

# **Primary and Secondary Cancer Prevention: A Holistic Nurse Perspective**

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## STATISTICS

Prevention of cancer is of paramount importance considering that it will be the number one cause of death worldwide by the end of 2010 according to The World Health Organization. Statistics compiled by the most recently published American Cancer Society's Facts and Figures 2008, authenticate an estimated 1.4 million new cases of cancer in the U.S. This estimate does not include certain non-invasive cancers such as carcinoma in situ, basal, and squamous cell skin cancers. Inexcusably, more than 1500 Americans will die from this disease each and every day. The World Health Organization estimates that by the year 2030 there will be between 20 and 26 million new cancer cases worldwide.

An impressive appearing, intensive search has been underway for decades. Vast amounts of money and time donated through fundraising, grants, as well as private research have still left us without an apparent cure. Countless miles walked across the country in efforts to sponsor an answer to the problem. Perhaps no one wants to see or admit that we already know what alleviates cancer. The cure for cancer is in its prevention.

The American Cancer Society has put forth a cancer prevention model listing five systemic guides: reduce tobacco use, improve diet and physical activity, reduce obesity, and expand the use of established screening tests. From a Holistic Nurse perspective, I consider the first four of major importance. Nonetheless, they are merely representing the tip of the iceberg, as I believe there are other additional problematic issues to investigate. Ask any cancer survivor, doctor, or nurse – the old adage proves all too true 'An ounce of prevention is worth a pound of cure'. The fifth is not actually considered a

cause but more a secondary or early detection measure based upon the premise that by detecting cancer early enough, the cancer therapy or treatment will be more effective.

## TOXINS EVERYWHERE

What if Aristotle was correct in saying that “Health is a matter of choice, not a mystery of chance”?

Are we overlooking other lifestyle and dietary decisions we make on a continual basis? Prevention may be as simple as staying true to nature’s plan. Albeit takes commitment and diligence. We live in a world where 21<sup>st</sup> century living is taking its toll on our health. The majority (80 – 90 %) of the cancers prevalent today are likely caused by environmental factors. Toxicity is a major problem and is measured not only in the state of the environment and global impact, which is tantamount, but also as a form of self-poisoning. In fact, researchers estimate as much as 35% of this toxicity is due to dietary factors alone. We have control of what we put into our bodies. This equates to approximately 200,000 cancer deaths related to obesity, physical inactivity and nutrition and can be prevented. Regrettably, we are slowly poisoned throughout our lifetime, unless we consciously choose otherwise.

We absorb toxins from the air we breathe, water we drink and bathe in, the food we eat, and via the skin through a multitude of chemical-laden personal care products. Toxins come from chemical pollutants, pesticides, heavy metals, drugs, vaccines, alcohol, active/passive cigarette smoke, and food additives. However, toxins are also created internally, produced by the body through normal metabolism and intestinal accumulation of unhealthy bacteria.

All cancers caused by cigarette smoking and alcohol consumption are 100% preventable. Around 170,000 cancer deaths are due to tobacco use, 3,000 owing to nonsmokers exposed to second-hand smoke. Second-hand smoke contains at least 4,000 substances,

50 of which are known carcinogens. In addition, other cancers associated with infectious agents such as Hepatitis B, HPV, and HIV, can be prevented with lifestyle changes. Another one million skin cancers are preventable simply by avoiding tanning beds and excessive UV exposure.

## A HOLISTIC NURSE PERSPECTIVE

As a holistic nurse, I have privately consulted patients and empowered them with effective and safe options, natural treatment choices, and lifestyle changes to strengthen their health and beat the general populace odds of a cancer diagnosis. After all, I was an Oncology nurse, turned holistic, and have personally observed the power of natural and integrative therapies. My nursing career has provided me a unique view – from Infectious Diseases and Infection Control nursing to Oncology and a Radiation Nursing specialty to health researcher and wellness educator. It was a matter of time and understanding that my life's work segued towards prevention, health promotion, and education. I see this mission as the most vital and meaningful of all.

I have come to a profound conclusion, one that you may have heard before. Your health is your responsibility. In the end, you are totally accountable for your health or lack of it - not your physician, your health insurance company, nor the government. Key risk factors such as radiation exposure (x-rays, mammograms), environmental toxins, chemical-laden foods, municipal water quality (chlorine, fluoride), unnecessary vaccines, harmful skin-care products, and toxic pharmaceuticals pose a greater risk in cancer development than we currently think. It is a matter of continual assessment. Life itself is a dynamic process and ever changing.

