

Helping The Public Deal with Cancer Nature's Way to Prevention and Recovery

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Despite the medical marvels of the 21st century, cancer continues to affect millions of people on a daily basis, causing severe physiological and emotional damage, often resulting in tragic death. Once thought to be a singular disease, cancer is in fact hundreds of diseases with similar etiology and characteristics. When those dearest to us develop cancer, it is common to believe there is little hope for the future. Or so we think.

THE EFFECTS OF CANCER

So what is cancer? When the body is healthy and in balance, cells grow and reproduce in an orderly manner, according to genetic programming. In contrast, cancer cells grow at a very rapid, uncontrolled rate, invading and destroying normal cells in their path. Cancer cells initiate and perpetuate negative physiological changes that result in diminished function, weakness, and pallor throughout the body.

The disease is often characterized by tumors-clusters of renegade cells-that are either benign (harmless) or malignant (cancerous). Benign tumors are usually self-encased, and generally do not spread, whereas malignant tumors almost always do. The latter affects every part of the body, spreading like wildfire without control. The destruction of normal cells eventually wipes out large masses of tissue as well as the function of related organs. Over time, this causes major organs like the liver and pancreas, in addition to vital functions like the immune system, to shut down. The body becomes weakened and toxic, unable to produce the necessary hormones to fight off the attack.

While most cancers do not begin in the liver, often times the disease will move into (metastasize) the liver via the bloodstream or lymphatic system. Unchecked, this can lead to a painful path of destruction.

Although devastating, cancer activity, metastasis, and the progression of this disease can sometimes be slowed down, even halted. Dietary changes, emotional support, and natural therapies can make all the difference, literally, between life and death.

INTERNAL PROTECTION

The human body has been naturally endowed with specialized systems to prevent damage caused by both internal and external factors. At the core of this protection is the immune system, a complex structure of organs, cells, chemical mechanisms, and pathways that search for and destroy invading pathogens such as bacteria, viruses, fungi, and other foreign substances.

The central organ in the immune system is the thymus gland. Its job is to maintain cell immunity with the help of special white blood cells called T-lymphocytes. The spleen is another major organ that contributes to the immune system. The largest mass of lymphatic tissue in the body, the spleen produces white blood cells that engulf and destroy bacteria while it concurrently breaks down red blood cells.

OTHER VITAL COMPONENTS OF THE IMMUNE SYSTEM

White blood cells are the workers and primary components of the immune system. There are several types of these protective cells, each with a specialized function when fighting harmful

pathogens.

◌ Neutrophils are cells that actively phagocytize - engulf and destroy - all types of bacteria, cancer cells, and other types of dead matter.

◌ Eosinophils and basophils are cells that secrete histamine and other chemicals that break down invasive and deleterious antigen complexes.

◌ Lymphocytes are a group of white blood cells consisting of T-cells, B-cells, and natural killer (NK) cells. T-cells are lymphocytes derived from the thymus gland. They are the major player in cell-mediated immunity. In this group are helper T-cells, suppressor T-cells, and cytotoxic cells that attack and destroy foreign tissue, cancer cells, and cells infected by a virus.

◌ B-cells produce antibodies, which are large protein molecules that bind to antigens (such as viruses, bacteria, tumor cells, and other harmful organisms). During a process known as opsonization, these antibodies help target and destroy many chronic conditions and diseases.

◌ NK cells destroy virus-infected or cancer cells, and are considered the immune system's first line of defense against cancer.

◌ Monocytes are large, white blood cells - the "garbage collectors" that clean up cellular debris.

◌ Macrophages are monocytes that reside in specific tissues, like the liver, spleen, and lymph nodes.

◌ Immunoglobulins, special proteins that detect and destroy harmful bacteria, also play a major role in immunity. Also referred to as antibodies, immunoglobulins are specific immune proteins produced in response to exposure to antigens. Immunoglobulins such as IgM, and IgA are proteins that have the ability to neutralize the activity of specific pathogens.

◌ Cytokines are chemicals produced by the immune system that help orchestrate the "seek and destroy" process. In a manner similar to the activity of hormones, cytokines have an effect on the behavior of immune system cells.

DEVELOPING AN ARSENAL OF PROTECTION

Although it is a complex array of cells, tissues, chemicals, and metabolic pathway, the immune system's ability to protect the body can be enhanced through proper nutrition. Great effort and energy should be placed on keeping it functioning properly, as it is our primary line of defense against harmful substances that penetrate our bodies.

