food right away, the foods you used to eat, candies, ice cream, cheese and meat, the cancer will come back rather quickly because the liver is not able to deal with these things.

Flaxseed oil and the Gerson Therapy:
Dr. Gerson found, after observing for a long time, that patients, especially with cancer and also with heart disease, atherosclerosis and so on cannot handle oils and fats, and that is why his book says no oils. Yet he was very much aware that the body needs a certain amount of essential fatty acids and that after deprivation for a year or year and a half, until the tumors disappear, there is a lack of essential fatty acids in the Gerson diet.

Dr Gerson searched and searched and tried every kind of oil he could think of, everything from olive oil, sesame oil, safflower oil to sunflower oil. None of them were usable because in each case the tumors would regrow. Fats stimulate tumor growth. But after the book came out, he came across the work of Dr. Johanna Budwig in Germany who showed that one may use flaxseed oil and that it is well tolerated by cancer patients. It helps to stimulate the immune system, and kills the tumor tissue. He used two tablespoons of flaxseed oil per day - one at lunch and one at dinner, and after a month on the therapy, he cut it down to one tablespoon a day. He advised against cooking with oils. You can't cook with flaxseed oil because if it is heated, it deteriorates and causes problems. So the flaxseed oil must only be used raw and cold.

In addition, Gerson prescribed hydrochloric acid with pepsin, pancreatin, high doses of Lugol's solution for iodine together with freeze-dried thyroid, niacin, Royal Jelly, and injections of vitamin B12 with crude liver. In addition, raw liver juice was used for its high content of enzymes. Later, with increasing chemicalization of agriculture the liver juice was omitted while linseed/flax oil was belatedly added to the list of supplements.

Liver detoxification with frequent coffee enemas was another cornerstone of the Gerson Therapy; otherwise, patients with advanced cancer might die despite disappearing tumors. Some patients are also given castor-oil enemas and oral and/or rectal hydrogen peroxide and rectal ozone treatment. Forbidden foods include salt, oil, berries, nuts, drinking water, and all bottled, canned, refined, preserved, and processed foods. No aluminum utensils are used, and juices must be pressed.

Dr. Gerson stated:
“Cancer is not a single cellular problem; it is an accumulation of numerous damaging factors combined in deteriorating the whole metabolism, after the liver has been progressively impaired in its functions. This slow poisoning of the entire organism, a lowering of the electrical activity in vital organs, and the weakening of the liver, the prime organ of detoxification, creates a 'cancerous body that is anergic”.

Gerson Therapy is based on the view that malignant growths result from metabolic dysfunction within cells. This was to be countered by diet and detoxification. Gerson felt that, in order to be healed, the body needed to be 'detoxified' with agents that rendered it hypersensitive to abnormal substances (including bacilli and cancer cells), which the body will then eliminate. The more malignant the cells, the more effective the therapy. The clinic claims to "cure half of the patients who have a month to live, and 90% of patients with any early cancer.

During the Gerson treatment, the body is flooded with nutrients, oxidizing enzymes, and potassium. No added salt or fats other than flaxseed oil are allowed. Freshly pressed organic fruit and vegetable juices are given hourly. Coffee enemas are administered several times daily. As tumors die, the mass of dead cells are absorbed. They flood the bloodstream. Without proper detoxification, poisons accumulate, and patients, even those whose cancer has been eradicated, will die. Coffee enemas aid in detoxification and decrease pain.

Gerson believed our health begins with the quality of the soil in which our food is grown. “Our soil must be normal, no artificial fertilizers should be used, no poisons, no sprays which go into the soil and poison it. Whatever grows on a poisoned soil carries poison, too. And that is our food, our fruit and vegetables. I am convinced that the soil is our external metabolism. It is not really far removed from our bodies. We depend on it. But our modern food, the "normal" food people eat is bottled, poisoned, canned, color added, powdered, frozen, dipped in acids, sprayed-no longer normal. We no longer have living, normal food, our food and drink is a mass of dead, poisoned material, and one cannot cure very sick people by adding poisons to their systems.”

Supplement Gerson Therapy with a Digital Zapper for amazing results!

ZAPPER DIGITAL LATEST MODELS

(1) Advanced Frequency Generator: Zapper Digital LCD
(2) Professional Clinic Model: Zapper Digital Megahertz: (Based on Dr Clark's Clinic Model)

Use only Frequency Generator Digital Zappers, that have more power than the conventional Zapper and are the "Digital type Zapper" specifically outlined on page 502 in "Cure for all diseases". Run a 10 frequency comprehensive parasite set on the Zapper Digital LCD or MHZ model in order to target the various parasitic pathogens, who live in these particular frequency ranges.

Introduction to (Gentle!!) Electromedicine in Alternative Medicine (continued under Alternative Cancer Treatments) (See http://cancertutor.com/)

While most people have a general idea about what nutritional protocols do for cancer patients, they have no clue what "electromedicine" devices are designed to do. This is a completely new concept to most cancer patients.

But do not confuse the very, very gentle electromedicine of alternative medicine with the barbaric "radiation therapy" of orthodox medicine. In many cases, when using electromedicine, the patient barely knows the device is turned on!!

Electromedicine devices fall into one of two categories:
1) They are designed to kill microbes in the bloodstream, lymph system, etc.
2) They are designed to kill microbes which are inside the cancer cells (see the "What Causes Cancer" article).

Electromedicine devices cannot kill cancer cells directly because they cannot differentiate between a cancer cell and a normal cell. Well, that is not entirely true because some newer protocols are being researched which use minerals to allow an electromedicine device to target cancer cells (e.g. Kanzius). But I will not talk about these devices because they are experimental and their safety is far from being adequately tested.

Dr. Royal Rife, a microbiologist, designed his device to kill microbes which were inside of the cancer cells. That is why his device had a "carrier frequency." If you can kill all of the microbes inside the cancer cells the cancer cells will be able to restore their metabolism and will revert into normal cells.

I am going to repeat that in another way: many of today's alternative cancer treatments revert cancer cells into normal cells!! That is the best way to cure cancer because there is no debris from dead cancer cells in the body. In fact, many of the newer protocols work that way.

More than a hundred electromedicine experts have tried to replicate Rife's technology. More than one of these "Rife Machines" has been very effective against cancer!!

http://cancertutor.com/

Nutrition—A Cancer Battle Plan **From the Wellness Directory of Minnesota**

http://www.mnwelldir.org/docs/nutrition/diet.htm

The best nutritional advice so far has come to us from the Center for Advancement in Cancer Education in Pennsylvania. They have put together a cancer battle plan from the best of all nutritional advice and we will give it to you here. The Center for Advancement in Cancer Education puts it simply: low fat (a low fat diet lowers "bad" estrogen levels in women), low animal protein, high fiber, high enzyme diet whose acid/alkaline balance approaches a ratio of 1:4, eliminating heavily refined, highly heated, over-processed, artificial, and chemically adulterated foods. In other words, organic, unprocessed or minimally processed foods. However, there is a problem here in that the Mediterranean diet is high in fat and breast cancer rates are lower there. So it is not just fat, but the types of fats we are interested in here. Olive oil is contains essential acids as does flax oil. Diets low in fat can kill a cancer patient. PMGs that promote cells to stop this crazy out-of-control growth needs to work with fats. For more information on PMGs click here.

ELIMINATE: Coffee, tea (with too much caffeine), sugar, white flour, white rice, milk, oils (except olive oil), liquor, fried food, meat from animals that have been raised with hormones or antibiotics, citrus (one or two oranges is maximum), vitamins that are not indicated for you specifically, refined salt (Celtic Sea Salt® Brand has been given the ok by many naturopaths and nutritionists), cocoa, over-processed foods, foods with additives and drugs (these include all over-the-counter remedies, i.e., pain relievers, antacids, cough and cold medicines). Keep in mind that these are just general guidelines. Some people actually need coffee to counteract the alcohol created by their pancreas. Some people need animal proteins. Some need citrus. Only a thorough chemical analysis can tell you specifically what to eat and what to avoid. However, everyone with cancer should avoid all sugars and any foods containing partially hydrogenated oils (which means you must learn to read labels as the food industry is slowly slipping these fats into nearly everything: frozen foods, cream soups, cocoas, cheese products, you name it). Top

CANCER LOVES SUGAR. Your oncologist knows this, yet most feed their patients cookies and Ensure®. Click here to learn what your doctor knows, but refuses/forgets to tell you: SUGAR.

FOODS TO EAT: Raw vegetables and vegetable juices, fruit (fresh and dried but rehydrated—avoid sulphurated), whole grains, lightly cooked vegetables, sweet potatoes, white potatoes, beans, yogurt and kefir, small amounts of organically raised meat, small amounts of poached fish, nuts and/or nut milks, herb teas, vegetable soup, and cruciferous vegetables. Cancer experts recommend a 70% raw food diet (uncooked), however, others seem to feel that 50% is recommended. Check with your own nutritionist. Another reason for eating organic foods is of special interest to women wanting to prevent or fight breast cancer. Pesticides mimic the action of estrogen in your body in that they can lock onto receptors in the your breasts and

stimulate cell division. Even small amounts of pesticides can be dangerous to women, because they tend to concentrate to high levels in fat cells, and breasts are comprised mostly of fat cells. Top

Enzymes http://www.mnwelldir.org/docs/nutrition/diet.htm#Top

Any biochemist will tell you, that when the body is creating digestive enzymes, it is too busy to create other enzymes that support your immune system. Adding enzymes to your diet keeps your organs from becoming overstressed and helps them to protect your immune system.

- Before meals:3 pancreatic enzymes (General Research Laboratories).
- With meals:3 or 4 Green Life (Sonebrand).
- After meals: Pancreatrophin, Hepatrophin, and Thymus (Std Process Labs).

All of the above recommendations and name brand products came to us from the Center for Advancement in Cancer Education. Again, you will want to check with your nutritionist. Top

Combining foods improperly causes complete digestion to take longer, tires you out, and can allow foods to ferment leading to purtrification of the colon, which leads to toxins entering the blood stream. Because fruit should not rest long in your stomach, fruit should always be eaten alone or before meals. Here are a few more simple rules about fruits:

- Eat sub-acid fruits with either acid fruits or sweet fruits, but never eat acid fruits with sweet fruits.
- Sub-acid fruits: Apricots, berries, cherimoya, cherries, fresh figs, grapes, mangos, nectarines, papaya, peaches, pears, plums.
- Sweet fruits: Bananas, dates, dried fruit, persimmons, prunes, raisins, sapote. (Some apples are sweet and some can be sub-acid)
- Acid Fruits: All citrus, kumquats, pineapple, pomegranates, strawberries.
- Always eat melons alone.

Rules for veggies, proteins, carbohydrates, and fats: Eat veggies with carbohydrates or with proteins, but never mix proteins with carbohydrates (no meat and potatoes). Meats should never be cooked in fats. Remember, your carbohydrates are: breads, corn, dried beans & peas, grains and cereals, pasta, potatoes, pumpkin, squash, and yams. Top

See killing cancer cells using enzymes http://www.cancerfightingstrategies.com/enzymes.html for more information.

Vegetables A minimum of fifty percent of your diet should be veggies. The ratio of raw to cooked should range from 50:50 to 70:30 (70% raw, 30% lightly cooked). Raw vegetables give you the enzymes you need, but an entirely raw diet is inadvisable since there are some tough fibrous walls that need to be broken down to get to the nutrition, and this can put a strain on your digestive system. Another way to break down raw foods and make them more assimilable is to grate them, or run them through a food processor. However, you will have to eat them as soon as they are processed, because they begin to degenerate very quickly.

Fresh vegetable juices are a must. The best cancer fighting juice is carrot juice. It is high in beta-carotene and high in alpha-carotene, an often ignored nutrient, though thought by many experts to be ten times more powerful than beta-carotene.

Some nutritionists recommend sprouts either juiced or whole, however, the Gerson Institute strongly recommends against them because, in their experience, sprouts interfere with the action of your enzymes.

Include large amounts of green, leafy veggies and choices from the cabbage family (cruciferous) daily, and don't forget the sea vegetables such as wakame, nori, kelp, kombu, hizike, and dulce. The sea veggies are great in salads (after being rehydrated and drained) or in soups. Top

Vinegar We should make a special note about vinegar here, for many of you will make salad dressings for your veggies. Most vinegars you purchase are destructive to your liver and digestive tract. According to Dr Norman Walker who wrote *Fresh Vegetable and Fruit Juices* (a must for anyone thinking of juice fasting or just making their own fresh juices), most vinegars contain *only* acetic acid, not a plus for a cancer diet. Apple cider vinegar contains, in addition to acetic acid, malic acid, an element of the digestive process. If you are going to use vinegar, use unpasteurized, unfiltered, organic apple cider vinegar. Top

Fruits Ten percent of your diet should be fruit. Eat fruit alone as a small meal or between meals, or at least one half hour before a meal, ***never*** after. They should be raw or rehydrated and preferably in season. A breakfast of fruit only is light and highly recommended by movers and shakers. Additionally, since fruit, if properly mixed, does not sit in your stomach long, it can be eaten before bedtime without causing excessive stomach acid.

Keep citrus fruit to a minimum. Yes, we know how the television ads state that orange juice fights cancer, but that is prevention only. Citrus puts your body into an acidic state. Nearly all of the cancer institutes we've talked to during our research said the

same thing: if you are battling cancer, keep your citrus to a minimum. Get your vitamin C from supplements. Top

Animal Products Limit your animal products to two or three small (2 oz.) servings per week. White fleshed fish (preferably cod, haddock, salmon, or trout), or white meat poultry are preferred. Poultry and meat should be raised free range without additional hormones, antibiotics, and pesticides. The Center for Advancement in Cancer Education recommends no red meat, however, Dr Gonzalez of New York says this depends on the person's own biochemistry. Certainly no processed meats should be consumed. Poached or soft-boiled eggs from flax fed, free range chickens are best.

Depending on who you talk to, some red meat can be permitted on a cancer diet, however, red meat is high in iron, which reacts with oxygen to create free radicals. Thus some small amounts (in stir fries and soups) are recommended, along with antioxidants such as vitamin C and vitamin E. Top

Liquids Avoid drinking any liquids 15 minutes before a meal, and for three hours following a meal. If you must drink with your meals, our research tells us that what is best is hot green tea made with Willard Water® (can be purchased in many health food stores).

A Chinese study of over 900 middle-aged individuals showed that drinking green tea cut the risk of esophageal cancer by as much as 60%. [*Journal of the National Cancer Institute*, June 1, 1994]

The phytochemicals (chemicals from plants) in green tea most responsible for its anti-cancer effect are polypherols, and in addition to preventing cancer of the esophagus, are also thought to prevent cancer of the stomach, liver, skin, and lung. (Japanese men smoke more than American's but have a lower incidence of lung cancer.) Researchers in China believe that green tea also helps to lower blood pressure and blood cholesterol, stabilize blood sugar, kill decay-causing bacteria, and block the action of many carcinogens. (Green tea extracts are now found in many health food stores.)

Black tea too seems to have the same effect, however, analysis shows that there are 4 times the active compounds in green tea than black tea. Researchers at Rutgers State University showed that over a 31 week period with mice exposed to two carcinogens known trigger skin cancer, the experimental group, drinking tea, experienced 70% to 90% fewer skin cancers. Black tea worked as well as green tea, and decaffeinated teas, though showing a slightly smaller anti-cancer effect, were still significantly high. [*Environmental Nutrition*, November 1994]

An estimated 80% of Americans walk around in a state of virtual dehydration. If you want proof, next time you are in a high-school or grade school, take a tour of one of the boys' lavatories. Young boys have a tendency not to flush. You will find in the urinals a thick brown substance normally called urine. Because our kids drink so many caffeinated soft-drinks, they are dehydrated.

The color of your urine should range from clear to a light yellow. A dark yellow shows signs of dehydration, even though your throat and mouth feel just fine. For every caffeinated drink, you need to drink one more cup of water. Deepak Chopra recommends water at room temperature, eight to ten glasses per day. Others recommend ten to twelve glasses. Then again, Gerson forbids water. Check with your nutritionist. (For more on teas repudiated to fight cancer, see the article "Alternative Cancer Therapies.")

Avoid caffeinated and artificial drinks (they contain fluoridated and chlorinated water), and fruit juices that have been processed or that have extra sugars added. Whole fruit juices are good in moderation (with added filtered water). Roasted cereal grain beverages (e.g., brown rice, barley) or herbal teas are recommended. Raw vegetable juices are excellent, especially carrot juice.

Again, avoid fluoridated and chlorinated water, but keep your fluid intake up. Ice cold beverages are out. Chinese medicine reminds us that the temperature of digestion is 100º Fahrenheit. Drink your water (and other beverages) at room temperature. Hot herbal teas are also excellent, and for a primo coffee substitute, from Maharishi Ayurveda products, you may drink "Raja's Cup" which is not only a great drink and coffee substitute, but is charged with antioxidants.

Be sure to empty your bladder as soon as you feel the need to do so. Dr Frank Charles (from Natural Wellness Group in Minneapolis) reminds us that the longer urine is confined to the bladder, the more concentrated it gets. Studies show that persons who hold in their urine get bladder cancer at greater rates than those who go when the urge hits. Top

Grains Twenty percent of your diet should be whole grains. Avoid all refined, polished grains and flours and products made from them. Brown rice, kashi, millet, rye, buckwheat, barley, oats and oat brans, corn (on the cob or corn grits), and quinoa are recommended. Whole grain pasta can be used with limitations. For grain recipes, pick up of copy of Candia Cole's *Gourmet Grains*.

One important note on grains: unprocessed, whole grains, as well as seeds and nuts, contain volatile oils that can go bad quickly. It is best to keep them refrigerated or in your freezer once you've opened them. Top

Fats and Oils Most fats/oils should be kept to a minimum especially if they are human made or over processed (corn oil is deadly, margarine even more so), though you will want to get your allotment of Omega-3s. Dr Johanna Budwig has demonstrated that for proper utilization of oxygen by our cells, adequate amounts of unsaturated fatty acids must be present in our diets. (See the section on her in "Alternative Cancer Therapies.") Monounsaturates (olive and sesame seed) are highly recommended, but they must be unrefined (cold or expeller pressed) and they must be kept capped and refrigerated. Avoid heating oils; heat causes oxidation and the release of free radicals. Mayonnaise and margarine are out. Avoid trans fatty (partially hydrogenated) oils as if they were the cause of your cancer (for we are slowly discovering, they just might be the cause).

In 1989, the USDA found that fish oils reduce the production of the prostaglandin E2 which has a tendency to cause appetite loss. It is this appetite loss that brings on cachexia, the wasting syndrome that causes eventual death in cancer patients. Top

Seeds and Nuts Five percent of your diet should be seeds and nuts. They must be consumed raw, though some say the best way to eat them is sprouted (alfalfa, radish, sunflower) though keep in mind what we've said earlier about sprouts. Because seeds and nuts can put a strain on your digestive system, when your immune system is down, you will probably want to pulverize them in a grinder and sprinkle them over soups and salads. If you do not want to strain your digestive system, avoid nuts until your immune system is responding better.

Seeds and nuts can be made into milk substitutes. Get a copy of Candia Cole's *Not Milk—Nut Milks.* Nuts should (unless blended into drinks) be used in small amounts, with almonds, hazel nuts, and pecans being the best. ***No peanuts!*** Peanuts are not nuts, but legumes; they are considered indigestible by some, and can contain carcinogens from a very common mold often found on them. Top

Legumes Ten percent of your diet should be legumes and should be cooked well. Aduki, mung, kidney, navy, black, turtle, red, garbanzo, and pinto beans, as well as peas, black-eyed peas, and lentils are excellent. Fermented soy products (miso is one) are a must on a cancer diet (unless your breast cancer is estrogen receptive). Remember to combine your legumes with grains for more complete proteins. Top

Soups Soups are an excellent means of breaking down the fibers in veggies and getting more of their nutrients and should include a variety of veggies, seaweeds, and legumes. Miso, tamari, or bean broth can serve as a base (check with your doctor/nutritionist if your breast cancer is estrogen receptive). Get a book on making home-made vegetable soups. Top

Condiments Salt should be kept to a minimum; seaweeds are sold as salt substitutes. If you must use a salt, make sure it is naturally processed sea salt, tamari, or something high in potassium. Garlic is a must; Dr Schulze recommends 5-7 cloves a day, though this could upset your stomach if taken all at once. Use your judgement.

Try some of the herbal seasonings at your local health food store; it won't take long to develop a liking to them. And keep in mind that herbs from the mint family, like oregano, are great on salads and contain a goodly amount of antioxidants, as well as many other nutrients. Top

Detox Your Life Although this might not seem related to diet, what we take in our bodies comes from the air we breath, the lotions we put in our hair and on our skin, and the foods and liquids we consume. We are immersed in a sea of antigens, chemicals and toxins that put a relentless strain on our immune systems. If the food you eat is going to help your body to heal, give it a head start by cleaning up your immediate environment.

- Air filtration systems: for your home and office, and keep the filters clean.
- Water filtration systems: the best seem to be the reverse osmosis type. Avoid all chlorinated or fluoridated water. Some recommend adding two drops of bleach to the intake of your water filter every month or so, though, half an ounce of hydrogen peroxide (30%) might be better.
- Avoid long hot showers. In 1990 the EPA placed hot showers on their list of cancer sources. Not only do the carcinogens in your water supply get into your skin during a hot shower, you breath in the carcinogenic steam. Thus, a filtration system added to your shower is also recommended.
- Throw out all your skin lotions, soaps, and hair sprays. Find a health care professional to advise on what you can use that is not toxic.
- Throw out all your cleaning supplies. Shop for non-toxic cleaning supplies.
- Food grade Hydrogen Peroxide (30%): have some on hand in your refrigerator. It is strong and should be treated as a dangerous substance (a splash in your eyes can cause blindness). Mix up a three percent solution, the instructions are on the bottle. Put some in a spray bottle. Use it to clean up any meat drippings. Wash your veggies in it, or spray and rinse.

- Enforce a "No Shoes In This House" policy. Shoes drag in toxins from outdoors. The Japanese know this.
- If you have an attached garage, when you come home, keep the garage door open, exit through the garage door and enter the house through the front door. You would not believe the levels of carbon dioxide found in homes with attached garages.
- Call Greenpeace and ask for their pamphlet *Stepping Lightly on the Earth—Everyone's Guide to Toxics in the Home*. And send them a donation. Or get a copy of *The Cure for All Cancers*, by Hulda Clark, PhD, ND. It is filled with suggestions for detoxifying your life.
- Read the article "Cleaning House" on the proper way to detoxicate your body. It is probably the most important article at this web site. Top

Now that we've mentioned the highlights and some of the rules, we can go into more depth and discuss the whys and wherefores of the cancer diet, and point out those foods that prevent and fight cancers.

http://www.mnwelldir.org/docs/nutrition/diet.htm

Johns Hopkins sent this out in its newsletters. This is also being circulated at Walter Reed Army Medical Center. Dioxin chemicals cause cancer, especially breast cancer. Dioxins are highly poisonous to the cells of our bodies. Don't freeze your plastic bottles with water in them as this releases dioxins from the plastic. Dr Edward Fujimoto, Wellness Program Manager at Castle Hospital , was on a TV program to explain this health hazard. He talked about dioxins and how bad they are for us. He said that we should not be heating our food in the microwave using plastic containers. This especially applies to foods that contain fat. He said that the combination of fat, high heat, and plastics releases dioxin into the food and ultimately into the cells of the body. Instead, he recommends using glass, such as Corning Ware, Pyrex or ceramic containers for heating food. You get the same results, only without the dioxin. So such things as TV dinners, instant ramen and soups, etc., should be removed from the container and heated in something else. Paper isn't bad but you don't know what is in the paper. It's just safer to use tempered glass, Corning Ware, etc. He reminded us that a while ago some of the fast food restaurants moved away from the foam containers to paper The dioxin problem is one of the reasons. Also, he pointed out that plastic wrap, such as Saran, is just as dangerous when placed over foods to be cooked in the microwave. As the food is nuked, the high heat causes poisonous toxins to actually melt out of the plastic wrap and drip into the food. Cover food with a paper towel instead.

Michio Kushi is a best-selling author and the acknowledged leader of the international macrobiotic community. He was born in Japan and currently lives in Massachusetts. He is the founder of the Kushi Institute, the East West Foundation and One Peaceful World.

Cancer, Diet and Macrobiotics

by Michio Kushi author of The Macrobiotic (Cancer Prevention) Diet

In treating illness with dietary methods, it is important that the sickness be properly classified as predominantly yin or yang, or sometimes as a combination of both extremes. This is especially true with a life-threatening disease such as cancer. Yin, or outward centrifugal movement, results in expansion, while yang, or inward centripetal movement, produces contraction. We can see these universal tendencies in the human body as the alternating expansion and contraction of the heart and lungs, for example, or in the stomach and intestines during the natural process of digestion. Once the yin or yang determination is made, dietary recommendations can be more specifically aimed at alleviating the particular condition of excess. Location of the tumor in the body generally determines whether a cancer is more yin or yang. However, in some cases, cancer in a specific organ can take either a yin or yang form.

A failure to understand the distinction between the general tendencies of yin and yang illnesses explains why some people experience serious side effects from certain medications and others do not. It also explains why so many nutritional therapies and popular health diets produce mixed results or fail entirely. Vitamin C, for instance, is a yin substance that can benefit people with a cold caused by overconsumption of contractive yang foods. However, vitamin C taken in supplement form rather than in daily whole foods can further weaken persons with a cold caused by intake of excessive yin because it contributes further expansive energy to their system.

Across-the-board recommendations to take vitamin X, drug Y or food Z to prevent or relieve cancer do not take into account the two opposite forms that illness may take. Nor do they always make room for differing human constitutions and conditions and varying geographical, social and personal factors. Modern science is justified in rejecting alternative cancer remedies that ignore these variables.

On the other hand, holistic medicine is correct in questioning modern science for focusing on quantity rather than quality. Eating whole foods containing vitamin C, such as broccoli, produces a different effect on the body than taking vitamin C pills, even though the actual amount of the nutrient may be the same.

On the whole, dietary suggestions should be directed primarily toward restoring the individual's excessively yin or yang condition to one that is less extreme. Signs of an overly yin condition include passivity, negativity and shyness, while signs of an overly yang condition include hyperactivity, aggression and loudness. Once a more natural, balanced condition has been established and stabilized, the person's body will no longer need to accumulate toxic excess in the form of cancer. If we keep this holistic view in mind, we can avoid being caught up in an endless maze of symptoms.

If there is any uncertainty about whether the cause of a cancer is more yin or yang, we can safely recommend the Central Diet outlined in our book The Cancer Prevention Diet, which minimizes both tendencies.

Since cancer is a disease of excess, someone with cancer should be careful not to overeat. To prevent this, two important practices are advised. The first is to chew very well, at least 50 and preferably 100 times per mouthful, until the food becomes liquefied. A person may eat as much food as he or she wants, provided it is well chewed and thoroughly mixed with saliva. Proper chewing releases an important enzyme in the mouth, which is essential for digestion. The second point of caution is not to eat for a least three hours before going to bed. Food eaten during that time often becomes surplus and will serve to accelerate indigestion, gas, mucous and fat formation, and enhance the development of cancer. Regarding liquid intake, the individual should drink moderately and only when thirsty.

For both yin and yang cancers, all intake of fatty animal foods, including meat, eggs, poultry, dairy food and other oily, greasy foods (including those of vegetable quality) should be strictly avoided. A person with more yin cancer, however, may have a very small quantity of fish once or twice a week if he or she craves it. In such instances, cooking a small portion of dried fish in a soup may be appropriate.

A person with yang cancer should stay away from all animal food, including fish, at least for the initial period of a few months. In both cases, nuts and nut butters should be avoided or limited because they are very oily and contain excess protein. It is also advisable for an individual with a more yin cancer to avoid or limit fruit and dessert completely. A person with a more yang cancer may occasionally have small amounts of cooked, dried and some cases fresh fruit, but only when craved.

The cooking of vegetables is slightly different for yin and yang cancers. In the case of yang cancer, one advisable method is to chop the vegetables while bringing water to a boil. Add the vegetables to the boiling water for a few minutes or even one minute, then remove. A small amount of shoyu may be added for taste. Another method is to sauté the vegetables quickly for about two to three minutes on a high flame, adding a pinch of sea salt. These styles of cooking will preserve the crispness, freshness and slightly more yin qualities of the vegetables. For yin cancer, vegetables should be cooked in a slower, longer and more thorough manner, and shoyu or miso seasoning may be a little stronger.

An emphasis on green leafy vegetables such as watercress or kale produces a slightly more yin effect; an emphasis on root vegetables such as carrots or turnips will produce a slightly more yang effect. An emphasis on round vegetables such as onions or acorn squash will result in a slightly more centered effect.

As for daily beverages, there are now several varieties of bancha tea available in natural foods stores, including green tea, usual bancha tea, and bancha stem tea, also commonly known as kukicha tea. More yin green tea contains plenty of vitamin C and

can be used to help offset the toxic effects resulting from the overconsumption of animal foods, while more yang bancha stem tea contains less vitamin C but plenty of calcium and minerals. It is advisable for all cancer patients to use bancha stem tea (kukicha) as their usual beverage. However, persons with more yang cancers may occasionally use the green tea from time. Green tea is not recommended for other types of cancer.

http://www.shareguide.com/Kushi.html

The Prevention of all Cancers by Dr Hulda Clark

Avoid eating moldy foods.

Here is some good news for cooks: if you bake it yourself, adding a bit of vitamin C to the dough, your breads will be mold free for an extended period (and rise higher).

Rice and **pastas** can be demolded partly by cooking and partly by adding vitamin C before or after cooking. There is no need to add so much it affects the flavor. Brown rice is especially moldy.

Vinegars can simply have vitamin C added and placed in the refrigerator.

Honey can be warmed and treated the same way (¼ tsp. per pint).

Getting Away From Grains

In view of the many molds that are grain-related, and because these cannot be seen or smelled in pastas, breads, cold cereals, it would be wise to steer away from grain consumption. Always choose potatoes, because it is a vegetable instead of a grain, if you have a choice. The potato appears on your plate the way it was harvested. Whereas grain was hulled, stored for quite a long time, perhaps degerminated (the bran and germ picks up mold the fastest). Then it was mixed with assorted chemicals (fumigation, anti oxidants), each polluted in its own way, packaged again and stored again. Grains have a more tortuous history than potatoes that simply get sprayed.

Dried fruits are very moldy. Soak them in vitamin C water. Rinse and bake to dry again. Then store in the refrigerator or freezer. When fresh fruit gets overripe, don't quickly bake it or preserve it. It's too late.

Peanut butter (store bought) and other nut butters can't be detoxified by adding vitamin C due to the mixing problem, even if you stir it in thoroughly. Make your own. Mix it with homemade preserves, honey, marmalade, not very homogeneously so the bright colors

and individual flavors stand out in contrast. Having three or four such spreads in the refrigerator will give your children the right perspective on food- homemade is better. Store bought jams are sweeter and brighter in color but strangely low in flavor and often indistinguishable from each other. Let your children eat the polluted foods that friends and restaurants serve (but not rare-cooked meats) so they can experience the difference. Their livers are strong enough to detoxify occasional small amounts.

Tea is quite moldy if purchased in bags. Although I used to recommend single herb teas (tea mixtures have solvents), I can now only recommend single herb teas from fresh sources in bulk (see *Sources*).

The following extract is from the book , The Cure For All Diseases, by Dr. Hulda Regehr Clark Ph. D. N.D. which has only a portion dedicated to cancer. Vitamin C helps your body detoxify mold toxins, including aflatoxin. Keep powdered vitamin C in a salt shaker. It belongs on the table with salt and pepper, and at the stove. Put it in everything possible, from cereal to soup to rice (1/8 tsp. is enough). Besides this take 1/8 tsp. powdered vitamin C with each meal (500 mg).

What Can You Do to PREVENT Breast Cancer

While it is certainly helpful to identify cancers as soon as possible, even better would be to engage in lifestyle changes that would dramatically reduce or virtually eliminate your risk of developing breast cancer to begin with. This includes:

- **Optimize your vitamin D levels**. Vitamin D influences virtually every cell in your body and is one of nature's most potent cancer fighters. Vitamin D is actually able to enter cancer cells and trigger apoptosis (cell death). When JoEllen Welsh, a researcher with the State University of New York at Albany, injected a potent form of vitamin D into human breast cancer cells, half of them shriveled up and died within days. It was as effective as the toxic breast cancer drug Tamoxifen, without any of the detrimental side effects and at a tiny fraction of the cost.

  If you have cancer, your vitamin D level should be between 70 and 100 ng/ml. Vitamin D works synergistically with every cancer treatment I'm aware of, with no adverse effects.
- **Normalize your insulin levels.** A primary way to accomplish that is to avoid sugar, especially fructose, as well as grains (including organic ones). Aside from causing insulin resistance, all forms of sugar also promote cancer. Fructose, however, is clearly one of the most harmful and should be avoided as much as possible.

  Also make sure to exercise regularly, especially with Peak 8, as exercise is one of the best ways to optimize your insulin levels.
- **Get plenty of natural vitamin A**. There is evidence that vitamin A also plays a roll in helping prevent breast cancer. It's best to obtain it from vitamin A-rich

foods, rather than a supplement. Your best sources are organic egg yolks, raw butter, raw whole milk, and beef or chicken liver.

Beware of using oral supplements as there's some evidence that vitamin A can negate the benefits of vitamin D. Since appropriate vitamin D levels are crucial for your health in general, not to mention cancer prevention, this means that it's essential to have *the proper ratio* of vitamin D to vitamin A in your body.

Ideally, you'll want to provide all the vitamin A and vitamin D substrate your body needs in such a way that your body can regulate both systems naturally. This is best done by eating colorful vegetables (for vitamin A) and by exposing your skin to safe amounts sunshine every day (for vitamin D).

- **Avoid exposure to xenoestrogens, such as phthalates and BPA**. These chemicals mimic natural estrogen, which is a breast cancer promoter.
- **Avoid charring your meats**. Charcoal or flame broiled meat is linked with increased breast cancer risk. acrylamide—a carcinogen created when starchy foods are baked, roasted or fried—has been found to increase breast cancer risk as well.
- **Avoid unfermented soy products**. Unfermented soy is high in plant estrogens, or phytoestrogens, also known as isoflavones. In some studies, soy appears to work in concert with human estrogen to increase breast cell proliferation, which increases the chances for mutations and cancerous cells.
- **Maintain a healthy body weight.** This will come naturally once you cut out sugar, fructose and grains, and start to exercise. It's important to lose excess body weight because fat produces estrogen.
- **Drink a quart of organic green vegetable juice daily.** Please review my juicing instructions for more detailed information
- **Get plenty of high quality animal-based omega-3 fats, such as krill oil.** Omega-3 deficiency is a common underlying factor for cancer.
- **Take curcumin.** This is the active ingredient in turmeric and in high concentrations can be very useful in the treatment of breast cancer. It shows immense therapeutic potential in preventing breast cancer metastasis. It's important to know that curcumin is generally not absorbed that well, so I've provided several absorption tips here.

An Easy Daily Diet Protocol to Beat Cancer

Nutrition is an important part in beating cancer. Wrong foods place an enormous amount of stress on the body’s cells, causing normal body cells to become acidic, high in sugar, and cancerous during the dividing process. It is important to adopt an alkaline diet filled with raw fruits and vegetables, and to avoid white flour, sugar, meat and dairy products.

This easy daily diet protocol for cancer involves avoiding meat, sugar and dairy products (with the exception of cottage cheese) and drinking 1 liter (or 1/4 gallon) per day a combination vegetable / fruit juice consisting of raw beetroot, broccoli, tomato and carrot, all of which contain proven anti-cancer properties as well as eating 3-5 cloves of garlic each day and 1 diced whole "red" onion each day. Notes: Raw beetroot should be juiced without pre-cooking and should be mixed with the pulp, to preserve it's anti-cancer properties. Crush raw gloves of garlic and leave for 15 minutes prior to eating. This amount of time is needed to release an important anti-cancer enzyme called allinase. You may eat anything else within reason on this diet.

Many scientific and clinical studies around the world have demonstrated the anti-cancer properties found in beetroot, broccoli, tomato, carrot, red onions and garlic. Beetroot contains BETACYANIN that restores cell respiration and inhibits cancer cell growth. Broccoli contains SULFORAPHANE that causes cancer cell death. Tomato contains LYCOPENE that is a powerful antioxidant for fighting cancer, and carrot contains FALCARINOL that suppresses cancer cell growth. Garlic has been clinically shown to restore Natural Killer cell function important for fighting cancer and the SULPHUR of red onions has been shown to slow down and prevent cancer cell and tumor growth. It is important to note that the sulphur of red onions is the main ingredient in leading alternative cancer treatments DMSO and MSM.

Beetroot

1. "Our previous studies identified the extract of Beta vulgaris (beetroot), commercially also known as betanin, as a potent cancer chemopreventive agent. An in vivo anti-tumor promoting activity evaluation against the mice skin and lung bioassays revealed a significant tumor inhibitory effect. The combined findings suggest that beetroot ingestion can be one of the useful means to prevent cancer. The most interesting observation is that the cancer chemopreventive effect was exhibited at a very low dose used in the study and thus indicating that beetroot warrants more attention for possible human applications in the control of malignancy." [Department of Pharmaceutical Sciences, Howard University, Washington, DC]

2. A team of researchers at the University of Wisconsin-Madison has shown that red beetroot pigments boost levels of proteins, called phase II enzymes, that help detoxify potential cancer-causing substances and purge them from the body. [Journal of Agricultural and Food Chemistry]

3. "Beets clean up cancer faster than the liver is capable of processing all the wastes dumped into it at any one time. Consequently, the internal administration of beetroot needs to be staggered out somewhat, and closer attention given to detoxifying the liver and colon at the same time the beetroot therapy is commenced. Never drink beet juice by itself. Pure beet juice can temporarily paralyze your vocal chords." [Cancer Nutrition Center]

Note: Drinking ORGANIC beet juice reduces paralyzation effects on vocal chords. [Caution: Too much beet-juice can over-toxify the liver and cause harm or even death].

Broccoli

1. "At least eight papers slated for the meeting further illuminate the cancer-protective properties of broccoli, which are packed with sulforaphane. The Johns Hopkins University School of Medicine made the groundbreaking findings of the cancer-protective properties of sulforaphane present in large quantities of broccoli." [American Association for Cancer Research 95th Annual Meeting]

Tomatoes

1. "The health benefits of tomato products came to light when a Harvard study showed that risk of prostate cancer was a third lower in men who consumed more tomato products," says Steven Schwartz, Ph.D., Professor of Food Science and Nutrition at The Ohio State University. "Since then, new research has supported a link with tomato products and decreased risk of other cancers, including pancreatic cancer, lung and colorectal cancer."

Carrots

1. Researchers have isolated a compound in carrots called falcarinol that may be largely responsible for their anti-cancer benefits. Rats fed either the compound falcarinol or raw carrots (containing falcarinol) in addition to their normal food had a one-third lower risk of developing colorectal cancer than rats not fed them. [Journal of Agricultural and Food Chemistry]

Garlic

Natural Killer cells are the most powerful infection fighting cells in the white blood cell arsenal. NK cells kill cancer cells, viruses, fungus and bacteria. A study published in the German Medical Journal "Deutsche Zeitshrift" reports on the results of 7 patients taking 5 grams of garlic daily. They said that "6 of the 7 patients had normal NK cell activity after 6 weeks and that all had normal NK activity after 12 weeks." Click here for more research.

Vegetarianism

1. According to William Castelli, MD, director of the Framingham Heart Study, vegetarians live three to six years longer than meat eaters. He said, "vegetarians have the best diet. They have the lowest rate of coronary disease of any group in the country and they have a fraction of our heart

attack rate and they have only 40% of our cancer rate."

2. In 1997 the World Cancer Research Fund and the American Institute of Cancer Research jointly published an extensive, global review of the role of food and nutrition in the prevention of cancer. The WCRF/AICR panel ranked the evidence and found that "a high intake of vegetables and fruit decreased the risk of cancer."

Red Meat, Full-Fat Dairy Increases Cancer Risk

1. Young women who eat a lot of red meat and full-fat dairy products such as cheese, ice cream and butter appear to be raising their risk of breast cancer, the largest study of its kind has found. "When we compared the women in the highest fat intake group with women in the lowest intake group, those with the highest intake had a 33% greater risk of invasive breast cancer," said Dr Eunyoung Cho. [Harvard University Medical School study - Journal of the National Cancer Institute]

Red Onions and Sulfur

1. Sulphur is the principal chemical constituent in onions and helps to detoxify the body and prevent the growth of cancer cells. According to the National Cancer Institute “Allyl sulphur compounds, which occur naturally in garlic and onions (especially red onions), make cells vulnerable to the stress created by products of cell division. Because cancer cells divide very quickly, they generate more stressors than most normal cells. Thus, cancer cells are damaged by the presence of allyl sulphur compounds to a much greater extent than normal cells.

2. A recent study from the National Cancer Institute found that individuals who ate the most allium vegetables (red onions, scallions, garlic, chives and leeks) had a nearly 50 percent lower cancer risk than those who ate the least. Some laboratory studies have shown that the natural substances in these vegetables have anti-tumor effects. Other studies link the vegetables with a lower risk of cancer of the colon, stomach, prostate, esophagus, breast and endometrium (lining of the uterus).

3. As well as sulphur, red onions are rich in quercetin. In a Johns Hopkins study, published in the August issue of *Clinic Gastroenterology and Hepatology*, five patients with an inherited form of precancerous polyps in the lower bowel known as familial adenomatous polyposis (FAP) were treated with regular doses of curcumin (the chemical found in tumeric) and quercetin, an antioxidant in red onions, over an average of six months. The average number of polyps dropped 60.4 percent, and the average size dropped by 50.9 percent.

4. It is important to note that sulphur, the key ingredient of red onions, is the active component of many leading alternative cancer therapy

compounds, including DMSO and MSM.

Spirulina

Spirulina is a blue-green alga that contains concentrations of nutrients unlike any other single grain, herb, or plant. It has the essential fatty acids gamma-linolenic acid (GLA), linoleic and arachidonic acids; is virtually the only vegetarian source of vitamin B12, which is (needed for healthy red blood cells; and contains significant amounts of iron, protein (60 to 70 percent), essential amino acids, the nucleic acids RNA and DNA, and chlorophyll. Spirulina is a naturally digestible food that helps to protect the immune system, reduce blood cholesterol levels, and boost the absorption of necessary minerals.

1. In a 2002 Japanese study, 12 adult males were administered an oral hot water extract of spirulina, and the number and activity of their natural killer (NK) cells was measured before and after treatment. (NK cells destroy tumor cells by binding to them and delivering lethal chemicals that kill on contact.) At the study's end, there was a significant increase in the production and cancer-killing ability of these subjects' NK cells. When their NK cells were exposed to a bacterial product after treatment, production of interleukin-12 (IL-12), a measure of immune strength, was significantly increased in comparison to IL-12 production in NK cells without pre-exposure to spirulina.

2. There have also been studies in India showing that spirulina reduces the number of tumors (called the "tumor burden") in experimental animals with various types of cancer. In mice with chemically induced stomach cancer, the tumor burden was reduced to half that of the control animals using high-dose spirulina treatment (500 mg/kg body weight). In skin cancer, the tumor burden was reduced to less than one quarter, even with low-dose treatment (250 mg/kg body weight).

3. "We found that nutrient-rich spirulina is a potent inducer of interferon-gamma (13.6-fold increase) and a moderate stimulator of both interleukin-4 and interleukin-1beta (3.3-fold increase)," says Eric Gershwin, professor and chief of the Division of Rheumatology, Allergy and Clinical Immunology at UC Davis. "Together, increases in these cytokines suggest that spirulina is a strong proponent for protecting against intracellular pathogens and parasites and can potentially increase the expression of agents that stimulate inflammation, which also helps to protect the body against infectious and potentially harmful micro-organisms." [In the body, the preferential increase in the production of interferon-gamma over interleukin-4 would shift the immune system towards mounting a cell-mediated immune response instead of a humoral response. A cell-mediated response includes the activation of T-cells and antibodies that work with macrophages, another type of immune system cell, to engulf invading micro-organisms and cancer cells in the body.]

Lemons

Lemons have been used for centuries to purify the body and the bloodstream of toxins, impurities and most importantly, fungus. As cancer is a fungus, lemons are ideally suited to heal the body of this disease. See: The Lemon Cancer-Fungus Treatment (channeled by Spirit to rid the body of fungus) and the Whole Lemon Drink to detox and flush the master immune system organ - the liver.

Leading Anti-Cancer Diets: Budwig and Gerson

The Budwig Diet and Gerson Therapy Diet are the two leading anti-cancer diets in the world today. These diets can be viewed in more detail by clicking on the above links. The Brandt Grape Cure is another diet, however it is more extreme in its approach.

Dr. Johanna Budwig mix for Cancer Cure

Unrefined cold-pressed flax seed oil and cottage cheese

Put in your blender:
1 cup Organic cottage cheese (low fat, not too hard one, best make your own)(or yogurt)
2-5 Tbsp. of flaxseeed oil-
1-3 Tbsp. of freshly ground up flaxseed (coffee grinder ($15) works fine)
enough water to make it soft
little cayenne

optional:
little garlic (and chives)
little red pepper
little champagne
Make it very soft.

Eat some of it every day.

The Gerson Therapy Diet anti-cancer diet is detailed below.

The Importance of Incorporating an Alkaline Diet

It is critical for the cancer patient to adopt an alkaline-based diet in order to heal from cancer. See ph and Cancer to understand how your body's acidic cell-pH has allowed cancer to form within your body and how you can easily correct this.

http://www.alternative-cancer-care.com/Cancer_Nutrition.html

A cross-section study at UCSF links hamburger meat to aggressive prostate cancer

Researchers at the University of California-San Francisco looked at a thousand men, half with aggressive prostate cancer and half without cancer.

Researchers found the men who ate about two servings of hamburger or meat loaf per week were more than twice as likely to have aggressive prostate cancer as the men who ate none.

It turns out the risk went up if the meat was grilled or well-done.

UCSF study finds incidences and severity of prostate cancer correlated with meat consumption:

NCI Cancer Center News

Increased consumption of ground beef or processed meat is positively associated with aggressive prostate cancer, according to a study published Nov. 23 in the online journal PLoS ONE. The research team at the University of California, San Francisco, also found that the correlation was primarily driven by red meat that was grilled or barbequed, especially when well done.

Click here to read full press release from University of California, San Francisco.

http://www.cancer.gov/newscenter/pressreleases/2011/ProstateCancerMeatConsumptionStudy

Alkaline Ash Diet for Fighting Cancer

What is an Alkaline Diet?

Many people become confused in regards to alkaline and acid diets because they think that it refers to the actual pH level of the food itself. This is not the case, as some foods which are highly acidic in their natural form, such as lemons and limes, actually have an alkaline effect on the body. An alkaline diet usually involves eating minimal amounts of meats, dairy products, white flour and white sugar, because these foods have a very acidic reaction on the body's pH level. Instead, the diet usually focuses heavily on fresh fruits and vegetables, nuts such as almonds, and soy products, because they leave an alkaline ash within the body.

How Does an Alkaline Diet Affect Cancer Cells?

Studies have shown that in the test tube, cancer cells and tumors thrive and grow in a more acidic environment. When the level of acid is lowered, tumors grow much more slowly. If this behavior occurs in the test tube, it stands to reason that cancer cells in the body would also be detrimentally affected by an overall alkaline environment. It would also make sense that if the body's pH is acidic, then the growth of cancer cells and tumors would be encouraged. By eating mostly foods that make the body's pH more alkaline, there would be less of a chance for cancer cells to develop and grow. So, by adjusting the diet, it is actually possible to create a less hospitable environment for cancer cells, thus improving a person's chances of experiencing good health.

Other Alkaline Benefits

Cancer cells also do not grow well in the presence of oxygen. When oxygen levels are low, cancer cells have more of an opportunity to thrive and multiple. When body tissues have a high alkaline level, they are able to hold much more oxygen as compared to tissues with a high acid level. A high alkaline level within the body also makes it easier for cells to discard waste and toxins. As a result, tissues and cells within the body are more susceptible to damage and unhealthy conditions if the body's pH is too acidic.

http://www.acidalkalinediet.com/alkaline-diet-for-cancer

Alkaline Ash Foods

Super Alkalizing Choices

The majority of fresh fruits and vegetables are mostly alkaline in nature when consumed. There are five super alkaline ones that can be strictly classified as such. These are tomatoes, limes, avocados, and grapefruits. Soy also has a very alkaline forming response when ingested. Some options are making soy nuts, soy lecithin, and fresh soy beans part of your regular diet. White navy beans, beets, and radishes are also highly alkalizing. A few more vegetables that are easy to prepare are jicama, cucumbers, and kale. There are also several grasses that can be juiced or taken in powder form such as wheat grass, barley, and alfalfa.
http://www.acidalkalinediet.com/alkaline-foods/alkaline-ash-foods-made-easy

The most alkaline fruits listed in the *Mayo Clinic Diet Manual* chart are watermelon, dried apricots, dried figs and cantaloupe.

http://nh1.ccone.com/alkdiet.html

Figs

Figs are one of the most highly alkaline foods you can eat -- they produce the highest amount of alkaline ash of any fruit or vegetable. According to EveryNutrient.com, figs are also a source of fiber, calcium, potassium, copper and iron. Consumption of figs nourishes and tones the intestines because of their high fiber content. The potassium concentration in figs is beneficial for regulating blood pressure. The highly alkaline nature of figs has also been proven to decrease the symptoms of diabetes.

Soybeans

Soybeans produce a significant level of alkaline ash when metabolized. According to Toronto Public Health, the proteins contained in soybeans are beneficial in lowering blood cholesterol levels, which offers a preventive effect against heart disease. The hormones contained in soybeans are called isoflavones. Soy isoflavones have preventive effects against several cancers, such as breast cancer and prostate cancer. In addition, consumption of isoflavones slows the progression of osteoporosis and reduces the hormonal symptoms of menopause in women.

Apricots

Apricots also produce a significant alkaline ash when metabolized. According to ApricotFacts.com, apricots contain high concentrations of lycopene and beta carotene, which have antioxidant effects on your body. Consumption of lycopene and beta carotene can offer protection against some forms of cancer and also reduce the formation of cholesterol in the blood stream, which offers protection against heart disease. Apricots are also a dietary source of vitamin A, vitamin C and vitamin E, which can reduce the risk of macular degeneration.

Spinach

Spinach produces the greatest amount of alkaline ash of any green vegetable. According to EveryNutrient.com, spinach is also a dietary source of vitamin C, vitamin K, folic acid, iron, vitamin B6 and several other essential vitamins and minerals. Spinach is a source of lutein, which promotes optimal eye health and offers protection against macular degeneration and cataracts

References

- Every Nutrient: Health Benefits of Spinach
- Every Nutrient: Health Benefits of Figs
- Toronto Public Health: The Joy of Soy
- Life Research Universal: Acid / Alkaline Food Chart
- ApricotFacts.com: Health Benefits of Apricots

Article reviewed by AKanjuka Last updated on: Nov 2, 2010

http://www.livestrong.com/article/294964-foods-that-form-alkaline-ash/

Alkaline Food Values http://www.essense-of-life.com/moreinfo/foodcharts.htm

Foods that Make Your Diet More Acidic

What are acid foods? As noted in my section on alkaline diets, almost every book I have with information on acid and alkaline foods has

somewhat conflicting information on this subject. In general, most meats, grains, cheeses, nuts and legumes produce an acid ash after they are metabolized.

The following foods are generally listed as having an acid ash:

Meat

All meat including bacon, beef, cottage cheese, cheddar cheese, chicken, eggs, fish, ham, lamb, pork and veal.

Nuts / Peanuts (which are really a legume)

Brazil nuts, peanuts, peanut butter, and English walnuts.

Grains and Grasses

Breads (white, rye, whole wheat), cake, white rice, refined flour, oatmeal, shredded wheat, puffed rice, cornflakes and macaroni have an acid ash.

Dairy

Cottage cheese and cheddar cheese

Exceptions

Most fruits and vegetables are alkaline except as noted below.

Fruit

According to the *authors* of the *Mayo Clinic Diet Manual* (MCDM), cranberries, plums and prunes have an acid ash. This is due to their benzoic and quinic acid content that are excreted in the urine as hippuric acid. Elson Haas, writing in *Staying Healthy with Nutrition* notes that pomegranates and strawberries have an acid ash.

Vegetables

According to the authors of *Nutrition Almanac*, asparagus and brussel sprouts have an acid ash. The MCDM lists corn as having an acid ash. All other vegetables are shown as listed form all my other books as having an alkaline ash.

Astaxanthin Supplement

Astaxanthin is the most commonly occurring red carotenoid in marine and aquatic animals, especially salmon, giving it its characteristic pink color.

Shrimp, lobster and crab are also sources of astaxanthin. However, you're unlikely to be able to consume enough salmon and shell fish on a daily basis to get a therapeutic dose. You'd have to consume about three-quarters of a pound of wild-caught sockeye salmon, which contains the highest amounts of astaxanthin of all the marine foods, to receive the same amount of astaxanthin you'd get in a 4mg capsule if you were to take a supplement.

That's reason alone to consider taking it as a supplement. Especially when you consider its many beneficial properties, such as:

- Astaxanthin is by far the most powerful carotenoid antioxidant when it comes to **free radical scavenging**: astaxanthin is 65 times more powerful than vitamin C, 54 times more powerful than beta-carotene, and 14 times more powerful than vitamin E.
- It's also far more effective than other carotenoids at **"singlet oxygen quenching,"** which is a particular type of oxidation. The damaging effects of sunlight and various organic materials are caused by this less-stable form of oxygen. Astaxanthin is *550 times more powerful than vitamin E* and 11 times more powerful than beta-carotene at neutralizing singlet oxygen.
- Astaxanthin crosses the blood-brain barrier AND the blood-retinal barrier (beta carotene and lycopene do not), which brings antioxidant and anti-inflammatory protection to your eyes, brain and central nervous system and reducing your risk for cataracts, macular degeneration, blindness, dementia and Alzheimer's disease.
- It's a potent UVB absorber and reduces DNA damage.
- It's a very powerful natural anti-inflammatory.
- It cannot turn into a pro-oxidant like many other antioxidants can, so it will not cause harm even in larger amounts.
- It protects the entire cell—both the water-and the fat-soluble parts.

Gonzalez's Three-Pronged Approach to Cancer Treatment

Although most of the studies done on this approach were done on pancreatic cancer, Dr. Gonzalez uses it to treat ALL cancers, from brain cancer to leukemia. His treatment, which is based on Kelley's work, consists of three protocols: diet, supplements and enzymes, and detoxification.

The Dietary Protocol:

The cornerstone of the treatment is a personalized diet based on your nutritional- or metabolic type.

Dr. Kelley originally had 10 basic diets and 90 variations that ranged from pure vegetarian and raw food, to heavy-protein meals that included red meat three times a day.

"In terms of diet, Kelley… found that patients diagnosed with the typical solid tumors: tumors of the breast, lungs, stomach, pancreas, liver, colon, uterus, ovaries, and prostate needed a more vegetarian diet," Dr. Gonzalez explains. "But he had all gradations of a vegetarian diet; one that was 80 percent raw, one that was 80 percent cooked. So even on the vegetarian side, there were all different variations.

Some had minimal animal protein, some had fish, some had also red meat.

A patient with immune cancer (leukemia, lymphoma, myeloma, and sarcomas,(which are connective tissue cancers that are related to immune cancers) tended to do best on a high-fat, high meat diet.

… Then there are balanced people that do well with a variety of foods, both plant foods and animal products, but they don't tend to get cancer.

Cancer tends to occur on the extremes, in the extreme vegetarians—those that tend to be too meat—or in the extreme meat eaters, who tend to be too alkaline. Balanced people don't tend to get cancer too much. So we continued the individualized approach, as did Kelley."

Individualized Supplementation and Enzyme Protocol:

The second component is an individualized supplement protocol, designed for your particular metabolism.

"For example, our vegetarian patients need completely different supplements from our meat eaters. The vegetarians do very well with most of the B vitamins, while the meat eaters don't. The vegetarians don't do well with vitamin A, but the meat eaters do. The vegetarians do well with vitamin D; the meat eaters not so well with large doses, and so on," Dr. Gonzalez explains.

"The meat eaters do well with calcium ascorbate as a vitamin C source, while the vegetarians do well with large doses of ascorbic acid. So the supplement protocols are very individualized and very precisely engineered."

Omega-3 fats are also prescribed, but even here Dr. Gonzalez prescribes different types of omega-3's depending on the patient's nutritional type. In his experience, vegetarians, or carbohydrate types, tend to fare better on flaxseed oil, which contains alpha linoleic acid (ALA) – a plant-based omega 3.

"It is thought that the conversion of the plant-based ALA into the fish-oil based eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA) is not that efficient," he says, "But we find that our vegetarian patients actually do it very well and don't use the fish oil or animal-based omega-3 fatty acids as effectively."

Chia and hemp seed oils can also be used.

Protein types, on the other hand, appear to need the EPA and the DHA and do better on animal-based omega-3 such as krill oil.

"They don't do well with flaxseed," he says. "Those are the people who can't make the conversion."

In addition to vitamins, minerals and trace elements, he also prescribes large doses of pancreatic enzymes.

"The essence of Kelley's work was based on the work of Dr. Beard, which goes back to the turn of the last century, about 110 years ago. Beard was a professor at the University of Edinburg, an embryologist actually, not a medical researcher, who first proposed that pancreatic proteolytic enzymes are the main defense against cancer in the body and are useful as a cancer treatment," he explains.

When treating cancer, however, he found it's important to take the right ratio of active and inactive enzymes. The inactive precursors are particularly active against cancer. They also have far longer shelf life, and are more stable.

"That would be my advice – get an enzyme that isn't completely activated," Dr. Gonzalez says. "More active isn't better when it comes to pancreatic enzymes, just like more and more D isn't better than getting the right dosage. You want the right proportions of activated and inactive—most of it as an inactive precursor."

His proprietary enzyme formula is manufactured by NutriCology. According to Dr. Gonzalez, pancreatic enzymes are not only useful as treatment for active cancer but are also one of the best preventive measures.

Antioxidants, such as astaxanthin, are also very helpful, both in the prevention and treatment of cancer.

The Detoxification Protocol:

The third component is a detoxification routine. Coffee enemas are used to help your liver and kidneys to mobilize and eliminate dead cancer cells that have been broken down by the pancreatic enzymes.

Coffee enemas, although often scoffed at today, were actually used as part of conventional medicine all the way up to the 1960s, and were included in the Merck Manual, which was a handbook for conventional medical treatments into the 1970s.

"They fell out of favor not because they didn't work, but because the drug industry took over medicine, so things like coffee enemas were kind of laughed at," Dr. Gonzalez says. "So Kelley learned about coffee enemas from conventional literature and incorporated them into his program and found them extremely helpful."

When you drink coffee, it tends to suppress your liver function, but when taken rectally as an enema, the caffeine stimulates nerves in your lower bowels, which causes your liver to release toxins as a reflex. Other detox strategies include colon cleanses and liver flushes developed by Kelley.

It's important to realize, however, that conventional coffee should NOT be used for enemas. The coffee MUST be organic, naturally caffeinated coffee, and were you to do this at home, you'd also want to use non-bleached filters to avoid introducing toxins into your colon.

"[Organic coffee] is loaded with antioxidants," Dr. Gonzalez says. "In fact, there are recent studies showing that coffee loaded with antioxidants can have an anti-cancer effect and that coffee may actually help suppress cancer.

But you have to use organic coffee, it has to have caffeine, and you have to use a coffee maker that doesn't have aluminum, and preferably no plastic."

Dr. Gonzalez also relies on sodium alginate as a detoxifying agent.

"We have a preparation that we put together and it's very effective... It's an algae and it chelates heavy metals and halides. I never use intravenous chelation; we just use sodium alginate."

He recommends taking three capsules three times a day, away from meals, for six weeks to detoxify your body of heavy metals, such as mercury, and halides.

Final Thoughts

This is one of the most fascinating interviews I've ever done, and it is chock full of information—far more than I can summarize here. So please, I urge you to take the time to listen to the interview in its entirety.

In addition to expounding on the subjects mentioned above, Dr. Gonzalez also reviews the benefits of optimizing vitamin D during cancer treatment, and how iodine supplementation can benefit breast cancer—not to mention help protect against thyroid cancer, in light of the current nuclear crisis in Japan.

We discuss the benefits of juicing and chiropractic adjustments, and the importance of regular exercise for cancer patients. We also review the dangers of electromagnetic field (EMF) exposure, in terms of how it may aggravate cancer growth and hinder cancer recovery, and the benefits, along with some surprising precautions, of Earthing or grounding.

For more information about Dr. Gonzalez and his practice, see www.dr-gonzalez.com. He's also working on a series of books, two of which have already been published and received five-star reviews: The Trophoblast and the Origins of Cancer, and One Man Alone: An Investigation of Nutrition, Cancer, and William Donald Kelley , which is the original monograph of Dr. Kelley's work that he couldn't get published 23 years ago.

