

Cancer: Is There Hope?

By John Clark M.D. NorthernLightsHealthEducation.com

WHAT CAUSES CANCER?

Cancer has now surpassed heart disease as the number one cause of death for Americans below 85.¹ More than 10 million Americans have a history of invasive cancer. Two and one half million Americans will be diagnosed with cancer this year, (one million skin cancers). Cancer will claim over half a million victims this year.² Why all this cancer? What causes cancer? Can it be avoided? What is the answer for cancer?

As a medical student, I was presented one day with a patient who had a lesion on his lower leg.

"Dr. Clark, examine Mr. Doe's leg and tell the class your diagnosis."

The leg was well developed and muscular with clean skin, except an ugly purple raised area.

"Does Mr. Doe have Kaposi's sarcoma?" I queried, mostly guessing.

"Yes", came the affirming reply, "And..."

"Oh no," I thought, "here comes another question."

"Why do you think Mr. Doe has Kaposi's sarcoma?"

To my limited knowledge Kaposi's sarcoma occurred only in people with AIDS as a consequence of HIV infection, so I asked, "Is the patient HIV positive?"

"No", came the reply, "but that is a good guess. Mr. Doe has had a kidney transplant and so is on drugs that suppress his immune system."

This was my awakening to the fact that cancer often arises when the immune system is compromised or suppressed for any reason. It is true that Kaposi's sarcoma is 1300x more likely to occur in AIDS patients, but lymphoma, (a cancer of the lymph glands throughout the whole body), is 135x more likely, and lung cancer about five times more likely to occur in HIV positive individuals. Just to give you a perspective, ALL cancers are more than twice as common in people whose immune system is disabled or compromised by HIV infection.

Some years ago, a series of studies examined how sugar consumption weakens the immune system. Results showed that if a person ate no sugar for 12 hours, each white blood cell could destroy 14 dangerous bacteria. When 24 teaspoons of sugar were eaten (the amount in 2 cans of soda), the white blood cells were so compromised that they could only destroy one bacterium each.

Cancer has now surpassed heart disease as the number one cause of death for Americans below 85.

"But what does the immune system's ability to eat bacteria have to do with cancer?" you may be asking. A diet high in refined carbohydrates such as sugar, starch, etc. suppresses the immune system, leaving the body unprotected from diseases like cancer. In fact, studies show that a person on a high glycemic index diet (high in refined carbohydrates) has a significantly increased risk of acquiring breast,³ prostate,⁴ colorectal,⁵ endometrial,⁶ gastric,⁷ ovarian,⁸ or pancreatic^{9,10} cancer. Malnutrition is another cause of a poor immune system. Malnutrition comes in two forms, severe caloric starvation and consumption of empty calories.¹¹ Additionally as people get older their immune systems tend to age, losing the power to fight diseases like cancer.¹²

CANCER AND VIRUSES

You may be wondering why cancer crops up in the absence of an active immune system. For this puzzle piece, let's return for a minute to the AIDS/Kaposi's association. Kaposi's sarcoma is now known to be the result of a viral infection with either human herpes virus number 8 (HHV-8) or a virus known as Kaposi's Sarcoma-associated Virus (KSV).¹³ More and more,

infectious agents are being identified in relation to cancer.

So where do people get exposed to these infectious viruses? More and more, animal products such as beef, pork, chicken, turkey, milk and eggs are infected with cancer-causing viruses. Blood of workers in meatpacking plants show evidence of these viruses. These workers have an increased incidence of cancer, including cancers of the lung, mouth and throat, colon, bladder, and kidney.¹⁴ Poultry slaughterhouse workers have an increased incidence of throat cancer, liver cancer, lymphoma and leukemia.¹⁵

Animal products are known to increase the risk of cancer. The "Adventist Health Study" revealed that prostate cancer was 41% higher in meat eaters, colon cancer¹⁶ was 85% higher and ovarian cancer¹⁷ was 130% higher than in people who were vegetarians.

THE ANIMAL CONNECTION

A study out of Harvard revealed that consumption of meat and dairy products doubles the risk of metastatic prostate cancer. Meat by itself increases metastatic prostate cancer by 66%. Processed meats such as bacon, beef, pork or lamb also increase the risk of metastatic prostate cancer.¹⁸

The increased risk of getting cancer from animals is not limited to the consumption of their bodies. In a 4 year case control study in Italy, the consumption of cheese was found to increase the risk of non-Hodgkin lymphoma by 66%.¹⁹

Compared to normal breasts, cancerous breasts have 3 times the incidence of infection with bovine leukemia virus, (a virus common in milk and meat).²⁰

There are other reasons for the meat/cancer association. One of these is the way meat is prepared for marketing and the way it is cooked. Red meat is associated with increased formation of N-nitroso compounds. These compounds cause DNA damage which results in increased colorectal cancer.²¹ When people cook meat "well-done" at high temperatures, in an effort to kill all the trichina or "mad cow" disease, they produce mutagenic compounds called heterocyclic amines, which significantly increase the incidence of colorectal cancer.²²

Animal foods prepared by frying, broiling or microwaving have been shown to increase the risk of cancer by the formation of toxins called heterocyclic amines.²³

Protein, as much as we need it, is safe only in low quantities. Too much protein tends to suppress the immune system. Compared to a low protein diet (5%), a high protein diet (25%) like ours has been shown to both promote tumors and increase metastasis to the liver and lungs.²⁴

Let's take a minute to look a little closer at dairy products. To begin with, it will help you to know that one of the important parts of your immune system is a white cell called the "natural killer cell". Milk is immunosuppressive-the more you drink, the worse your natural killer cells will function. What's more, tripling your milk protein intake triples your cancer risk.²⁵ One of the reasons for this is that cows are fed high protein diets and given growth hormones.²⁶ Cows today produce more milk than they did 100 years ago. Three servings of milk per day significantly increase insulin like growth factor in humans.²⁷ Insulin-like growth factor elevation is linked to cancer of the prostate,²⁸ breast,^{29,30} and lung.³¹

HORMONES AND CANCER

At this point it would be well to understand the role of hormones in breast cancer initiation and progression. Anything that increases or prolongs a woman's exposure to estrogen increases her risk of breast cancer. Estradiol, one of the estrogens, is a potent cell growth stimulator, which is why it also can promote cancer. Thus, there is a greater incidence of cancer associated with: early onset of menarche, late menopause, (because the woman is exposed to more years of elevated hormones), hormone replacement therapy, postmenopausal obesity, (because fat cells can produce estrogen) and history of an abortion (because after the loss of the fetus the woman is exposed to the estrogens that were meant to support the pregnancy).³²

One often unrecognized source of large doses of growth hormones comes from the use of animal foods. Estradiol is used as a growth promoter in farm animals. Estradiol can actually induce tumors in rats, mice, and hamsters. When levels become artificially elevated in humans there is a corresponding increase in breast and uterine cancer.³³ Postmenopausal women with estradiol levels > 9 units (in their entire blood volume) had a 7-fold higher rate of breast cancer than that of women with undetectable levels.³⁴ If a level of nine or greater is bad, you may ask, what would be a source of

estradiol that might send my hormones that high? I was interested to find that one American beefsteak had 20 units, one liter of milk 18 units, 2 eggs 13 units, 50 gm of butter 4 units, and 100 gm of cheese 3 units!³⁵ One beefsteak has twice the hormones as found in the entire blood volume of one woman.

Another food that will drive up your hormones is fat. Studies show that high dietary fat intake is associated with elevated serum estrogens and androgens.³⁶ In 1975 Carroll and Khor produced charts showing increased rates of breast, colon, and prostate cancer with increased calorie, fat, and protein intake, country by country. There was a linear relationship between a country's per capita fat intake and the death rate from cancer.³⁷ Some fats are more dangerous than others. High saturated fat intake triples the risk of dying from prostate cancer.³⁸ Another dangerous fat is the chemically produced fat known as trans-fat. Trans-fat intake has been shown to increase breast,³⁹ prostate,⁴⁰ and colon cancer.⁴¹

My first clinical experience was in gynecology/obstetrics. Besides delivering babies and attending surgeries, much of my time was spent in clinic. Within a few days it became very apparent that from the day a girl came in complaining of discomfort with the onset of menses to the time that a middle aged woman came in to tell of her discomfort with hot flashes, we had women on pharmacological doses of hormones.

"And what are the consequences?" you may ask.

In a study of 37,000 women, oral contraceptives significantly increased breast cancer risk.^{42,43} Perimenopausal hormone-replacement therapy with estrogen alone increases the risk of endometrial cancer by 45%.⁴⁴ And when estrogen is combined with progesterone, breast cancer increases.⁴⁵ Some replacement hormones are from "natural" sources such as pregnant horse urine. But many are simply chemicals from the laboratory.

VITAMIN D AND SUNSHINE

Vitamin D has received a lot of attention recently as an immune stimulator and an anti-cancer agent. Its primary source is ultra-violet light striking the skin.

"But", you may say, "sun causes skin cancer."

Here is where the discriminating mind will discern the real cause of skin cancer. In a study of precancerous skin lesions, it was found that

people on a high fat diet developed three times the number of lesions compared to those on a low fat diet. Thus, in order to get your anti-cancer vitamin D from the sun, you need also to limit the fat in your diet.⁴⁶

WEIGHTY MATTERS

We have been talking about the fat that you eat, but now we need to make mention of the fat that you wear. Fat cells are actually involved in estrogen production. Excess estrogen production in obese women gives them a greater risk of dying with breast cancer.⁴⁷ Obesity is also a risk factor for pancreatic cancer⁴⁸, not to mention diabetes and arthritis. Don't underestimate the contribution of overeating of any kind to the development of cancer.⁴⁹ When you consume extra food, it tends not only to make you grow, but to make cancer grow also.⁵⁰

Obesity is usually linked with elevated triglycerides and cholesterol. Elevated cholesterol and triglycerides are associated with significant increases in breast cancer. On the other hand, high levels of HDL, the good cholesterol, significantly decrease breast cancer risk.⁵¹

CHEMICAL TOXINS

This brings us to our next topic--chemicals in our environment. Chemicals can act like hormones, increasing the risk of cancer.⁵² Insecticides such as DDT and DDD have hormonal activity⁵³ suppressing the immune system,^{54,55} and increasing the risk of cancer.⁵⁶ Chemicals tend to accumulate in our environment. Plants can take on small portions of these chemicals. Small creatures eat the plants and then are eaten by larger ones. As you go up the food chain a process called biomagnification occurs. For example, sea otters tested for PCBs and DDT showed up to 240x greater levels than that found in their prey.⁵⁷ The closer to the beginning of the food chain (eat from the garden) the safer your food.

