Cancer Treatment Support

En Español (Spanish Version)

Proposed Natural Treatments for Cancer | Improving Effectiveness of Conventional Cancer Treatment | Reducing Side Effects of Chemotherapy | Reducing Side Effects of Radiation Therapy | Treating Lymphedema Caused by Breast Cancer Surgery | Hot Flashes After Mastectomy | Herbs and Supplements to Use Only With Caution | References

Proposed Natural Treatments

• IMPROVING EFFECTIVENESS OF CONVENTIONAL TREATMENT  Active Hexose Correlated Compound (AHCC); Coriolus versicolor; Docosahexaenoic Acid; Eleutherococcus senticosus; Ginkgo biloba; Lycopene; Melatonin; Music Therapy; Mistletoe Extract, Injected; N-Acetylcysteine; Panax ginseng; Relaxation Therapies; Shark Cartilage; Shiitake; Social Support; Vitamin A; Vitamin C; Vitamin D

• REDUCING SIDE EFFECTS OF CHEMOTHERAPY  Acetyl-L-carnitine; Acupuncture/Acupressure; Active Hexose Correlated Compound (AHCC); Aromatherapy; Beta-carotene; Chamomile Cream; Coenzyme Q10 (CoQ10); Colostrum; Creatine; Docosahexaenoic Acid; Ginger; Glutamine; Hypnosis; Massage; Melatonin; Milk Thistle; N-Acetylcysteine; Probiotics; Relaxation Therapy; Sea Buckthorn; Traditional Chinese Herbal Medicine; Vitamin E; Yoga

• REDUCING SIDE EFFECTS OF RADIATION THERAPY  Acupuncture; Aloe vera Gel; Calendula Cream; Chamomile Cream; Multivitamin/Multimineral Supplements; Probiotics; Proteolytic Enzymes; Sea Buckthorn; Zinc

• TREATING LYPHEDEMA CAUSED BY BREAST CANCER SURGERY  Citrus Bioflavonoids; Oligomeric Proanthocyanidins (OPCs); Oxerutins; Traditional Chinese Herbal Medicine

• TREATING WEIGHT LOSS CAUSED BY CANCER OR CANCER TREATMENT  Undesired Weight Loss

• HERBS AND SUPPLEMENTS TO USE ONLY WITH CAUTION  Alfalfa; Androstenedione; Beta-carotene; Black Cohosh; Boron; Dong Quai; Estriol; Folate; Genistein; Hops; Licorice; Panax ginseng; Red Clover; Resveratrol; Soy; St. John’s Wort; Vitamin C; Vitamin E

Not only is cancer the second leading cause of death in the United States (after heart disease), its insidious nature gives it a special terror. Most diseases give warning in the form of escalating symptoms, while others strike so suddenly that there’s no time to brood on it. Cancer follows a different, stealthier path. A person who feels perfectly well may come back from the doctor’s office with a diagnosis of potentially fatal cancer and plenty of time to fear what comes next.

Conventional treatments for cancer also have frightening qualities to them: disfiguring surgery, arduous chemotherapy, and treatment with invisible radiation. In many cases, when cancer is found early enough, conventional treatment can lead to a permanent cure. But often the prognosis is given in statistics—a percentage chance of survival—or, worse, in months remaining to live.

No wonder, then, that people turn to alternative medicine. It would be wonderful if there were some powerful alternative approach that could rout cancer at its root. Unfortunately, the reality is that no alternative treatment offers a sure and simple route to recovery. Worse still, there are plenty of unscrupulous people who will take advantage of a cancer victim’s desperation. Even the most scrupulous providers of alternative cancer therapy mislead in one sense: they display a conviction and enthusiasm even though they do not know, in truth, whether their approach really works. It simply isn’t possible for a medical practitioner to fairly judge the effectiveness of a therapy from apparent clinical results. Only double-blind, placebo-controlled studies can do that. (For information on why this form of study is essential, see Why Does This Database Rely on Double-blind Studies?)