Lymphatic Activity

The lymphatic system is a valuable tool in fighting cancer. The role of lymph nodes is to filter lymph fluid, clearing away debris and dead cells. But the lymphatic system does not drive itself; it does not have a pump like the circulatory system, so it relies on muscle action as its activator. The key to active lymphatic function, which results in increased immune system activity, is exercise.

Detoxification

Famed nutritionist and chiropractor Bernard Jensen said that "death begins in the colon" and, with good reason. The digestive tract is an absorption arena for the essential nutrients needed to maintain life and optimal wellness. Of particular concern is the colon, where the end products of digestion collect to be readied for excretion. It's a hotbed of toxicity from environmental, digestive, and metabolic wastes, as well as other pathogens like bacteria, viruses, and parasites that the liver has not neutralized. In many cases, the toxic overload can collect for days, weeks, months, years, even an entire lifetime!

Toxins that are not excreted remain in the system, attaching itself to the lining of the colon. Over time, this progressively diminishes the ability of the body to effectively absorb vital, life promoting

nutrients. Remaining toxins are reabsorbed into the system by first re-entering the blood. The liver then tries again to detoxify them, often without success. Soon they build up in our tissues, particularly fat stores, causing an even greater level of toxicity. Toxin-rich fat stores are prime sites for cell mutations that may lead to cancer. In many cases, the toxic buildup also causes free radical damage.

Free Radicals And Immunity

Free radicals are a major enemy of the immune system. They severely damage the ability of the immune system to battle unwanted pathogens that enjoy invading our bodies. Free radicals can originate from environmental pollution, toxins, pesticides, chemicals, sunlight, radiation, food, drink, and metabolic activity in the body. They disrupt living tissue by taking electrons from healthy molecules, and can leave a trail of destruction throughout many areas of the body.

Love Your Liver

It's the most unique organ in the body - a chemical factory that manufactures, alters, and breaks down all types of chemicals. It generates hundreds of metabolic enzymes and has a sophisticated two-stage detoxification system designed to neutralize and tear apart thousands of biochemical offenders, including lead, mercury, cadmium, arsenic, nickel, and aluminum. This wonderful organ also neutralizes deleterious digestive metabolites, breaks down drugs, and detoxifies alcohol. You should not abuse it.

NATURAL SOLUTIONS TO THE RESCUE

Alpha Lipoic Acid. This water- and fat-soluble substance exercises its ultra-aggressive free radical-quenching antioxidant abilities everywhere in the body.

Arabinogalactans. Arabinogalactans are a non-digestible protein that enhances growth of friendly, probiotic bacteria. This has a positive effect on the immune system, leading to increased levels of white blood cells, specifically monocytes. Arabinogalactans also help enhance NK cell cytotoxicity.

Ashwaganda. This ancient Ayurvedic herb is an adaptogen that helps enhance immune function by stimulating the production of macrophages.

Astragalus. A staple of Traditional Chinese Medicine (TCM), astragalus helps increase the phagocytotic activity of macrophages and monocytes. It also helps increase NK cell production, heightens immune system activity by increasing the production of interferons (which helps prevent viral reproduction), and increases secretory IgA, an immunoglobulin that deactivates viruses and bacteria.

B-Complex. The simple B complex vitamin, or folic acid, is a great protector of DNA. It helps protect against the breakdown of DNA strands, as well as the negative modification of these strands that can pass down abnormal behavior to new cells.

Beta 1,3 Glucan. Beta 1,3 glucan is a polysaccharide found in barley and oat hulls. It stimulates the free radical-scavenging ability of NK cells and macrophages in the immune system, stimulating white blood cells to attack infections and tumors. Beta 1,3 glucan also boosts the production of monocyte cytokines, which help promote tumor regression.

Co-Enzyme Q10 (CoQ10). Cardiovascular efficiency is heightened with this antioxidant's aggressive free radical-scavenging action.

Echinacea. Echinacea contains echinoides, substances that stimulate and up-regulate immune activity by initiating phagocytosis. This helps actively ingest invading pathogens and increases overall white blood cells. Echinacea also contains inulin to help activate macrophages, antibody binding, and NK cells, as well as increase circulating neutrophils.

Essential Fatty Acids. Omega-3 fatty acids (found in flaxseeds and fatty fish) and omega-6 fatty acids (found in nut and seed meats/oils) help maintain the structural integrity and flexibility of cell membranes. They regulate nutrients and oxygen entering cells, while allowing toxins and carbon dioxide to exit them. Omega-3 fatty acids help increase the proliferation of T-lymphocytes, NK cells, and macrophages, thereby increasing the ability to detect, destroy, and eliminate invading antigens. Flax contains lignans, the natural phytoestrogens within flax seeds, which are potent antioxidants that perform detox duty in the liver and help prevent cancer in many areas of the body, particularly the colon.