## CANCER AS A PROCESS

I hold the same opinion as Dr. William D. Kelley who claims that “cancer is a process, not an object.” This is a disease process that most likely takes an average of two to four years to progress before it becomes evident. A number of scientists believe it may be in development for up to eleven years. It is postulated that it takes at least sixty-seven mutations before you develop cancer. It has also been observed to take a decade or two before the negative side-effects of treatment such as long-term medication use, radiation therapy, or adhesions from surgical procedures are seen. When the outcome is slow or cumulative, it appears to be human nature to discount its probable magnitude or significance. For example, when it is imperceptible or insidious, such as with environmental toxins and dietary food additives, the relatively invisible do indeed wreak havoc, disrupting genetics, impairing endocrine function and originating chronic disease. In addition, scientists confirm chemical residues and toxins can effect disease development for at least two or three future generations. If cancer is a process then it stands to reason it is preventable. It depends largely on your individual choices, both dietary and environmental.

Environmental medicine, a rapidly growing field, is examining the delicate relationship between our environment and its effect on health and disease and how nutrition and other lifestyle principles might play a role. A century ago, only 1 in 8000 people developed cancer in his or her lifetime. By 1940, 1 in 22 women developed breast cancer, compared to today’s sobering odds of 1 in 7. In fact, the average age a girl begins menstruating is 12.2 years, placing her generation at even greater risk for developing female related cancers. Further studies report at least two hundred toxins have been found in newborns umbilical cord blood. This is astounding data that confirms the extent of the modern chemical assault taken place.

Professions such as hair dressing, painting, printing, plumbing, mechanics, metal engineering, heating and cooling, and pesticide technicians, dentists, hygienists, and dental assistants, pose a greater risk of exposure to hazardous metals and chemicals than

the average person. As a result, these individuals are not representative of the norm, and should adopt an increasingly healthy diet and regular detoxification program. Almost 90% of the more than 10,000 ingredients tested in commercial products were of synthetic origin. Many of these have been directly or indirectly linked to cancer, as well as other disease conditions such as infertility, kidney and liver disease, and severe skin problems.

## TOXICITY SYNERGY

As much as 60% of the skin care products you use, and other products that come into contact with skin, can be absorbed into your body via the skin barrier. A survey by the Environmental Working Group found that 25% of all women, and 1% men, use at least fifteen personal care products per day. Of the 82,000 chemicals registered for use in U.S. personal care products, 1 out of every 8 contain carcinogens, pesticides, reproductive toxins, endocrine disruptors, plasticizers, degreasers, and surfactants. As a result, the exposure rates to these chemicals are likely very high and are capable of accumulating in the body over time. To avoid toxins found in body care products, choose natural options whenever possible. Aromatherapists are familiar with the term synergy. This is the simultaneous action of two or more substances such as essential oils, whose combined effect is greater than the sum of its parts, rather than working in isolation of one another. Synergy can be applied to synthetic chemicals and complex compounds also. These have the probability of being hazardous, possessing very different effects, and potentially harmful results. Virtually all studies are performed on one single toxin. High doses do not predict their effect. In contrast, infinitesimal doses can have a profound effect. What's more, early exposure can pose a principal factor and toxins have been proven irrevocably to have an accumulative effect on living organisms. It is worrisome to consider the endless possibilities toxicity synergy form. Are we creating an environment, internal and external, that promotes health or one of ill health that supports cancer development?

## PRIMARY PREVENTION

Prevention of cancer is now discussed in terms of primary and secondary categories. Primary prevention entails creating a healthy lifestyle that promotes optimal wellness through numerous steps that have proven to decrease cancer risk while increasing health status. This is true prevention as it involves interventions that prevent a cancerous process from ever developing, supporting apoptosis, a robust immunity, and vibrant and healthful body and mind.

If a person develops cancer, it is very likely that they will have multiple nutritional deficiencies, which were caused by either genetic (only 15% of genetic origin), environmental, food and/or lifestyle factors. For example, cancer thrives on sugar, mucous, and in an acidic low-oxygen environment. We also know that when an individual's immune system is healthy, cancer cells are destroyed and prevented from multiplying. Approximately 1% of the immune system consists of killer cells whose purpose is to keep cancer cells in check. However, stress, environmental insults, high blood sugar levels and the inflammatory response can impact the body's defenses in negative way. Additionally, apoptosis and necrosis play a major role in preventing cancer cell growth. Apoptosis is programmed cell death which is very advantageous to the organism life cycle. Fifty to seventy billion cells succumb to this crucial process every twenty four hours. In comparison, necrosis is a form of traumatic cell death, which often causes collateral damage to the organism (i.e. negative side effects), and the disposal of cellular debris and waste necessary.