It is possible, of course, that some alternative therapies for cancer may truly work, even if they haven’t yet been proven. However, we may never know which ones are real and which ones offer only false promises. Proper studies require money and patience with the scientific process, and proponents of alternative cancer therapies may
lack one or both of those. In addition, ethical considerations make it difficult to study an unproven therapy for a fatal disease, when therapies that provide a chance of cure are available. For this reason, most studies of alternative therapies for cancer have involved adding a natural treatment to a standard cancer regimen; alternatively, they enrolled individuals who have already failed to respond to existing methods. These latter circumstances could potentially hide the benefits of an effective natural therapy. If a treatment only worked in the absence of chemotherapy, for example (as some alternative cancer therapy proponents claim about their methods) or could only cure early cases of cancer, these ethical obstacles would prevent researchers from finding out.

This article discusses the relatively small amount of information that is known from a scientific perspective about alternative treatments for cancer. We also discuss natural options that may reduce side effects of standard cancer therapies, as well as possible interactions between herbs and supplements and drugs.

Proposed Natural Treatments for Cancer

Various natural supplements have shown some promise for improving the effectiveness of conventional cancer therapy (specifically, surgery, chemotherapy, and radiation) or reducing its side effects. In most cases, however, the supporting evidence remains weak, and the most rigorous studies have often failed to find benefit.

Note: If you are receiving cancer treatment, do not use any herbs or supplements except under the supervision of your physician.

For information on treatments to prevent cancer, see the Cancer Prevention article.

Improving Effectiveness of Conventional Cancer Treatment

Numerous natural therapies have been proposed for enhancing the cancer-fighting effects of standard therapies. However, as noted above, most of the supporting research falls short of the necessary standard for proof: a double-blind, placebo-controlled study.

Shark Cartilage

Based on the belief that sharks don't get cancer, shark cartilage has been heavily marketed as a cure for cancer. While this is a myth (sharks do get cancer), shark cartilage has, in fact, shown some promise. Shark cartilage tends to inhibit the growth of new blood vessels, a process called angiogenesis. Since cancerous tumors must build new blood vessels to feed themselves, this effect might be beneficial.

Shark cartilage also inhibits substances called matrix metalloproteases (MMPs). These little understood enzymes affect the extracellular matrix, the framework of substances that lie between cells in the body. MMPs are thought to play a role in diseases of the cornea, gums, skin, blood vessels, and joints, as well as in cancer and illnesses that involve excessive fibrous tissue.

A number of test tube experiments have found that shark cartilage extracts prevent new blood vessels from forming in chick embryos and other test systems. These findings have led to other test tube experiments, animal studies, and preliminary human trials to investigate the possible anticancer effects of shark cartilage. The results appeared to suggest that a particular liquid shark cartilage extract might be useful in the treatment of various cancers, including lung, prostate, and breast cancer. However, the two most recent and best designed of these studies have failed to find benefit.

Social Support and Other Psychological Factors
Cancer treatment puts tremendous stress, both physical and emotional, on those that undergo it. Several studies have examined the potential benefits of social support for women with breast cancer. According to most, but not all, studies, such support improves survival and/or enhances quality of life. In one famous study of women with advanced breast cancer, participants who attended a support group twice weekly doubled their survival time as compared to study participants who did not attend the group. It is also commonly said that certain psychological coping styles (for example, fighting spirit versus helpless acceptance) can lead to longer life in people with cancer. However, a review of the evidence found that in fact there is little to no evidence that psychological attitude makes much of a difference. People with cancer should not feel pressured into adopting particular coping styles to improve survival or reduce the risk of recurrence, the study's authors concluded.

Relaxation Therapies

One study evaluated guided imagery and relaxation therapy following surgery for colon cancer. The results indicated no more than a short-term, mood-elevating benefit; those receiving the treatment did not recover more quickly. Another study followed 32 women who had undergone breast cancer. The women were randomized to receive just physical therapy or physical therapy plus a yoga program (called Yoga in Daily Life). At the end of the 3-week trial, the women in the yoga program reported less psychological distress.