Garlic. Garlic contains natural enzymes that attack the bacteria which can severely compromise intestinal health and cause immune system dysfunction. It also contains organosulfur compounds that stimulate the production of glutathione s-transferase, a powerful detoxifying enzyme in the liver. Studies have also shown that garlic helps contribute to viral destruction and the neutralization of free radicals.

Glutathione. This is the most potent detoxifier in the liver, working in both Phase I and Phase II enzymatic detoxification systems. Glutathione binds to fat-soluble toxins, converting them to a water-soluble form for easier excretion.

Grapeseed PCOs. Grapeseed proanthocyanidolic oligomers (PCOs) are potent free radical scavengers and inhibitors of free radical-induced cellular damage, including lipid peroxidation of macrophages and DNA fragmentation.

Green Foods and Chlorophyll. Foods like broccoli contain cancer-preventing substances such as sulforaphane and indole-3-carbinol. Sulforaphane helps manufacture an enzyme that prevents cancerous tumors from forming. Derived from the family of vegetables that includes cabbage, broccoli, and Brussels sprouts, indole-3-carbinol stimulates the production and activity of the Phase I and Phase II enzymes that neutralize and break down toxins.

Chlorella, a microalgae, contains Chlorella Growth Factor (CGF), which strengthens immunity by stimulating the production and activity of the immune system's virus- and bacteria-killing T-cells, B-cells, and macrophages.

Chlorophyll mimics hemoglobin's metabolic activity, delivering critically needed oxygen to cells. Normal cells are aerobic, thriving on oxygen for respiration, while cancer cells are anaerobic, thriving without oxygen. In the presence of oxygen, cancer cells can't breathe and subsequently die. Genetic mutations that occur from the destructive ability of carcinogens can be better neutralized with chlorophyll.

Limonene. Found in oranges and tangerines, this strong stimulator of Phase I and II detox enzymes has aggressive anti-carcinogenic activity.

Lycopene. This incredibly aggressive red carotenoid antioxidant is considered the most potent free radical scavenger of the more than 600 carotenoids found in nature.

Medicinal Mushrooms. The most studied varieties of the mushroom, Shiitake and Maitake, have been shown to activate helper T-cells in the immune system.

Milk Thistle. This plant contains silymarin, a combination of three flavonoids - silybin, silydianin,

and silychristin. It functions as an antioxidant in the liver by preventing the depletion of glutathione, which controls the organ's ability to detoxify poisons, and also helps prevent liver cell membrane peroxidation (which destroys vital liver cells).

Modified Citrus Pectin (MCP). A special form of citrus pectin that has been shown to be effective against cell aggregation and adhesion is modified citrus pectin. According to Isaac Eliaz M.D. (Townsend Letter for Doctors, July 1999,) "It is felt that modified citrus pectin works by blocking tumor cell surface galactins. The impact of this galactin blockage is twofold: (1) it inhibits the aggregation of cancer cells to each other, preventing them from forming colonies; and (2) it inhibits the adhesion of cancer cells to normal cells. If cancer cells are deprived of their own adhesive ability, they fail to thrive and can be more easily destroyed by the immune system."

NAC (n-acetylcysteine). This amino acid is the precursor to glutathione in the liver. Oral doses of glutathione are not well-absorbed, and consequently remain ineffective as oral supplements. Doses of NAC can help circumvent this obstacle.

Oral Enzyme Therapy. Proteolytic enzymes digest dietary proteins. Taken on an empty stomach, they dissolve the fibrin coating that protects cancer cells, exposing them to direct attack and removal by white blood cells of the immune system. These enzymes include papain, pancreatin, trypsin, chymotrypsin, and bromelain. Remarkably, these are reported to increase the activity of macrophages by 700 percent and NK cells by 1,300 percent.

Panax Ginseng. Panax ginseng is an adaptogen that stimulates immune function by increasing the production of NK cells and macrophages that travel throughout the body to seek and destroy invading pathogens.

Probiotics. Probiotics such as *L. acidophilus*, *B. bifidum*, and *L.bulgaricus* play a major role in cancer protection. These live cultures help activate macrophages, increase NK cell levels, and boost levels of circulating immunoglobulins.

Resveratrol. This antioxidant derived from red grapes possesses a formidable ability to attack and neutralize free radicals.

Selenium. This essential micro-mineral is another potent free radical destroyer.

