



Cancer Risk Management & Support Program



Caregiver's Guide



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RESOURCES

What to Eat if You Have Cancer: A Guide to Adding Nutritional Therapy to Your Treatment Plan.
by: Maureen Keane, M.S., and Daniella Chace, M.S.
Contemporary Books, Inc.
ISBN 0-8092-3261-8

What to Eat if You Have Cancer Cookbook: Over 100 Easy-to-Prepare Recipes.
by: Maureen Keane, M.S., and Daniella Chace, M.S.
Contemporary Books, Inc.
ISBN 0-8092-3129-8



CANCER RISK MANAGEMENT PROGRAM

The treatment of cancer continues to be one of the most disappointing areas of modern medicine. While breakthroughs have been made, most advanced cancers still have a poor prognosis. Because of this, it can be concluded that the most effective treatment for cancers presently available is prevention.

With this in mind, Thorne Research has developed a line of products designed to support and optimize the immune system, to enhance normal cellular proliferation, and to inhibit the growth and proliferation of neoplastic cells. Together with a program of a healthy, whole-foods diet, exercise, stress reduction, and appropriate medical treatment, these products represent the state-of-the-art in supportive therapy for cancer risk management.

Cancer prevention intervention studies have yielded mixed results. For the most part, the technical literature shows that single antioxidants provide only minimal protection against malignancy. Because of this, many physicians have concluded that a program of mixed antioxidants and accessory nutrients is the preferred means of inhibiting malignancies.

The products in this brochure have been designed by Davis Lamson, MS,ND, and Matthew Brignall, ND, physicians specializing in the supportive treatment of cancer patients. They represent the culmination of Dr. Lamson's "Cancer-Clear" program, a program he has found successful in reducing recurrence risk after successful solid tumor resection.

The products have been developed as an adjunct to conventional cancer screening methods and treatment protocols. These products should not be substituted for appropriate diet and lifestyle preventive protocols. Nor should they replace suggested screening methods or conventional treatments.



COLON CANCER RISK MANAGEMENT PROGRAM

This program has been developed for individuals having an increased risk of colon cancer. The risks of colon cancer are well defined, and include a history of colonic adenoma (polyp) formation, familial polyposis, history of ulcerative colitis or Crohn's disease, high meat/low fiber diet, family history of colon cancer, and past history of resected colonic malignancy. Colon cancer risk management strategies may also serve as a prototype for risk management of other common tumor types (e.g., lung, stomach, pancreas).

A multifactorial lifestyle program to reduce colon cancer risk should include dietary modifications that reduce consumption of red meat, saturated fat, refined grains, and refined sugars. The diet should emphasize fiber, fresh fruits and vegetables, fish, and low-fat dairy. Proper hydration and bowel function should be ensured. Exercise, moderate alcohol intake, and smoking cessation may also have protective effects. People over the age of 50, or younger if risk factors exist, should have regular colonoscopy and yearly fecal occult blood testing.

The following supplements can be used in a colon cancer risk management program:

COLON-GUARD™: This product contains all of the substances shown in the medical literature to reduce colon cancer risk in human and animal models. Dosage: 4 capsules three times daily.

BASIC NUTRIENTS III: This multivitamin-mineral should be used in each case where cancer history is established, unless copper or iron deficiency is found. In cases of copper or iron deficiency, supplement with individual nutrients and monitor levels. Dosage: 2 capsules three times daily with meals.

MEDIBULK: Recent studies have shown both the importance of fiber in colon cancer prevention, and the failure of sub-threshold fiber supplementation. Currently, it appears only fiber intake above 20–25 grams daily is protective. If this cannot be obtained dietarily, a fiber supplement such as Medibulk becomes important. Each tablespoon provides 8 grams of dietary fiber. Dosage: 1 teaspoonful in 8 oz. water or dilute fruit juice in the evening to start, working up to 1 tablespoon two to three times daily.