The body is constantly surveying its DNA for damage and making repairs. When DNA damage accumulates, cancer can result. It has been found that lung cancer patients have suppressed DNA repair.⁵⁸ One commonly encountered substance, which prevents repair of damaged DNA, is caffeine.⁵⁹ Consequently, two or more cups of coffee per day more than double the risk of ovarian cancer.⁶⁰ What's more, when caffeine is combined with a high fat

diet, it significantly increases breast cancer risk.⁶¹

In this age of scientific discovery, the lung cancer/tobacco connection need hardly be mentioned. But few realize the extent to which other cancers are affected by this poison. Tobacco's influence can be seen in many malignancies, including cancers of the lip, mouth, throat, voice box, trachea, esophagus, stomach, liver, pancreas, bladder, kidney, cervix, leukemia, colon, skin, and penis.⁶²

Alcohol, a poison to the cells, is involved in 75% of esophageal cancers, 50% of mouth and larynx cancers, 30% of liver cancers, as well as colon, rectal and breast cancer. All totalled, 60,000 deaths per year are related to, not traffic accidents, domestic violence or homicides, but alcohol related cancer.⁶³

New building materials are a common source of environmental toxins.

Workers in a newly remodelled office were found to have increased chemicals in their blood stream and significant decline in their immune function.⁶⁴ Cancer causing chemicals found indoors include: chloroform, acetaldehyde, formaldehyde, dichlorobenzene, styrene, methylene chloride.⁶⁵

Another source of environmental toxins is the chemicals added to food as preservatives or flavor enhancers.⁶⁶ There are many additives to food for which side effects are unknown. Others are questionable or have produced cancer in animals such as BHA,^{67,68} BHT,^{69,70,71} and potassium bromate,^{72,73,74,75} etc.

In our modern age of plastics more and more of our food is being presented to us in poly containers. Today we get products such as milk, peanut butter, bottled water, apple sauce, and some jams, just to name a few, in plastic containers. It might cause concern to realize that the people making these containers--workers at plastic factories, have 5x the risk of pancreatic and liver cancer.⁷⁶

A lot of the toxic chemicals in our environment that have carcinogenic potential are halogenated polycarbons. The most common halogens in these substances are fluoride,^{77,78} bromide, or chloride. In these compounds, a halogen such as chloride is attached to a carbon structure, like gasoline, which makes the carbon structure more toxic and poisonous. Should it be any surprise to discover that these halogens are not much better for us if put in our water? A study in Canada revealed that consumption of

chlorinated water increases the risk of cancer of the esophagus and stomach and leukemia.^{79,80}

When I was a medical student I did research with the General Surgery Department. I was looking at the previous five years of pancreatic cancer patients. To my surprise, none of them was still alive. All had died, and this usually after several surgeries and much pain. The risk of pancreatic cancer is significantly increased by obesity⁸¹ and high consumption of: salt, smoked meat, fried food, refined sugar, food with preservatives or additives,⁸² and coffee.^{83,84,85} Salt also increases the risk of brain cancer.⁸⁶ Knowing the risk factors helps us understand what lifestyle changes we can make to improve our chances of avoiding this killer disease.

We all have seen a diesel truck grinding its way up a hill belching black smoke from its exhaust pipe. Products of combustion surround us even in our everyday life (exhaust from cars, gas stoves, etc.) all of which have carcinogenic potential.⁸⁷ Railroad workers exposed to diesel fumes have a 40% increase in mortality from lung cancer.⁸⁸

In recent years the phrase "oxidative stress" has become popular. Oxidative stress is merely a measure of the inflammation in the body. Measuring the number of free radicals in the blood often assesses this. Oxidative stress damages DNA that leads to the development of cancer. Chronic inflammation increases the risk of cancer in the gastrointestinal tract.⁸⁹ For example gastro-esophageal reflux can cause esophagitis, known as Barrett's Esophagus. In Barrett's Esophagus, cancer develops because the esophagus is constantly healing itself and just can't stop healing.⁹⁰ Cancer is basically cells that are growing or healing out of control.

MELATONIN

Melatonin is a protective, anti-cancer hormone and strong antioxidant.⁹¹ Light at night suppresses melatonin and increases cancer cell growth rates. Evidence now links exposures to light at night to elevated breast⁹² and colorectal cancers in night workers.⁹³

STRESS

Stress and depression increase cancer because they decrease the immune system's ability to find and destroy cancer cells.^{94,95} In a ten year follow up study, in which social coping skills, along with the traditional risk factors; smoking, drinking and medical diseases were

considered, people with greater stress from poor interpersonal skills had a 40% higher death rate from cancer.⁹⁶ In another study, divorced or separated women had a 126% higher risk of getting breast cancer, and widowed 100% higher.⁹⁷ Cancer develops more commonly and grows faster in people with suppressed anger.⁹⁸ These mental / emotional causes of cancer are some of the most powerful risk factors known to man.

RADIATION

One threat to DNA integrity is all the modern sources of radiation. Sources of radiation include radioactive elements, X-rays, gamma rays, microwaves, radio transmitters, electromagnetic fields, ultraviolet light, solar radiation, and nuclear radiation. For example, children living within 2 km of an AM radio station have more than double the chances of getting leukemia as those 20 km or more away.⁹⁹

Another modern source of radiation is the cell phone. Cell phones significantly increase astrocytomas (brain cancer) in the temporal area of the brain (right where you hold your cell phone). There is also an increase in acoustic neurinomas (ear cancer).¹⁰⁰

Electric blankets can also be a significant source of radiation. Breast cancer risk associated with electric blanket use increases with the number of years of use, the number of seasons of use, and the length of time of use each night.¹⁰¹ It has been suggested that if you want your bed warmed, turn on the electric blanket or heating pad until the desired temperature is reached, then unplug it before getting into bed. Breast cancer risk associated with electric blanket use increases with the number of years of use, the number of seasons of use, and the length of time of use each night.

The relation between breast cancer and electromagnetic field exposure has been the object of much study. For women telephone installers, repairers, and line workers, the risk of breast cancer goes up 117%; for system analysts and programmers 65%; for telegraph and radio operators 40%; and for telephone operators 27%.¹⁰²

Children are affected by radiation as well. For example, the risk of leukemia is elevated in: children whose mothers used an electric blanket or an electric mattress pad during pregnancy; children who themselves use electric blankets or electric mattress pads, hair dryers, video

machines in arcades, or video games connected to a television.¹⁰³

HEAVY METALS

Elevated levels of heavy metals including: iron, nickel, chromium, zinc, cadmium, mercury, and lead have been found in tumorous tissues of cancer patients.¹⁰⁴ These heavy metals increase oxidative stress and DNA damage, which result in cancer. Mercury, when combined with chloride, produces cancer by acting as a hormone, binding to and activating estrogen receptors.¹⁰⁵

SUMMARY OF CANCER CAUSES

To summarize: each cell in the body is regulated by code (DNA), much like a computer. If the code goes bad, so does the cell. As we've seen, there are a number of things that can derail the DNA code. DNA damage results from: viruses, toxins, oxidative stress, and radiation. Cancer arises when the immune system fails to identify and deal with cells running on altered DNA. Too many hormones, and chronic healing and inflammation, initiate the development of cancer and accelerate its growth.

THE SOLUTION

"Okay", you're thinking, "So what do I do now? Everything causes cancer, I'm doomed!"

Please don't throw in the towel just yet. Thus far our approach has been to show the avoidable causes of cancer. Now we are going to show you that the answer to the cancer problem.

Disease is an effort of nature to free the system from conditions that result from a violation of the laws of health.

"The only hope of better things is in the education of the people in right principles. Let physicians teach the people that restorative power is not in drugs, but in nature. Disease is an effort of nature to free the system from conditions that result from a violation of the laws of health. In case of sickness, the cause should be ascertained. Unhealthful conditions should be changed, wrong habits corrected. Then nature is to be assisted in her effort to expel impurities and to re-establish right conditions in the system."¹⁰⁶

“Pure air, sunlight, abstemiousness, rest, exercise, proper diet, the use of water, trust in divine power—these are the true remedies”¹⁰⁷, “Gratitude, rejoicing, benevolence, trust in God's love and care--these are health's greatest safeguard.”¹⁰⁸

A good understanding of these laws of health is essential to minimizing cancer's risk factors. Let's look at each of these principles of health and what their impact is on cancer.

FRESH AIR

Pure, fresh, outdoor air is a wonderful stimulant to the immune system. This is because of the negative ions present in outdoor air, which significantly decrease the incidence of cancer and inhibit tumor growth by the enhancing natural killer cell activity.¹⁰⁹ Some toxins come from mold (mycotoxicosis and aflatoxins).¹¹⁰ Mold toxins are felt to be responsible for liver¹¹¹ and lung¹¹² cancer growth. Keeping the premises and basement of your homes free from mold help prevent cancer. Outdoor air has much less toxins.

Thrash and Thrash in their book “*Hope For Cancer*” report, “A group of rats with cancer were allowed to breathe negatively charged (outdoor) air, while an equal number breathed common indoor air. After one month the cancer in the rats breathing the indoor air was twice the size of the cancer in the rats breathing the negatively charged air.”¹¹³

“When the weather will permit, all who can possible do so ought to walk in the open air every day, summer and winter. But the clothing should be suitable for the exercise, and the feet should be well protected. A walk, even in winter, would be more beneficial to the health than all the medicine the doctors may prescribe.”¹¹⁴

SUNLIGHT

Sunlight is a precious gift from God, which brings us a sense of wellbeing from the endorphins it creates. We have already mentioned that vitamin D is essential to the prevention of cancer. Everyone should get at least 20 minutes of sunshine a day with at least 25% of their skin exposed to the sun. These 20 minutes should be without sunscreen, (which blocks synthesis of vitamin D). Vitamin D is a potent inhibitor of cancer growth and protects against prostate, breast, pancreas and colon cancer. Colon tumor growth rate increases by 60% when there is a deficiency in Vitamin D.¹¹⁵

TEMPERANCE

Temperance or abstemiousness is avoiding all things that that are harmful and using wisely those things that are good.

An example for need for total abstinence would be tobacco or alcohol. Is there any hope for a smoker or drinker? Lung cancer risk decreases and survival improves the moment you quit. But the longer the time since smoking, the better the survival outcome.¹¹⁶ Similarly esophageal cancer risk declines with time since last drinking.¹¹⁷

An example of appropriate moderation is in the area of diet. We all have to eat, but we don't necessarily have to all eat as much as we are accustomed to. Much research now exists pointing to the fact that caloric restriction, (eating less food), actually helps fight disease and promotes better health. Calorie restriction decreases cancer by keeping the normal cell cycle under tight regulation and by keeping in check growth factors, hormones, and stress hormones like cortisol.¹¹⁸ Studies now show that caloric restriction both reduces DNA damage and enhances DNA repair (thus reducing cancer risk).¹¹⁹ Okinawans have taught us a lot in this area. They eat 40% fewer calories than Americans yet they have 80% fewer breast and prostate cancers, and 50% fewer ovarian and colon cancers.¹²⁰ We mentioned that increasing age is associated with a decline in the immune system making cancer more prevalent as people get older. Caloric restriction, while maintaining good nutrition, restores immune function to that found in younger individuals.¹²¹ Obesity also impairs the immune system's ability to find and destroy cancer cells, but again, caloric restriction has been shown to restore immune responsiveness.¹²²

REST

I'm sure we can all testify to the necessity of proper rest. Jesus Christ said, “Come ye yourselves apart into a desert place, and rest a while.”¹²³ People who sleep well have significantly better immune function than people with insomnia.¹²⁴ Getting between 7 and 8 hours of sleep each night significantly reduces the risk of dying from cancer and other diseases. Sleeping 6 hours or less, or 9 hours or more, increases the risk of dying by 70%.¹²⁵ Another aspect of rest is regularity. You should go to bed at the same time and get up at the same time

every day. It is important not to disturb the sleep wake cycle. Disrupting the sleep wake cycle disrupts your circadian rhythms. Disruption of circadian rhythms is associated with accelerated growth of malignant tumors.^{126, 127}

Yet another aspect of cyclic rest is a weekly rest. A study in Georgia discovered that Seventh-day Adventists have higher levels of immune stimulating antioxidants. The study went on to show that vegetarian Seventh-day Adventists have even higher levels of immune stimulating antioxidants.¹²⁸ While it was interesting that vegetarians have higher antioxidant levels, what interested me was that even the non-health conscious Sabbath keepers showed health improvements over the general population.