Music Therapy

Another study on relaxation therapy involved 126 hospitalized patients with cancer pain. Researchers found that the patients who listened to relaxing music for 30 minutes and received pain medication had more relief than the group who only received the medication. A systematic review of 30 trials and 1,891 cancer patients also supports the use of music therapy during cancer treatment. Based on rating scales, music interventions (eg, participating in music therapy or listening to prerecorded music) resulted in less anxiety, improved mood, and better quality of life. The patients also had small reductions in their blood pressure, heart rate, and respiratory rate. But, because of bias in these trials, the authors recommend that more studies be done to confirm the findings.

Vitamin C

Cancer treatment is one of the more controversial proposed uses of vitamin C. An early study tested vitamin C in 1,100 terminally ill cancer patients. One hundred patients received 10,000 mg daily of vitamin C, while the other 1,000 patients (the control group) did not receive vitamin C. Those taking the vitamin C survived more than 4 times longer on average (210 days) than those in the control group (50 days). A large (1,826 subjects) follow-up study by the same researchers found a nearly doubled survival rate (343 days versus 180 days) in vitamin C-treated patients whose cancers were deemed "incurable," as compared to people not treated with vitamin C. Benefits were also seen in a similarly designed Japanese study.

However, while these results seem promising—almost miraculous—they, in fact, show next to nothing because they lacked a placebo group. When proper double-blind, placebo-controlled studies were performed on vitamin C for cancer, they failed to find any benefit.

Vitamin C proponents have criticized these trials on various grounds, but the fact remains that there is as yet no reliable positive evidence for vitamin C in cancer.

PC-SPES for Prostate Cancer

PC-SPES is a formulation of eight natural substances: seven are plants and one is a fungus. The name is derived from the common abbreviation for prostate cancer (PC) and the Latin word *spes*, meaning "hope."

After its commercial launch in 1996, PC-SPES received increasing interest from the general public and prostate cancer researchers. Preliminary evidence suggested that it has significant effects on prostate cancer cells, perhaps due in part to its estrogen-like action.
However, chemical analysis reported in 2002 showed that PC-SPES is not truly a purely herbal product; samples of the product dating back to 1996 have been found to contain a form of pharmaceutical estrogen, diethylstilbestrol (DES), as well as indomethacin (an anti-inflammatory medication in the ibuprofen family), and warfarin (a strong blood thinner). Samples subsequent to 1999 contain less DES; but they also have shown less effectiveness in treating prostate cancer.

There is little doubt that DES is active against prostate cancer, but it presents a variety of risks, including blood clots in the legs. The other two pharmaceutical contaminants might actually reduce the risk of blood clots (which may be why they were covertly added), but present various risks all on their own. For these reasons, we strongly recommend against using PC-SPES at all.

### Other Natural Treatments

Literally hundreds of herbs and supplements have been shown in test tube studies to fight cancer cells. However, it is a long way from a test tube to a human body, and such findings are not at all meaningful.

In this subsection we discuss several natural supplements that have received at least preliminary study in humans. Keep in mind that none of the positive studies cited below reached the level of rigor required to truly show a treatment effective. (Most lacked a control group, for example.) In contrast, several properly designed studies failed to find benefit.

A double-blind study of 53 people undergoing cancer treatment found equivocal evidence that treatment with a special form of *Panax ginseng* (modified to contain higher levels of certain constituents) could improve general well-being of people with cancer. Another study investigating the effects of *Panax ginseng* on survival of patients being treated for lung cancer showed no additional benefit.

One study provides indirect, but promising evidence that a mixture of the supplements coenzyme Q10 (100mg daily), riboflavin (10 mg daily) and niacin (50 mg daily) might help reduce the chance of breast cancer metastasis, or recurrence.