FOLIC ACID LIQUID: Research suggests high doses of folic acid (5–10 mg) provide protection against colon cancer. Each drop provides 50 mcg folic acid / 1,000 mcg per ml.

SUPER EPA: Research has shown the omega-3 fatty acids from fish may slow the abnormal proliferation of colonic mucosa. Dosage: 1-2 capsules three times daily.

CYSTEPLUS®: N-acetylcysteine has been shown in the literature to protect against adenoma recurrence. Dosage: Cysteplus, 1 capsule twice daily, or Cysteplus II, 1 capsule three times daily.

COLON-GUARD™

Twelve Capsules Contain:

Vitamin A (10,000 I.U. as Palmitate
and 25,000 I.U. as mixed carotenes
{15 mg.}) 35,000 I.U.
Vitamin C (as Ascorbic Acid) 2,000 mg.
Vitamin D (as Vitamin D3) 800 I.U.
Vitamin E (as d-Alpha-Tocopheryl) 800 I.U.
Vitamin B6 (from 37 mg.
Pyridoxal 5'- Phosphate) 25 mg.
Folate (as Folinic Acid from
Calcium Folate) 800 mcg.
Vitamin B12
(from Methylcobalamin) 1,000 mcg.
Calcium (as Calcium Carbonate) 800 mg.
Magnesium (as Magnesium Citrate) 200 mg.
Selenium (from yeast) 200 mcg.
Lycopene 10 mg.
Quercetin 375 mg.
Quercetin Chalcone 375 mg.
Green Tea extract (leaf)
(Camellia sinensis)
(80% total Polyphenols) 500 mg.
Indole-3-Carbinol 350 mg.
Inositol Hexaphosphate 1,000 mg.
Turmeric extract (rhizome)
(Curcuma longa) 600 mg.
S1002 / 360 Capsules
Dosage: 4 capsules tid



BREAST CANCER RISK MANAGEMENT PROGRAM

This program has been developed for individuals having an increased risk of breast cancer. While the risks of breast cancer are still being outlined, they include a history of previous breast cancers, family history of breast cancer, history of hyperplasia with atypia, early menarche/late menopause, high exposure to exogenous estrogens (limited to certain types of breast cancers), diabetes, nulliparity, high meat/low fiber diet, low 2/16-hydroxyestrone ratio, history of high alcohol intake, obesity, and possibly history of smoking at a young age. The most efficient screening for breast cancer is still controversial, but should include regular mammography and self- and medical-breast exams.

Breast cancer risk management strategies may also serve as a basis for risk management of cervical cancers. Risk factors for cervical cancers are less defined than breast cancer, but include Human Papilloma Virus (HPV) infection, abnormal findings on PAP smears, and multiple sex partners. Women should have yearly PAP smears to screen for cervical cancer.

A multifactorial lifestyle program to reduce breast cancer risk should include dietary modifications that reduce consumption of red meat, saturated fat, dairy, refined grains, and refined sugars. The diet should emphasize fiber, fresh fruits and vegetables, and fish. Proper blood sugar levels should be ensured. Exercise, moderate alcohol intake, weight loss, and smoking cessation may also have protective effects. Tamoxifen therapy has been shown to reduce the risk of breast cancer, but not to reduce the overall mortality rate in a large population of women.

The following supplements can be used in a breast cancer risk management program:

BREAST-GUARD™: This product includes many of the nutritional agents shown to reduce breast cancer occurrence in animal studies, in addition to a balance of protective antioxidants. Dosage: 3 capsules three times daily.

BASIC NUTRIENTS III: This multivitamin-mineral should be used in each case where cancer history is established, unless copper or iron deficiency is found. In cases of copper or iron deficiency, supplement with individual nutrients and monitor levels. Dosage: 2 capsules three times daily with meals.

As some research shows environmental toxins to be associated with breast cancer occurrence, testing for exposures should be considered. For more information on this subject, refer to the series of articles by Dr. Walter Crinnion in *Alternative Medicine Review* and Thorne's Detox Brochure.