EXERCISE

Now that we've written about rest, we're going to talk about just the opposite—exercise. As individuals age their immune system declines. Being physically fit helps attenuate this decline. The immune system responds positively to moderate exercise. Studies have shown that people who cultivate healthy lungs and hearts, (cardiopulmonary fitness), have one-half the risk of mortality from cancer as people who don't take fitness seriously.¹²⁹ Observe though that over fatigue increases the risk of viral infections, (of which cancer can be one).¹³⁰ Regular moderate exercise reduces risk of breast cancer by up to 66%^{131,132,133,134} and also reduces the risk of cancers of the ovaries,¹³⁵ uterus,¹³⁶ prostate,¹³⁷ colon,^{138,139} and lungs.¹⁴⁰ Exercise minimizes cancer by reducing serum estradiol¹⁴¹ and insulin like growth hormone¹⁴² which, we showed earlier, cause cancer. It has been said that those who can't find time to exercise will have to find time to be sick.

PROPER DIET

We will now discuss proper diet. This is the section that people tend to fixate on, to the exclusion of all others. But let me say right here that while diet is very important, all the other components of a cancer free lifestyle are equally important, and should not be over looked. Your lifestyle should be examined as a whole.

A fresh uncooked fruit and vegetable diet has been shown to invigorate the immune system, reduce inflammation, lessen allergic diseases, heal infections and help fight cancer.¹⁴³ This is

partly because fruit and vegetables are filled with micronutrients that help prevent and combat cancer.^{144,145} As constant inflammation often produces cancer, you will be happy to know that naturally occurring flavonoids and phytochemicals found in fruits, vegetables, grains, seeds and nuts contain anti-inflammatory properties. Flavonoids and phytochemicals are micronutrients as important to your body as vitamins.¹⁴⁶

Antioxidants are additional micronutrients found in fruit and vegetables. They help boost your immune system and restore it if it has gotten out of shape.¹⁴⁷ Oxidation is the word we use to describe what happens when something, (usually a chemical such as a protein or a fat), interacts with oxygen. This oxidized chemical can now oxidize another body part. It's kind of like a game of tag. Tag, you're it! A body part that you definitely do not want to get oxidized is your DNA, because this would lead to the formation of cancer cells. Antioxidants stop the process long before it reaches the DNA. They also promote the repair of oxidized DNA.

FRUIT

Fruit is especially high in antioxidants; vitamin C, flavonoids, limonoids, fiber, pectin and phytochemicals that neutralize cancer-causing agents entering the body.¹⁴⁸

Vitamin C is an antioxidant found in fruit and vegetables that reduces the risk of kidney cancer,¹⁴⁹ breast cancer,¹⁵⁰ and leukemia,¹⁵¹ a type of blood cancer. Oranges, grapefruit, and lemons, are a great source of Vitamin C. Vitamin C also helps neutralize the cancer-causing nitrosamines found in red meats.¹⁵²

Citrus fruits also contain limonene that actually neutralizes cancer-causing substances that cause stomach and breast cancer.^{153,154} Pectin, a soluble fruit fiber, found in citrus and other fruit, prevents the spread or metastases of cancer.¹⁵⁵

If I were looking for a super fruit to help fight cancer I think it might be kiwifruit. Kiwifruit provides protection against DNA damage by enhancing antioxidant levels and actually stimulating the repair of damaged DNA.¹⁵⁶

Pineapple prevents stomach cancer because it inhibits the formation of the nitrosamines that come from meat.¹⁵⁷ Perhaps it would be well to eat a pineapple with each well-done beefsteak in order to be safe!!

Many people eat prunes, or dried plums to help them with their bowel movements because

they know these foods are high in fiber. What they may not realize is that the fiber from these plums or prunes decreases colon cancer by mopping up toxins, such as bile acids, coming out of the liver.¹⁵⁸

We've all heard it said, "An apple a day keeps the doctor away." And while that may have been a commercial advertisement by the fruit growers of America for their product, apple pectin has indeed been discovered to strengthen the immune system and prevent growth of cancerous tumors in the colon.¹⁵⁹

Studies coming out of Italy, (and other countries where the "Mediterranean Diet", high in tomato products, predominates), reveal that high consumption of tomatoes protects against cancers of the mouth, esophagus, stomach, colon, rectum and prostate.^{160,161} This protection may come from the phytochemical lycopene found in tomatoes.¹⁶²

VEGETABLES

High in vitamin A, vitamin C, phytochemicals and fiber, vegetables have the ability to oppose the action of carcinogens,¹⁶³ and are very important in the fight against cancer.¹⁶⁴

Carcinogens are substances that can cause cancer. Powerful anticarcinogens are found in cauliflower.^{165,166} These anticarcinogens inhibit the formation of malignant tumors.¹⁶⁷ High levels of vitamin A and phytochemicals give broccoli high anticarcinogenic properties as well.¹⁶⁸

Phytochemicals found in cruciferous vegetables increase the urinary excretion of hormones and hormonally active substances that promote cancer.

Cruciferous vegetables, (which include broccoli, cauliflower, Brussels sprouts, and cabbage), are extremely valuable for cancer prevention. They can actually keep cancer-causing toxins from binding to DNA in the cell, thereby reducing DNA damage. What's more they increase the elimination of cancer causing toxins from the liver and intestines.¹⁶⁹ Remember all those hormones and hormonally active substances that cause cancer? Phytochemicals in cruciferous vegetables increase the urinary excretion of estrogens.¹⁷⁰

Cabbage is a key food in the prevention of pancreatic^{171,172} breast and ovarian cancer.¹⁷³

Cabbage contains phytochemicals that can reduce the carcinogenic effects of benzopyrene, a cancer-causing chemical found in tobacco smoke.¹⁷⁴ The phytochemicals in cabbage prevent, as well as have a curative effect on, tumor growth.¹⁷⁵

The bulb foods, (onion and garlic family), are also known to have anti-cancer properties. They lower the risk of stomach cancer,¹⁷⁶ prevent the development of tumor cells,¹⁷⁷ and are helpful in the treatment of cancers of the stomach and colon.¹⁷⁸ Garlic is especially helpful in the prevention of cancer of the stomach,¹⁷⁹ breast,¹⁸⁰ prostate,^{181,182} endometrium,¹⁸³ and bladder.¹⁸⁴ It works to combat cancer by stimulating the immune system, detoxifying carcinogens, and by a direct toxic effect on cancer cells.¹⁸⁵

There are other vegetables which aid in the fight against cancer. Spinach prevents cancer of the throat, breast, colon, and bladder.¹⁸⁶ The vitamin A, carotenoids, and fiber in carrots give them powerful anticarcinogenic effects.¹⁸⁷ Don't be fooled though, taking vitamin A pills does not provide this same protective effect.¹⁸⁸ It's hard to reproduce nature in the laboratory. Eating pellets created in a commercial factory can in no way substitute for good whole food. Yellow orange vegetables all contain beta-carotene, vitamin A and other "carotenoids" which have been shown to reduce the risk of cancer of the lungs, prostate and pancreas.¹⁸⁹

Squash contains beta-carotene, vitamin C, and fiber that counteract the effects of carcinogenic substances on the colon.^{190,191}

Radishes have valuable properties that impede DNA changes that lead to cancer.¹⁹²

Beets have properties that are anticarcinogenic.¹⁹³

Peppers are high in antioxidant vitamins A and C which are powerful anticarcinogens.^{194,195}

Legumes (beans) are good cancer fighters too. Regular consumption of beans is associated with a significant decrease in cancers of the pancreas,¹⁹⁶ prostate,^{197,198} and endometrium,¹⁹⁹ (the lining of the uterus). One legume that has come to special attention is the soybean. Soy has strong antioxidant properties and is a potent immune stimulant.²⁰⁰ It has shown benefits for viral illnesses, particularly cancer.²⁰¹ Soy products also possess anti-inflammatory properties that decrease the potential for cancer development.^{202,203} Soy products have been shown to protect against cancer of the prostate, breast, colon, rectum, stomach and lung.^{204,205,206}

Soy, as well as the common seasoning turmeric, help counteract the estrogenic effects of hormones and hormonally active environmental toxins on breast tissue.^{207,208} We call the substances in soy and turmeric phytoestrogens. Phytoestrogens, such as those contained in soy, have been shown to counter the carcinogenic effects of estradiol on the cells of the body, reducing not only the risk of breast cancer, but lung,²⁰⁹ prostate,²¹⁰ and endometrial^{211,212,213} cancer as well. Since soy phytoestrogens only weakly stimulate the estrogen receptor they are not cancer-causing.²¹⁴ And since they bind the estrogen receptor, other estrogens cannot bind to the receptor. Thus, the weak phytoestrogens replace the strong estrogens, (such as estradiol), protecting the cells from being stimulated to cancer formation.²¹⁵ It's like having a weak politician in public office rather than a strong one who can get things done. Whereas in politics this would not be desirable, in the body is preferable.