According to most but not all of the highly preliminary trials reported to date, extracts of the fungus *Coriolus versicolor* may enhance the effectiveness of various forms of standard cancer therapy. Coriolus is thought to work by stimulating the immune system. The fungi products active hexose correlated compound (AHCC) and shiitake are also advocated for this purpose.

The supplement docosahexaenoic acid (DHA), a constituent of fish oil, has shown promise for enhancing the effects of the cancer chemotherapy drug doxorubicin.

The herb ginkgo is thought to increase blood flow. An uncontrolled study evaluated combination therapy with ginkgo extract and the chemotherapy drug 5FU for the treatment of pancreatic cancer, on the theory that ginkgo might enhance blood flow to the tumor and thereby help 5FU penetrate better. The results were promising.

Scant preliminary evidence suggests that American ginseng may increase effectiveness of treatment for breast cancer and that so-called Siberian ginseng (properly know as *Eleutherococcus senticosus*) may be useful in the treatment of breast cancer and other forms of cancer.

A small unblinded study using a no-treatment control group found indications that use of a standardized tomato extract containing the supplement lycopene might slow the growth of prostate cancer. In a small double-blind, placebo-controlled study, a combination of soy, isoflavones, lycopene, silymarin (from milk thistle), and antioxidants showed some potential benefit for preventing recurrence of prostate cancer after prostate cancer surgery. Another enrolled men with rising PSA levels (a symptom of worsening cancer) and found that use of lycopene helped stabilize these levels. Unfortunately, because this study failed to include a placebo control group, its results fail to indicate that lycopene lowers PSA levels and therefore, by inference, slows prostate cancer. However, researchers did compare lycopene alone against lycopene plus isoflavones, and, interestingly, the combined treatment seemed to be less effective, as if the isoflavones somehow antagonized the effects of lycopene.
Preliminary studies, including unblinded controlled trials, suggest that the hormone melatonin may enhance the effectiveness of standard therapy for breast cancer, prostate cancer, brain glioblastomas, non-small-cell lung cancer, and other forms of cancer. However, no double-blind studies have been reported. Melatonin may also help decrease cancer chemotherapy side effects (see below).

Mistletoe extract (Iscador) taken by injection has been evaluated as a cancer treatment in a number of studies, including double-blind, placebo-controlled trials. In general, though, these studies failed to attain adequate levels of scientific rigor or clinical relevance. The best studies found benefit; more rigorous studies found no improvement in survival time, survival rate, or quality of life. A review of 41 studies found mistletoe use was associated with improved survival in cancer patients. But, an analysis of these studies limited to randomized trials showed no effect.

Note: The safety of mistletoe is not established, and one report suggests that it can damage the liver.

An uncontrolled study found that use of a special spleen extract (spleen peptide preparation) somewhat reduced side effects of chemotherapy for head and neck cancer.

In a double-blind, placebo-controlled trial, neither vitamin A nor N-acetylcysteine proved helpful for enhancing survival in head and neck cancer or lung cancer.

Vitamin D may decrease bone pain and increase muscle strength in men with prostate cancer.

Traditional Chinese medicine has been evaluated in a number of studies in patients being treated for cancer. In one study, acupuncture has shown a bit of promise for reducing the sense of fatigue that commonly occurs in cancer. Acupuncture has also been studied as a treatment for cancer-related pain. Researchers reviewed 3 small, randomized trials involving 204 people with cancer-related pain. The authors concluded that there wasn’t enough evidence to say that acupuncture is helpful in relieving this type of pain. More high-quality studies are needed.

Similarly, medical Qigong (two 90-minute sessions weekly) was associated with improved quality of life, fatigue and mood disturbance in another study. A review of 15 mostly poor quality trials involving 862 patients receiving chemotherapy for non-small cell lung cancer, suggested that Chinese herbal medicine might improve quality of life. But, a 2010 review of 7 studies found insufficient evidence to conclude whether or not Tai Chi improves quality of life or psychological or physical outcomes in patients with breast cancer.