This written summary is only a small glimpse of the insights that were shared in our interview. If you or anyone you know struggles with cancer I would strongly encourage you to listen to the entire interview

Thankfully Dr. Gonzalez is still on the front lines and actively engaged in helping people by helping coach them with natural alternatives to toxic drugs and radiation. His office is in Manhattan and he can be reached at 212-213-3337.

Related Links:
New Model Of Cancer Development: Vitamin D is the Key
Twelve Changes That Will Cut Your Cancer Risk in Half
The Kanzius Machine: A Cancer Cure?

Recognition from the National Cancer Institute

In 1993, as part of a legitimate effort to reach out to alternative practitioners, the National Cancer Institute (NCI) invited Dr. Gonzalez to present 25 of his cases in a closed-door, invitation-only session. On the basis of that presentation, the NCI suggested he conduct a pilot study with patients diagnosed with advanced pancreatic cancer, which in conventional medicine is known to be an untreatable, highly lethal form of cancer.

Interestingly, Nestle stepped in to finance this pilot study. It may seem an odd choice, but the business motivation was the same then as it is today—making junk food appear healthier is a good business move, even if it's only in theory.

Supervised directly by Dr. Ernst Wynder, a premier cancer researcher, the study was completed in early 1999 and published in June that year. According to Dr. Gonzalez:

"It showed the best results for the treatment of pancreatic cancer in the history of medicine."

http://articles.mercola.com/sites/articles/archive/2011/04/23/dr-nicholas-gonzalez-on-alternative-cancer-treatments.aspx

AFTER YEARS OF TELLING PEOPLE CHEMOTHERAPY IS THE ONLY WAY TO TRY ('TRY', BEING THE KEY WORD) TO ELIMINATE CANCER, JOHN HOPKINS IS FINALLY STARTING TO TELL YOU THERE IS AN ALTERNATIVE WAY.

Cancer Update from John Hopkins:

1. Every person has cancer cells in the body. These cancer cells do not show up in the standard tests until they have multiplied to a few billion. When doctors tell cancer patients that there are no more cancer cells in their bodies after treatment, it just means the tests are unable to detect the cancer cells because they have not reached the detectable size.

2. John Hopkins have found that Cancer cells occur between 6 to more than 10 times in a person's lifetime.

3 When the person's immune system is strong the cancer cells will be destroyed and prevented from multiplying and forming tumors.

4. When a person has cancer it indicates the person has multiple nutritional deficiencies. These could be due to genetic, environmental, food and lifestyle factors.

5. To overcome the multiple nutritional deficiencies, changing diet and including supplements will strengthen the immune system.

6. John Hopkins states Chemotherapy involves poisoning the rapidly-growing cancer cells and also destroys rapidly-growing healthy cells in the bone marrow, gastrointestinal tract etc, and can cause organ damage, like liver, kidneys, heart, lungs etc.

7. Radiation while destroying cancer cells also burns, scars and damages healthy cells, tissues and organs.

8. Initial treatment with chemotherapy and radiation will often reduce tumor size. However prolonged use of chemotherapy and radiation do not result in more tumor destruction.

9. When the body has too much toxic burden from chemotherapy and radiation the immune system is either compromised or destroyed, hence the person can succumb to various kinds of infections and complications.

10. Chemotherapy and radiation can cause cancer cells to mutate and become resistant and difficult to destroy. Surgery can also cause cancer cells to spread to other sites.

11. An effective way to battle cancer is to starve the cancer cells by not feeding it with the foods it needs to multiply.

*CANCER CELLS FEED ON:

a. Sugar is a cancer-feeder. By cutting off sugar it cuts off one important food supply to the cancer cells. Sugar substitutes like NutraSweet, Equal, Spoonful, etc are made with Aspartame and it is harmful. A better natural substitute would be Manuka honey or molasses, but only in very small amounts. Table salt has a chemical added to make it white in color. Better alternative is Bragg's aminos or sea salt.

b. Milk causes the body to produce mucus, especially in the gastro-intestinal tract. Cancer feeds on mucus. By cutting off milk and substituting with unsweetened soy milk cancer cells are being starved.

c. Cancer cells thrive in an acid environment. A meat-based diet is acidic and it is best to eat fish, and a little chicken rather than beef or pork. Meat also contains livestock antibiotics, growth hormones and parasites, which are all harmful, especially to people with cancer.

d. A diet made of 80% fresh vegetables and juice, whole grains, seeds, nuts and a little fruits help put the body into an alkaline environment. About 20% can be from cooked food including beans. Fresh vegetable juices provide live enzymes that are easily absorbed and reach down to cellular levels within 15 minutes to nourish and enhance growth of healthy cells. To obtain live enzymes for building healthy cells try and drink fresh vegetable juice (most vegetables including bean sprouts) and eat some raw vegetables 2 or 3 times a day. Enzymes are destroyed at temperatures of 104 degrees F (40 degrees C).

e. Avoid coffee, tea, and chocolate, which have high caffeine. Green tea is a better alternative and has cancer fighting properties. Water-best to drink purified water, or filtered, to avoid known toxins and heavy metals in tap water. Distilled water is acidic, avoid it.

12. Meat protein is difficult to digest and requires a lot of digestive enzymes. Undigested meat remaining in the intestines becomes putrefied and leads to more toxic buildup.

13. Cancer cell walls have a tough protein covering. By refraining from or eating less meat it frees more enzymes to attack the protein walls of cancer cells and allows the body's killer cells to destroy the cancer cells.

14. Some supplements build up the immune system (IP6, Flor-ssence, Essiac, anti-oxidants, vitamins, minerals, EFAs etc.) to enable the bodies own killer cells to destroy cancer cells. Other supplements like vitamin E are known to cause apoptosis, or programmed cell death, the body's normal method of disposing of damaged, unwanted, or unneeded cells.

15. Cancer is a disease of the mind, body, and spirit. A proactive and positive spirit will help the cancer warrior be a survivor. Anger, un-forgiveness and bitterness put the body into a stressful and acidic environment. Learn to have a loving and forgiving spirit. Learn to relax and enjoy life.

16. Cancer cells cannot thrive in an oxygenated environment. Exercising daily, and deep breathing help to get more oxygen down to the cellular level. Oxygen therapy is another means employed to destroy cancer cells.

1. No plastic containers in micro.

2. No water bottles in freezer.

3. No plastic wrap in microwave.

Johns Hopkins has recently sent this out in its newsletters. This information is being circulated at Walter Reed Army Medical Center as well.

Dioxin chemicals cause cancer, especially breast cancer.Dioxins are highly poisonous to the cells of our bodies. Don't freeze your plastic bottles with water in them as this releases dioxins from the plastic. Recently, Dr. Edward Fujimoto, Wellness Program Manager at Cast le Hospital, was

on a TV program to explain this health hazard. He talked about dioxins and how bad they are for us. He said that we should not be heating our food in the microwave using plastic containers. This especially applies to foods that contain fat. He said that the combination of fat, high heat, and plastics releases dioxin into the food and ultimately into the cells of the body. Instead, he recommends using glass, such as Corning Ware, Pyrex or ceramic containers for heating food You get the same results, only without the dioxin. So such things as TV dinners, instant ramen and soups, etc., should be removed from the container and heated in something else. Paper isn't bad but you don't know what is in the paper. It's just safer to use tempered glass, Corning Ware, etc. He reminded us that a while ago some of the fast food restaurants moved away from the foam containers to paper. The dioxin problem is one of the reasons.

Also, he pointed out that plastic wrap, such as Saran, is just as dangerous when placed over foods to be cooked in the microwave. As the food is nuked, the high heat causes poisonous toxins to actually melt out of the plastic wrap and drip into the food. Cover food with a paper towel instead.

This is an article that should be sent to anyone important in your life.

John Hopkins University, John Hopkins research, John Hopkins medical, John Hopkins teaching, John Hopkins uni.

NUTRITIONAL CLEANSING

The article makes some very interesting points when I consider the body's response when the "NUTRITIONAL CLEANSE" is used. Cleansing removes toxicity, feeds the body nutrition and reduces acidity and stress.

The body releases toxic and unwanted substances improving the immune system and reducing the risk from acidity, illness and diseases like cancer.
The body creates a neutral or alkaline environment within itself which Cancer does not like.
The body provides wellness, more energy, better sleep and a clear awareness of mind and is less stressed when fed pure and pristine nutrients, minerals and trace minerals.
The body delivers wellness from rapid results because the live enzymes included in the product allow fast breakdown of proteins and assimilation into the body systems.

INTERESTING ...The formulator of the Nutritional Cleanse must have known all of the points raised by John Hopkins and he included so many of them into his products. ...AMAZING!

What's even more amazing ...is I haven't met anyone whose Doctor, Government or Educator told them about any of the above ...UNTIL THEY WERE SICK WITH CANCER
SO PLEASE spread the word by either printing this and handing it out or sending people to this webpage.

And to those who just might be interested in PREVENTION ...start NUTRITIONAL CLEANSING ...reduce YOUR risk by giving your body the BEST prevention methods available!

http://www.remove-body-toxins.com/johnhopkins.html

Vitamins and Minerals for preventing/eliminating cancer

Vitamin C - Take 4-2,000mg buffered vitamin C daily

Black strap molasses – take 2 Tablespoons daily with vitamin C to increase iron in blood

Copper 2mg daily

Zinc 30mg daily – do not take at same time with copper

Vitamin B-complex (coenzyme/activated form is best)

Take extra 1mg B-6 and 100mg B-12

May also take B-12 serum injections 2cc weekly

Alfalfa take 2-1000mg tablets twice daily

Vitamin D – Best from sun exposure. Take oral vitamin D with calcium. If you are being treated for cancer it is likely that higher blood levels—probably around 80-90 ng/ml—would be beneficial.

Vitamin E 800IU daily (natural form only)

Lithium orotate (organic natural lithium) reduces depression and side effects of chemotherapy

Ashwagandha to prevent white blood cell reduction w/ cancer

Cayenne

The main ingredient in Cayenne, capsaicin, was found to destroy prostate cancer cells in mice.

"*Capsaicin led 80 percent of human prostate cancer cells growing in mice to commit suicide in a process known as apoptosis, the researchers said. Prostate cancer tumors in mice fed capsaicin were about one-fifth the size of tumors in untreated mice, they reported in the journal Cancer Research. 'Capsaicin had a profound anti-proliferative effect on human prostate cancer cells in culture,' said Dr. Soren Lehmann of the Cedars-Sinai Medical Center and the University of California Los Angeles School of Medicine."*

Key Health Benefits of Cayenne Peppers

This herb is a great food for the circulatory system in that it feeds the necessary elements into the cell structure of the arteries, veins and capillaries so that these regain the elasticity of youth again, and the blood pressure adjusts itself to normal. It rebuilds the tissue in the stomach and heals the stomach and intestinal ulcers; in equalizing the blood circulation, Cayenne produces natural warmth in your body; and in stimulating the peristaltic motion of the intestines, it aids in assimilation and elimination.

Cayenne regulates the flow of blood from the head to the feet so that the pressure is equalized; it influences the heart immediately, then gradually extends its effects to the arteries, capillaries, and nerves (the frequency of the pulse is not increased, but is given more vigor).

Another benefit of cayenne peppers is its antifungal properties. Cayenne pepper antifungal properties are significant although this is not its primary health benefit. Cayenne has been shown in some studies to be active against phomopsis and collectotrichum -- both are fungal pathogens.

The cayenne pepper drink, when taken faithfully, will dramatically improve your heart health as well as your venous structure. Drink it with warm distilled water but if that is unavailable, purified water will substitute nicely. Start by mixing about a quarter of a teaspoon in a glass of warm water. Then swallow. You'll get used to it.

http://www.cayennepepper.info/health-benefits-of-cayenne-pepper.html

Sodium Bicarbonate and Cancer http://winningcancer.com/

Baking Soda – Every Cancer Patients Best Friend

April 26, 2010 by Mark Sircus - Director
Filed under

1 Comment

Cancer cells have a lower pH than surrounding tissue As if it were not humiliating enough for orthodox oncologists to learn that the lowly chemical sodium bicarbonate (baking soda) is important in the treatment of cancer now they have to swallow the research pointing to the fact that bicarbonate can also be used to diagnose

http://winningcancer.com/?s=sodium+bicarbonate

Mix and heat (5 minutes) 3 parts pure maple syrup 1 part sodium bicarbonate. Take 1 teaspoon daily between meals to cure cancer.

Water

The Institute of Medicine determined that an adequate intake (AI) for men is roughly 3 liters (about 13 cups or 13-8oz. glasses) of total beverages a day. The AI for women is 2.2 liters (about 9 cups or 9-8oz. glasses) of total beverages a day.

Everyone has heard the advice, "Drink eight 8-ounce glasses of water a day." That's about 1.9 liters, which isn't that different from the Institute of Medicine recommendations. Although the "8 by 8" rule isn't supported by hard evidence, it remains popular because it's easy to remember. Just keep in mind that the rule should be reframed as: "Drink at least eight 8-ounce glasses of fluid a day," because all fluids count toward the daily total.

http://www.mayoclinic.com/health/water/NU00283

FYI People urinate more at night time because gravity holds water in the lower part of your body when upright. When prone the body is at the same level as the kidneys, and it is easier for the kidneys to remove water.

You need a minimum amount of water to help flush toxins out of your body!

Drinking water at a certain time maximizes its effectiveness on the body:

2 glasses of water after waking up - helps activate internal organs

1 glass of water 30 minutes before a meal - helps digestion

1 glass of water before taking a bath - helps lower blood pressure

1 glass of water before going to bed - avoids stroke or heart attack

Water at bed time, will also help prevent night time leg cramps. Your leg muscles are seeking hydration, when they cramp and wake you up with a Charlie Horse.

Drinking enough water is essential for preventing and curing cancer.

Fluoride is another concern, as it depletes iodine, creating the iodine deficiency disorder (IDD). It thus contributes to reduced thyroid function, lowering the metabolism. It suppresses the critical enzyme action, damages hormone receptors, and interferes with the formation of collagen, which allows cancer cells to spread more easily to surrounding tissue. It also reduces the livers ability to remove toxins. Then, as liver detox is compromised, elevated toxins (one contributor to cancer) gradually increases. Also, children in areas with fluoridated water, were found to be 7 times as likely to acquire bone cancer. Another concern is, in both China and India, provinces which higher fluoride levels in well water (due to volcanic activity), have a much higher incidence of lower IQ in children. Not only is fluoride being added to the drinking water in many states, and toothpaste, but you will also find "high levels" of fluoride in some medications. It appears that, more and more drug manufacturers eventually discovered the secret. It's actually an excellent way to suppress the livers detoxification. Basically, a cheap way to create a diversion tunnel around the liver, so less of the active ingredient in each drug would be required. The most cost effective approach without a doubt! The fact is, if there is anything in the blood stream toxic to the body, (including alcohol), the liver will attempt to remove it. That should be telling us something, (drugs are toxins), especially those containing fluoride, a known environmental toxin. The more inorganic chemicals we ingest daily, (whatever the source), the greater the load we will be placing on our liver, and the more toxins our cells will also be exposed to. Toxins that create an acidic environment in the cells responsible for depleting oxygen, which "normal cells" rely on. Cancer cells in turn thrive in an anaerobic (oxygen deficient) environment. Until they regain their energy, they have no other option. Something else to consider, an iodine deficiency (created by fluoride), increases the risk of acquiring both breast, and prostate cancer.

Article Source: http://EzineArticles.com/5232640

Richard R. Vensal, D.D.S. asparagus might cure cancer

Place the cooked asparagus in a blender and liquefy to make a puree, and store in the refrigerator. Give the patient 4 full tablespoons twice daily, morning and evening.

The US National Cancer Institute reported that asparagus weres the highest tested food containing glutathione, which is considered one of the body's most potent anticarcinogens and antioxidants.

However, asparagus might indeed have certain anti-cancer properties. In addition to this vegetable's many other nutritional benefits (only 25 calories per stalk, high in folic acid, plus a good source of vitamins A, B6 and C, calcium, iron, thiamin, potassium and fiber), it is high in the micronutrient glutathione, an antioxidant. Glutathione is said to defend the body against viruses, certain types of cancer, and boosts immune cells. Antioxidants have long been touted as one of the keys to preventing cancer, but eating large amounts of certain vegetables with the hopes that you will be cured of an existing cancer have never been substantiated.

http://www.kerrycoates.com/blog/asparagus-may-cure-cancer-scam/

Watercress "shuts down" breast cancer delivery system

breast cancer tumors (like most malignant tumors) survive on nutrients delivered by your blood vessels. And as the tumor grows bigger, it needs access to more and more blood vessels.

To solve this dilemma, the tumor sends a signal for your body to release a protein called HIF. This protein tells normal tissue to redirect their blood vessels into the hungry tumor. As a result, the tumor grows and spreads with nutrients delivered by the "stolen" blood vessels.

But there's a plant compound proven to block the release of HIF and put a stop to all the frantic blood vessel growth...and that plant compound is found in abundance in watercress!

Breast cancer survivors load up on watercress

For the study, UK scientists recruited a small group of breast cancer survivors. The women agreed to eat 80 grams of watercress (a cereal bowl full) and then give blood samples over a period of 24 hours.

The research team discovered two things by analyzing the participants' blood samples. First, remember that helpful plant compound that blocks new blood vessel group? Well, after eating watercress, the women had lots of that compound in their blood.

And that's not all...

Remember that harmful protein -- called HIF -- that signals the body to send healthy blood vessels into malignant tumors? Well, the scientists found that HIF levels significantly dropped after the women ate the watercress. This means that any tumors trying to regain toe-hold in the body had another thing comin' after the women ate watercress.

So, without a doubt, if you're a breast cancer survivor, make watercress a part of your weekly (if not daily) regimen. I hear that in Britain that's their favorite type of green vegetable.

http://www.healthiertalk.com/green-vegetable-starves-out-cancer-2633

Papaya is a potent cancer fighter

Papaya is a potent cancer fighter that is highly effective against hormone related cancers as well as other cancers.
New research shows papaya can stop the growth of breast cancer cells, halt metastasis, and normalize the cell cycle."

regular consumption of pomegranate may help prevent breast cancer. Additionally, research conducted at the University of California, Riverside, found that components in pomegranate juice inhibit the movement of cancer cells, and could actually stop cancer from spreading.

The intense orangey-pink color of papaya means it is chock full of cancer fighting carotenoids. Not only beta carotene, but lycopene is found in abundance. The construction of lycopene makes it highly reactive toward oxygen and free radicals. Scientists at the University of Illinois think this anti-oxidant activity contributes to its effectiveness as a cancer fighting agent. Epidemiological studies have indicated an inverse relationship between lycopene intake and prostate cancer risk. They showed that oral lycopene is highly bioavailable, accumulates in prostate tissue, and is localized in the nucleus of prostate epithelial cells.

In addition to antioxidant activity, other experiments have indicated that lycopene induces cancer cell death, anti-metastatic activity, and the up-regulation of protective enzymes. Phase I and II studies have established the safety of lycopene supplementation. (*Cancer Letter*, October 8, 2008)

Prostate cancer was the subject of a study in Australia that looked at 130 prostate cancer patients and 274 hospitalized controls. The scientists found that men who consumed the most lycopene-rich fruits and vegetables such as papaya were 82% less likely to have prostate cancer. In this study, green tea also exerted a powerful anti-cancer effect. When lycopene-rich foods were consumed with green tea, the combination was even more effective, an outcome the researchers credited to their synergy. (*Asia Pacific Journal of Clinical Nutrition*, 2007)

Isothiocyanates found in papaya restore the cell cycle to eliminate cancer

Organo-sulfur compounds called *isothiocyanates* are found in papaya. In animal experiments, isothiocyanates protected against cancers of the breast, lung, colon pancreas, and prostate, as well as leukemia, and they have the potential to prevent cancer in humans. Isothiocyanates have shown themselves capable of inhibiting both the formation and development of cancer cells through multiple pathways and mechanisms. (*International Journal of Oncology*), October, 2008)

Researchers in Japan clarified the mechanisms of action in a type of isothiocyanate found in papaya known as *BITC*, that underlies the relationship between cell cycle regulation and appropriate cell death. When cancerous cells die on schedule, they are no longer a problem. The researchers established that BITC exerted cancer cell killing effects that were greater in the proliferating cells than in the quiescent cells. Cancer cells that are proliferating are much more dangerous than cancer cells that are in a state of dormancy. (*Forum of Nutrition*, 2009)

Enzymes from papaya digest proteins including those that protect tumors

The fruit and other parts of the papaya tree, also known as the *paw paw tree*, contain papain and chymopapain, powerful proteolytic enzymes that facilitate chemical reactions in the body. They promote digestion by helping to break down proteins from food into amino acids that can be recombined to produce protein useable by humans. Proteolytic enzymes protect the body from inflammation and help heal burns. They do a good job of digesting unwanted scar tissue both on the skin and under its surface.

Research has shown that the physical and mental health of people is highly dependent on their ability to produce proteins they can use effectively. However, as people age, they produce less of the enzymes needed to effectively digest proteins from food and free needed amino acids. They are left with excessive amounts of undigested protein which can lead to overgrowth of unwanted bacteria in the intestinal tract, and a lack of available amino acids.

Eating papaya after a meal promotes digestion, and helps prevent bloating, gas production, and indigestion. It is quite helpful after antibiotic use to replenish friendly intestinal bacteria that were the casualties in the war against the unwanted bacteria. When the intestinal tract is well populated with friendly bacteria, the immune system is strengthened, and can better protect against flu and cancer.

Being a proteolytic enzyme, papain is able to destroy intestinal parasites, which are composed mostly of protein. To rid the body of intestinal parasites, half a cup of papaya juice can be alternated each hour for twelve consecutive hours with the same amount of cucumber or green bean juice.

Papaya contains fibrin, another useful compound not readily found in the plant kingdom. Fibrin reduces the risk of blood clots and improves the quality of blood cells, optimizing the ability of blood to flow through the circulatory system. Fibrin is also important in preventing stokes. Proteolytic enzymes containing fibrin are a good idea for long plane rides to minimize the potential of blood clots in the legs. People who sit at a desk all day might want to use proteolytic enzymes too.

Proteolytic enzymes are able to digest and destroy the defense shields of viruses, tumors, allergens, yeasts, and various forms of fungus. Once the shield is destroyed, tumors and invading organisms are extremely vulnerable and easily taken care of by the immune system.

Undigested proteins can penetrate the gut and wind up in the bloodstream where they are treated by the immune system as invaders. If too many undigested proteins are floating around, the immune system becomes overburdened and unable to attend to the other tasks it was meant to do. Proteolytic enzymes can digest these rogue proteins, freeing up the immune system.

Papaya offers luscious taste and super nutrition

Papayas are native to Central America. They were disbursed by Spanish and Portuguese explorers who journeyed to India, the Philippines and Africa. Today, most commercially available papaya is produced in the U.S., Mexico and Puerto Rico.

Papaya adds the sunlight of the tropics to summer drinks while flooding the body with high class antioxidants such as carotenes, vitamin C and flavonoids. It is rich in several B vitamins including folate and pantothenic acid. It contains ample amounts of potassium, and plenty of magnesium, the mineral most deficient in Americans. It is also a good source of fiber.

Try getting some of these nutrients with a Papaya-Banana Smoothie

Ingredients

1 cup of whatever kind of milk pleases you
1/4 cup Greek style yogurt
1 tsp pure vanilla extract
1/2 ripe papaya, peeled, seeded and chopped
1 banana, peeled and sliced
1 cup ice cubes

Directions

Combine all ingredients in a blender and blend until smooth. Pour into a large glass and garnish with lime.

For more information
http://www.whfoods.com/genpage.php?...
http://www.home-remedies-for-you.co...
http://www.syvum.com/cgi/online/ser...

Learn more: http://www.naturalnews.com/026372_cancer_papaya_protein.html#ixzz1kVtRQqp6
International doctors and researchers conducted an extensive study on effects of Papaya on cancer and their findings, which were published on Tuesday, March 9, 2010 in the Journal of Ethnopharmacology conclude that Papaya Leaf Tea and Papaya Leaf Extract have “dramatic cancer-fighting properties against a broad range of tumors”.

http://www.alternativecancer.me/therapy/fight-cancer-papaya-treat-tumor/

Walnuts for Slowing Cancer Growth

Study by Morgantown University Researcher W. Elaine Hardman, Ph.D., of Marshall's Joan C. Edwards School of Medicine

Snack-sized quantities of walnuts slow cancer growth in mice, reports a Marshall University pilot study published in the current issue of the peer-reviewed journal Nutrition and Cancer.

Researcher W. Elaine Hardman, Ph.D., of Marshall's Joan C. Edwards School of Medicine said the study was

designed to determine whether mice that got part of their calories by eating walnuts had slower breast cancer growth than a group eating a diet more typical of the American diet.

"When we fed the mice the walnuts, the growth rate of the tumors they had was dramatically suppressed," Hardman said.

The mice ate a diet in which 18.5 percent of the daily calories -- the equivalent of two servings for humans -- came from walnuts. Tumors in the walnut-fed group took twice as long to double in size as tumors in the control group, the article reports. The study is believed to be the first to look at the impact of walnut consumption on cancer growth.

"It's always very good to find something that will slow the growth of tumors without being toxic chemotherapy," said Hardman, who has spent 15 years studying the role of diet in cancer.

Walnuts have at least three components that could account for their cancer-slowing effect, Hardman said. They are high in omega-3 fatty acids, which have been shown to slow cancer growth. They also include antioxidants and components called phytosterols, both of which have shown cancer-slowing effects in other studies.

While the pilot study was only designed to determine whether -- not why -- walnuts had a tumor-suppressing effect, Hardman said research as a whole is suggesting that Americans need to get more of their fat calories from fats rich in omega-3 fatty acids and fewer fat calories from saturated fat or foods high in omega-6 fatty acids.

In addition to walnuts, other good sources of omega-3 fatty acids are fish and canola and flaxseed oils, she said.

Medicine is increasingly looking at dietary changes as a way to reduce cancer, Hardman said.

"We're beginning to understand that your diet probably contributes to one-third to two-thirds of all cancers that develop, and making dietary changes to prevent cancer could do more to reduce the deaths from cancer than chemotherapy to treat cancer," she said.

"Changing our habits to reduce our risk not only of cancer but also of other chronic diseases, such as heart disease and diabetes, could reduce our health costs that are eating us up and provide better lives for a lot of people," she said. "I think in the future -- and probably the near future -- our diet, and making dietary changes, is going to become the biggest weapon for fighting cancer."

The project was funded through grants from the American Institute for Cancer Research and the California Walnut Commission, neither of which had input on the interpretation or reporting of the findings.

Marshall University
http://www.marshall.edu/

Cancer Diet: The Gerson Therapy Program

The Gerson Therapy is a safe, natural treatment developed by Dr. Max Gerson in the 1920's that uses organic foods, juicing, coffee enemas, detoxification and natural supplements to activate the body's ability to heal itself. According to the Gerson Institute, "Over the past 60 years, thousands of people have used the Gerson Therapy to recover from so-called "incurable" diseases such as cancer, diabetes, heart disease and arthritis."

Gerson Therapy involves 3 important steps that have to be performed simultaneously. The first step is detoxification by coffee enemas. The second step is the Gerson Diet that supplies the essential nutrients including enzymes from 13 glasses daily of fresh vegetable and fruit juice. The third

step is the supplement of deficient nutrients, particularly potassium, iodine, and thyroid hormones. Additional supplements are used that include niacin, pancreatin, flaxseed oil, castor oil, coenzyme Q10, Wobe-Mugos enzyme products, laetrile, crude liver or vitamin B12 injection, and gastrointestinal enzyme products. The therapy aims to restore the diseased cells in the body back to normal.

After the initial 6-12 week intensive treatment, the Gerson Therapy Program requires the cancer patient to adhere to a maintenance diet of low-salt, low-sugar, low-animal protein and high-potassium diet. All types of fresh and organic vegetables and fruits are encouraged. Tobacco, alcohol, canned, frozen, and other processed foods are discouraged. Salt and sugar are to be minimized or avoided completely - they should come from the natural foods, not from refined sources.

The detoxification of the liver and the production of thyroid hormones to regulate the immune system are crucial to cancer recovery. Liver detoxification with coffee enema is a very important procedure in Gerson Therapy. It lowers the quantity of blood serum toxins, cleaning the poison out of the fluid nourishing normal cells. Coffee enemas cause dilation of bile ducts, facilitating excretion of dead cancer cells by the liver and dialysis of toxic products from blood across the colonic wall.

The Gerson Therapy program requires dedication and discipline and hourly juicing - it simply will NOT WORK if you do not adhere to it completely, or if you cut corners and eat a few wrong foods here and there. It is ideally suited to the cancer survivor who is highly disciplined with enough energy to adhere to the strict regime.

Step 1 - Coffee Enemas

Coffee enemas have a very specific purpose in the treatment and reversal of cancer. They lower the quantity of blood serum toxins, cleaning the poisons out of fluids that nourish cells.

1. Add 3 tablespoonfuls of ground coffee beans to a quart (1 litre) of boiling water (either distilled or bottled water). Let the mixture boil for 3 minutes and allow it to simmer for another 15 minutes.

2. Filter the mixture and add more water to the liquid portion to fill up to a total volume of 1 quart (1 litre). Cool the liquid to room temperature. Hang the enema bag or bucket about 18 inches above the body. Prepare yourself to instil the coffee solution into the rectum.

3. Place some soft padding on the bathroom floor, cover it with plastic sheet and a towel, plop down a pillow and lie down on the padded floor on your right side, with legs pulled up in a relaxed position.

4. Take time to let gravity force the liquid into rectum and bowel. Hold the liquid inside the body for about 15 minutes, and then release the liquid.

Step 2 - The Gerson Diet

In general all the fruits and vegetables in Gerson diet should be organic and fresh. However, if it is not possible to obtain the organic produce, the

supermarket fruits and vegetables should be thoroughly washed to clean the pesticides and herbicides.

1. All fruits and vegetables are acceptable except: berries, nuts, pineapple, avocados, and cucumber. Berries and pineapple may cause allergic reactions to the aromatic acids present. Nuts are too high in proteins. Avocados are too high in fats. Cucumbers in combination with the required juices are difficult to digest.

2. Salads of raw fruits and vegetables should be consumed as much as possible. The most common salad ingredients include apples, carrots, watercress, green onions, celery, lettuce, cauliflower, broccoli, endive, chives, chicory, tomatoes, green peppers, radishes, beet, cabbage. Apple cider vinegar, lemon juice, and flaxseed oil may be used in salad dressing.

3. Potatoes are recommended for lunch and dinner. Brown or wild rice may be used to replace potatoes once in a while. Sweet potatoes (yams) may be served once a week.

4. Oatmeal is recommended for breakfast. Apple, papaya, or other fresh fruits may be added. Honey, pure maple syrup, or un-sulphured blackstrap molasses may be used as sweetener except for diabetic and hypoglycaemic patients. Dried fruits may also be added, but they should be un-sulphured and unsweetened. It is recommended they should be stewed.

5. The Hippocrates Special Cancer Soup is recommended as a starter to every meal. A minimum of 8 ounces may be consumed in each meal. The soup is prepared from the following ingredients:

(a) 3 to 4 stalks of celery
(b) Small amount of parsley
(c) 1 1/2 pounds of tomatoes
(d) 2 medium onions
(e) 2 small leaks or 2 additional medium onion
(f) A few cloves of garlic
(g) 1 pound of potatoes

The above ingredients are to be covered with filtered or mountain spring water and cooked for 2 hours. The mixture can be processed to a thick creamy soup in food mill, allowed only fibres and peels to remain. It is recommended to prepare the soup and refrigerate it only for 2 days of consumption.

6. Herbs and spices are not recommended during the healing process in the first few weeks of treatment because they tend to interfere with the healing response. Dr Gerson limited the use of such aromatics to small quantities of the mild ones such as allspice, anise, bay leaf, coriander, dill, fennel, mace, marjoram, rosemary, sage, saffron, tarragon, thyme, sorrel and summer savoury.

7. In cooking vegetables, water should be added as little as possible because there are already enough natural water in the 13 glasses of juices.

8. Salt-free and fat-free rye bread may be eaten only after consuming the full required meal. An example of a breakfast may include 8 ounces of orange juice, a bowl of cooked oatmeal with choice fruits, and toasted rye bread. An example of a lunch or dinner may include salad of mixed raw fruits and vegetables, a bowl of Hippocrates Special Cancer Soup, 8 ounces of apple-

carrot juice, one baked potato, freshly cooked vegetables, raw or stewed fruits. The book "The Gerson Therapy" published in 2001 by Charlotte Gerson and Morton Walker includes many recipes for the Gerson meals. The book can be purchased online from Amazon.

9. Thirteen glasses daily of fresh fruit and vegetable juices are the most important component in Gerson Therapy because they supply the needed enzymes, vitamins and minerals to restore the diseased body to healthy condition. Eight ounces of fruit or vegetable juice are to be freshly prepared and consumed every hour during the day for 13 hours. About 4 to 6 glasses of apple-carrot juices, and 2 to 4 glasses of green leaf juices should be maintained daily, and the rest of the 13 glasses may be other fruit or vegetable juices.

Based on the "The Gerson Therapy Handbook", Companion Workbook to "A Cancer Therapy, Results of Fifty Cases", the vegetables used in green juice should be from the following list :

- ✓ Romaine lettuce
- ✓ Swiss chard
- ✓ Beet tops (young inner leaves)
- ✓ Watercress
- ✓ Some red cabbage
- ✓ Green pepper
- ✓ Endive
- ✓ Escarole

A typical schedule of 13 glasses* of juices and 3 regular meals in Gerson diet is as follows:

8:00 AM - Orange juice and BREAKFAST
9:00 AM - A glass of Green juice
9:30 AM - A glass of apple-carrot juice
10:00AM - A glass of apple-carrot juice
11:00AM - A glass of carrot juice
12:00PM - A glass of green juice
1:00 PM - A glass of apple-carrot juice and LUNCH
2:00 PM - A glass of green juice
3:00 PM - A glass of carrot juice
4:00 PM - A glass of carrot juice
5:00 PM - A glasses of apple-carrot juice
6:00 PM - A glass of green juice
7:00 PM - A glass of apple-carrot juice and DINNER

*A glass should have about 8-oz content.

Prohibited Gerson Therapy Foods & Subtances

The following foods are to be completely avoided on the Gerson Therapy Program for cancer patients. Failure to comply 100% of the time will render the Gerson therapy ineffective.

1. All manufactured or processed foods such as those that are bottled, canned, frozen, preserved, refined, salted, smoked, or sulphured (except as specifically mentioned as being allowed) are forbidden.

2. Dairy products of all types such as milk and milk products (including goat's milk) are forbidden. They include cheese, cream, ice cream, ice milk, butter, and buttermilk, except as specifically allowed under proteins. However, fresh, churned buttermilk without any additives may be taken after the sixth to twelfth week of healing, as well as unsalted, non-fat Quark.

3. Alcohol is prohibited because it limits the blood's ability to carry oxygen and places strain on the liver to detoxify and remove it from the body.

4. Pineapples and berries may cause an allergic reaction to the aromatic acids present.

5. Avocados are too high in fats.

6. Cucumbers in combination with the required juices to be taken daily are difficult to digest.

7. Spices such as black pepper or paprika are irritants. Basil, oregano, and others are to be avoided because of their high aromatic acid content. Cayenne pepper, jalapenos, and so on are also irritants and can stop the healing.

8. Soybeans and soy products including tofu, tempeh, miso, tamari, soy sauces, Bragg's Liquid Aminos, textured vegetable protein, soy milk, and all other soy-based products are disallowed. For a variety of different reasons including their high fat content, high sodium content. toxic inhibition to nutrient absorption, and/or elevated protein content, use of soy in all its forms must be avoided.

9. Dried beans and legumes should not be used.

10. Sprouted Alfalfa and Other Bean or Seed Sprouts are high in L-canavanine, an immature amino acid that is responsible for immune system suppression. Also, patients with no prior history of chronic joint pain have developed the sudden onset of arthritic symptoms upon ingesting alfalfa sprouts. Healthy monkeys have developed lupus erythematosus from alfalfa sprouts in their diet.

11. Oils and fats of all kinds are forbidden, with the exception of fresh, raw, organic flaxseed oil.

12. Flour and refined white and brown sugars are forbidden.

13. Beef, pork, poultry, eggs, fish, seafood, and all other meat or animal flesh products are prohibited. These animal foods are high in protein, fats, chemicals, preservatives, hormones, and salt, and are difficult to digest.

14. Black tea, green tea, and other non-herbal or caffeine-containing teas are forbidden because of their undesirable aromatic acids and caffeine content. Dr Gerson cited aromatics as interfering with healing by producing allergic reactions.

15. Candy, cakes, muffins, pastries, and other refined sweets are prohibited. Some breads and pastries may be baked using permitted ingredients, but must not be consumed on a regular basis.

16. The drinking of water is not encouraged. Dr Gerson believed that a Gerson Therapy patient should not drink water, because it dilutes the stomach acid and doesn't allow maximum gastrointestinal tract capacity for nutrition from fresh foods and juices. The juices already provide adequate fluids.

17. Mushrooms are not vegetables but fungi and contain complex proteins and are difficult to digest and offer little nutrition and should be avoided.

18. Coffee and coffee substitutes by mouth, both with and without caffeine cause undesirable stimulation of the digestive system. However, when coffee is taken rectally, it offers an entirely advantageous effect on the liver where, aside from detoxification, it increases the production of glutathione S-transferase (a desirable enzyme).

19. Nuts and seeds, including almonds, apricot kernels, sunflower seeds, flaxseeds, peanuts, cashews, and all other nuts and seeds, are prohibited because they are too high in protein, fat and salt when roasted.

20. Hot peppers (jalapenos, etc) contain the same strong aromatics found in prohibited spices. Peppers tend to inhibit healing responses and should be avoided. Green, yellow, and sweet red peppers may be used without limitation.

21. Mustard and carrot greens should be avoided.

22. Baking powder and baking soda contain sodium and alum (aluminium), which arc highly toxic. Aluminium-free and sodium-free baking powder such as Featherweight (potassium-based powder) may be used occasionally.

23. Any product that contains fluoride such as fluoridated water, toothpaste, mouth gargle, hair dyes, beauty parlour permanents, cosmetics, under-arm deodorants, lipstick, and lotions (including moisturising lotions) must be totally avoided. Flaxseed oil may be applied to the skin as a moisturizer.

Step 3 - Nutritional Supplements

Gerson Therapy doesn't require too many nutritional supplements because all the essential nutrients are already present in the Gerson diet. Following are the few supplements used in the Gerson Therapy.

1. Lugol Solution - The conventional USP concentration of a Lugol solution contains 5 grams of iodine and 10 grams of potassium iodide in 100 ml solution. The concentration of the Lugol solution used in Gerson Therapy is 5 grams of potassium iodide and 10 grams of iodine in 200 ml solution. Typical dosage using Gerson 's Lugol solution for cancer patients not pre-treated with chemotherapy is 3 drops added to orange or apple-carrot juice 6 times a day. This is reduced to one drop 6 times a day after 2 to 3 weeks. For cancer patients pre-treated with chemotherapy start with one drop 6 times a day. The dosage is reduced after 5 to 6 weeks to 3 to 4 drops a day. Lugol solution should not be added to green leaf juices.

2. Potassium Compound Salts - Dr Gerson believed that the beginning of all degenerative diseases is the loss of potassium ions in the cells, and the invasion of sodium ions along with water into the cells. This brings on edema, loss of electrical potentials in the cells, improper enzyme formation, reduced cell oxidation, and other cell malfunctions. The building of almost all enzymes by the cells requires potassium as a catalyst. In contrast,

sodium inhibits enzyme production. A solution of potassium compound salts is made from 33 grams each of potassium acetate, potassium monophosphate, and potassium gluconate, diluted in 32 ounces of distilled. Typical dosage varies from 1 to 4 teaspoonfuls 10 times a day of the prepared solution (total 3.5 to 14 grams of potassium daily). They are added to orange, apple-carrot, or green leaf juices, but not to pure carrot juice. The primary benefit of potassium compound salts is to treat the tissue damage syndrome (TDS), which is found in all cancers.

3. Acidol-Pepsin Capsule (betaine HCL and pepsin) - This is used for aiding digestion of foods and juices. The dosage is 2 capsules 3 times a day.

4. Niacin (Vitamin B3) - Normal dosage for cancer patients is six 50-mg tablets of niacin daily for 6 months. For advanced cancer cases, the dosage is increased to 50 mg of niacin every hour, 24 hours a day (a total of 1200 mg niacin daily). Gerson Therapy uses the nicotinic form of niacin, which may cause skin-flushing effect with temporary but harmless redness, heat, and itching. It should not be discontinued if this skin flush occurs because niacin provides vasodilation, which improves blood circulation, elevates skin temperature, increases oxygenation, promotes cellular nutrition, and produces an overall detoxification effect. (There is also a flush-free brand of niacin). However, niacin should be discontinued during the menstruation or any type of bleeding.

5. Pancreatin Enzyme Tablets - These tablets contain 3 groups of enzymes for the digestion and absorption of foods. The 3 groups are the lipases that digest fats, the amylases that digest starches, and the proteases that digest the proteins as well as the tumour masses. The recommended dosage is three 325-mg tablets 4 times a day. According to Dr Gerson, pancreatin should not be given to sarcoma patients.

6. Flaxseed Oil - The normal dosage is 2 tablespoonfuls of organic cold-pressed flaxseed oil daily for the first month, then reduced to one tablespoonful daily afterwards. Flaxseed oil is best taken at lunch or dinner as part of the salad dressing, or on potatoes or vegetables. It should not be heated or cooked. It should be noted that the champion researcher of flaxseed oil, Dr. Johanna Budwig of Germany recommended a combination of one part flaxseed oil and 4 parts cottage cheese for cancer patients, however, cottage cheese is a prohibited food in Gerson Therapy in the first 6 to 12 weeks of treatment.

7. Bee Pollen and Royal Jelly - Bee pollen is to be taken when proteins are reintroduced into the patient's diet, starting from approximately 10th to 12th week of treatment. The normal dosage is 2 to 4 teaspoonfuls a day of bee pollen. Royal jelly is an optional supplement. The normal dosage is 100 mg in capsule form taken one hour before breakfast. It should not be taken with hot food.

8. Vitamin B12 injection and Crude Liver Extract - Vitamin B12 in Gerson Therapy is administered by intramuscular injection into the gluteus medius muscle, o.1 cc (100 mcg) once daily for 4 to 6 months or more. It is accompanied simultaneously (in the same injection syringe) by 3 cc of crude liver extract.

9. Vitamin C - The Gerson Therapy dosage of vitamin C is 1.0 to 1.5 grams daily in the form of ascorbic acid, not in the form of calcium or sodium ascorbate. Megadoses of Vitamin C are permitted, either intravenously or in

tablet form of 30-50 grams daily.

10. Charcoal Tablet - This is only used in the case of diarrhoea or problems in the gas absorption in the intestinal tract. The dosage depends on the extent of the symptoms.

11. Amygdalin or Laetrile - This is an optional supplement because of the legality of its use in the United States. However, it is used in most of the cancer clinics in Tijuana with a normal dosage of 9 grams of laetrile together with megadoses of vitamin C and B-complex intravenously daily for 3 to 6 weeks. It is one of the more expensive parts in cancer treatment in Tijuana.

Gerson Therapy Cancer Survival Studies

1. 36 patients with Colon cancer that had metastasised to the liver where placed on the Gerson Diet against 36 control patients with similar diagnosis, not on the Gerson Diet. Mean survival with Gerson Diet: 28.6 months. Mean survival without Gerson Diet: 16.2 months. Duration of treatment unknown. [Study conducted by Germany's Lechner P, Kronberger J. Erfahrungen mit dem einsatz der diat-therapie in der chirurgischen onkologie. Akt.Ernahr-Med 1990;15:72-8.]

2. 153 patients with Melanoma cancer were treated with the Gerson Diet. All 14 early stage (I and II) patients were disease free at 17 years, compared to survival rates reported in the literature of 80% - 95%. Of the 35 stage III patients, the five-year survival rate was 71%, compared to survival rates reported in the literature of 27% to 42% ($p=0.002$). Of the 18 stage IV patients, the five-year survival was 39%, compared to 6% to 20% in the literature ($p<0.001$). Not included in this analysis were 53 patients who were lost to follow-up. [Study conducted by Hildenbrand G, Hildenbrand L. Five year survival rates of melanoma patients treated by diet therapy after the manner of gerson: A retrospective review. Alternative Therapies 1995 Sep;Vol 1(4).

http://gerson-research.org/docs/HildenbrandGLG-1995-1/

The Gerson Therapy Cures Chief of Surgery at U.S. Hospital

[Dr. Lorraine Day has impressive credentials. She is an internationally acclaimed orthopedic trauma surgeon and author. She was for 15 years on the faculty of the University of California, San Francisco, School of Medicine as Associate Professor and Vice Chairman of the Department of Orthopedics. She was also Chief of Orthopedic Surgery at San Francisco General Hospital and is recognized world-wide as an AIDS expert. She has been invited to lecture extensively throughout the U.S. and the world; appeared on numerous radio and television shows, including 60 Minutes, Nightline, CNN Crossfire, Oprah Winfrey, and Larry King Live.]

"You have cancer. You're going to die!" The doctors told me. "But they were wrong!" says Lorraine Day, M.D. "I refused mutilating surgery, chemotherapy and radiation, the treatment methods ALL physicians are taught, and got well by using God's natural remedies instead.

Dr. Day was diagnosed with invasive breast cancer but rejected standard

therapies because of their destructive side effects and because those therapies often lead to death. She chose instead to rebuild her immune system using the natural, simple, inexpensive therapies designed by God and outlined in the Bible, so her body could heal itself. http://www.drday.com

You Have Cancer. You're Going to Die! the doctors told me... "But they were wrong!" says Lorraine Day M.D. She was diagnosed with invasive breast cancer and had a lumpectomy of a small tumor. But the tumor soon recurred, became very aggressive and grew rapidly. Yet Dr. Day rejected standard therapies because of their destructive side effects and because those therapies often lead to death. She chose instead to rebuild her immune system using the natural, simple inexpensive therapies designed by God and available to everyone, so her body could heal itself.

In her two videos, You Can't Improve on God and Cancer Doesn't Scare Me Anymore, Dr. Day explains why you don't have to accept a death sentence from your doctor and how this plan has been used successfully by many patients with different types of life-threatening diseases to regain their health.

Dr. Lorraine Day is now alive and healthy. Most impressive was her statement that she rejected "traditional" therapies because she studied the medical literature - which proved to her that these treatments are ineffective! Why are patients not given this information, available to professionals? Dr. Day says she came to the common sense conclusion that "you cannot destroy the immune system and get well at the same time." She discovered nutritional healing, the Gerson Therapy, and says: "CANCER DOESN'T SCARE ME ANYMORE!"

Dr. Lorraine Day has the courage to defy orthodox medicine by getting up before the entire audience of the Cancer Control Society and testifying, as follows:

"I am Dr. Lorraine Day. Some of you know me from the book I wrote: AIDS What the Government Isn't Telling You. Several years ago, I actually spoke here about AIDS. I have been coming to the Cancer Control Society meetings regularly for three years and I have learned more about medicine and how to take care of yourself than I learned in 20 years as an orthodox trauma surgeon. I knew nothing about nutrition as a medical doctor. In the four years of medical school, you don't have one single hour of information on nutrition. I have talked about that and admitted that I, in the past, have told patients that their nutrition has really nothing to do with their health. I was ignorant, I was stupid as many orthodox medical doctors are. Fortunately, I found out what was really going on in the health field by coming to the Cancer Control Society, and I started speaking out about it, studying it and actually had a radio show called "Truth Serum" where I was interviewing many alternative doctors. In the middle of that, I found out that I had breast cancer. I had infiltrating ductal carcinoma and it was spreading through my breast.

I went to my first doctor to have the lump taken out. At that time I did not know it was cancer. He refused to take care of me unless I had pre-operative chemotherapy. Even though I told him that I was a physician, and that I would sign any papers releasing him from any legal liability - but that I didn't want chemotherapy. I just wanted the lump taken out and diagnosed. He said, No. His reputation was at stake. So, I walked out of his office realizing that the law considers it acceptable for a physician to abandon a patient if the patient refuses the doctor's prescription. So I went to a former resident colleague, who is a breast cancer surgeon. He took the lump out but he

couldn't get all the cancer. He said, 'You have to have your breast removed.' I refused. Then he said, 'If you don't have your breast removed, you must have radiation therapy.' Once again, I declined. Then he said, 'You must have chemotherapy or some other kind of treatment to destroy these cancer cells.' I told him, 'No. I brought you a whole stack of books, if you really want to learn about cancer. Read these books. I won't have any of the orthodox treatments just take the lump out.' He said that he could not get all the cancer. I said, 'Fine. Everybody gets cancer all the time. My body can take care of that!'

I immediately went home and called up Marilyn Barnes, whom you just heard earlier. (Marilyn Barnes had just previously testified to her total recovery, now over 14 years, from stage 4 melanoma as well as carcinoma in situ - cervical cancer on the Gerson Therapy.) [Marilyn] came to my house and set me up. She taught a woman I hired how to do the Gerson Therapy. The Gerson Therapy was going to be the basis of my treatment. I started the juices, the enemas, the whole business. In fact, I looked at cancer as a great adventure. Unfortunately, I didn't have the time to take all the different alternatives, but I tried as many as I could. But the Gerson Diet is the basis of all my treatment. I am fine. I am healthy. I don't have any evidence of cancer. It has only been close to a year, but I have absolute confidence that I'll be well and healthy for many, many years to come."

The Gerson Therapy: Cancer Survival Testimonials

Below are links to testimonials and case histories of cancer survivors who have beaten cancer using the Gerson Therapy program.

http://www.brave-souls.com/GersonTestimonials.html
http://gerson-research.org/docs/GersonM-1949-1/index.html
Gerson Therapy U.S Office of Technology Assessment

Smoking

Stop smoking! Go to hhtp://www.smokeaway.com or call (800) 611-5930 for help.

Enzymes

See Enzymes to Kill Cancer Cells for additional information.

Cancer Strategy #9: Low Enzymes Always Found In Cancer... Use Enzymes To Kill Cancer Cells

One of the top rated cancer fighting supplements is in this section. Surprisingly, it is not an enzyme. It's called Fulvitea. You'll read about it in a few minutes, but first....

Researchers have noted for years a correspondence between low enzyme levels and cancer. In fact enzyme therapy has been used with **good results** against cancers in Europe, and by some doctors in the United States. To literally digest cancerous cells.

P-A-L Plus Digestive Enzymes (**pancreatic enzyme formulations**)

A bottle will last 2 months. Also, it is important to take enzymes *on an empty stomach*. A stack of research shows that enzymes, when taken in this manner, will go into the bloodstream and clean it up. **And in the process digest and kill cancer cells.** Take both a plant based digestive enzyme along with pancreatic enzymes high in Trypsin and Chymotrypsin for the best results. Take both with meals for improved digestion, and on an empty stomach to get into the body.

Cancer tumors produce a thick fibrin protein to help protect them from the immune system. Enzymes in the bloodstream can digest and dissolve the fibrin coating. Large amounts of enzymes would need to be taken, and they would need to be enzymes high in protease or nattokinase to break down the fibrin.

The pancreatic enzyme protocols for treating cancer make use of large amounts of pancreatic enzymes. They are taken on an empty stomach so they can go into the body to digest cancerous cells. And are taken with meals so that your pancreas doesn't have to produce as many enzymes to digest your food. This allows the pancreas to produce more enzymes to send into the body to fight cancer. The enzymes naturally produced by the body will be more effective than any enzyme supplement. Thus the protocols tend to use more enzymes with meals than taken on on empty stomach.

P-A-L Plus Enzymes

This digestive enzyme is a great value. Each capsule contains Pancreatin 30,000 UPS, Acid Stable Protease 100 SAPU, Protease, 60,000 HUT, Neutral Bacterial Protease 40,000 PC, Amylase 20,000 SKB, Bacterial Amylase 10,000 BAU, Lipase 12,000 LU, Cellulase 1,000 CU, Lactase 2,500 ALU, Trace Minerals 50mg

With 120 veggie capsules in a container, you get more Protease, Bromelain, Lipase and Cellulase per bottle for less money than any enzyme we have come across. Take 1 or 2 with each meal. Three could be taken on an empty stomach to clean the arteries.

120 capsules $49.95 http://www.gethealthyagain.com/PALenzymes.html

http://www.vitacost.com/productResults.aspx?ntk=products&Ntt=digestive%20enzymes&csrc=PPCADW-digestive_enzymes&refcd=GO000000515504161s_digestive_enzymes&tsacr=GO8022374531

A bit more potent than the **pancreatic enzyme formulations** though, with the best one we have found coming in at **298**, is a formulation of mature green papaya powder with additional support nutrients. The product is:

PapayaPro (also detoxifies heavy metals)

The main ingredient in this formula is **mature green papaya powder**. Papain is the principal and most active enzyme in this powder. Papain possesses a very powerful digestive action superior to pancreatin, or pancreatic enzymes. Changes in intestinal alkalinity or acidity do not interfere with the unique digestive activity of papain. Taken on an empty stomach, it will work more aggressively than even the pancreatic enzymes in attacking and destroying cancer cells.

Taken with a meal, it will also help digestion. Papain, one of the most powerful plant proteolytic enzymes, will aid in protein digestion in an acid, alkaline or neutral medium. This is of vital importance if you are enzyme deficient or have low hydrochloric acid output in the stomach. The pepsin produced in the stomach for protein digestion is activated only in an acid medium. This requires a healthy output of hydrochloric acid which is insufficient in most people. Due to the powerful proteolytic action of papain, a more active digestant than pepsin, a major digestive problem for most people will be helped by the daily ingestion of mature green papaya powder.

The extremely high levels of protease in **PapayaPro** will also help to **break down the fibrin coating all cancerous tumors** so that the immune system can better*attack* those tumors. In addition it will digest the live and dead cancer cells inside the tumors, helping to bring down tumor size faster. Use 1 to 3 containers a month for helping to support the detoxification process by digesting dead cancer cells. Use 4 to 6 bottles a month if you have tumors or bone cancer that are causing a great deal of pain or dysfunction. This quantity will work faster to reduce tumor size, and does a better job of helping to bring down tumor size than just about anything. It still won't be fast, but it will be faster than it would have been.

Here is what you need to use if you are suffering from muscle mass loss caused by catabolic wasting.

Catabolic Wasting Protocol

Catabolic wasting can occur in the end stages of cancer, aids and other serious illnesses. It is a major cause of death in cancer. No matter how much someone eats, how much nutrition they get, they lose weight and muscle mass. They are not able to metabolize or make protein. Recently scientists have figured out why this happens.

Protecting the liver and normalizing liver function is vital to reversing or stopping wasting. If you don't stop wasting, you won't make it. You'll basically end up being killed by the wasting before the cancer kills you.

Fortunately, there is a protocol to stop catabolic wasting. You can notice improvement in a couple of weeks. Follow this protocol for at least two months to completely stop the

wasting. Continue to take other anti-cancer supplements in advanced stage dosages while using this protocol. There are two products in this protocol.

Regenerative Elixir

Three bottles of this frequency enhanced water elixir is a month's supply. It stimulates cells to repair themselves, and does a stronger and better job of this than our previously recommended Rejuvin. With catabolic wasting the liver needs repair so that it can start processing proteins again. What happens with Regenerative Elixir is that the water in it carries specific energetic vibrational frequencies that signal or turn on the regeneration and repair process in your body. Take 3 squeezes of the dropper twice a day. You will read more about energetic elixirs in the Energy section following this section.

Fulvitea

This is the second and most important supplement you need to use to reverse catabolic wasting and to start gaining some weight. In fact, in is one of the most important products to use whenever to liver is poorly functioning. And whenever the cancer is so bad that you are essentially starving to death. The predigested protein it supplies is usable by the body without the liver having to convert amino acids to protein. And the regenerative factors in it help to stimulate repair. As the liver is so vital to health, if the liver is poorly functioning, the body uses the nutrients in Fulvitea to repair the liver. It does an excellent job. We have heard consistently successful reports of it stopping catabolic wasting and improving liver function - even with cirrhosis. In a life and death situation, be sure and use Regenerative Elixir to more rapidly improve liver function.

Fulvitea has two basic functions. First it is a source of pre-digested protein that your body doesn't have to process to use. So you can actually start making muscle again. In addition it contains RNA and DNA repair factors to stimulate repair of the liver and also of cancer cells. It helps to normalize cancer cell function so the cancer cells die a normal death, apoptosis.

This 1 pound container of powder contains Hydrolyzed Marine Collagen from wild fish which is 95% pure protein in a hydrolyzed (broken down) amino-acid form. In addition it has Fulvic Acid powder which intensifies the metabolism of proteins, increases DNA content in cells and increases the rate of RNA synthesis. The Green Tea Extract in it helps to drive the nutrients into the body. And does have anti-cancer benefit.

It also supplies freshwater Diatomaceous Earth which will aid the detoxification process and fight cancer. Whole Colostrum powder (Grade A Bovine) supports the regeneration process and boosts immune system response against cancer. Small amounts of Vitamin C, Zinc, ProCoQ10, Manganese, Vitamin B6, Niacinamide, Selenium, Molybdenum, Chromium, and Vitamin E a blend of herbs that also support the regeneration process.

Fulvitea also contains NutraFlora - a short-chain Fructooligosaccharide assisting in the absorption and utilization of minerals and amino acids. It passes, intact, through the stomach and small intestine to the colon, where it is fermented by beneficial bacteria into short-chain fatty acids. These lower intestinal pH to an optimal level for keeping calcium, minerals and amino acids in solution for a longer period of time, making them much more absorbable. Absorption is further enhanced by Aulterra magnetic powder from an ancient seabed mineral deposit. Aulterra supports the utilization and effectiveness of nutraceuticals and herbs in the diet. And Pascalite - a rare, calcium bentonite/montomorillonite, non-swelling clay, which has a long history of health uses. Pascalite provides trace minerals in oxide form, so they are easily assimilated.

Use 2 containers a month if you are not in too bad a shape, and 3 to 6 containers a month for more serious nutrient support and liver repair., **its energetic testing for helping stop catabolic wasting is 1030.** This is clearly one of the most important cancer fighting supplements to take for end stage cancers and all cases of catabolic wasting.

We find it works best to shake or blend the powder into a smoothie or some sort of drink but not a protein drink as it is best absorbed on an empty stomach without other proteins.

There is a well known product that has been fighting cancer and used for wasting for years. It is a fermented soybean protein drink. For wasting and advanced cancers you need to drink a bottle a day of this bad tasting drink. Quite expensive too at $50 a bottle. For fighting cancer, energetic testing puts it at **321**. Respectable, but not near as powerful as Fulvitea which comes in at **460** for its ability to fight cancer. For catabolic wasting it comes in at**353**, again much less than Fulvitea's **1030**.

Use Regenerative Elixir and Fulvitea for catabolic wasting. You should see results quickly, and be able to successfully stop catabolic wasting in its tracks. **3260**

http://www.cancerfightingstrategies.com/enzymes.html

Rebuilding and Revitalizing the body with ZERO energy output with Fulvitea

One of the common characteristics of a body in distress is that the energy required to recover is no longer available. Fulvitea provides energy without taxing your system—making it the perfect choice for recuperation. It's an all-natural essential protein food supplement that is fully absorbable when added to your preferred beverage.

Within a blend of 30 vitamins, organic herbs and critical antioxidants, Fulvitea delivers therapeutic levels of:

- Predigested peptide proteins – tissue repair
- Nutraflora™ - speeding recovery

- D-Ribose - energy boosting
- Colostrum - immune fortifying
- Fulvic Acid powder – augments nutrient uptake

Fulvitea™ is one of the few products available which is designed to boost recovery and support system wide repair. http://www.zeolitesupport.com/store/fulvitea-400-grams.html

http://www.nextag.com/fulvitea/products-html

Phase II Enzymes

Scholarly Articles on Phase II Enzymes

http://scholar.google.com/scholar?q=phase+ii+enzymes+cancer&hl=en&as_sdt=0&as_vis=1&oi=scholart

Cancer-fighting enzymes boosted by vegetables

14-May-2001

Related topics: Science & Nutrition

New studies at Johns Hopkins University and Tsukuba University in Japan show that inducing special body enzymes, which neutralise and dispose of cancer-causing substances is likely to be an effective way to lower risk of cancer.

Although broccoli got the initial publicity, the entire family of cruciferous vegetables contains a variety of related substances that stimulate phase II enzymes. Other cruciferous vegetables include cauliflower, Brussels sprouts, cabbage, kale, chard, bok choy, collards and radishes. The protective substances they contain exist whether the vegetables are eaten cooked or raw.

The health-promoting benefits of garlic seem to be due to phytochemicals called allyl sulfides, another group that can boost phase II enzymes. Onions are also a source of these substances.

Vegetables and fruits supply a whole range of nutrients and phytochemicals that seem to help protect against cancer. Ellagic acid from berries, grapes and nuts boosts phase II enzymes, as do phenols, which are found in berries and citrus fruits as well as tea.