FIBER

Research indicates that diets high in fat and meat, and low in fiber, markedly increase oxidative stress in the digestive system, which in turn increase the risk of colorectal cancer.²¹⁶ High fiber intake effectively reduces the oxidative stress caused by high-fat and high-cholesterol intake.^{217,218} Grains, (such as wheat, rye, and oats), are a good source of this fiber.²¹⁹ Rye helps reduce the carcinogenic effect on the intestines of toxins processed by the liver.²²⁰ Wheat and wheat bran have antioxidant and anticarcinogenic properties.^{221,222} One way fiber prevents cancer is by acting as a sponge to mop up and remove excess hormones from the body.^{223,224} As a result, diets high in fiber can reduce the risk of breast cancer.²²⁵

While diets high in animal, trans, and oxidized fats cause cancer, natural fats high in omega-3s are anti-inflammatory, and have anticarcinogenic properties.²²⁶ In addition to promoting blood flow, omega-3 fatty acids, found in walnuts, flax and olive oil, have anti-inflammatory properties.²²⁷ Olive oil has been shown to reduce the risk of breast cancer by up to 33%.²²⁸

There is abundant research that a diet of fresh fruit, grains, nuts and vegetables provides the best protection against cancer. Some may be wondering why meat is not as beneficial. The cow, for example, consumes wheat grass and

barley green so that he will not get heart disease, cancer, diabetes and arthritis, but she does not pass these benefits along to the consumers of her body. Meat has very little in the way of nutrition capable of cancer prevention. When you come down to it, the biggest reason people come down with cancer is because they fail to eat enough fresh fruits and vegetables.²²⁹ Should it be any surprise that what we have been talking about is the original, Creator's diet,

“Behold, I have given you every herb bearing seed, which is upon the face of all the earth, and every tree, in the which is the fruit of a tree yielding seed; to you it shall be for meat.” “And thou shalt eat the herb of the field”.²³⁰

WATER

Water is the fluid life sails on. Water carries nutrition from the blood to the cells. It then carries waste products from the cells to the blood for excretion by liver, kidneys, lungs, and sweat glands. Daily water needs including drinking water, water in beverages, and water in food. You need between 8 and 12 eight-ounce glasses of water a day. Strenuous physical exercise and heat can greatly increase daily water needs, and there is substantial variability between individuals.²³¹

In modern times, with the advent of convenience machines and antiperspirants, perspiration has been nearly eliminated from our societies. As a consequence, more stress is placed on the kidneys, liver and lungs to eliminate cancer-causing toxins from the body. If we know what toxins are involved in our particular cancer, we should make every effort to eliminate it. One useful way to accomplish this by sweating. Drinking water, exercising, and taking saunas to produce sweat, expel toxins from the body.²³²

TRUST IN GOD

Trust in God's love and care, can have a positive effect in several ways.

Trust in God is a part of good spiritual health. Those with good spiritual health, have longer life expectancy, greater well-being and life satisfaction. They deal better with illness, have fewer hospitalizations and shorter hospital stays. They suffer less anxiety and depression,

and enjoy better immune system function that helps in the fight against cancer.²³³

God has said that all healing comes from Him and that listening to His voice and obeying His commands brings health. Trusting Him is part of the healing process.

“And said, If thou wilt diligently hearken to the voice of the LORD thy God, and wilt do that which is right in his sight, and wilt give ear to his commandments, and keep all his statutes, I will put none of these diseases upon thee, which I have brought upon the Egyptians: for I am the LORD that healeth thee.”²³⁴

Trusting God brings the benefit of social ties at church. On the other hand, socially isolated people are more likely to die of cancer.²³⁵

Studies reveal that giving support to friends, relatives, neighbors, and family, significantly reduces mortality, while merely receiving support does not improve mortality.

Most people who enter into a full trusting relationship with God are led to a life of service to others. Studies reveal that giving support to friends, relatives, neighbors, and family, significantly reduces mortality, while merely receiving support does not improve mortality.²³⁶ A study from the university of Michigan revealed that volunteers of community organizations are 2-1/2 times less likely to die than those who do not become involved in volunteer work. voluntary work, more than any other activity, dramatically increased life expectancy.²³⁷ Haven't we always known that, "It is more blessed to give than to receive."²³⁸ Although merely attending religious services is beneficial, one surprising study showed that among religious people, volunteers, had 60% less mortality.²³⁹

GRATITUDE

Studies show that gratitude--an attitude of thankfulness, significantly improves long-term breast cancer survival.²⁴⁰ Our health would be greatly improved if we made a list of ten things for which we are thankful every day of our lives.

REJOICING

Research confirms that happy people have better physical health, increased longevity, and fewer illnesses. If they do get sick, they have less pain.²⁴¹ Happy people have more IgA, (an immune system antibody), in their saliva and less cortisol in their blood.²⁴²

SUMMARY

In summary: cancer is most often the result of a failure of the immune system to destroy bad cells. Bad cells are created by viruses, toxins, oxidative stress, hormones, poor nutrition and/or radiation. Once cancer begins it is often driven on by hormones or inflammation.

The solution is to maximize our health and expel toxins through the natural remedies: pure air, sunlight, abstemiousness, rest, exercise, proper diet, the use of water, gratitude, rejoicing, benevolence, and trust in God's love and care.

Take advantage of all the benefits:

- Eat foods as grown.
- Exercise in the open air and sunshine.
- Drink plenty of pure water.
- Rest in bed at night and in the love and providence of God.
- Avoid animal products high in protein, fat, viruses, toxins and growth hormones.
- Avoid foods and substances that damage DNA and suppress the immune system; like sugar, animal products, tobacco, alcohol, caffeine, heavy metals and pesticides.
- Choose a lifestyle and diet which expels toxins from your body, invigorates your immune system and keeps you at peak physical, mental and spiritual performance.

For further ideas on how to incorporate what you have just learned into your daily life, see the chapter entitled, "How Can I Apply Healthy Principles in My Daily Life".