FOLIC ACID LIQUID: Research suggests high doses of folic acid (5–10 mg) provide protection against breast cancer, particularly in women who drink alcohol. Each drop provides 50 mcg folic acid / 1,000 mcg per ml.

SUPER EPA: Low tissue concentrations of omega–3 fatty acids have been found in the adipose tissue of breast cancer patients. Dosage: 1–2 capsules three times daily.

CALCIUM D-GLUCARATE: Preliminary animal research suggests this supplement may reduce risk of breast cancer, perhaps by lowering endogenous estrogen levels. Dosage: 1–2 capsules three times daily.

BREAST-GUARD™

Nine Capsules Contain:

Vitamin A (10,000 I.U. as Palmitate
and 25,000 I.U. as mixed carotenes
{15 mg.}) 35,000 I.U.
Vitamin C (as Ascorbic Acid) 2,000 mg.
Vitamin D (as Vitamin D3) 800 I.U.
Vitamin E (as d-Alpha-Tocopheryl) 800 I.U.
Vitamin B6 (from 111 mg.
Pyridoxal 5'- Phosphate) 75 mg.
Folate (as Folinic Acid from
Calcium Folate) 800 mcg.
Vitamin B12
(from Methylcobalamin) 1,000 mcg.
Selenium (from yeast) 200 mcg.
Lycopene 10 mg.
Coenzyme Q10 30 mg.
Quercetin 375 mg.
Quercetin Chalcone 375 mg.
Green Tea extract (leaf
(Camellia sinensis)
(80% total Polyphenols) 900 mg.
Indole-3-Carbinol 350 mg.
Inositol Hexaphosphate 1,000 mg.
Turmeric extract (rhizome)
(Curcuma longa) 600 mg.

S1001 / 270 Capsules
Dosage: 3 capsules tid



PROSTATE CANCER RISK MANAGEMENT PROGRAM

This program has been developed for individuals having an increased risk of prostate cancer. Prostate cancer risks include personal or family history of prostate cancer, history of rising PSA levels, altered levels of testosterone or estrogen, age over 50, high saturated fat/red meat diet, high dairy intake, history of high alcohol intake, smoking, and possibly obesity. The most efficient screening for prostate cancer is yearly digital rectal exam and PSA level. PSA should be checked every six months in men at increased risk of prostate cancer. PSA should be measured before performing digital rectal exam, as the exam can falsely elevate PSA temporarily.

A multifactorial lifestyle program to reduce prostate cancer risk should include dietary modifications that reduce or eliminate red meat, saturated fat, dairy, refined grains, and refined sugar consumption. The diet should emphasize fiber, fresh fruits and vegetables, and fish. Proper blood sugar levels should be ensured. Exercise, moderate alcohol intake, weight loss, and smoking cessation should also be suggested.

The following supplements can be used in a prostate cancer risk management program:

PROSTATE-GUARD™: This product includes substances shown in the literature to reduce the risk of prostate cancer occurrence in humans and animals, in addition to a balance of protective antioxidants. Other agents shown to be supportive of normal prostate tissue have been added. Dosage: 3 capsules three times daily.

BASIC NUTRIENTS III: This multivitamin-mineral should be used in each case where cancer history is established, unless copper or iron deficiency is found. In cases of copper or iron deficiency, supplement with individual nutrients and monitor levels. Dosage: 2 capsules three times daily with meals.

SUPER EPA: Research suggests omega-3 fatty acids are supportive of normal cell proliferation and protective against neoplastic growths. Dosage: 1-2 capsules three times daily.