One study tested whether a diet very high in vegetables, fruit, and fiber, and low in fat could enhance survival or reduce recurrence rates in women diagnosed with breast cancer; unfortunately, no benefits were seen.

Reducing Side Effects of Chemotherapy

Various herbs and supplements have shown promise for reducing the side effects of chemotherapy.

Many chemotherapy drugs work by interfering with rapidly dividing cells. Unfortunately, cancer cells aren’t the only cells that divide rapidly. The intestinal tract constantly rebuilds its lining, and chemotherapy may interfere with that process. The result: gastrointestinal side effects, such as mouth sores, nausea, loss of appetite, and diarrhea.

Several herbs and supplements have shown promise for alleviating these conditions, although none have been definitively proven effective.

Diarrhea and Other Gastrointestinal Side Effects

A well-designed double-blind, placebo-controlled trial of 70 participants undergoing cancer chemotherapy with the drug 5-FU evaluated the potential benefits of the supplement glutamine for reducing chemotherapy-induced
diarrhea. The results suggest that use of glutamine at a dose of 18 g daily may reduce intestinal damage and diminish symptoms of diarrhea. These promising findings indicate a need for larger trials to accurately determine the extent of benefit.

A double-blind, placebo-controlled study of 150 people undergoing chemotherapy with 5-FU found some evidence that a probiotic (friendly bacteria) called *Lactobacillus rhamnosus* can reduce the diarrhea that is a common complication of this treatment. Another, more unusual probiotic, a special, nonpathogenic form of *E. coli*, has also shown promise.

Highly preliminary evidence hints that the supplement *active hexose correlated compound (AHCC)* and colostrum have might help reduce chemotherapy-induced gastrointestinal side effects.

In one study, use of the supplement *creatine* failed to help maintain muscle mass in people undergoing chemotherapy for colon cancer.

**Mouth Sores**

In an uncontrolled study, use of the herb *chamomile* mouthwash appeared to help prevent mouth sores in people undergoing various forms of chemotherapy. However, uncontrolled studies prove nothing. A rigorous double-blind, placebo-controlled trial of 164 people did not find chamomile mouthwash effective for treating the mouth sores caused by the chemotherapy drug 5-FU.

*Beta-carotene* and vitamin *E* have also shown some promise for preventing mouth sores (caused by various forms of cancer treatment) in preliminary studies, but rigorous studies of adequate size have not been reported.

**Nausea**

A very preliminary trial hints that *ginger* may reduce nausea caused by the chemotherapy drug 8-MOP. However, another study failed to find ginger helpful for nausea in people using the drug *cisplatin*. And a in a third trial, ginger did not add to the effectiveness of standard medications to treat chemotherapy-induced nausea and vomiting.

*Massage* has shown some benefit for reducing nausea caused by chemotherapy. Psychological methods such as *hypnosis and relaxation therapy* have also shown promise for nausea.

One study found that use of aromatherapy massage (combined *massage therapy* and use of fragrant *essential oils*) reduced symptoms of anxiety and/or depression in people undergoing treatment for cancer; at least for the short-term. However, the authors of a review of 10 massage therapy studies were unable to draw firm conclusions about its benefits for a wide range of symptoms in patient undergoing treatment for cancer.

Studies of *acupressure* or *acupuncture* for reducing nausea in people undergoing chemotherapy have reached contradictory results, though on balance, there may be some benefit.

A double-blind study performed in Hong Kong evaluated the potential benefits in cancer chemotherapy of personalized herbal formulas designed according to the principles of *Traditional Chinese Herbal Medicine*. In this study, 120 people undergoing chemotherapy for early-stage breast or colon cancer were given either a personalized formula or placebo. Researchers evaluated numerous possible effects of the treatment, but found benefits in only one: reduction of nausea. Note that even this single result is less meaningful than it may seem; it is statistically questionable to use a multiplicity of outcome measures.

**Other Side Effects of Chemotherapy**

In highly preliminary trials, the supplement *N-acetylcysteine* has shown promise for reducing various side effects of the drug *ifosfamide*.