References

- Jemal A, Siegel R, Ward E, et al. Cancer statistics, 2007. *CA Cancer J Clin.* 2007 Jan-Feb;57(1):43-66.
- U.S. Cancer Statistics Working Group. *United States Cancer Statistics: 2002 Incidence and Mortality.* Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute; 2005.
- Augustin LS, Dal Maso L, La Vecchia C, et al. Dietary glycemc index and glycemic load, and breast cancer risk: a case-control study. *Ann Oncol.* 2001 Nov;12(11):1533-8.
- Augustin LS, Galeone C, Dal Maso L, et al. Glycemic index, glycemic load and risk of prostate cancer. *Int J Cancer.* 2004 Nov 10;112(3):446-50.
- Franceschi S, Dal Maso L, Augustin L, et al. Dietary glycemc load and colorectal cancer risk. *Ann Oncol.* 2001 Feb;12(2):173-8.
- Augustin LS, Gallus S, Bosetti C, et al. Glycemic index and glycemic load in endometrial cancer. *Int J Cancer.* 2003 Jun 20;105(3):404-7.
- Augustin LS, Gallus S, Negri E, La Vecchia C. Glycemic index, glycemic load and risk of gastric cancer. *Ann Oncol.* 2004 Apr;15(4):581-4.
- Augustin LS, Polesel J, Bosetti C, et al. Dietary glycemc index, glycemic load and ovarian cancer risk: a case-control study in Italy. *Ann Oncol.* 2003 Jan;14(1):78-84.
- Schernhammer ES, Hu FB, Giovannucci E, et al. Sugar-sweetened soft drink consumption and risk of pancreatic cancer in two prospective cohorts. *Cancer Epidemiol Biomarkers Prev.* 2005 Sep;14(9):2098-105.
- Stattin P, Björ O, Ferrari P, et al. Prospective study of hyperglycemia and cancer risk. *Diabetes Care.* 2007 Mar;30(3):561-7.
- Biernat J, Krzyśk M. The influence of deficient and excessive dietary energy supply on immune system functioning. *Przegl Lek.* 2005;62(8):818-20.
- Bozzetti F. Nutritional issues in the care of the elderly patient. *Crit Rev Oncol Hematol.* 2003 Nov;48(2):113-21.
- Dictor M, Ramebeck E, Way D, et al. Human herpesvirus 8 (Kaposi's sarcoma-associated herpesvirus) DNA in Kaposi's sarcoma lesions, AIDS Kaposi's sarcoma cell lines, endothelial Kaposi's sarcoma simulators, and the skin of immunosuppressed patients. *Am J Pathol.* 1996 Jun;148(6):2009-16.
- Johnson ES, Dalmás D, Noss J, et al. Cancer mortality among workers in abattoirs and meatpacking plants: an update. *Am J Ind Med.* 1995 Mar;27(3):389-403.
- Johnson ES, Shorter C, Rider B, Jiles R. Mortality from cancer and other diseases in poultry slaughtering/processing plants. *Int J Epidemiol.* 1997 Dec;26(6):1142-50.
- Singh PN, Fraser GE. Dietary risk factors for colon cancer in a low-risk population. *Am J Epidemiol.* 1998 Oct 15;148(8):761-74.
- Kiani F, Knutsen S, Singh P, Ursin G, Fraser GE. Dietary risk factors for ovarian cancer: the Adventist Health Study (United States). *Cancer Causes Control.* 2006 Mar;17(2):137-46.
- Michaud DS, Augustsson K, Rimm EB, et al. A prospective study on intake of animal products and risk of prostate cancer. *Cancer Causes Control.* 2001 Aug;12(6):557-67.
- Talamini R, Polesel J, Montella M, et al. Food groups and risk of non-Hodgkin lymphoma: a multicenter, case-control study in Italy. *Int J Cancer.* 2006 Jun 1;118(11):2871-6.
- Gertrude Buehring, Ph.D. Symposium Abstract (2005) California Breast Cancer Research Program of the University of California, Grant 6PB-0075 http://www.cbcpr.org/research/PageGrant.aspx?grant_id=1815
- Lewin MH, Bailey N, Bandaletova T, et al. Red meat enhances the colonic formation of the DNA adduct O6-carboxymethyl guanine: implications for colorectal cancer risk. *Cancer Res.* 2006 Feb 1;66(3):1859-65.
- Sinha R, Kuldoff M, Chow WH, et al. Dietary intake of heterocyclic amines, meat-derived mutagenic activity, and risk of colorectal adenomas. *Cancer Epidemiol Biomarkers Prev.* 2001 May;10(5):559-62.
- Taghavi N, Yazdi I. Type of food and risk of oral cancer. *Arch Iran Med.* 2007 Apr;10(2):227-32.
- Li C, Bai X, Wang S, Tomiyama-Miyaji C, et al. Immunopotentiality of NKT cells by low-protein diet and the suppressive effect on tumor metastasis. *Cell Immunol.* 2004 Sep-Oct;231(1-2):96-102.
- Bell RC, Golemboski KA, Dieters RR, Campbell TC. Long-term intake of a low-casain diet is associated with higher relative NK cell cytotoxic activity in F344 rats. *Nutr Cancer.* 1994;22(2):151-62.
- Epstein SS. Unlabeled milk from cows treated with biosynthetic growth hormones: a case of regulatory abdication. *Int J Health Serv.* 1996;26(1):173-85.
- Heaney RP, McCarron DA, Dawson-Hughes B, et al. Dietary changes favorably affect bone remodeling in older adults. *J Am Diet Assoc.* 1999 Oct;99(10):1228-33.
- Chan JM, Stampfer MJ, Giovannucci E, et al. Plasma insulin-like growth factor-I and prostate cancer risk: a prospective study. *Science.* 1998 Jan 23;279(5350):563-6.
- Hankinson SE, Willett WC, Colditz GA, et al. Circulating concentrations of insulin-like growth factor-I and risk of breast cancer. *Lancet.* 1998 May 9;351(9113):1393-6.
- Frittitta L, Cerrato A, Sacco MG, et al. The insulin receptor content is increased in breast cancers initiated by three different oncogenes in transgenic mice. *Breast Cancer Res Treat.* 1997 Sep;45(2):141-7.
- Yu H, Spitz MR, Mistry J, et al. Plasma levels of insulin-like growth factor-I and lung cancer risk: a case-control analysis. *J Natl Cancer Inst.* 1999 Jan 20;91(2):151-6.
- Russo JH, Russo I. Role of hormones in mammary cancer initiation and progression. *J Mammary Gland Biol Neoplasia.* 1998 Jan;3(1):49-61.
- Liehr JG. Is estradiol a genotoxic mutagenic carcinogen? *Endocr Rev.* 2000 Feb;21(1):40-54.
- Cummings SR, Duong T, Kenyon E, et al. Serum estradiol level and risk of breast cancer during treatment with raloxifene. *JAMA.* 2002 Jan 9;287(2):216-20.
- Daxenberger A, Ibarreta D, Meyer HH. Possible health impact of animal oestrogens in food. *Hum Reprod Update.* 2001 May-Jun;7(3):340-55.
- Nagata C, Nagao Y, Shibuya C, et al. Fat intake is associated with serum estrogen and androgen concentrations in postmenopausal Japanese women. *J Nutr.* 2005 Dec;135(12):2862-5.
- Carroll KK, Khor HT. Dietary fat in relation to tumorigenesis. *Prog Biochem Pharmacol.* 1975 10:308-53.
- Fradet Y, Meyer F, Bairati I, et al. Dietary fat and prostate cancer progression and survival. *Eur Urol.* 1999;35(5-6):388-91.
- Kohlmeier L, Simonsen N, van 't Veer P, et al. Adipose tissue trans fatty acids and breast cancer in the European Community Multicenter Study on Antioxidants, Myocardial Infarction, and Breast Cancer. *Cancer Epidemiol Biomarkers Prev.* 1997 Sep;6(9):705-10.
- King IB, Kristal AR, Schaffer S, et al. Serum trans-fatty acids are associated with risk of prostate cancer in beta-Carotene and Retinol Efficacy Trial. *Cancer Epidemiol Biomarkers Prev.* 2005 Apr;14(4):988-92.
- Slattery ML, Benson J, Ma KN, et al. Trans-fatty acids and colon cancer. *Nutr Cancer.* 2001;39(2):170-5.
- Newcomer LW, Newcomb PA, Trentham-Dietz A, et al. Oral contraceptive use and risk of breast cancer by histologic type. *Int J Cancer.* 2003 Oct 10;106(6):961-4.
- Hemminki E, Luostarinen T, Pukkala E, et al. Oral contraceptive use before first birth and risk of breast cancer: a case control study. *BMC Womens Health.* 2002 Aug 5;2(1):9.
- Beral V, Bull D, Reeves G, et al. Endometrial cancer and hormone-replacement therapy in the Million Women Study. *Lancet.* 2005 Apr 30-May 6;365(9470):1543-51.
- Tworoger SS, Missmer SA, Barbieri RL, et al. Plasma sex hormone concentrations and subsequent risk of breast cancer among women using postmenopausal hormones. *J Natl Cancer Inst.* 2005 Apr 20;97(8):595-602.
- Black HS, Herd JA, Goldberg LH, et al. Effect of a low-fat diet on the incidence of actinic keratosis. *N Engl J Med.* 1994 May 5;330(18):1272-5.
- Donegan WL, Johnstone MF, Biedrzycki L. Obesity, estrogen production, and tumor estrogen receptors in women with carcinoma of the breast. *Am J Clin Oncol.* 1983 Feb;6(1):19-24.
- Silverman DT, Swanson CA, Gridley G, et al. Dietary and nutritional factors and pancreatic cancer: a case-control study based on direct interviews. *J Natl Cancer Inst.* 1998 Nov 18;90(22):1710-9.
- Chang SC, Ziegler RG, Dunn B, Association of energy intake and energy balance with postmenopausal breast cancer in the prostate, lung, colorectal, and ovarian cancer screening trial. *Cancer Epidemiol Biomarkers Prev.* 2006 Feb;15(2):334-41.
- Slattery ML, Caan BJ, Potter JD, et al. Dietary energy sources and colon cancer risk. *Am J Epidemiol.* 1997 Feb 1;145(3):199-210.
- Ray G, Husain SA. Role of lipids, lipoproteins and vitamins in women with breast cancer. *Clin Biochem.* 2001 Feb;34(1):71-6.
- Aschengrau A, Coogan PF, Quinn M, et al. Occupational exposure to estrogenic chemicals and the occurrence of breast cancer: an exploratory analysis. *Am J Ind Med.* 1998 Jul;34(1):6-14.
- Klotz DM, Beckman BS, Hill SM, et al. Identification of environmental chemicals with estrogenic activity using a combination of in vitro assays. *Environ Health Perspect.* 1996 Oct;104(10):1084-9.
- Koner BC, Banerjee BD, Ray A. Organochlorine pesticide-induced oxidative stress and immune suppression in rats. *Indian J Exp Biol.* 1998 Apr;36(4):395-8.
- Svensson BG, Hallberg T, Nilsson A, et al. Parameters of immunological competence in subjects with high consumption of fish contaminated with persistent organochlorine compounds. *Int Arch Occup Environ Health.* 1994;65(6):351-8.
- Güttes S, Failing K, Neumann K, et al. Chlororganic pesticides and polychlorinated biphenyls in breast tissue of women with benign and malignant breast disease. *Arch Environ Contam Toxicol.* 1998 Jul;35(1):140-7.
- kannan K, Kajiwara N, Watanabe M, et al. Profiles of polychlorinated biphenyl congeners, organochlorine pesticides, and butyltins in southern sea otters and their prey. *Environ Toxicol Chem.* 2004 Jan;23(1):49-56.
- Wu X, Roth JA, Zhao H, et al. Cell cycle checkpoints, DNA damage/repair, and lung cancer risk. *Cancer Res.* 2005 Jan 1;65(1):349-57.
- Sarkaria JN, Busby EC, Tibbetts RS, et al. Inhibition of ATM and ATR kinase activities by the radiosensitizing agent, caffeine. *Cancer Res.* 1999 Sep 1;59(17):4375-82.
- Trichopoulos D, Papapostolou M, Polychronopoulou A. Coffee and ovarian cancer. *Int J Cancer.* 1981 Dec;28(6):691-3.
- Minton JP, Abou-Issa H, Foelcking MK, Sriam MG. Caffeine and unsaturated fat diet significantly promotes DMAA-induced breast cancer in rats. *Cancer.* 1983 Apr 1;51(7):1249-53.