“The doctor of the future will give no medicine, but will involve the patient in the proper use of food, fresh air, and exercise.” - Thomas Edison

This is the premise and foundation to naturopathic medicine. We were created to physically detoxify ourselves naturally. The original design was to live in a clean, health-promoting environment, where food sources were naturally perfect. Today however,

there are commercial entities racing to develop and own patents for genetically engineered fruit, vegetables, grains, and even medicinal herbs making them unfit to consume.

Health counseling, public education, and increased awareness are key to environmental controls, product safety and avoidance of numerous risk factors and carcinogens.

Environmental factors consist of air and water quality, radon, asbestos, radiation, UV exposure, food quality, tobacco, alcohol, inactivity and obesity, medications, plastics, heavy metals, volatile organic compounds, high animal protein diets, skincare products and new studies are revealing associations between cancer and electromagnetic fields, cell phone usage, artificial night light and general acidity (body pH). Eliminating as many risk factors as possible will prove unsurpassed and comprehensive prevention plan you could undertake. It requires a lifetime commitment, yet the rewards are immense. Live longer, feel better, and increase the quality of your life.

## BODY/MIND INFLUENCES

In addition to environmental and dietary factors, we must also investigate body/mind influences. Cellular biologist Bruce Lipton, PhD, has confirmed that the power of your beliefs can alter your cell membranes, thereby changing physiology. Epigenetics are revolutionizing how we interpret the body/mind connection.

In fact, a Type C personality has been identified that is representative of cancer types. By nature these individuals are strongly associated with anger, denial, and suppression of their emotions. However, they are overly polite and very patient, and comply with authoritative rules readily, and avoid conflict at any cost. These characteristics appear to be internalized, and result in an amplification of negative effects and increase the stress response influencing the immune system in a detrimental way. For example, studies show smokers who are depressed are much more likely to develop lung cancer compared to smokers who are not depressed. Dealing with emotional stress, supportive and healthy

relationships, the power of thought and belief, promotion of emotional release, and reduction of stress appear to be very beneficial to health. Detoxifying your life and emotions comes in many forms. The 'treat the person not disease' holistic approach, which is multi-faceted, is imperative. A calm mind and body can deal with stress more effectively. Learning to relax, forgive, and enjoy life is ideal. Cancer is a process that involves mind, body, and spirit.

Complementary medicine is reportedly used by 61% of cancer survivors and primarily includes the following alternative-medicine practices: prayer, relaxation, faith/spiritual healing, nutritional supplements/vitamins, and meditation. These integrative therapies are found to be an important aspect of the cancer patient's comprehensive treatment and care. I assert that 100% of vibrant healthy individuals practice them frequently and is the foundation to their staying well and cancer free.

Fortunately, there are numerous organic fruits, vegetables, herbs, and spices that contain nutrients and enzymes that can induce detoxification and inhibit cancer. These nutrients can also be incorporated to support the cancer patient going through traditional treatment. Vitamin C, D, and E, carotenes, folic acid, selenium, glutathione, iodine, magnesium, probiotics, fiber, flavonoids, Omega 3 fish oils, green tea, garlic, digestive enzymes, dark green leafy greens, and sea vegetables are among the most prominent anti-cancer nutrients and foods studied to date. Sea vegetables, better known as seaweed, contain virtually all of these plus an array of phytonutrients and various chlorophylls making them especially useful. Sea vegetables can dramatically enhance one's health and offer a genuine safeguard against cancer. Their exceptional nutritional matrix, role in cancer prevention, whole body detoxification, and radiation protection sets them apart from any other land grown fruit, vegetable, or botanical herb.