Scientists say that most likely, protective effects come from vitamins, enzyme-boosting phytochemicals and perhaps other not-yet-identified substances in fruits and vegetables, all working togethe

Source http://www.aicr.org/

http://www.foodnavigator.com/Science-Nutrition/Cancer-fighting-enzymes-boosted-by-vegetables?utm_source=copyright&utm_medium=OnSite&utm_campaign=copyright

http://www.foodnavigator.com/Science-Nutrition/Cancer-fighting-enzymes-boosted-by-vegetables

Dietary Compounds That Induce Cancer Preventive Phase 2 Enzymes Activate Apoptosis at Comparable Doses in HT29 Colon Carcinoma Cells1

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ABSTRACT

Dietary agents that induce glutathione *S*-transferases and related detoxification systems (Phase 2 enzyme inducers) are thought to prevent cancer by enhancing elimination of chemical carcinogens. The present study shows that compounds of this group (benzyl isothiocyanate, allyl sulfide, dimethyl fumarate, butylated hydroxyanisole) activated apoptosis in human colon carcinoma (HT29) cells in culture over the same concentration ranges that elicited increases in enzyme activity (5–25, 25–100, 10–100, 15–60 μmol/L, respectively). Pretreatment of cells with sodium butyrate, an agent that induces HT29 cell differentiation, resulted in parallel increases in Phase 2 enzyme activities and induction of apoptosis in response to the inducers. Cell death characteristics included apoptotic morphological changes, appearance of cells at sub-G1 phase on flow cytometry, caspase activation, DNA fragmentation and TUNEL-positive staining. The results suggest that dietary Phase 2 inducers may protect against cancer by a mechanism distinct from and in addition to that associated with enhanced elimination of carcinogens. If this occurs in vivo, diets high in such compounds could eliminate precancerous cells by apoptosis at time points well after initial exposure to chemical mutagens and carcinogens.
KEY WORDS: • *NAD(P)H:quinone reductase • glutathione S-transferase • butyrate • apoptosis • human colon carcinoma cells*
http://jn.nutrition.org/content/129/10/1827.full

Attitude

This is the shortest section and probably the most important!

The pessimist has his worst fears confirmed whereas unexpectedly good things often happen to optimists! Some patients refuse to give up even though their disease is so aggressive that their other doctors urge them to put their affairs in order. These kind of relentless optimists continually seek out new and better treatments and beat all odds. In the book “Survivor Stories”,

there are several such stories. http://www.prostate-cancer.org/education/andeprv/Myers_HormonalTherapyDiet.html

Too often, pessimism and, ultimately, depression can affect the way men view their disease, their treatment, and the success of their chosen program. In fact, over the years I've found myself asking if pessimism is as deadly a disease as prostate cancer itself.

This question can be answered in many ways, I think. I suppose creating some disease criteria would be helpful in answering this question. Is a disease something that affects our daily life? Is it something that at times can be so overwhelming it pervades every action until it dominates even the way we think about ourselves? Does it affect our loved ones in the process? Will it reduce years from our lives? If one uses these criteria to describe a disease then, yes, pessimism certainly qualifies. We all know people, call them cynics, realists, etc. and so on, who are constantly focused on the negative. To them, the world is a cruel and heartless place where nothing good ever happens—or where everything good in this world simply doesn't happen to them.

Think about how much time they spend dwelling on these issues, how much energy they expend on them, and how much energy it takes just to listen to their litany of complaints about this world. Whether they feel entitled or depressed, that everything is their fault or that nothing is, this kind of thinking leads people to the same place: desperation and despair.

I do find it interesting that this idea is firmly fixed in our culture. How often have we heard that John Doe just died because "he gave up"? In contrast, the cliché "where there is a will, there is a way" also comes to mind. I deal with life and death issues every day, and time and time again I have seen people give up and die long before they should have. In contrast, I have patients who refuse to give up even though their disease is so aggressive that their other doctors urge them to put their affairs in order. These kind of relentless optimists continually seek out new and better treatments and beat all odds. In the book "Survivor Stories", edited by my daughter and son-in-law, you'll find several such stories—in fact one woman received a call from a medical institution some years after she received her "death sentence" from them. "We've noticed that you're still alive," they said. "Do you mind coming in for a few tests?"

While this is purely anecdotal evidence, the medical community sees anomalies like this all the time. Is it simply optimism that keeps these people alive or is it pessimism that kills? Folk wisdom suggests that pessimism is the mistake and now it seems that the medical literature also supports this idea.

The article that triggered my thoughts on this subject appeared in the Archives of General Psychiatry in 2004 (Giltay, et al). In this Dutch study, 466 men and 475 women between the ages of 65 and 85 took a test to determine their relative optimism versus pessimism. They were then followed from 1991 to 2001. During that time, there were 397 deaths. The optimists had a death rate close to half that of the pessimists. The deaths from cardiovascular disease, largely heart attack and stroke, were down by 77% in the optimist group compared with the pessimists. There was a similar study in the journal

Psychosomatic Medicine last year that showed a marked worsening in carotid atherosclerosis in pessimists compared with optimists (Mathews, et al). Finally, the Mayo Clinic reported similar results that involved following optimists versus pessimists for greater than 30 years.

How is it that optimists do better than pessimists? It appears that these two approaches to life have a very different impact on human biology. In one recent article, Steptoe, et al. measured cortisol, the major stress hormone in the body, and found that levels were lowest in those who rated themselves as happy. One key event in the evolution of heart disease is the appearance of blood clots in the major arteries. Steptoe, et al. found elevated fibrinogen levels, a major risk factor for heart disease, in those who rated themselves as unhappy.

My own observations suggest that the picture is far worse than these articles indicate. Not only do pessimists do worse medically, but also they are absolutely miserable while they wait for bad things to happen. For the optimist, time is usually passed pleasantly because he or she anticipates that whatever bad things might happen, tomorrow will most likely be good.

By Charles E. (Snuffy) Myers, M.D., Founder and Medical Director, The American Institute for Diseases of the Prostate, Charlottesville, VA

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Editor's Note: This article was excerpted from Dr. Myer's newly published book titled, Beating Prostate Cancer: Hormonal Therapy and Diet. Dr. Myers is both a leading oncologist specializing in prostate cancer and a patient stricken with the (now undetectable) disease.
Dr. Myers' book is available at www.prostateforum.com or by calling 800-305-2432.

Exercise

If you are like most people, when you think of reducing your risk of cancer, exercise doesn't immediately come to mind. However, there is some fairly compelling evidence that exercise can slash your risk of cancer. One of the primary ways exercise lowers your risk for cancer is by reducing elevated insulin levels, which creates a low sugar environment that discourages the growth and spread of cancer cells.

For example, physically active adults experience about half the incidence of colon cancer as their sedentary counterparts, and women who exercise regularly may reduce their breast cancer risk by 20 to 30 percent compared to those who are inactive.

It's important to include a large variety of techniques in your exercise routine, such as strength

training, aerobics, core-building activities, and stretching. Most important of all, however, is to make sure you include high-intensity, burst-type exercise, such as Peak 8.

Exercise is Slowly Becoming More Recognized for its Cancer Prevention Potential

While exercise might not be at the top of most people's lists of cancer prevention or treatment strategies, there is actually compelling evidence suggesting that exercise can indeed slash your cancer risk and improve recovery.

For example, physically active adults experience about half the incidence of colon cancer as their sedentary counterparts, and women who exercise regularly can reduce their breast cancer risk by 20 to 30 percent compared to those who are inactive. Furthermore, Harvard Medical School researchers found that breast cancer patients who exercise moderately -- 3-5 hours a week -- reduce their odds of dying by about half as compared to sedentary women. In fact, any amount of weekly exercise increased a patient's odds of surviving breast cancer.

One of the primary ways exercise lowers your cancer risk is by reducing elevated insulin levels, which creates a low sugar environment that discourages the growth and spread of cancer cells. Additionally, exercise improves the circulation of immune cells in your blood, which is your first line of defense against all disease, including cancer.

The trick though is understanding how to use exercise as a precise tool. It can be helpful to view exercise like a drug that needs to be carefully prescribed to achieve its maximum benefit.

You'll want to include a large variety of techniques in your exercise routine, such as:

- High-intensity, burst-type exercise, such as Peak 8. (Peak 8 are exercises performed three times a week, in which you raise your heart rate up to your anaerobic threshold for 20 to 30 seconds, and then you recover for 90 seconds)
- Strength training
- Aerobics
- Core-building activities
- Stretching

Routine Checkups and Prevention

Cancer Diagnosis by Smart Phone

by Jocelyn Kaiser on 23 February 2011

Want to know whether you have cancer? There may soon be an app for that. Cancer researchers have come up with a small device that—with the aid of a smart phone—could allow physicians to find out within 60 minutes whether a suspicious lump in a patient is cancerous or benign.

Instead of immediately cutting out masses that they suspect are tumors, oncologists often use a thick needle to remove a few cells from a lump for an analysis at a pathology lab. But the tests used there, such as examining the shape of cells and staining for various proteins, are sometimes inconclusive. The lab tests also take several days.

As an alternative, physician-scientist Ralph Weissleder's team at Massachusetts General Hospital (MGH) in Boston developed a miniature version of a nuclear magnetic resonance (NMR) machine—the workhorse tool that allows researchers to identify chemical compounds by the way their nuclei react in magnetic fields. The researchers also found a way to attach magnetic nanoparticles to proteins so that the machine can pick these specific proteins out from a gemisch of chemicals, like those found in a tumor cell sample. A standard chemistry lab's NMR machine approaches the size of a file cabinet, but the new device is only about as big as a coffee cup.

To see how this might be utilized in the cancer clinic, the MGH researchers used the standard needle procedure to collect suspicious cells from patients' abdomens. They then labeled the cells with various magnetic nanoparticles designed to attach to known cancer-associated proteins and injected the cells into their miniature NMR machine. The device, whose data can be read with a smart phone application instead of a computer, detected levels of nine protein markers for cancer cells.

By combining results for four of these proteins, the MGH team accurately diagnosed biopsies for 48 of 50 patients in less than an hour per patient. The micro-NMR diagnosis was correct 100% of the time in another set of 20 patients, the MGH team reports today in *Science Translational Medicine*. By contrast, standard pathology tests on similar samples were correct only 74% to 84% of the time.

Weissleder hopes the device would allow a doctor to test a needle biopsy sample within minutes of collecting it and tell the patient the results as soon as he or she awakes from the procedure. Right now, patients come in for a biopsy, go home, and wait several days for the results. "Our patients hate that week of not knowing if they have cancer," he says. The strategy should also cut down on repeat biopsies, which typically cost thousands of dollars, he says.

Eventually, the researchers hope to use their mini-NMR device to track the course of cancer and determine whether patients are responding to drugs by detecting levels of specific proteins in blood samples.

Tumor immunologist John Greenman of the University of Hull in the United Kingdom, who also works on so-called lab-on-a-chip devices, calls the study "extremely interesting" as an early example of this technology. What's key, he says, is that the MGH group has compared its test with standard tests, which "is essential to gain the support of the medical community." Such devices might have applications far beyond cancer, such as monitoring the environment and detecting biological weapons, he says

Enlarge Image

Tumor sensor. A doctor could use a smart phone to read a portable NMR device that analyzes possible cancer cells.

http://news.sciencemag.org/sciencenow/2011/02/cancer-diagnosis-by-smart-phone.html

Researchers from Harvard and MIT working out of the Boston-based Massachusetts General Hospital caused a stir when they announced a $200 accessory for smartphones that can quickly analyze small amounts of tumor tissue, with higher rates for accurate diagnosis of malignancy than more time-consuming, conventional biopsies. The device, which is based on a micro nuclear magnetic resonance (microNMR) chip, is essentially a scaled-down version of the technology found in full-body magnetic resonance imaging (MRI) scanners. The authors described the new technology in a paper published in the journal Science Translational Medicine.

http://www.mobilehealthcaretoday.com/articles/2011/05/the-mobile-phone-cancer-cure.aspx

Prostate

Since 1989, PSA screening has revolutionized the field of prostate cancer diagnosis and treatment: we're diagnosing cancers earlier and earlier. In most studies of PSA screening, widespread metastatic disease is often identified only in the first and sometimes the second year of screening. Thereafter an overwhelming majority of patients h ave cancers that appear to be confined to the prostate gland. In fact, the worst situation you are likely to see with any frequency is patients with disease that has extended outside the prostate capsule to seminal vesicles or pelvic lymph nodes. Even these patients can be treated successfully with hormonal therapy combined with aggressive external beam radiation therapy plus brachytherapy. http://www.prostate-cancer.org/education/andeprv/Myers_HormonalTherapyDiet.html

Standard Screening Tests for Early Detection

Two standard tests are used for early detection of prostate cancer:

- *PSA test*. The PSA blood test measures the level of a protein called prostate-specific antigen. It is able to detect early prostate cancer, although it has limitations.
- *Digital rectal examination (DRE)*. The DRE is a physical examination. The doctor inserts a gloved and lubricated finger into the patient's rectum and feels the prostate for bumps or other abnormalities.

Prostate cancer is the most common cancer in men in the United States. Prostate cancer forms in the prostate gland, and can sometimes be felt on digital rectal examination. This is one of the purposes of the digital rectal exam.

PSA Test Limitations. Prostate specific antigen (PSA) is a protein produced in the prostate gland that keeps semen in liquid form. Prostate cancer cells appear to produce this protein in elevated quantities. Measuring PSA levels increases the chance for detecting the presence of cancer when it is microscopic. There are many unresolved questions surrounding PSA testing. The test is not accurate enough to either rule out or confirm the presence of cancer. PSA levels can be increased by various factors other than prostate cancer, including benign prostatic hyperplasia, prostatitis, advanced age, and ejaculation within 48 hours of the test. Relying too much on the test can lead to unnecessary biopsies. Not relying on it enough may miss cancers.

PSA screening may result in the detection of some possible cancers that would never have bothered the patient and would never have posed a threat to his life. Two major studies published in 2009 found that PSA screening saves few if any lives. As a result, the American Cancer Society does not recommend routine PSA testing, although individual men may choose to be tested.

Biopsy. If cancer is suspected, the doctor will order a biopsy. Only a biopsy, in which a tiny sample of prostate tissue is surgically removed, can actually confirm a diagnosis of prostate cancer. A biopsy is usually performed to confirm or rule out cancer based on a combination of PSA test levels, findings on the DRE, family history, and patient' s age and ethnicity. If a biopsy gives a negative result but the doctor still suspects cancer, repeat biopsies may be performed.

An ultrasound procedure called transrectal ultrasonography (TRUS) may be used to help the doctor see where to take the needle biopsy. Ultrasound is not effective as a diagnostic tool by itself because it cannot differentiate very well between benign inflammations and cancer.

Tests after Cancer is Diagnosed

PSA Levels and Velocity. Once cancer is diagnosed, PSA levels may help to determine its extent. If PSA levels are lower than 20 ng/mL, it is likely that the cancer has not spread to distant sites. PSA

levels over 40 ng/mL are a strong indicator that cancer has metastasized (spread throughout the body). PSA levels are also monitored after treatments begin. Changes in the level can show if a treatment is working or if the cancer has come back.

Doctors also monitor how quickly PSA levels rise over time. This rate is called PSA velocity (PSAV). The PSAV may help determine when treatment should begin and which treatment should be used. A high rate of PSAV is considered to be 2 ng/mL a year. Recent research suggests that men with early-stage prostate cancer who have a slow PSAV are more likely to live longer than men with rapidly rising PSA levels.

Test for Metastasis. If the biopsy indicates cancer, the doctor will order other tests to determine whether or how far the cancer has spread:

- Bone scans and x-rays may reveal whether the cancer has invaded the bones. To perform a bone scan, doctors inject low doses of a radioactive substance into the patient's vein, which accumulates in bones that have been damaged by cancer. A scanner then reveals how much of the radioactive material has accumulated.
- Computed tomography (CT) or magnetic resonance imaging (MRI) scans can further pinpoint the location of cancer that has spread beyond the prostate.

http://www.umm.edu/patiented/articles/what_symptoms_of_prostate_cancer_000033_5.htm

Prostate-specific antigen (PSA) test

1. What is the prostate-specific antigen (PSA) test?

Prostate-specific antigen (PSA) is a protein produced by cells of the prostate gland. The PSA test measures the level of PSA in the blood. The doctor takes a blood sample, and the amount of PSA is measured in a laboratory. Because PSA is produced by the body and can be used to detect disease, it is sometimes called a biological marker or a tumor marker.

It is normal for men to have a low level of PSA in their blood; however, prostate cancer or benign (not cancerous) conditions can increase a man's PSA level. As men age, both benign prostate conditions and prostate cancer become more common. The most frequent benign prostate conditions are prostatitis (inflammation of the prostate) and benign prostatic hyperplasia (BPH) (enlargement of the prostate). There is no evidence that prostatitis or BPH causes cancer, but it is possible for a man to have one or both of these conditions and to develop prostate cancer as well.

A man's PSA level alone does not give doctors enough information to distinguish between benign prostate conditions and cancer. However, the doctor will take the result of the PSA test into account when deciding whether to check further for signs of prostate cancer.

2. Why is the PSA test performed?

The U.S. Food and Drug Administration (FDA) has approved the use of the PSA test along with a digital rectal exam (DRE) to help detect prostate cancer in men 50 years of age or older. During a DRE, a doctor inserts a gloved finger into the rectum and feels the prostate gland through the rectal wall to check for bumps or abnormal areas. Doctors often use the PSA test and DRE as prostate cancer screening tests; together, these tests can help doctors detect prostate cancer in men who have no symptoms of the disease.

The FDA has also approved the use of the PSA test to monitor patients who have a history of prostate cancer to see if the cancer has recurred (come back). If a man's PSA level begins to rise, it may be the first sign of recurrence. Such a "biochemical relapse" typically precedes clinical signs and symptoms of a relapse by months or years. However, a single elevated PSA measurement in a patient with a history of prostate cancer does not always mean the cancer has come back. A man who has been treated for prostate cancer should discuss an elevated PSA level with his doctor. The doctor may recommend repeating the PSA test or performing other tests to check for evidence of a recurrence. The doctor may look for a trend of rising PSA measurements over time rather than a single elevated PSA level.

It is important to note that a man who is receiving hormone therapy for prostate cancer may have a low PSA level during, or immediately after, treatment. The low level may not be a true measure of the man's PSA level. Men receiving hormone therapy should talk with their doctor, who may advise them to wait a few months after hormone treatment before having a PSA test.

3. For whom might a PSA screening test be recommended?

Doctors' recommendations for screening vary. Some encourage yearly screening for men over age 50, and some advise men who are at a higher risk for prostate cancer to begin screening at age 40 or 45. Others caution against routine screening. Although specific recommendations regarding PSA screening vary, there is general agreement that men should be informed about the potential risks and benefits of PSA screening before being tested. Currently, Medicare provides coverage for an annual PSA test for all men age 50 and older.

Several risk factors increase a man's chances of developing prostate cancer. These factors may be taken into consideration when a doctor recommends screening. Age is the most common risk factor, with nearly 63 percent of prostate cancer cases occurring in men age 65 and older (1). Other risk factors for prostate cancer include family history, race, and possibly diet. Men who have a father or brother with prostate cancer have a greater chance of developing prostate cancer. African American men have the highest rate of prostate cancer, while Asian and Native American men have the lowest rates. In addition, there is some evidence that a diet higher in fat, especially animal fat, may increase the risk of prostate cancer.

4. How are PSA test results reported?

PSA test results show the level of PSA detected in the blood. These results are usually reported as nanograms of PSA per milliliter (ng/mL) of blood. In the past, most doctors considered a PSA level below 4.0 ng/mL as normal. In one large study, however, prostate cancer was diagnosed in 15.2 percent of

men with a PSA level at or below 4.0 ng/mL (2). Fifteen percent of these men, or approximately 2.3 percent overall, had high-grade cancers (2). In another study, 25 to 35 percent of men who had a PSA level between 4.1 and 9.9 ng/mL and who underwent a prostate biopsy were found to have prostate cancer, meaning that 65 to 75 percent of the remaining men did not have prostate cancer (3).

Thus, there is no specific normal or abnormal PSA level. In addition, various factors, such as inflammation (e.g., prostatitis), can cause a man's PSA level to fluctuate. It is also common for PSA values to vary somewhat from laboratory to laboratory. Consequently, one abnormal PSA test result does not necessarily indicate the need for a prostate biopsy. In general, however, the higher a man's PSA level, the more likely it is that cancer is present. Furthermore, if a man's PSA level continues to rise over time, other tests may be needed.

Because PSA levels tend to increase with age, the use of age-specific PSA reference ranges has been suggested as a way of increasing the accuracy of PSA tests. However, age-specific reference ranges have not been generally favored because their use may lead to missing or delaying the detection of prostate cancer in as many as 20 percent of men in their 60s and 60 percent of men in their 70s. Another complicating factor is that studies to establish the normal range of PSA values have been conducted primarily in white men. Although expert opinions vary, there is no clear consensus on the optimal PSA threshold for recommending a prostate biopsy for men of any racial or ethnic group.

5. What if the screening test results show an elevated PSA level?

A man should discuss an elevated PSA test result with his doctor. There can be different reasons for an elevated PSA level, including prostate cancer, benign prostate enlargement, inflammation, infection, age, and race.

If no symptoms to suggest cancer are present, the doctor may recommend repeating DRE and PSA tests regularly to watch for any changes. If a man's PSA level has been increasing or if a suspicious lump is detected during a DRE, the doctor may recommend other tests to determine if there is cancer or another problem in the prostate. A urine test may be used to detect a urinary tract infection or blood in the urine. The doctor may recommend imaging tests, such as a transrectal ultrasound (a test in which high-frequency sound waves are used to obtain images of the rectum and nearby structures, including the prostate), x-rays, or cystoscopy (a procedure in which a doctor looks into the urethra and the bladder through a thin, lighted tube that is inserted through the end of the penis; this can help determine whether urinary blockage is caused by an enlarged prostate). Medicine or surgery may be recommended if the problem is BPH or an infection.

If cancer is suspected, a biopsy is needed to determine whether cancer is present in the prostate. During a biopsy, samples of prostate tissue are removed, usually with a needle, and viewed under a microscope. The doctor may use ultrasound to view the prostate during the biopsy, but ultrasound cannot be used alone to tell if cancer is present.

6. What if the test results show a rising PSA level after treatment for prostate cancer?

A man should discuss rising PSA test results with his doctor. Doctors consider a number of factors before recommending further treatment. Additional treatment based on a single PSA test result is often not recommended. Rather, a rising trend in PSA test results over a period of time combined with other

findings, such as an abnormal DRE, positive prostate biopsy results, or abnormal CT (computed tomography) scan results, may lead to a recommendation for further treatment.

According to the National Comprehensive Cancer Network (NCCN) Clinical Practice Guidelines in Oncology for Prostate Cancer (4), additional treatment may be indicated based on the following PSA test results:

* For men who have been in the watchful waiting phase—their PSA level has doubled in fewer than 3 years or they have a PSA velocity (change in PSA level over time) of greater than 0.75 ng/mL per year, or they have a prostate biopsy showing evidence of worsening cancer (4).

* For men who have had a radical prostatectomy (removal of the prostate gland)—their PSA level does not fall below the limits of detection after surgery or they have a detectable PSA level (> 0.3 ng/mL) that increases on two or more subsequent measurements after having no detectable PSA (4).

* For men who have had other initial therapy, such as radiation therapy with or without hormonal therapy—their PSA level has risen by 2 ng/mL or more after having no detectable PSA or a very low PSA level (4).

Please note that these are general guidelines. Prostate cancer is a complex disease and many variables need to be considered by each patient and his doctor.

7. What are some of the limitations of the PSA test?

* Detecting tumors does not always mean saving lives: When used in screening, the PSA test can detect small tumors. However, finding a small tumor does not necessarily reduce a man's chances of dying from prostate cancer. PSA testing may identify very slow-growing tumors that are unlikely to threaten a man's life. Also, PSA testing may not help a man with a fast-growing or aggressive cancer that has already spread to other parts of his body before being detected.

* False-positive tests: False-positive test results (also called false positives) occur when the PSA level is elevated but no cancer is actually present. False positives may lead to additional medical procedures that have potential risks and significant financial costs and can create anxiety for the patient and his family. Most men with an elevated PSA test result turn out not to have cancer; only 25 to 35 percent of men who have a biopsy due to an elevated PSA level actually have prostate cancer (3).

* False-negative tests: False-negative test results (also called false negatives) occur when the PSA level is in the normal range even though prostate cancer is actually present. Most prostate cancers are slow-growing and may exist for decades before they are large enough to cause symptoms. Subsequent PSA tests may indicate a problem before the disease progresses significantly.

8. Why is the PSA test controversial in screening?

Using the PSA test to screen men for prostate cancer is controversial because it is not yet known for certain whether this test actually saves lives. Moreover, it is not clear that the benefits of PSA screening outweigh the risks of follow-up diagnostic tests and cancer treatments. For example, the PSA test may

detect small cancers that would never become life threatening. This situation, called overdiagnosis, puts men at risk of complications from unnecessary treatment.

The procedure used to diagnose prostate cancer (prostate biopsy) may cause harmful side effects, including bleeding and infection. Prostate cancer treatments, such as surgery and radiation therapy, may cause incontinence (inability to control urine flow), erectile dysfunction (erections inadequate for intercourse), and other complications. For these reasons, it is important that the benefits and risks of diagnostic procedures and treatment be taken into account when considering whether to undertake prostate cancer screening.

9. What research is being done to validate and improve the PSA test?

The benefits of screening for prostate cancer are still being studied. The National Cancer Institute (NCI), a component of the National Institutes of Health, is currently conducting the Prostate, Lung, Colorectal, and Ovarian Cancer Screening Trial, or PLCO trial, to determine whether certain screening tests can help reduce the number of deaths from these cancers. The PSA test and DRE are being evaluated to determine whether yearly screening to detect prostate cancer will decrease a man's chances of dying from this disease.

Initial results from the trial showed that annual PSA testing for 6 years and annual DRE testing for 4 years (performed in the same years as the first four PSA tests) did not reduce the number of deaths from prostate cancer through a median follow-up period of 11.5 years (range 7.2 to 14.8 years) (5). At 7 years of follow-up, a point in time when follow-up of the participants was essentially complete, 23 percent more cancers had been diagnosed in the screening group than in the control group. In the control group, men were randomly assigned to "usual care."

These results suggest that many men were diagnosed with, and treated for, cancers that would not have been detected in their lifetime without screening and, as a consequence, were exposed to the potential harms of unnecessary treatments, such as surgery and radiation therapy. Nevertheless, it remains possible that a small benefit from the earlier detection of these "excess" cancers could emerge with longer follow-up. Follow-up of the PLCO participants will continue, therefore, until all participants have been followed for at least 13 years.

In contrast, initial results from another large randomized, controlled trial of prostate cancer screening, called the European Randomized Study of Screening for Prostate Cancer (ERSPC), found a 20 percent reduction in prostate cancer deaths associated with PSA testing every 4 years (6). At the time the results were reported, the participants had been followed for a median of 9 years. The average number of PSA tests per participant in ERSPC was 2.1. Most participating centers in this study used a lower PSA cutoff value as an indicator of abnormality than was used in the PLCO trial (3.0 ng/mL versus 4.0 ng/mL). As in the PLCO trial, many more cancers were diagnosed in the screening group than in the control group. The ERSPC researchers estimated that 1,410 men would have to be screened and 48 additional cancers would have to be detected to prevent one death from prostate cancer (6).

Scientists are also researching ways to improve the PSA test, hopefully to allow cancerous and benign conditions, as well as slow-growing cancers and fast-growing, potentially lethal cancers, to be distinguished from one another. Some of the methods being studied include the following:

* PSA velocity: PSA velocity is the change in PSA level over time. A sharp rise in the PSA level raises the suspicion of cancer and may indicate a fast-growing cancer. A 2006 study found that men who had a PSA velocity above 0.35 ng/mL per year had a higher relative risk of dying from prostate cancer than men who had a PSA velocity less than 0.35 ng/mL per year (7). More studies are needed to determine if a high PSA velocity more accurately detects prostate cancer early.

* PSA density: PSA density considers the relationship between the level of PSA and the size of the prostate. In other words, an elevated PSA level might not arouse suspicion if a man has a very enlarged prostate. The use of PSA density to interpret PSA results is controversial because cancer might be overlooked in a man with an enlarged prostate.

* Free versus attached PSA: PSA circulates in the blood in two forms: Free or attached to a protein molecule. The free PSA test is more often used for men who have higher PSA values. Free PSA may help tell what kind of prostate problem a man has. With benign prostate conditions (such as BPH), there is more free PSA, while cancer produces more of the attached form. If a man's attached PSA level is high but his free PSA level is not, the presence of cancer is more likely. In this case, more testing, such as a prostate biopsy, may be done. Researchers are exploring additional ways of measuring PSA and comparing these measurements to determine whether cancer is present.

* Alteration of PSA cutoff level: Some researchers have suggested lowering the cutoff levels used to determine whether a PSA measurement is normal or elevated. For example, a number of studies have used cutoff levels of 2.5 or 3.0 ng/mL (rather than 4.0 ng/mL). In such studies, PSA measurements above 2.5 or 3.0 ng/mL are considered elevated. Researchers hope that using these lower cutoff levels will increase the chance of detecting prostate cancer; however, this method may also increase overdiagnosis and false-positive test results and lead to unnecessary medical procedures. (See ERSPC trial results above.)

10. What other methods are being studied to detect prostate cancer?

Researchers are investigating several other ways to detect prostate cancer that could be used alone or together with the PSA test and DRE. Some of these include the following:

* MicroRNA patterns: MicroRNAs are small, single-strand molecules of ribonucleic acid (RNA) that regulate important cellular functions. Researchers have found that the pattern of microRNAs in a cell can differ depending on the type of cell and between healthy cells and abnormal cells, such as cancer cells. Some research also suggests that the microRNA patterns in early-stage prostate cancer and late-stage prostate cancer may be different.

* Non-mutation gene alterations: The activity of a gene can be altered in ways that do not involve a change (mutation) to its DNA code. This can occur by modifying the gene's DNA through a process known as methylation or by modifying the proteins that bind to the gene and help control how it is configured in the chromosome on which it is located. These types of gene alterations are called epigenetic alterations. Research has already shown that certain genes become hypermethylated and inactivated during the development and progression of prostate cancer. Scientists hope to identify DNA methylation changes and protein modifications that will be able to identify prostate cancer early and help predict tumor behavior.

* Gene fusions: Sometimes genes on different chromosomes can come together inappropriately and fuse to form hybrid genes. These hybrid genes have been found in several types of cancer, including prostate cancer, and may play a role in cancer development. The gene fusions found in prostate cancer involve members of the ETS family of oncogenes, which are genes that cause cancer when mutated or expressed at higher than normal levels. Researchers are investigating whether diagnostic or prognostic tests based on gene fusions can be developed.

* PCA3: PCA3, also known as DD3, is a prostate-specific RNA that is reported to be expressed at high levels in prostate tumor cells. It does not appear to contain the genetic code for a protein. A urine test for this RNA, to be used in addition to current prostate cancer screening tests, has the potential to be useful and is under study.

* Differential detection of metabolites: Molecules produced by the body's metabolic processes, or metabolites, may be able to help distinguish between benign prostate tissue, localized prostate cancer, and metastatic prostate cancer. One such molecule, known as sarcosine, has been identified and may be associated with prostate cancer's invasiveness and aggressiveness. Ongoing research is investigating whether a test based on sarcosine can be developed.

* Proteo-imaging: Proteo-imaging is the ability to localize and follow changes at the molecular level, through imaging, of the protein distributions in specific tissues. Being able to see different patterns of protein expression in healthy prostate tissue versus abnormal prostate tissue may help classify early prostate changes that may one day lead to cancer.

* Protein patterns in the blood: Researchers are also studying patterns of proteins in the blood to see if they can identify one or more unique patterns that indicate the presence of prostate cancer and allow more aggressive cancers to be distinguished from less aggressive ones.

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Related NCI materials and Web pages:

* National Cancer Institute Fact Sheet 5.18, Tumor Markers

  (http://www.cancer.gov/cancertopics/factsheet/Detection/tumor-markers)

* National Cancer Institute Fact Sheet 5.23, Early Prostate Cancer

  (http://www.cancer.gov/cancertopics/factsheet/Detection/early-prostate)

* National Cancer Institute Fact Sheet 5.27, Interpreting Laboratory Test Results

  (http://www.cancer.gov/cancertopics/factsheet/Detection/laboratory-tests)

* Prostate Cancer Home Page

  (http://www.cancer.gov/cancertopics/types/prostate/)

* Prostate, Lung, Colorectal and Ovarian (PLCO) Cancer Screening Trial Web Page

  (http://dcp.cancer.gov/programs-resources/groups/ed/programs/plco)

* Understanding Prostate Changes: A Health Guide for Men

  (http://www.cancer.gov/cancertopics/understanding-prostate-changes)

* What You Need To Know About™ Prostate Cancer

  (http://www.cancer.gov/cancertopics/wyntk/prostate)

How can we help?

We offer comprehensive research-based information for patients and their families, health professionals, cancer researchers, advocates, and the public.

* Call NCI's Cancer Information Service 1–800–4–CANCER (1–800–422–6237)

* Visit us at http://www.cancer.gov or http://www.cancer.gov/espanol

* Chat using LiveHelp, NCI's instant messaging service, at http://www.cancer.gov/livehelp

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* Order publications at http://www.cancer.gov/publications or by calling 1–800–4–CANCER

THERMOGRAPHY screening for breast cancer

One in Eight Women Will Get Breast Cancer at Some Point in Their Life

Thermography is a non- invasive, 100-percent safe procedure that registers the infrared heat waves omitted from the breasts, and can be useful in the early detection of abnormal physiological patterns that can suggest breast cancer. Many physicians prefer to use thermography as an ongoing imaging procedure for early detection, as well as a way to assess their treatment protocol.

For younger women with dense breast tissue, mammography is much less accurate than later in life when breast density is reduced. Thermography can play a valuable role because a women can start thermographic screening in her 20's and 30's as a baseline which can then be compared with her results as she ages.

http://www.healthiertalk.com/screening-breast-cancer-mammography-versus-thermography-4698

Early Detection

The most promising aspect of thermography is its ability to spot anomalies years before mammography. Using the same data from the 10-year study, researchers H. Spitalier and D. Giruaud determined that thermography alone was the first alarm in 60 percent of the cases of women who were eventually diagnosed with cancer.[2] Dr. Getson adds:

Since thermal imaging detects changes at the cellular level, studies suggest that this test can detect activity 8 to 10 years before any other test. This makes it unique in that it affords us the opportunity to view changes before the actual formation of the tumor. Studies have shown that by the time a tumor has grown to sufficient size to be detectable by physical examination or mammography, it has in fact been growing for about seven years achieving more than 25 doublings of the malignant cell colony. At 90 days there are two cells, at one year there are 16 cells, and at five years there are 1,048,576 cells--an amount that is still undetectable by a mammogram.

http://www.huffingtonpost.com/christiane-northrup/the-best-breast-test-the-_b_752503.html

WHAT MAKES DIGITAL INFRARED IMAGING SO UNIQUE

While mammography, ultrasound, MRI, and other structural imaging tools rely primarily on finding the physical tumor, DII is based on detecting the heat produced by increased blood vessel

circulation and metabolic changes associated with a tumor's genesis and growth. By detecting minute variations in normal blood vessel activity, infrared imaging may find thermal signs suggesting a pre-cancerous state of the breast or the presence an early tumor that is not yet large enough to be detected by physical examination, mammography, or other types of structural imaging [3,6,7,8,9].

Certain types of cancers will not be detected (approximately 20%) by mammography for various reasons[10], but some of these cancers will be discovered by DII [3,6,7,8,9].

Difficulties in reading mammograms can occur in women who are on hormone replacement, nursing or have fibrocystic, large, dense, or enhanced breasts [6,8]. These types of breast differences do not cause difficulties in reading digital infrared scans.

DII AS A RISK MARKER FOR BREAST CANCER

Studies show that an abnormal infrared image is the single most important marker of high risk for developing breast cancer, 10 times more significant than a family history of the disease [5]. Consequently, in patients with a persistent abnormal thermogram, the examination results become a marker of higher future cancer risk [4,5]. Depending upon certain factors, re-examinations are performed at appropriate intervals to monitor the breasts. This gives a woman time to take a pro-active approach by working with her doctor to improve her breast health. By maintaining close monitoring of her breast health with infrared imaging, self breast exams, clinical examinations, mammography, and other tests, a woman has a much better chance of detecting cancer at its earliest stage and preventing invasive tumor growth.

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http://www.breastthermography.com/breast_thermography_mf.htm

Mammography

As of November 2009, routine mammograms are no longer recommended across the board for all women starting at the age of 40. Citing ineffectiveness and increased risk of harm in premenstrual women, the U.S. Preventive Services Task Force, a federal advisory board, changed their recommendation from annual to bi-annual mammography screenings, and raised the recommended starting age to 50. Since then, the use of mammography has begun to drop.

However, not everyone agrees with the Preventive Services task force recommendation, and a few organizations have banded together to condemn the revised guidelines. Last month, the American College of Obstetricians and Gynecologists (ACOG) issued their breast cancer screening guidelines, recommending:

- Mammography every 1-2 years for women aged 40-49 years
- Annual mammogram for women age 50 or older

Still, these squabbles aside, there are serious questions about whether mammography should be the preferred screening method at all. I personally do not recommend it. Dr. Virginia A. Moyer, chair of the Preventive Services task force, according to CNN,responded by saying:

"... the recommendation was based on a recognized modest benefit shown by studies in human subjects. Recommendations from other organizations are based on evidence of lower quality, and the task force is extremely strict about the level of evidence it can accept..."

Concerns about Lack of Safety and Effectiveness of Mammograms Continue

Time and again, studies published in prestigious medical journals have shown that mammography isn't all it's cracked up to be. The federal task force indicated that this was their impression as well; hence the shift in their recommendation in 2009. For example:

- Mammograms miss up to a third or more of all breast cancers, as reported by Medscape, depending on the composition of your breast tissue and the type of cancer.
- Mammography and its subsequent tests, such as MRIs and stereotactic biopsies, may actually cause cancer.
- False positives (a diagnosis of cancer when it turns out to be non-cancerous) are notorious in the industry, causing women needless anxiety, pain and, often, invasive and disfiguring surgical procedures. This is the MAJOR danger of mammography, as it radically increases the number of women who will be misdiagnosed and plugged into a system designed to cut, poison, and burn them

unnecessarily without addressing the underlying reasons of what caused the cancer.
- CAD computer software used as an aid to locate suspicious areas in mammograms has been shown to be ineffectual for improving breast cancer detection, and increases your risk of getting a "false positive" result.

The final insult to injury is the latest in a long row of blows against the cancer detection industry. In the featured study above, 1.6 million mammograms from 90 radiology facilities across the US were analyzed. It was determined that the use of computer assisted software, which should be helpful in the detection of breast cancer, was not helpful after all.

As reported by CNN:

"The detection rate for noninvasive breast abnormalities improved at radiology facilities that adopted CAD technology, but, crucially, the rate did not improve for invasive breast cancers, the dangerous type that invade healthy tissue in the breast or other parts of the body. Moreover, in facilities that began using CAD the percentage of women with abnormal mammograms who were accurately diagnosed (a measure known as "positive predictive value") dropped, from 4.3% to 3.6%. Rates of false-positives and "recalls" -- being called back for further testing -- increased slightly after facilities implemented CAD."

These results echo those from a study published in 2007, which also concluded that:

"The use of computer-aided detection is associated with reduced accuracy of interpretation of screening mammograms. The increased rate of biopsy with the use of computer-aided detection is not clearly associated with improved detection of invasive breast cancer."

Mammography Is a Source of Radiation-Induced Damage

Another recent study further fuels concerns about the use of mammography, especially in women predisposed to breast cancer, and strengthens the recommendation to avoid mammograms if you're under the age of 50. The study assessed the radiation-induced DNA damage in epithelial breast cells in women with high- and low risk of breast cancer. The results showed that women with a family history of cancer, placing them at high risk, were at significantly greater risk to suffer irreparable double-strand DNA breaks from mammography, and the effect was exacerbated with dose repetition.

The authors concluded that:

*"This study highlights the **existence of double-strand breaks induced by mammography** and revealed by γH2AX assay with two major radiobiological effects occurring: a low-dose effect, and a Low and Repeated Dose (LORD) effect. **All these effects were exacerbated in high-risk patients.**These findings may lead us to re-evaluate the number of views performed in screening using a single view (oblique) in women whose mammographic benefit has not properly been proved such as the 40-49 and high risk patients."*

This isn't the first time scientists have come to the conclusion that using mammography as a tool for early detection and "prevention" of lethal cancer may in fact, in many cases, do far more harm than good. Yet you don't see major warning about the risks in the media, nor do any mammography centers provide information on these risks, so the women are not given full disclosure, making it impossible for them to give any type of valid informed consent for this procedure.

According to the Cancer Prevention Coalition, radiation from routine mammography poses a *significant cumulative risk* (over time) of *causing* breast cancer. And according to the BreastCancerFund.org, lower-energy X-rays provided by mammography result in substantially greater damage to DNA than would be predicted, and suggests that risk of breast cancer caused by exposure to mammography radiation may be greatly underestimated.

Dr. Samuel Epstein, probably the leading scientist in the world who truly understands this issue, has been warning people for years about the dangers of mammography, explains:

"The premenopausal breast is highly sensitive to radiation, each 1 rad exposure increasing breast cancer risk by about 1 percent, with a cumulative 10 percent increased risk for each breast over a decade's screening..." "The high sensitivity of the breast, especially in young women, to radiation-induced cancer was known by 1970. Nevertheless, the establishment then screened some 300,000 women with X-ray dosages so high as to increase breast cancer risk by up to 20 percent in women aged 40 to 50 who were mammogramed annually."

Does Mammography Save Lives?

The reason why women are urged to get regular mammograms is to catch the cancer early enough to deliver life-saving treatment. But research shows that mammography fails at this mission as well... A recent article in the prestigious British Medical Journal compared breast mortality rates in a variety of different countries before and after the introduction of routine mammography screening, demonstrating that the screening has had virtually nothing to do with the reductions in breast cancer mortality.

The authors write:

"From 1989 to 2006, deaths from breast cancer decreased by 29% in Northern Ireland and by 26% in the Republic of Ireland; by 25% in the Netherlands and by 20% in Belgium and 25% in Flanders; and by 16% in Sweden and by 24% in Norway. The time trend and year of downward inflexion were similar between Northern Ireland and the Republic of Ireland and between the Netherlands and Flanders. In Sweden, mortality rates have steadily decreased since 1972, with no downward inflexion until 2006.

Countries of each pair had similar healthcare services and prevalence of risk factors for breast cancer mortality but differing implementation of mammography screening, with a gap of about 10-15 years.

***The contrast between the time differences in implementation of mammography screening and the similarity in reductions in mortality between the country pairs suggest that screening did not play a direct part in the reductions in breast cancer mortality**."*

This is quite noteworthy!

Rather than falling for claims that mammography is responsible for reduced breast cancer mortality, one should begin to look around for the *real* cause behind this across-the-board drop—because teasing out whatever *that* is, would be quite helpful—as opposed to pushing mammography, which has been shown to have little or no impact on mortality rates.

Unfortunately, the industry is extremely reluctant to accept this fact. As a perfect example, CNN recently reported Apparently they did not review the above results, which completely negate the claim that mammograms play a direct role in reducing mortality...on this very issue, stating that:

"While breast care experts acknowledge that mammography is imprecise and can lead to false positives, undue anxiety and overtreatment, they say it is the best tool they have for detecting breast cancer and that the benefits far outweigh any potential harms. Mammography has helped reduce breast cancer mortality in the United States by nearly one-third since 1990, according to the American College of Radiology."

The Profit-Driven Motives of Mammography Recommendations

In a previous article, published in the International Journal of Health Services in 2001, Dr. Samuel Epstein wrote:

"Mammography screening is a profit-driven technology posing risks compounded by unreliability… Mammography is not a technique for early diagnosis. In fact, a breast cancer has usually been present for about eight years before it can finally be detected. … In striking contrast, annual clinical breast examination (CBE) by a trained health professional, together with monthly breast self-examination (BSE), is safe, at least as effective, and low in cost."

According to a 2008 report by market analysts Medtech Insight, breast cancer screening is a $2.1 billion-a-year business, centered around mammography, magnetic resonance imaging (MRI), and ultrasound. Unfortunately, when something is this profitable, the concern and emphasis when evaluating safety and efficacy tends to center on loss of income rather than on what best serves the patient. When it comes to business decisions, it seems the patient's best interest nearly always is factored *out* of the equation, and this seems to be the case with mammography…

Mammography-Related Devices Approved Without Valid Scientific Evidence

You might be surprised to learn that many mammography-related devices have been approved without any scientific evidence to back up their safety and effectiveness. In a 2009 article posted on HealthCentral.com, Terry Matlen reported that nine FDA scientists had raised the red flag and shared their concerns in a letter to the then president-elect Obama, alleging that "'gross mishandling' by FDA managers was putting the country at risk," and asking for a restructuring of the agency.

Matlen writes:

"[T]he scientists cited a breakdown of the independent scientific review process at the FDA as far back as 1998, when Tom Daschle, Mr. Obama's choice to head the Department of Health and Human Services, wrote about the issue in his book, "Critical: What We Can Do About the Health-Care Crisis." In that book, Daschle described how mammography computer-aided detection devices were not appropriately approved, thus setting into motion a chronic breakdown of the FDA's system.

Daschle noted that these devices were not backed by clinical evidence showing they were effective in detecting breast cancer, thus causing undue biopsies for thousands and thousands of women. For the past three years, FDA scientists and physicians have recommended five times that these mammography devices not be approved without valid clinical, scientific evidence."

This seems to fly in the face of an industry that prides itself on adhering to science-based medicine, doesn't it?

Of course, many mammography proponents will argue that any drawbacks are "theoretical." But the bottom line is they're really just trying to protect *their* bottom lines by denying the truth as evidenced by the many studies indicating that mammography is both risky and ineffective. The price you pay for being misled is your health; perhaps even your life, if you're one of the women whose mammograms miss the cancer, or if you end up being one of those whose cancer might be the result of the procedure itself.

Take Control with Regular Self-Exams

Breast self-exams have long been recommended as a simple way for women to keep track of anything unusual in their breasts. However, after studies indicated that this too, in and of itself, does not reduce breast cancer mortality rates, many experts began recommending a more relaxed approach known as "breast awareness."

Breast awareness is really self-explanatory. It means you should regularly check your breasts for changes, but you can do so in a way that feels natural to you. In other words, you don't have to do it on the same day each month, or using any particular pattern. Instead, simply be aware of *what's normal for you* so you can recognize anything out of the ordinary.

Changes to keep an eye out for include:

A new lump or hard knot found in your breast or armpit	Change in the size, shape or symmetry of your breast	Redness or scaliness of the nipple or breast skin	Any suspicious changes in your breasts
Dimpling, puckering or indention in your breast or nipple	Swelling or thickening of the breast	Nipple discharge, especially any that is bloody, clear and sticky, dark or occurs without squeezing your nipple	Changes in your nipple such as tenderness, pain, turning or drawing inward, or pointing in a new direction

What Can You Do to Actually PREVENT Breast Cancer

While it is certainly helpful to identify cancers as soon as possible, even better would be to engage in lifestyle changes that would dramatically reduce or virtually eliminate your risk of developing breast cancer to begin with. This includes:

- **Optimize your vitamin D levels**. Vitamin D influences virtually every cell in your body and is one of nature's most potent cancer fighters. Vitamin D is actually able to enter cancer cells and trigger apoptosis (cell death). When JoEllen Welsh, a researcher with the State University of New York at Albany, injected a potent form of vitamin D into human breast cancer cells, half of them shriveled up and died within days. It was as effective as the toxic breast cancer drug Tamoxifen, without any of the detrimental side effects and at a tiny fraction of the cost.

  If you have cancer, your vitamin D level should be between 70 and 100 ng/ml. Vitamin D works synergistically with every cancer treatment I'm aware of, with no adverse effects.
- **Normalize your insulin levels.** A primary way to accomplish that is to avoid sugar, especially fructose, as well as grains (including organic ones). Aside from causing insulin resistance, all forms of sugar also promote cancer. Fructose, however, is clearly one of the most harmful and should be avoided as much as possible.

  Also make sure to exercise regularly, especially with Peak 8, as exercise is one of the best ways to optimize your insulin levels.
- **Get plenty of natural vitamin A**. There is evidence that vitamin A also plays a roll in helping prevent breast cancer. It's best to obtain it from vitamin A-rich foods, rather than a supplement. Your best sources are organic egg yolks, raw butter, raw whole milk, and beef or chicken liver.

Beware of using oral supplements as there's some evidence that vitamin A can negate the benefits of vitamin D. Since appropriate vitamin D levels are crucial for your health in general, not to mention cancer prevention, this means that it's essential to have *the proper ratio* of vitamin D to vitamin A in your body.

Ideally, you'll want to provide all the vitamin A and vitamin D substrate your body needs in such a way that your body can regulate both systems naturally. This is best done by eating colorful vegetables (for vitamin A) and by exposing your skin to safe amounts sunshine every day (for vitamin D).

- **Avoid exposure to xenoestrogens, such as phthalates and BPA**. These chemicals mimic natural estrogen, which is a breast cancer promoter.
- **Avoid charring your meats**. Charcoal or flame broiled meat is linked with increased breast cancer risk. acrylamide—a carcinogen created when starchy foods are baked, roasted or fried—has been found to increase breast cancer risk as well.
- **Avoid unfermented soy products**. Unfermented soy is high in plant estrogens, or phytoestrogens, also known as isoflavones. In some studies, soy appears to work in concert with human estrogen to increase breast cell proliferation, which increases the chances for mutations and cancerous cells.
- **Maintain a healthy body weight.** This will come naturally once you cut out sugar, fructose and grains, and start to exercise. It's important to lose excess body weight because fat produces estrogen.
- **Drink a quart of organic green vegetable juice daily.** Please review my juicing instructions for more detailed information
- **Get plenty of high quality animal-based omega-3 fats, such as krill oil.** Omega-3 deficiency is a common underlying factor for cancer.
- **Take curcumin.** This is the active ingredient in turmeric and in high concentrations can be very useful in the treatment of breast cancer. It shows immense therapeutic potential in preventing breast cancer metastasis. It's important to know that curcumin is generally not absorbed that well, so I've provided several absorption tips here.

Brest Cancer Prevention

Prevention versus Early Diagnosis

The primary causes of breast cancer: nutritional deficiencies, exposure to environmental toxicity, inflammation, estrogen dominance and the resultant breakdown in genetic integrity and immune surveillance, are entirely overlooked by this fixation on drug therapy and its would-be "magic bullets" and the completely dumbed down and pseudo-scientific concept that "genes cause disease." (See: DNA: Not The Final Word On Health).

Billions of dollars are raised and funneled towards drug research, when the lowly turmeric plant, the humble cabbage and the unassuming bowl of miso soup may offer far more promise in the prevention and treatment of breast cancer than all the toximolecular drugs on the market put together. (To view several dozen substances go to GreenMedinfo: Breast Cancer)

When it comes to the breast cancer industry's emphasis on equating "prevention" with "early detection" through x-ray mammography, nowhere is the inherently pathological ideology of allopathic medicine more clearly evident.

Not only is the ionizing radiation used to discern pathological lesions in breast tissue one of the very risk factors for the development of breast cancer, but the identification of the word "prevention" with "early detection," is a disingenuous way of saying that all we can do to prevent breast cancer is to detect its inevitable presence sooner than would be possible without this technology. (View our X-Ray Mammography page on our Anti-Therapeutic Actions database).

If women succumb to the idea of prevention as doing nothing but waiting for the detection of the disease, many will find a similarly deranged logic re-emerge later when the self-fulfilling prophecy of prevention-through-doing-nothing is fulfilled and "treatment" is now required. "Treatment," when not strictly surgical, involves the use of very powerful chemicals and high doses of ionizing radiation which "poison" the cancer cells.

The obvious problem with this approach is that the application of either form of death energy is not suitably selective, and in the long run, many women die sooner from the side effects of toximolecular "therapy" than from the cancer itself. Why is the obvious question never asked: if exposure to the genotoxic and immune system disabling effects of chemicals and radiation is causative in breast cancer, then why is blasting the body with more poisonous chemicals and radiation considered sound treatment?

The answer to this question has much more to do with ignorance than it does an intentional desire to do harm. But the results are the same: unnecessary pain, suffering and death.

Faced with a situation where medieval notions of prevention and treatment of breast cancer are the norm, it is no wonder that when polled over 40% of women believe they will contract breast cancer sometime in their life – well over three times their actual risk. After all, have any of them been given a sense that there is something they can do to actually prevent their disease other than "watchful waiting"?

Pink-Washing Away the Preventable Causes of Breast Cancer

Obfuscating the real preventative measures available to women to combat breast cancer, and all cancers for that matter, trusted "authoritative" sources like the Susan G. Komen Foundation publish irresponsible statements like this:

"It is unclear what the exact relationship is between eating fruits and vegetables and breast cancer risk…little, if any link was found between the two in a pooled analysis that combined data from eight large studies."

Have we really come to the point where the common sense consumption of fruits and vegetables in the prevention of disease can so matter-of-factly be called into question? Do we really need randomized, double-blind and placebo controlled clinical trials to prove beyond a shadow of a doubt that our bodies can benefit from the phytonutrients and antioxidants in fruits and vegetables in the prevention of cancer?

Another atrocious example of this conspiracy against identifying the obvious causes and cures for diseases like breast cancer is the National Breast Cancer Foundation's website. Go to the bottom of their homepage and type in "carcinogen" in their site wide search box. This is what will appear on the results page:

"Your search – carcinogen – did not match any documents. No pages were found containing "carcinogen".

On Susan G. Komen's website the term only emerges three times, and always in the context of minimizing the causative connection between smoking, high saturated fat consumption from meat and breast cancer. If you can remove the reality of carcinogenicity by erasing from the minds of would-be cancer sufferers the word carcinogen, and thereby conceal the link between environmental and dietary exposures of a multitude of toxins, then the obvious "cure" these massive organizations which are vacuuming in billions of dollars of donations every year to find, namely, the removal of carcinogens and detoxification of the system, will never be discovered.

Final Thoughts

Examples like these make it increasingly apparent that orthodox medicine, and the world view it represents, is approaching a theoretical end-time perhaps most accurately described as Pharmageddon. Within the horizon of this perspective vitamins are considered toxic, fruits and vegetables simply a source of caloric content (a poor one, at that), and cancer-causing drugs are understood as the only legitimate and, for that matter, legal, way to combat cancer. Are we really at the tipping point, or is there still hope?

Fortunately there are thousands of scientific studies extant today on the therapeutic value of foods, herbs and spices in breast health, many of which can be found on the government's own biomedical database known as MEDLINE. Decades of research have confirmed the veracity of the Hippocratic phrase: "Let food be thy medicine," and until a prescription is required to obtain and consume organic food, we can still draw from a vast cornucopia of natural substances whose safety and efficacy put the conventional pharmacopeia to shame.

Download Interview Transcript

Breast Cancer Prevention Month Initiated by GrassrootsHealth

GrassrootsHealth is changing the current Breast Cancer Awareness Month to *Breast Cancer Prevention Month* with a focus on taking action to *prevent* breast cancer with vitamin D testing and education.

"It's time to take action, women are already fully aware of breast cancer and its consequences," says Carole Baggerly, director of GrassrootsHealth. *"When you can project that fully 75 percent of breast cancer could be prevented with higher vitamin D serum levels, there is no justification for waiting to take preventive measures such as getting one's vitamin D level up to the recommended range of 40-60 ng/ml (100-150 nmol/L)."*

According to Dr. Cedric F. Garland of the Moores Cancer Center and the UCSD School of Medicine:

"This will potentially be the most important action ever conducted toward prevention of breast cancer. The more women who participate in this study, the greater the chance that we will defeat breast cancer within our lifetimes."

Women across the world are invited to enroll in a 5-year Breast Cancer Prevention Study initiated by GrassrootsHealth. To be eligible to enroll, you must be at least 60 years of age and have no current cancer. A free vitamin D home test kit will be provided for the first 1,000 women to enroll. The study aims to fully demonstrate health outcomes of vitamin D serum levels in the range of 40-60 ng/ml (100-150 nmol/L) and will examine the occurrence of breast cancer among a population of women 60 and over who achieve and maintain a targeted vitamin D serum level in the bloodstream. In addition to breast cancer prevention, short-term effects of vitamin D such as hypertension, falls, colds and flu will also be tracked. More information can be found at www.grassrootshealth.net.

Funding for this initial enrollment is provided by GrassrootsHealth founder, Carole Baggerly.

"*We are expecting to find like-minded individuals and organizations who will provide support to keep the full enrollment funded; our funding goal for the project is $300,000/year. We have been funded entirely by private individuals and organizations in the past. There is a large group of people who are ready for action to prevent breast cancer. We sincerely hope that those people will help by donating directly to this effort to demonstrate how we can do primary prevention, not just early detection."*

You can make a donation to this important project here.

References:

1. Official National Breast Cancer Awareness Month (NBCAM) Frequenlty Asked Questions
2. GreenMedInfo.com: X-Ray Mammography Studies

Additional Sources:

- GreenMedInfo.com: Natural Anti-Breast Cancer Agents
- GreenMedInfo.com: Natural Aromatase Inhibitors
- GreenMedInfo.com: Natural Anti-Breast Cancer Substances
- GreenMedInfo.com: High bone density is associated with profoundly elevated rates of breast cancer risk (330% increase).
- Dr. Mercola: Why Mammography is NOT an Effective Breast Cancer Screen
- Thermography: A Safer Option for Breast Cancer Detection

Source: Green Med Info October 5, 2011
Source: Grassroots Health October 2011
http://articles.mercola.com/sites/articles/archive/2011/10/21/seeing-red-over-pink-the-dark-side-of-breast-cancer-awareness-month.aspx

Protecting Against and Fighting Breast Cancer

The book: Waking the Warrior Goddess: Dr. Christine Horner's Program to Protect Against and Fight Breast Cancer, contains all-natural approaches for protecting against and treating breast cancer. Dr. Horner's book won the IPPY award in 2006 for "Best book in health medicine and nutrition."

"[W]e have the answers to the breast cancer epidemic," she says. *"We truly do– and it's very simple. If you have a terrible diet and lifestyle and you do just one thing, you cut your risk in half. You do more than one thing and they will multiply up together. They don't add up together. They multiply up together, so it becomes extremely easy to dramatically lower your risk of breast cancer."*

It's worth mentioning that the same strategies apply for other types of cancer as well. Prostate and colon cancer tumors, for example, are similar to breast cancer tumors, as certain hormones cause them all to grow. Hence, protective strategies that are effective against breast cancer also work on these other types of cancer. Cancer prevention strategies will also virtually eliminate most other chronic disorders.

The Problem with Conventional Cancer Screenings

While diagnostic screenings have their place, some cancer screens are just about worthless… The wisdom of using the PSA test, for example, which checks for prostate cancer, has recently been questioned. Ditto for mammograms.

"Looking at the diagnostic tests that are currently available, none of them are perfect," Dr. Horner says. *"Everything has its pros and cons… [M]ammography produces radiation, which*

has been shown to increase the risk of breast cancer. It's like, "Why are you doing the test to look at a disease when it's actually causing the disease, too?" … It does pick things up at earlier stages, but the problem is that it's not very specific. So when it looks and it sees something… that looks suspicious, it is wrong 80 percent of the time. In the United States, there's roughly a million breast biopsies done per year, and 800,000 of them are unnecessary."

One of the best cancer screening methods is self-examination. But you need to make sure you're doing it correctly. For more information about how to do a breast self exam, please see this previous article.

MRI's, which do not use ionizing radiation, are not a practical tool as they are very expensive, and, like mammograms, MRI scans are not very specific. Ultrasound is another technique used in Western medicine. The traditional ultrasound can see whether a mass is cystic or solid. But while a solid mass is generally considered to be something that might be of concern, this is not 100 percent certain either, as cancer tumors can sometimes have cysts in them.

"Now there's a relatively new ultrasound that uses a color mode," Dr. Horner says. *"It's called elastography. But there aren't very many centers in the United States that use it. I go to the Center of the Hoxsey Clinic, to Dr. Arturo Rodriguez at Tijuana. It has a color scale that measures the elasticity of the cell membranes. Cancer cells are very stiff, whereas normal cells have more fluidity to them. It'll show up as red if it has a lot of stiffness to it, as a cancer cell, or blue if it has elasticity… It's a very good tool."*

On Thermography

Another form of cancer screen, which is still considered controversial in conventional medicine, is thermography, which gives you an infrared image of your body. By looking at heat and blood vessel patterns you can determine whether there are areas of concern.

"[B]efore you even get a tumor formation, the very first thing that happens is new blood vessels start to grow into the area where the tumor may form. Those blood vessels grow abnormally. They grow an abnormal amount of patterns and they produce an abnormal amount of heat. That's what thermography is checking for," Dr. Horner explains.

As with most new technologies, thermography hit some snags in its earlier stages, and fell out of favor in the early 70s. However, the technology has gotten a lot more sophisticated over the years, and is now computerized; eliminating the need for highly trained technicians to evaluate the results.