- Newcomb PA, Carbone PP. The health consequences of smoking. *Cancer. Med Clin North Am.* 1992 Mar;76(2):305-31.
- Maxcy-Rosenau-Last Public Health & Preventive Medicine, 13 ed. 1992 p.816.
- Baj Z, Majewska E, Zeman K, et al. The effect of chronic exposure to formaldehyde, phenol and organic chlorohydrocarbons on peripheral blood cells and the immune system in humans. *J Investig Allergol Clin Immunol.* 1994 Jul-Aug;4(4):186-91.
- Sax SN, Bennett DH, Khilrud SN, et al. A cancer risk assessment of inner-city teenagers living in New York City and Los Angeles. *Environ Health Perspect.* 2006 Oct;114(10):1558-66.
- Ito N, Fukushima S, Shirai T, et al. Drugs, food additives and natural products as promoters in rat urinary bladder carcinogenesis. *IARC Sci Publ.* 1984;(56):399-407.
- Ito N, Fukushima S, Tsuda H. Carcinogenicity and modification of the carcinogenic response by BHA, BHT, and other antioxidants. *Crit Rev Toxicol.* 1985;15(2):109-50.
- National Toxicology Program. Butylated hydroxyanisole (BHA). *Rep Carcinog.* 2002;10:40-2.
- Umamura T, Kodama Y, Hioki K, et al. Butylhydroxytoluene (BHT) increases susceptibility of transgenic rasH2 mice to lung carcinogenesis. *J Cancer Res Clin Oncol.* 2001 Oct;127(10):583-90.
- Thompson JA, Bolton JL, Malkinson AM. Relationship between the metabolism of butylated hydroxytoluene (BHT) and lung tumor promotion in mice. *Exp Lung Res.* 1991 Mar-Apr;17(2):439-53.
- Wurtzen G, Olsen P. Chronic study on BHT in rats. *Food Chem Toxicol.* 1986 Oct-Nov;24(10-11):1121-5.
- Shiao YH, Kamata SI, Li LM, et al. Mutations in the VHL gene from potassium bromate-induced rat clear cell renal cell tumors. *Cancer Lett.* 2002 Dec 10;187(1-2):207-14.
- Crosby LM, Morgan KT, Gaskill B, Origin and distribution of potassium bromate-induced testicular and peritoneal mesotheliomas in rats. *Toxicol Pathol.* 2000 Mar-Apr;28(2):253-66.
- DeAngelo AB, George MH, Kilburn SR, et al. Carcinogenicity of potassium bromate administered in the drinking water to male B6C3F1 mice and F344/N rats. *Toxicol Pathol.* 1998 Sep-Oct;26(5):587-94.
- Kurokawa Y, Maekawa A, Takahashi M, et al. Toxicity and carcinogenicity of potassium bromate—a new renal carcinogen. *Environ Health Perspect.* 1990 Jul;87:309-35.
- Byren D, Englund G, Englund A, Westerholm P. Mortality and cancer morbidity in a group of Swedish VCM and PVC production workers. *Environ Health Perspect.* 1976 Oct;17:167-70.
- Takahashi K, Akiwira K, Narita K. Regression analysis of cancer incidence rates and water fluoride in the U.S.A. based on IACR/IARC (WHO) data (1978-1992). *International Agency for Research on Cancer. J Epidemiol.* 2001 Jul;11(4):170-9.
- Tohyama E. Relationship between fluoride concentration in drinking water and mortality rate from uterine cancer in Okinawa prefecture, Japan. *J Epidemiol.* 1996 Dec;6(4):184-91.
- Kasim K, Levallois P, Johnson KC, et al. Chlorination disinfection by-products in drinking water and the risk of adult leukemia in Canada. *Am J Epidemiol.* 2006 Jan 15;163(2):116-26. Epub 2005 Nov 30.
- Zoeteman BC, Hrubec J, de Greef E, Kool HJ. Mutagenic activity associated with by-products of drinking water disinfection by chlorine, chlorine dioxide, ozone and UV-irradiation. *Environ Health Perspect.* 1982 Dec;46:197-205.
- Larsson SC, Orsini N, Wolk A. Body mass index and pancreatic cancer risk: A meta-analysis of prospective studies. *Int J Cancer.* 2007 May 1;120(9):1993-8.
- Ghadiari P, Baillargeon J, Simard A, Perret C. Food habits and pancreatic cancer: a case-control study of the Francophone community in Montreal, Canada. *Cancer Epidemiol Biomarkers Prev.* 1995 Dec;4(8):895-9.
- Porta M, Malats N, Guarnier L, et al. Association between coffee drinking and K-ras mutations in exocrine pancreatic cancer. PANKRAS II Study Group. *J Epidemiol Community Health.* 1999 Nov;53(11):702-9.
- Benarde MA, Weiss W. Coffee consumption and pancreatic cancer: temporal and spatial correlation. *Br Med J (Clin Res Ed).* 1982 Feb 6;284(6312):400-2.
- MacMahon B, Yen S, Trichopoulos D, et al. Coffee and cancer of the pancreas. *N Engl J Med.* 1981 Mar 12;304(11):630-3.
- Hu J, La Vecchia C, Negri E, et al. Diet and brain cancer in adults: a case-control study in northeast China. *Int J Cancer.* 1999 Mar 31;81(1):20-3.
- Behera D, Balamugesh T. Indoor air pollution as a risk factor for lung cancer in women. *J Assoc Physicians India.* 2005 Mar;53:190-2.
- Garshick E, Laden F, Hart JE, et al. Lung cancer in railroad workers exposed to diesel exhaust. *Environ Health Perspect.* 2004 Nov;112(15):1539-43.
- Gasche C, Chang CL, Rhees J, et al. Oxidative stress increases frameshift mutations in human colorectal cancer cells. *Cancer Res.* 2001 Oct 15;61(20):7444-8.
- Souza RF, Morales CP, Speclher SJ. Review article: a conceptual approach to understanding the molecular mechanisms of cancer development in Barrett's oesophagus. *Aliment Pharmacol Ther.* 2001 Aug;15(8):1087-100.
- Schernhammer ES, Hankinson SE. Urinary melatonin levels and breast cancer risk. *J Natl Cancer Inst.* 2005 Jul 20;97(14):1084-7.
- Schernhammer ES, Laden F, Speizer FE, et al. Rotating night shifts and risk of breast cancer in women participating in the nurses' health study. *J Natl Cancer Inst.* 2001 Oct 17;93(20):1563-8.
- Pauley SM. Lighting for the human circadian clock: recent research indicates that lighting has become a public health issue. *Med Hypotheses.* 2004;63(4):589-96.
- Reiche EM, Morimoto HK, Nunes SM. Stress and depression-induced immune dysfunction: implications for the development and progression of cancer. *Int Rev Psychiatry.* 2005 Dec;17(6):515-27.
- Reiche EM, Nunes SO, Morimoto HK. Stress, depression, the immune system, and cancer. *Lancet Oncol.* 2004 Oct;5(10):617-25.
- Eysenck HJ. Personality, stress and cancer: prediction and prophylaxis. *Br J Med Psychol.* 1988 Mar;61 (Pt 1):57-75.
- Lilberg K, Verkasalo PK, Kaprio J, et al. Stressful life events and risk of breast cancer in 10,808 women: a cohort study. *Am J Epidemiol.* 2003 Mar 1;157(5):415-23.
- Thomas SP, Groer M, Davis M, et al. Anger and cancer: an analysis of the linkages. *Cancer Nurs.* 2000 Oct;23(5):344-9.
- Ha M, Im H, Lee M, et al. Radio-Frequency Radiation Exposure from AM Radio Transmitters and Childhood Leukemia and Brain Cancer. *Am J Epidemiol.* 2007 Jun 7
- Hardell L, Mild KH, Carlberg M. Further aspects on cellular and cordless telephones and brain tumours. *Int J Oncol.* 2003 Feb;22(2):399-407.
- Zhu K, Hunter S, Payne-Wilks K, et al. Use of electric bedding devices and risk of breast cancer in African-American women. *Am J Epidemiol.* 2003 Oct 15;158(8):798-806.
- Caplan LS, Schoenfeld ER, O'Leary ES, Leske MC. Breast cancer and electromagnetic fields—a review. *Ann Epidemiol.* 2000 Jan;10(1):31-44.
- Hatch EC, Lind M, Kleieman RA, et al. Association between childhood acute lymphoblastic leukemia and use of electrical appliances during pregnancy and childhood. *Epidemiology.* 1998 May;9(3):234-45.
- Inonescu JG, Novotny J, Stejskal V, et al. Increased levels of transition metals in breast cancer tissue. *Neuro Endocrinol Lett.* 2006 Dec;27 Suppl 1:36-9.
- Wang YD, Chen XY, Wu YM, Xu D. Experiment study on the estrogen-like effect of compounds of mercury, chromium and manganese. *Wei Sheng Yan Jiu.* 2005 Jan;34(1):49-51.
- White EG. *The Ministry of Healing.* Mountain View, CA: Pacific Press Publishing Association, 1942 p.127.
- White EG. *The Ministry of Healing.* Mountain View, CA: Pacific Press Publishing Association, 1942 p.127.
- White EG. *The Ministry of Healing.* Mountain View, CA: Pacific Press Publishing Association, 1942 p.281.
- Yamada R, Yanoma S, Akaie M, et al. Water-generated negative air ions activate NK cell and inhibit carcinogenesis in mice. *Cancer Lett.* 2006 Aug 8;239(2):190-7.
- Williams JH, Phillips TD, Jolly PE, et al. Human aflatoxicosis in developing countries: a review of toxicology, exposure, potential health consequences, and interventions. *Am J Clin Nutr.* 2004 Nov;80(5):1106-22.
- Bowers J, Brown B, Springer J. Risk assessment for aflatoxin: an evaluation based on the multistage model. *Risk Anal.* 1993 Dec;13(6):637-42.
- Kelly JD, Eaton DL, Guengerich FP, Coulombe RA. Aflatoxin B1 activation in human lung. *Toxicol Appl Pharmacol.* 1997 May;144(1):88-95.
- Thrash AM, Thrash CL. *Hope For Cancer.* Seale, AL: NewLifestyle Books, 2000 p. 17.
- White EG. *Consciousness on Health.* Mountain View, CA: Pacific Press Publishing Association, 1951 p. 52.
- Spina CS, Tangpricha V, Uskokovic M, et al. Vitamin D and cancer. *Anticancer Res.* 2006 Jul-Aug;26(4A):2515-24.
- Zhou W, Heist RS, Liu G, Park S, et al. Smoking cessation before diagnosis and survival in early stage non-small cell lung cancer patients. *Lung Cancer.* 2006 Sep;53(3):375-80.
- Bosetti C, Franceschi S, Levi F, et al. Smoking and drinking cessation and the risk of oesophageal cancer. *Br J Cancer.* 2000 Sep;83(5):689-91.
- Jiang W, Zhu Z, Thompson HJ. Effect of energy restriction on cell cycle machinery in 1-methyl-1-nitrosourea-induced mammary carcinomas in rats. *Cancer Res.* 2003 Mar 15;63(6):1228-34.
- Haley-Zitlin V, Richardson A. Effect of dietary restriction on DNA repair and DNA damage. *Mutat Res.* 1993 Dec;295(4-6):237-45.
- Kaganawa Y. Impact of Westernization on the nutrition of Japanese: changes in physique, cancer, longevity and centenarians. *Prev Med.* 1978 Jun;7(2):205-17.
- Weindruch R, Devens BH, Raff HV, Walford RL. Influence of dietary restriction and aging on natural killer cell activity in mice. *J Immunol.* 1983 Feb;130(2):993-6.
- Lamas O, Martinez JA, Marti A. Energy restriction restores the impaired immune response in overweight (cafeteria) rats. *J Nutr Biochem.* 2004 Jul;15(7):418-25.
- Savard J, Laroché L, Simard S, et al. Chronic insomnia and immune functioning. *Psychosom Med.* 2003 Mar-Apr;65(2):211-21.
- Wingard DL, Berkman LF. Mortality risk associated with sleeping patterns among adults. *Sleep.* 1983;6(2):102-7.
- Filipski E, King VM, Li X, et al. Host circadian clock as a control point in tumor progression. *J Natl Cancer Inst.* 2002 May 1;94(9):690-7.
- Septon S, Spiegel D. Circadian disruption in cancer: a neuroendocrine-immune pathway from stress to disease? *Brain Behav Immun.* 2003 Oct;17(5):321-8.