PROSTATE-GUARD™

Nine Capsules Contain:

Vitamin A (10,000 I.U. as Palmitate and 25,000 I.U. as mixed carotenes {15 mg.})	25,000 I.U.
Vitamin C (as Ascorbic Acid)	2,000 mg.
Vitamin D (as Vitamin D3)	800 I.U.
Vitamin E (as d-Alpha-Tocopheryl)	800 I.U.
Vitamin B6 (from 74 mg. Pyridoxal 5'- Phosphate)	50 mg.
Folate (as Folinic Acid from Calcium Folate)	800 mcg.
Vitamin B12 (from Methylcobalamin)	1,000 mcg.
Zinc (as Zinc Picolinate)	30 mg.
Selenium (from yeast)	200 mcg.
Copper (as Copper Picolinate)	1 mg.
Lycopene	20 mg.
Coenzyme Q10	30 mg.
Quercetin	375 mg.
Quercetin Chalcone	375 mg.
Green Tea extract (leaf (Camellia sinensis) (80% total Polyphenols)	900 mg.
Indole-3-Carbinol	350 mg.
Serenoa repens (saw palmetto)	320 mg.

S1003 / 270 Capsules

Dosage: 3 capsules tid



SUPPORTIVE CANCER TREATMENT PROGRAM

As discussed earlier, conventional cancer treatments can result in disappointing outcomes, and are associated with significant adverse side-effects. On the other hand, a comprehensive program of diet, lifestyle, and supplemental nutrition can often mitigate the side-effects of radiation and chemotherapy. In many cases research has shown these same treatments have been shown to have anti-cancer activities in their own right, potentially increasing the chance of success of conventional therapy.

Although the use of antioxidant compounds concurrent with radiation and chemotherapy remains controversial, the preponderance of evidence shows the combination of antioxidants with radiation or chemotherapy is at worst neutral and at best extremely beneficial. The few exceptions to this rule, e.g., the potential for reduction of the effect of alkylating agents by N-acetylcysteine, have been avoided in the formulation of our supportive cancer care products.

The purpose of supportive cancer care is not to replace appropriate oncologic interventions. Instead, it should complement these treatments, both by increasing tumor control and by decreasing adverse effects. Also, supportive care should focus on weight maintenance, infection control, and increasing a patient's quality of life. The following program has been designed with these goals in mind.

The focus of dietary interventions should be reduction of saturated fat and linoleic acid intake, identification and removal of food allergens, reduction of sugars and refined grains, increase in fish and whole fruits and vegetables, and elimination of dietary factors known to enhance specific tumors. In the case of significant weight loss, elimination of any dietary staple should be avoided until weight loss is arrested. Proper hydration should be ensured, especially during chemotherapy. Exercise programs should be individually tailored to increase quality of life without leading to excessive fatigue. Psychosocial interventions should be used as appropriate.

The following supplements can be used in a comprehensive supportive cancer treatment program:

SUPPORTIVE CARE™: This product includes substances shown to be effective adjuncts in animal, *in vitro*, and in some cases human research. Other agents shown to reduce adverse effects of standard treatments have been included. This formula is based on protocols used in clinical practice by Dr. Davis Lamson since 1988. Dosage: 4 capsules three times daily.

BASIC NUTRIENTS III: This multivitamin-mineral should be used in each case where cancer history is established, unless copper or iron deficiency is found. In cases of copper or iron deficiency, supplement with individual nutrients and monitor levels. Dosage: 2 capsules three times daily with meals.

SUPER EPA: Research suggests omega-3 fatty acids are supportive of normal body weight and immune function in cancer patients. The scientific literature also supports the view that supplementation with marine oils can extend the mean survival of terminal cancer patients. Dosage: 2-3 capsules three times daily.

MAITAKE GOLD™: This extract from the Maitake mushroom (*Grifola frondosa*) increases activity of natural killer cells, macrophages, and other T-cells. Animal studies have shown significant tumor inhibition with the use of Maitake extracts. Dosage: 1 mg per kg body weight per day.

MELATONIN: The scientific literature supports the claim that melatonin can increase survival time of cancer patients, regardless of solid tumor type. Melatonin has been shown to be effective with standard therapeutics, with immunotherapies, and as a sole intervention. Melatonin also helps support normal weight and protect hematopoiesis. Dosage: 20 mg nightly at bedtime.