Seaweed contains key components essential for health and emotional balance. Seaweed possesses all the vitamins, cell salts, and minerals found in the ocean, as well as fiber, bulk, and algin, and bio-available nourishment in the form of chlorophyll, volatile oil, fucoidan, mannitol, laminarian, furanone, and cancer protecting lignans. Seaweed

contains 13 vitamins, 20 amino acids, and 60 trace elements including, the essential iodine and sodium. Seaweed also contains exceptional saccharides in the form of glyconutrients and complex sugars, phytohormones, and sterols. Seaweeds protect you from numerous pollutants and radioactive elements, are effective intestinal cleansers and detoxifiers, and are among the most perfect solutions you have to alleviating toxic contamination, past and present. In addition, seaweed neutralizes free radicals, prevents oxidation, and, protects you from the harmful effects of stress.

Sea vegetables are rich in the prominent anti-cancer nutrients, namely iodine, Vitamin D, selenium, various chlorophylls, and fucoidan. Iodine in brown seaweed has been shown to have a beneficial role in thyroid balancing and promoting healthy breast tissue. Selenium helps stop damaged DNA molecules from reproducing. Selenium is a powerful antioxidant that protects against cancer, mercury poisoning, and aides in detoxifying the body. The *Porphyra* species of seaweed, known as *Porphyra umbilicalis* (nori) and *P. abottae* (laver), are among the best sources of this life-saving trace element.

*Laminaria japonica* (kombu) contains an important steroid called ergosterol, which the body converts to vitamin D, a known cancer preventative. Studies show vitamin deficient women have a 253% increased risk of colon cancer and 222% risk of developing breast cancer. In spite of this data, many women continue to avoid the sun out of fear of wrinkles and skin cancer, leaving them prone to common cancers. An astonishing 97% of our Canadian neighbors are vitamin D deficient during the winter months. It is now being suggested that most hospitalized patients and long-term care residents are likely undersupplied as well. Ten to fifteen minutes of sun exposure daily (without sunscreen) is beneficial and is all it takes to manufacture a healthy amount of this cancer-protecting vitamin.

Seaweed color pigmentation is much more complex than land based plants and involves numerous forms of chlorophyll that make seaweed very unique and extremely beneficial. Experiments have demonstrated that chlorophyll can help prevent liver and colon cancers by binding carcinogens commonly associated with these cancers and preventing their absorption by the intestines. Lutein and zeaxanthin were found to

protect against colon cancer and astaxanthin, a carotenoid xanthophyll, found in *Haematococcus pluvialis* reduces oxidative cell injury.

Fucoidan has been shown to prevent cancer by stimulating the immune system and causing apoptosis. It is a nutrient and phenomenal healing extract found only in brown seaweed. It may very well be one of the most important therapeutic and cancer-protective molecules being researched today as it is the subject of almost 800 scientific studies cited by the National Library of Medicine worldwide, of which 72 research studies are cancer-related.

Both brown and red seaweeds protect you from cancer-causing chemicals, heavy metals, and radiation poisoning. The alginates found in brown seaweed and the polysaccharides in red seaweeds, like *Chondrus crispus* (Irish moss), flush out accumulated environmental pollutants, cancer-causing chemicals such as dioxin, heavy metals, free radicals and radioactive particles. A good preventative is to take seaweeds, like *Nereocystis leutkeana* (kelp), before and after any form of radiation exposure. This includes x-rays, CT scans, MRI's, mammograms, dental x-rays, radiation treatment and possibly some airport screening. As little as 1 ½ teaspoons of powdered seaweed per day can make a significant difference to your health and in preventing cancer.

## AROMATHERAPY AND THE ENVIRONMENT

Essential oil therapy can be utilized to avert a multitude of toxins the average person comes in contact with each and every day. Essential oils are totally natural, smell fresh, and are beneficial to health in many ways. They're antibacterial, antifungal, anti-viral agents that do not pose a threat to creating resistant-bacteria. Aromatherapy options can replace toxic household cleaners, synthetic room fragrances, and perfumes. Safe, eco-friendly, inexpensive, effective alternatives to commercial, harsh and toxic cleaning products can be purchased now in common grocery and natural health stores as well as online. All-purpose non-toxic household cleaners are easy to make also using baking soda, vinegar, borax, lemon juice, and gentle castile soap and mixed with essential oils.