- 122 Flagg EW, Coates RJ, Jones DP, et al. Plasma total glutathione in humans and its association with demographic and health-related factors. *Br J Nutr*. 1993 Nov;70(3):797-808.
- 123 Lee CD, Blair SN. Cardiorespiratory fitness and smoking-related and total cancer mortality in men. *Med Sci Sports Exerc*. 2002 May;34(5):735-9.
- 124 Nieman DC. Exercise immunology: practical applications. *Int J Sports Med*. 1997 Mar;18 Suppl 1:S91-100.
- 125 Thune I, Brenn T, Lund E, Gaard M. Physical activity and the risk of breast cancer. *N Engl J Med*. 1997 May 1;336(18):1269-75.
- 126 Bernstein L, Henderson BE, Hanisch R, et al. Physical exercise and reduced risk of breast cancer in young women. *J Natl Cancer Inst*. 1994 Sep 21;86(18):1403-8.
- 127 Thune I, Brenn T, Lund E, Gaard M. Physical activity and the risk of breast cancer. *N Engl J Med*. 1997 May 1;336(18):1269-75.
- 128 Breslow RA, Ballard-Barbash R, Munoz K, Graubard BI. Long-term recreational physical activity and breast cancer in the National Health and Nutrition Examination Survey I epidemiologic follow-up study. *Cancer Epidemiol Biomarkers Prev*. 2001 Jul;10(7):805-8.
- 129 Pan SY, Ugnat AM, Mao Y. Physical activity and the risk of ovarian cancer: a case-control study in Canada. *Int J Cancer*. 2005 Nov 1;117(2):300-7.
- 130 Matthews CE, Xu WH, Zheng W, et al. Physical activity and risk of endometrial cancer: a report from the Shanghai endometrial cancer study. *Cancer Epidemiol Biomarkers Prev*. 2005 Apr;14(4):779-85.
- 131 Oliveria SA, Kohn HW, Trichopoulos D, Blair SN. The association between cardiorespiratory fitness and prostate cancer. *Med Sci Sports Exerc*. 1996 Jan;28(1):97-104.
- 132 Whittemore AS, Wu-Williams AH, Lee M, et al. Diet, physical activity, and colorectal cancer among Chinese in North America and China. *J Natl Cancer Inst*. 1990 Jun 6;82(11):915-26.
- 133 Vena JE, Graham S, Zielczynski M, et al. Lifetime occupational exercise and colon cancer. *Am J Epidemiol*. 1985 Sep;122(3):657-65.
- 134 Lee IM, Paffenbarger RS. Physical activity and its relation to cancer risk: a prospective study of college alumni. *Med Sci Sports Exerc*. 1994 Jul;26(7):831-7.
- 135 McTiernan A, Tworoger SS, Ulrich CM, et al. Effect of exercise on serum estrogens in postmenopausal women: a 12-month randomized clinical trial. *Cancer Res*. 2004 Apr 15;64(8):2923-8.
- 136 Fairey AS, Courneya KS, Field CJ, et al. Effects of exercise training on fasting insulin, insulin resistance, insulin-like growth factors, and insulin-like growth factor binding proteins in postmenopausal breast cancer survivors: a randomized controlled trial. *Cancer Epidemiol Biomarkers Prev*. 2003 Aug;12(8):721-7.
- 137 Gaisbauer M, Langosch A. Raw food and immunity. *Fortschr Med*. 1990 Jun 10;108(17):338-40.
- 138 Willett WC. Micronutrients and cancer risk. *Am J Clin Nutr*. 1994 May;59(5 Suppl):1162S-1165S.
- 139 Aggarwal BB, Shishodia S. Molecular targets of dietary agents for prevention and therapy of cancer. *Biochem Pharmacol*. 2006 May 14;71(10):1397-421.
- 140 Kundu JK, Surh YJ. Breaking the relay in deregulated cellular signal transduction as a rationale for chemoprevention with anti-inflammatory phytochemicals. *Mutat Res*. 2005 Dec 11;591(1-2):123-46.
- 141 Enioma CY, Vasic VD, Daynes RA. Enhancement of common mucosal immunity in aged mice following their supplementation with various antioxidants. *Vaccine*. 2000 May 8;18(2):2381-93.
- 142 Steinmetz KA, Potter JD. Vegetables, fruit, and cancer prevention: a review. *J Am Diet Assoc*. 1996 Oct;96(10):1027-39.
- 143 Lindblad P, Wolk A, Bergström R, Adami HO. Diet and risk of renal cell cancer: a population-based case-control study. *Cancer Epidemiol Biomarkers Prev*. 1997 Apr;6(4):215-23.
- 144 Freudenheim JL, Marshall JR, Vena JE, et al. Premenopausal breast cancer risk and intake of vegetables, fruits, and related nutrients. *J Natl Cancer Inst*. 1996 Mar 20;88(6):340-8.
- 145 Roomi MW, House D, Eckert-Maksik M, et al. Growth suppression of malignant leukemia cell line in vitro by ascorbic acid (vitamin C) and its derivatives. *Cancer Lett*. 1998 Jan 9;122(1-2):93-9.
- 146 Mirvish SS. Role of N-nitroso compounds (NOC) and N-nitrosation in etiology of gastric, esophageal, nasopharyngeal and bladder cancer and contribution to cancer of known exposures to NOC. *Cancer Lett*. 1995 Jun 29;93(1):17-48.
- 147 Elson CE, Maltzman TH, Boston JL, et al. Anti-carcinogenic activity of d-limonene during the initiation and promotion/progression stages of DMBA-induced rat mammary carcinogenesis. *Carcinogenesis*. 1988 Feb;9(2):331-2.
- 148 Wattenberg LW, Coccia JB. Inhibition of 4-(methylnitrosamino)-1-(3-pyridyl)-1-butanone carcinogenesis in mice by d-limonene and citrus fruit oils. *Carcinogenesis*. 1991 Jan;12(1):115-7.
- 149 Pienta KJ, Naik H, Akhtar A, et al. Inhibition of spontaneous metastasis in a rat prostate cancer model by oral administration of modified citrus pectin. *J Natl Cancer Inst*. 1995 Mar 1;87(5):348-53.
- 150 Collins AR, Harrington V, Drew J, Melvin R. Nutritional modulation of DNA repair in a human intervention study. *Carcinogenesis*. 2003 Mar;24(3):511-5.
- 151 Helsler MA, Hotchkiss JH, Roe DA. Influence of fruit and vegetable juices on the endogenous formation of N-nitrosoproline and N-nitrosothiazolidine-4-carboxylic acid in humans on controlled diets. *Carcinogenesis*. 1992 Dec;13(12):2277-80.
- 152 Tinker LF, Schneeman BO, Davis PA, et al. Consumption of prunes as a source of dietary fiber in men with mild hypercholesterolemia. *Am J Clin Nutr*. 1991 May;53(5):1259-65.
- 153 Ohkami H, Tazawa K, Yamashita I, et al. Effects of apple pectin on fecal bacterial enzymes in azoxymethane-induced rat colon carcinogenesis. *Jpn J Cancer Res*. 1995 Jun;86(6):523-9.
- 154 Franceschi S, Bidoli E, La Vecchia C, et al. Tomatoes and risk of digestive-tract cancers. *Int J Cancer*. 1994 Oct 15;59(2):181-4.
- 155 Mills PK, Beeson WL, Phillips RL, Fraser GE. Cohort study of diet, lifestyle, and prostate cancer in Adventist men. *Cancer*. 1989 Aug 1;64(3):598-604.
- 156 Ellinger S, Ellinger J, Stehle P. Tomatoes, tomato products and lycopene in the prevention and treatment of prostate cancer: do we have the evidence from intervention studies? *Curr Opin Clin Nutr Metab Care*. 2006 Nov;9(6):722-7.
- 157 Steinmetz KA, Potter JD. Vegetables, fruit, and cancer prevention: a review. *J Am Diet Assoc*. 1996 Oct;96(10):1027-39.
- 158 Howe GR, Benito E, Castelleto R, et al. Dietary intake of fiber and decreased risk of cancers of the colon and rectum: evidence from the combined analysis of 13 case-control studies. *J Natl Cancer Inst*. 1992 Dec 16;84(24):1887-96.
- 159 Stoevsand GS. Bioactive organosulfur phytochemicals in Brassica oleracea vegetables—a review. *Food Chem Toxicol*. 1995 Jun;33(6):537-43.
- 160 Preobrazhenskaya MN, Bukhman VM, Korolev AM, Efimov SA. Ascorbigen and other indole-derived compounds from Brassica vegetables and their analogs as anticarcinogenic and immunomodulating agents. *Pharmacol Ther*. 1993 Nov;60(2):301-13.
- 161 Marks HS, Anderson JA, Stoevsand GS. Effect of S-methyl cysteine sulphoxide and its metabolite methyl methane thiosulphonate, both occurring naturally in Brassica vegetables, on mouse genotoxicity. *Food Chem Toxicol*. 1993 Jul;31(7):491-5.
- 162 Chen MF, Chen LT, Boyce HW. Cruciferous vegetables and glutathione: their effects on colon mucosal glutathione level and colon tumor development in rats induced by DMH. *Nutr Cancer*. 1995;23(1):77-83.
- 163 Goeger DE, Shelton DW, Hendricks JD, Bailey GS. Mechanisms of anti-carcinogenesis by indole-3-carbinol: effect on the distribution and metabolism of aflatoxin B1 in rainbow trout. *Carcinogenesis*. 1986 Dec;7(12):2025-31.
- 164 Michonovic JJ, Bradlow HL. Altered estrogen metabolism and excretion in humans following consumption of indole-3-carbinol. *Nutr Cancer*. 1991;16(1):59-66.
- 165 Howe GR, Burck JD. Nutrition and pancreatic cancer. *Cancer Causes Control*. 1996 Jan;7(1):69-82.
- 166 Howe GR, Jain M, Miller AB. Dietary factors and risk of pancreatic cancer: results of a Canadian population-based case-control study. *Int J Cancer*. 1990 Apr 15;45(4):604-8.
- 167 Stoevsand GS. Bioactive organosulfur phytochemicals in Brassica oleracea vegetables—a review. *Food Chem Toxicol*. 1995 Jun;33(6):537-43.
- 168 Guo Z, Smith TJ, Wang E, et al. Effects of phenethyl isothiocyanate, a carcinogenesis inhibitor, on xenobiotic-metabolizing enzymes and nitrosamine metabolism in rats. *Carcinogenesis*. 1992 Dec;13(12):2205-10.
- 169 Preobrazhenskaya MN, Bukhman VM, Korolev AM, Efimov SA. Ascorbigen and other indole-derived compounds from Brassica vegetables and their analogs as anticarcinogenic and immunomodulating agents. *Pharmacol Ther*. 1993 Nov;60(2):301-13.
- 170 You WC, Blot WJ, Chang YS, et al. Allium vegetables and reduced risk of stomach cancer. *J Natl Cancer Inst*. 1989 Jan 18;81(2):162-4.
- 171 Davis DL. Natural anticarcinogens, carcinogens, and changing patterns in cancer: some speculation. *Environ Res*. 1989 Dec;50(2):322-40.
- 172 Mousa O, Vuorela P, Kiviranta J, et al. Bioactivity of certain Egyptian Ficus species. *J Ethnopharmacol*. 1994 Jan;41(1-2):71-6.
- 173 Dorant E, van den Brandt PA, Goldbohm RA, Sturmans F. Consumption of onions and a reduced risk of stomach carcinoma. *Gastroenterology*. 1996 Jan;110(1):12-20.
- 174 Ip C, Lisk DJ, Stoevsand GS. Mammary cancer prevention by regular garlic and selenium-enriched garlic. *Nutr Cancer*. 1992;17(3):279-86.
- 175 Pinto JT, Qiao C, Xing J, et al. Effects of garlic thioallyl derivatives on growth, glutathione concentration, and polyamine formation of human prostate carcinoma cells in culture. *Am J Clin Nutr*. 1997 Aug;66(2):398-405.
- 176 Howard EW, Ling MT, Chua CW, et al. Garlic-derived S-allylmercaptocysteine is a novel in vivo antimetastatic agent for androgen-independent prostate cancer. *Clin Cancer Res*. 2007 Mar 15;13(6):1847-56.
- 177 Shu XO, Zheng W, Pottschman N, et al. A population-based case-control study of dietary factors and endometrial cancer in Shanghai, People's Republic of China. *Am J Epidemiol*. 1993 Jan 15;137(2):155-65.