"The problem we still have today with thermography is that we don't have standardization," Dr. Horner explains. *"We don't have a uniform way that people are tested and trained with uniform equipment, and so forth… But there's definitely a movement… to do standardization, and to get that technology available for women, because this is a technology that has no health detriments associated with it. It does not use radiation or anything harmful to your body."*

Unfortunately, the advocates of mammography perceive thermography as a threat to their business model. So there's tremendous pressure against it, including from the federal regulatory agencies.

"It's unfortunate," Dr. Horner says, *"but our country is run by big business. It's just is, so anytime we want to shift anything culturally like that, and we're going against established business, we have trouble because it's all about money."*

For example, many of the presidents of the American Cancer Society were members of the Radiological Association, which is the industry supporting the mammography component. The entire medical field is littered with massive conflicts of interest.

'We can see that everywhere. You look in the FDA—there are people from Monsanto that work in the FDA. Unfortunately, people think, "the United States is not very corrupt." But actually, it's extremely corrupt," she says.

Still, there are many good reasons for considering thermography. To ensure you're getting the highest standard of care, Dr. Horner recommends using a practitioner certified by the International Academy of Clinical Thermography, an independent non-profit organization that provides objective, third-party certifications. Their website lists qualified thermography centers across the US, Canada, and some other countries, such as France, Trinidad, and Zambia.

Most Natural Prevention Strategies Can Reduce Your Cancer Risk by Half...

Through her research, Dr. Horner has gathered a large number of cancer-prevention strategies—about 50 in all! Even more astounding is the rate of effectiveness of many of these strategies.

"[I]f you look at the studies, virtually every single thing that has an influence [causes] almost a 50 percent reduction in cancer risk… and if you combine them, like I said, you'll get these synergistic results where they'll multiply up as far as their effect is concerned.

I'd say the most important thing is what you do or do not put in your mouth… because you can have huge influences by the foods you consume– the spices, the herbs, and so forth. And, the things that you avoid, that's going to give you the biggest results. … Vitamin D cuts your risks in half. Turmeric and anti-inflammatories cut your risk in half. I could go through each thing—and I'm telling you the research shows that there's about 40 to 50 percent reduction [in risk]—so… to say that one is necessarily better than anything else, that's a really hard thing to claim."

The Top Four Cancer-Promoting Foods

Dr. Horner brings up an excellent point, and that is that in order to be effective, you must *first* STOP doing that which is promoting cancer growth (or poor health in general), and *then* all the other preventive strategies have the chance to really have an impact. Addressing your diet should

be at the top of your list, and rather than adding certain foods, you'll want to eliminate the most dangerous culprits first.

Naturally, processed foods and soft drinks do not belong in a cancer-preventive diet...

Dr. Horner, believes red meat from animals reared in confined animal feeding operations (CAFO's) is also a MAJOR contributor to cancer. These animals are given antibiotics, growth hormones and other veterinary drugs that get stored in their tissues. Additionally, cooking the meat over high heat creates heterocyclic amines, which further add to its carcinogenic effect.

While I do recommend eating meat, I agree that there is absolutely NO benefit to eating CAFO beef. The ONLY type of meat I recommend is organically-raised, grass-fed meats. It's hard for a lot of people to grasp the difference between CAFO and organic meat, but truly, they are like two different species in terms of their nutritional content. One is health harming while the other is beneficial.

So when we're talking about the detrimental impact of red meat on your health, especially in terms of feeding cancer, please understand that we're talking specifically about CAFO beef, aka "factory farmed" meat. Next on the list of cancer-promoters is sugar (this includes ALL forms of sugar, including fructose and grains).

"To me, sugar has no redeeming value at all, because they found that the more we consume it, the more we're fuelling every single chronic disease," Dr. Horner says. *"In fact, there was a study done about a year ago… and the conclusion was that sugar is a universal mechanism for chronic disease. It kicks up inflammation. It kicks up oxygen free radicals. Those are the two main processes we see that underlie any single chronic disorder, including cancers. It fuels the growth of breast cancers, because glucose is cancer's favorite food. The more you consume, the faster it grows."*

Next is the type of fats that you consume. It's important to remember that every cell membrane is made out of fat, as is your brain. According to Dr. Horner, bad-fats in the diet are a major contributor to ill health and cancer. On the list of fats to eliminate are:

- Animal fats from CAFO-raised animals
- Trans fats
- Partially hydrogenated or hydrogenated fats

Healthy fats of particular importance for cancer prevention are omega-3 and omega-9. According to Dr. Horner, omega-3 in particular serve to effectively slow down tumor growth in estrogen-sensitive cancers such as breast-, prostate- and colon cancers. Fourth on the list of cancer promoters is ANY item that contains xenoestrogens (chemicals that mimic estrogen). This can become a rather long list once you start including any food contaminated with such estrogen-mimicking chemicals, such as BPA, found in the linings of canned goods and in plastics. The list gets truly unwieldy when you include personal care products that contain such chemicals as well…

"There are case reports of five- and six-year-olds going through secondary sex characteristics because of the shampoo that they were using... There are all sorts of different sources where we're exposed to these chemicals from our foods and from the products that we use.

What we're seeing is younger and younger puberty. Around the world, the average age is about 16 years old. In the United States, it's 10 years old now, and sometimes even younger. The problem is that with each menstrual period there is a surge of estradiol, which is the strongest, most abundant form of estrogen, and the one that's most associated with breast cancer. If you start your period very young, you'll have more periods in your lifetime than what a person would have, obviously, if they started at an older age.

In addition to that, when a girl goes through puberty, her breast cells become really sensitive to environmental toxins, radiation, and so forth. They're considered immature. They haven't differentiated– as a more scientific term for it– so there's a longer period of time that they're exposed to these toxins where they have a greater sensitivity."

Dr. Horner reviews a number of other important factors that influence your cancer risk, so for more details, please listen to the interview in its entirety, or read through the transcript.

Eating for Cancer Prevention

According to Dr. Horner, the research clearly shows that the one food that is the most important for optimal health is *plant foods*.

"Plants are packed full of nutrients, vitamins, and minerals that are crucial for our health. They also have hundreds of phytochemicals in them. These don't have any nutritional or caloric value, but they are like natural medicines, and some of them behave exactly like chemotherapy," she says.

"Every plant has some anti-cancer properties to them. There are some that are standouts. Cruciferous vegetables are something that I really recommend. They're a family of vegetables that include broccoli, cauliflower, kale, collards, and Brussels sprouts…

All of them have several different chemicals in common. They've got indole-3-carbinol, Calcium D-glucarate, and sulforaphane. They have big anti-cancer properties to them, and they inhibit the growth of breast, prostate, colon cancer and a variety of other ones. Of all the families of vegetables to consume, [cruciferous vegetables] are the ones to be aware of, so you can make sure you're including that in your diet frequently."

Naturally, you'll want to make sure the vegetables are fresh, and ideally locally grown and organic. Besides cruciferous veggies, another standout plant for cancer-prevention is flax seed. The lignans in flax seed inhibit the growth of cancer in about a dozen different ways, including the exact same mechanism as the anti-cancer drug Tamoxifen and Arimidex, which shut down an enzyme in fat cells called aromatase that converts androgens into estrogens.

"I hear from patients, "Oh! My oncologist told me not to take flaxseeds, because they're estrogenic,"" Dr. Horner says."They don't understand how plant estrogens or "phytoestrogens" work.

There are all sorts of different strengths to estrogens. Let's say estradiol, which is the strongest, most abundant form– if it hooks on to the estrogen receptor, it may cause a thousand cell divisions. But if a plant estrogen hooks on, it may cause one. When you flood your system with these plant estrogens, I'd say it's kind of like a game of musical chairs. There are only certain numbers of receptors, and whoever gets their first, gets it. They're blocking the strong estrogens from getting on, so that's why it has an inhibitory effect."

Other Lifestyle Factors that Influence Your Cancer Risk

Other lifestyle factors that have been found to have an impact on chronic disease and cancer include:

- **Vitamin D**—There's overwhelming evidence pointing to the fact that vitamin D deficiency plays a crucial role in cancer development. As mentioned earlier, you can decrease your risk of cancer by MORE THAN HALF simply by optimizing your vitamin D levels with sun exposure. And if you are being treated for cancer it is likely that higher blood levels—probably around 80-90 ng/ml—would be beneficial. The health benefits of optimizing your levels, either by safe sun exposure (ideally), a safe tanning bed, or oral supplementation as a last resort, simply cannot be overstated. In terms of protecting against cancer, vitamin D has been found to offer protection in a number of ways, including:

  - Regulating genetic expression
  - Increasing the self-destruction of mutated cells (which, if allowed to replicate, could lead to cancer)
  - Reducing the spread and reproduction of cancer cells
  - Causing cells to become differentiated (cancer cells often lack differentiation)
  - Reducing the growth of new blood vessels from pre-existing ones, which is a step in the transition of dormant tumors turning cancerous

  To learn the details on how to use vitamin D therapeutically, please review my previous article, Test Values and Treatment for Vitamin D Deficiency.

- **Getting proper sleep**: both in terms of getting *enough* sleep, and sleeping between certain hours. According to Ayurvedic medicine, the ideal hours for sleep are between 10 pm and 6 am. Modern research has confirmed the value of this recommendation as certain hormonal fluctuations occur throughout the day and night, and if you engage in the appropriate activities during those times, you're 'riding the wave' so to speak, and are able to get the optimal levels. Working against your biology by staying awake when you should ideally be sleeping or vice versa, interferes with these hormonal fluctuations. According to Dr. Horner:

"If we, for instance, go to bed by 10, we have higher levels of our sleep hormone melatonin; there's a spike that occurs between midnight and 1am, which you don't want to miss because the consequences are absolutely spectacular. Melatonin is not only our sleep hormone, but it also is a very powerful antioxidant. It decreases the amount of estrogen our body produces. It also boosts your immune system… And it interacts with the other hormones.

So, if you go to bed after 10… it significantly increases your risk of breast cancer."

- **Effectively addressing your stress**: The research shows that if you experience a traumatic or highly stressful event, such as a death in the family, your risk of breast cancer is 12 times higher in the ensuing five years.
- **Exercise**—If you are like most people, when you think of reducing your risk of cancer, exercise doesn't immediately come to mind. However, there is some fairly compelling evidence that exercise can slash your risk of cancer.

  One of the primary ways exercise lowers your risk for cancer is by reducing elevated insulin levels, which creates a low sugar environment that discourages the growth and spread of cancer cells. Additionally, exercise improves the circulation of immune cells in your blood. Your immune system is your first line of defense against everything from minor illnesses like a cold right up to devastating, life-threatening diseases like cancer.

  The trick about exercise, though, is understanding how to use it as a precise tool. This ensures you are getting enough to achieve the benefit, not too much to cause injury, and the right variety to balance your entire physical structure and maintain strength and flexibility, and aerobic and anaerobic fitness levels. This is why it is helpful to view exercise like a drug that needs to be carefully prescribed to achieve its maximum benefit. For detailed instructions, please see this previous article.

  Additionally it is likely that integrating exercise with intermittent fasting will greatly catalyze the potential of exercise to reduce your risk of cancer and stimulate widespread healing and rejuvenation.

More Information

For more information, please see Dr. Horner's book, Waking the Warrior Goddess: Dr. Christine Horner's Program to Protect Against and Fight Breast Cancer. You can also learn more about Dr. Horner on her website, www.DrChristineHorner.com.

Colon and Rectal Cancer Diagnosis

Tests that examine the colon and rectum are used to detect (find) and diagnose colon cancer.

http://www.cancer.gov/cancertopics/pdq/treatment/colon/Patient/page1

The following tests and procedures may be used:

- Physical exam and history: An exam of the body to check general signs of health, including checking for signs of disease, such as lumps or anything else that seems unusual. A history of the patient's health habits and past illnesses and treatments will also be taken.
- Digital rectal exam: An exam of the rectum. The doctor or nurse inserts a lubricated, gloved finger into the rectum to feel for lumps or anything else that seems unusual.
- Fecal occult blood test: A test to check stool (solid waste) for blood that can only be seen with a microscope. Small samples of stool are placed on special cards and returned to the doctor or laboratory for testing.

- Barium enema: A series of x-rays of the lower gastrointestinal tract. A liquid that contains barium (a silver-white metallic compound) is put into the rectum. The barium coats the lower gastrointestinal tract and x-rays are taken. This procedure is also called a lower GI series.

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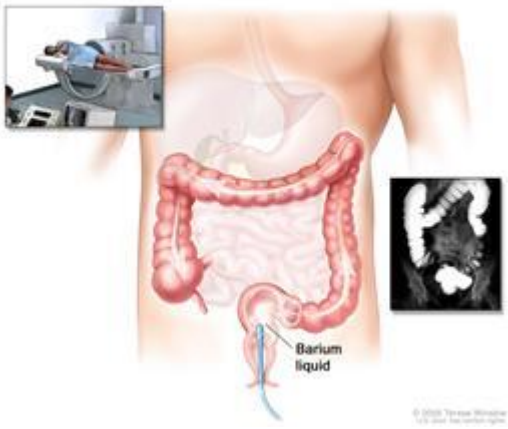

Barium enema procedure. The patient lies on an x-ray table. Barium liquid is put into the rectum and flows through the colon. X-rays are taken to look for abnormal areas.

- Sigmoidoscopy: A procedure to look inside the rectum and sigmoid (lower) colon for polyps (small pieces of bulging tissue), abnormal areas, or cancer. A sigmoidoscope is inserted through the rectum into the sigmoid colon. A sigmoidoscope is a thin, tube-like instrument with a light and a lens for viewing. It may also have a tool to remove polyps or tissue samples, which are checked under a microscope for signs of cancer.

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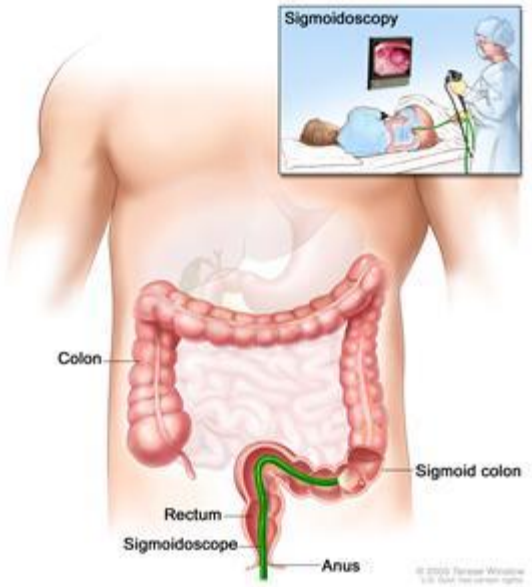

Sigmoidoscopy. A thin, lighted tube is inserted through the anus and rectum and into the lower part of the colon to look for abnormal areas.

- Colonoscopy: A procedure to look inside the rectum and colon for polyps, abnormal areas, or cancer. A colonoscope is inserted through the rectum into the colon. A colonoscope is a thin, tube-like instrument with a light and a lens for viewing. It may also have a tool to remove polyps or tissue samples, which are checked under a microscope for signs of cancer.

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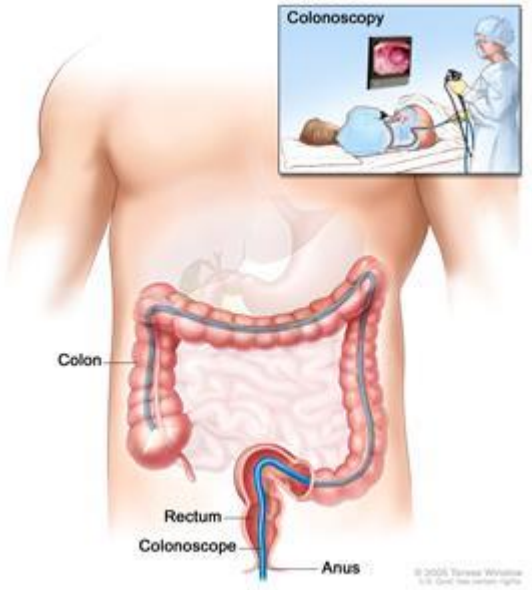


Colonoscopy. A thin, lighted tube is inserted through the anus and rectum and into the colon to look for abnormal areas.

- Biopsy: The removal of cells or tissues so they can be viewed under a microscope by a pathologist to check for signs of cancer.
- Virtual colonoscopy: A procedure that uses a series of x-rays called computed tomography to make a series of pictures of the colon. A computer puts the pictures together to create detailed images that may show polyps and anything else that seems unusual on the inside surface of the colon. This test is also called colonography or CT colonography.

http://www.cancer.gov/cancertopics/pdq/treatment/colon/Patient/page1

Ovarian Cancer Diagnosis

Signs and symptoms of ovarian cancer

Ovarian cancer may cause several signs and symptoms. Women are more likely to have symptoms if the disease has spread beyond the ovaries, but even early stage ovarian cancer can cause them. The most common symptoms include:

- Bloating
- Pelvic or abdominal pain
- Trouble eating or feeling full quickly
- Urinary symptoms such as urgency (always feeling like you have to go) or frequency (having to go often)

These symptoms are also commonly caused by benign (non-cancerous) diseases and by cancers of other organs. When they are caused by ovarian cancer, they tend to be *persistent* and represent a *change from normal* -- for example, they occur more often or are more severe. If a woman has these symptoms almost daily for more than a few weeks, she should see her doctor, preferably a gynecologist.

Others symptoms of ovarian cancer can include:

- Fatigue
- Upset stomach
- Back pain
- Pain during sex
- Constipation
- Menstrual changes

However, these symptoms are more likely to be caused by other conditions, and they occur just about as often in women who don't have ovarian cancer.

If there is reason to suspect you may have ovarian cancer, your doctor will use one or more tests or procedures to be absolutely certain that the disease is present and to determine the stage of the cancer.

Consultation with a specialist

If your pelvic exam or other tests suggest that you may have ovarian cancer, you will need a doctor or surgeon who specializes in treating women with this type of cancer. A *gynecologic oncologist* is an obstetrician/gynecologist who is specially trained in treating cancers of the female reproductive system. Treatment by a gynecologic oncologist has been shown to help patients with ovarian cancer live longer. Anyone suspected of having ovarian cancer should see this type of specialist prior to surgery.

Imaging studies

Imaging methods like computed tomography (CT) scans, magnetic resonance imaging (MRI) scans, and ultrasound studies can confirm whether a pelvic mass is present. These studies cannot confirm that the mass is a cancer, but they are useful if your doctor is looking for spread of ovarian cancer to other tissues and organs.

Ultrasound

Ultrasound (ultrasonography) is the use of sound waves to create an image on a video screen. Sound waves are released from a small probe placed in the woman's vagina or on the surface of her abdomen. The sound waves create echoes as they enter the ovaries and other organs. The same probe detects the echoes that bounce back, and a computer translates the pattern of echoes into a picture. Because ovarian tumors and normal ovarian tissue often reflect sound waves differently, this test may be used to find tumors and determine whether a mass is solid or a fluid-filled cyst.

Computed tomography

The CT scan is an x-ray procedure that produces detailed cross-sectional images of your body. Instead of taking one picture, like a conventional x-ray, a CT scanner takes many pictures as it rotates around you. A computer then combines these pictures into an image of a slice of your body. The machine will take pictures of multiple slices of the part of your body that is being studied.

This test can help tell if the cancer has spread into your liver or other organs. CT scans are useful in showing how large the tumor is, what other organs it may be invading, whether lymph nodes are enlarged and if your kidneys or bladder are affected.

You may be asked to drink 1 to 2 pints of a liquid before the CT scan called "oral contrast." This helps outline the intestine so that certain areas are not mistaken for tumors. You may also receive

an IV (intravenous) line through which a different kind of contrast dye is injected. This helps better outline structures in your body.

The injection can cause some flushing (redness and warm feeling that may last hours to days). A few people are allergic to the dye and get hives. Rarely, more serious reactions like trouble breathing and low blood pressure can occur. Medicine can be given to prevent and treat allergic reactions. Be sure to tell the doctor if you have ever had a reaction to any contrast material used for x-rays.

CT scans are not usually used to biopsy (see biopsy in the section "Other tests") an ovarian tumor, but they can be used to biopsy a suspected metastasis. For this procedure, called a CT-guided needle biopsy, the patient stays on the CT scanning table, while a radiologist moves a biopsy needle toward the location of the mass. CT scans are repeated until the doctors are confident that the needle is within the mass. A fine needle biopsy sample (tiny fragment of tissue) or a core needle biopsy sample (a thin cylinder of tissue about ½ inch long and less than 1/8 inch in diameter) is removed and examined under a microscope.

CT scans take longer than regular x-rays and you need to lie still on a table while they are being done. But just like other computerized devices, they are getting faster and the most modern ones take only seconds.

Barium enema x-ray

This is a test to see whether the cancer has invaded the colon (large intestine) or rectum (it is also used to look for colorectal cancer). After taking laxatives the day before, the radiology technician puts barium sulfate, a chalky substance, into the rectum and colon. Because barium is impermeable to x-rays (impossible for x-rays to go through), it outlines the colon and rectum on x-rays of the abdomen. This test is rarely used now in women with ovarian cancer. Colonoscopy may be done instead.

Magnetic resonance imaging

MRI scans use radio waves and strong magnets instead of x-rays. The energy from the radio waves is absorbed and then released in a pattern formed by the type of tissue and by certain diseases. A computer translates the pattern of radio waves given off by the tissues into a very detailed image of parts of the body. Not only does this produce cross sectional slices of the body like a CT scanner, it can also produce slices that are parallel with the length of the body. A contrast material might be injected into a vein (same as with a CT scan). MRI scans are not used often to look for ovarian cancer.

MRI scans are particularly helpful to examine the brain and spinal cord. MRI scans take longer than CT scans, -- often up to 30 minutes or more. Also, you have to be placed inside a tube, which is confining and can upset people with claustrophobia (fear of enclosed spaces). The machine also makes a thumping noise that you may find disturbing. Some places will provide headphones with music to block the sound.

Chest x-ray

This procedure may be done to determine whether ovarian cancer has spread (metastasized) to the lungs. This spread may cause one or more tumors in the lungs and often causes fluid to collect around the lungs. This fluid, called a pleural effusion, can be seen with chest x-rays.

Positron emission tomography (PET scan)

In this test, radioactive glucose (sugar) is given to look for the cancer. Because cancers use glucose (sugar) at a higher rate than normal tissues, the radioactivity will tend to concentrate in the cancer. A scanner can spot the radioactive deposits. This test has can be helpful for spotting small collections of cancer cells. In some instances this test has proved useful in finding ovarian cancer that has spread. It is even more valuable when combined with a CT scan (PET/CT scan). PET scans can help find cancer when it has spread, but they are expensive and not all insurance companies will cover the cost when they are used to look for ovarian cancer.

Other tests

Laparoscopy

This procedure uses a thin, lighted tube through which a doctor can look at the ovaries and other pelvic organs and tissues in the area around the bile duct. The tube is inserted through a small incision (cut) in the lower abdomen and sends the images of the pelvis or abdomen to a video monitor. Laparoscopy provides a view of organs that can help plan surgery or other treatments and can help doctors confirm the stage (how far the tumor has spread) of the cancer. Also, doctors can manipulate small instruments through the laparascopic incision(s) to perform biopsies.

Colonoscopy

A colonoscopy is a way to examine the inside of the large intestine (colon). After the large intestine has been cleaned with laxatives, the doctor inserts a fiberoptic tube into the rectum and passes it through the entire colon. The images are sent to a video monitor. This allows the doctor to see the inside and detect any abnormalities. Colonoscopy can be uncomfortable, so the patient is sedated before the procedure. This test is more commonly used to look for colorectal cancer.

Biopsy

The only way to determine for certain if a growth is cancer is to remove a sample of the growth from the suspicious area and examine it under a microscope. This procedure is called a *biopsy*. For ovarian cancer, the biopsy is most commonly done by removing the tumor at surgery. It can also be done during a laparoscopy procedure or with a needle placed directly into the tumor through the skin of the abdomen. Usually the needle will be guided by either ultrasound or CT

scan. A needle biopsy is sometimes used instead of surgery if the patient cannot have surgery because of advanced cancer or some other serious medical condition.

In patients with ascites (collection of fluid inside the abdomen), samples of fluid can also be used to diagnose the cancer. In this procedure, called *paracentesis*, the skin of the abdomen is numbed and a needle attached to a syringe is passed through the abdomen wall into the fluid in the abdominal cavity. The fluid is sucked up into the syringe and then sent for analysis.

In all these procedures, the tissue obtained is sent to the pathology laboratory. There it is examined under the microscope by a *pathologist*, a doctor who specializes in diagnosing and classifying diseases by examining cells under a microscope and using other lab tests.

Blood tests

Your doctor will order blood counts to make sure you have enough red blood cells, white blood cells and platelets (cells that help stop bleeding). There will also be tests to measure your kidney and liver function as well as your general health status. Finally the doctor will order a CA-125 test. If the test result is elevated, consultation with a gynecologic oncologist is recommended.

Some germ cell cancers can cause elevated blood levels of the tumor markers human chorionic gonadotropin (HCG), alpha-fetoprotein (AFP), and/or lactate dehydrogenase (LDH). These may be checked if your doctor suspects that your ovarian tumor could be a germ cell tumor.

Some ovarian stromal tumors (like granulosa cell tumors) cause the blood levels of a substance called inhibin to go up. This level may be checked if your doctor suspects that you have this type of tumor.

Last Medical Review: 10/13/2010
Last Revised: 07/18/2011

http://www.cancer.org/Cancer/OvarianCancer/DetailedGuide/ovarian-cancer-diagnosis

Skin Cancer Detection

Skin cancer is the most common form of human cancer. It is estimated that over 1 million new cases occur annually. The annual rates of all forms of skin cancer are increasing each year, representing a growing public concern. It has also been estimated that nearly half of all Americans who live to age 65 will develop skin cancer at least once.

The most common warning sign of skin cancer is a change in the appearance of the skin, such as a new growth or a sore that will not heal.

The term "skin cancer" refers to three different conditions. From the least to the most dangerous, they are:

- basal cell carcinoma (or basal cell carcinoma epithelioma)
- squamous cell carcinoma (the first stage of which is called actinic keratosis)
- melanoma

The two most common forms of skin cancer are basal cell carcinoma and squamous cell carcinoma. Together, these two are also referred to as nonmelanoma skin cancer. Melanoma is generally the most serious form of skin cancer because it tends to spread (metastasize) throughout the body quickly. Skin cancer is also known as skin neoplasia.

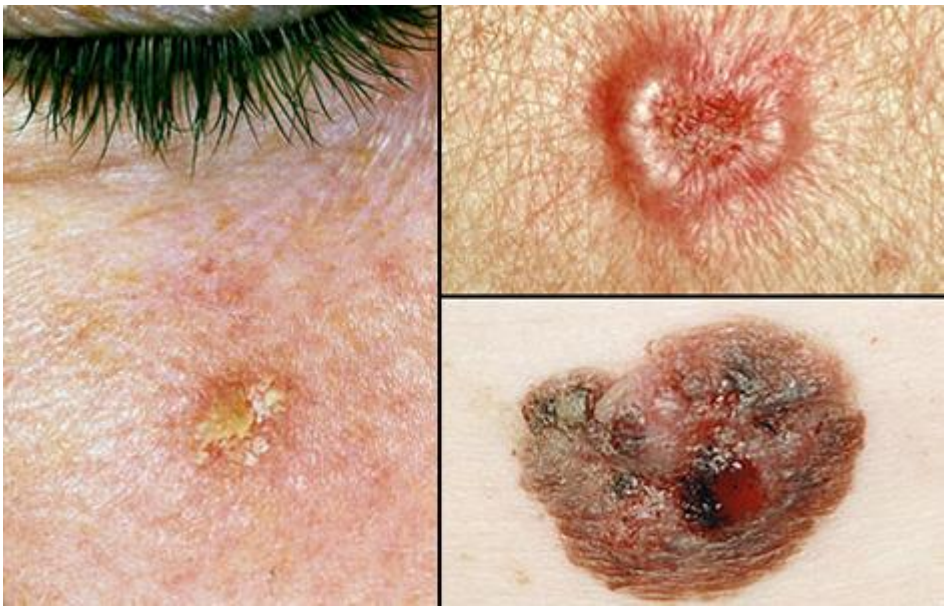
This article will discuss the two kinds of nonmelanoma skin cancer.

Basal cell carcinoma

What is basal cell carcinoma?

Basal cell carcinoma is the most common form of skin cancer and accounts for more than 90% of all skin cancer in the U.S. These cancers almost never spread (metastasize) to other parts of the body. They can, however, cause damage by growing and invading surrounding tissue.

Skin Cancer

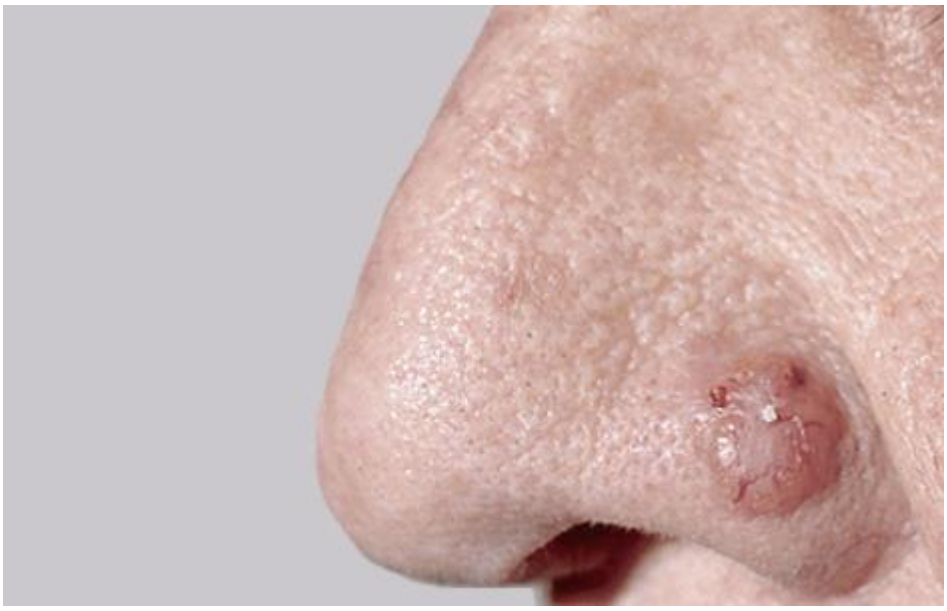


What are risk factors for developing basal cell carcinoma?

Light-colored skin, sun exposure, and age are all important factors in the development of basal cell carcinomas. People who have fair skin and are older have higher rates of basal cell carcinoma. About 20% of these skin cancers, however, occur in areas that are not sun-exposed, such as the chest, back, arms, legs, and scalp. The face, however, remains the most common location for basal cell lesions. Weakening of the immune system, whether by disease or medication, can also promote the risk of developing basal cell carcinoma. Other risk factors include

- **exposure to sun**. There is evidence that, in contrast to squamous cell carcinoma, basal cell carcinoma is promoted not by accumulated sun exposure but by intermittent sun exposure like that received during vacations, especially early in life. According to the U.S. National Institutes of Health, ultraviolet (UV) radiation from the sun is the main cause of skin cancer. The risk of developing skin cancer is also affected by where a person lives. People who live in areas that receive high levels of UV radiation from the sun are more likely to develop skin cancer. In the United States, for example, skin cancer is more common in Texas than it is in Minnesota, where the sun is not as strong. Worldwide, the highest rates of skin cancer are found in South Africa and Australia, which are areas that receive high amounts of UV radiation.
- **age**. Most skin cancers appear after age 50, but the sun's damaging effects begin at an early age. Therefore, protection should start in childhood in order to prevent skin cancer later in life.
- **exposure to ultraviolet radiation** in tanning booths. Tanning booths are very popular, especially among adolescents, and they even let people who live in cold climates radiate their skin year-round.
- **therapeutic radiation**, such as that given for treating other forms of cancer.

Basal Cell Carcinoma



What does basal cell carcinoma look like?

A basal cell carcinoma usually begins as a small, dome-shaped bump and is often covered by small, superficial blood vessels called telangiectases. The texture of such a spot is often shiny and translucent, sometimes referred to as "pearly." It is often hard to tell a basal cell carcinoma from a benign growth like a flesh-colored mole without performing a biopsy. Some basal cell carcinomas contain melanin pigment, making them look dark rather than shiny.

Superficial basal cell carcinomas often appear on the chest or back and look more like patches of raw, dry skin. They grow slowly over the course of months or years.

Basal cell carcinomas grow slowly, taking months or even years to become sizable. Although spread to other parts of the body (metastasis) is very rare, a basal cell carcinoma can damage and disfigure the eye, ear, or nose if it grows nearby.

How is basal cell carcinoma diagnosed?

To make a proper diagnosis, doctors usually remove all or part of the growth by performing a biopsy. This usually involves taking a sample by injecting a local anesthesia and scraping a small piece of skin. This method is referred to as a shave biopsy. The skin that is removed is then examined under a microscope to check for cancer cells.

How is basal cell carcinoma treated?

There are many ways to successfully treat a basal cell carcinoma with a good chance of success of 90% or more. The doctor's main goal is to remove or destroy the cancer completely with as small a scar as possible. To plan the best treatment for each patient, the doctor considers the location and size of the cancer, the risk of scarring, and the person's age, general health, and medical history.

Methods used to treat basal cell carcinomas include:

- **Curettage and desiccation**: Dermatologists often prefer this method, which consists of scooping out the basal cell carcinoma by using a spoon like instrument called a curette. Desiccation is the additional application of an electric current to control bleeding and kill the remaining cancer cells. The skin heals without stitching. This technique is best suited for small cancers in non-crucial areas such as the trunk and extremities.
- **Surgical excision**: The tumor is cut out and stitched up.
- **Radiation therapy**: Doctors often use radiation treatments for skin cancer occurring in areas that are difficult to treat with surgery. Obtaining a good cosmetic result generally involves many treatment sessions, perhaps 25 to 30.
- **Cryosurgery**: Some doctors trained in this technique achieve good results by freezing basal cell carcinomas. Typically, liquid nitrogen is applied to the growth to freeze and kill the abnormal cells.
- **Mohs micrographic surgery**: Named for its pioneer, Dr. Frederic Mohs, this technique of removing skin cancer is better termed "microscopically controlled excision." The surgeon meticulously removes a small piece of the tumor and examines it under the microscope during surgery. This sequence of cutting and microscopic examination is repeated in a painstaking fashion so that the basal cell carcinoma can be mapped and taken out without having to

estimate or guess the width and depth of the lesion. This method removes as little of the healthy normal tissue as possible. Cure rate is very high, exceeding 98%. Mohs micrographic surgery is preferred for large basal cell carcinomas, those that recur after previous treatment, or lesions affecting parts of the body where experience shows that recurrence is common after treatment by other methods. Such body parts include the scalp, forehead, ears, and the corners of the nose. In cases where large amounts of tissue need to be removed, the Mohs surgeon sometimes works with a plastic (reconstructive) surgeon to achieve the best possible postsurgical appearance.

- **Medical therapy using creams** that attack cancer cells (5-Fluorouracil--5-FU, Efudex, Fluoroplex) or stimulate the immune system (imiquimod [Aldara]). These are applied several times a week for several weeks. They produce brisk inflammation and irritation. The advantages of this method is that it avoids surgery, lets the patient perform treatment at home, and may give a better cosmetic result. Disadvantages include discomfort, which may be severe, and a lower cure rate, which makes medical treatment unsuitable for treating most skin cancers on the face.

How is basal cell carcinoma prevented?

Avoiding sun exposure in susceptible individuals is the best way to lower the risk for all types of skin cancer. Regular surveillance of susceptible individuals, both by self-examination and regular physical examination, is also a good idea for people at higher risk. People who have already had any form of skin cancer should have regular medical checkups.

Common sense preventive techniques include

- limiting recreational sun exposure;
- avoiding unprotected exposure to the sun during peak radiation times (the hours surrounding noon);
- wearing broad-brimmed hats and tightly-woven protective clothing while outdoors in the sun;
- regularly using a waterproof or water resistant sunscreen with UVA protection and SPF 30 or higher;
- undergoing regular checkups and bringing any suspicious-looking or changing lesions to the attention of the doctor; and
- avoiding the use of tanning beds and using a sunscreen with an SPF of 30 and protection against UVA (long waves of ultraviolet light.). Many people go out of their way to get an artificial tan before they leave for a sunny vacation, because they want to get a "base coat" to prevent sun damage. Even those who are capable of getting a tan, however, only get protection to the level of SPF 6, whereas the desired level is an SPF of 30. Those who only freckle get little or no protection at all from attempting to tan; they just increase sun damage. Sunscreen must be applied liberally and reapplied every two to three hours, especially after swimming or physical activity that promotes perspiration, which can weaken even sunscreens labeled as "waterproof."

Next: Squamous cell carcinoma

http://www.medicinenet.com/skin_cancer/article.htm

Today's Alternative Cancer Treatments and Ongoing Research

Alternative cancer treatment researchers today deal with very advanced cancer patients and know they need to develop alternative cancer treatments which start working very quickly and are very powerful against cancer.

As an example of one of their tactics, suppose a person is sent home to die by orthodox medicine and is given "3 months" to live. Let us assume the estimate is correct.

Suppose an alternative cancer treatment can extend this "3 months" into "6 months" by using a natural substance that quickly supercharges the energy in the non-cancerous cells and may safely kill many cancer cells. This is called a treatment that "buys time."

Cancer treatments that "buy time" are very important to a cancer treatment because they give other cancer treatments more time to save the patient! Frequently the treatments that "buy time" can actually cure the patient!! See the article linked to on the left side bar: "The Best Cancer Treatment" to see what "buying time" means.

Thus, an expert in alternative cancer treatments might give a cancer patient one fast-working treatment to "buy time" and other treatments (which may not start working as fast, but are overall much more effective) to cure the cancer!! In addition, there will be synergy in using both treatments.

In some protocols, such as cesium chloride and the Cellect-Budwig, the main treatment starts working very quickly, thus there is no need to add a protocol to "buy time."

As another tactic, one of the treatments in a complete protocol may help build the immune system which is necessary for a long-term cure. The Bill Henderson Protocol is a good example of this tactic, though most alternative cancer treatments have one or more immune builders in the protocol.

The best alternative cancer treatments actually consist of several protocols which do different things.

Today, the top alternative cancer treatments have names like:
Cellect-Budwig,
GB-4000 with M.O.P.A. (very gentle electromedicine),
Hyperthermia with low-dose chemotherapy (used in German and some Mexican

alternative cancer clinics),
Limu Juice with high levels of fucoidan,
Cesium Chloride (the oldest of the home protocols and it is used in some clinics),
Bill Henderson Protocol (the least-expensive of the highly potent protocols),
Ultimate Simple Protocol, (a combination of "buying time," and an electromedicine protocol, etc.)
Plasma-Beck, (ditto except with two electromedicine protocols)
Rife-Beck, (ditto except that one electromedicine device is used in two different ways)
Bob Beck Protocol (which also cures AIDS, hepatitis, etc. - is a very gentle "electromedicine" protocol),
UVBI (Ultraviolet Blood Irradiation, a clinic treatment),
LifeOne Protocol,
and so on!!

A word of warning is in order about cure rates. Many highly effective cancer treatments date back to before the general use of chemotherapy.

You absolutely cannot compare the cure rate of a protocol which was in use before the general use of chemotherapy to the cure rate of a protocol today. The longer a person is on chemotherapy and radiation, and the more surgery they have had; the harder it is to cure them.

Even today a treatment that can yield a 90% or 100% cure rate for cancer patients who have never had chemotherapy might only yield a 35% to 50% cure rate for someone who has taken the full ride on the chemo express.

But it gets worse. Medical doctors are keeping cancer patients on chemotherapy longer and longer. About 20% of all cancer patients are still taking chemotherapy when they die. Thus, even though alternative medicine researchers are developing better and better alternative cancer treatments, their cure rates have not risen. We are treading water as fast as we can.

We have seen cancer patients die who did not have a single cancer cell in their body!! They died from the long term effects of chemotherapy, radiation and/or surgery after they were cured. http://cancertutor.com/

The Experts in Alternative Cancer Treatments

Many of the alternative cancer treatments, for home use, have expert telephone support available for free or for a very modest fee (usually around $200 total)!! This is critical to understand because the average person would have no clue how to put together a complete alternative cancer treatment!!! All of the support people, whether at a clinic or by telephone, are experts in alternative medicine.

I cannot emphasize this enough: it is impossible for me to put on this website enough information on how to use these complex treatments in every possible situation!!

Working with an expert is a very small part of the cost of the protocol, but it is absolutely required because the experts know what to look for in a specific cancer case!! There have been too many cases where someone tried to use this website to put together their own protocol. It is generally a disaster because these protocols are used in many different complex situations!!

For example, suppose a person has a tumor wrapped around an artery. Using the wrong protocol could cause this tumor to swell and enlarge, even temporarily, thus cutting off the blood supply!!

RULES #1, #2, and #3: WORK WITH AN EXPERT OR GO TO A CLINIC!!

Rules #4, #5 and #6: Never, never, never try to treat your cancer at home by yourself, no matter what your background!! Alternative cancer treatments are highly specialized and carefully designed and every cancer case is different.

Another problem cancer patients have is caused by them not doing what they are told. We understand why our protocols are the way they are, so to ignore our advise is not likely to lead to good results.

Another major problem we have is money. People just cannot afford the most effective protocols. That is precisely why I designed the "Dirt Cheap Protocol" and several individual treatments.

http://cancertutor.com/

Bill Henderson, author of "Cancer-Free"

Bill Henderson, author of "Cancer-Free" has been helping cancer patients. The book "Cancer-Free -- Your Guide to Gentle, Non-toxic Healing" was just updated (4th Edition) in November, 2011. This edition adds Dr. Carlos M. Garcia, M.D. as a co-author with me. Dr. Garcia has

contributed lots of his knowledge from his unique experience healing lots of cancer patients at his clinic in Clearwater, Florida. Of course, the book now also includes the information in the 155 newsletters I have published beginning in 2000.

The regimen I recommend for **ALL** cancer patients comes at the cancer from seven different "directions." Seven different theories about how to deal with cancer cells. All of these seven forms of treatment are **gentle** (no dangerous, too-rapid "die off"), **non-toxic** and they all work together. They are, in fact, synergistic. They help each other.

They address the five characteristics of every cancer. These five conditions **must be corrected before anyone can get over cancer:** 1) A weak immune system; 2) A lack of oxygen uptake by the cells; 3) Excessive toxins; 4) Acidity; and 5) Specific deficiencies.

http://www.beating-cancer-gently.com/?hop=cantutor

Inexpensive Alternative Cancer Treatments

One thing I have heard over and over again, while communicating with thousands of cancer patients, is that many of them can barely afford to eat, much less pay thousands of dollars for some of the highly potent natural cancer treatments.

Health insurance, which was created by the pharmaceutical cartels so that more people could afford their products, will usually not pay for natural medicine treatments even though they are much safer, much less expensive and far, far more effective. The concept of "unproven" allows them an excuse to refuse the claim.

With this in mind I have developed or identified many cancer treatments which are very, very inexpensive. In some cases these protocols are free or are dirt cheap. One example is the Brandt Grape Cure which replaces the normal foods a person eats.

The Independent Cancer Research Foundation (ICRF), an alternative cancer treatment charity, has developed more than a half-dozen very inexpensive alternative cancer treatments. Some of these protocols are on this website and some of them are on the ICRF website. See the left side-bar: "Inexpensive Cancer Treatments."

http://cancertutor.com/

Dr. Johanna Budwig mix for Cancer Cure
Unrefined cold-pressed flax seed oil and cottage cheese

Put in your blender:

1 cup Organic cottage cheese (low fat, not too hard one, best make your own)(or yogurt)
2-5 Tbsp. of flaxseeed oil-
1-3 Tbsp. of freshly ground up flaxseed (coffee grinder ($15) works fine)
enough water to make it soft
little cayenne

optional:
little garlic (and chives)
little red pepper
little champagne
Make it very soft.

Eat some of it every day.

Removing Cancer Cells

Cancer Fighting Strategies http://www.cancerfightingstrategies.com/

Preparing for surgery http://journeythroughcancer.org/PreparingForSurgery.html

Cancer surgery: Physically removing cancer

The prospect of cancer surgery may make you feel anxious. Help put your mind at ease by learning more about cancer surgery and how and why it's used.

By Mayo Clinic staff

Cancer surgery — an operation to repair or remove part of your body to diagnose or treat cancer — remains the foundation of cancer treatment. Your doctor may use cancer surgery to achieve any number of goals, from diagnosing and treating your cancer to relieving the symptoms it causes. Cancer surgery may be your only treatment, or it may be supplemented with other treatments, such as radiation, chemotherapy, hormone therapy and biological therapy.

How is cancer surgery used in treatment?

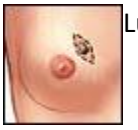
Cancer surgery may be used to achieve one or more goals. Common reasons you might undergo cancer surgery include:

- **Cancer prevention.** If there's reason to believe that you have a high risk of developing cancer in certain tissues or organs, your doctor may recommend removing those tissues or organs before cancer develops. For example, if you have a genetic condition called familial adenomatous polyposis, your doctor may use cancer surgery to remove your colon and rectum because you have a high risk of developing colon cancer.
- **Diagnosis.** Your doctor may use a form of cancer surgery to remove all or part of a tumor — allowing the tumor to be studied under a microscope — to determine whether the growth is cancerous (malignant) or noncancerous (benign).
- **Staging.** Cancer surgery helps your doctor define how advanced your cancer is, called its stage. Surgery allows your doctor to evaluate the size of your tumor and determine whether it's traveled to your lymph nodes. Additional tests might be necessary to gauge your cancer's stage.
- **Primary treatment.** For many tumors, cancer surgery is the best chance for a cure, especially if the cancer is localized and hasn't spread. If there's evidence that your cancer hasn't spread, your doctor may recommend surgery to remove the cancerous tumor as your primary treatment.
- **Debulking.** When it's not possible to remove all of a cancerous tumor — for example, because doing so may severely harm an organ — your doctor may remove as much as possible (debulking) in order to make chemotherapy or radiation more effective.
- **Relieving symptoms or side effects.** Sometimes surgery is used to improve your quality of life rather than to treat the cancer itself — for example, to relieve pain caused by a tumor that's pressing on a nerve or bone or to remove a tumor that's blocking your intestine.

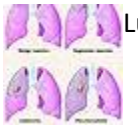
Surgery is often combined with other cancer treatments, such as chemotherapy and radiation. Whether you opt to undergo additional cancer treatment depends on your type of cancer and its stage.

How is cancer surgery traditionally performed?

CLICK TO ENLARGE


Lumpectomy


Modified radical mastectomy


Lung cancer surgery

Traditionally, the primary purpose of cancer surgery is to cure your cancer by removing all of it from your body. The surgeon usually does this by cutting into your body and removing the

cancer along with some surrounding healthy tissue to ensure that all of the cancer is removed. Your surgeon may also remove some lymph nodes in the area to determine if the cancer has spread. This helps your doctor assess the chance of your being cured, as well as the need for further treatment.

In the case of breast cancer surgery, your doctor may remove the cancer by removing the whole breast (mastectomy) or by removing only the portion of your breast that contains the cancer and some of the surrounding tissue (lumpectomy). In the case of lung cancer surgery, your doctor may remove part of one lung (lobectomy) or the entire lung (pneumonectomy) in an attempt to ensure that all the cancer has been removed.

http://www.mayoclinic.com/health/cancer-surgery/CA00033

Converting Cancer Cells to Normal Cells

Organic Lavender and frankincense oils for cancer treatment antifungal benefits

Frankincense oil and cancer

There are one or two researchers studying the effects of Frankincense essential Oil on various cancers with some quantity of success. In vitro effects show inhibition or stimulation of cell proliferation dependent on the density of ***Frankincense Oil*** in the growth media. The Cancer Research Institute of the School of Nevada treated cervical cancer with frankincense essential oil, in which "there was 72% inhibition and expansion of non-cancerous cells."

Frankincense is strongly anti viral, anti-oxidizing agent, anti fungal, antibacterial, antiseptic and expectorant oil. It is also known capable to sooth the mind, slowing down and deepening breathing and is excellent for meditation. It can also help to calm hysteria and obsessive states linked to the past.

Frankincense oil is alleged to help revive an aging skin, is a skin tonic and is effective with sores, carbuncles, injuries, scars and skin swelling. It mixes well with other oils like benzoin, sandalwood, lavender, myrrh, pine, orange, bergamot and lemon.

http://sutraromatherapy.com/anti-cancerous-frankincense-oil/

Tonic: Frankincense Oil tones and boosts health and therefore is a tonic. It tones up all the systems operating in the body, including respiratory system, digestive system, nervous system

and excretory system and also gives strength by aiding absorption of nutrients in the body. It strengthens immune system too and keeps you strong and safe for long.

Uterine: This oil is very good for uterine health. Since it regulates production of estrogen hormone, it reduces the chances of post-menopause tumor or cyst formation in the uterus, also known as uterine cancer. In pre-menopause period too, it keeps uterus healthy by maintaining proper menstrual cycles.

Vulnerary: Just apply a diluted solution of this oil on wounds, or use it blended with a skin cream, and get your wounds heal faster and protected from infections. This oil is equally beneficial in healing internal wounds, cuts and ulcers.

Other Benefits: It keeps skin healthy and young, relieves pain associated with rheumatism, arthritis etc. It helps heal boils, rotten wounds, acne, circulatory problems, insomnia and inflammation.

Few Words of Caution: No known adverse side effects at all. Still, should not be used during pregnancy, being an emenagogue and astringent.

http://www.organicfacts.net/health-benefits/essential-oils/health-benefits-of-frankincense-essential-oil.html

Scientists have observed that there is some agent within frankincense which stops cancer spreading, and which induces cancerous cells to close themselves down.

"Cancer starts when the DNA code within the cell's nucleus becomes corrupted," "It seems frankincense has a re-set function. It can tell the cell what the right DNA code should be.

"Frankincense separates the 'brain' of the cancerous cell – the nucleus – from the 'body' – the cytoplasm, and closes down the nucleus to stop it reproducing corrupted DNA codes."

Working with frankincense could revolutionize the treatment of cancer. Currently, with chemotherapy, doctors blast the area around a tumor to kill the cancer, but that also kills healthy cells, and weakens the patient. Treatment with frankincense could eradicate the cancerous cells alone and let the others live.

http://news.bbc.co.uk/2/hi/middle_east/8505251.stm

Immunologist Mahmoud Suhail and University of Oklamoma

Recently (2/9/2010) the BBC News ran the story 'Frankincense – a cure for cancer?' which discusses the discoveries from joint field research between an overseas immunologist and medical scientists from the University of Oklahoma.

The immunologist, Mahmoud Suhail, has observed that frankincense oil arrests the spreading of cancer and induces already cancerous cells to close themselves down.

He is quoted to say "Cancer starts when the DNA code within the cell's nucleus becomes corrupted. It seems frankincense has a re-set function. It can tell the cell what the right DNA code should be."

"Frankincense [oil] separates the 'brain' of the cancerous cell – the nucleus – from the 'body' – the cytoplasm, and closes down the nucleus to stop it reproducing corrupted DNA codes."

While that information seems promising for many, the balance of the article goes on to discuss the non-holistic ideology behind their current efforts to isolate the responsible compound, although *they* probably wouldn't say it that way.

Basically, they admit that the frankincense oil works by itself, but they are attempting to narrow the list of the 17 possible agents (isolated compounds occurring within the oil) down to one. The reason they give is that some of the compounds (although they didn't name them) are allergenic, so it cannot be administered as a whole oil.

http://www.florapathics.com/blog/frankincense-oil-and-cancer-research/

See for more information:

http://ancienthealingscience.com/sacred_frankincense_research.html

Organic Lavender Oil for Cancer Treatment

Organic Lavender Oil has antifungal benefits, but more research is needed before it is shown to be successful for for Cancer Treatment.

Because of its antiseptic properties it is being extensively put to use as an alternate medicine for treatment of minor burns, to relieve pain and for treatment of insect bites. It is added in bathing areas used by communities because of antiseptic properties and for making the atmosphere pleasant due to its aroma. It also helps treat a number of common ailments like sunburns and sunstroke. When mixed with other oils and used for massage it helps relieve a person suffering from joint and muscle pain. Due to this it is extensively used by therapists at massage centres.

When rubbed on the chest of a patient suffering from asthma or bronchitis the patient gets immediate relief from spasm. A few drops can be put on the pillow to provide relaxation for the whole night to the person sleeping.

http://www.eherbalremedies.com/lavender-essential-oil-uses/

Also see Electromedicine with a Digital Zapper

What Causes Normal Cells to Turn Cancerous and How Can We Reverse That Process

First, we need to stop ingesting toxins. Remember, to the body, inorganic chemicals are considered as toxins. Then keep in mind that drugs are inorganic chemicals.. They are unable to create cells, or resolve any condition, although they can and do create a toxic environment, responsible for depleting oxygen. We are thus reducing a primary source of energy for all cells, (oxygen). Then the hydrogenated oils found in most processed foods, actually build unhealthy cell walls, incapable of efficiently absorbing oxygen, (any oxygen that hadn't already been depleted by toxins). We are unknowingly suffocating the cells, and stealing their energy.

It was discovered that many cancerous cells also contain either a virus or parasite - further robbing the cell of energy. Fortunately, there are things we can do to either prevent, or resolve the problem. Thus, cancer can be both prevented (and cured), and in a natural drug-free way. Most importantly, by using the proper approach, we will be rescuing the cancerous cells, and enhancing (rather than totally destroying), our overall health in the process. Never forget that, "cancer cells are still your cells" - just victims. Unfortunately, oncologists never consider what causes cancer to develop, or how it can be prevented, at least it's not something they discuss with their patients. The problem is, disease prevention is not part of our current traditional medical paradigm. That is the only way we can begin reversing the epidemic of all disease - not just cancer.

Although I can't discuss all the details here, there is a way to replace the bad fats making up cell walls that actually repel oxygen, with good fats that in turn absorb oxygen. There is also a way to kill any pathogens (such as viruses or parasites), that create toxins and steal energy from a cell. There is also a way to enhance the energy of the mitochondria (the cells powerhouse) in the cancerous cells, so they will finally have sufficient energy, to begin metabolizing oxygen, as they once did. We can even neutralize the lactic acid cancer creates during the fermentation process. Acid that not only depletes oxygen, but also creates the pain normally associated with cancer. It's basically a win-win for both you, and your cells, that were once forced to turn cancerous. Never forget, the health our all our cells is our ultimate responsibility, and something we can influence. Also, the only way any disease can be truly cured, is to understand what we were doing wrong that allowed the disease to develop, in the first place. It's called disease prevention. Could you imagine the prognosis that you have cancer, and that you must be placed on the highly toxic radiation and chemotherapy immediately. That would immediately stimulate the release of the stress hormone cortisol, which would contribute to elevated blood sugar, actually promoting the growth of cancer. It would also suppress your immune system, (your best defense against cancer). Contrast that with the diagnosis that you have cancer, although fortunately you have several natural, inexpensive, pain free, therapies to choose from. Protocols capable of reversing the process, and restoring cancer cells back to normal - not nearly as stressful.

Coming To The Rescue Save the Cancer, and You'll Save Your Life

On the surface it might possibly seem counter intuitive, but hopefully it will soon begin making sense. We seldom hear about our role in the gradual process that causes a normal cell to turn

cancerous in the first place. In order to prevent any disease, we need to understand exactly what causes the disease to develop initially. The more in-depth our understanding of the underlying contributors to a particular disease - the more effective the cure. Only then can any disease be prevented -- or cured for that matter. Actually, a protocol for preventing a disease is very similar to the cure. Yet curing any disease (although similar) will normally be more aggressive. Cells are forced to turn cancerous only when their energy level is depleted, to the point that they no longer have sufficient energy to metabolize oxygen. Thus, they are forced to revert to the more primitive fermentation process, in order to survive. It's a natural adaptation process that creates cells lacking any meaningful function, and normal DNA control, (cancer). Yet they are still live cells, that unchecked do pose a threat. One way to eliminate that threat is, to assist any cancerous cells regain their energy, and convert back to normal function once again.

Although cancerous cells consume considerably more calories than normal cells, they actually produce far less energy. Fermentation (without oxygen) is actually a very inefficient process, that requires very little energy. The good news is, we can if we so chose, reverse that process. Thus that is in my opinion, an option worth considering.

Not only that but, it's thought that millions in the nation already have "undiagnosed" cancer. It often takes "many years" for cancer to develop to the point that it is initially diagnosed. It thus makes perfect sense for everyone to begin practicing cancer prevention, now that we know that cancer can be prevented, and as it turns out - it's relatively easy. That's the most effective way I'm aware of, to finally win the war on cancer. A war that has been so elusive all these years! Not only that but, by incorporating my simple protocol, your overall health will begin to improve in the process. Only when we have unhealthy cells, and thus unhealthy organs, will we experience any disease. The good news is - disease is preventable, and you can learn how.

When Searching for the Cause - I Discovered the Solution

After researching many different "alternative therapies" over the years. I came to the conclusion that there are two basic approaches, for resolving cancer. Both appear to have a surprisingly high success rate. One would involve killing the cancer, followed by breaking down and removing the dead cancer cells. Although I eventually discovered what I would consider a much better, and less toxic option. The good news is, it wouldn't require the removal of dead cancer cells, (basically toxins). Using the alternate more compassionate approach, there shouldn't be any remaining cancer cells, (dead or alive)! It was after considerable research, that I eventually encountered a quite amazing discovery. I finally concluded that a new cancer paradigm was possibly in order. It appears that the war on cancer can truly be won. No more "eternal war" on cancer! Rather than being highly toxic, very painful, and "super expensive", as traditional cancer therapies are, our approach will instead be super cheap, totally safe, and will actually enhance your overall health. Even better, they are all do-it-yourself therapies that are actually surprisingly simple. Best of all, the success rate should be "far better" than the traditional highly toxic cancer therapies, and absolutely no healthy cells will be sacrificed in the process - not one!

Only when we become our body's best friend, rather than its worst enemy, will we ever experience "true healing", a principle that applies to all disease - not just cancer.

I might add that I am currently writing a book on cancer, in which I will discuss in considerable detail some inexpensive, yet very effective, natural cancer therapies. I will be covering both approaches I referred to, earlier, (killing or converting cancer cells). Unfortunately, I don't have sufficient space here to discuss them in more detail.

For more information see my website at http://www.drtanton.com.

Dr. David W. Tanton, Ph.D

Article Source: http://EzineArticles.com/5232640

http://ezinearticles.com/?A-User-Friendly-Cancer-Reversal-Approach---Actually-Converting-Cancer-Cells-Back-to-Normal!&id=5232640

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Excerpt from Chapter 1

The Critical Information All Cancer Patients Must Become Aware Of – What Causes Cells to Turn Cancerous, And Who or What is Responsible?

Although my original objective was to kill the cancer, (the enemy within), after considerable research, I eventually discovered what I would consider an entirely different approach. It's also the best option for cancer prevention. It involves looking at cancerous cells from an entirely different perspective. As it turns out, they are just victims of an environment they have absolutely no control of, (although we do).

The good news is, we can often come to their rescue, and actually reverse the very process that forced them to turn cancerous in the first place. By so doing, they would finally have sufficient energy to once again oxidize, as normal cells do, rather than ferment. Once we understand what was responsible for basically stealing their energy, the solution should be obvious. You will learn exactly how we can come to their rescue.

It's amazing how much less stressful, what I would consider as the compassionate approach, can be. No dangerous enemy within – just desperate cells waiting to be rescued (something only we can accomplish). Far different from the traditional toxic approach that most oncologists rely on – kill all fast growing cells. They totally ignore the fact that many non-cancerous cells are also fast growing. And thus, the collateral damage throughout the body and brain. Damage the "victim" will be forced to live with for the remainder of his or her life. How can they possibly get by with such obvious deception all these years? The answer – just make sure the cause of cancer remains some deep dark secret that nobody seems to understand. And also make sure that "seemingly high-tech" super expensive therapies are the only options that anyone "in their right mind" should consider!

Fortunately, I have the good fortune to be left-brained, thus I tend to be very logical and analytical. I couldn't possibly imagine any cancer patient considering such highly toxic therapies (capable of causing cancer)! Their objective is to attempt to kill the cancer before they kill you! Yet, in spite of the exorbitant cost, and tremendous suffering, seldom does the patient outlive the cancer. Then if they do, they will be dealing with serious health issues, due to the therapy. Often for the remainder of their lives.

One thing that the genius Royal Rife discovered many years ago, is that pathogens can morph or change into different forms, similar to a caterpillar eventually becoming a butterfly – obviously a major transformation. It appears that a fungus or yeast (such as candida) can morph into bacteria, which can at times even become a virus.