An animal study suggests that a constituent of *fish oil* called docosahexaenoic acid (DHA) might decrease side
effects caused by the drug irinotecan.

The hormone melatonin has shown some promise for reducing the side effects of various chemotherapy drugs. In preliminary studies, various antioxidants have shown promise for preventing heart damage and other side effects of the drug doxorubicin. See the Doxorubicin article for details.

One animal study hints that the herb milk thistle might protect against kidney damage caused by the drug cisplatin. In addition, there is some evidence that acetyl-L-carnitine, glutamine, and vitamin E supplementation might each reduce peripheral neuropathy symptoms in patients (painful damage to nerves outside the spinal column) receiving cisplatin or paclitaxel. Sea buckthorn berry has been advocated for reducing side effects of chemotherapy, but the evidence that it works is far too preliminary to be relied upon at all.

A review of 33 studies supports the view that antioxidants in general (with the exception of vitamin A) may reduce the toxic effects of chemotherapy. However, due to inconsistencies among these studies, it is unclear which antioxidants are best for this purpose.

In a small randomized trial of 43 breast cancer patients, 6 weeks of acupuncture twice weekly reduced joint pain attributed to aromatase-inhibitor therapy.

This topic is also discussed in the Homeopathy Database, in the cancer chemotherapy support chapter.

### Reducing Side Effects of Radiation Therapy

Although the symptoms are generally less intense than with chemotherapy, radiation therapy can also cause problems, such as diarrhea, skin damage, and fatigue. Certain supplements and alternative therapies may offer benefit.

Two double-blind, placebo-controlled studies enrolling a total of almost 700 people undergoing radiation therapy found that use of probiotics significantly improved diarrhea. However, of 85 women receiving pelvic radiation for cervical or uterine cancer, those who consumed a probiotic enriched yogurt had no less diarrhea than those who took a placebo drink. An unblinded controlled study of 75 people receiving radiation therapy for various forms of cancer found some evidence that soap enriched with Aloe vera gel can help protect the skin from radiation damage. However, researchers had to use questionable statistical methods to find evidence of benefit, making the results less than fully reliable. A double-blind, placebo-controlled study that evaluated the effects of aloe gel in 225 women undergoing radiation therapy for breast cancer failed to find benefit. Another study failed to find aloe vera beneficial for reducing side effects of radiation therapy for head and neck cancer.

One study compared cream made from calendula flowers with the standard treatment trolamine for protecting the skin during radiation therapy and found calendula more effective. However, it is not known whether trolamine is beneficial, neutral, or harmful when used for this purpose, and for this reason it's not possible to draw firm conclusions from the study.

Cream made from chamomile has also been tried for protecting the skin from damage caused by radiation therapy, but the one controlled trial on the subject failed to find benefit.

One study failed to find oligomeric proanthocyanidins (OPCs) from grape seed helpful for reducing the local side effects of radiation therapy for breast cancer.
Radiation treatment in the vicinity of the mouth may cause alterations in taste sensation. In a small double-blind, placebo controlled trial, use of zinc supplements tended to counter this symptom. However, a larger follow-up study failed to find this benefit.

One small study did find that use of zinc could modestly decrease inflammation of the mucous membranes and skin caused by radiation therapy.

Radiation treatment to the pelvic area can cause nausea, vomiting, and fatigue. A double-blind, placebo-controlled trial with 56 participants evaluated the potential effectiveness of proteolytic enzymes for reducing these symptoms. Unfortunately, no benefits were seen. Another study failed to find proteolytic enzymes helpful for reducing mouth sores or other symptoms that occur during radiation therapy of head/neck cancers.

In a double-blind study of 40 people undergoing radiation therapy for breast cancer, use of a standard multivitamin preparation failed to reduce fatigue as compared to placebo. (In fact, people in the placebo group may have done somewhat better than those given the vitamin.)