- 178 Riggs DR, DeHaven JJ, Lamm DL. Allium sativum (garlic) treatment for murine transitional cell carcinoma. *Cancer*. 1997 May 15;79(10):1987-94.
- 179 Lamm DL, Riggs DR. Enhanced immunocompetence by garlic: role in bladder cancer and other malignancies. *J Nutr*. 2001 Mar;131(3S):1067S-70S.
- 180 Longnecker MP, Newcomb PA, Mittendorf R, et al. Intake of carrots, spinach, and supplements containing vitamin A in relation to risk of breast cancer. *Cancer Epidemiol Biomarkers Prev*. 1997 Nov;6(11):887-92.
- 181 Bidoli E, Franceschi S, Talamini R, et al. Food consumption and cancer of the colon and rectum in north-eastern Italy. *Int J Cancer*. 1992 Jan 21;50(2):223-9.
- 182 Greenberg ER, Baron JA, Karagas MR, et al. Mortality associated with low plasma concentration of beta-carotene and the effect of oral supplementation. *JAMA*. 1996 Mar 6;275(9):699-703.
- 183 Giovannucci E, Ascherio A, Rimm EB, et al. Intake of carotenoids and retinol in relation to risk of prostate cancer. *J Natl Cancer Inst*. 1995 Dec 6;87(23):1767-76.
- 184 Furukawa K, Yamamoto I, Tanida N, et al. The effects of dietary fiber from *Lagenaria scineraria* (yugao-melon) on colonic carcinogenesis in mice. *Cancer*. 1995 Mar 15;75(6 Suppl):1508-15.
- 185 Hirayama T. Nutrition and cancer—a large scale cohort study. *Prog Clin Biol Res*. 1986;206:299-311.
- 186 Rojanapo W, Tepsuwan A. Antimutagenic and mutagenic potentials of Chinese radish. *Environ Health Perspect*. 1993 Oct;101 Suppl 3:247-52.
- 187 Kapadia GJ, Azuline MA, Sridhar R, et al. Chemoprevention of DMBA-induced UV-B promoted, NOR-1-induced TPA promoted skin carcinogenesis, and DEN-induced phenobarbital promoted liver tumors in mice by extract of beetroot. *Pharmacol Res*. 2003 Feb;47(2):141-8.
- 188 Espinosa-Aguirre JJ, Reyes RE, Rubio J, et al. Mutagenic activity of urban air samples and its modulation by chili extracts. *Mutat Res*. 1993 Oct;303(2):55-61.
- 189 Nakamura Y, Tomokane I, Mori T, et al. DNA repair effect of traditional sweet pepper *Fushimi-togorashi*: seen in suppression of UV-induced cyclobutane pyrimidine dimer in human fibroblasts. *BioSci Biotechnol Biochem*. 2000 Dec;64(12):2575-80.
- 190 Bueno de Mesquita HB, Maisonneuve P, Runia S, Moerman CJ. Intake of foods and nutrients and cancer of the exocrine pancreas: a population-based case-control study in The Netherlands. *Int J Cancer*. 1991 Jun 19;48(4):540-9.
- 191 Kolonel LN, Hankin JH, Whittemore AS, et al. Vegetables, fruits, legumes and prostate cancer: a multiethnic case-control study. *Cancer Epidemiol Biomarkers Prev*. 2000 Aug;9(8):795-804.
- 192 Messina MJ. Legumes and soybeans: overview of their nutritional profiles and health effects. 2. *Am J Clin Nutr*. 1999 Sep;70(3 Suppl):439S-450S.
- 193 Goodman MT, Hankin JH, Wilkens LR, et al. Diet, body size, physical activity, and the risk of endometrial cancer. *Cancer Res*. 1997 Nov 15;57(22):5077-85.
- 194 Ruffer CE, Kulling SE. Antioxidant activity of isoflavones and their major metabolites using different in vitro assays. *J Agric Food Chem*. 2006 Apr 19;54(8):2926-31.
- 195 Guo TL, McCay JA, Zhang LX, et al. Genistein modulates immune responses and increases host resistance to B16F10 tumor in adult female B6C3F1 mice. *J Nutr*. 2001 Dec;131(12):3251-8.
- 196 Chacko BK, Chandler RT, Mundhekar A, et al. Revealing anti-inflammatory mechanisms of soy isoflavones by flow: modulation of leukocyte-endothelial cell interactions. *Am J Physiol Heart Circ Physiol*. 2005 Aug;289(2):H908-15.
- 197 Dijkstra-Bloem N, Vanden Berghe W, De Naeyer A, Haegeman G. Soy isoflavone phyto-pharmaceuticals in interleukin-6 affections. Multi-purpose nutraceuticals at the crossroad of hormone replacement, anti-cancer and anti-inflammatory therapy. *Biochem Pharmacol*. 2004 Sep 15;68(6):1171-85.
- 198 Kennedy RT. The evidence for soybean products as cancer preventive agents. *J Nutr*. 1995 Mar;125(3 Suppl):735S-743S.
- 199 Adlercreutz H, Markkanen H, Watanabe S. Plasma concentrations of phyto-oestrogens in Japanese men. *Lancet*. 1993 Nov 13;342(8881):1209-10.
- 200 Jacobsen BK, Knutsen SF, Fraser GE. Does high soy milk intake reduce prostate cancer incidence? The Adventist Health Study Cancer Causes Control. 1998 Dec;9(6):553-7.
- 201 Verma SP, Goldin BR, Lin PS. The inhibition of the estrogenic effects of pesticides and environmental chemicals by curcumin and isoflavonoids. *Environ Health Perspect*. 1998 Dec;106(12):807-12.
- 202 Verma SP, Goldin BR. Effect of soy-derived isoflavonoids on the induced growth of MCF-7 cells by estrogenic environmental chemicals. *Nutr Cancer*. 1998;30(3):232-9.
- 203 Schabath MB, Hernandez LM, Wu X, et al. Dietary phytoestrogens and lung cancer risk. *JAMA*. 2005;294(12):1493-504.
- 204 Hedelin M, Balter KA, Chang ET, et al. Dietary intake of phytoestrogens, estrogen receptor-beta polymorphisms and the risk of prostate cancer. *Prostate*. 2006 Oct 1;66(14):1512-20.
- 205 Horn-Ross PL, John EM, Cancchola AJ, et al. Phytoestrogen intake and endometrial cancer risk. *J Natl Cancer Inst*. 2003 Aug 6;95(15):1158-64.
- 206 Xu WH, Zheng W, Xiang YB, et al. Soy food intake and risk of endometrial cancer among Chinese women in Shanghai: population based case-control study. *BMJ*. 2004 May 29;328(7451):1285.
- 207 Lian Z, Niwa K, Tagami K, et al. Preventive effects of isoflavones, genistein and daidzein, on estradiol-17beta-related endometrial carcinogenesis in mice. *Jpn J Cancer Res*. 2001 Jul;92(7):726-34.
- 208 Zhang Y, Song TT, Cunnick JE, et al. Daidzein and genistein glucuronides in vitro are weakly estrogenic and activate human natural killer cells at nutritionally relevant concentrations. *J Nutr*. 1999 Feb;129(2):399-405.
- 209 Nebe B, Peters A, Duske K, et al. Influence of phytoestrogens on the proliferation and expression of adhesion receptors in human mammary epithelial cells in vitro. *Eur J Cancer Prev*. 2006 Oct;15(5):405-15.
- 210 Erhardt JG, Lim SS, Bode JC, Bode C. A diet rich in fat and poor in dietary fiber increases the in vitro formation of reactive oxygen species in human feces. *J Nutr*. 1997 May;127(5):706-9.
- 211 Venkatesan N, Devaraj SN, Devaraj H. A fibre cocktail of fenugreek, gum guar and wheat bran reduces oxidative modification of LDL induced by an atherogenic diet in rats. *Mol Cell Biochem*. 2007 Jan;294(1-2):145-53.
- 212 Diniz YS, Cicogna AC, Padovani CR, et al. Dietary restriction and fibre supplementation: oxidative stress and metabolic shifting for cardiac health. *Can J Physiol Pharmacol*. 2003 Nov;81(11):1042-8.
- 213 Rezar V, Pajk T, Marinsek Logar R, et al. Wheat bran and oat bran effectively reduce oxidative stress induced by high-fat diets in pigs. *Ann Nutr Metab*. 2003;47(2):78-84.
- 214 Korpela JT, Korpela R, Adlercreutz H. Fecal bile acid metabolic pattern after administration of different types of bread. *Gastroenterology*. 1992 Oct;103(4):1246-53.
- 215 Graf E, Eaton JW. Suppression of colonic cancer by dietary phytic acid. *Nutr Cancer*. 1993;19(1):11-9.
- 216 Alabaster O, Tang Z, Frost A, Shivapurkar N. Effect of beta-carotene and wheat bran fiber on colonic aberrant crypt and tumor formation in rats exposed to azoxymethane and high dietary fat. *Carcinogenesis*. 1995 Jan;16(1):127-32.
- 217 Bhargava A. Fiber intakes and anthropometric measures are predictors of circulating hormone, triglyceride, and cholesterol concentrations in the women's health trial. *J Nutr*. 2006 Aug;136(8):2249-54.
- 218 Sowers MR, Crawford S, McConnell DS, et al. Selected diet and lifestyle factors are associated with estrogen metabolites in a multiracial/ethnic population of women. *J Nutr*. 2006 Jun;136(6):1588-95.
- 219 Baghurst PA, Rohan TE. High-fiber diets and reduced risk of breast cancer. *Int J Cancer*. 1994 Jan 15;56(2):173-6.
- 220 Trichopoulos A, Katsouyanni K, Stuver S, et al. Consumption of olive oil and specific food groups in relation to breast cancer risk in Greece. *J Natl Cancer Inst*. 1995 Jan 18;87(2):110-6.
- 221 Babcock TA, Helton WS, Anwar KN, et al. Synergistic anti-inflammatory activity of omega-3 lipid and rofecoxib pretreatment on macrophage proinflammatory cytokine production occurs via divergent NF-kappaB activation. *J Parenter Enteral Nutr*. 2004 Jul-Aug;28(4):232-9.
- 222 Miller CA. *Nursing for Wellness in Older Adults: Theory and Practice*. 4th ed. Lippincott Williams & Wilkins, 2003 P. 148.
- 223 Exodus 15:26 King James Version.
- 224 Reynolds P, Kaplan GA. Social connections and risk for cancer: prospective evidence from the Alameda County Study. *Behav Med*. 1990 Fall;16(3):101-10.
- 225 Brown SL, Nesse RM, Vinokur AD, Smith DM. Providing social support may be more beneficial than receiving it: results from a prospective study of mortality. *Psychol Sci*. 2003 Jul;14(4):320-7.
- 226 Musick MA, Herzog AR, House JS. Volunteering and mortality among older adults: findings from a national sample. *J Gerontol B Psychol Sci Soc Sci*. 1999 May;54(3):513-73-80.
- 227 Miller CA. *Nursing for Wellness in Older Adults: Theory and Practice*. 4th ed. Lippincott Williams & Wilkins, 2003 P. 148.
- 228 Reynolds P, Kaplan GA. Social connections and risk for cancer: prospective evidence from the Alameda County Study. *Behav Med*. 1990 Fall;16(3):101-10.
- 229 Brown SL, Nesse RM, Vinokur AD, Smith DM. Providing social support may be more beneficial than receiving it: results from a prospective study of mortality. *Psychol Sci*. 2003 Jul;14(4):320-7.
- 230 Musick MA, Herzog AR, House JS. Volunteering and mortality among older adults: findings from a national sample. *J Gerontol B Psychol Sci Soc Sci*. 1999 May;54(3):513-73-80.
- 231 Miller CA. *Nursing for Wellness in Older Adults: Theory and Practice*. 4th ed. Lippincott Williams & Wilkins, 2003 P. 148.
- 232 Luskin F. Review of the effect of spiritual and religious factors on mortality and morbidity with a focus on cardiovascular and pulmonary disease. *J Cardiopulm Rehabil*. 2000 Jan-Feb;20(1):8-15.
- 233 Carter BJ. Long-term survivors of breast cancer. A qualitative descriptive study. *Cancer Nurs*. 1993 Oct;16(5):354-61.
- 234 Pressman SD, Cohen S. Does positive affect influence health? *Psychol Bull*. 2005 Nov;131(6):925-71.
- 235 Barak Y. The immune system and happiness. *Autoimmun Rev*. 2006 Oct;5(8):523-7.