Interestingly, one doctor claimed that he never encountered a cancer patient that didn't have candida (yeast). Then, Royal rife discovered that injecting rats with a virus caused them to develop cancer. Then, by zapping the virus with a specific radio frequency he was able to eliminate the cancer. The virus contains a protein coating, which allows them to bond to the cell wall, and gain access to the DNA of the mitochondria inside the cell. This allows it to begin stealing the energy of the cell, as it's the mitochondria in cells that produce the energy. The virus soon begins replicating (creating more virus), and invading more and more mitochondria. Incidentally, cells have many mitochondria. How many, is based on the cell's function. The virus produces toxic micotoxins, which eventually depletes the cell's energy to the point it can no longer metabolize oxygen. Thus the cell has no option but to convert to anaerobic (without oxygen) fermentation. A more primitive form that produces "far less energy", even when consuming more glucose than non-cancerous cells – a very inefficient process.

One thing we should take away is, cancer is obviously the victim, yet only we can come to the rescue. Cells don't deliberately turn cancerous – they are forced into it. The question is: Which approach should we choose? We could attempt to reverse the process, by killing the pathogens (be they a virus, bacteria, fungus, or possibly even a parasite), which are all possible threats. The other option would be to totally destroy all cancerous cells, which would in turn create toxins (millions of dead cancer cells) that must be digested via proteolytic (protein digesting) enzymes, and removed by the liver. Either way, surgery is seldom necessary. Yet, either approach would make "far more sense" than killing or damaging many more perfectly normal cells, than cancer cells, thus damaging major organs. Then we can't forget the damage to the immune system, and red blood cells. The best possible way to reduce the potential for long-term survival and instead

increase the risk of dying from complications, resulting from exposing the entire body (and brain) to some of the "most serious toxins" in the entire world!

http://www.drtanton.com/book-cancer.html

Killing Cancer Cells

The key to a "Stage IV" treatment is that it does not depend on the immune system. Some very well known alternative cancer treatments work by "building" the immune system. Advanced cancer patients don't have the time to wait for their immune system (which has generally been destroyed by orthodox medicine) to be built up.

There is a very important difference between alternative cancer treatments and orthodox cancer treatments. Orthodox cancer treatments must be "paced" because of all the **HEALTHY CELLS** that chemotherapy and radiation damage and kill.

On the other hand, the "Stage IV" alternative cancer treatments, because they target cancer cells and/or do no harm to healthy cells, can be given in much higher doses than chemotherapy and must be "paced" because of all the debris caused by **DEAD CANCER CELLS**. For more information refer to the following:

http://www.cancertutor.com/Link_S4.html

Use Enzymes To Kill Cancer Cells **http://www.cancerfightingstrategies.com/enzymes.html**

One of the top rated cancer fighting supplements is in this section. Surprisingly, it is not an enzyme. It's called Fulvitea. You'll read about it in a few minutes, but first....

Researchers have noted for years a correspondence between low enzyme levels and cancer. In fact enzyme therapy has been used with **good results** against cancers in Europe, and by some doctors in the United States. To literally digest cancerous cells.

In the early 1900's a doctor in Wales, John Beard discovered that pancreatic enzymes destroyed cancer cells. Making some brilliant observations, he deduced that cancer cells come from stem cells that become uncontrolled stem cells. He noticed that the fetal pancreas starts working and secreting enzymes at the 56th day of gestation. Fetuses don't digest anything till they are born. Beard wondered why did the pancreas in the fetus start working so early? He noticed that the day the pancreas started producing enzymes was the day the placenta stopped growing. The enzymes stopped this rapid growth.

His theory was that many placental cells remain in our body. When these misplaced placental cells get lost and can start growing, turning cancerous, if you don't have enough pancreatic

enzymes. (By the way the medical community thought he was crazy. Now a hundred years later, technology has confirmed there are these cells.)

In 1911 he tested pancreatic enzymes for stopping cancer in mice and it worked. Naturally and unfortunately, he was blackballed and died in obscurity. Decades later Dr. Kelly read about his work, and cured himself of cancer using pancreatic enzymes and started treating and curing many cancer patients using pancreatic enzymes. Dr. Gonzales, sent to investigate Dr. Kelly, liked what he saw so much that he also treats cancer using pancreatic enzymes.

The major reason enzymes levels become depleted is that we eat mostly processed, irradiated and cooked food.

The digestive system was designed to process **raw food**. Raw food, when it is picked ripe, has enzymes in it that help break down that food in the upper stomach where it sits for 30 to 45 minutes. The enzymes in the food predigest that food. Then in the lower stomach the pancreas excretes more enzymes.

When you eat cooked, irradiated and processed foods, the enzymes have been killed; the food does not predigest in the upper stomach. So when it reaches the lower stomach *two things happen*. The pancreas must make extra enzymes to try and break down the food.

And often the food is only partially digested.

The pancreas, after decades of overworking, eventually is no longer able to produce an adequate supply of enzymes. So you develop **low enzyme levels** of all types of enzymes, and your body *cannot* naturally kill cancerous cells using enzymes.

In addition, food that is not completely digested all too often makes its way into the bloodstream. Especially if you have leaky gut syndrome from candida overgrowth. This partially digest food is treated as a toxin, and the immune system has to get rid of it. This puts an additional strain on the already overworked immune system.

Studies have found that the immune system treats the ingestion of cooked food as a toxic poison, causing a jump in white blood cells in an attempt to get rid of it as fast as possible.

Taking a good quality enzyme supplement with meals, one that has high levels of protease to digest protein, lipase to digest fat, and amylase to digest carbohydrates helps break down food in the upper stomach. So that the pancreas doesn't have to produce extra enzymes. Food is better digested. The one we suggest as having the most enzymes for the value is

PhytoBio Enzymes

A bottle will last 2 months. You also need to take **Betaine HCL** and the **HCL Activator** to help break down protein in the stomach.

Also, it is important to take enzymes *on an empty stomach*. A stack of research shows that enzymes, when taken in this manner, will go into the bloodstream and clean it up. **And in the process digest and kill cancer cells.** Take both a plant based digestive enzyme along with pancreatic enzymes high in Trypsin and Chymotrypsin for the best results. Take both with meals for improved digestion, and on an empty stomach to get into the body.

This will also unstick clumpy red blood cells. Sticky, clumped up red blood cell clusters clog up capillaries and reduce circulation. So that cells cannot oxygenate properly. Which as you have gathered by now, contributes to cancer.

Cancer tumors produce a thick fibrin protein to help protect them from the immune system. This also helps to stick the cancer tumor to wherever it is.

Enzymes in the bloodstream can digest and dissolve the fibrin coating. Large amounts of enzymes would need to be taken, and they would need to be enzymes high in protease or nattokinase to break down the fibrin.

The pancreatic enzyme protocols for treating cancer make use of large amounts of pancreatic enzymes. They are taken on an empty stomach so they can go into the body to digest cancerous cells. And are taken with meals so that your pancreas doesn't have to produce as many enzymes to digest your food. This allows the pancreas to produce more enzymes to send into the body to fight cancer. The enzymes naturally produced by the body will be more effective than any enzyme supplement. Thus the protocols tend to use more enzymes with meals than taken on on empty stomach.

A bit more potent than the **pancreatic enzyme formulations** though, with the best one we have found coming in at **298**, is a formulation of mature green papaya powder with additional support nutrients. The product is:

PapayaPro

The main ingredient in this formula is **mature green papaya powder**. Papain is the principal and most active enzyme in this powder. Papain possesses a very powerful digestive action superior to pancreatin, or pancreatic enzymes. Changes in intestinal alkalinity or acidity do not interfere with the unique digestive activity of papain. Taken on an empty stomach, it will work more aggressively than even the pancreatic enzymes in attacking and destroying cancer cells.

Taken with a meal, it will also help digestion. Papain, one of the most powerful plant proteolytic enzymes, will aid in protein digestion in an acid, alkaline or neutral medium. This is of vital importance if you are enzyme deficient or have low hydrochloric acid output in the stomach. The pepsin produced in the stomach for protein digestion is activated only in an acid medium. This requires a healthy output of hydrochloric acid which is insufficient in most people. Due to the

powerful proteolytic action of papain, a more active digestant than pepsin, a major digestive problem for most people will be helped by the daily ingestion of mature green papaya powder.

The second major cancer fighting ingredient in PapayaPro is Citrus Pectin. It has the potential to prevent metastasis, or the spread of cancer. Modified citrus pectin's small molecules enter the bloodstream and act as decoys for lectins (cancer cell surface proteins), which are seeking the sugar galactose in cells. When lectins encounter the pectin, which also contains galactose, they attach to it as they would to a cell. Once bound to the pectin, lectins are unable to attach to other sites in the body and start new cancer colonies. Thousands of research studies have demonstrated citris pectin's cancer fighting abilities.

PapayaPro also contains other immune boosting and cancer fighting ingredients such as mangosteen powder that act synergistically with the papaya powder. Use one to two of the 300 gram containers monthly on an empty stomach to fight cancer. Get an extra container if your digestion is poor and you want help breaking down protein. Energetic testing puts **PapayaPro** at **830** for its healing power for cancer. Its papaya enzymes will, on an empty stomach, get into the bloodstream and work to clean it up. Most importantly, it will digest dead cancer cells that the other cancer supplements are killing. This will take a big load off the detoxification system and help to reduce detox symptoms and inflammation of the tumors. This will also help to reduce tumor size faster.

Their extremely high levels of protease will also help to **break down the fibrin coating all cancerous tumors** so that the immune system can better *attack* those tumors. In addition it will digest the live and dead cancer cells inside the tumors, helping to bring down tumor size faster. Use 1 to 3 containers a month for helping to support the detoxification process by digesting dead cancer cells. Use 4 to 6 bottles a month if you have tumors or bone cancer that are causing a great deal of pain or dysfunction. This quantity will work faster to reduce tumor size, and does a better job of helping to bring down tumor size than just about anything. It still won't be fast, but it will be faster than it would have been.

Here is what you need to use if you are suffering from muscle mass loss caused by catabolic wasting.

Catabolic Wasting Protocol

Catabolic wasting can occur in the end stages of cancer, aids and other serious illnesses. It is a major cause of death in cancer. No matter how much someone eats, how much nutrition they get, they lose weight and muscle mass. They are not able to metabolize or make protein. Recently scientists have figured out why this happens.

Dr. Chojkier and Martina Buck, Ph.D., of VA, UCSD and the Salk Institute for Biological Studies, described the steps by which tumor necrosis factor (TNF) alpha, an immune-system protein, prevents the production of albumin. Low levels of albumin, a critical protein made in the liver, is a keynote of wasting.

Drs. Buck and Chojkier showed that TNF alpha causes oxidative stress in the liver cell and also causes the addition of a phosphorous molecule to a protein called C/EBP beta, which normally joins together DNA in the nucleus of the cell to make other proteins, such as albumin.

This extra phosphorous causes the C/EBP beta protein to leave the nucleus and go into the cytoplasm, where it can no longer make the albumin."We found that this phosphorylation makes the C/EBP beta exit the nuclear area and go into the cytosol, where there is no DNA for it to bind with. This means it can no longer produce the protein," said Dr. Chojkier. And this inability to produce albumin leads to the muscle wasting and weight loss.

The researchers found several ways of stopping the downward spiral caused by TNF- alpha. One way was to use antioxidants, especially ones that focus on the liver. This blocked the chain of events leading to the export of C/EBP beta from the nucleus of the liver cells. "If we block oxidative stress, we normalize everything," explained Dr. Chojkier. "C/EBP beta remains in the nucleus, it contacts the DNA, and proteins are produced.

As you can see, protecting the liver and normalizing liver function is vital to reversing or stopping wasting. If you don't stop wasting, you won't make it. You'll basically end up being killed by the wasting before the cancer kills you.

Fortunately, there is a protocol to stop catabolic wasting. You can notice improvement in a couple of weeks. Follow this protocol for at least two months to completely stop the wasting. Continue to take other anti-cancer supplements in advanced stage dosages while using this protocol. There are two products in this protocol.

Regenerative Elixir

Three bottles of this frequency enhanced water elixir is a month's supply. It stimulates cells to repair themselves, and does a stronger and better job of this than our previously recommended Rejuvin. With catabolic wasting the liver needs repair so that it can start processing proteins again. What happens with Regenerative Elixir is that the water in it carries specific energetic vibrational frequencies that signal or turn on the regeneration and repair process in your body. Take 3 squeezes of the dropper twice a day. You will read more about energetic elixirs in the Energy section following this section.

Fulvitea

This is the second and most important supplement you need to use to reverse catabolic wasting and to start gaining some weight. In fact, in is one of the most important products to use whenever to liver is poorly functioning. And whenever the cancer is so bad that you are essentially starving to death. The predigested protein is supplies is usable by the body without the liver having to convert amino acids to protein. And the regenerative factors in it help to stimulate repair. As the liver is so vital to health, if the liver is poorly functioning, the body uses the nutrients in Fulvitea to repair the liver. It does an excellent job. We have heard consistently successful reports of it stopping catabolic wasting and improving liver function - even with

cirrohsis. In a life and death situation, be sure and use Regenerative Elixir to more rapidly improve liver function.

Fulvitea has two basic functions. First it is a source of pre-digested protein that your body doesn't have to process to use. So you can actually start making muscle again. In addition it contains RNA and DNA repair factors to stimulate repair of the liver and also of cancer cells. It helps to normalize cancer cell function so the cancer cells die a normal death, apoptosis.

This 400 gram container of powder contains Hydrolyzed Marine Collagen from wild fish which is 95% pure protein in a hydrolyzed (broken down) amino-acid form. In addition it has Fulvic Acid powder which intensifies the metabolism of proteins, increases DNA content in cells and increases the rate of RNA synthesis. The Green Tea Extract in it helps to drive the nutrients into the body. And does have anti-cancer benefit.

It also supplies freshwater Diatomaceous Earth which will aid the detoxification process and fight cancer. Whole Colostrum powder (Grade A Bovine) supports the regeneration process and boosts immune system response against cancer. Small amounts of Vitamin C, Zinc, ProCoQ10, Manganese, Vitamin B6, Niacinamide, Selenium, Molybdenum, Chromium, and Vitamin E a blend of herbs that also support the regeneration process.

Fulvitea also contains NutraFlora - a short-chain Fructooligosaccharide assisting in the absorption and utilization of minerals and amino acids. It passes, intact, through the stomach and small intestine to the colon, where it is fermented by beneficial bacteria into short-chain fatty acids. These lower intestinal pH to an optimal level for keeping calcium, minerals and amino acids in solution for a longer period of time, making them much more absorbable. Absorption is further enhanced by Aulterra magnetic powder from an ancient seabed mineral deposit. Aulterra supports the utilization and effectiveness of nutraceuticals and herbs in the diet. And Pascalite - a rare, calcium bentonite/montomorillonite, non-swelling clay, which has a long history of health uses. Pascalite provides trace minerals in oxide form, so they are easily assimilated.

Use 2 containers a month if you are not in too bad a shape, and 3 to 6 containers a month for more serious nutrient support and liver repair., **its energetic testing for helping stop catabolic wasting is 1030.** This is clearly one of the most important cancer fighting supplements to take for end stage cancers and all cases of catabolic wasting.

We find it works best to shake or blend the powder into a smoothie or some sort of drink such as a protein shake.

There is a well known product that has been fighting cancer and used for wasting for years. It is a fermented soybean protein drink. For wasting and advanced cancers you need to drink a bottle a day of this bad tasting drink. Quite expensive too at $50 a bottle. For fighting cancer, energetic testing puts it at **321**. Respectable, but not near as powerful as Fulvitea which comes in at **460** for its ability to fight cancer. For catabolic wasting it comes in at **353**, again much less than Fulvitea's **1030**.

Use Regenerative Elixir and Fulvitea for catabolic wasting. You should see results quickly, and be able to successfully stop catabolic wasting in its tracks. **3260**

Next we will take a look at how energy can lead to cancer, or help you beat cancer.

NEXT

Regenerative Elixir

Regenerative Elixir is a frequency enhanced water that delivers energetic vibrational messages to your body that work at the physical level to stimulate regeneration of the body, while also dealing with the mental and emotional patterns that create ill-health. It is several times more powerful than our previous product suggested for cellular regeneration, Rejuvin. Regenerative Elixir may also help to dissolve destructive mental and emotional patterns, resulting in vibrant health.

Similar to the way a homeopathic formula works, when you take Regenerative Elixir, it transfers its unique frequencies to your body, or specifically, to the cells in your body as your cells communicate electrically.

It is valuable for conditions such as osteoporosis or sickle cell anemia because it is telling those cells to regenerate. It basically is instructing the bone cells or the sickle cells to repair themselves. This speeds up the increase of bone density, the ability of the sickle cells to function more normally, or any other cell to regenerate.

It is rejuvenating at the cellular level for both organ systems and the immune system. Ingredient: Frequency- enhanced spring water. http://www.gethealthyagain.com/regenerative.html

Fulvitea

One of the common characteristics of a body in distress is that the energy required to recover is no longer available. Fulvitea provides energy without taxing your system—making it the perfect choice for recuperation. It's an all-natural essential protein food supplement that is fully absorbable when added to your preferred beverage.

Within a blend of 30 vitamins, organic herbs and critical antioxidants, Fulvitea delivers therapeutic levels of:

- Predigested peptide proteins – tissue repair
- Nutraflora™ - speeding recovery
- D-Ribose - energy boosting
- Colostrum - immune fortifying
- Fulvic Acid powder – augments nutrient uptake

Fulvitea™ is one of the few products available which is designed to boost recovery and support system wide repair. http://www.zeolitesupport.com/store/fulvitea-400-grams.html

Enzymes

Cancer Tumor cell fibrin coating inhibitor enzymes

Scholarly Articles
http://scholar.google.com/scholar?q=cancer+Tumor+cell+fibrin+coating+inhibitor&hl=en&as_sdt=0&as_vis=1&oi=scholart

Enzymes **http://www.mnwelldir.org/docs/nutrition/diet.htm#Top** Any biochemist will tell you, that when the body is creating digestive enzymes, it is too busy to create other enzymes that support your immune system. Adding enzymes to your diet keeps your organs from becoming overstressed and helps them to protect your immune system.

- Before meals:3 pancreatic enzymes (General Research Laboratories).
- With meals:3 or 4 Green Life (Sonebrand).
- After meals: Pancreatrophin, Hepatrophin, and Thymus (Std Process Labs).

All of the above recommendations and name brand products came to us from the Center for Advancement in Cancer Education. Again, you will want to check with your nutritionist. Top

Combining foods improperly causes complete digestion to take longer, tires you out, and can allow foods to ferment leading to purtrification of the colon, which leads to toxins entering the blood stream. Because fruit should not rest long in your stomach, fruit should always be eaten alone or before meals. Here are a few more simple rules about fruits:

- Eat sub-acid fruits with either acid fruits or sweet fruits, but never eat acid fruits with sweet fruits.
- Sub-acid fruits: Apricots, berries, cherimoya, cherries, fresh figs, grapes, mangos, nectarines, papaya, peaches, pears, plums.
- Sweet fruits: Bananas, dates, dried fruit, persimmons, prunes, raisins, sapote. (Some apples are sweet and some can be sub-acid)
- Acid Fruits: All citrus, kumquats, pineapple, pomegranates, strawberries.
- Always eat melons alone.

Rules for veggies, proteins, carbohydrates, and fats: Eat veggies with carbohydrates or with proteins, but never mix proteins with carbohydrates (no meat and potatoes). Meats should never be cooked in fats. Remember, your carbohydrates are: breads, corn, dried beans & peas, grains and cereals, pasta, potatoes, pumpkin, squash, and yams. Top

See killing cancer cells using enzymes http://www.cancerfightingstrategies.com/enzymes.html for more information.

Little information could be found on the following enzymes to take with empty stomach:
Recovery Zymes http://www.michaelshealth.com/retail/shop-by-health-concern/muscle-bone-joint-support/w-zymes-xtratm-recovery-zymestm.html
Tumor cell fibrin coating inhibitors (Wobenzyme) Wobenzyme http://wobenzym-usa.com/
Clinic http://allgetwell.com/index.php?md=106

Treatment For Stage IV Cancer Patients [free eBook]

A "protocol" is defined to be a complete cancer treatment. The key part of a protocol is the treatment that kills cancer cells or reverts cancer cells into normal cells. But a protocol will also include things to build the immune system (building the immune system is a long term issue for advanced cancer patients, not a short term issue), alkalize the body, protect the vital organs, etc.

Stage IV Treatments Generally Done At Home

Cellect-Budwig Protocol [Stage IV treatment]
Cellect-Budwig Protocol [Complete Treatment]
LifeOne Protocol [Stage IV treatment]
Cesium Chloride / DMSO Protocol / Alkaline / Alkalinity / pH [Stage IV treatment]
Bill Henderson Protocol [Stage IV treatment]
Tony Isaacs Oleander Protocol [Stage IV treatment]
Oleander (pill form) [Stage IV treatment] [Russian]
Rife-Beck Protocol [Stage IV treatment]
Plasma-Beck Protocol [new treatment in April, 2011]
Johanna Brandt Grape Cure (using black, purple or red grapes) [Stage IV treatment]
Johanna Brandt Grape Cure (using black, purple or red grapes) [Stage IV] (in Russian)
Ozone RHP Treatment [Stage IV treatment]
Hydrazine Sulphate (The Cachexia Treatment Plan) [Stage IV treatment]
[This treatment is generally not used by itself, but is an adjunct with other treatments for cachexia patients. There are some POTENTIALLY SEVERE INTERACTIONS WITH DRUGS OR FOODS for those who use this product!!]

Stage IV Supplemental Treatments
(Supercharge Your Stage IV Protocol!!)

Frequency Generators (aka "Rife Machines") [Stage IV Supplemental treatment]
Aloe Arborescens Protocol [Stage IV Supplemental treatment]

Stage IV Treatments Generally Done At A Clinic

IPT - Insulin Potentiation Therapy (A Magic Bullet) [Stage IV treatment]
DPT - DMSO Potentiation Therapy (A Magic Bullet) [Stage IV Treatment] [English]
DPT - DMSO Potentiation Therapy (A Magic Bullet) [Stage IV Treatment] [French]
IVC - High Dose Intravenous Vitamin C [Stage IV Treatment]
Ozone Cancer Treatments [Stage IV Treatments]
[Ozone liquid I.V. and Ozone infusion bottle]

Treatments Which are Safe, But Are Still Being Researched

The Overnight Cure For Cancer (OCC)
[The OCC is a Chlorine Dioxide, DMSO and MSM treatment still being researched, but it is ready for use. It is totally safe, and takes only two to five days to use. It is designed to revert cancer cells into normal cells!]

DMSO - Chlorine Dioxide
[This treatment is a long-term version of the Overnight Cure For Cancer. It is designed to revert cancer cells into normal cells.]

DMSO - Vitamin C
[This treatment is a long-term treatment designed to cure cancer by getting Vitamin C inside of cancer cells.]

DMSO - Colloidal Silver
[This treatment is a long-term treatment designed to safely and easily revert cancer cells into normal cells.]

Near Ultraviolet Light Therapy
[This treatment uses ultraviolet light to cure cancer. The treatment is only available at clinics, but under some circumstances it can be used at home.]

Wheatgrass / Ultraviolet Light Therapy
[This treatment uses ultraviolet light to vibrate chlorophyll to revert cancer cells into normal cells. This treatment is designed to supercharge the wheatgrass treatment.]

Treatment For Stage IV Cancer Patients [free eBook]

Chemotherapy

For Those on Chemotherapy and/or Radiation

You will not understand this article until you read the "What Causes Cancer" article which is linked to on the left side-bar.

Once you read this article you will understand that cancer is caused by microbes which are INSIDE of the cancer cells.

You will also understand that if you kill these microbes, the cancer cells will restore their metabolism and will revert into normal cells.

This eliminates the cancer cells without creating any debris from dead cancer cells. It is the ideal way to cure cancer.

This article is NOT a cancer treatment!!! Do not use this article as a cancer treatment. The things in this article only deal with the use of chemotherapy and/or radiation.

Choose one of the complete protocols for cancer to deal with your cancer.

Rule #1 - Avoid Electromedicine Protocols

Do not use any of the electromedicine protocols on this website while on chemotherapy or radiation. This includes both of the GB-4000 machines and the Bob Beck devices.

Do not use them when using chemotherapy or radiation!!

The reason is that electromedicine protocols create electroporation. Electroporation "opens" the ports of all cells, not just cancer cells. These devices will allow chemotherapy to get inside of many non-cancerous cells. This is not a good thing!!

Rule #2 - Take Protandim

In a study done in Kansas City, those cancer patients who used anti-oxidants during chemotherapy had a higher survival rate than those who did not.

Protandim is 1,000,000 times more powerful than any other antioxidant. It will neutralize much of the damage done by chemotherapy and radiation as it happens.

Some might think that this would lessen the effectiveness of chemotherapy. Because chemotherapy does not target cancer cells, and does far more damage to non-cancerous cells than it does to cancer cells, lessening the effect of chemotherapy on non-cancerous cells is a very, very good thing!!

If Protandim gets inside of cancer cells, it will likely revert the cancer cells into normal cells. Furthermore, the damage done by chemotherapy to these **former cancer cells** will be minimized.

If Protandim does not get inside of a cancer cell, it will not interere with what chemotherapy does.

Perhaps that is why the cure rate is higher for those on anti-oxidants.

The dose for those on chemotherapy or radiation is 6 pills a day. Two in the morning, two in the afternoon and two at night.

Here an article on Protandim:
Article on Protandim

Pros of Protandim:

Protandim is clinically proven to work. Tests have shown that it decreases the aging process, improves body's immune system, and decreases chance of disease by destroying free radicals. Protandim even has a shelf life of 3 years. http://www.doesprotandimwork.com/

Cons of Protandim:

Protandim is quite expensive compared to other antioxidant supplements on the market. It is not organic. It has natural ingredients harvested in the natural environment, but it is not certified organic. Another con of Protandim is that it has negative side effects. These unpleasant side effects include nausea, vomiting, headache, diarrhea, and rashes on hands and feet. These can appear after an hour or two of taking the pill. http://www.doesprotandimwork.com/

Rule #3 - Use the MSM/CS Protocol (Applies to Chemotherapy)

There was a medical doctor in Georgia who had a cancer clinic that used DMSO and chemotherapy. DMSO opens the ports of cancer cells and allows the chemotherapy to target cancer cells!!

With this protocol the chemotherapy was able to kill far more cancer cells and do far less damage to the non-cancerous cells!!

I had a friend who went to this clinic as well as an IPT clinic (another alternative cancer treatment).

This person said the DMSO/chemotherapy protocol was significantly more effective than IPT.

Even though this medical doctor was using chemotherapy (which made the pharmaceutical companies happy), he was also curing cancer. The FDA shut him down.

MSM is a "little brother" of DMSO. When it gets inside the body, a small part of the MSM is converted into DMSO. But MSM by itself will also target cancer cells and open the ports of cancer cells, thus it does not really need to convert to DMSO.

The MSM/CS protocol does three things. First, it gets MSM into the body to allow chemotherapy to better target cancer cells and helps get chemotherapy inside the cancer cells!!

If the chemotherapy gets inside of the cancer cells, whether it kills the cancer cells or kills the microbes inside the cancer cells is irrelvant, either way the cancer cells are no longer cancer cells!!

Second, because MSM/CS allows chemotherapy to target cancer cells, less of the chemotherapy is damaging the non-cancerous cells.

Third, the MSM also gets colloidal silver inside of cancer cells. The colloidal silver is designed to kill the microbes inside the cancer cells. This, like Protandim, will revert many of the cancer cells into normal cells!!

This protocol is a win-win protocol for those still on chemotherapy.

Here an article on the MSM/CS Protocol:
Article on the MSM/CS Protocol

For those who stay at home, they can actually use DMSO instead of MSM. See this article:
DMSO/CS Protocol

Rule #4 - Take Aloe Arborescens

Chemotherapy, no matter what else you do, will damage many non-cancerous cells. While the Protandim will deal with the oxidative damage, a super-nutrient protocol, which by the way is a cancer treatment itself(!!), should also be used.

Aloe arborescens has been used as a cancer treatment for decades. It was first used in Brazil, then went over to Europe and is just beginning in the United States.

It is not only a super-nutrient (from the aloe arborescens plant), but also a super-nutrient designed by Mother Nature!! It is literally a perfect food for the damaged non-cancerous cells.

But it is also a cancer treatment that can be combined with any other alternative cancer treatment because it is a food.

If you can afford it, use two tablespoons of Aloe Arborescens, three times a day. Otherwise, use what you can afford considering that you also need a main cancer treatment.

Here is an article on Aloe Arborescens:
Aloe Arborescens

Final Comment

For those on chemotherapy, the things on this page should be ADDED to your normal alternative cancer treatment. The items on this page are designed only to deal with the chemotherapy aspect of your cancer treatment.

For example, the cancer patient should choose a complete alternative cancer treatment for their situation or their type of cancer (e.g. the Cellect-Budwig Protocol, the Cesium Chloride Protocol, LifeOne, Oleander, etc.).

The only rule is that while you are on chemotherapy you should not use any electromedicine portion of your protocol!!

Article Last Updated: September 24, 2011

http://cancertutor.com/Articles/Still_On_Chemotherapy.html

Prevention of the Spread of Cancer Cells With Harmone Therapy

While many men will face the “conventional” treatments for prostate cancer, whether it’s radiation, surgery, or chemotherapy, it is quite likely that they will also undergo hormonal therapy in conjunction with these treatments or if these treatments fail. The parameters for failure or recurrence for these treatments vary depending on the patient, but it’s important to note that hormonal therapy can stall or even prevent recurrence for many men. In fact, as I will mention later, there are even some cases where hormonal therapy alone has been very successful in pushing prostate cancer into remission. However, many men are given a very erroneous picture of hormonal therapy – a picture that paints this form of treatment as much less effective than it actually is. This inappropriately negative picture leads many men to needless depression and hopelessness.

Why do patients with lymph node metastases do so much better if they’ve had their prostate gland removed? The best study to shed light on this issue is one from MD Anderson Cancer Hospital published in 1994 by Zagars, et al. In this study, patients with lymph node spread were placed on hormonal therapy and followed until their disease recurred. (Note that these men did not have their prostate glands removed.) Once a patient’s disease recurred, researchers recorded where hormone-resistant [link to disease emerged. In more than half the cases, hormone-resistant disease first emerged in the

prostate gland. I think this makes sense. Hormone-resistance is the result of a mutation, a change in the genetic material in the cell, which allows the prostate cancer cell to grow at very low testosterone levels. In general, mutations are random events that occur once in every 1-10 million cells. It's important for patients with widespread bone metastases to know that there is a chance their cancers may continue to respond to hormonal therapy even after the oft-cited 18-month mark. http://www.prostate-cancer.org/education/andeprv/Myers_HormonalTherapyDiet.html

Hormone Therapy for Prostate and Brest Cancer

Hormone therapy, also known as *androgen deprivation therapy*, is the use of drugs or surgery to decrease the production of male hormones, or *androgens*, in order to stop or limit the growth of prostate cancer. Prostate cancer is *hormone-sensitive* or *hormone-dependent*, meaning that prostate cancer growth depends on androgens, particularly testosterone. The goal of hormone therapy is to dramatically reduce testosterone levels in the blood, thus slowing the rate of prostate cancer cell growth. Hormone therapy is the primary treatment for prostate cancer that has spread beyond the prostate gland to distant sites, including ***lymph nodes***, bone and other organs.

What is testosterone?

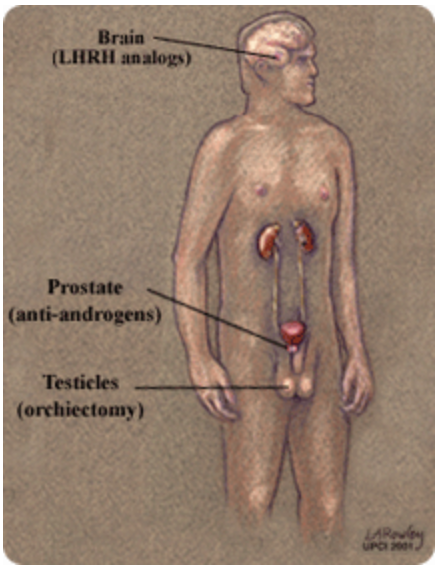
Testosterone is the major male hormone in the body. It stimulates bone growth, is a major determinant of *libido* (sexual desire) and is responsible for secondary male sex characteristics such as facial hair, deep voice and fertility. Testosterone also regulates the prostate gland. The testicles secrete between 90 to 95 percent of the body's testosterone. The remaining 5 to 10 percent is secreted by the *adrenal glands*, two small glands located on top of the kidneys.

Can hormone therapy cure prostate cancer?

Hormone therapy is used to *control* the growth of prostate cancer. It is not a cure for prostate cancer. However, hormone therapy can shrink tumors and may stop or limit the spread of prostate cancer for many years.

Appropriate candidates for hormone therapy

- Men whose cancer has spread beyond the prostate gland, either locally or to distant sites.
- Men whose cancer has returned after ***radical prostatectomy*** or ***radiation therapy***.



Where hormone therapy works

- Men who are candidates for radiation therapy or ***cryosurgery***, but have large prostate glands. Hormone therapy is used to shrink the prostate gland so it can be targeted more effectively by these other treatments.

Those who should consider other treatments

- Men whose cancer is believed to be confined to the prostate gland and don't require hormone therapy to shrink the prostate.

Hormone therapy methods

- ***Orchiectomy***: surgical removal of the testicles, which produce most of the body's testosterone
- ***Hormone therapy drugs***
    - *LHRH analogs*: drugs that inhibit the action of most of the body's testosterone and other androgens
    - *Total androgen blockade*: the combined use of LHRH analogs and *anti-androgens*, drugs that block the production of the body's remaining male hormones

http://www.upmccancercenters.com/cancer/prostate/hormonetherapy.html

How does hormone therapy work?

Your physician may recommend a hormone receptor test to help determine treatment options and to help learn more about the tumor. This test can help to predict whether the cancer cells are sensitive to hormones.

The hormone receptor test measures the amount of certain proteins (called hormone receptors) in cancer tissue. Hormones (such as estrogen and progesterone that naturally occur in the body) can attach to these proteins. If the test is positive, it is indicating that the hormone is probably helping the cancer cells to grow. In this case, hormone therapy may be given to block the way the hormone works and help keep the hormone away from the cancer cells (hormone receptors). If the test is negative, the hormone does not affect the growth of the cancer cells, and other effective cancer treatments may be given. Always discuss the results of the hormone receptor test with your physician.

If the test indicates that the hormones are affecting your cancer, the cancer may be treated in one of following ways:

- treating cancer cells to keep them from receiving the hormones they need to grow
- treating the glands that produce hormones to keep them from making hormones
- surgery to remove glands that produce the hormones, such as the ovaries that produce estrogen, or the testicles that produce testosterone

The type of hormone therapy a person receives depends upon many factors, such as the type and size of the tumor, the age of the person, the presence of hormone receptors on the tumor, and other factors.

When is hormone therapy given?

Your physician may prescribe hormone therapies before some cancer treatments or after other cancer treatments. If hormone therapy is given before the primary treatment, it is called neoadjuvant treatment. Neoadjuvant treatments help to kill cancer cells and contribute to the effectiveness of the primary therapy. If hormone therapy is given after the primary cancer treatment, it is called adjuvant treatment. Adjuvant therapy is given to improve the chance of a cure.

With some cancers, patients may be given hormone therapy as soon as cancer is diagnosed, and before any other treatment. It may shrink a tumor or it may halt the advance of the disease. And in some cancer, such as prostate cancer, it is helpful in alleviating the painful and distressing symptoms of advanced disease. The National Cancer Institute (NCI) states that although hormone therapy cannot cure prostate cancer, it will usually shrink or halt the advance of disease, often for years.

What medications are used for hormone therapy?

Hormone therapy may be used to prevent the growth, spread, and recurrence of breast cancer. The female hormone estrogen can increase the growth of breast cancer cells in some women. Tamoxifen (Nolvadex®) is a medication used in hormone therapy to treat breast cancer by blocking the effects of estrogen on the growth of malignant cells in breast tissue. However, tamoxifen does not stop the production of estrogen.

Hormone therapy may be considered for women whose breast cancers test positive for estrogen and progesterone receptors.

Drugs recently approved by the US Food and Drug Administration (FDA), called aromatase inhibitors, are used to prevent the recurrence of breast cancer in postmenopausal women. These drugs, such as anastrozole (Arimidex®) and letrozole (Femara®), prevent estrogen production. Anastrozole is effective only in women who have not had previous hormonal treatment for breast cancer. Letrozole is effective in women who have previously been treated with tamoxifen. Possible side effects of these drugs include osteoporosis or bone fractures.

Another new drug for recurrent breast cancer is fulvestrant (Faslodex®). Also approved by the FDA, this drug eliminates the estrogen receptor rather than blocking it, as is the case with tamoxifen, letrozole, or anastrozole. This drug is used following previous antiestrogen therapy. Side effects for fulvestrant include hot flashes, mild nausea, and fatigue.

Men who have breast cancer may also be treated with tamoxifen. Tamoxifen is currently being studied as a hormone therapy for treatment of other types of cancer.

With prostate cancer, there may be a variety of medications used in hormone therapy. Male hormones, such as testosterone, stimulate prostate cancer to grow. Hormone therapy is given to help stop hormone production and to block the activity of the male hormones. Hormone therapy can cause a tumor to shrink and the prostate-specific antigen (PSA) levels to decrease.

What are the side effects of hormone therapy?

The following are some potential side effects that may occur with hormone therapy. However, the side effects will vary depending upon the type of hormone therapy that is given. Every person’s hormone treatment experience is different and not every person will experience the same side effects. Discuss the potential side effects of your hormone therapy with you physician.

As each person's individual medical profile and diagnosis is different, so is his/her reaction to treatment. Side effects may be severe, mild, or absent. Be sure to discuss with your cancer care team any/all possible side effects of treatment before the treatment begins.

For **prostate cancer,** either the surgical removal of the testes or hormone drug therapy can improve the cancer. Both surgery and drugs may cause the following side effects:

- hot flashes
- impotence
- a loss of desire for sexual relations
- male breast enlargement

For **breast cancer**, some women may experience side effects from tamoxifen that are similar to the symptoms some women experience in menopause. Other women do not experience any side effects when taking tamoxifen. The following are some of the side effects that may occur when taking tamoxifen:

- hot flashes
- nausea and/or vomiting
- vaginal spotting (a blood stained discharge from the vagina that is not part of the regular menstrual cycle)
- increased fertility in younger women
- irregular menstrual periods
- fatigue
- skin rash
- loss of appetite or weight gain
- headaches
- vaginal dryness or itching and/or irritation of the skin around the vagina

Taking tamoxifen also increases the risk of endometrial cancer (involves the lining of the uterus) and uterine sarcoma (involves the muscular wall of the uterus), both cancers of the uterus. There is also a very small risk of blood clots and stroke, eye problems such as cataracts, and liver toxicities. Tamoxifen should be avoided during pregnancy.

Tamoxifen is used to treat men with breast cancer as well. As each person's individual medical profile and diagnosis is different, so is his/her reaction to treatment. Side effects may be severe, mild, or absent. Be sure to discuss with your cancer care team any/all possible side effects of treatment before the treatment begins.

Men may experience the following side effects:

- headaches
- nausea and/or vomiting
- skin rash
- impotence
- decrease in sexual interest

http://cancer.stanford.edu/information/cancerTreatment/methods/hormone.html

Hormone therapy for prostate cancer, also called androgen deprivation therapy, is treatment to stop your body from producing the male hormone testosterone. Prostate cancer cells rely on testosterone to help them grow. Hormone therapy for prostate cancer can cut off the supply of testosterone, causing cancer cells to die or to grow more slowly.

Hormone therapy for prostate cancer is most often used in men with advanced prostate cancer to shrink the cancer and slow the growth of tumors. In men with early-stage cancer, hormone therapy for prostate cancer may be used to shrink tumors before radiation therapy or surgery. Hormone therapy for prostate cancer is sometimes used after surgery or radiation therapy to slow the growth of any cancer cells left behind.

Why it's done

http://www.mayoclinic.com/health/hormone-therapy-for-prostate-cancer/MY01633

Hormone Treatment for Prostate Cancer

Hormone treatment for prostate cancer - Charles E. (Snuffy) Myers, M.D., Founder and Medical Director, The American Institute for Diseases of the Prostate, Charlottesville, VA

http://www.prostate-cancer.org/education/andeprv/Myers_HormonalTherapyDiet.html

http://www.prostateforum.com/about-dr-myers.html

http://askdrmyers.wordpress.com/category/hormonal-therapy/page/2/

http://www.prostateteam.com/patient-staff.php

Beating Prostate Cancer with Hormonal Therapy

By Charles E. (Snuffy) Myers, M.D., Founder and Medical Director, The American Institute for Diseases of the Prostate, Charlottesville, VA

Reprinted from PCRI Insights May, 2007 v 10.2
Editor's Note: This article was excerpted from Dr. Myer's newly published book titled, Beating Prostate Cancer: Hormonal Therapy and Diet. Dr. Myers is both a leading oncologist specializing in prostate cancer and a patient stricken with the (now undetectable) disease.

While many men will face the "conventional" treatments for prostate cancer, whether it's radiation, surgery, or chemotherapy, it is quite likely that they will also undergo hormonal therapy in conjunction with these treatments or if these treatments fail. The parameters for failure or recurrence for these

treatments vary depending on the patient, but it's important to note that hormonal therapy can stall or even prevent recurrence for many men. In fact, as I will mention later, there are even some cases where hormonal therapy alone has been very successful in pushing prostate cancer into remission. However, many men are given a very erroneous picture of hormonal therapy – a picture that paints this form of treatment as much less effective than it actually is. This inappropriately negative picture leads many men to needless depression and hopelessness.

Importance of Optimism

The pessimist has his worst fears confirmed whereas unexpectedly good things often happen to optimists!

When I was first diagnosed, I had a very aggressive case of cancer that involved metastatic spread to my lymph nodes. I discussed my case with quite a few of my colleagues. In general, the assessment was that I almost certainly would be ill with advanced disease by five years and would likely die within ten. While I do take some satisfaction that my PSA is now undetectable more than eight years after the diagnosis, my course wasn't easy. But the single most important thing I did was to take the attitude that I would do whatever I could to gain control over my cancer. Even if I ended up dying of prostate cancer, I wanted to know that I had done everything possible to avoid that end.

I chose a very aggressive form of treatment that involved surgically removing the lymph nodes in the back of my abdomen. I followed this procedure with external beam radiation and brachytherapy to attack the remaining cancer in my prostate and then underwent eighteen months of aggressive hormonal therapy to deprive the remaining cells of the androgens on which they thrive. I also adopted a Mediterranean heart-healthy diet and began to take several supplements that, according to current research, limit the spread of prostate cancer or reduce the risk of dying from it.

I realize that as a prostate cancer specialist I had a leg up on the typical patient, which is why I want to stress how important and empowering it is to educate yourself in a time when it's easy to despair.

Too often, pessimism and, ultimately, depression can affect the way men view their disease, their treatment, and the success of their chosen program. In fact, over the years I've found myself asking if pessimism is as deadly a disease as prostate cancer itself.

This question can be answered in many ways, I think. I suppose creating some disease criteria would be helpful in answering this question. Is a disease something that affects our daily life? Is it something that at times can be so overwhelming it pervades every action until it dominates even the way we think about ourselves? Does it affect our loved ones in the process? Will it reduce years from our lives? If one uses these criteria to describe a disease then, yes, pessimism certainly qualifies. We all know people, call them cynics, realists, etc. and so on, who are constantly focused on the negative. To them, the world is a cruel and heartless place where nothing good ever happens—or where everything good in this world simply doesn't happen to them.

Think about how much time they spend dwelling on these issues, how much energy they expend on them, and how much energy it takes just to listen to their litany of complaints about this world. Whether they feel entitled or depressed, that everything is their fault or that nothing is, this kind of thinking leads people to the same place: desperation and despair.

I do find it interesting that this idea is firmly fixed in our culture. How often have we heard that John

Doe just died because “he gave up”? In contrast, the cliché “where there is a will, there is a way” also comes to mind. I deal with life and death issues every day, and time and time again I have seen people give up and die long before they should have. In contrast, I have patients who refuse to give up even though their disease is so aggressive that their other doctors urge them to put their affairs in order. These kind of relentless optimists continually seek out new and better treatments and beat all odds. In the book “Survivor Stories”, edited by my daughter and son-in-law, you’ll find several such stories—in fact one woman received a call from a medical institution some years after she received her “death sentence” from them. “We’ve noticed that you’re still alive,” they said. “Do you mind coming in for a few tests?”

While this is purely anecdotal evidence, the medical community sees anomalies like this all the time. Is it simply optimism that keeps these people alive or is it pessimism that kills? Folk wisdom suggests that pessimism is the mistake and now it seems that the medical literature also supports this idea.

The article that triggered my thoughts on this subject appeared in the Archives of General Psychiatry in 2004 (Giltay, et al). In this Dutch study, 466 men and 475 women between the ages of 65 and 85 took a test to determine their relative optimism versus pessimism. They were then followed from 1991 to 2001. During that time, there were 397 deaths. The optimists had a death rate close to half that of the pessimists. The deaths from cardiovascular disease, largely heart attack and stroke, were down by 77% in the optimist group compared with the pessimists. There was a similar study in the journal Psychosomatic Medicine last year that showed a marked worsening in carotid atherosclerosis in pessimists compared with optimists (Mathews, et al). Finally, the Mayo Clinic reported similar results that involved following optimists versus pessimists for greater than 30 years.

How is it that optimists do better than pessimists? It appears that these two approaches to life have a very different impact on human biology. In one recent article, Steptoe, et al. measured cortisol, the major stress hormone in the body, and found that levels were lowest in those who rated themselves as happy. One key event in the evolution of heart disease is the appearance of blood clots in the major arteries. Steptoe, et al. found elevated fibrinogen levels, a major risk factor for heart disease, in those who rated themselves as unhappy.

My own observations suggest that the picture is far worse than these articles indicate. Not only do pessimists do worse medically, but also they are absolutely miserable while they wait for bad things to happen. For the optimist, time is usually passed pleasantly because he or she anticipates that whatever bad things might happen, tomorrow will most likely be good.

I am reminded of my great uncle who died at age 98. He had experienced a wide range of medical illnesses and was never able to qualify for life insurance. When he was in his 80s, I asked him the reason for his long life. He said that you can always expect to get sick. The secret was figuring out a way to get well. This is how he approached each of his many illnesses: he assumed there was a way to get well again. He managed to practice dentistry from his mid 20s until his retirement at age 93. Every day for more than 70 years, he walked one mile from his home to his office and then back home each evening. During that time, he dealt with thyroid and prostate cancer, heart attack, pacemaker implantation, hypertension and a severe case of giardiasis (an intestinal disorder). After each challenge, he would marshal his resources and bounce back. He only stopped practicing dentistry when his visual acuity declined to the point where he could no longer perform.

Sometimes pessimism is just a manifestation of an underlying depression. If this is the case, I think

these papers strongly support actively treating depression. This may involve drugs. For example, I have had considerable success with both Welbutrin and Lexapro as treatment for the depression that commonly develops when men are on hormonal therapy. You also need to be aware that exercise can markedly lessen depression in many people. Vitamin D and sunlight exposure also greatly influence mood. It has long been known that exposure to sunlight can lessen depression in many people. Now it appears that a good deal of that is due to vitamin D.

Nevertheless, a portion of pessimism is not founded in depression but in an approach to life, which is based on diminished expectations. And it's hard not to let disappointments get you down when you see others thriving around you. Life may be full of disappointments for all of us, but by focusing on this, aren't you creating a self-fulfilling prophecy in which your only consolation is that you happened to be right in the middle of a catastrophe? Remember: the pessimist has his worst fears confirmed whereas unexpectedly good things often happen to optimists!

At this point, we should note that many times it is the patient's physician who is the cause of pessimism on the part of the patient. This is the reason why it is important for physicians dealing with cancer patients to be as accurate as possible in providing a patient with estimates of time free of cancer as well as overall survival. Unfortunately, with hormonal therapy many patients are given prognostic information that is very inaccurate and inappropriately pessimistic.

It is an unfortunate fact that in some circles, just like Rodney Dangerfield, hormonal therapy gets no respect. However, the clinical trials show that hormonal therapy can be an extremely effective treatment for prostate cancer at various disease stages. Yet there are more misconceptions about hormonal therapy than any other area of prostate treatment. For the most part, these misconceptions paint a pessimistic picture of hormonal therapy's effectiveness and often lead to an unfounded sense of hopelessness in many patients. These misconceptions often lead patients to avoid effective methods of controlling their diseases. But why are there so many misunderstandings about hormonal therapy? Well, I think the problem has its root in the fact that the pace of prostate cancer research has been so overwhelming that it is impossible for any one physician to keep up with everything published on the disease. Physicians tend to read only those prostate cancer papers that directly relate to their own specialty. In other words, surgeons tend to read about advances in surgery, radiation therapists about radiation, and medical oncologists about chemotherapy. Unfortunately, while each of these specialists may administer hormonal therapy, none make it a central focus of their practice. Let's talk about some of the common problems I see.

Two Common Myths About Hormonal Therapy
#1 Responses Only Last 18 months

This is one of the more persistent myths in the field and I can't understand how it gained such wide circulation among patients and physicians. As far as I can tell, the idea dates from a paper published in 1989 by David Crawford. Crawford conducted a large, randomized controlled trial comparing Lupron alone to Lupron + Flutamide (Eulexin).

The patients on this trial had been diagnosed with prostate cancer prior to the advent of PSA screening and therefore had more advanced prostate cancer than generally seen today. Dr. Crawford and his colleagues classified patients according to whether they had advanced, moderate, or minimal disease according to the standards of that time. Those with advanced disease had widespread bone metastases and suffered from significant symptoms. On average, these patients became resistant to

hormonal therapy after just over eight months. Those with moderate disease had cancers that spread throughout the skeleton, but did not have any symptoms. These patients became resistant to hormonal therapy after an average of 18 months.

I think the common assumption that hormonal therapy lasts 18 months comes from the results seen in the patients with what was then considered moderate disease—or widespread bone metastases without symptoms. But there are many reasons why it is inappropriate to generally cite this statistic. First, even in 1989, 18 months was just the average. In Crawford's study, half the patients continued to respond after 18 months and a significant percentage were responding at five years. I think it's important for patients with widespread bone metastases to know that there is a chance their cancers may continue to respond to hormonal therapy even after the oft-cited 18-month mark. Still, time and again, I see men arrange their financial affairs with the assumption that they won't live another five years only to find themselves impoverished when they're lucky enough to beat the 18-month figure. But there is no reason you have to have the average result!

The second problem with the 18-month figure is that I see it quoted to men who do not have widespread bone metastases. Some physicians even cite the figure to men who only have lymph node metastases or even simply a rising PSA after radical prostatectomy or radiation therapy. Of course, these patients don't have nearly as extensive prostate cancers as those in the Crawford study and are likely to continue to respond to hormonal therapy for many years to come.

Why do patients with lymph node metastases do so much better if they've had their prostate gland removed? The best study to shed light on this issue is one from MD Anderson Cancer Hospital published in 1994 by Zagars, et al. In this study, patients with lymph node spread were placed on hormonal therapy and followed until their disease recurred. (Note that these men did not have their prostate glands removed.) Once a patient's disease recurred, researchers recorded where hormone-resistant [link to disease emerged. In more than half the cases, hormone-resistant disease first emerged in the prostate gland. I think this makes sense. Hormone-resistance is the result of a mutation, a change in the genetic material in the cell, which allows the prostate cancer cell to grow at very low testosterone levels. In general, mutations are random events that occur once in every 1-10 million cells.

Thus, all other things being equal, you would expect hormone resistance to emerge at locations where there are a large number of cancer cells. (At the time of diagnosis, patients with lymph node metastases still usually have the largest bulk of cancer in their prostate glands.) If the prostate gland is an important source of hormone resistant prostate cancer, then removing the prostate gland should improve hormonal therapy's results. And indeed, at the Mayo Clinic, Horst Zincke makes it a practice to remove the prostate glands in those patients with lymph node metastases. His results represent a dramatic improvement in the duration of hormonal therapy response. A randomized controlled clinical trial published in 1999 by Edward Messing confirms the Mayo Clinic results. These results are shown in Figures 1-3. As you look at these graphs, reflect on how wrong it is to tell patients that they will fail hormonal therapy in 18 months.

The first of these (figure 1) shows the overall survival of men in the Messing trial. Those placed on hormonal therapy immediately after surgery did better than those patients not put on hormonal therapy until they had recurrent disease. Of course, these curves only go out to 10 years and, as we have already discussed, this is still too early to see the full benefit of hormonal therapy. Additionally, men with prostate cancer tend to be older and can well die of heart disease, stroke, kidney disease or other cancers instead of prostate cancer.

Figure 1. Overall Survival of all Trial Participant

Figure 2 shows the prostate cancer specific survival. Remember, all the men on this trial had lymph node metastases. Again, those who went on hormonal therapy immediately after surgery did quite well with close to 90% alive at 10 years. However, even those without immediate hormonal therapy did well. Again, the point is that 10 years is still early to see the full impact of hormonal therapy on lymph node metastatic disease.

Figure 2. Prostate Cancer-Specific Survival Rates

Figure 3 shows the proportion of patients who have not yet developed progressive prostate cancer. As shown, at the seven year point close to 80% of the men with surgery followed by early hormonal therapy are still free of disease recurrence, and, no relapses were seen after the fifth year. In contrast, those who had surgery only are doing less well.

Figure 3. Proportion of Participants Who Have Not Yet Developed Progressive Prostate Cancer

These results emphasize several points. First, remember this graph the next time someone tells you that hormone resistance develops in 18 months. Second, it emphasizes that hormonal therapy is quite effective when it is started at a time when the amount of cancer is small. To put this into perspective, Dr. Walsh from Johns Hopkins has recently published his overall results with radical prostatectomy. Dr. Walsh is well known to be careful about whom he operates on and that he chooses patients most likely to benefit from surgery. In his series, less than 80% of these patients were in remission at 10 years – that's not much better than this group of men with lymph node metastases treated with surgery and immediate hormonal therapy.

Since 1989, PSA screening has revolutionized the field of prostate cancer diagnosis and treatment: we're diagnosing cancers earlier and earlier. In most studies of PSA screening, widespread metastatic disease is often identified only in the first and sometimes the second year of screening. Thereafter an overwhelming majority of patients have cancers that appear to be confined to the prostate gland. In fact, the worst situation you are likely to see with any frequency is patients with disease that has extended outside the prostate capsule to seminal vesicles or pelvic lymph nodes. Even these patients can be treated successfully with hormonal therapy combined with aggressive external beam radiation therapy plus brachytherapy.

What this means is that more often than not, a man considering hormonal therapy has a PSA increasing after surgery or radiation therapy and metastases too small to see with a CT or MRI scan. We have no published series that accurately reports response duration in these patients, but I suspect that they would do as well or better than those with documented lymph node metastases after surgical removal of the prostate gland. Indeed, one series has been presented in abstract form, but not published. Drs. Scardino and Scher reviewed their experiences at Memorial Sloan Kettering in New York City and found that half of their patients were still responding at the 10-year mark. Based on my clinical experience, this result looks to be approximately correct.

Table 1 represents my best estimate of the average time to hormone-refractory cancer at various stages of spread. Again, as you see, the 18-month figure only applies to a relatively small group of men, not the vast majority of those patients seen today.

I conclude that hormonal therapy is far more durable than generally thought. In fact, almost all men who recur after radical prostatectomy or radiation therapy will continue to respond to hormonal therapy after five years and about half will continue to respond after ten years. The only major exception would be those men who have rapidly growing cancers.

#2 Hormonal Therapy Doesn't Kill Prostate Cancer Cells

Over the last several years, a growing number of patients tell me they've been told that hormonal therapy doesn't kill prostate cancer cells, but just stops cancer growth and artificially lowers the PSA test, thereby fooling us into thinking cancer cells have actually died. I find this myth very strange. Time and again, hormonal therapy clinical trials have reported shrinkage of measurable cancer metastases. Depending on the clinical trial, up to 30% of patients enter complete remission, which means that all detectable prostate cancer has disappeared! How can you enter a complete remission without having killed prostate cancer cells?

On the other hand, some patients do not respond to hormonal therapy and among those patients, hormonal therapy hasn't killed a significant number of prostate cancer cells. It is also true that the PSA test can be deceptive during hormonal therapy. With the drop in testosterone that follows the administration of Lupron, Zoladex, Eligard or Trelstar, PSA values often decline to below 0.05 ng/ml by the third month. If you look carefully at the extent of the cancer at that point, you may see little or no change in the size of the cancer in the prostate gland, lymph nodes, or other sites. Instead, the size of the cancer at these sites gradually decreases over a period of many months, often taking 9-12 months to reach maximum shrinkage. However, it is true that a rapid and dramatic fall in the PSA is a good thing and indicates that the patient is a good candidate for subsequent, equally dramatic cancer shrinkage.

Who is not likely to have a durable response to hormonal therapy? Researchers are in the midst of identifying specific genes that determine success or failure of treatment for prostate cancer. In a few years, we will be able to specify sets of genes that govern success or failure of hormonal therapy. At present, we live in a more primitive world where we make predictions on how the cancer appears under the microscope and how it behaves in the patient. Two factors appear to have been well established as favoring more rapid development of hormone resistance. First, cancers with a Gleason of 8 or greater favor early appearance of hormone resistance. Second, rapidly growing cancers, especially where the PSA doubling time is more rapid than three months, tend to develop hormone resistance earlier. When the patient has both a Gleason of 8 or more and a rapid PSA doubling time, hormone resistance can appear in a much shorter period of time than is seen in the more common forms of prostate cancer. At present, early introduction of chemotherapy is being studied as a possible alternate option for these patients and early results look quite promising.

Conclusions

With any life-threatening illness, it is easy to despair, but you need not despair. While I was 55 at the age of my diagnosis, the prospect of living just five or ten more years did not appeal to me, as you might imagine. Instead, I undertook a treatment based on defying the then-current expectations of the prostate cancer industry. And with an undetectable PSA after more than eight years, I believe that this treatment regimen was indeed successful. I fervently hope that this article and my book will provide reasons for optimism all the men who are more in the dark than I was after my diagnosis. With any luck, you will find yourself in a safer and happier place.

Editor's Note: Dr. Myers' book is available at www.prostateforum.com or by calling 800-305-2432.

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Electromedicine with a Digital Zapper

Introduction to (Gentle!!) Electromedicine in Alternative Medicine

While most people have a general idea about what nutritional protocols do for cancer patients, they have no clue what "electromedicine" devices are designed to do. This is a completely new concept to most cancer patients.

But do not confuse the very, very gentle electromedicine of alternative medicine with the barbaric "radiation therapy" of orthodox medicine. In many cases, when using electromedicine, the patient barely knows the device is turned on!!

Electromedicine devices fall into one of two categories:
1) They are designed to kill microbes in the bloodstream, lymph system, etc.
2) They are designed to kill microbes which are inside the cancer cells (see the "What Causes Cancer" article).

Electromedicine devices cannot kill cancer cells directly because they cannot differentiate between a cancer cell and a normal cell. Well, that is not entirely true because some newer protocols are being researched which use minerals to allow an electromedicine device to target cancer cells (e.g. Kanzius). But I will not talk about these devices because they are experimental and their safety is far from being adequately tested.

Dr. Royal Rife, a microbiologist, designed his device to kill microbes which were inside of the cancer cells. That is why his device had a "carrier frequency." If you can kill all of the microbes inside the cancer cells the cancer cells will be able to restore their metabolism and will revert into normal cells.

I am going to repeat that in another way: many of today's alternative cancer treatments revert cancer cells into normal cells!! That is the best way to cure cancer because there is no debris from dead cancer cells in the body. In fact, many of the newer protocols work that way.

More than a hundred electromedicine experts have tried to replicate Rife's technology. More than one of these "Rife Machines" has been very effective against cancer!!

One team had enough money to track down some original Rife Machines which were sold and delivered before the FDA shut him down.

Because of this team, the Rife technology has now been restored completely, including the critical "carrier wave," which no one knew about until they studied one of his original machines.

This team has built the GB-4000 frequency generator with M.O.P.A. plasma amplifier and the SR-4 linear amplifier. The M.O.P.A. is an authentic plasma "Rife Machine," using modern technology!! It is a new generation, highly effective alternative cancer treatment which has the critical "carrier wave." It is a complete cancer treatment, but nutritional protocols are recommended to be added for advanced cancer patients.

Here is a picture of one of the new generation of Rife Machines (these devices are commonly called: "frequency generators"):

(Note: In the above image the device on the right is the GB-4000 frequency generator and the device on the left is the M.O.P.A. plasma amplifier. Both devices are necessary when using this protocol.)

Beware: Some of the brands of "Rife Machines" are totally ineffective for cancer because they are underpowered or do not have the proper frequency range, etc. But a few are highly effective.

Another "electromedicine" protocol is the Bob Beck protocol. The Bob Beck machines were designed to kill the microbes in the bloodstream, lymph system and elsewhere in the body (but not inside the cancer cells). By doing this the immune system is supercharged and the immune system is able to safely kill the cancer cells.

The history of the Bob Beck devices is quite interesting. Bob Beck, a PhD in physics, heard about, and sought to recreate, a totally suppressed cure for AIDS which had been accidentally discovered by two medical doctors, Dr. Kaali and Dr. Lyman, at the Albert Einstein College of Medicine. Dr. Beck was able to create a new cure for AIDS using their discovery!!