INOSITOL HEXAPHOSPHATE (IP6, PHYTIC ACID): This naturally occurring phosphorylated organic compound has been shown to cause regression in animal neoplasms, suggesting it would have a wide variety of anti-tumor activity. Dosage: 4-5 grams per day.

FRACTIONATED PECTIN: pH-modified citrus pectin has been shown in animal studies to reduce the metastasis of certain tumor types. This should be particularly emphasized at the time of surgical excision or biopsy. Dosage: 1 level tablespoon Fractionated Pectin Powder three times daily, between meals.

L-GLUTAMINE: The most abundant amino acid in the blood, and the primary fuel for small intestinal cells, L-glutamine protects against neuropathic and gastrointestinal side-effects of conventional therapies. It should be particularly emphasized during radiotherapy and treatment with nerve-damaging chemotherapies (e.g., Taxol). Dosage: 1-2 tsp L-glutamine powder twice daily between meals (7.6-15.2 g/day).



CO-Q-100™: Coenzyme Q10 has been tested in human trials as part of a nutritional medicine protocol. It also has been shown to help mitigate the side-effects of chemotherapy. Dosage: 2 capsules 2-3 times daily.

SUPPORTIVE CARE™ **NUTRITIONAL SUPPORT FOR** **ONCOLOGY PATIENTS**

Twelve Capsules Contain:

Vitamin A (25,000 I.U. as Palmitate and 42,000 I.U. as mixed carotenes {25 mg.})	25,000 I.U.
Vitamin C (as Ascorbic Acid)	2,000 mg.
Vitamin D (as Vitamin D3)	2,000 I.U.
Vitamin E (as d-Alpha-Tocopheryl)	1,200 I.U.
Vitamin B6 (from 148 mg. Pyridoxal 5'- Phosphate)	100 mg.
Folate (as Folinic Acid from Calcium Folate)	800 mcg.
Vitamin B12 (from Methylcobalamin)	100 mcg.
Zinc (as Zinc Picolinate)	40 mg.
Selenium (from yeast)	400 mcg.
Lycopene	20 mg.
Quercetin	1,000 mg.
Quercetin Chalcone	500 mg.
Green Tea extract (leaf) (Camellia sinensis) (80% total Polyphenols)	1,500 mg.
Indole-3-Carbinol	600 mg.
S1000 / 360 Capsules	
Dosage: 4 capsules tid	

INDIVIDUAL INGREDIENTS FOUND IN COLON-GUARD™, BREAST-GUARD™, PROSTATE-GUARD™, AND SUPPORTIVE CARE™.

■ **Vitamin A:** Vitamin A is important for normal cell growth and differentiation. Retinoids have been studied many times for prevention of neoplastic transformation in humans. (all formulas)

■ **Mixed carotenes:** Natural mixed carotenes consist of several molecules, each apparently with specific actions that cannot be mimicked by synthetic beta-carotene. In addition to their antioxidant activity, carotenes increase the expression of the gene that controls gap junction cellular communication. (all formulas)

■ **Lycopene:** Increasing dietary lycopene has been shown to reduce DNA damage in human lymphocytes by 50 percent. Lycopene serum levels and dietary intake have been inversely correlated with the risk of neoplastic disease. (all formulas)

■ **Vitamin C:** Vitamin C is a potent, water-soluble antioxidant. It can be cytotoxic to abnormal cells that lack the enzyme catalase. (all formulas)

■ **Vitamin E:** Vitamin E is a fat-soluble antioxidant. It has been shown to induce cell cycle arrest and to increase T helper/suppressor ratios. Vitamin E has shown benefit in chemoprevention trials. (all formulas)

■ **Folic acid:** Folic acid is necessary for normal DNA replication and cell division. Thorne utilizes folinic acid, an active form of folic acid. (all formulas) **WARNING:** Because these products and Basic Nutrients III contain folinic acid, do not use them concurrently with methotrexate cancer therapy.