*Eucalyptus citriodora* (lemon-scented eucalyptus), *E. globulus* (gum eucalyptus) and *Citrus paradisi* (grapefruit) can be used to wash dishes. *Citrus limon* (lemon) to soften fabrics in the dryer. Naturally solvent-rich citrus oils like *Citrus aurantium* (orange) is excellent for cleaning grease from ovens and stoves. Use *Melaleuca alternifolia* (tea tree), *Pinus sylvestris* (pine) or *Gaultheria procumbens* (wintergreen) to deodorize bathroom sinks and toilets; scent your bed linens, carpets, air filters, and vacuum cleaner bags with pleasant aromas of *Lavendula angustifolia* (lavender) or *Lavendula hybrid* (lavandin) to promote a relaxing environment. Synthetic room fragrances and chemically-derived insect repellants can be replaced with aromatherapy-based room mists made with *Citrus bergamia* (bergamot) and *Cedrus atlantica* (cedarwood). Skin and hair care can be purchased or made with natural, organic ingredients as well as personal fragrances, natural mouth rinses and non-toxic body deodorants. And lastly, chemical drugs can be set aside as an absolute last resort given that natural medicine, such as essential oil therapy, can be employed as an effective treatment for symptom management, common ailments, skin problems, stress reduction and mood balancing without pharmaceutical side effects.

## SECONDARY PREVENTION

Secondary prevention interventions encourage discovery of early staged cancer and control of cancerous or precancerous conditions while still in a localized state. This intervention uses screening techniques while working with your physician to detect and diagnose a cancer. Regular screening tests to detect cancer early are extremely important since timely detection decreases the likelihood of it progressing into a life threatening condition. In general, most standard tests can only detect cancerous growths after they have multiplied to a few billion. Current research is now finding a number of cancer tests and treatments may even cause cancer over time.

For example physicians have been cautioned of the cancer-causing effects of the ‘anti-cancer drug’ Tamoxifen used in breast cancer treatment. Many women depend on an

annual mammogram to diagnose breast cancer. Recent studies show that an annual mammogram may actually increase your risk of developing breast cancer from 1 to 3 percent. This is because breast tissue is exceedingly sensitive to radiation exposure. Like all x-rays, mammograms utilize doses of ionizing radiation to create an image to investigate abnormal growths. Still, mammography has high radiation levels involved in the procedure, as well as elevated rates of error and the interpretation is highly questionable. Since mammograms were introduced, the occurrence of a form of breast cancer called ductal carcinoma in situ has increased by over 300 percent with 200 percent of this increase believed to be due to mammography. In addition, scientists have uncovered a gene, called oncogene AC that is highly sensitive to even small doses of radiation. Options such as digital mammography require much smaller amounts of radiation, and thermography is even a safer screening alternative.

Other secondary prevention includes skin cancer screening, oral exam, clinical breast and self-examination, MRI, pelvic exam, Pap test, CA-125 blood test, digital prostate and rectal exam, PSA test, colorectal screening and occult blood stool test, as well as the highly controversial HPV vaccinations.

In closing, we must empower others to take responsibility for their personal health and also model by example. The acronym H.O.P.E., that I developed, is what I use to present these changes in an affirmative way and is the foundation to assisting the patient to take responsibility for their health and to employ integrative therapies, to create a healthful, vibrant, cancer-free state. HOPE denotes a bright outlook and clear perception of what we have control over. The acronym stands for: Holistic approach, Optimistic attitude, Personal empowerment and Energy conservation.

Preventing cancer and enhancing optimal wellness involves closely examining your present lifestyle and diet intently. High stress levels, a sugar-laden diet, toxin overload, acidic body tissues, and chronic inflammation are the basis of cancer development. You should do your best to avert them. Simplify your life, lower your stress levels, conserve energy wisely, decrease toxin load while increasing your body's nutritional state are all

essential to living a wholesome, vibrant life – free of cancer. Your spiritual health, mental well being and the state of your emotions also have a prominent effect on the health of your physical body. You are the dynamic architect of your body and the grand creator of your life and future. Choose well. Choose wellness.

Valerie Cooksley, RN, Holistic Nurse and Director of The Institute of Integrative Aromatherapy, Houston, Texas is an authority on aromatherapy, holistic nursing and integrative therapies. She is author of several natural health books including her most recent *Seaweed: Nature's Secret to Balancing Your Metabolism, Fighting Disease and Revitalizing Body and Soul*, 2007. Ms. Cooksley has a special interest in researching cancer prevention, environmental illness and stress, and was one of the first nurses in the U.S. to become Oncology Certified. She was an instructor for the American Cancer Society and "I Can Cope" classes. In addition to her writing, she personally mentors students through the nationally accredited correspondence course she has co-authored, and provides consulting services to individuals and health care institutions.  
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