However, possibly by accident, he found out that when you totally eliminate all microbes from the body that the immune system is supercharged enough to cure cancer!! This is the Bob Beck Protocol.

The Bob Beck Protocol is an excellent cancer treatment but may take 2 or 3 months to become highly effective because it takes time to safely and completely rid the body of microbes and then it takes more time for the immune system to supercharge itself sans microbes.

In addition, people who have had a lot of chemotherapy may have an abnormally suppressed immune system due to damage to the lining of their stomach and/or colon. But for the money, it is a superb treatment.

The combination of the Rife and Beck **devices** is the heart of the Plasma-Beck Protocol linked to on the left side-bar. The combination of the Rife and Beck **theories** are at the heart of the Rife-Beck Protocol, also linked to on the left side-bar. This latter protocol uses a GB-4000 SR-4 to act as both a Rife and a Beck protocol.

Because the Beck devices are so inexpensive, they are used in several protocols. The Beck device is slow to become effective, therefore an entire major protocol may be used to "buy time" until the Beck Protocol can supercharge the immune system (e.g. the "Ultimate Simple Protocol" is an example of this tactic).

The Cellect-Budwig protocol, one of the two super-protocols (see the "Best Cancer Treatment" article linked to on the left side-bar), includes a GB-4000 M.O.P.A. for those patients who can afford it. The Cellect-Budwig and GB-4000 M.O.P.A. have been shown to be very synergistic.

"Synergy" is actually a very good word to get used to. By combining several highly effective alternative cancer treatments together, a great deal of synergy can be achieved!! The "Complete Protocols" section of the left side-bar contains links to

several "protocols" (e.g. the Plasma-Beck protocol) which include several individual cancer treatments which are highly effective by themselves!!"

Many times people use the first cancer treatment they find on the Internet (e.g. hydrogen peroxide, laetrile, carrot juice, etc.). However, it is far, far better to combine several treatments together, especially when the protocol is designed to contain synergistic treatments which have individually cured cancer in some cases.

For example, the "Dirt Cheap Protocol," which was designed for people who do not have the money for the more expensive protocols, includes six cancer treatments which have individually cured some cases of cancer!! It includes other treatments as well. The reader would not believe how poor many people are after orthodox medicine gets done with them. Over the years I have had to adjust to this reality, such as by finding or designing "dirt cheap" individual treatments or protocols for cancer.

Getting back to the Bob Beck devices, someone with an electrical background can actually build his equipment at home. Schematics are available on this website and his videos on YouTube describe how to make them (see the Bob Beck videos at Granada and Ventura, etc.). The downside of this is that no technical support is available when you build your own devices.

But for those in foreign countries, where they may not be able to afford or import the Beck equipment, the ability to build it at home is a gift from heaven!! Also, many people cannot afford the roughly $1,000 for the pre-made equipment, but hopefully they know someone who can build three of the four devices (which includes the main device - the blood purifier).

His devices can also be purchased pre-made online (e.g. Sota Instruments) which may come with technical support. However, vendors have to be careful what they say about their equipment because of the FDA or their Canadian equivalent. They are watching, like vultures, for the vendors to make "medical claims" about their highly effective, but "unproven" cancer treatments so they can shut them down.

Because of this persecution cancer patients will not be able to tell which protocols are highly effective and which are not. That is precisely what the FDA and other corrupt organizations want!!

Because of this corruption, many patients will use ineffective treatments and may die. This lowers the image of alternative medicine, which is what the FDA wants. The job of the FDA is to sell drugs, not save lives.

The FDA even has their own judges and courts to make sure they never lose. The constitutional protection of "due process" has been urinated on and burned out of the Constitution, as have many other parts of the Constitution.

The reader should very, very, very careful to remember that all vendors of highly effective cancer treatment products are not allowed to make medical claims about their device or product, even if their claims have been proven over and over again!!!

I have heard of many cancer patients becoming frustrated because the vendor they were talking to could not tell them the whole truth about their product or would not answer their questions!!

Sometimes the corruption becomes ridiculous. For example, in Canada the Sota Instruments company is not allowed to call their Bob Beck blood purifier a "blood purifier," they must call it a "silver pulser."

Likewise, vendors of "Rife Machines" frequently will not use the term "Rife Machine," but will call it a "frequency generator."

Combining Electromedicine With Nutritional Protocols (Five Examples)

As a cancer researcher since 2002, I find myself, more and more, recommending to someone to combine an electromedicine protocol (e.g. the Rife or Beck protocols) with the best of the nutritional protocols (e.g. the Cellect-Budwig, Bill Henderson or other protocols). Most electromedicine protocols can be combined with most nutritional protocols to make a synergistic combination!!

In this section I will provide five examples of combining electromedicine with nutritional protocols.

First, there was a time when the Cellect-Budwig was the most potent home cancer treatment I knew about. Now, with the development of the GB-4000 with M.O.P.A., the combination of the Cellect-Budwig and GB-4000 with M.O.P.A. is the most potent home treatment for cancer I know about (and I know about hundreds of alternative cancer treatments). I frequently recommend this combination for the more advanced cancer patients who have had significant chemotherapy.

Mike Vrentas, who supports the Cellect-Budwig protocol, is actually the person who designed this combination and he supports both protocols via Skype for less than $200, which includes 5 hours of audio CDs.

The GB-4000 with M.O.P.A. costs around $5,000 so many cancer patients cannot afford this device. But remember the Cellect-Budwig protocol is a superb protocol by itself even if you cannot afford the electromedicine part. Just have someone build a Bob Beck device at home.

Second, the Plasma-Beck Protocol, which I designed in 2011, combines both the Rife and Beck technologies along with some superb supplements. It is very similar to combining the GB-4000 with M.O.P.A. with the Cellect-Budwig, but it does not use the Cellect or Budwig, but instead adds the Bob Beck Protocol (to the M.O.P.A.) and uses a different set of supplements.

Third, an unpublished combination is the combination of the Bill Henderson Protocol with the Bob Beck Protocol. The Henderson protocol starts working very quickly and includes some powerful immune builders, but for the long range I believe this protocol would be more effective if the Bob Beck Protocol were added to keep microbes out of the bloodstream. The Henderson protocol is by far the least expensive of the highly potent protocols, so if a friend could be found to build the Beck equipment, this would be a dirt cheap, highly effective protocol!!

Fourth, the Rife-Beck Protocol, which I designed in 2011. This uses a GB-4000 with SR-4 linear amplifier (the "little brother" of the M.O.P.A.) as both a Rife device and a Beck device! It uses Limu Juice, the GB-4000 SR-4 and other products as both cancer treatments and to "buy time" for the Beck protocol to become fully effective.

Fifth, is the Ultimate Simple Protocol (USP), which I designed in early 2011 and revised in June, 2011. This protocol uses the Bob Beck Protocol as the main cancer treatment. It uses Limu Juice, Aloe Arborescens and other products as both treatments and to "buy time" for the Bob Beck Protocol to become effective enough to supercharge the immune system.

Exceptions to the Rules

It is not always good or even necessary to combine an electromedicine protocol with a nutritional or mineral protocol.

For example, most electromedicine devices should not be combined with the Cesium Chloride protocol because the electromedicine will neutralize the way the cesium chloride works. But even so, the Cesium Chloride protocol is one of the top protocols.

Also, if a person is newly diagnosed with cancer, and has not had any orthodox cancer treatments, and has a slow growing cancer in a non-dangerous location; it may not be necessary to include an electromedicine protocol. The Bill Henderson Protocol by

itself, the Ultimate Simple Protocol sans the Bob Beck Protocol, the Cellect-Budwig protocol by itself and other nutritional protocols may be all they need!!

However, all cancer patients should eventually use the Bob Beck protocol for a good long time (see "The Best Cancer Treatment" article to understand why).

There are many rules and exceptions which is why working with an expert will help you avoid mistakes with are obvious to the experts.

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(1) Advanced Frequency Generator: Zapper Digital LCD
(2) Professional Clinic Model: Zapper Digital Megahertz: (Based on Dr Clark's Clinic Model)

Use only Frequency Generator Digital Zappers, that have more power than the conventional Zapper and are the "Digital type Zapper" specifically outlined on page 502 in "Cure for all diseases". Run a 10 frequency comprehensive parasite set on the Zapper Digital LCD or MHZ model in order to target the various parasitic pathogens, who live in these particular frequency ranges.

Gerson Therapy (Dr Max Gerson) http://www.huldaclarkzappers.com/?page_id=206

Dr Clark's Comments. ZAPPER DIGITAL LCD "Frequency generators come in all sizes and costs and capabilities. If you can purchase one that reads out the frequency for you in numbers (Digital Type) and lets you produce a fraction of a kilohertz by turning a dial, it meets your most elementary needs. It should also be possible to set it on positive offset (100% positive) and still give you 5 volts." Zapper Digital LCD specifications. **Zapper Digital LCD ($300 est.) provides the latest technology Zapper in an affordable package. Multiple frequency programs can be selected from the CAFLR book which lists over 3500 diseases that can be treated with the Zapper Digital LCD.**

The Zapper is an electronic device producing an adjustable frequency of 000.01Khz - 999.99Khz @ 5.0 volts DC which is the most successful bandwidth for eliminating bacteria and parasites through the wrist / foot strap terminals. The pulsing action of the positive terminal sends an electronic “wave” through the body, which eliminates all parasites, bacteria, amoeba and viruses that live within this 1,000,000hz band. This positive current detaches the negatively charged bacteria from their electro-magnetic adhesion in the body, so that the immune system can fight them. The frequencies can be programmed in according to the particular illness you are working with.

Parasites and Amoeba often are carriers of viruses, pathogens and bacteria. When a single zapping session destroys a parasite, parasitic bacteria can be released into the blood stream which can cause an immune system overload. Multiple Zapping sessions eliminate this possibility.

"You don't need dangerous and expensive drugs to get rid of the causes of your illness. Diabetes, High Blood Pressure, Seizures, Migraines, Fatigue Syndromes, Alzheimer's, Parkinson's, Multiple Sclerosis, were investigated and treated using a Digital Frequency Zapper LCD and the Dr Hulda Clark Cleansing Program " *http://www.huldaclarkzappers.com/?page_id=31*

Hydrogen Peroxide As A Cancer Treatment

by R. Webster Kehr
Independent Cancer Research Foundation, Inc.

TREATMENT RATING: This cancer protocol is very effective at getting rid of cancer cells, however, this protocol does not contain the super-nutrients which deal with reversing damage to the non-cancerous cells due to cancer (e.g. lactic acid), chemotherapy, radiation, etc.

Most cancer patients die as a result of the damage to their non-cancerous cells. While hydrogen peroxide is an excellent cancer treatment, it is not a complete protocol which deals with the most dangerous issues faced by advanced cancer patients.

Furthermore, this protocol does not have expert technical (e.g. telephone) support; which is the single most important factor in surviving advanced cancer.

By itself, this protocol is only rated as being effective for newly diagnosed cancer patients who have not had severe damage to their non-cancerous cells and immune system by chemotherapy, radiation and/or surgery.

In addition, even for newly diagnosed cancer patients, this protocol is not considered strong enough, by itself, to treat fast-spreading cancers or cancers that have spread significantly.

This protocol is also effective as a supplemental protocol to the more complete protocols (e.g. the Bill Henderson Protocol) which deal with the damage to non-cancerous cells and the immune system. However, this protocol is not compatible with a few of the higher rated protocols (the technical expert of the higher rated protocol will make this determination).

If you are an advanced cancer patient who has had a lot of chemotherapy, radiation or surgery or you have a potentially fast-growing cancer, do not use this protocol as your primary cancer treatment, use one of the protocols linked to on the following web page:
Chapter on Treatments Rated For Advanced Cancer Patients

Introduction to Hydrogen Peroxide As A Cancer Treatment

This article describes how to use hydrogen peroxide in the treatment of cancer. However, this article will go much further into the theory of hydrogen peroxide than other articles. For example, this article will discuss why the protein coating which covers all cancer cells may reduce the effectiveness of the hydrogen peroxide protocol and how to overcome this issue.

But before getting into the use of hydrogen peroxide to treat cancer, it should be emphasized that while hydrogen peroxide is an excellent treatment for cancer, using hydrogen peroxide to cure cancer does not deal with many key issues faced by advanced cancer patients whose bodies have been severely damaged by their cancer and by their orthodox cancer treatments. In many cases, it is not the cancer cells which kill cancer patients, but rather other issues, such as damage to key organs, damage to non-cancerous cells, etc.

Examples of what hydrogen peroxide does not deal with would include:
1) rebuilding the immune system,
2) rebuilding the damage done to the stomach and colon by chemotherapy,
3) dealing with cachexia directly,
4) protecting the non-cancerous cells from the damage done by cancer and orthodox treatments.
5) protecting the organs from damage caused by the cancer and orthodox treatments,
etc. etc.

Advanced cancer patients who have had significant orthodox cancer treatments are strongly encouraged to integrate this protocol with treatments which deal with other issues faced by advanced cancer patients.

However, BEFORE doing this the warnings below should be studied carefully.

Once you understand the warnings, see this free eBook on the treatment of advanced cancer:
The Treatment of Stage IV Cancers

Getting Hydrogen Peroxide Inside the Cancer Cells

Note: Unlike other products which kill microbes, do NOT use DMSO to get hydrogen peroxide inside of cancer cells. This is not a safe procedure according to my information.

It has been clinically demonstrated that the spread or metastatis of cancer is inversely proportional to the amount of oxygen around the cancer cells. The more oxygen, the slower the cancer spreads. The less oxygen, the faster the cancer spreads. If cancer cells get enough oxygen, they will die (cancer cells are anaerobic). It is thought that hydrogen peroxide kills cancer cells because cancer cells do not have the mechanism to break down hydrogen peroxide that healthy cells have.

The issue in curing cancer with hydrogen peroxide boils down to getting enough hydrogen peroxide inside the cancer cells.

Every cancer cell has a thick protein (i.e. enzyme) coating on its surface. The protein coating blocks many substances, and perhaps much of the hydrogen peroxide, from getting to the surface of the cell and thus from getting inside the cell.

So what can be done to get a higher percentage of the hydrogen peroxide past the protein coating and inside the cancer cells?

Enzymes and Magnesium

Proteolytic enzymes (also called: pancreatic enzymes) literally cut apart the thick protein coating which covers cancer cells. Proteolytic enzymes are normally used to cut apart the protein coating so that the immune system can recognize the cells as cancerous. The use of proteolytic enzymes for this reason has been around for decades.

By cutting apart the protein coating proteolytic enzymes may also be able to get much more hydrogen peroxide inside the cancer cells.

There are many, many brands of proteolytic enzyme supplements. One of the best known is Vitalzym. Use a search engine to find an online vendor of Vitalzym or to find a competitor product.

Vitalzym, however, does not contain nattokinase, which helps to dissolve blood clots. Enzyme supplements which contain nattokinase should not be used in high doses because they thin the blood too effectively. However, they are important enzymes to prevent blood clots. If blood clots are a potential issue for the cancer patient, I suggest the high quality enzyme supplement: 10Zymes (the only vendor will be mentioned below).

(Note: Cancer patients who are taking prescription blood thinners should work with their medical doctor as they slowly integrate ANY enzyme products with their prescription drugs!!)

In other words, all cancer patients who use hydrogen peroxide should use a quality proteolytic enzyme such as Vitalzym. Additionally, those cancer patients who are concerned about blood clots should use two enzyme supplements. The enzyme with nattokinase should be used in low doses (no more than one per day) and the enzyme without nattokinase should be used in high doses.

These enzymes also break apart hydrogen peroxide into oxygen and water, which is a good thing because it helps prevent some stomach issues to be discussed below.

Magnesium is absolutely critical when using enzymes. Enzymes simply will not work without magnesium. While 10Zymes has magnesium in it, it does not have enough magnesium in it for the use of Vitalzym.

The Essense of Life website is the only website which sells 10Zymes (it is a proprietary blend), but whether you use 10Zymes or not, they also sell a very high quality magnesium supplement which all persons who take Vitamzym should take (take one teaspoon a day of the magnesium):
10Zymes Vendor and/or Magnesium Vendor

I would take one 10Zyme a day (if there is a concern for blood clots), and at least 6 Vitalzym pills a day to help the hydrogen peroxide get inside the cancer cells. You can take more than 6 Vitalzym pills a day if you wish, but they are also blood thinners so you cannot take unlimited doses. As I remember, the maximum is 9 pills a day, though for short periods higher doses can be taken.

The Budwig Diet (Bad For This Protocol)

Avoid the Budwig Diet like the plague when using hydrogen peroxide!! When the fats in the Budwig Diet interact with the hydrogen peroxide it can cause severe stomach damage. See below for more information.

Now let us talk about the main protocol in this treatment for cancer - hydrogen peroxide.

Hydrogen Peroxide

* "Nobel prize winner Dr. Otto Warburg demonstrated over 50 years ago the basic difference between normal cells and cancer cells. Both derive energy from glucose, but the normal cell requires oxygen to combine with the glucose, while cancer cells break down glucose without oxygen, yielding only 1/15 the energy per glucose molecule that a normal cell produces. This is why cancer cells have such a huge appetite for sugar, and also why people who consume excessive quantities of sugar tend to get cancer more often."

Controlling cancer can be done by controlling the oxygen and/or controlling the things that free up oxygen (e.g. ionized water) and other ways. Hydrogen peroxide, or other oxygen therapies, are one of the most widely used cancer therapies world-wide because they provide oxygen to the cancer cells. They are safe and effective. H_2O_2 is also used for a host of other ailments, including AIDS and any other virus based illness.

I want to emphasize very strongly that you should not use any type of hydrogen peroxide unless it is "Food Grade." The junk you buy at grocery stores and most health food stores is high in iron and who knows what other chemicals (as a minimum they are not removed) and is for EXTERNAL USE ONLY. Cancer treatments should not involve this stuff under ANY circumstances. See vendors in the links below.

There is no controversy about H_2O_2 being used topically (i.e. externally) or with an I.V. However, there is a major controversy about whether it should be taken orally.

* "The most common form of hydrogen peroxide therapy used by doctors is as an intravenous drip. For use at home, some individuals add a cup of 35% food grade hydrogen peroxide [or 10 cups of 3%] to a bathtub of warm water and soak for 20 to 30 minutes as the hydrogen peroxide is absorbed through the skin. Others drink a glass of water to which several drops or more of food or reagent grade hydrogen peroxide have been added [note: use Food Grade H_2O_2]. Although there have been reports of improved health with oral use, physicians like Dr. Farr believed that taking hydrogen peroxide orally could have a corrosive and tumorous effect on the stomach and small intestine and advised against using it. There is animal research supporting this caution."
http://www.diagnose-me.com/treat/T216805.html

Actually, if you added 4 cups of 35% H_2O_2 to the bath water it would only be about a 1/5 of 1% solution of H_2O_2 (assuming 45 gallons are in the tub).

Robert O. Young, PhD is another person who recommends against taking H_2O_2 internally. In his book Sick and Tired? he states:

* "Some health practitioners have given hydrogen peroxide internally to patients. There have been some reports of success with this, but it is highly controversial. My opinion is that it should never be used internally for any reason. For one thing, it is not a nutrient, and the risk of it combining in the body with superoxide is too great." Sick and Tired?, page 74.

His reasoning is that if superoxide and hydrogen peroxide react with each other, they form one of the most active (i.e. dangerous) free radicals of all - hydroxyl radical, OH.

However, that is not the end of the story. Another expert, Dr. David G. Williams, has extensively researched this issue and considers the internal injestion of H2O2 to be perfectly safe. He notes:

* "A single atom of oxygen, however, is very reactive and is referred to as a free radical. Over the past several years, we've continually read that these free radicals are responsible for all types of ailments and even premature aging. What many writers seem to forget, however, is that our bodies create and use free radicals to destroy harmful bacteria, viruses, and fungi.

In fact, the cells responsible for fighting infection and foreign invaders in the body (your white blood cells) make hydrogen peroxide and use it to oxidize any offending culprits. The intense bubbling you see when hydrogen peroxide comes in contact with a bacteria-laden cut or wound is the oxygen being released and bacteria being destroyed. The ability of our cells to produce hydrogen peroxide is essential for life. H202 is not some undesirable by-product or toxin, but instead a basic requirement for good health.
http://www.purehealthsystems.com/hydrogen-peroxide-2.html

This is a superb article, by the way. Also in this article is a reference for the different grades of H2O2:

* "Hydrogen peroxide is available in various strengths and grades.

3% Pharmaceutical Grade: This is the grade sold at your local drugstore or supermarket. This product is not recommended for internal use. It contains an assortment of stabilizers which shouldn't be ingested. Various stabilizers include: acetanilide, phenol, sodium stanate and tertrasodium phosphate.

6% Beautician Grade: This is used in beauty shops to color hair and is not recommended for internal use.

30% Reagent Grade: This is used for various scientific experimentation and also contains stabilizers. It is also not for internal use.

30% to 32% Electronic Grade: This is used to clean electronic parts and not for internal use.

35% Technical Grade: This is a more concentrated product than the Reagent Grade and differs slightly in that phosphorus is added to help neutralize any chlorine from the water used to dilute it.

35% Food Grade: This is used in the production of foods like cheese, eggs, and whey-containing products. It is also sprayed on the foil lining of aseptic packages containing fruit juices and milk products. THIS IS THE ONLY GRADE RECOMMENDED FOR INTERNAL USE...

90%: This is used as an oxygen source for rocket fuel.

Only [highly diluted] 35% Food Grade hydrogen peroxide is recommended for internal use [note: obviously his point is that only Food Grade hydrogen peroxide should be taken internally, there are lower concentrations than 35%]. At this concentration [i.e. 35%], however, hydrogen peroxide is a very strong oxidizer and if not diluted, it can be extremely dangerous or even fatal. Any concentrations over 10% can cause neurological reactions and damage to the upper gastrointestinal tract.
http://www.purehealthsystems.com/hydrogen-peroxide-2.html

Regardless of how hydrogen peroxide is used, it can be toxic if its concentration is too high. However, when diluted to theraputic levels it is totally safe for external use or I.V.s.

WARNINGS ABOUT USING HYDROGEN PEROXIDE ORALLY (i.e. INTERNALLY)

THIS SECTION APPLIES TO A "THREE-HOUR WINDOW" EVERY TIME YOU TAKE H2O2!!

Hydrogen peroxide can chemically react with certain other substances. This chemical reaction creates a very toxic substance which can severely damage the stomach.

To avoid this chemical reaction, there is a "Three Hour Window" every time you take H2O2, where you should not consume certain substances. This "three hour window" does not apply to hydrogen peroxide baths because it only applies to what goes on inside the stomach.

For two hours BEFORE taking hydrogen peroxide orally (with water) and for one hour AFTER taking hydrogen peroxide, the foods in this section should be avoided!! This is a "three hour window" where you should not take these substances!!

1) All forms of vitamin C should be avoided. This especially applies to ascorbate forms, but all forms eventually turn into ascorbates, thus no form of Vitamin C should be used inside the "three hour window." This includes avoiding multi-vitamins which contain vitamin C, ascorbic acid, mineral ascorbates (e.g. sodium ascorbate, potassium carbonate, etc.).

2) Fatty acids, such as the Budwig Diet, fish oils, fatty foods, etc. should also be avoided during the "three hour window." In other words, all forms of fat in foods are forbidden within the window.

3) Any food with iron in it or any supplement with iron in it, is forbidden within the window.

Let me give you an example so you understand this critical instruction.

Suppose you want to take hydrogen peroxide at 10:00 AM. This means that you do NOT eat any forbidden food (see above) between 8:00 AM (two hours before the H2O2 is taken) and 11:00 AM (which is one hour after taking the H2O2).

Thus, for example, if you want to take H2O2 at 10:00 AM do not eat any forbidden foods between 8:00 AM and 11:00 AM. This is a "three hour window" where you should not take any forbidden foods.

If you do not follow the above rules the treatment can cause severe stomach damage!!

If you want more information on these subjects, and others (e.g. how to take H2O2 via injections) see the book: Hydrogen Peroxide: Medical Miracle by Dr. William Campbell Douglas, MD. Other books are mentioned below.

Here is a direct quote from this book: **"Ascorbate [e.g. Vitamin C], iron and fats in the stomach change H2O2 into superoxide free radicals. These free radicals can do severe damage to the lining of your stomach."**

How To Make 3% Food Grade Hydrogen Peroxide From 35% H2O2

My personal philosophy about taking H2O2 internally is this: Your life is on the line so do whatever is necessary to fix the problem.

In addition to a hydrogen peroxide bath, there is a specific protocol for taking it orally.

35% food grade hydrogen peroxide can be obtained, but it is dangerous and tricky to handle [e.g. wear safety glasses and wash off immediately if it gets on skin], but is an option if manufacturer recommendations are followed with exactness.

I would not put the drops of hydrogen peroxide in anything but the highest quality distilled water you can find.

Also, always use glass drinking containers. Hydrogen peroxide may leech a little plastic off of a plastic container. The plastic containers used by the vendors to ship H2O2 are special plastics which the general public does not have access to.

Because 35% food grade hydrogen peroxide is dangerous to handle, I will give very specific instructions on how to make 3% food grade hydrogen peroxide from 35% food grade hydrogen peroxide.

To make 3% food grade H2O2 from 35% food grade H2O2, use a ratio of 1:10.5.

For example, put 1 TABLEspoon of 35% hydrogen peroxide into a glass jar and then put 10 1/2 TABLEspoons of distilled water into the glass jar and then mix them together.

You then use the jar of 3% food grade hydrogen peroxide during your treatment.

No matter what dose of 3% food grade H2O2 you use, you will need to SLOWLY "build-up" to your chosen dose.

The CRITICAL BUILD-UP

Note: **Doses of hydrogen peroxide are generally taken 3 times a day.** Thus, when I talk about taking 4 drops a day, it is really 4 drops three times a day.

Let us suppose your dose was to take 10 drops in water (ALWAYS put your hydrogen peroxide in at least 4 ounces of water).

If you did that on your first day you would probably get sick at your stomach. You need to gradually "build-up" to your therapeutic dose.

The build-up is to take no more than 2 drops of 3% food grade hydrogen peroxide on your first day.

On the second day, if your stomach tolerated the prior day's dose, you can increase the dose by 2 drops (you are now at 4 drops).

If you have any stomach discomfort, do not increase the dose until your stomach gets used to the dosage.

On future days you can build up by two drops or higher (e.g. 5 drops).

The issue is to determine the urgency of getting to the higher doses versus getting the H2O2 past your stomach. You can build-up as fast as you want, just keep in mind the conflict between the urgency of getting to your therapeutic dose versus stomach upset.

WARNING: Hydrogen peroxide must ALWAYS be mixed with at least 4 ounces of distilled water, even AFTER it is diluted into 3% hydrogen peroxide - in order to protect the stomach.

Treatment Dosages

The doses of 35% H2O2 to be taken (three times a day) can be one drop, four drops, or ten drops. One author even recommends 25 drops, three times a day.

In converting 35% dosages to 3% dosages, multiply by 10 (not 11). For example:
1) One drop of 35% H2O2 becomes 10 drops of 3% H2O2,
2) Four drops of 35% H2O2 becomes 40 drops of 3% H2O2 (about half a TEAspoon),
3) Ten drops of 35% H2O2 becomes 100 drops of 3% H2O2 (a little more than one TEAspoon),
4) Twenty-Five drops of 35% H2O2 becomes 250 drops (a little less than 3 TEAspoons)

Do not forget to build-up to ALL doses by no more than 5 drops a day (using 3% H2O2 doses), but only 2 drops a day at the beginning. In emergencies, where time is critical you can try to increase the dose any way you can.

Don't forget that **if you start to have significant stomach problems (a small amount of nausea is to be expected), discontinue the treatment or build up more slowly.**

Remember, ZERO Vitamin C (even in multi-vitamins), ZERO iron supplements, ZERO fats, dilute heavily with water and always take on an empty stomach.

Anyone who has comments on the safety of this protocol please send me an email. My address is 'cancertutor' and my email provider is 'yahoo.com'.

More Comments on Hydrogen Peroxide

Even some chemotherapy treatments are designed to take advantage of oxygen's affect on cancer cells.

"Most [orthodox] anti-cancer treatments, from radiation therapy to chemotherapy, produce oxidative events to kill cancer cells." In other words, chemotherapy drugs basically work on this same principle, but these drugs are millions of times more profitable for pharmaceutical companies than hydrogen peroxide would be.

There are a number of books on using hydrogen peroxide for cancer and other diseases:

Hydrogen Peroxide: Medical Miracle, by William Campbell Douglass
Stop Aging or Slow the Process, How Exercise With Oxygen Therapy (EWOT) Can Help, by William Campbell Douglass

Flood Your Body With Oxygen, by Ed McCabe
(Note: the Flood book replaces: Oxygen Therapies, A New Way of Approaching Disease)

Hydrogen Peroxide & Ozone, by Conrad LeBeau
Oxygen Healing Therapies: For Optimum Health & Vitality, by Nathaniel Altman
OXYGEN, OXYGEN, OXYGEN, by Kurt W. Donsbach D.C., N.D., PhD.
The Un-Medical Medical Miracle, by Elizabeth Baker, M.A.

Note the book above that discusses EWOT. EWOT may be a safe and simple way to get large amounts of oxygen into the entire body (assuming you have a good heart for doing the exercise). However, I do not know if EWOT is as effective as Hydrogen Peroxide or Ozone therapy at treating cancer, though I suspect H2O2 is better. Nor do I know if the book describes a specific way to use EWOT as a cancer treatment. But if EWOT can be designed to treat cancer, it is something to consider.

As a side note, Dr. Williams mentions that H2O2 I.V.s are a godsend for emphysema patients!

* "While most conditions respond remarkably to oral ingestion, emphysema is one condition in which intravenous infusion can be a godsend.

Emphysema involves destruction of the alveoli (the small air sacs in the lungs). Although chemical fumes and other irritants can cause the destruction, it is most often the result of smoking. As the disease progresses, the patient finds it more and more difficult to breathe.

A wheel chair and supplemental oxygen become necessary as the disease progresses. Lack of adequate oxygen reaching the tissues forces the heart to pump more forcefully. This leads to high blood pressure, enlargement of the heart itself and eventually heart failure.

Conventional medicine offers little help for emphysema. There is no cure. The best that can be hoped for is symptomatic relief and the prevention of any serious complications that might result in death. H202 therapy can offer more.

Using 1 ounce of 35% peroxide per 1 gallon of non-chlorinated water in a vaporizer improves nighttime breathing tremendously. But intravenous infusion holds the real key to relief. It has the ability to cleanse the inner lining of the lungs and restore the ability to breathe.

We continue to hear the same story from Dr. Farr and others who use intravenous infusion for emphysema and congestive lung problems. Within minutes oxygen from hydrogen peroxide begins to

bubble up between the membrane lining the lungs sacs and the accumulated mucus. (Dr. Farr refers to this as the "Alka-Seltzer effect.")

The patient begins to cough and expel the material that has accumulated in the lungs. The amount of bubbling, coughing, and cleansing can be regulated by simply turning the H202 on and off.

As the peroxide clears the lung surface and destroys the bacterial infections, the patient regains the ability to breath more normally. We continue to receive reports from patients for whom the technique has improved breathing so much that a wheelchair and supplemental oxygen are no longer needed.

If you would like to find a doctor in your area trained in the use of intravenous H202 infusion, contact the International Bio-Oxidative Medicine Foundation (IBOM), P.O. Box 13205, Oklahoma City, OK 73113 at (405) 478-4266 [note: this phone number does NOT work]. They can provide names and addresses of doctors using the procedure in your area."
http://www.purehealthsystems.com/hydrogen-peroxide-2.html

Stabilized Oxygen or Stabilized Electrolytes

Another way to get oxygen into the body is by using a "stabilized oxygen" or "stabilized electrolytes" product. This is a much safer way of getting oxygen into the body (compared to H2O2). This product has been attacked by the FDA, FTC and quackwatch. Such a potent attack, and more importantly the fact they have used blatant lies, is almost certain proof of its effectiveness!! Nevertheless, there are potent testimonials on the internet for the use of this product.

Stabilized electrolytes are made with water and sodium chloride (salt) and has been branded as being nothing but salt water. However, it is the chemical product of these molecules - sodium chlorite - that is the miracle worker. Sodium chlorite (NaCLO2) is a precursor to chlorine dioxide (CLO2), which does much of the work.

The most popular way of taking sodium chlorite (or activated sodium chlorite, which is called chlorine dioxide) is by using a supplement known as Miracle Mineral Supplement (MMS), which is 28% sodium chlorite. Here is the website of the world's foremost expert in the use of sodium chorite in the treatment of cancer and other diseases:
Jim Humble Website

Here is one of many vendors of sodium chlorite (i.e. Miracle Mineral Supplement or MMS). For each bottle of MMS make sure you get 5 bottles of activator (i.e. citric acid):
H2O Air Water Americas.

http://www.cancertutor.com/Cancer/HydrogenPeroxide.html

Other sources of information on hydrogen peroxide:
http://drinkh2o2.com/
http://educate-yourself.org/cancer/benefitsofhydrogenperozide17jul03.shtml

Enzymes to Kill Cancer Cells

Cancer Strategy #9: Low Enzymes Always Found In Cancer... Use Enzymes To Kill Cancer Cells

One of the top rated cancer fighting supplements is in this section. Surprisingly, it is not an enzyme. It's called Fulvitea. You'll read about it in a few minutes, but first....

Researchers have noted for years a correspondence between low enzyme levels and cancer. In fact enzyme therapy has been used with **good results**against cancers in Europe, and by some doctors in the United States. To literally digest cancerous cells.

In the early 1900's a doctor in Wales, John Beard discovered that pancreatic enzymes destroyed cancer cells. Making some brilliant observations, he deduced that cancer cells come from stem cells that become uncontrolled stem cells. He noticed that the fetal pancreas starts working and secreting enzymes at the 56th day of gestation. Fetuses don't digest anything till they are born. Beard wondered why did the pancreas in the fetus start working so early? He noticed that the day the pancreas started producing enzymes was the day the placenta stopped growing. The enzymes stopped this rapid growth.

His theory was that many placental cells remain in our body. When these misplaced placental cells get lost and can start growing, turning cancerous if you don't have enough pancreatic enzymes. (By the way the medical community thought Dr. Beard was crazy. Now a hundred years later, technology has confirmed there are these cells.)

In 1911 he tested pancreatic enzymes for stopping cancer in mice and it worked. Naturally and unfortunately, he was blackballed and died in obscurity. Decades later Dr. Kelly read about his work, and cured himself of cancer using pancreatic enzymes and started treating and curing many cancer patients using pancreatic enzymes. Dr. Gonzales, sent to investigate Dr. Kelly, liked what he saw so much that he also treats cancer using pancreatic enzymes.

The major reason enzymes levels become depleted is that we eat mostly processed, irradiated and cooked food.

The digestive system was designed to process **raw food**. Raw food, when it is picked ripe, has enzymes in it that help break down that food in the upper stomach where it sits for 30 to 45 minutes. The enzymes in the food predigest that food. Then in the lower stomach the pancreas excretes more enzymes.

When you eat cooked, irradiated and processed foods, the enzymes have been killed; the food does not predigest in the upper stomach. So when it reaches the lower stomach *two things happen*. The pancreas must make extra enzymes to try and break down the food.

And often the food is only partially digested.

The pancreas, after decades of overworking, eventually is no longer able to produce an adequate supply of enzymes. So you develop **low enzyme levels** of all types of enzymes, and your body *cannot* naturally kill cancerous cells using enzymes.

In addition, food that is not completely digested all too often makes its way into the bloodstream. Especially if you have leaky gut syndrome from candida overgrowth. This partially digest food is treated as a toxin, and the immune system has to get rid of it. This puts an additional strain on the already overworked immune system.

Studies have found that the immune system treats the ingestion of cooked food as a toxic poison, causing a jump in white blood cells in an attempt to get rid of it as fast as possible.

Taking a good quality enzyme supplement with meals, one that has high levels of protease to digest protein, lipase to digest fat, and amylase to digest carbohydrates helps break down food in the upper stomach. So that the pancreas doesn't have to produce extra enzymes. Food is better digested. The one we suggest as having the most enzymes for the value is

P-A-L Plus Digestive Enzymes (**pancreatic enzyme formulations**)

A bottle will last 2 months. Also, it is important to take enzymes *on an empty stomach*. A stack of research shows that enzymes, when taken in this manner, will go into the bloodstream and clean it up. **And in the process digest and kill cancer cells.** Take both a plant based digestive enzyme along with pancreatic enzymes high in Trypsin and Chymotrypsin for the best results. Take both with meals for improved digestion, and on an empty stomach to get into the body.

This will also unstick clumpy red blood cells. Sticky, clumped up red blood cell clusters clog up capillaries and reduce circulation. So that cells cannot oxygenate properly. Which as you have gathered by now, contributes to cancer.

Cancer tumors produce a thick fibrin protein to help protect them from the immune system. This also helps to stick the cancer tumor to wherever it is.

Enzymes in the bloodstream can digest and dissolve the fibrin coating. Large amounts of enzymes would need to be taken, and they would need to be enzymes high in protease or nattokinase to break down the fibrin.

The pancreatic enzyme protocols for treating cancer make use of large amounts of pancreatic enzymes. They are taken on an empty stomach so they can go into the body to digest cancerous cells. And are taken with meals so that your pancreas doesn't have to produce as many enzymes to digest your food. This allows the pancreas to produce more enzymes to send into the body to fight cancer. The enzymes naturally produced

by the body will be more effective than any enzyme supplement. Thus the protocols tend to use more enzymes with meals than taken on on empty stomach.

P-A-L Plus Enzymes

This digestive enzyme is a great value. Each capsule contains Pancreatin 30,000 UPS, Acid Stable Protease 100 SAPU, Protease, 60,000 HUT, Neutral Bacterial Protease 40,000 PC, Amylase 20,000 SKB, Bacterial Amylase 10,000 BAU, Lipase 12,000 LU, Cellulase 1,000 CU, Lactase 2,500 ALU, Trace Minerals 50mg

With 120 veggie capsules in a container, you get more Protease, Bromelain, Lipase and Cellulase per bottle for less money than any enzyme we have come across. Take 1 or 2 with each meal. Three could be taken on an empty stomach to clean the arteries.

120 capsules $49.95 http://www.gethealthyagain.com/PALenzymes.html

http://www.vitacost.com/productResults.aspx?ntk=products&Ntt=digestive%20enzymes&csrc=PPCADW-digestive_enzymes&refcd=GO000000515504161s_digestive_enzymes&tsacr=GO8022374531

A bit more potent than the **pancreatic enzyme formulations** though, with the best one we have found coming in at **298**, is a formulation of mature green papaya powder with additional support nutrients. The product is:

PapayaPro (also detoxifies heavy metals)

The main ingredient in this formula is **mature green papaya powder**. Papain is the principal and most active enzyme in this powder. Papain possesses a very powerful digestive action superior to pancreatin, or pancreatic enzymes. Changes in intestinal alkalinity or acidity do not interfere with the unique digestive activity of papain. Taken on an empty stomach, it will work more aggressively than even the pancreatic enzymes in attacking and destroying cancer cells.

Taken with a meal, it will also help digestion. Papain, one of the most powerful plant proteolytic enzymes, will aid in protein digestion in an acid, alkaline or neutral medium. This is of vital importance if you are enzyme deficient or have low hydrochloric acid output in the stomach. The pepsin produced in the stomach for protein digestion is activated only in an acid medium. This requires a healthy output of hydrochloric acid which is insufficient in most people. Due to the powerful proteolytic action of papain, a more active digestant than pepsin, a major digestive problem for most people will be helped by the daily ingestion of mature green papaya powder.

The second major cancer fighting ingredient in PapayaPro is Citrus Pectin. It has the potential to prevent metastasis, or the spread of cancer. Modified citrus pectin's small molecules enter the bloodstream and act as decoys for lectins (cancer cell surface proteins), which are seeking the sugar galactose in cells. When lectins encounter the

pectin, which also contains galactose, they attach to it as they would to a cell. Once bound to the pectin, lectins are unable to attach to other sites in the body and start new cancer colonies. Thousands of research studies have demonstrated citris pectin's cancer fighting abilities.

PapayaPro also contains other immune boosting and cancer fighting ingredients such as mangosteen powder that act synergistically with the papaya powder. Use one to two of the 300 gram containers monthly on an empty stomach to fight cancer. Get an extra container if your digestion is poor and you want help breaking down protein. Energetic testing puts **PapayaPro** at **830** for its healing power for cancer. Its papaya enzymes will, on an empty stomach, get into the bloodstream and work to clean it up. Most importantly, it will digest dead cancer cells that the other cancer supplements are killing. This will take a big load off the detoxification system and help to reduce detox symptoms and inflammation of the tumors. This will also help to reduce tumor size faster.

Their extremely high levels of protease will also help to **break down the fibrin coating all cancerous tumors** so that the immune system can better*attack* those tumors. In addition it will digest the live and dead cancer cells inside the tumors, helping to bring down tumor size faster. Use 1 to 3 containers a month for helping to support the detoxification process by digesting dead cancer cells. Use 4 to 6 bottles a month if you have tumors or bone cancer that are causing a great deal of pain or dysfunction. This quantity will work faster to reduce tumor size, and does a better job of helping to bring down tumor size than just about anything. It still won't be fast, but it will be faster than it would have been.

Here is what you need to use if you are suffering from muscle mass loss caused by catabolic wasting.

Catabolic Wasting Protocol

Catabolic wasting can occur in the end stages of cancer, aids and other serious illnesses. It is a major cause of death in cancer. No matter how much someone eats, how much nutrition they get, they lose weight and muscle mass. They are not able to metabolize or make protein. Recently scientists have figured out why this happens.

Dr. Chojkier and Martina Buck, Ph.D., of VA, UCSD and the Salk Institute for Biological Studies, described the steps by which tumor necrosis factor (TNF) alpha, an immune-system protein, prevents the production of albumin. Low levels of albumin, a critical protein made in the liver, is a keynote of wasting.

Drs. Buck and Chojkier showed that TNF alpha causes oxidative stress in the liver cell and also causes the addition of a phosphorous molecule to a protein called C/EBP beta, which normally joins together DNA in the nucleus of the cell to make other proteins, such as albumin.

This extra phosphorous causes the C/EBP beta protein to leave the nucleus and go into the cytoplasm, where it can no longer make the albumin."We found that this phosphorylation makes the C/EBP beta exit the nuclear area and go into the cytosol, where there is no DNA for it to bind with. This means it can no longer produce the protein," said Dr. Chojkier. And this inability to produce albumin leads to the muscle wasting and weight loss.

The researchers found several ways of stopping the downward spiral caused by TNF-alpha. One way was to use antioxidants, especially ones that focus on the liver. This blocked the chain of events leading to the export of C/EBP beta from the nucleus of the liver cells. "If we block oxidative stress, we normalize everything," explained Dr. Chojkier. "C/EBP beta remains in the nucleus, it contacts the DNA, and proteins are produced.

As you can see, protecting the liver and normalizing liver function is vital to reversing or stopping wasting. If you don't stop wasting, you won't make it. You'll basically end up being killed by the wasting before the cancer kills you.

Fortunately, there is a protocol to stop catabolic wasting. You can notice improvement in a couple of weeks. Follow this protocol for at least two months to completely stop the wasting. Continue to take other anti-cancer supplements in advanced stage dosages while using this protocol. There are two products in this protocol.

Regenerative Elixir

Three bottles of this frequency enhanced water elixir is a month's supply. It stimulates cells to repair themselves, and does a stronger and better job of this than our previously recommended Rejuvin. With catabolic wasting the liver needs repair so that it can start processing proteins again. What happens with Regenerative Elixir is that the water in it carries specific energetic vibrational frequencies that signal or turn on the regeneration and repair process in your body. Take 3 squeezes of the dropper twice a day. You will read more about energetic elixirs in the Energy section following this section.

Fulvitea

This is the second and most important supplement you need to use to reverse catabolic wasting and to start gaining some weight. In fact, in is one of the most important products to use whenever to liver is poorly functioning. And whenever the cancer is so bad that you are essentially starving to death. The predigested protein it supplies is usable by the body without the liver having to convert amino acids to protein. And the regenerative factors in it help to stimulate repair. As the liver is so vital to health, if the liver is poorly functioning, the body uses the nutrients in Fulvitea to repair the liver. It does an excellent job. We have heard consistently successful reports of it stopping catabolic wasting and improving liver function - even with cirrhosis. In a life and death situation, be sure and use Regenerative Elixir to more rapidly improve liver function.

Fulvitea has two basic functions. First it is a source of pre-digested protein that your body doesn't have to process to use. So you can actually start making muscle again. In addition it contains RNA and DNA repair factors to stimulate repair of the liver and also of cancer cells. It helps to normalize cancer cell function so the cancer cells die a normal death, apoptosis.

This 1 pound container of powder contains Hydrolyzed Marine Collagen from wild fish which is 95% pure protein in a hydrolyzed (broken down) amino-acid form. In addition it has Fulvic Acid powder which intensifies the metabolism of proteins, increases DNA content in cells and increases the rate of RNA synthesis. The Green Tea Extract in it helps to drive the nutrients into the body. And does have anti-cancer benefit.

It also supplies freshwater Diatomaceous Earth which will aid the detoxification process and fight cancer. Whole Colostrum powder (Grade A Bovine) supports the regeneration process and boosts immune system response against cancer. Small amounts of Vitamin C, Zinc, ProCoQ10, Manganese, Vitamin B6, Niacinamide, Selenium, Molybdenum, Chromium, and Vitamin E a blend of herbs that also support the regeneration process.

Fulvitea also contains NutraFlora - a short-chain Fructooligosaccharide assisting in the absorption and utilization of minerals and amino acids. It passes, intact, through the stomach and small intestine to the colon, where it is fermented by beneficial bacteria into short-chain fatty acids. These lower intestinal pH to an optimal level for keeping calcium, minerals and amino acids in solution for a longer period of time, making them much more absorbable. Absorption is further enhanced by Aulterra magnetic powder from an ancient seabed mineral deposit. Aulterra supports the utilization and effectiveness of nutraceuticals and herbs in the diet. And Pascalite - a rare, calcium bentonite/montomorillonite, non-swelling clay, which has a long history of health uses. Pascalite provides trace minerals in oxide form, so they are easily assimilated.

Use 2 containers a month if you are not in too bad a shape, and 3 to 6 containers a month for more serious nutrient support and liver repair., **its energetic testing for helping stop catabolic wasting is 1030.** This is clearly one of the most important cancer fighting supplements to take for end stage cancers and all cases of catabolic wasting.

We find it works best to shake or blend the powder into a smoothie or some sort of drink but not a protein drink as it is best absorbed on an empty stomach without other proteins.

There is a well known product that has been fighting cancer and used for wasting for years. It is a fermented soybean protein drink. For wasting and advanced cancers you need to drink a bottle a day of this bad tasting drink. Quite expensive too at $50 a bottle. For fighting cancer, energetic testing puts it at **321**. Respectable, but not near as

powerful as Fulvitea which comes in at **460** for its ability to fight cancer. For catabolic wasting it comes in at**353**, again much less than Fulvitea's **1030**.

Use Regenerative Elixir and Fulvitea for catabolic wasting. You should see results quickly, and be able to successfully stop catabolic wasting in its tracks. **3260**

http://www.cancerfightingstrategies.com/enzymes.html

Rebuilding and Revitalizing the body with ZERO energy output with Fulvitea

One of the common characteristics of a body in distress is that the energy required to recover is no longer available. Fulvitea provides energy without taxing your system—making it the perfect choice for recuperation. It's an all-natural essential protein food supplement that is fully absorbable when added to your preferred beverage.

Within a blend of 30 vitamins, organic herbs and critical antioxidants, Fulvitea delivers therapeutic levels of:

- Predigested peptide proteins – tissue repair
- Nutraflora™ - speeding recovery
- D-Ribose - energy boosting
- Colostrum - immune fortifying
- Fulvic Acid powder – augments nutrient uptake

Fulvitea™ is one of the few products available which is designed to boost recovery and support system wide repair. http://www.zeolitesupport.com/store/fulvitea-400-grams.html

http://www.nextag.com/fulvitea/products-html

Phase II Enzymes

Scholarly Articles on Phase II Enzymes

http://scholar.google.com/scholar?q=phase+ii+enzymes+cancer&hl=en&as_sdt=0&as_vis=1&oi=scholart

Cancer-fighting enzymes boosted by vegetables

14-May-2001

Related topics: Science & Nutrition

New studies at Johns Hopkins University and Tsukuba University in Japan show that inducing special body enzymes, which neutralise and dispose of cancer-causing substances is likely to be an effective way to lower risk of cancer.

Researchers will be trying to develop drugs that could maximise this effect, but the necessary testing for long-term effectiveness and safety means such plans lie in the

future. Meanwhile, research shows that eating vegetables is one simple way to boost these protective enzymes.

Several years ago, scientists discovered that special body enzymes, called phase II enzymes, could detoxify cancer-causing substances before this can occur. Dr. Paul Talalay made headlines with his discovery that a nutritional substance in broccoli, called sulforaphane, could raise levels of these protective enzymes, and other research has identified many more such substances.

In their new research, published in the Proceedings of the National Academy of Sciences, Dr. Talalay and colleagues focused on how cells control activity of the phase II enzymes. The scientists found a body protein working like a switch to regulate enzyme levels.

When that "switch" was turned off, mice exposed to a cancer-causing substance developed far more tumours than those with a functioning "switch." When mice were given a drug that has been shown to raise protective phase II enzymes, as long as the control "switch" was functioning to allow increased enzyme production, the number of tumours that developed after exposure to the carcinogen was cut in half.

Scientists believe that protective substances in food work by sparking cells to release this controlling protein (essentially turning on the "switch"), prompting the production of phase II enzymes, which then detoxify carcinogens and prevent cell damage that could have led to cancer.

Although broccoli got the initial publicity, the entire family of cruciferous vegetables contains a variety of related substances that stimulate phase II enzymes. Other cruciferous vegetables include cauliflower, Brussels sprouts, cabbage, kale, chard, bok choy, collards and radishes. The protective substances they contain exist whether the vegetables are eaten cooked or raw.

The health-promoting benefits of garlic seem to be due to phytochemicals called allyl sulfides, another group that can boost phase II enzymes. Onions are also a source of these substances.

Vegetables and fruits supply a whole range of nutrients and phytochemicals that seem to help protect against cancer. Ellagic acid from berries, grapes and nuts boosts phase II enzymes, as do phenols, which are found in berries and citrus fruits as well as tea.

Scientists say that most likely, protective effects come from vitamins, enzyme-boosting phytochemicals and perhaps other not-yet-identified substances in fruits and vegetables, all working togethe

Source http://www.aicr.org/

http://www.foodnavigator.com/Science-Nutrition/Cancer-fighting-enzymes-boosted-by-vegetables?utm_source=copyright&utm_medium=OnSite&utm_campaign=copyright

http://www.foodnavigator.com/Science-Nutrition/Cancer-fighting-enzymes-boosted-by-vegetables

DNA Repair Enzyme Can Kill Cancer Cells: Study

By Aditya Rangroo

Research conducted at the University of Nottingham has revealed that cancer cells with faulty BRCA genes can be killed by blocking a key DNA damage-repair enzyme called APE1.

Scientists developed and tested small molecules that block APE1 and stop the enzyme from repairing DNA in breast, pancreatic and cervical cancer cells with faults in BRCA1 or BRCA2 genes.

"The study provides the first evidence that APE1 is an important new target for personalised cancer treatment. Not only could these molecules provide a basis for new drugs to treat cancers with faulty BRCA genes - especially breast and ovarian cancer - but they could help 'soften up' cells from many cancer types to boost the effect of radiotherapy and chemotherapy," said Srinivasan Madhushan, a researcher at the University said in a statement.

The BRCA genes control a separate and major DNA repair pathway. Cells with damaged BRCA1 or BRCA2 have a faulty 'repair kit'. This allows damaged cells to accumulate faults and multiply indiscriminately - which increases the risk of developing cancer, especially related to the ovaries and the breasts.

However, too much damage of that sort could also lead to the death of the cell. Blocking APE1 in these BRCA-deficient cells effectively blocks two repair routes at once and kills the cancer cells.

This particular technique is already in use, with a new class of drugs called PARP inhibitors. These prevent cells fixing faults in BRCA-deficient cells by blocking PARP, a key enzyme in the same repair pathway as APE1.

"With up to ten per cent of all breast cancers thought to result from faulty BRCA1 and/or 2 genes, new treatments for these patients could possibly help up to 4,800 of the women diagnosed with the disease in the UK each year," said Baroness Delyth Morgan, the Chief Executive of the Breast Cancer Campaign.

Meanwhile, APE1, like PARP, is essential for carrying out a type of DNA damage repair - removing and correcting faulty DNA components - but has a more specific role in this repair process compared to the PARP enzymes.

"This promising new target may lead to even more specific drugs capable of delivering a knock-out double blow to cancer cells, leaving healthy cells unharmed - so potentially causing fewer side effects," said Steven Jackson, a DNA damage repair expert.

The research was presented on Monday, at the National Cancer Research Institute (NCRI) in Liverpool.

http://m.ibtimes.com/dna-enzyme-molecule-repair-cancer-cells-kill-244478.html

Research Identifies Human Enzyme That Could Be Programmed To Kill Cancer Cells

ScienceDaily (Nov. 20, 2006) — A new study conducted by scientists at Children's Hospital Oakland Research Institute (CHORI) identifies a specific enzyme that can cause the death of cancer cells. Researchers studied the behavior of an enzyme called sphingosine phosphate lyase (SPL), which can regulate cell growth and death by lowering the levels of a natural, growth-promoting lipid called sphingosine-1-phosphate, or S1P.

The study, led by Julie Saba, M.D., Ph.D. is the first to link the SPL enzyme to cancer, and it appears in the November issue of the Proceedings of the National Academy of Sciences. Researchers identified SPL as a key regulator of cancer cells. They discovered that if the cancer cells were stressed by chemotherapy, SPL could be activated or "turned on" to reduce the levels of S1P, which is needed to cause cell death. "The enzyme SPL senses when a cell has sustained damage or is undergoing mutations," said Dr. Saba. "Once the enzyme is aware of these changes it responds by killing the cell. We hope to find new ways to leverage the body's own natural responses to these mutated or damaged cells to target cancer cells."

Among pediatric diseases, cancer is the leading cause of death in the United States. Approximately 9,500 new cases of cancer are expected to occur in children between infancy and 15 years of age by the end 2006.* "Although we're beginning our studies in colon cancer, we believe our research findings will have a direct impact on investigations for other cancers, including pediatric cancers," said Dr. Saba. "It is premature to suggest that SPL is the answer to curing cancer, but our research findings should dramatically advance our search for a cure," said Dr. Saba.

Dr. Saba and her team conducted their year-long research by studying a number of different human cell lines as well as human colon cancer tissues and mouse intestinal polyps. They wanted to see what happens when you increase or decrease the activity of SPL in human cells. Their research found the enzyme makes cancer cells more vulnerable to chemotherapy, whereas removing the enzyme makes the cells more resistant to treatment. They also found that the enzyme is inactive in colon cancers and mouse polyps, but very active in nearby healthy tissues. This suggests that reactivation of SPL could be used to improve cancer therapies by increasing the number of cancer cells killed by chemotherapy.

*Surveillance, Epidemiology, and End Results (SEER) Program and the American Cancer Society.

http://www.sciencedaily.com/releases/2006/11/061120182022.htm

Astaxanthin Supplement

Astaxanthin is the most commonly occurring red carotenoid in marine and aquatic animals, especially salmon, giving it its characteristic pink color.

Shrimp, lobster and crab are also sources of astaxanthin. However, you're unlikely to be able to consume enough salmon and shell fish on a daily basis to get a therapeutic dose. You'd have to consume about three-quarters of a pound of wild-caught sockeye salmon, which contains the highest amounts of astaxanthin of all the marine foods, to receive the same amount of astaxanthin you'd get in a 4mg capsule if you were to take a supplement.

That's reason alone to consider taking it as a supplement. Especially when you consider its many beneficial properties, such as:

- Astaxanthin is by far the most powerful carotenoid antioxidant when it comes to **free radical scavenging**: astaxanthin is 65 times more powerful than vitamin C, 54 times more powerful than beta-carotene, and 14 times more powerful than vitamin E.
- It's also far more effective than other carotenoids at **"singlet oxygen quenching,"** which is a particular type of oxidation. The damaging effects of sunlight and various organic materials are caused by this less-stable form of oxygen. Astaxanthin is *550 times more powerful than vitamin E* and 11 times more powerful than beta-carotene at neutralizing singlet oxygen.
- Astaxanthin crosses the blood-brain barrier AND the blood-retinal barrier (beta carotene and lycopene do not), which brings antioxidant and anti-inflammatory protection to your eyes, brain and central nervous system and reducing your risk for cataracts, macular degeneration, blindness, dementia and Alzheimer's disease.
- It's a potent UVB absorber and reduces DNA damage.
- It's a very powerful natural anti-inflammatory.
- It cannot turn into a pro-oxidant like many other antioxidants can, so it will not cause harm even in larger amounts.
- It protects the entire cell—both the water-and the fat-soluble parts.

Dietary Compounds That Induce Cancer Preventive Phase 2 Enzymes Activate Apoptosis at Comparable Doses in HT29 Colon Carcinoma Cells[1]

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ABSTRACT

Dietary agents that induce glutathione *S*-transferases and related detoxification systems (Phase 2 enzyme inducers) are thought to prevent cancer by enhancing elimination of chemical carcinogens. The present study shows that compounds of this group (benzyl isothiocyanate, allyl sulfide, dimethyl fumarate, butylated hydroxyanisole) activated apoptosis in human colon carcinoma (HT29) cells in culture over the same concentration ranges that elicited increases in enzyme activity (5–25, 25–100, 10–100, 15–60 μmol/L, respectively). Pretreatment of cells with sodium butyrate, an agent that induces HT29 cell differentiation, resulted in parallel increases in Phase 2 enzyme activities and induction of apoptosis in response to the inducers. Cell death characteristics included apoptotic morphological changes, appearance of cells at sub-G1 phase on flow cytometry, caspase activation, DNA fragmentation and TUNEL-positive staining. The results suggest that dietary Phase 2 inducers may protect against cancer by a mechanism distinct from and in addition to that associated with enhanced elimination of carcinogens. If this occurs in vivo, diets high in such compounds could eliminate precancerous cells by apoptosis at time points well after initial exposure to chemical mutagens and carcinogens.

KEY WORDS: • *NAD(P)H:quinone reductase • glutathione S-transferase • butyrate • apoptosis • human colon carcinoma cells*

INTRODUCTION

An association between reduced risk of colorectal cancer and diets high in fruit, fiber or vegetables has been well-established in epidemiologic studies (Potter 1993). While there are several mechanisms that could contribute to this association, a well-characterized defense mechanism involves the induction of detoxification enzymes, including members of the glutathione *S*-transferase family and NAD(P)H:quinone reductase (quinone reductase) (Coles and Ketterer 1990 , Hayes et al. 1991 , Joseph and Jaiswal 1994 , Lin et al. 1994). These enzymes are generally referred to as "Phase 2" enzymes because they catalyze conversion of mutagenic metabolites or their precursors to compounds that are less reactive and/or more readily excreted. This detoxification function is in contrast to "Phase 1" enzymes, such as cytochrome P-450s, which bioactivate foreign compounds to DNA-reactive metabolites and contribute to carcinogenesis (Hashimoto and Degawa 1995 , Joseph and Jaiswal 1994 , Lin et al. 1994).

More than 40 compounds were identified from dietary sources that function as Phase 2 enzyme inducers (Fukushima et al. 1997 , Prestera et al. 1993 , Steinmetz and Potter 1991 , Talalay et al. 1988 , Wattenberg 1992). Many of these compounds were tested in animal models and found to increase Phase 2 enzyme activities and protect against cancer (Wattenberg 1992). For instance, diallyl sulfide (Haber-Mignard et al. 1996 , Sumiyoshi and Wargovich 1990), dithiolthiones (Rao et al. 1991), benzyl selenocyanate (Reddy et al. 1987) and butylated hydroxyanisole (Reddy and Maeura 1984) increase glutathione *S*-transferase and/or quinone reductase activity, inhibit DNA adduct formation and inhibit the incidence and multiplicity of colon carcinomas in rats and mice. Taken together with the epidemiologic data, these studies suggest that specific chemicals in the human diet protect against cancer by increasing the activities of detoxification enzymes, thereby decreasing the concentrations of genotoxic compounds that would otherwise give rise to carcinogenic mutations.

Phase 2 enzyme inducers encompass a broad range of chemical structures but generally share the property of directly affecting the cellular glutathione pool, either by being substrates of

glutathione *S*-transferases or directly reacting with glutathione (Spencer et al. 1991). Mechanistic studies show that the increase in enzyme activities can be controlled at the transcriptional level signaled by depletion or oxidation of the glutathione pool (Bergelson et al. 1994 , Daniel 1993 , Galter et al. 1994). This mechanism may be of particular importance in tumorigenesis because depletion or oxidation of the glutathione pool was also linked to apoptosis in several systems (Abello et al. 1994 , Buttke and Sandstrom 1994 , Fernandes and Cotter 1994 , Potten 1992 , Slater et al. 1995). Accumulating data indicate that failure of normal apoptosis is an important mechanism in tumor development (Evan and Littlewood 1998). Agents that stimulate apoptosis in precancerous cells therefore might be cancer preventive by enhancing apoptosis in tumorigenic cell populations.