A large study failed to find aromatherapy more helpful than placebo for reducing psychological distress among people undergoing radiation therapy for cancer. And a small randomized trial found that effleurage massage, a common massage technique, had no significant effect on anxiety, depression, or quality of life among 22 women undergoing radiation therapy for breast cancer.

As with chemotherapy, sea buckthorn berry has been advocated for reducing side effects of radiation therapy, but again reliable evidence is lacking.

The use of antioxidants during radiation therapy is controversial. One study found that use of antioxidants decreased radiation therapy side effects, but may have decreased radiation therapy effectiveness as well.

In a small trial, patients who wore acupressure bands for up to 7 days following radiation therapy reported less nausea than patients who received only usual care.

A systematic review of 3 randomized trials involving 123 people with head and neck cancer found that real acupuncture was more effective than sham (fake) acupuncture in reducing the risk of dry mouth (xerostomia) due to radiation therapy. A subsequent study also supports the use of acupuncture in reducing dry mouth in such patients. But, unlike the previous trial, this one compared acupuncture to standard care (rather than to sham treatment).

This topic is also discussed in the Homeopatomp Database, in the radiation therapy support chapter.

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**Treating Side Effects Caused by Breast Cancer Surgery**

Many women experience lymphedema (chronic arm swelling caused by damage to the lymph drainage system) following breast cancer surgery. Natural treatments for this condition include oxerutins, citrus bioflavonoids, and OPCs. For more information see the Surgery Support article.

Another small randomized trial of 70 patients found that acupuncture may decrease dry mouth and pain after removing lymph nodes in the neck for cancer treatment.

**Hot Flashes After Mastectomy**

Women who have had breast cancer surgery frequently experience annoying hot flashes. Estrogen treatment is not an option, as it might increase the risk of cancer recurrence.

In a 2-month, double-blind trial, 85 women who had undergone treatment for breast cancer received either the
herb black cohosh or placebo.\textsuperscript{89} The results were not encouraging: black cohosh did not reduce overall hot-flash symptoms.

Four double-blind, placebo-controlled trials evaluated soy isoflavones as a treatment for hot flashes, but again failed to find benefit.\textsuperscript{90,91,121,133}

A trial involving 72 breast cancer patients failed to find real acupuncture significantly more effective than sham acupuncture for treatment of hot flashes.\textsuperscript{160} And, a 2008 review of all existing studies on the subject concluded that the evidence does not support a beneficial effect for acupuncture in breast cancer patients suffering from hot flashes.\textsuperscript{173}

In a small randomized trial, hypnosis appeared to reduce hot flashes as well as improve mood and sleep among 51 breast cancer survivors compared no hypnosis.\textsuperscript{171}

Other Side Effects Caused by Breast Cancer Surgery

After a mastectomy, some women develop wound complications. Ninety women who had undergone a mastectomy were randomized to receive 1 of 3 treatments: routine wound care, the Chinese herb \textit{Salvia miltiorrhiza} (given intravenously for 3 days), or another Chinese herb called anisodamine (also given intravenously for 3 days).\textsuperscript{185} The women who received the herbal treatments had fewer wound complications compared to those in the routine wound care group. But, the women who took anisodamine had more adverse effects related to the treatment, like painful urination.

Treating Weight Loss Caused by Cancer or Cancer Treatment

Cancer can cause a condition called tumor-induced weight loss (TIWL), in which symptoms of starvation occur despite apparently adequate nutrition. The cause is thought to be a particular form of inflammation caused by the cancer. Cancer chemotherapy can also cause weight loss. For information on natural treatments that may be helpful, see the Undesired Weight Loss article.

Cancer Cures

Numerous herbs have been claimed effective for treatment of cancer, including:

- Bloodroot
- Burdock
- Cat’s claw
- Flaxseed (based on lignan content)
- Lapacho
- Maitake
- Noni
- Oregon grape
- Pokeweed
- Red clover
- Reishi

However, there is no reliable evidence to indicate that they actually help, and one pokeweed, is actively toxic.