■ **Vitamin B6:** Vitamin B6 is necessary for metabolism and elimination of many hormones and xenobiotics. It also suppresses the secretion of prolactin, a hormone that can stimulate growth of certain tumors. Thorne utilizes pyridoxal 5'-phosphate, the active form of B6. (all formulas)



■ **Vitamin B12:** Vitamin B12 is necessary for normal DNA replication and cell division. Thorne utilizes methylcobalamin, an active coenzyme form of B12. (all formulas)

■ **Vitamin D:** Vitamin D has demonstrated pro-differentiation, anti-proliferative, and anti-metastatic effects on neoplastic cells. (all formulas)

■ **Selenium (from yeast, mostly as selenomethionine):** Selenium is necessary for the proper function of glutathione reductase, an enzyme necessary for proper antioxidant protection. Yeast-based selenium supplementation reduced incidence and mortality of several types of neoplastic disease in a prospective trial. (all formulas)

■ **Green tea polyphenols:** In addition to being potent antioxidants, green tea polyphenols increase glucuronidation, a hepatic detoxification pathway for estrogens and other hormones. They may also induce cell cycle arrest and increase apoptosis. Green tea polyphenols also inhibit 5-alpha-reductase, an enzyme in the prostate gland. (all formulas)

■ **Indole-3-Carbinol:** This molecule from broccoli up-regulates phase I and II detoxification enzymes, and increases the ratio of 2-OH/16-OH estrogens. The 2-OH estrogens are more rapidly eliminated from the body. (all formulas)

■ **Quercetin:** Quercetin has a number of potential anti-proliferative mechanisms, including cell cycle arrest, tyrosine kinase inhibition, down-regulation of mutant p53 and p21, and type II estrogen receptor blockade. It is also an antioxidant. Quercetin chalcone is a water-soluble form of quercetin that exhibited statistically significant tumor growth inhibition in an animal study. (all formulas)

■ **Inositol hexaphosphate (IP6, phytic acid):** This naturally occurring phosphorylated carbohydrate has profound effects on oncogenes, including down-regulation of mutant p53, up-regulation of wild-type (normal) p53, and up-regulation of wild type p21. IP6 increases immune response to specific stimuli, rather than causing a non-specific activation. (colon, breast, and supportive care formulas).

■ **Curcumin:** Curcumin inhibits synthesis of prostaglandins with proliferative and angiogenic activity. It also reduces the estrogenic activity of certain environmental toxins. (colon and breast formulas)

■ **Calcium (as carbonate):** Calcium carbonate has been shown to prevent recurrence of colon polyps in two human studies. Theroretically, the low absorption rate of calcium carbonate is required for its protective action. (colon formula)

■ **Zinc (as picolinate):** Zinc inhibits prostatic 5-alpha-reductase. Zinc administration can also deplete copper. Copper depletion has been shown to inhibit angiogenesis. (prostate and supportive care formulas)

■ **Saw palmetto (*Seronoa repens*):** Saw palmetto inhibits prostatic 5-alpha-reductase, and has been shown to help optimize the size and function of the prostate, without interfering with laboratory measurements. (prostate formula)

■ **Coenzyme Q10:** CoQ10 is an antioxidant and part of the electron transport chain. It has been shown to be deficient in certain types of neoplastic tissue. (prostate and breast formulas)

WARNING: Because Breast-Guard, Prostate-Guard, Colon-Guard, Supportive Care, and Basic Nutrients III all contain folic acid, do not use any of these products concurrently with methotrexate cancer therapy.

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**FOR MORE INFORMATION
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OVER 230 NUTRITIONAL SUPPLEMENTS
IN THE THORNE PRODUCT LINE:
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**THORNE RESEARCH PRODUCTS ARE AVAILABLE
EXCLUSIVELY THROUGH LICENSED HEALTH-CARE PRACTITIONERS
AND PHARMACIES.**

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