The common feature of glutathione depletion/oxidation in both Phase 2 enzyme induction and activation of apoptosis led us to examine whether Phase 2 enzyme inducers could activate apoptosis over the same concentration range that increases enzyme activity. For this study, we used a moderately differentiated human colon carcinoma cell line (HT29) as a model system and representative inducers (benzyl isothiocyanate, allyl sulfide, dimethyl fumarate, butylated hydroxyanisole) at concentrations that increase Phase 2 enzyme activities as represented by quinone reductase and glutathione *S*-transferase activities. Results show that these inducers activated apoptosis over an 8 to 24 h time course, as indicated by cell detachment from the dishes, nuclear condensation and caspase activation. Pretreatment of cells with a differentiating agent, sodium butyrate, increased both the extent of Phase 2 enzyme induction and activation of cell death. Thus, the results show that the induction of apoptosis is concomitant with Phase 2 enzyme induction in this cell line and suggest that this induction of apoptosis may contribute to in vivo anticancer effects of these compounds.

MATERIALS AND METHODS

Chemicals.

Allyl sulfide, benzyl isothiocyanate, butylated hydroxyanisole, dimethyl fumarate, dimethyl sulfoxide (DMSO3), sodium butyrate and Sudan I were purchased from Aldrich Chemical Co., Inc. (Milwaukee, WI). Cell culture medium and serum were purchased from Life Technologies, Inc. (Grand Island, NY). In situ cell death detection kit, fluorescein, was from Boehringer Mannheim Co. (Indianapolis, IN). Propidium iodide was from Sigma Chemical Co., (St. Louis, MO). DEVD-AMC was from Peptide International, Inc. (Louisville, KY).

Cell culture and incubations.

HT29 cells obtained from American Type Culture Collection were grown in McCoy's medium supplemented with 10% fetal bovine serum, in a humidified incubator at 37°C with an atmosphere of 95% air, 5% CO_2. In our standard induction protocol, HT29 cells were plated at 0.5×10^6 cells per 60 mm plate and grown for 80 h to late logarithmic phase (70–80% confluence). Test compounds in DMSO (0.2%, vol/vol) were added directly to the medium and the cells were incubated for up to 24 h. Controls received a change of medium containing 0.2% DMSO, which had no detectable effect on cell differentiation or enzyme expression.

For studies of cell differentiation by sodium butyrate treatment, HT29 cells were seeded at 0.5×10^6 cells into 60 mm plates and grown in standard medium for 72 h. Medium was then changed to McCoy's containing 5 mmol/L sodium butyrate, for an additional 72 h. Differentiation was assessed by alkaline phosphatase activity which increased greater than 10-fold by 3 d. Cells were incubated with inducing compounds, added directly to the medium, for up to 24 h as indicated. Cell viability was determined as the percentage of cells that excluded 0.2% (wt/vol) trypan blue.

Enzyme activity determinations.
After exposure to inducing agents, cells were collected from the plates by scraping, frozen in liquid nitrogen and stored at -80°C. For quinone reductase and glutathione *S*-transferase activity assays, thawed cell suspensions, in 1 mmol/L sucrose, were centrifuged at 9,000 **x** *g* for 15 min at 4°C. To the supernatant, 0.2 vol of 0.1 mol/L of $CaCl_2$/0.25 mol/L sucrose was added. The mixture was incubated 15 min on ice and then centrifuged at 15,000 **x** *g* for 20 min. The supernatants were used as cytosolic fractions for enzyme assays.
Quinone reductase activity was assayed as the rate of reduction of 2,6-dichloroindophenol (40 µmol/L) by NADH (200 µmol/L) at pH 7.0 measured spectrophotometrically at 600 nm in the presence and absence of 10 µmol/L of dicoumarol. The dicoumarol-sensitive portion of the activity was taken as a measure of the quinone reductase activity (Benson et al. 1980).
Glutathione *S*-transferase activity was measured spectrophotometrically at 340 nm with 1-chloro-2,4-dinitrobenzene (1 mmol/L) and glutathione (1 mmol/L) as substrates (Habig and Jakoby 1981). Protein concentrations were determined using the Bradford method (Bradford 1976) with bovine serum albumin as standard.
Propidium iodide staining.
Cells collected from either the medium or the plates were centrifuged at 100 **x** *g*for 10 min. For fluorescence microscopy, pellets were resuspended in 1 ml of phosphate-buffered saline (PBS) and a 100 µL aliquot was centrifuged onto microscope slides in a microcentrifuge at 150 **x** *g* for 10 min. Cells adhering to microscope slides were fixed in 80% methanol for 20 min, rinsed three times with PBS, and incubated with 50 µL of propidium iodide (75 µmol/L) for 5 min. Photomicrographs were made with a rhodamine filter set on an inverted Zeiss fluorescent microscope. For flow cytometry, cells were fixed and stained with propidium iodide in Eppendorf tubes, washed with PBS and analyzed with a Becton-Dickinson FACScan station. The doublet discrimination module was activated to exclude the cell aggregates and the red fluorescence (FL-3A) was recorded as an indication of DNA content. Apoptotic cells lost their fragmented DNA during sample preparation and had a sub-G1 distribution on the FL-3A plot (McConkey et al. 1989 , Nicolletti et al. 1991).
DNA fragmentation assay.
After treatment, medium was removed, and cells remaining on the culture plate were rinsed twice with PBS and lysed by addition of 2 mL of ice-cold lysis buffer containing 5 mmol/L of Tris, 20 mmol/L of EDTA and 0.5% (vol/vol) of Triton X-100, pH 8.0. Lysate was transferred to centrifuge tubes and left on ice for 15 min, then centrifuged at 27,000 **x** *g* for 20 min to separate intact chromatin (pellet) from fragmented DNA (supernatant) (McConkey et al. 1989). Pellet and supernatant DNA concentrations were measured by a diphenylamine reaction (Burton 1968).
Caspase activity measurement.
The group II caspase activity was measured with a fluorogenic substrate DEVD-AMC as described (Stridh et al. 1998). Cells were collected from the plates and briefly centrifuged in microcentrifuge tubes. The pellets were brought up in 100 µL of PBS, and 50 µL was transferred directly to single wells of a 96-well plate pre-cooled on dry ice. The remaining volume was used for protein determinations. The reaction was started by adding 50 µL of pre-warmed buffer containing 100 mmol/L of HEPES, 10% sucrose (wt/vol), 0.1% CHAPS (wt/vol), 5 mmol/L of dithiothreitol, 10^{-6}:1 (vol/vol) Nonidet P-40 and 50 µmol/L of DEVD-AMC. The kinetics of the fluorescence change within the next 45 min were recorded on a Packard fluorescent plate reader. As described for the enzyme assay, data were normalized with the measured protein amount.

Data from each experiment were calculated as percentage of control, combined and statistically analyzed as described for the enzyme assay.

Data analysis.

Experiments were designed to minimize variability in quinone reductase and glutathione *S*-transferase activity due to cell density by establishing a constant density protocol and calculating data as the percentage of control activity within each. Tests for statistically significant differences ($\alpha = 0.05$) were performed by one-way ANOVA and Dunnett's multiple range tests, with all treatments compared to the control. Significant differences are reported for values where variances were equal.

RESULTS

Induction of detoxification enzymes by chemicals from dietary sources.

To determine basal activities of quinone reductase and glutathione *S*-transferase in normally proliferating HT29 cells, cultures were maintained for 80 h (~70% confluence). Measured activities were 1.8 ± 0.4 and 0.4 ± 0.1 μmol · min^{-1} · mg $protein^{-1}$, respectively, and were not significantly changed during the 72–160 h culture periods of individual experiments or following changes in control medium. Following 24-h exposure to inducing compounds (benzyl isothiocyanate, dimethyl fumarate, allyl sulfide, butylated hydroxyanisole), statistically significant increases ($P < 0.05$) in quinone reductase (30–82%) and glutathione *S*-transferase activities (36 to 86%) over time-matched controls were found for benzyl isothiocyanate, allyl sulfide and butylated hydroxyanisole) (Table 1).Benzyl isothiocyanate was the most potent of these compounds, followed by allyl sulfide, dimethylfumarate and butylated hydroxyanisol. The extents of induction were comparable to those reported in animal studies (Sparins et al. 1982 , Vos et al. 1988).

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Table 1. Enzyme activities of HT29 cells in response to inducers[1]

Induction of cell death by detoxification enzyme inducers.

Under conditions giving enzyme induction, the same concentrations of chemicals caused a significant ($P < 0.05$) increase in number of cells that detached from culture plates by 20 h for benzyl isothiocyanate (18-fold), allyl sulfide (5-fold) and dimethyl fumarate (4-fold) (**Fig. 1** *A*),with a relative response in the sequence benzyl isothiocyanate > allyl sulfide > dimethyl fumarate. For comparison, Sudan I, a compound that induces both Phase 1 and Phase 2 enzymes was also studied. The results showed that this compound also increased cell detachment at a concentration that increased the activities of glutathione *S*-transferase and quinone reductase. The number of detached cells from control plates treated with 0.2% of DMSO was typically in the range of 1–2%. Detachment of cells is a common feature of apoptosis in tissue culture that is thought to parallel the separation of apoptotic cells that occurs during apoptosis in vivo (Wyllie et al. 1980). To verify that the released cells had not undergone necrotic lysis, cells were examined with 0.2% of trypan blue, and greater than 90% of the detached cells was found to exclude the dye.

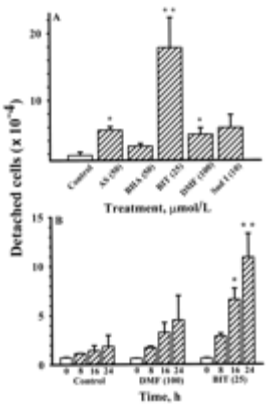

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Figure 1. Effect of enzyme inducers on HT29 cell detachment from plates. (*A*) HT29 cells (~3 **x** 10^6) were incubated in control medium and exposed to chemical inducers—allyl sulfide (AS), butylated hydroxyanisole (BHA), benzyl isothiocyanate (BIT), dimethyl fumarate (DMF), or Sudan I (Sud I), at the concentrations (µmol/L) indicated. After 24-h exposure, cells floating in medium plus those from two phosphate buffered saline rinses were collected. Cells were centrifuged and counted in the presence of 0.2% of trypan blue. (*B*) Cells lifted after timed exposures to dimethyl fumarate or benzyl isothiocyanate. Bars indicate mean ± SEM of number of viable cells from 3–5 experiments (n = 3–5), with each experiment representing the average of triplicate plates for each treatment. Significant difference from control is denoted as: * $P < 0.05$, ** $P < 0.01$.

Morphological changes following treatment with benzyl isothiocyanate.

We examined cells by fluorescence microscopy with propidium iodide staining to determine whether cells treated with benzyl isothiocyanate had undergone changes in nuclear morphology characteristic of apoptosis. Control cells were rather uniform and flat with normal heterochromatin staining (**Fig. 2**↓ *A*).Most of the treated cells remained on the plates and showed some chromatin condensation and pyknotic and fragmented nuclei at 16 h (Fig. 2↓ *B*). However, >90% of the cells that detached had condensed and/or fragmented nuclei ($P < 0.05$, data not shown). Thus, a fraction of HT29 cells treated with the detoxification enzyme inducer benzyl isothiocyanate exhibited morphological changes associated with apoptosis, i.e., loss of adherence, nuclear condensation and nuclear fragmentation prior to permeability change of the plasma membrane.

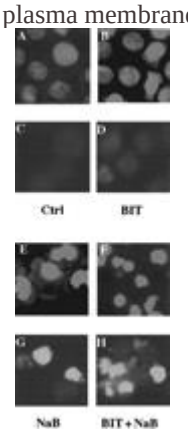

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Figure 2. Effects of benzyl isothiocyanate and sodium butyrate on nuclear morphology and DNA fragmentation in HT29 cells. HT29 cells were cultured in control (ctrl) medium (*A–D*) or medium containing 5 mM of sodium butyrate (NaB) for 72 h (*E–H*). Cells in *B, D, F, H* were then exposed for 16 h to 25 μmol/L of benzyl isothiocyanate (BIT). Cells were stained with propidium iodide (PI) and examined by fluorescence microscopy with a rhodamine filter set (*A, B, E, F*). Cells were also examined for DNA fragmentation by the TUNEL assay with fluorescence confocal microscopy (*C, D, G, H*).

Time course of development of apoptosis

To determine the time of chemical exposure required for cell detachment, HT29 cells were harvested from the medium and observed with light microscopy over a 24-h period following addition of 25 μmol/L of benzyl isothiocyanate or 100 μmol/L of dimethyl fumarate. Control plates had less than 10^4 cells detached. For benzyl isothiocyanate, the number of detached cells increased to 7 **x** 10^4 cells at 16 h and to 12 **x** 10^4 calls at 24 h ($P < 0.05$ Fig. 1 *B*). For dimethyl fumarate, there was also a progressive increase in detached cells, but the increase was significant only at 24 h ($P < 0.05$ Fig. 1A). These results show that the development of apoptosis is relatively slow and probably incomplete even at 24 h.

Effect of sodium butyrate pretreatment on benzyl isothiocyanate-induced cell death.

Treatment of HT29 cells with sodium butyrate is known to result in differentiation which ultimately leads to apoptosis (Heerdt et al. 1994). To determine whether differentiation by sodium butyrate affected the response to a Phase 2 enzyme inducer, we examined cells following 72 h of treatment with sodium butyrate (5 mmol/L) without and with benzyl isothiocyanate. Sodium butyrate alone showed no significant increase in the number of detached cells at 3 d of treatment (**Fig. 3** *A*, 0 h) compared to control cells at 3 or 0 d controls (Fig. 1 *A*, control). However, there was a progressive, modest increase in detached cells over the subsequent 24 h which was similar to that previously reported (Heerdt et al. 1994). These detached cells had condensed nuclei (Fig. 2 *E*) and included a higher percentage that stained with trypan blue. Thus, over the longer time course of treatment with sodium butyrate, cells became apoptotic and then appeared to undergo a secondary necrosis in which they lost the integrity of their plasma membrane.

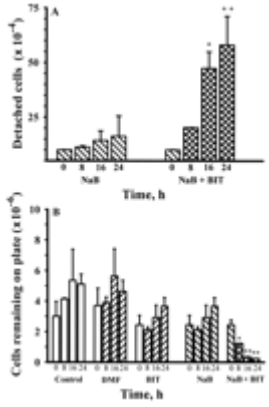

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Figure 3. Effect of sodium butyrate on apoptosis as measured by HT29 cell detachment in response to inducers. HT29 cells (~3 **x** 10^6, at time 0) were incubated in control medium or in the presence of 5 mmol/L of sodium butyrate (NaB) for 72 h prior to addition of chemical inducers. (*A*) Cells collected at designated times following exposure to 5 mmol/L of sodium butyrate medium, without and with 25 μmol/L of benzyl isothiocyanate (BIT). (*B*) Cells remaining on plates at designated times of exposure to control medium or treatment with 100 μmol/L of dimethyl fumarate (DMF) or 25 μmol/L of benzyl isothiocyanate and sodium butyrate without and with benzyl isothiocyanate. Bars indicate mean ± SEM of number of viable cells from three experiments ($n = 3$), with each experiment representing triplicate plates for each treatment. Significant difference from control is denoted as: * $P < 0.05$, ** $P < 0.01$.

Treatment with benzyl isothiocyanate following 3 d of sodium butyrate-induced differentiation resulted in greater than a 5-fold increase ($P < 0.05$) in the number of detached cells at 16 and 24 h compared to cells treated with either benzyl isothiocyanate or sodium butyrate alone (Fig 3 *A*). Significant decreases ($P < 0.05$) were observed in the number of cells remaining attached to the culture plates at 8; 16 and 24 h were also seen for benzyl isothiocyanate butyrate-treated cells (Fig. 3 *B*). When examined by fluorescence microscopy in the presence of propidium iodide, >90% of cells had morphologic features of apoptosis, i.e., extensive nuclear condensation and fragmented nuclei (Fig. 2 *F*). These results suggest that the differentiated cells undergo enhanced cell death in response to benzyl isothiocyanate beyond that of sodium butyrate or benzyl isothiocyanate alone.

DNA fragmentation after treatment with enzyme inducers.

To further examine DNA fragmentation, we used the TUNEL assay with fluorescence confocal microscopy. The results confirmed that benzyl isothiocyanate induced DNA fragmentation, and this was dramatically increased in sodium butyrate-pretreated cells compared to controls (Fig. 2 *C, D, G, H*). Fragmentation of DNA can also be detected by flow cytometry in cells stained with propidium iodide. With this technique, most cells are in GoG1 phase and appear as a homogeneous peak of cells with a normal DNA content. During apoptosis, fragmentation and loss of DNA results in an appearance of particles (cells and apoptotic bodies) with less fluorescence than the GoG1 cells. As shown in **Figure 4** *B*, cells treated with sodium butyrate and then with either benzyl isothiocyanate or dimethyl fumarate had a substantial increase in this sub-G1 population of cells (from <8% to >30%). Thus, these results further support the interpretation that apoptosis occurs in response to the inducing agents.

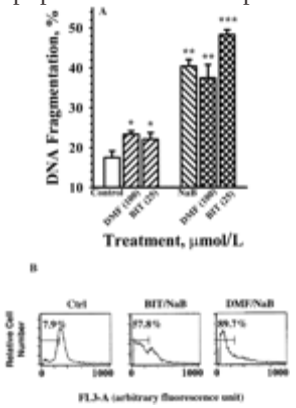

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Figure 4. DNA fragmentation in HT29 cells in response to enzyme inducers. (*A*) HT29 cells (~3 **x** 10^6) were incubated in control medium or in the presence of 5 mmol/L of sodium butyrate (NaB) for 72 h prior to addition of chemical inducers dimethylfumarate (DMF) or benzyl isothiocyanate (BIT). Percentage of fragmented DNA was calculated as: (fragmented DNA/total DNA) **x** 100. Bars indicate mean ± SEM from five–seven experiments. Significant differences from control are denoted as: * $P < 0.05$, ** $P < 0.01$ or from sodium butyrate treatment as: *** $P < 0.05$. (*B*) Flow cytometric analysis of HT29 cells with propidium iodide staining, following incubation in control (Ctrl) medium or treatment with 5 mmol/L of sodium butyrate and 25 μmol/L of benzyl isothiocyanate or 100 μmol/L of dimethyl fumarate.

To quantify the extent of DNA fragmentation, cells were extracted with a lysis buffer that releases small DNA fragments into solution while retaining nonfragmented DNA with insoluble cell material that can be separated by centrifugation. The results confirmed that DNA fragmentation was extensive (up to about 50%) and that differentiation with sodium butyrate resulted in a substantial increase in fragmentation (Fig. 4 *B*).Analysis of DNA fragmentation by agarose-gel electrophoresis stained with ethidium bromide revealed only a weak laddering pattern (data not shown) comparable to that previously reported for HT29 cells following butyrate-induced differentiation (Heerdt et al. 1994). Thus, by multiple criteria, DNA fragmentation occurred in a pattern consistent with the morphologic changes of apoptosis.

Caspase activation after treatment with enzyme inducers.

DNA fragmentation into oligonucleosomal lengths is thought to be mediated by a process activated by a proteolytic cascade involving caspases (Thornberry and Lazebnik 1998). To determine whether caspases were activated as a result of treatment with Phase 2 enzyme inducers, we used a Caspase-3 substrate DEVD-AMC that is cleaved to a fluorescent product by Caspase-3 and other caspases with similar substrate cleavage sequences. Results showed that Caspase-3-like activity increased about 2-fold ($P < 0.05$) in cell extracts following treatment of cells with benzyl isothiocyanate or dimethyl fumarate (**Fig. 5** *A*).There was greater than 20-fold increase in activity following pretreatment of cells with sodium butyrate ($P < 0.05$; Fig. 5 *B*). Thus, the results show that caspase activation occurred in a pattern that is consistent with the DNA fragmentation and the morphologic evidence of apoptosis following treatment with either benzylisothiocyanate or dimethyl fumarate.

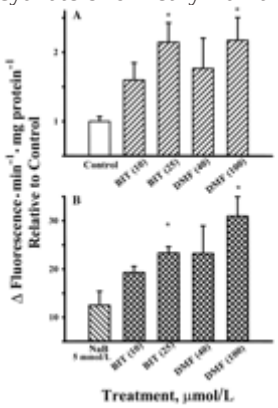

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Figure 5. Caspase-3-like activity in response to benzyl isothiocyanate or dimethyl fumarate in HT29 cells without or with sodium butyrate treatment. (*A*) HT29 cells incubated in control medium were exposed to benzyl isothiocyanate (BIT) or dimethyl fumarate (DMF) at concentrations indicated, and caspase-3-like activity was measured as fluorescence increase from hydrolysis of DEVD-AMC. (*B*) HT29 cells were incubated in 5 mmol/L of sodium butyrate, then exposed to benzyl isothiocyanate or dimethyl fumarate and assayed as above. Bars indicate mean ± SEM from three experiments ($n = 3$) which represent the averages of five replicate treatments. Significant differences from control are denoted as: * $P < 0.05$.

Caspase activation following treatment with other detoxification enzyme inducers.

To further test whether induction of apoptosis is a general response to detoxification enzyme inducers, we used a spectrum of compounds at concentrations known to result in increased activity of quinone reductase and glutathione *S*-transferase (Table 1 ; Bergelson et al. 1994 , Daniel 1993 , Galter et al. 1994 , Prestera et al. 1993). Allyl sulfide resulted in no significant increase in caspase activity compared to control cells, but in nearly a 5-fold activation in sodium butyrate-pretreated cells ($P < 0.01$; **Fig. 6**).Butylated hydroxyanisole resulted in significant increases in both untreated and sodium butyrate-pretreated cells (Fig. 6) . Both of these inducers resulted in activation at levels similar to benzyl isothiocyanate and dimethyl fumarate (Fig. 6) . In addition, Sudan I, which is thought to induce detoxification enzyme activity through interaction with the xenobiotic response element, also induced similar activation of caspase 3 (Fig. 6) . Thus, the results show that induction of apoptosis, as defined by cell morphology and caspase activation, is a common response to agents that induce increased activity of the detoxification enzymes quinone reductase and glutathione *S*-transferase and that differentiation with sodium butyrate results in a parallel increase in both the increase in enzyme activity and induction of apoptosis.

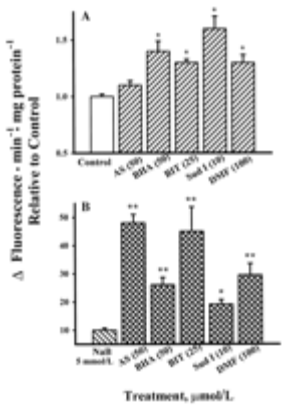

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Figure 6. Caspase-3-like activity in HT29 cells following treatment with dietary inducers. (*A*) HT29 cells incubated in control medium were exposed to allyl sulfide (AS), butylated hydroxyanisole (BHA), benzyl isothiocyanate (BIT), dimethyl fumarate (DMF) or Sudan I (Sud I) at concentrations indicated. (*B*) HT29 cells were incubated in 5 mmol/L of sodium butyrate and then exposed to benzyl isothiocyanate or dimethylfumarate. Bars indicate mean ± SEM from three experiments ($n = 3$), representing data from five replicates for each treatment. Significant differences from control or sodium butyrate are denoted as: * $P < 0.05$, * *$P < 0.01$.

DISCUSSION

The morphologically defined process of cell death, termed apoptosis, is often the culmination of the normal process of cell turnover, in which progenitor cells proliferate, differentiate into a mature phenotype, senesce and undergo a programmed cell death. This homeostatic process can be accelerated by a variety of stimuli, including cell injury. General characteristics of apoptosis include condensation of the chromatin and cytoplasm, degradation of DNA and fragmentation of cells into apoptotic bodies (Wyllie et al. 1980). More recent studies indicate that these features can be largely explained by activation of a caspase proteolytic cascade (Samali et al. 1999, Thornberry and Lazebnik 1998).

Apoptosis increases in response to exposures to cytotoxic agents (Thompson 1995). Potten (1992) speculated that spontaneous apoptosis is actually the removal of damaged cells that contain random genetic defects due to interactions with DNA-damaging compounds. Failure of apoptosis in cells with specific mutations may therefore contribute to oncogenesis. Removal of damaged cells could be a particularly useful defense mechanism within the gastrointestinal tract because of its contact with dietary mutagens (Ohgaki et al. 1991).

In the human colon, epithelial cells form a single layer, with the proliferative cells arranged in invaginated crypts and differentiated cells on the luminal surface (Potten 1992). Migration of cells from the base of the crypt to the surface is estimated to require 3 to 8 d, while stem cell cycle times are ~36 h. This rate of proliferation slows in association with differentiation, and the cells are ultimately sloughed into the lumen. Detoxification enzyme expression is low in normal crypt cells and increases in the differentiated surface cells (Hayes et al. 1989, Ranganathan and Tew 1991). Thus, there is an increase in detoxification enzyme expression that parallels decreased proliferation rate and progression of cells in terminal differentiation.

Induction of the detoxification enzymes quinone reductase and glutathione *S*-transferase is a well-characterized defense mechanism against carcinogens (Coles and Ketterer 1990, Prestera et al. 1993). In principle, elevation of these enzymes can reduce carcinogenesis due to enhanced removal of reactive electrophiles. Indeed, in vitro and in vivo research supports the interpretation that inducibility of these enzymes may be an important determinant of cancer risk (Hayes et al. 1991, Joseph and Jaiswal 1994, Lin et al. 1994). Foods that contain compounds that induce detoxification enzymes include members of several vegetable families, such as Cruciferae (broccoli, Brussels sprouts, cabbage, kale, cauliflower), Leguminosae (green beans), Umbelliferae (carrots, celery), Zingerberaceae (ginger), Liliaceae (asparagus, green onions, leeks), Compositae (leaf lettuce) and Chenopodiaceae (spinach) (Prochaska et al. 1992).

For compounds in foods to be chemopreventive, consumption of the relevant foods must be sufficient to attain the cellular concentrations of the inducers needed for enzyme induction. Although this cannot be readily predicted because of the multiple issues of bioavailability, distribution and clearance rates, available evidence indicates that relevant concentrations are likely to be achieved under normal biologic conditions. For instance, the study of Prochaska et al. (1992) reported potency values for quinone reductase induction of greater than 10,000 units/g for broccoli, where one unit was defined as the amount of inducer required to double the quinone reductase activity of Hepa 1c1c7 cells growing in 150 µL wells. Mean portion size for broccoli is about 85 g (Block et al. 1992) so that a serving would contain about 850,000 units. If the relevant compounds are 100% absorbed and uniformly distributed into the entire 50 L of body water, one would need 50 L/0.00015 L, or 333,333 units for a 2-fold induction. Thus, the amount in a normal serving of broccoli would appear to be sufficient to cause the induction. Since the liver and intestinal epithelium are exposed to higher concentrations than that achieved by uniform delivery throughout the body, at least these tissues should be exposed to concentrations sufficient for induction. This interpretation is supported by data from Hecht (1995 , Hecht 1999), who estimated that isothiocyanates, initially released from cruciferous vegetables as glucosinolates and then hydrolyzed by myrosinase, represent about 0.02% of the vegetable mass. Assuming an average molecular mass for isothiocyanates of 170 and a portion size of 100 g, this would indicate that about 20 mg of isothiocyanates, or 100 µmol would be consumed. If 5% remained in the intestinal tract and reached the colon in 250 mL, the concentration would be similar to the concentration of benzylisothiocyanate used in the present study (i.e., about 20 µmol/L). Similar calculations can be made for fumarates and allyl sulfide. Thus, the concentrations of inducers used in the present study appear relevant to conditions that are achieved in vivo.

The results show that the effects of the inducers are enhanced by pretreatment with 5 mmol/L of sodium butyrate. Butyric acid is generated in the human colon from the fermentation of fiber. Concentrations in the range of 5 mmol/L are normally found, and concentrations of over 20 mmol/L are generated by high-fiber diets (Cummings et al. 1987 , Kapadia et al. 1995 , Kashtan et al. 1992). Thus, the combination of butyrate and inducers used in the present study appears to replicate conditions that could be achieved by a high-fiber, high-fruit and -vegetable diet. Importantly, the potentiation of effects of inducers by pretreatment with butyrate suggests a potential mechanistic basis for an interactive effect in cancer prevention between high-fiber foods and foods that contain high concentrations of inducers.

Activation of apoptosis and induction of detoxification enzymes are both sensitive to changes in cellular GSH, and measurements show that substantial changes in GSH concentration and GSH/GSSG redox state occur in HT29 cells under the butyrate and benzyl isothiocyanate treatment conditions as used in the present study (Jones et al. 1996). However, it is not clear whether activation of apoptosis and enzyme induction are mechanistically linked. Briehl and Miesfeld (1991) found that androgen withdrawal in rat ventral prostate induced apoptosis and also elevated glutathione *S*-transferase mRNA, suggesting that the two processes could be mechanistically linked. In a second study (Flomerfelt et al. 1993), however, they found that the elevated glutathione *S*-transferase in steroid-induced apoptosis is not an essential step in the apoptotic process but is a coincidental response to a change in cellular redox state. Thus, while the data are consistent with both processes being associated with changes in cellular GSH, the data are presently insufficient to conclude that they are mechanistically linked.

Whether or not apoptosis and detoxification enzyme induction share a common GSH-dependent mechanism, the elicitation of both responses by Phase 2 inducers in butyrate-differentiated cells could be important because this could provide a greater anticarcinogenic potential than achieved by one mechanism alone. Our results show that chemically unrelated compounds that induce detoxification enzymes also induce apoptosis in the colon carcinoma cells over the same concentration ranges that increase enzyme activity. This apoptotic effect was even more pronounced in the cells that had been differentiated with sodium butyrate. Thus, these compounds may provide two different mechanisms to protect against cancer, namely enhanced elimination of chemical carcinogens and enhanced elimination of precancerous cells.

The concept of dietary chemoprevention is usually used in the context of protecting normal cells from initiating events that introduce oncogenic mutations. However, substantial literature is available to show that carcinogenesis represents a progression of cellular changes (Vogelstein and Kinzler 1994), and agents that disrupt this progression at any point can be considered chemopreventive. In the present case, we are suggesting that stimulation of apoptosis in precancerous cells could block or delay tumor development. The HT29 cells used in the present study represent an advanced stage of tumor development. Therefore, we consider it especially significant that dietary agents induce apoptosis in these cells at concentrations that may be achieved in the normal diet. This raises the possibility that some agents may be particularly effective in prevention of colon carcinoma formation because they

can enhance elimination of precancerous cells. While it remains unknown whether this occurs in vivo, if it does, it would provide two mechanisms for cancer prevention by Phase 2 enzyme inducers. Specifically, these compounds could induce an increase in detoxification activity and activate apoptosis in precancerous cells. Thus, one may postulate that such compounds in the human diet may provide a dual protective mechanism against colon cancer.

While this possibility is speculative, a comparison of anticarcinogenic effects by these two mechanisms is of interest. For protection due to enhanced detoxification of carcinogens, exposure to the inducer would have to occur several hours prior to exposure to the carcinogen in order to allow time for an increase in detoxification enzyme activity. For a long-term chemopreventive strategy, protection could be maintained only if there were a permanent increase in enzyme expression or a continuous exposure to the inducer. In contrast, if these compounds enhance apoptosis, then they could provide a cancer-preventive effect even after exposure to a chemical carcinogen which caused an oncogenic mutation.

There is extensive epidemiologic literature on the relationships between consumption of fiber (butyrate source), consumption of vegetables and fruits (sources of Phase 2 inducers) and colon cancer (Block et al. 1992 , National Research Council 1989 , Steinmetz and Potter 1991). Block et al. (1992) found that 20 out of 23 epidemiologic studies on fruits, vegetable and colon cancer indicated that diets high in fruits and vegetables were protective (average relative risk of 1.9 for low consumption). The National Research Council (1989) cited several case-control and correlation studies which showed inverse relationships between the intake of high-fiber foods and colon cancer risk but noted that these foods (vegetables to a large extent) are rich sources of other nutritive and nonnutritive constituents which could be cancer-inhibiting so that the effects could not be attributed to fiber, per se. Other studies suggest that cruciferous vegetables have a protective effect against colon cancer (Kune et al. 1987a , Kune et al. 1987b , Miller et al. 1983 , Young and Wolf 1988). In light of the present results, it may be useful to more specifically consider interactive effects of high-fiber diets and foods high in Phase 2 inducers in colon cancer risk. Alternatively, this potential interactive effect could be directly studied in animal models of colon carcinogenesis, and studies of early and late interventions could help discriminate between a mechanism involving enhanced detoxification of mutagenic compounds and one depending upon elimination of precancerous cells.

In conclusion, the present studies show that compounds that induce Phase 2 detoxification enzymes also induce apoptosis over the same concentration range in HT29 cells. The results indicate that these dietary inducers may therefore protect against cancer by two distinct mechanisms, enhanced detoxification of carcinogenic compounds and enhanced elimination of precancerous cells. Induction of apoptosis in precancerous cells may provide protection against cancer development even after chemical-induced mutagenesis and, therefore, may provide the basis for a novel nutritional strategy for cancer prevention. The practical implication is that consumption of diets high in butyrate production (e.g., fiber) and high in Phase 2 inducers (e.g., cruciferous vegetables) may trigger precancerous cells to die by apoptosis. This could "prevent" development of carcinoma by eliminating cells with an incomplete set of cancer-causing mutations. Such a possibility may be particularly useful in at-risk populations. However, this implication is derived solely from an in vitro study with one colon carcinoma cell line. Clearly, additional in vivo and clinical studies are necessary to assess the usefulness of such a diet as an anticancer strategy.

FOOTNOTES

[1] This research was supported by NIH grant ES09047, GM08248 and funds from the Winship Cancer Center.
[3] Abbreviations used: CHAPS, (3-[(3-cholamidopropyl)dimethylammonio]-1-propane sulfonic acid; DMSO, dimethyl sulfoxide; PBS, phosphate-buffered saline.

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High Dose intravenous Vitamin C

High dose Vitamin C can be take orally or intravenously. High dose - oral or intravenous vitamin c iv - has a negative effect on cancer cell growth. Vitamin C also enhances the immune system by increased lymphocyte production, walls off tumors by stimulating collagen formation, prevents metastasis, expedites wound healing after cancer surgery, neutralizes carcinogenic substances and prevents cellular free radical damage. High dose - oral or intravenous vitamin c iv - also has an ameliorating effect on the side effects of the highly oxidative chemotherapeutic agents. Some of the side effects of chemotherapy are so severe that many patients stop therapy as a result. It has been shown to increase the lifespan of some

cancer patients when receiving 10-100grams 2-7 times per week, notably when chemotherapy has not already been used.

High Dose - oral or intravenous vitamin C iv - inhibits hyaluronidase, an enzyme that tumors use to metastasize and invade other organs throughout the body. It induces apoptosis to help program cancer cells into dying early. It corrects the almost universal scurvy in cancer patients. Cancer patients are normally tired, listless, bruise easily, and have a poor appetite. They don't sleep well and have a low threshold for pain. This adds up to a very classic picture of scurvy that generally goes unrecognized by their conventional physicians.

When cancer patients receive High Dose - oral or intravenous vitamin C iv - they report that their pain level goes down, and that they are better able to tolerate their chemotherapy. They bounce back quicker since the high dose Vitamin C reduces the toxicity of the chemotherapy and radiation without compromising their cancer cell killing effects. High Dose - oral or intravenous vitamin c iv is complementary to oncologic care. It is not "either/or" - it's a good "both/and" proposition. High Dose - oral or intravenous vitamin c iv can help cancer patients withstand the effects of their traditional therapies, heal faster, be more resilient to infection, develop a better appetite, and remain more active overall. These things promote a better response to their cancer therapy.

Vitamin C in the Treatment of Cancer - A Summary

Vitamin C in the Treatment of Cancer - By Kathleen A Head, ND.

The Vale of Leven Studies: Most of the studies on vitamin C and cancer relate to its protective effect, rather than use of the vitamin for the treatment of active cancer. The Vale of Leven studies conducted by Ewan Cameron, MD and his associates, (later including Linus Pauling, PhD), at his hospital in Loch Lomondside, Scotland, are among the few exceptions. In preliminary studies which began in November 1971, a small group of patients with advanced cancer were given 10 grams of sodium ascorbate daily. The initial testing was an uncontrolled study, conducted on 50 patients. Seventeen of these patients exhibited seemingly no response, 10 a minimal response, 11 retardation of the tumor growth, 3 ceasing of the tumor growth, 5 regression of tumor growth with long-term survival, and 6 experienced hemorrhage and necrosis of the tumors, which destroyed the tumors but killed the patients in the process. An evaluation of the life expectancy of these first 50 "terminally ill"

patients treated with ascorbate yielded promising results. Based on data from previous similar groups of patients, it was expected that 90 percent of the group would be dead within three months of being labeled "terminal." When 10 g ascorbate was prescribed daily (beginning at the time the patient was labeled "terminal"), by the 100th day of treatment the mortality rate was only 50 percent. Of the remaining 25 patients, 20 died between days 110 and 659, with an average survival time of 261 days; and five had an average survival time of greater than 610 days.

Subsequently, a controlled retrospective study was conducted, comparing survival times of 100 terminally ill cancer patients at Vale of Leven Hospital with 1,000 matched controls from the same hospital. The patients were randomly selected from the database of those terminal cancer patients who had received ascorbate. Each ascorbate-treated patient was matched with 10 controls from the same hospital of the same age, sex, and type and stage of cancer who had not been prescribed vitamin C. In 90 percent of the cases, the ascorbate-treated group lived three times longer than the control group. For the other 10 percent, long-term survival made it impossible to assess survival time with certainty, but at the time of publication of the study, the ascorbate group exhibited greater than 20 times the survival rate of the control group.

Having been criticized by some investigators for not assuring the subjects were randomly chosen from the same representative subpopulations in the treated and control groups, a second retrospective evaluation at the Vale of Leven hospital was undertaken in 1978 again with 100 patients receiving ascorbic acid compared to 1,000 matched controls without vitamin C. Most of the ascorbate-treated group and about half the controls were the same subjects as in the initial study. This time, since there are different mean survival times for different types of cancer, the groups were further divided according to types of cancer, and controls carefully matched. In addition, the groups passed several "randomness" tests. In each of the nine types of cancer the ascorbate group had a considerably longer survival time than their matched controls. At the time of evaluation, eight patients in the vitamin C group were still living, while no one was alive in the control group; this resulted in 321+ days longer lifespan for the vitamin C treated group. Factoring out those in the ascorbate group who were still living at the time of evaluation, the vitamin C group lived an average of 251 days longer than the control group.

Cameron and Pauling later evaluated the first 500 "terminal" cancer patients to receive ascorbate. In most cases, subjective improvement increased feeling of well-being, more energy, more alertness, decrease or elimination of pain, better appetite were noted by the ascorbate patients. Cameron reported a quite dramatic relief of bone pain from metastases in four out of five patients. Objective improvements included a decrease in malignant ascites and pleural effusion, relief from hematuria, some reversal of hepatomegaly and jaundice, and decreases in erythrocyte SED rate and serum seromucoid levels, all accepted indicators of a decrease in malignant activity. Furthermore, patients who had been on large doses of narcotics, such as morphine, for pain relief, showed none of the typical withdrawal symptoms.

Based on the above cited studies the researchers concluded: "It is our conclusion that this simple and safe treatment, the ingestion of large amounts of vitamin C, is of definite value in the treatment of patients with advanced cancer. Although the evidence is as yet not so strong, we believe that vitamin C has even greater value for the treatment of cancer patients with the disease in earlier stages and also for the prevention of cancer."

The Vale of Leven protocol called for a ten-day course via intravenous (IV), continuous slow-drip infusion of sodium ascorbate in half-strength Ringer's Lactate Solution. After the IV treatment, assuming the patient was able to take medication by mouth, an oral dose of vitamin C was begun at a dose of 2.5 grams every 6 hours for a total of 10 grams in 24 hours. The dosage varied somewhat, ranging from 10-30 grams daily, and was continued indefinitely. The goal was to maintain plasma ascorbate levels of at least 3 mg/dl. The researchers reported generally a subjective improvement in well-being, vigor, pain relief, and appetite was apparent within 5-7 days. Increased energy was believed to be a result of improved carnitine synthesis with a resulting increase in triglyceride transport into cell mitochondria.

Japanese Studies: Uncontrolled trials conducted at two different hospitals in Japan during the 1970s also confirmed the increase in survival time of terminal cancer patients supplemented with ascorbate. At the Fukuoka Torikai Hospital, the average survival time after being labeled "terminal" was 43 days for 44 patients supplemented with low levels of ascorbate (less than 4 grams daily), and 246 days for 55 patients supplemented with higher dosages of ascorbate (greater than 5 grams daily - averaging 29

grams daily) and starting at the time of "terminal" diagnosis. The researchers found no differences in survival times between the groups receiving 5-9 grams daily and those receiving 10-29 grams daily. A decline in effect was noted in those receiving 30-60 grams daily. They found the best results with uterine cancer, and the smallest increases in survival time with lung and stomach cancer.

Effectiveness of ascorbate was also observed at the Kamioka Kozan Hospital where 19 terminally-ill control patients survived an average of 48 days compared to six patients on high levels of vitamin C who lived an average of 115 days, or 2.4 times longer than the control group. These researchers also reported the improved quality of life observed in the Scottish studies.

Mayo Clinic Studies: In an attempt to either duplicate or refute the Cameron and Pauling results, the Mayo Clinic initiated a test on 150 patients. Subjects were randomly divided into two groups, one group of 60 received 10 grams of ascorbic acid daily in four divided doses while the control group of 63 received an equal number of placebo capsules. After randomization, 27 patients elected not to participate and comprised a third "no treatment" group. Treatment was continued until death or until the patient was no longer able to take medication orally. The two groups were evenly balanced with regard to age, sex, tumor site, initial performance status, and previous treatment. Fifty-eight percent of those receiving placebo and 63 percent of those receiving ascorbate reported subjective improvement in symptoms during the treatment period. The researchers reported no significant difference between the vitamin C and placebo groups in regard to survival time; however, the 27 patients who received no treatment experienced a significantly lower survival time, living an average of 25 days compared to an average of 51 days for the vitamin C or placebo groups. All but nine of the 123 subjects had received prior chemotherapy, radiation, or both.

Vitamin C Not As Effective After Chemotherapy Has Been Used

Vitamin C and cancer: Linus Pauling is considered the pioneer in the use of oral and intravenous vitamin c iv in the treatment of cancer. His documented studies in extending cancer survival using large doses of Vitamin C are seen as a benchmark by all those who seek to replicate or refute the beneficial claims of Vitamin C.

In 1979, the Mayo Clinic undertook a clinical study to replicate

or refute the earlier studies of Linus Pauling. The study participants (with a few exceptions) had all received chemotherapy PRIOR to being given ORAL doses of Vitamin C. The study concluded by the Mayo Clinic reported no evidence that large doses of Vitamin C help in extending cancer survival.

The following is a letter from Linus Pauling to the Editor of The Times maganize who reported "Vitamin C Fails as a Cancer Cure" as a result of the Mayo Clinic findings.

By Linus Pauling (October 24, 1979)
[http://profiles.nlm.nih.gov/MM/B/B/R/R/_/mmbbrr.pdf]

To the Editor: An article in your Sept. 30 Week in Review section, "Vitamin C Fails as a Cancer Cure" (with reference to me in the first sentence), said that a controlled study of 150 Mayo Clinic patients with advanced cancer, published in the New England Journal of Medicine, had shown no evidence that large doses of vitamin C help.

This is indeed what was reported by the Mayo Clinic investigators. They themselves and The Times article do not point out, however, that the population of cancer patients investigated in the Mayo Clinic was so different from that investigated by my associate Dr. Ewan Cameron in Vale of Leven Hospital, Loch Lomondside, Scotland, that the results observed in the Mayo Clinic study cannot be considered to refute the results observed in the study in Scotland.

The chief investigator in the Mayo Clinic study wrote to me last year that he hoped to repeat Dr. Cameron's work as closely as possible. I then wrote to him, pointing out that cyto-toxic chemotherapy damages the body's protective mechanisms to such an extent that subsequent treatment with Vitamin C would not be expected to have much value, because Vitamin C functions largely by potentiating these protective mechanisms.

I recommended strongly that only patients who had not received chemotherapy be used in the Mayo Clinic study. This recommendation, however, was ignored. Nearly all the patients in the Mayo Clinic trial had received courses of chemotherapy, whereas only 4 percent of those studied by Dr. Cameron had receieved chemotherapy.

The Vale of Leven study showed that large doses of Vitamin C have great value for cancer patients who have NOT received chemotherapy. The Mayo Clinic study answers an important

question in that it verifies that treatment with Vitamin C is far less effective for patients whose immune systems have been damaged by courses of chemotherapy.

National Institute of Health Confirms Vitamin C Effectiveness

National Institute of Health / National Cancer Institute – "Early clinical [Cameron/Pauling] studies showed that high-dose - oral OR intravenous vitamin c iv, may improve symptoms and prolong life in patients with terminal cancer. Double-blind placebo-controlled [Mayo Clinic] studies of oral vitamin C therapy showed no benefit. Recent evidence shows that oral administration of the maximum tolerated dose of vitamin C (18 g/d) produces peak plasma concentrations of only 220 µmol/L, whereas intravenous administration of the same dose produces plasma concentrations about 25-fold higher. Larger doses (50–100 g) given intravenously may result in plasma concentrations of about 14 000 µmol/L. At concentrations above 1000 µmol/L, vitamin C is toxic to some cancer cells but not to normal cells in vitro.

We found 3 well-documented cases of advanced cancers, confirmed by histopathologic review, where patients had unexpectedly long survival times after receiving high-dose intravenous vitamin c iv therapy. We examined clinical details of each case in accordance with National Cancer Institute (NCI) Best Case Series guidelines. Tumour pathology was verified by pathologists at the NCI who were unaware of diagnosis or treatment. In light of recent clinical pharmacokinetic findings and in vitro evidence of anti-tumour mechanisms, these case reports indicate that the role of high-dose intravenous vitamin c iv therapy in cancer treatment should be reassessed."

http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=1405876

Dr. Mark Levine of the National Institutes of Health in Bethesda, Maryland, and colleagues note that, in vitro, vitamin C is toxic to some cancer cells but not normal cells at concentrations above 1000 µmol/L. IV doses in the range of 50-100 g result in plasma levels of about 14,000 µmol/L.

The team analyzed clinical and histological data from three patients with advanced cancer who responded to high-dose IV vitamin C.

The first patient was a 51 year-old-women with advanced renal

cell carcinoma, treated with nephrectomy, and several small lesions in the lung "consistent with metastatic cancer." She received IV vitamin C 65 g twice a week for 10 months, in combination with other alternative therapies, including thymus protein extract. Repeat chest radiography revealed one small spot, assumed to be a scar. Five years later, new lung masses were detected. The patient again received intravenous vitamin c iv, with unsuccessful results.

The second patient, a 49-year-old man, had bladder cancer with multiple satellite tumors. He received IV vitamin C 30 g twice a week for three months, followed by 30 g vitamin C once every 1-2 months for four years. . Nine years after diagnosis, the patient is in good health, without signs of disease.

Case three was a 66-year-old woman with B-cell lymphoma invading paraspinal muscle and bone at L4-5. She received IV vitamin C 15 g twice weekly for 7 months, then 15 g every 2-3 months for about one year. Ten years after diagnosis, the patient is in good health.

Dr. Levine and colleagues note that all three patients survived for longer than expected for the types and stages of cancers that they had. At the doses delivered, vitamin C "is a pro-drug for hydrogen peroxide formation in extracellular fluid," they explain. Histology results also showed evidence of tumor hemorrhage, attributable to ascorbate.

The investigators conclude that "the role of high-dose intravenous vitamin c iv therapy in cancer treatment should be reassessed."

Vitamin C + Vitamin B3 Niacin Increases Cancer Survival 20 Fold

Click here to read this article by Abram Hoffer, M.D., Ph.D - Clinical Procedures in Treating Terminally Ill Cancer Patients with Vitamin C [+ Vitamin B3]

http://www.alternative-cancer-care.com/Intravenous_Vitamin_C_IV.html

New insights into the physiology and pharmacology of vitamin C

Sebastian J. Padayatty and Mark Levine

http://www.cmaj.ca/content/164/3/353.full

As an electron donor, vitamin C acts as a cofactor for 8 enzymes involved in collagen hydroxylation, biosynthesis of carnitine and norepinephrine, tyrosine metabolism and amidation of peptide hormones.[5] Vitamin C also has many nonenzymatic actions. It is a powerful water-soluble antioxidant and, at physiological concentrations, probably does not produce reactive intermediaries. It protects low-density lipoproteins from oxidation, reduces harmful oxidants in the stomach and promotes iron absorption. Its antioxidant role in vivo is, however, unclear. Plasma ascorbic acid concentrations may be low in chronic or acute oxidant states such as in diabetes, in smokers, or following acute pancreatitis or myocardial infarction. Ascorbic acid is easily oxidized to the unstable dehydroascorbic acid. Dehydroascorbic acid is not normally detectable in plasma but may occur transiently during oxidant stress. Ascorbic acid is transported into the cell by sodium-dependent vitamin C transporters SVCT1 and SVCT2, one or both of which are found in most tissues.[6] Dehydroascorbic acid is transported by glucose transporters GLUT1 and GLUT3, and, in insulin-sensitive tissues, also by GLUT4. When exposed to bacteria, neutrophils oxidize extracellular ascorbic acid to form dehydroascorbic acid, which is transported into the neutrophil and rapidly reduced to ascorbic acid by the protein glutaredoxin (Fig. 1). As a result of this recycling of extracellular ascorbic acid, the neutrophil internal concentration of ascorbic acid increases 10-fold.[7] Ascorbic acid may quench oxidants generated during phagocytosis and, thus, protect the neutrophil and surrounding tissues from oxidative damage. Brain, adrenal cortex, liver, spleen, pancreas and kidney tissues concentrate vitamin C for unknown reasons.

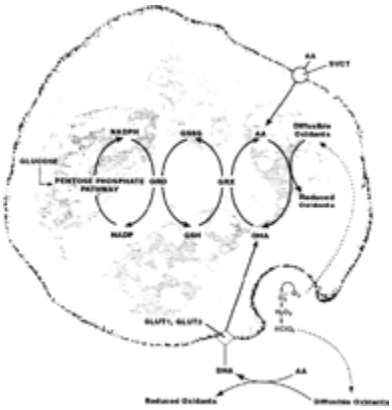

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Fig. 1: Ascorbic acid (AA) transport, dehydroascorbic acid (DHA) transport and recycling in human neutrophils. AA, transported by sodium-dependent vitamin C transporters (SVCT), maintains mmol/L concentrations of AA inside neutrophils. Activated neutrophils secrete reactive oxygen species that oxidize extracellular AA to DHA. DHA is rapidly transported into the neutrophil by the glucose transporters GLUT1 and GLUT3 and immediately reduced to AA by glutaredoxin (GRX), producing a 10-fold increase in neutrophil internal AA concentration. Glutathione (GSH), used during DHA reduction, is regenerated from glutathione disulfide (GSSG) by glutathione reductase (GRD) and NADPH. NADPH is a product of glucose metabolism through the pentose phosphate pathway. As NADPH is oxidized to NADP, electrons are transferred to GRD so it can reduce GSSG to GSH. Modified and reproduced with permission of the *Journal of Nutritional Biochemistry* 1998;9:120,[7] Elsevier Sciences Inc.

When given orally, ascorbic acid is well absorbed at lower doses, but absorption decreases as the dose increases. Thus, median bioavailability following an oral dose is 87% for 30 mg, 80% for 100 mg, 72% for 200 mg and 63% for 500 mg. Less than 50% of a 1250-mg dose is absorbed, and most of the absorbed dose is excreted in the urine.[3,8] Ascorbic acid is not protein bound, so it is filtered and reabsorbed by the kidneys in healthy subjects but is lost in patients who have been hemodialyzed. Ascorbic acid begins to appear in urine at doses above 100 mg/day, corresponding to a plasma concentration of about 60 μmol/L, at which point plasma is 70% saturated and circulating white blood cells are fully saturated. Decreased bioavailability and renal excretion keep plasma vitamin C at less than 100 μmol/L, even with an oral dose of 1000 mg. In men at steady state, a 30-mg daily intake results in a mean plasma concentration of 9 μmol/L, 60 mg results in25 μmol/L, 100 mg in 56 μmol/L and 200 mg in 75 μmol/L. Thus, the dose–concentration relationship is sigmoidal, with the steep portion of the curve lying between 30 mg and 100 mg of oral vitamin C daily.[3,8] Doses greater than 500 mg daily contribute little to plasma or tissue stores. Circulating white blood cells contain 10–30 times the plasma concentrations of vitamin C.

In addition to the physiological role of ascorbic acid, it may have unrelated pharmacological effects. When ascorbic acid is administered intravenously, the limiting absorptive mechanism is bypassed and very high plasma levels are attained. Following the administration of 1.25 g intravenously, a peak plasma level of 1000 μmol/L is reached, even though 100 μmol/L is not exceeded by oral dosing.[8] When 5–10 g is given intravenously, the resulting plasma levels may be as high as 5000 μmol/L.[9]

This difference between the oral and intravenous administration of high doses was not adequately appreciated in studies of the treatment of cancer with vitamin C. In vitro, ascorbic acid is cytotoxic to many malignant cell lines[10] at concentrations that can be achieved in plasma by intravenous, but not oral, administration. Whether similar effects would occur in vivo is not known. The unconventional studies of Cameron and Campbell,[11] later joined by Linus Pauling, used high-dose intravenous vitamin C to treat terminal cancer. They reported clinical benefits and improved survival.[12,13] Because these studies were not randomized or placebo controlled, Moertel and colleagues carried out 2 randomized placebo-controlled clinical trials at the Mayo Clinic to check these findings.[14,15] Using high-dose oral vitamin C, they found no benefit. Given the recent appreciation of the differing plasma levels resulting from oral versus intravenous administration, it is difficult to compare the studies carried out by Moertel and coworkers with those of Cameron and his colleagues. The cause of cancer patients will be better served if advocates and sceptics concerning the efficacy of vitamin C re-examine these issues with both open minds and scientific rigour.

We now know that plasma vitamin C concentrations are tightly controlled and that the vitamin is concentrated by many tissues. The optimum intake of vitamin C, its function in various tissues and its antioxidant actions in vivo remain to be elucidated. In the meantime, we should rigorously explore the potential anticancer effects of vitamin C, when administered intravenously at high doses, in patients with well-documented cancer[16] in whom other options have been exhausted. If these studies show promise, then randomized clinical trials should follow.

Footnotes

Clinicians who wish to submit cases for review can contact Drs. Padayatty and Levine for instructions at the address below.

This article has been peer reviewed.

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Dr. Hoffer - Vitamin C and Cancer

1) There are many controlled studies that demonstrate that vitamin C is indeed effective against cancer. These studies are discussed in Hoffer's book, and in Cameron and Pauling's *Cancer and Vitamin C* (revised edition, 1993). Some of the most interesting studies were done in Japan, using over 30,000 mg of vitamin C a day. Extensive clinical reports from orthomolecular (megavitamin) physicians such as Dr. Hoffer and

Robert F. Cathcart III, MD, indicate that even higher quantities of vitamin C are even more effective.

2) Vitamin C reduces the side-effects of chemotherapy, surgery and radiation therapy. Patients on a strong nutritional program have far less nausea, and often experience little or no hair loss during chemo. They experience reduced pain and swelling following radiation. They have faster, uncomplicated healing after surgery. Such vitamin-mediated benefits mean that oncologists can give vitamin-taking patients the full dose of chemotherapy, rather than having to cut the dose to keep the patient from giving up entirely. Obviously, full-strength chemo is more likely to be effective against cancer than reduced-strength chemo. A similar benefit is at work with radiation therapy: the full intensity of treatment is far better tolerated by an optimally-nourished patient. With surgery, the risk reduction aspects of vitamins, both pre- and post-op, are well established. Therefore, vitamin C, far from being detrimental, makes a most positive contribution to the conventional treatment of cancer.

3) Even at very high doses, Vitamin C is an unusually safe substance; countless studies have verified this. As an antioxidant, collagen-building co-enzyme, and reinforcer of the immune system, vitamin C is vital to a cancer patient. Yet the blood work of cancer patients will invariably show that they have abnormally low levels of the vitamin. What is dangerous is vitamin deficiency.

The number of conventionally-educated, hospital trained doctors that support vitamin C therapy is growing. Hoffer was among the first. Your oncologist could be next. Let him/her read *Vitamin C and Cancer*.

http://www.doctoryourself.com/hoffer_vitc_can.html

When exposed to the acidic environment of cancer, vitamin C basically produces peroxide and oxidizes the cancer cells, similar to the way the immune system destroys cancer cells.

"Taking the Mistery out of Cancer" by *By Dr. David W. Tanton, Ph.D.*

http://www.drtanton.com/pdfs/TakingTheMysteryOutOfCancer.pdf

Killing Cancer Cells With High pH Therapy

Cesium Chloride and Cesium Carbonate Kills Cancer Cells

http://www.angelfire.com/az/sthurston/Killing_Cancer_Cells_with_High_pH_Therapy.html

Cells, whether cancerous or normal can only live and reproduce (undergo mitosis) in a pH range of between 6.5 and 7.5. A healthy cell has a pH of 7.35 while a cancer cell is more acidic. Cesium when taken orally will raise the pH of cancer cells, but not that of normal cells. When the pH of a cancer cell goes above 7.5 it dies and if it goes above 8.0 it will die in a matter of hours.

What can enter a cancer cell

Every cell in the body is like a little battery. To successfully bring nourishment in, and take poisons out, it has to be fully charged. In a cancerous cell, the charge (called cell voltage) drops from 90 millivolts to less than 40 millivolts. When the cell voltage gets to the very bottom, only 5 substances can pass in or out of the cell. They are water, sugar, potassium, cesium and rubidium. Oxygen cannot enter into a cancer cell. So you see, even if there is a lot of oxygen in the blood, it won't get into the cell. Cesium, because of its electrical properties can still enter the cancerous cell. When it does so, because of it's extreme alkalinity, the cell dies. Luckily, healthy cells are not affected by cesium because their cell voltage allows them to balance themselves. The only side effect is a loss of potassium which can be remedied with eating a few bananas and potatoes.(PLEASE NOTE: Bananas, although they are rich in potassium, do contain a lot of sugar - The only part of a potato that contains sufficient amounts of potassium is the peel, the rest is carbohydrate and will turn to sugar, there are better choices for supplementing your potassium...~Vickie)

It is interesting to note that cancer is virtually unknown among the Hopi Indians of Arizona and the Hunza of Northern Pakistan, so long as they stay in the same environment. This strongly suggests that something they are consuming is protecting them from cancer. The Hopi water is rich in Rubidium and potassium. The Hunza water is rich in Cesium and potassium, making both of the water supplies rich with very caustically (alkaline) active metals.

In his publication, Cesium therapy in cancer patients, Dr. Sartori describes the 2 week treatment of 50 last stage, metastasized, terminal cancer patients (13 comatose), with Cesium salts. All were expected to die within weeks, with the survival rate being less than one in ten million. After 2 weeks, 13 died with autopsies showing no presence of cancer. After 12 months, 12 more had died, but 25, an astounding 50% survived.

***Cesium has no natural radioactive form, and should not be confused with**

Cesium 137 which is artificially produced.

Cancer cells are very weak, far weaker than healthy cells. It is very easy to kill cancer cells if you can create the right environment. The following protocols are deadly to cancer cells, yet harmless if not outright beneficial to healthy cells.

The High pH Environment

Cancer cells live in an acidic environment, but perish in an alkaline, high pH, environment. Although many diets can help you alkalinize your body, nothing works as fast as Cesium Carbonate or Cesium Chloride.

Cesium for Cancer

Cesium *, a crystalline salt has been used successfully for cancer for many years now. Cesium Chloride and Cesium Carbonate work by raising the cancer cell's Ph to a highly alkaline state. Although many anti-cancer diets also produce an alkaline state, they simply cannot do so as quickly or as fully as Cesium can.