Various herbal combinations have also been promoted for the treatment of cancer, including the Hoxsey cancer cure, Essiac, and Jason Winter's cancer-cure tea. Again, however, there is no reliable evidence that they really
Similarly, various dietary approaches claimed to help treat cancer, such as macrobiotics and raw foods, lack meaningful supporting evidence.\textsuperscript{103}

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**Herbs and Supplements to Use Only With Caution**

**Herb and Supplement Interactions With Specific Cancer Drugs**

Various herbs and supplements may interact adversely with drugs used to treat cancer. We strongly recommend that individuals under treatment for cancer do not use any herb or supplement except under physician’s supervision. A few important categories of potential interactions are described here. Follow the links to the indicated article for detailed information.

The herb St. John’s wort interacts with many medications, including various chemotherapy drugs.

The drug methotrexate causes the body to become deficient in folate. For this reason, people who take methotrexate for rheumatoid arthritis, juvenile rheumatoid arthritis, or psoriasis are sometimes advised to take folate supplements. Studies indicate that in those conditions, use of folate does not impair the action of the drug. However, no studies have as yet established that folate supplements are safe to take with methotrexate when it is used to treat cancer.

The citrus bioflavonoid tangeretin may interact with the breast cancer drug tamoxifen.

One highly preliminary study found that black cohosh might interfere with the action of the chemotherapy drug cisplatin.\textsuperscript{134}

**The Antioxidant Controversy**

Heated disagreement exists regarding whether it is safe or appropriate to combine antioxidants (eg, vitamin E, vitamin C, and beta-carotene) with standard chemotherapy drugs. The reasoning behind the concern is that some chemotherapy drugs may work in part by creating free radicals that destroy cancer cells, and antioxidants might interfere with this beneficial effect.\textsuperscript{94}

There is little reliable evidence, though, that antioxidants interfere with chemotherapy drugs. Additionally, there is growing evidence that antioxidants may not cause harm and, in certain cases, may offer benefits.\textsuperscript{95,104,122,135} However, the effects are likely to vary with the specific situation (for example, type and stage of cancer, and kind of treatment used), and there is far more research to be done.\textsuperscript{123} Therefore, we strongly recommend that you do not take antioxidants (or any other supplements) while undergoing cancer chemotherapy except on the advice of a physician.

A similar situation exists regarding radiation therapy. One study found that use of antioxidants decreased radiation therapy side effects, but may have decreased radiation therapy effectiveness as well.\textsuperscript{136} Another study found some evidence that people who both smoked cigarettes and used antioxidants while undergoing radiation therapy for head and neck cancer had increased risk of treatment failure as compared to smokers who did not use antioxidants.\textsuperscript{158}

After reviewing much of the research on this controversial topic, one group of researchers published an article in the *Journal of National Cancer Institute*, in which they conclude that antioxidants should be discouraged during either chemotherapy or radiation therapy because of their potential to reduce the effectiveness of these treatments.\textsuperscript{167}

**Herbs That May Increase Breast Cancer Recurrence Risk**
Women who have had breast cancer are at high risk for a recurrence. As noted above, use of estrogen promotes the development of breast cancer, and for this reason it is off limits. However, certain natural products may present a similar risk. Numerous herbs and supplements have estrogen-like properties, including the following:

- Alfalfa
- Genistein
- Hops
- Licorice
- Red clover
- Resveratrol
- Soy

Contrary to popular belief, black cohosh is probably not estrogenic.

Other supplements, such as androstenedione and boron, may raise estrogen levels in the body. Finally, although the herbs dong quai and Panax ginseng do not appear to act in an estrogen-like manner, they may nonetheless stimulate growth of breast cancer cells. Women who have undergone breast cancer surgery should use these herbs and supplements only under the advice of a physician.

The weak estrogen, estriol, is sometimes advocated by alternative practitioners as a safer choice than standard estrogen. However, test tube studies suggest that estriol is just as likely to cause breast cancer as any other form of estrogen.

References [+]


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