Sterols and Sterolins. In a suggested ratio of 100:1, these plant-derived substances help lower levels of the hormone cortisol, creating a more adaptive response to stress. This, in turn, maintains the integrity of the immune system.

Vitamin C. Vital in hundreds of metabolic pathways and processes, vitamin C provides a powerful boost to the immune system's effectiveness, especially regarding the production of anti-viral interferons.

Vitamin E. This premier fat-soluble antioxidant supports the immune system by bringing protection right to the potential source of trouble, helping prevent free radical damage to white blood cell membranes.

Zinc. This vital mineral is required for the development of neutrophils and NK cells, and also helps produce T-cells.

A SENSIBLE CONCLUSION

The ability to fight cancer naturally is not impossible to achieve; there are no secrets involved. It's

also clear that damaging radiation therapy and nauseating chemo drugs are not the only solution. Millions of people worldwide have suffered the emotional and physical pangs of cancer, either personally or through a loved one. Understanding the risk factors and the methods available to control them is the key. Using the guidelines in this article may dramatically increase the odds for remission and healthy outcome.

IMMUNE SYSTEM BREAKDOWN

Biological intruders can enter our bodies via three sources:

⌘ Ecotoxins such as bacteria, viruses, and parasites generated from the environment (including the air, soil, and water).

⌘ Endotoxins are the toxic byproducts of metabolic processes in the body, many of which never get excreted and re-enter the system through the colon.

⌘ Nuritoxins are toxins that are originated from food, such as pesticides and other bacteria.

In addition, dietary sugars can suppress immune function, as can elevated levels of stress, which strains adrenal glands and shuts down immune activity.

CANCER SMARTS FOR THE PATIENTS

⌘ Build a strong immune system with the nutrients listed in this article.

⌘ Exercise often to stimulate lymphatic/immune system activity.

⌘ Smoking, drinking, and drug use can severely challenge patients' peak liver function.

⌘ Avoid "on the run" meals (such as fast food) that contain little or no nutritional value. These may even contain potentially hazardous chemicals that prevent optimal metabolic function.

⌘ Instead, emphasize the importance of a natural diet rich in vegetables, fruits, whole grains, unprocessed oils, fatty fish, and small amounts of unprocessed lean meats. Plant-based diets that are rich in antioxidants and immune-stimulating substances aggressively keep cancer cells in check.

THE RIGHT DIET IS KEY By Michael Schiavetta

One of the most important components of any cancer recovery program is the necessity to eat the right foods to ensure optimum nutrition. While this bit of advice is a good recommendation for every health condition, Dr. Ron Waling urges the public to follow this practice carefully, particularly when dealing with people who are learning to cope with cancer.

"If people are going to be thorough, they need to have a good knowledge of proper nutrition, as well as the patient's own personal health issues, including food allergies," he says. A naturopathic physician with more than 20 years of experience, Dr. Waling normally treats patients with terminally ill or chronic degenerative diseases, and has worked extensively throughout the world doing research on detoxification, immune function, and a variety of other natural health subjects. His credentials include being recommended to President Reagan's council on AIDS and serving as a consultant to the Czech Republic's Ministry of Health.

Dr. Waling emphasizes the need for people to get the right nutrients from the right foods. Specifically, placing mushrooms, wheat grass, beets, parsley, and spiraling in a juicer (in addition to everyday foods like apples and carrots) can help the general public receive adequate phytonutrients to help boost detoxification.

Vitamin D, particularly from fish, also plays a large role in helping fight prostate, lung, and ovarian cancers. Ordinarily synthesized within the body from exposure to sunlight, today's consumers may not be receiving as much as they should, he notes, due to increased time indoors on the computer

or watching television.

For more information on which foods to recommend, Dr. Waling advises the public to read *Eat Right 4 Your Type* by Dr. Peter J. D'Adamo (Putnam 1997). In his book, Dr. D'Adamo suggests that each of the four major blood types (A, B, AB, and O) requires different dietary sources to ensure healthy immune and inflammatory response within the body. For example, he recommends that people with type-A blood focus more on vegetarian diets, along with some poultry and fish, but to generally avoid red meats and dairy products. In contrast, those with type-O blood can lean more towards meat and dairy for maximum health.

But no matter which diet may be best for the populace, without the right balance of all the necessary components, no cancer recovery program can achieve the best result. "As in any condition, be it cancer or weight loss, (recovery) requires a comprehensive and complete protocol, which includes diet, nutrition, and exercise, as well as mental, emotional, and spiritual well-being."