Cesium Therapy in Cancer patients

H.E. Sartori

Certain foods contain biologically active compounds and/or ingredients, i.e., vitamins, inorganic salts, organic compounds, essential fatty acids, minerals, and chelating agents which may either precipitate or prevent cancer development. The relationship between dietary consumption and cancer development is not clear and further investigation continues. Noteworthy is the report on the presence of high levels of cesium [Cs] and rubidium [Rb] in food along with availability of various supportive compounds as vitamins A and C, along with zinc and selenium in diet of populations residing in areas with low incidence of cancer e.g., the Hopi Indian territory in Arizona, the Hunza area in North Pakistan, and the volcanic regions of Brazil. The diet of these populations is similar to the nutritive requirements for the high Ph cancer therapy developed by Brewer's subsequent series of physical experiments with cancer cells. In these tests the presence of Cs+ or Rb+ in

the adjacent fluids of the tumor cell is believed to raise the Ph of the cancer cell where mitosis will cease resulting in reduction of life span of the cancer cell. The introduction of such alkaline pH by these alkali salts may also neutralize the acidic and toxic material within the cancer cell. This report combines the use of CsCl with various supportive agents. which have been hypothesized both to enhance the entry of Cs+ into the cancer cell and to stimulate the immune response, in the treatment of various cancers.

Method

Treatment was performed on 50 patients during the last three years at Life Sciences Universal Medical Clinics in Rockville MD and in Washington D.C. All patients were terminal subjects with generalized metastatic disease. Forty-seven of the 50 patients studies had received maximal modalities of treatment, i.e., surgery, radiation, and various chemotherapy, before metabolic Cs-treatment was initiated. Three patients were comatose and 14 of the patients were considered terminal due to previous treatments outcome and cancer complications. The type of cancer of the patients studied and their number is detailed in table 1.

The Cs-treatment was given in conjunction of other supportive compounds under diet control in addition to the utilization of specific compounds to produce adequate circulation and oxygenation. According to individual cases CsCl was given at daily dosages of 6 to 9 grams in 3 equally divided doses, with vitamin A-emulsion (100,000 to 300,000 U), vitamin C (4 to 30 grams), zinc (80 to 100 mg) selenium (600 to 1,200 mcg) and amygdalin (1,500 mg) in addition to other supplementations according to the specific needs of the patient. The diet consisted mainly of whole grains, vegetables, linolenic acid rich oils (linseed, walnut, soy, wheat germ) and other supplemental food. To increase efficiency of the treatment and improve the circulation and oxygenation, the patients received the chelating agent EDTA, dimethylsulfoxide (DMSO) and also a combination of vitamins, K and Mg salts.

Results

Table 1 summarizes the results of the Cs-treatment of 50 cancer patients studied over 3 years. They had generalized metastatic disease, except for 3 patients. Initial death occurrences for the initial 2 week treatment was in the same order and magnitude of these recorded for the 12 month period. The percent of survival of breast, colon, prostate, pancreas, and lung cancer accounted to approximately, 50% recovery which was higher than that noted for liver cancer and the lymphoma patients treated. An overall 50% recovery from cancer by the Cs-therapy was determined in the 50 patients treated. Data from the autopsy made indicated the absence of tumors in patient dying

within 14 days of the Cs-treatment. One of the most striking effects of the treatment was the disappearance of pain in all patients within 1 to 3 days after initiation of the Cs-therapy.

These studies were performed under my direction, initiated in April, 1981. Twenty-eight patients were initially treated with CsCl between April, 1981 to October, 1982. They were subjected to various cancer therapies, e.g., surgery, radiation, and chemotherapy, and were considered terminal cases with metastatic disease except for 3 patients who were not previously treated. Three patients were comatose at the time of the Cs treatment. Thirteen patients died within less than 2 weeks of treatment. Each patient showed a reduction in tumor mass by the Cs-treatment. Of the breast cancer patients, the most impressive effect was seen in a female patient who was comatose at the beginning of the Cs-treatment and was considered a terminal case. The Cs-therapy, with other ingredients used, was immediately instituted by nasogastric route because there was no cooperation from the patient. The daily CsCl dose given amounted to 30 grams, 10 grams given 3 times daily. The patient was able to leave after 5 days of treatment. However the patient's fall on the floor resulted in complications, i.e., fracture of the neck, and death. The autopsy revealed that the cancer metastasis had essentially eaten away her hip bone causing this tragic accident. The autopsy performed also showed the presence of very little cancer tissue.

The next most frequent cancer treated was of unknown primary. Treatment of 8 cases showed a death rate of 2 within 14 days of treatment and an additional 2 deaths within 12 months while 4 of the patients are still living. In one case, an autopsy was made in a patient after one week of Cs-treatment and showed a complete disappearance of the cancer. There were 7 cases of colon cancer patients who were treated with CsCl. Two of these patients died within 14 days, one of the patients had previous massive chemotherapy, and little time was available to restore her metabolic condition. The previous existing infiltration of the abdominal wall disappeared. However, no consent was given for an autopsy.

In one lymphoma case the patient displayed an unusually large abdomen which was hard and he weighed approximately 250 pounds. The massively enlarged abdomen began to decline in volume, i.e., a loss of approximately 120 pounds of body weight was noted after 3 months of the Cs- therapy. The spleen which was originally maximally enlarged and reaching into the pelvis was reduced to almost normal size. The liver position was down to about the level of the umbilicus and was also reduced to normal size in 3 months. The patient is still living after 3 years after his discharge. Unfortunately, there is no follow-p on this patient and he is being maintained on chemotherapy.

Discussion

The results presented demonstrate the rate of efficacy of CsCl in cancer therapy. The total 50 cancer cases studied show an impressive 50% survival rate. This confirms the work of Messiha reported in these proceedings showing that the higher the dose it is, the more effective it seems to be. The autopsy obtained from the patient whose death was attributed to traumatic fracture of the neck, indicated that cancer had been initially further advanced resulting in bone destruction. However, the absence of cancer after the massive CsCl dose used in this case is demonstrable of the Cs-therapy. It appears that both dosage, i.e., as much as 30 grams/day and route of drug administration, i.e., nasogastric pathway, might have contributed to the patients rapid recovery. It should be noted, however, that CsCl dose regimens should not exceed 20 to 40 grams due to side effects, mainly nausea, and diarrhea. The authors personal experience with CsCl after an acute dose of 40 grams CsCl indicate that extensive nausea and parethesia around the mouth are the major side effects. This is probably due to K depletion. The usual dose used in the clinic ranges from 2 to 3 grams given by mouth 3 times daily. At a later time, at which time there is no indication of cancer presence, the CsCl dosage will be reduced to a preventative dose between .5 and 1 gram a day.

The lymphoma case presented shows that CsCl efficiently reduced massive enlargements of spleen and liver as well as maximal ascites, causing an abdominal configuration of a tight, hard hemisphere, to almost normalize after 3 months of therapy. This period of time was required to eliminate such a massive volume resulting in the reduction of the body weight noted.

The clinical efficacy of CsCl high pH metabolic therapy is best demonstrated by a recent case of primary liver cancer (not included in the 50 cases reported in this study). The patient was a 39 year old female teacher who was terminal. She was brought on a stretcher on April 25, 1984 with a large liver tumor extending approximately 3 cm below the umbilical level. The treatment was then immediately instituted. This consisted of administration of CsCl, Beta-carotene, Vitamin C, Zn, Se, Mn, Cr, and K salts by the oral route in addition to a concomitant massive IV doses of ascorbate, K, Mg, Zn, Cn, Mn, Cr salts, B complex vitamins, folic acid, DMSO and heparin. After 5 consecutive treatment regimens EDTA was introduced to the therapy and the minerals present in the solution were discontinued. On May 10, 1984, the patient was discharged, returned home walking without assistance and displaying a smile on her face. The liver tumor had shrunk to 5 cm above the umbilicus. The determination of alphafetoprotein (AFP), a specific marker for liver cancer, rare embronal cancer and teratomas, decreased from the unusually high value of 39,000 units, compared to normal levels of 13 units, measured before initiation of Cs-

therapy, to 5000 units obtained on the last day of treatment.

The mechanism of action of Cs in cancer has been little studied. Both Cs+ and Rb+ can specifically enter the cancer cells and embryonic cells, but not normal adult cells has been demonstrated by Brewer. The cancer cells contain high amounts of hydrogen ions rendering them acidic and they also contain high Na+ levels than found in normal cells. If Cs+ or Rb+ can enter the cancer cells then the pH increases from as low as 5.5 to over pH 7.0. At a pH of 7.6 the cancer cell division will stop, at a pH of 8.0 to 8.5 the lifespan of it is considerably shortened (only hours). In one case, the author has observed the shrinkage of metastases of breast cancer after one hour of Cs-treatment. Two days later wrinkles of the skin appeared where the tumor was present. In another case of a colon cancer with massive metastasis, of massive infiltration of the abdominal wall, liver and other tissues, seemed to have been reduced within 24 hours and continuing rapidly until the demise of the patient on the 14th day of the Cs-treatment.

The uric acid levels measured at the onset of treatment was approximately 3.5 units which was increased to over 20 units, suggesting massive breakdowns of DNA, which produces the uric acid output. Therefore, destruction of nuclear acids, as reflected by a significant rise in the uric acid, may be used as a predictive measurement for treatment outcome. The failure of uric acid elevation may be indicative of lack of destruction of cancer cells. This has proven to be a very consistent finding in our clinic.

There are certain factors which may enhance the Cs-therapy. The Cs-penetration into the cancer cells can be increased by the following three methods: The first approach resides in broadening the electron donor capacity of the cancer cell membrane by the application of cyanide, an electron donor radical as found in nitriles (amygdalin, Laetrile, mandelonitrite, prunasin, ficin, cassivin), by selenium oxide, an electron donor radical, or by the use of DMSO. The second approach enhances the potential gradient across the cancer cell membrane by the utilization of weak acids like ascorbic acid (Vitamin C) and retinoic acid (Vitamin A). The third method attempts to improve the circulation to the tumor and facilitate the destruction of cross-linkages in the mucoid and fibrinous substances around the cancer cell. This can be achieved by chelation therapy, i.e., the use of EDTA as has been shown by Blumer who reported on the reduction of cancer incidence by 90% by chelating patients (an average of 15 chelations in 8 years). This approach also reduced cardiovascular disease by 50%. Other chelating agents can also be used. Moreover, the use of beta-carotene will lead to decomposition of blocking mucoid proteins mediated by electrical charges; Also, heparin, which acts through electrical charges, will inactivate the immune repelling and immune binding capacities of the blocking mucoid proteins. These approaches will hinder cancer growth and they are virtually

atoxic.

It should be noted that certain behavioral characteristics "the cancer personality" of the cancer patient may interfere in any projected treatment modality. This has been reported by Lawrence LeShan in his book entitled "You can fight for your life." His studies suggested that cancer patients seeking treatment, e.g., chemotherapy, radiation or surgery, are probably motivated by a covert desire for death. For example, statements such as, "rather than undergoing any of those treatments, I would rather die in peace," or "I would never undergo any of those treatments or let anyone of my family undergo them because the effectiveness is unproven and the damage that is done with any of those treatments is higher than the effects." are often expressed. Thus, both chemotherapy and lifestyle changes may also contribute to an effective therapy.

The High Oxygen Environment

Nobel Laureate Otto Warburg demonstrated that normal cells would become irreversibly cancerous if the environment they rested in had their oxygen levels lowered by 35% for 48 hours.

Cancer Cells CANNOT Live in a High Oxygen Environment

A healthy individual has a blood oxygen level of between 98 and 100 as measured by a pulse oximeter.

Cancer patients routinely show very low oxygen levels in their blood, usually around 60.

According to Nobel prize laureate Dr. Otto Warburg, this low oxygen environment is one of the main reasons cancer cells form.

Unfortunately, the main traditional therapies for cancer, namely radiation and chemotherapy, also have been shown to drastically lower blood oxygen levels.

The High Enzyme Environment

Cancer cells develop a protein coating 13 times thicker than normal cells. This makes it difficult for the immune system to attack them. By ingesting

high doses of pancreatin, you can actually dissolve cancer cells inside the body.

In the natural course of one's lifetime, millions of cancer cells develop, and are harmlessly digested by the immune system. The body uses pancreatin, a secretion from the pancreas to dissolve the cancer cells. As we age, the pancreas is less and less able to make this important substance. By taking pancreatin orally, it is possible to increase the levels of its active ingredients in the blood, thereby helping the body break down the cancer cells and remove them from circulation.

Pancreatin as a digestive enzyme is available from any health food store in the country, however this type of pancreatin is useless for the cancer patient. The active ingredients in pancreatin which have shown to have tumor dissolving abilities are trypsin and chymotrypsin. These ingredients were taken out of virtually all the pancreatin supplements available to consumers years ago. These active ingredients are being bought in massive quantities by the sewerage industries to digest the sewerage into less noxious forms.

This is exactly what is needed in the human body. Our own internal sewerage needs to be dissolved, and to do this, the body uses trypsin and chymotrypsin.

Gonzalez's Three-Pronged Approach to Cancer Treatment

Although most of the studies done on this approach were done on pancreatic cancer, Dr. Gonzalez uses it to treat ALL cancers, from brain cancer to leukemia. His treatment, which is based on Kelley's work, consists of three protocols: diet, supplements and enzymes, and detoxification.

The Dietary Protocol:

The cornerstone of the treatment is a personalized diet based on your nutritional- or metabolic type.

Dr. Kelley originally had 10 basic diets and 90 variations that ranged from pure vegetarian and raw food, to heavy-protein meals that included red meat three times a day.

"In terms of diet, Kelley… found that patients diagnosed with the typical solid tumors: tumors of the breast, lungs, stomach, pancreas, liver, colon, uterus, ovaries, and prostate needed a more vegetarian diet," Dr. Gonzalez explains. "But he had all gradations of a vegetarian diet; one that was 80 percent raw, one that was 80 percent cooked. So even on the vegetarian side, there were all different variations.

Some had minimal animal protein, some had fish, some had also red meat.

A patient with immune cancer (leukemia, lymphoma, myeloma, and sarcomas,(which are connective tissue cancers that are related to immune cancers) tended to do best on a high-fat, high meat diet.

… Then there are balanced people that do well with a variety of foods, both plant foods and animal products, but they don't tend to get cancer.

Cancer tends to occur on the extremes, the extreme vegetarians—those that tend to be too acid—or extreme meat eaters, who tend to be too alkaline. Balanced people don't tend to get cancer too much. So we continued the individualized approach, as did Kelley."

Individualized Supplementation and Enzyme Protocol:

The second component is an individualized supplement protocol, designed for your particular metabolism.

"For example, our vegetarian patients need completely different supplements from our meat eaters. The vegetarians do very well with most of the B vitamins, while the meat eaters don't. The vegetarians don't do well with vitamin A, but the meat eaters do. The vegetarians do well with vitamin D; the meat eaters not so well with large doses, and so on," Dr. Gonzalez explains.

"The meat eaters do well with calcium ascorbate as a vitamin C source, while the vegetarians do well with large doses of ascorbic acid. So the supplement protocols are very individualized and very precisely engineered."

Omega-3 fats are also prescribed, but even here Dr. Gonzalez prescribes different types of omega-3's depending on the patient's nutritional type. In his experience, vegetarians, or carbohydrate types, tend to fare better on flaxseed oil, which contains alpha linoleic acid (ALA) – a plant-based omega 3.

"It is thought that the conversion of the plant-based ALA into the fish-oil based eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA) is not that efficient," he says, "But we find that our vegetarian patients actually do it very well and don't use the fish oil or animal-based omega-3 fatty acids as effectively."

Chia and hemp seed oils can also be used.

Protein types, on the other hand, appear to need the EPA and the DHA and do better on animal-based omega-3 such as krill oil.

"They don't do well with flaxseed," he says. "Those are the people who can't make the conversion."

In addition to vitamins, minerals and trace elements, he also prescribes large doses of pancreatic enzymes.

"The essence of Kelley's work was based on the work of Dr. Beard, which goes back to the turn of the last century, about 110 years ago. Beard was a professor at the University of Edinburg, an

embryologist actually, not a medical researcher, who first proposed that pancreatic proteolytic enzymes are the main defense against cancer in the body and are useful as a cancer treatment," he explains.

When treating cancer, however, he found it's important to take the right ratio of active and inactive enzymes. The inactive precursors are particularly active against cancer. They also have far longer shelf life, and are more stable.

"That would be my advice – get an enzyme that isn't completely activated," Dr. Gonzalez says. "More active isn't better when it comes to pancreatic enzymes, just like more and more D isn't better than getting the right dosage. You want the right proportions of activated and inactive—most of it as an inactive precursor."

His proprietary enzyme formula is manufactured by NutriCology. According to Dr. Gonzalez, pancreatic enzymes are not only useful as treatment for active cancer but are also one of the best preventive measures.

Antioxidants, such as astaxanthin, are also very helpful, both in the prevention and treatment of cancer.

The Detoxification Protocol:

The third component is a detoxification routine. Coffee enemas are used to help your liver and kidneys to mobilize and eliminate dead cancer cells that have been broken down by the pancreatic enzymes.

Coffee enemas, although often scoffed at today, were actually used as part of conventional medicine all the way up to the 1960s, and were included in the Merck Manual, which was a handbook for conventional medical treatments into the 1970s.

"They fell out of favor not because they didn't work, but because the drug industry took over medicine, so things like coffee enemas were kind of laughed at," Dr. Gonzalez says. "So Kelley learned about coffee enemas from conventional literature and incorporated them into his program and found them extremely helpful."

When you drink coffee, it tends to suppress your liver function, but when taken rectally as an enema, the caffeine stimulates nerves in your lower bowels, which causes your liver to release toxins as a reflex. Other detox strategies include colon cleanses and liver flushes developed by Kelley.

It's important to realize, however, that conventional coffee should NOT be used for enemas. The coffee MUST be organic, naturally caffeinated coffee, and were you to do this at home, you'd also want to use non-bleached filters to avoid introducing toxins into your colon.

"[Organic coffee] is loaded with antioxidants," Dr. Gonzalez says. "In fact, there are recent studies showing that coffee loaded with antioxidants can have an anti-cancer effect and that coffee may actually help suppress cancer.

But you have to use organic coffee, it has to have caffeine, and you have to use a coffee maker that doesn't have aluminum, and preferably no plastic."

Dr. Gonzalez also relies on sodium alginate as a detoxifying agent.

"We have a preparation that we put together and it's very effective... It's an algae and it chelates heavy metals and halides. I never use intravenous chelation; we just use sodium alginate."

He recommends taking three capsules three times a day, away from meals, for six weeks to detoxify your body of heavy metals, such as mercury, and halides.

Final Thoughts

This is one of the most fascinating interviews I've ever done, and it is chock full of information—far more than I can summarize here. So please, I urge you to take the time to listen to the interview in its entirety.

In addition to expounding on the subjects mentioned above, Dr. Gonzalez also reviews the benefits of optimizing vitamin D during cancer treatment, and how iodine supplementation can benefit breast cancer—not to mention help protect against thyroid cancer, in light of the current nuclear crisis in Japan.

We discuss the benefits of juicing and chiropractic adjustments, and the importance of regular exercise for cancer patients. We also review the dangers of electromagnetic field (EMF) exposure, in terms of how it may aggravate cancer growth and hinder cancer recovery, and the benefits, along with some surprising precautions, of Earthing or grounding.

For more information about Dr. Gonzalez and his practice, see www.dr-gonzalez.com. He's also working on a series of books, two of which have already been published and received five-star reviews: The Trophoblast and the Origins of Cancer, and One Man Alone: An Investigation of Nutrition, Cancer, and William Donald Kelley , which is the original monograph of Dr. Kelley's work that he couldn't get published 23 years ago.

This written summary is only a small glimpse of the insights that were shared in our interview. If you or anyone you know struggles with cancer I would strongly encourage you to listen to the entire interview

Thankfully Dr. Gonzalez is still on the front lines and actively engaged in helping people by helping coach them with natural alternatives to toxic drugs and radiation. His office is in Manhattan and he can be reached at 212-213-3337.
http://articles.mercola.com/sites/articles/archive/2011/04/23/dr-nicholas-gonzalez-on-alternative-cancer-treatments.aspx

The Kanzius Machine: A Cancer Cure?

John Kanzius, a man with no background in science or medicine, has come up with what may be one of the most promising breakthroughs in cancer research in years. What's more, he did it with his wife's pie pans.

Kanzius is a former businessman and radio technician who built a radio wave machine that has cancer researchers so enthusiastic about its potential that they're pouring money and effort into testing it out.

If clinical trials pan out -- and admittedly, there's still a long way to go -- the Kanzius machine will destroy cancer cells all through your body without the need for drugs or surgery ... and without any side effects.

Six years ago, Kanzius was diagnosed with terminal leukemia, and since then has undergone 36 rounds of toxic chemotherapy. He decided there had to be a better way. One night, Kanzius got out of bed, went to the kitchen, and started to build a radio wave machine out of modified pie pans. He eventually spent $200,000 building a more advanced version.

The machine sends radio waves from one box to another, creating enough energy to activate gas in a fluorescent light. Since metal heats up when it's exposed to high-powered radio waves, if a tumor was injected with some kind of metal, it can be destroyed with a focused radio wave beam.

Doctors can inject nanoparticles made of metal directly into a tumor, and then cook the tumor to death using Kanzius' device without harming surrounding tissue. It is hoped that, by using special molecules that are programmed to target cancer cells and attach nanoparticles to them, the machine will eventually be able to target even microscopic cells throughout the body.

Dr. Mercola's Comments:

At first glance, this article might make you think we've entered some brand new era where conventional medicine has joined hands with an open-minded media and decided it's time to embrace non-lethal cancer treatments with zero dangerous side effects.

Not so fast. I wouldn't pop open the expensive bubbly just yet.

What's So "Great" About the Kanzius Machine?

It's a well-established fact that conventional medicine shuns inexpensive, non-invasive, all-natural, side-effect-free cancer treatments, no matter how much they protest such claims. Actions speak louder than words in this case.

So what is it about the Kanzius machine that has scientists so excited? After all, it's not exactly the first of its kind. Similar devices have been created – in some cases decades ago -- by the likes of Raymond Rife, Dr. Hulda Clark, Dr. Carpenter, and Dr. John Holt.

The main difference is that the Kanzius machine requires nanoparticles to achieve its goal, and what self-respecting scientist of the 21st Century could resist a device that would finally put the nanoparticle into every modern treatment facility? And, at a wholesale price of $250 per 20 ml of nanoparticles, this treatment, if it works – side effects be damned – will be a guaranteed money generator.

How much money are we talking about?

I honestly don't know. Markups on medical supplies and drugs can vary wildly from hospital to hospital, as many use "proprietary formulas" to arrive at their prices, but after a quick review of an expose' article from 2004 on medical billing, it's probably safe to say that the price you'd pay for nanoparticles would be anywhere between 7 to 15 times the wholesale cost, at minimum, putting 20 ml in the neighborhood of $1,750 to $3,750.

Call me jaded, but the fact that a retired radio technician, without a shred of medical background, is given credit for finding "a possible cure to cancer," when esteemed doctors and scientists have been shunned, imprisoned, and driven out of business for finding alternative cancer cures that actually work, is so preposterous you'd have to be born yesterday to believe there's no hidden agenda.

The Kanzius machine can create a new, very EXPENSIVE cancer treatment. That's why scientists are high-fiving Mr. Kanzius and each other.

Whether or not it will be without dangerous side effects is an entirely different story. However, I sincerely doubt it, considering how this technique is supposed to work.

Please note, that the ONLY person claiming this technique to be completely safe and without side effects is Mr. Kanzius himself -- based on the "test" of putting his hand into the radio signal field and not suffering any apparent damage. Please. Somebody explain to me why reporters are not required to master independent, critical thinking anymore.

Cancer Cures – A History of Persecution

There are numerous examples of well-educated, innovative doctors and scientists who have created alternative cancer treatments, and whose results can blow conventional treatments out of the water any day of the week.

However, none of them have been able to reap any major rewards for their work. Instead, they've been persecuted, prosecuted or simply ridiculed into a corner of medicine commonly referred to as "quackery."

Here's a sampling of innovators with slightly more credentials than radio technology:

- Gaston Naessens – Dr. Naessens treatment is based on the theory that cancer is caused by a friendly microorganism called somatids ("little bodies") -- which are present in all cells -- that becomes unfriendly. His formula, 714X, provides nitrogen to the cancer cells, thus

causing this microorganism to cease excreting their toxic compounds, and mobilize your immune system to kill the cancer cells. He was subsequently put on trial for his cancer discoveries.

- Raymond Rife – Rife used resonance to kill viruses and cancer cells. By increasing the intensity of a frequency that resonates naturally with each microbe, the Rife machine increases their natural oscillations until they distort and disintegrate from structural stress. Rife called this frequency 'the mortal oscillatory rate,' or 'MOR', and it was found to do no harm to surrounding healthy tissues.
- Stanislaw Burzynski -- Dr. Burzynski, founder of the Houston-based Burzynski Institute, treats cancer patients with substances called antineoplastons. He was indicted by a grand jury in 1995 for his use of antineoplastons– his second trial that year. He was acquitted.
- Hulda Clark – Dr. Clark has invented several devices, such as the Syncrometer and the Zapper, that scans and eliminates parasites, bacteria, viruses and toxins through positive offset frequencies.
- Antonella Carpenter -- Dr. Carpenter at LaseMed Inc. has an FDA approved cancer treatment called LIESH therapy (Light Induced Enhanced Selective Hyperthermia), using a proprietary photo-dynamic form of laser. Her technology is not embraced by the AMA, however.
- John Holt – Operating out of The Radiowave Clinic in Australia for the past 30 years, Dr. Holt's treatment consists of an intravenious dose of "glycolytic metabolic inhibitors" (GMI) -- agents that disrupt the metabolism of cancer cells -- immediately prior to exposure to radiowaves of 434 MHz in the ultra-high frequence (UHF) band.
- Ryke Geerd Hamer – Dr. Hamer's "German New Medicine" (GNM), operates under the premise that every disease, including cancer, originates from an unexpected shock experience, and that all disease can be cured by resolving these underlying emotional traumas. Despite a 95 percent success rate, Dr. Hamer has spent time in prison for refusing to disavow his medical findings and stop treating his patients with his unorthodox techniques, and is currently living in exile, seeking asylum from persecution.

Might the Kanzius Machine be a Safe Alternative?

I believe there are a variety of factors involved that would need to be answered before anyone can really make a determination about its safety.

What radio wave frequencies are used? Are they similar to the frequencies of healthy cells? (Considering the premise of the machine is to heat metal particles, not to oscillate the cancer cells to death like the Rife machine, for example.)

How are the nanoparticles removed or excreted from your body after treatment?

Will your immune system accept billions of foreign nanoparticles floating around in your blood stream, or will it go into overdrive, rendering you more open to other infections and illnesses?

And, contrary to Mr. Kanzius hand-in-the-radio field-test, is it really possible to submit the human body to radio waves strong enough to heat metal particles within, without doing damage to healthy cells? This is one of my biggest question marks, as there is an ever growing body of

research showing just how dangerous exposure to radio waves can be, even from non-thermal exposure sources such as wi-fi and cell phones. If you need a refresher, please see How Cellphone Radiation Affects Your Cells.

Personally, I'm skeptical.

And I firmly believe that even if it does turn out to be a viable treatment that is safer than chemotherapy, it will not be a more inexpensive option.

How to Virtually Eliminate Your Risk of Cancer, Naturally

I believe these relatively simple risk reduction strategies can help you to VIRTUALLY ELIMINATE your cancer risk, and radically improve your chances of recovering from cancer if you currently have it.

You won't read or hear much about these elsewhere because they have not been formally "proven" by conservative researchers. However, were you aware that 85 percent of therapies currently recommended by conventional medicine have never been formally proven either? That's something to think about.

- Reduce your processed food, sugar and grain carbohydrate intake

- Control your fasting insulin and leptin levels
- Normalize your ratio of omega-3 to omega-6 fats
- Get regular exercise
- Normalize your vitamin D levels and vitamin A levels by getting plenty of sunlight exposure and consider careful supplementation when this is not possible. If you take oral vitamin D and have a cancer, it would be very prudent to monitor your vitamin D blood levels regularly.
- Get a good night's sleep
- Eat according to your nutritional type. The potent anti-cancer effects of this principle are very much underappreciated. When we treat cancer patients in our clinic this is one of the most powerful anti-cancer strategies we have
- Reduce your exposure to environmental toxins like pesticides, household chemical cleaners, synthetic air fresheners and air pollution
- Limit your exposure and provide protection for yourself from information carrying radio waves produced by cell phone towers, base stations, phones and WiFi stations
- Avoid frying or charbroiling your food. Boil, poach or steam your foods instead
- Have a tool to permanently reprogram the neurological short-circuiting that can activate cancer genes. Even the CDC states that 85 percent of disease is caused by emotions. It is likely that this factor may be more important than all the other physical ones listed here, so make sure this is addressed. Energy psychology seems to be one of the best approaches and my particular favorite tool, as you may know, is the Emotional Freedom Technique
- Make sure you get to and remain at a healthy weight.

Source: CBS News April 13, 2008

»The Kanzius Machine: A Cancer Cure?

The Cancer Problem

Research in the UK suggests that the number of new cancer cases could rise 45 percent by 2030.

Cancer Research UK, which funded the study, says that the National Health Service must act immediately to avoid being "overwhelmed".

The research looked at 23 different types of cancer, and found an expected cancer increase of 55 percent for men and 35 percent for women.

BBC News reports:

"The rate of breast cancer is projected to fall by 7 percent.

The authors attribute this to a recent reduction in the use of hormone replacement therapy, which is a risk factor for the disease.

However the rates of malignant melanoma and kidney cancer are forecast to rise sharply in men and women."

The primary reason for the rise in cancer cases is attributed to population growth in the UK and an increased ageing population.

Interestingly, while paying lip service to the necessity to create stronger initiatives for smoking, drinking, and obesity reduction.

England's Department of Health is planning to invest more than £750 million over the next four years to promote earlier cancer diagnosis and "better access to the latest treatments."

So in essence, they're going to throw millions of pounds into an already broken system—the Cut, Poison, Burn paradigm—that does *nothing* to actually prevent cancer...

No wonder cancer rates are projected to rise by 45 percent in the UK over the next 20 years!

New Study—Cost of Cancer Rapidly Becoming Unsustainable

Cancer now surpasses heart disease as the number one killer of Americans between the ages of 45 to 74. The odds are quite high that you or someone you know has cancer, is dying or has already died from it.

While life cannot be measured in dollars and cents, the financial burden of cancer is truly staggering. Currently, 12 million people worldwide are diagnosed with cancer each year, costing $286 billion annually in medical costs and lost productivity. By 2030, that number could increase to 22 million people each year, with a similar rise in costs.

According to a new report from a panel of 37 experts, the cost of cancer is rapidly becoming *unsustainable* in many developed countries. The report was published in the journal Lancet Oncology in September, and was covered in Time Magazine that same month.

According to the authors of the report:

"The burden of cancer is growing rapidly… This is not simply due to an increase in absolute numbers or need for optimized treatments, rather it relates to the ***unsustainable rate of increase in expenditure on cancer within health-care systems****.*

What are the drivers and solutions to the so-called cancer-cost curve in developed countries? How are we going to afford to deliver high-quality and equitable care? In this Commission and the linked Comments, expert opinion from health-care professionals, policy makers, and cancer survivors has been gathered to address the barriers and solutions to delivering affordable cancer-care in high-income countries."

The report wisely questions the value of expensive new therapies that prolong patients' lives by mere months. Some cancer drugs, such as Avastin, for example, can cost upwards of $100,000 per year. At that price, even with insurance coverage, your co-payments can easily run as high as $20,000 a year. This despite the fact that studies show the drug prolongs life by just a few months at best, and more recent studies have suggested the drug might be less effective against cancer than the FDA believed when it was approved. It also has potentially lethal side effects that might *speed up* your ultimate demise.

When the Treatment is Worse than the Disease...

Perhaps more importantly, most conventional cancer treatments tend to add insult to injury by doing more harm than good -- a fact that has been largely swept under the rug by the medical industry.

Meanwhile, the real culprits—the underlying causes—are completely ignored, and that is, I believe, the root of the problem. The cancer industry has become a massive for-profit business that is doing everything in its power to maintain the status quo. It is, quite simply, not interested in truly reducing cancer rates; it's interested in *treating* cancer. From that perspective, the more cancer cases the better...

This sordid reality has been well-documented in films such as Cut, Poison, Burn, and Burzynski: The Movie.

Burzynski: Cancer Is Serious Business from BurzynskiMovie on Vimeo.

Getting to the Root of the Problem

Ignoring the fact that cancer is for the most part a disease triggered primarily by exposure to industrial toxins, the now well-trod path of the Cut-Poison-Burn model is taking us ever further AWAY from the solution. The pharmaceutical researchers would like you to believe they're doing everything they can to come up with a solution. Yet most of the cancer research is directed towards expensive drugs that target late stages of the disease and greatly enrich the drug companies but simply do not prevent cancer.

Clearly they're not digging close enough to the root of the problem, because if they did, they'd touch on some of the lifestyle issues I'll review below.

If ever there was an area in which an ounce of prevention is worth a pound of cure it is cancer. I firmly believe that if you're able to work your way up to the advanced health plan, that you will virtually eliminate the risk of most cancers.

From my perspective, you ignore lifestyle factors at your own peril, as environmental- and lifestyle factors are increasingly being pinpointed as the *primary culprits* fueling our cancer epidemic. An exhaustive list of contributing factors would be exceedingly long, but some of the more obvious ones are listed below. For more information about each, follow the hyperlinks provided, and for specifics on consumer products implicated as contributors to cancer, take a look at the Cancer Prevention Coalition's "Dirty Dozen" list.

Pesticide- and other chemical exposures	Processed and artificial foods (plus the chemicals in the packaging)	Wireless technologies, dirty electricity, and medical diagnostic radiation exposure
Pharmaceutical drugs	Obesity, stress, and poor sleeping habits	Lack of sunshine exposure and use of sunscreens

In the last 30 years the global cancer burden has *doubled*, and as predicted in the featured study, we're looking at further dramatic increases—unless people begin to take *cancer prevention* seriously. I believe we can turn this trend around, but to do so the medical community must *stop overlooking* the methods that can actually have a very real and significant impact.

Three cancer advancements in particular merit special mention, and I will summarize them below. These advancements have not yet been accepted by conventional medicine, and they must be.

Vitamin D Plays a Crucial Role in Cancer Development

There's overwhelming evidence indicating that vitamin D deficiency plays a crucial role in cancer development. Research has identified a number of vitamin D's protective mechanisms against cancer, including:

- Regulating genetic expression
- Increasing the self-destruction of mutated cells (which, if allowed to replicate, could lead to cancer)
- Reducing the spread and reproduction of cancer cells
- Causing cells to become differentiated (cancer cells often lack differentiation)
- Reducing the growth of new blood vessels from pre-existing ones, which is a step in the transition of dormant tumors turning cancerous

Researchers within this field have estimated that about 30 percent of cancer deaths could be prevented annually simply by optimizing the vitamin D levels in the general population. On a personal level, you can decrease your risk of cancer by MORE THAN HALF simply by optimizing your vitamin D levels with sun exposure. And if you are being treated for cancer it is likely that higher blood levels—probably around 70-100 ng/ml—would be beneficial.

If the notion that sun exposure actually prevents cancer is still new to you, I highly recommend you watch my one-hour vitamin D lecture to clear up any confusion. It's important to understand that the risk of skin cancer from the sun comes *only* from excessive exposure. Meanwhile, countless people around the world have an increased risk of cancer because their vitamin D levels are too low due to utter lack of sun exposure.

Why We Need to Re-Embrace Sun Exposure

I strongly recommend optimizing your vitamin D levels with appropriate amounts of sun exposure because when your skin is exposed to the sun, in addition to creating vitamin D3 it also synthesizes high amounts of vitamin D sulfate and cholesterol sulfate—both of which are very important for heart- and cardiovascular health. In fact, research by Dr. Stephanie Seneff suggests that heart disease may be a symptom of cholesterol sulfate deficiency, and healthy cholesterol and sulfur levels are both highly dependent on your *vitamin D levels*...

Vitamin D sulfate is a water soluble form of sulfur that can travel freely in your blood stream, making it readily available, while oral vitamin D3 is unsulfated, and therefore needs LDL (the so-called "bad" cholesterol) as a vehicle of transport. Dr. Seneff's suspicion is that the simple oral non-sulfated form of vitamin D may not provide as much of the same heart-healthy benefits as the vitamin D created in your skin from sun exposure, because it cannot be converted to vitamin D sulfate, and therefore will not improve your sulfur status.

Furthermore, sulfur deficiency also promotes obesity and related health problems like diabetes, so all in all, the importance of getting regular sun exposure simply cannot be overstated.

If you can't get enough sun exposure during certain parts of the year, I advise using a safe tanning bed to allow your body to produce vitamin D naturally. Safe tanning beds have electronic ballasts and produce less UVA than sunshine.

A third option is taking a high-quality vitamin D supplement. According to the most recent findings by Carole Baggerly, founder of GrassrootsHealth, her research of nearly 10,000 people shows the ideal adult dose appears to be 8,000 IU's a day to get most into the healthy range. Just remember to get your vitamin D levels tested regularly if you take an oral supplement.

Download Interview Transcript

World's First Breast Cancer Prevention Study Underway!

While virtually all cancer organizations ignore cancer prevention, focusing primarily on early detection instead, Grassroots Health is now in the process of initiating the *world's first breast cancer prevention* project and study, to investigate and evaluate vitamin D as a preventive strategy for breast cancer.

If you would like to sign up as a participant in this groundbreaking study, or make a donation to support this project, you can do so here. This project is only for women who are:

1. 60 years of age and older
2. have no current cancer
3. are not currently being treated for cancer

Your Insulin Levels have a Direct Bearing on Your Cancer Risk

The second cancer prevention strategy that everyone needs to be aware of is the importance of normalizing your insulin levels. Aside from optimizing your vitamin D levels, normalizing your insulin levels is one of the most powerful physical actions you can take to lower your risk of cancer. Unfortunately, very few oncologists appreciate or apply this knowledge today. The Cancer Centers of America is one of the few exceptions, where strict dietary measures are included in their cancer treatment program.

High levels of insulin can cause major damage to your body. The most recognized of these is diabetes, but cancer is another common side effect. The good news is that controlling your insulin levels is relatively straightforward:

1. First and foremost, limit your intake of processed foods, grains and sugars/fructose as much as possible, and
2. Exercise regularly especially Peak Fitness exercises

Exercise is Becoming More Recognized for its Cancer Prevention Potential

While exercise might not be at the top of most people's lists of cancer prevention or treatment strategies, there is actually compelling evidence suggesting that exercise can indeed slash your cancer risk and improve recovery.

For example, physically active adults experience about half the incidence of colon cancer as their sedentary counterparts, and women who exercise regularly can reduce their breast cancer risk by 20 to 30 percent compared to those who are inactive. Furthermore, Harvard Medical School researchers found that breast cancer patients who exercise moderately -- 3-5 hours a week -- reduce their odds of dying by about half as compared to sedentary women. In fact, any amount of weekly exercise increased a patient's odds of surviving breast cancer.

One of the primary ways exercise lowers your cancer risk is by reducing elevated insulin levels, which creates a low sugar environment that discourages the growth and spread of cancer cells. Additionally, exercise improves the circulation of immune cells in your blood, which is your first line of defense against all disease, including cancer.

The trick though is understanding how to use exercise as a precise tool. It can be helpful to view exercise like a drug that needs to be carefully prescribed to achieve its maximum benefit.

You'll want to include a large variety of techniques in your exercise routine, such as:

- High-intensity, burst-type exercise, such as Peak 8. (Peak 8 are exercises performed three times a week, in which you raise your heart rate up to your anaerobic threshold for 20 to 30 seconds, and then you recover for 90 seconds)
- Strength training
- Aerobics
- Core-building activities
- Stretching

Other Cancer-Prevention Strategies

Please understand that you can do a lot, right now, to significantly decrease your cancer risk. Even the conservative American Cancer Society states that one-third of cancer deaths are linked to poor diet, physical inactivity, and carrying excess weight. So making the following healthy lifestyle changes can go a very long way toward ending the failure-streak and becoming one less statistic in this war against cancer:

1. Focus on fresh, whole organic foods, forgoing as many processed foods as possible. Aim to consume *at least* one-third of your food raw. Only 25 percent of people eat enough vegetables, so by all means eat as many vegetables as you are comfortable with. Cruciferous vegetables in particular have been identified as having potent anti-cancer properties.
2. When eating meat, make sure it's grass-fed. Avoid CAFO beef and ALL processed meats, which have been clearly linked to increased cancer risk.
3. Get appropriate amounts of animal-based omega-3 fats.

4. Have a tool to permanently erase the neurological short-circuiting that can activate cancer genes. Even the CDC states that 85 percent of disease is caused by emotions. It is likely that this factor may be more important than all the other physical ones listed here, so make sure this is addressed. My particular favorite tool for this purpose, as you may know, is the Emotional Freedom Technique.
5. Maintain an ideal body weight. For my top 10 guidelines for normalizing your weight, please see this previous article.
6. Get enough high-quality sleep.
7. Reduce your exposure to environmental toxins like pesticides, household chemical cleaners, conventional personal care products, synthetic air fresheners and air pollution.
8. Reduce your use of cell phones and other wireless technologies, and implement as many safety strategies as possible if/when you cannot avoid their use.
9. Boil, poach or steam your foods, rather than frying or charbroiling them.

Source: BBC News October 27, 2011

Source: The British Journal of Cancer 27 October 2011 [Epub ahead of print]

Source: Time Magazine September 26, 2011

Source: The Lancet September 26, 2011

http://articles.mercola.com/sites/articles/archive/2011/12/19/why-are-cancer-cases-rising-by-nearly-50-in-the-next-20-years.aspx?e_cid=20111219_DNL_art_1

Can Cancer Be Cured?

A key part of the great deception is that Big Pharma and its puppets want to convince the general public that there will never be a cure for cancer!! One tactic Big Pharma and its puppets use is to convince the general public that cancer is caused by DNA damage and that a cure for cancer is 50 years away!! A cure for cancer will *always* be 50 years away!!

Here are three of the flaws with their DNA claim:

First, if you can safely target and kill cancer cells (as Dr. Kelley did by letting the immune system kill the cancer cells), what difference does it make that the cancer cells have DNA damage? The cancer cells are dead!!

As another example, a natural molecule called laetrile (a molecule found in apple seeds, apricot seeds, etc.) can target and kill cancer cells. Dr. Philip Binzel, M.D., and Dr. John Richardson, M.D. both used liquid laetrile to cure cancer.

In the 1920s Johanna Brandt had a 100% cure rate using purple grapes (i.e. the Brandt Grape Cure). Her treatment was ignored by the medical community long before chemotherapy was introduced. It is now known that purple grapes have at least 12 molecules that can safely kill cancer cells.

Many people have been cured of cancer by drinking a quart of carrot juice every day and having a healthier diet. And so on.

Second, did you know that cancer cells can be reverted into normal cells? This would be impossible with today's technology if DNA damage caused cancer, but it is true and it is another evidence that cancer is not caused by DNA damage.

Dr. Royal Rife, a microbiologist, was reverting cancer cells into normal cells in the 1930s, long before the discovery of DNA. Dr. Rife also had a 100% cure rate. The AMA (American Medical Association) wanted his cure shut down and offered to buy him out. Dr. Rife refused their "offer," so the FDA came in and shut him down. Rife's technology has now been replicated using modern electronics, as will be discussed below.

Third, while it is true that cancer cells have DNA damage, that is not what causes cancer!! The real cause of cancer was discovered in 1890 by William Russell (1852-1940). Also, Dr. Rife, in the 1930s, knew exactly what caused cancer and this knowledge led him to his 100% cure rate. Both of these discoveries were made long before the discovery of DNA.

The Dr. Virginia Livingston, M.D. team of researchers, who knew about DNA, were the first to describe what was causing the DNA damage!! They discovered that the DNA damage cannot occur until *after* the cell is cancerous.

The fact is that even if orthodox medicine could "fix" the DNA damage, that would not cure cancer. What causes cancer is inside the cancer cell, but it is usually not inside the cell nucleus!!

My article on this website: "What Causes Cancer" discusses what really causes cancer and why cancer cells have DNA damage. If you want to know the truth, click the "What Causes Cancer" link on the left side-bar (the "left side-bar" is the column of links on the left side of most web pages) or see:
What Causes Cancer

The media, the movie industry, the FDA, the medical establishment, all large cancer charities, all medical schools, all state governments, Congress, several government agencies (e.g. the NIH, NCI, FCC, etc.), etc. have "sold out" the cancer patients to get

a piece of Big Pharma's massive money pie!! "Modern medicine" is like a giant octopus, with the pharmaceutical industry in the center.

So where does all of this corruption in the media, FDA, AMA, etc. leave cancer patients? In 97% of the cases it leaves them dead. The "Golden Rule" has be burned and buried.

Now you know why orthodox medicine has a 3% cure rate for cancer instead of a 90% cure rate!! In fact, 3% is the worldwide cure rate for cancer because the pharmaceutical industry is a worldwide entity. Only one country in the world has "Freedom of Choice in Medicine" (Ecuador).

So what is the truth about natural cancer treatments? The truth is that God has put on this earth hundreds of natural substances which can cure newly diagnosed cancer patients in most cases. Alternative cancer treatment researchers have refined and combined Mother Nature's treatments and can cure many cancer patients, as Dr. Kelley did. God has not sold-out to Big Pharma.

Alternative cancer treatments have actually cured many, many cancer patients, including many advanced cancer patients!! But even those who do not survive can have a higher quality of life, their life can be extended significantly, they can be in less pain, and so on. Every year alternative cancer treatments get better and better.

Having said all of that, there are rare situations where the services of orthodox medicine are essential during an alternative cancer treatment. For example, if a tumor on the pancreas is pressing against the bile duct it is critical to seek medical help immediately to keep the patient alive. Do not depend on alternative cancer treatments to quickly shrink dangerous tumors!!

The next section will provide a glimpse into the world of highly effective alternative cancer treatments.

About Today's Alternative Cancer Treatments and Ongoing Research

Alternative cancer treatment researchers today deal with very advanced cancer patients and know they need to develop alternative cancer treatments which start working very quickly and are very powerful against cancer.

As an example of one of their tactics, suppose a person is sent home to die by orthodox medicine and is given "3 months" to live. Let us assume the estimate is correct.

Suppose an alternative cancer treatment can extend this "3 months" into "6 months" by using a natural substance that quickly supercharges the energy in the non-cancerous cells and may safely kill many cancer cells. This is called a treatment that "buys time."

Cancer treatments that "buy time" are very important to a cancer treatment because they give other cancer treatments more time to save the patient! Frequently the treatments that "buy time" can actually cure the patient!! See the article linked to on the left side bar: "The Best Cancer Treatment" to see what "buying time" means.

Thus, an expert in alternative cancer treatments might give a cancer patient one fast-working treatment to "buy time" and other treatments (which may not start working as fast, but are overall much more effective) to cure the cancer!! In addition, there will be synergy in using both treatments.

In some protocols, such as cesium chloride and the Cellect-Budwig, the main treatment starts working very quickly, thus there is no need to add a protocol to "buy time."

As another tactic, one of the treatments in a complete protocol may help build the immune system which is necessary for a long-term cure. The Bill Henderson Protocol is a good example of this tactic, though most alternative cancer treatments have one or more immune builders in the protocol.

The best alternative cancer treatments actually consist of several protocols which do different things.

Today, the top alternative cancer treatments have names like:
Cellect-Budwig,
GB-4000 with M.O.P.A. (very gentle electromedicine),
Hyperthermia with low-dose chemotherapy (used in German and some Mexican alternative cancer clinics),
Limu Juice with high levels of fucoidan,
Cesium Chloride (the oldest of the home protocols and it is used in some clinics),
Bill Henderson Protocol (the least-expensive of the highly potent protocols),
Ultimate Simple Protocol, (a combination of "buying time," and an electromedicine protocol, etc.)
Plasma-Beck, (ditto except with two electromedicine protocols)
Rife-Beck, (ditto except that one electromedicine device is used in two different ways)
Bob Beck Protocol (which also cures AIDS, hepatitis, etc. - is a very gentle "electromedicine" protocol),

UVBI (Ultraviolet Blood Irradiation, a clinic treatment),
LifeOne Protocol,
and so on!!

A word of warning is in order about cure rates. Many highly effective cancer treatments date back to before the general use of chemotherapy.

You absolutely cannot compare the cure rate of a protocol which was in use before the general use of chemotherapy to the cure rate of a protocol today. The longer a person is on chemotherapy and radiation, and the more surgery they have had; the harder it is to cure them.

Even today a treatment that can yield a 90% or 100% cure rate for cancer patients who have never had chemotherapy might only yield a 35% to 50% cure rate for someone who has taken the full ride on the chemo express.

But it gets worse. Medical doctors are keeping cancer patients on chemotherapy longer and longer. About 20% of all cancer patients are still taking chemotherapy when they die. Thus, even though alternative medicine researchers are developing better and better alternative cancer treatments, their cure rates have not risen. We are treading water as fast as we can.

We have seen cancer patients die who did not have a single cancer cell in their body!! They died from the long term effects of chemotherapy, radiation and/or surgery after they were cured. http://cancertutor.com/

The Experts in Alternative Cancer Treatments

Many of the alternative cancer treatments, for home use, have expert telephone support available for free or for a very modest fee (usually around $200 total)!! This is critical to understand because the average person would have no clue how to put together a complete alternative cancer treatment!!! All of the support people, whether at a clinic or by telephone, are experts in alternative medicine.

I cannot emphasize this enough: it is impossible for me to put on this website enough information on how to use these complex treatments in every possible situation!!

Working with an expert is a very small part of the cost of the protocol, but it is absolutely required because the experts know what to look for in a specific cancer case!! There have been too many cases where someone tried to use this website to put together their own protocol. It is generally a disaster because these protocols are used in many different complex situations!!

For example, suppose a person has a tumor wrapped around an artery. Using the wrong protocol could cause this tumor to swell and enlarge, even temporarily, thus cutting off the blood supply!!

RULES #1, #2, and #3: WORK WITH AN EXPERT OR GO TO A CLINIC!!

Rules #4, #5 and #6: Never, never, never try to treat your cancer at home by yourself, no matter what your background!! Alternative cancer treatments are highly specialized and carefully designed and every cancer case is different.

Another problem cancer patients have is caused by them not doing what they are told. We understand why our protocols are the way they are, so to ignore our advise is not likely to lead to good results.

Another major problem we have is money. People just cannot afford the most effective protocols. That is precisely why I designed the "Dirt Cheap Protocol" and several individual treatments.

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Inexpensive Alternative Cancer Treatments

One thing I have heard over and over again, while communicating with thousands of cancer patients, is that many of them can barely afford to eat, much less pay thousands of dollars for some of the highly potent natural cancer treatments.

Health insurance, which was created by the pharmaceutical cartels so that more people could afford their products, will usually not pay for natural medicine treatments even though they are much safer, much less expensive and far, far more effective. The concept of "unproven" allows them an excuse to refuse the claim.

With this in mind I have developed or identified many cancer treatments which are very, very inexpensive. In some cases these protocols are free or are dirt cheap. One example is the Brandt Grape Cure which replaces the normal foods a person eats.

The Independent Cancer Research Foundation (ICRF), an alternative cancer treatment charity, has developed more than a half-dozen very inexpensive alternative cancer treatments. Some of these protocols are on this website and some of them are on the ICRF website. See the left side-bar: "Inexpensive Cancer Treatments."

Combining Chemotherapy and Natural Medicine

If you are still on chemotherapy and/or radiation and want to combine orthodox medicine and alternative medicine, there are several alternative cancer treatments which are synergistic with orthodox cancer treatments: Cesium chloride, aloe arborescens and oleander are three examples. Many alternative cancer treatments can be used with chemotherapy, even though they may not be synergistic; such as the Cellect-Budwig and Bill Henderson protocols.

But *almost none* of the electromedicine protocols can be used at the same time as chemotherapy.

Two natural products actually make chemotherapy more effective. One medical doctor in Georgia was using DMSO and chemotherapy. I personally knew one of his patients and he said it was the most effective treatment he used. The FDA must have also known it was an effective treatment because they shut the doctor's clinic down.

However, MSM is a "little brother" to DMSO and is almost as effective at making chemotherapy more effective. The MSM/CS protocol is highly recommended for someone on chemotherapy (see the left "side-bar" for a link).

If you are on chemotherapy, or have had significant amounts of chemotherapy, the herbal supplement Protandim is required (unless you are on the Cellect-Budwig)!! It is an anti-oxidant which is one million times more effective than normal anti-oxidants because it activates an enzyme already in the body.

Orthodox cancer treatments do a massive amount of oxidation damage to the cells. Many, many cancer patients have died from their orthodox treatments long before they would have died of their cancer!! Protandim can help many of these patients!!

None of this is an endorsement of chemotherapy, only an aquiescence to the real world.

For more information on this subject see the link: "Still on Chemo or Radiation!!" on the left side-bar.

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Critical Concepts When Treating Cancer

It should also be understood that treating newly diagnosed cancer patients versus treating advanced cancer patients (e.g. someone sent home to die) is like the difference between putting out a fire in the kitchen versus putting out a fire which has already engulfed 5 rooms.

Furthermore, it should be understood that not all alternative cancer treatments are equally effective!! Some alternative cancer treatments can be compared to a "garden hose" and others can be compared to a "fire hose."

The cancer patient must choose an alternative cancer treatment that is strong enough for their situation and they must work with an expert in that treatment to teach them what they need to know to use it! The choice of an expert is as important as the treatment itself!

Many cancer patients have emailed me (note: I do not broadcast my email address because my time is severely restricted) and described their cancer treatment. Many times I have seen nothing but a long list of garden hoses!!

They do not understand!!

To have a good chance of survival they generally need four things:
1) At least one or two fire hoses (the fire hoses usually have expert support available),
2) Expert telephone support or support at a clinic which specializes in alternative cancer treatments,
3) Several garden hoses (which may be built into the overall treatment to "buy time," relieve pain, etc.) and
4) A positive mental attitude with family support.

Memorize that list!!!!

The eleven treatments listed above are among the fire hoses!!

Most of the "fire hoses" typically have an expert who supports that treatment. For example, the Cellect-Budwig protocol is supported by Mike Vrentas. The Bill Henderson protocol is supported by Bill Henderson. The LifeOne protocol is supported by Dr. Howenstine, and so on.

Let me give you an example of why it is important to identify the highly potent alternative cancer treatments and an expert.

Suppose you see a testimonial on the Internet about how carrot juice cured a newly diagnosed cancer patient. You can assume the testimonial is true, but does that mean an advanced cancer patient can be cured with the same protocol? The answer may be a resounding 'NO'. The patient who was cured may have been someone with a slow growing cancer and who had never had chemotherapy.

Every case is different, which is why you need to work with an expert.

It is critical to understand that by the time a person has had extensive orthodox cancer treatments the number of viable options to treat their cancer has dwindled from several hundred (when they were first diagnosed) to perhaps two dozen (when they complete their orthodox treatments)!!!

Another critical aspect of treating cancer is the cancer patient's attitude!! This is as important as the treatment itself!!

Some alternative cancer treatment clinics in Germany give advanced cancer patients art lessons!! That is how important a positive mental attitude is to creating a strong "will to survive."

I worked on one cancer case where the patient should have been dead two years before I started to work with her!! She was alive only because she had two small children and she refused to die (and she did a lot of praying)!!

Cancer patients must be distracted away from their condition and be encouraged to move forward as if they knew they were going to survive. Negative attitudes are not an option!! Cancer patients must be continuously reminded that they have loved ones who want them to survive!

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Welcome to the Burzynski Clinic

http://www.burzynskiclinic.com/

- Groundbreaking, non-surgical, non or low-toxic cancer treatment regimens, some available within clinical trials
- Customized nutritional programs to ensure balanced diet complementing the treatment
- Excellent medical care centered around the patients and their families, in a friendly and supportive environment
- Medical expertise based on over 40 years of clinical experience and research in developing cancer treatments

- Personalized treatment regimens for every patient
- Over 50 different types of malignancies are treated with cutting-edge technology and FDA approved gene-targeted medicines.

Dr. Burzynski's Revolutionary Approach to Cancer

Stanislaw R. Burzynski, MD, PhD, an internationally recognized physician and scientist who has devoted his whole life to cancer research, has been treating thousands of cancer patients from all parts of the world for over 40 years.

Dr. Burzynski is one of the pioneers in cancer research, known worldwide for discovering Antineoplastons. Antineoplaston Therapy targets cancer cells without destroying normal cells

Also check out Dr. Julian Whiteaker at http://www.drwhitaker.com/

http://www.drsupplementreviews.com/ppc/cj1147a/a09.php?ppcstyle=a09&adgroup=cj1147a-AMP&spinn=GaK663

Tips for Optimum Health and Supplements

Alternative Medicine and Dietary Supplements for Heart Health
Fish Oil: History and Advantages
How to Find Fish Oil that Doesn't Taste Like Fish
How Can Calamarine Help My Heart Health
Impure Dietary Supplements
Omega Q Plus vs. Krill Oil: What is the Best Choice for You?
L-Carnitine and Fish Oil Heart Benefits
Seanol: A New Antioxidant That's More Powerful Than Green Tea
Dr. Stephen Sinatra: Physician, Teacher and Speaker
Improve Your Heart Health With Natural Supplements

How to Raise Your HDL Levels
Does Salt Contribute to Hypertension?
Vitamins, Minerals and Nutrients – Keys to Heart Health
Natural Supplements and Heart Health
An Integrated Approach to Cardiovascular Health
Stress and Heart Health
Emotions and Heart Health
Ecklonia Cava: A Rare Seaweed With Many Health Benefits
Guidelines for Keeping Your Heart Healthy When Eating Out
Exercise - A Key to Cardiovascular Health

Evening Primrose Oil - Benefits For Diabetics
The Best Dietary Supplements For Diabetics
CoQ10 - Is It For You?
Maintaining Natural Blood Sugar With Supplements
Resveratrol - A Powerful Anti-aging Ingredient
Resveratrol - How it Assists Skin and Connective Tissue Health
Red Wine Benefits Without The Booze
Benefits of Doctor Recommended Multivamins
How Inflamation Can Affect Your Heart, Brain and Joints
Managing Inflamation With All-natural Supplements

What is Squalane and How Does It Help Skin Care?
Using Green Tea Antioxidants to Lose Weight
Gamma Amino Butyric Acid (GABA) For Stress Relief
Doctor-Recommended Supplements For Wrinkle Reduction
How Caffeine Affects Women's Brain Chemistry & Well-Being
Guide to Skin Care and Anti-Aging Advice
Vitamins and Minerals For Skin Nutrition
Calcium - The Best Ways to Absorb It
Get Rid of Brown Spots On Your Skin
Skin Supplements - A More Youthful And Healthy You

Is It Possible to Build Joint Cartilage?
All-Natural Treatments For Arthritis
Advantages of Taking Glucosamine
Our "Weak-Link" - Our Knees
L-Carnitine and Fibromyalgia
Advantages of Blueberry Leaf Extract
Facts About Epigallocatechin-Gallate
Health Benefits and Lecithin Supplements
Green Tea Antioxidants
What is Niacinamide?

Calamarine™- a new sustainable marine source of DHA
How to choose which type of fish oil to take
Antioxidant Potential of Ecklonia Cava
Bioprotective Properties of Seaweeds (Ecklonia Cava)
Bad Cholesterol Too High? The Supplements that Really Work!
Grape Skin Extract – Good for Your Health
Health Benefits of Fatty Acid called Omega 3
Calamarine: Another Option for Omega 3s and Fish Oils
The 5 Most Popular Supplements
Benefits of Anti-Aging Trilane with Squalane

Videos

Omega Q Plus: The Perfect Heart Combo for 25+ years
Dr. Sinatra: Eco-friendly Calamarine with Health Benefits

Pain Free: A Revolutionary Method for Stopping Chronic Pain [Book] by Pete Egoscue

This is a revolutionary breakthrough system for eliminating chronic pain without drugs, surgery, or expensive physical therapy. Developed by Pete Egoscue, a nationally renowned physiologist and sports injury consultant to some of today's top athletes, the Egoscue Method has an astounding 95 percent success rate. The key is a series of gentle exercises and carefully constructed stretches called E-cises. Inside you'll find detailed photographs and step-by-step instructions for dozens of e-cizes specifically designed to provide quick and lasting relief of: Lower back pain, hip problems, sciatica, and bad knees Carpal tunnel syndrome and even some forms of arthritis Migraines and other headaches, stiff neck, fatigue, sinus problems, vertigo, and TMJ Shin splints, varicose veins, sprained or weak ankles, and many foot ailments Bursitis, tendinitis, and rotator cuff problems Plus special preventive programs for maintaining health through the entire body. With this book in hand, you're on your way to regaining the greatest gift of all: a pain-free body! The help of Pete Egoscue's revolutionary program of quick stretches

and strength-building exercises, you can cure chronic pain, and do it naturally. Pete Egoscue has shown thousands of individuals, corporations, schools, and championship sports teams how to eliminate pain without investing in expensive ergonomic devices or resorting to surgery or drug therapies. His groundbreaking book, with nearly 50,000 hardcover copies sold, shows readers how to: Relieve lower back pain Improve hip problems, sciatica, and bad knees, Relieve migraines and other headaches, stiff neck, fatigue, sinus problems, vertigo, and TMJ, Relieve painful problems, like carpal tunnel syndrome, often misdiagnosed as arthritis, Prevent injuries and maintain health through stretching programs for the entire body, filled with easy instructions, photos, and line illustrations throughout, this book will provide quick, effective pain relief.