

Nutri-farmacy INFO SHEET
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BREAST CANCER

Breast cancer is the most common type of cancer seen in American women and is second only to lung cancer as a cause of cancer-related deaths in the United States. In the year 2000, there were about 200,000 new cases of breast cancer and about 50,000 deaths from the disease. At the present rate of incidence, the American Cancer Society predicts that one in eight women will develop breast cancer during her life.

A woman who has had cancer in one breast is at an increased risk of developing cancer in the other breast. Women with cancer of the uterus corpus have a significantly higher risk of breast cancer, and vice versa.

In the United States, breast cancer is more common in white women than in nonwhites. In general, rates from women who live in developing countries are low, whereas rates are higher in developed nations, with the exception of Japan.

A multifactorial lifestyle program to reduce and treat breast cancer should include dietary modifications, exercise, drugs, supplements, and stress management. While the risks of breast cancer are still being outlined and debated, the obvious ones include a history of previous breast cancer, family history, a history of hyperplasia, early and late menopause, high exposure to exogenous estrogen, diabetes, high meat/low fiber diet, a history of smoking, and stress.

DIET

Food is medicine! A healthy diet will fuel your immune system and protect against the "wasting" that affects many people with cancer. Super cancer-fighting foods include onions, garlic, rosemary, tumeric, soy, green tea, cruciferous vegetables, and cultured yogurt.

My Recommendations

1. Get acidity out of your system; eat alkaline.
2. Eat a vegetable-based diet (no animal ingredients).
3. Dense green foods/vegetables such as broccoli, kale, carrots, Brussels sprouts, spirulina, cabbage, sea vegetables, and soy are good to eat on a regular basis (organic is best).
4. Fibrous fruits (apples, peaches, pears) are preferable to fleshy tropical fruits.
5. Avoid white sugar, white flour, and artificial sweeteners.
6. Consume a moderate, easily-digestible amount of protein with potatoes, seeds, grains, and nuts.
7. Limit milk, milk products, and refined carbohydrates.
8. Get all carcinogens out of your life, including soaps, shampoos, dyes, pesticides, smoking, stress, plastics, and chemicals.
9. Eating soy weekly would be enhance a woman's diet. Isoflavones (especially genistein, an antioxidant found in soybeans) have an inhibitory effect on the growth of cancer cells in the breast. This effect is most likely gained by soy's ability to compete for the estrogen-receptor site, thus blocking estrogen accumulation in breast cells.
10. Detoxification is helpful.

It makes sense to cut down on exposure to chemicals and pesticides (xenoestrogens). These residues are concentrated in the fat of meat and dairy products. Try to eat organic foods as much as possible.

Other Diet and Lifestyle Factors to Reduce the Risk

1. Drink less alcohol.
2. Lower hormone (especially estrogen) use. Progesterone is safe.
3. Get more exercise and avoid obesity.
4. Reduce stress and practice stress-management. This will boost the immune system.
5. Stop smoking.
6. Beware of environmental factors and toxins. Xenoestrogens and toxic pesticides (e.g., DDT, PCB, PCP, and chlordane) are proven to induce cancer.
7. Eat more lignans, including plant sources such as whole grains, beans, nuts, and flaxseed.
8. Restrict refined carbohydrates (sugar, snacks, cola, pasta, candy, and white bread), for they suppress the immune system and contribute to insulin resistance.

Education is the key to being able to make intelligent choices. Ideally, a patient can safely combine alternative treatments with conventional medicine, using alternative treatments to decrease the side effects of conventional therapy. Or, a patient might choose to introduce alternative treatments after minimal treatment with conventional therapy (i.e., a lumpectomy with no lymph-node dissection, radiation, or chemotherapy). Some women will opt to have no immediate treatment at all, but in some cases waiting too long can make a lumpectomy no longer possible because the tumor has grown too large.

RISKS

1. A high-saturated-fat diet has an enormous link to breast cancer. High trans-fatty acids damage healthy cells and stimulate the body's production of estrogen.
2. Women who consume 2-5 alcoholic drinks a day have a 41% greater risk of developing cancer.
3. Physical exercise 4 days a week lowers the risk factor of developing breast cancer by 37%.
4. Xenoestrogens, or residues of estrogenic hormones found in meat, poultry, dairy, eggs, pesticides, plastics, and pollutants can be carcinogenic. LINDANE is the hormone-disrupting pesticide linked to cancer.
5. Obesity, radiation, tobacco, and foreign chemicals all put a woman at risk of developing cancer.

TAKING TAMOXIFEN (*Nolvadex*)

According to the American Society of Clinical Oncology, a five-year course of adjuvant tamoxifen remains the standard therapy for women with hormone receptor-positive breast cancer. Tamoxifen acts in some ways like an anti-estrogen. A warning came out in June 2002 about possible serious events with tamoxifen. This new information was relevant to women with breast cancer confined to milk ducts and women receiving or considering tamoxifen therapy to reduce the risk of developing invasive breast cancer. Serious and life-threatening adverse events associated with tamoxifen use include endometrial cancer, vaginal dryness, blood clotting, uterine sarcoma, stroke, and pulmonary embolism. Tamoxifen has been found to increase bone loss in women taking it before menopause and stabilizes bone loss in women after menopause. Patients should discuss the potential benefits versus the risks of taking this drug.

Recent studies have found that supplementing gamma linolenic acid (GLA) with tamoxifen may be useful in increasing anti-tumor properties. Another study noted that tamoxifen treatment is most effective during co-administration with vitamin C and vitamin E to help reduce tamoxifen-induced high triglyceride levels.

SUPPLEMENTAL PROTOCOL

1. A potent, broad-spectrum MULTI-VITAMIN/MINERAL FORMULA should be used in each case where cancer history is established, unless copper or iron deficiency is found. In those cases supplementation with individual nutrients should be given and monitored. Add green food supplements (spirulina, chlorella, kale, spinach, blue green algae).

2. COENZYME Q₁₀

A potent immune-boosting antioxidant that may increase the rate of phagocytosis (destruction of cancerous cells), coenzyme Q₁₀ may help to prevent metastases (the spread of cancer). Research suggests a relationship between various cancers and the level of CoQ₁₀ in the blood. CoQ₁₀ is proven to reduce the tumor mass in breast cancer. Dosage: 100-390 mg daily.

3. ANTIOXIDANTS

A wide range of antioxidants is recommended, including vitamin C, vitamin E, and selenium, as well as vitamin A and beta-carotene (carotenoids). Studies show that co-administering vitamins C and E with tamoxifen may reduce side effects of the drug (particularly high triglyceride levels). **Taking large doses of vitamin E two weeks before starting chemotherapy can prevent hair loss.** European studies have shown that inadequate VITAMIN D levels are related to an increase in breast cancer. Dosage: vitamin C (500-1,000 mg); vitamin E (400-800 IU); selenium (200 mcg); beta carotene (5,000-10,000 IU); and vitamin D (400-800 IU), all taken daily. **[Dan—I don't have a copy of *Choices in Healing*—will you look this up in the index under chemo or vitamin E and find out how much vitamin E should be taken—I know that it gives the amount. I think it's kind of a large dose (maybe 800-1000 IU, but I don't remember the exact amount. It would be good to verify the dosage because it's really important for women to be able to keep their hair.]**

4. ESSIAC TEA

World-renowned Essiac tea is available in the original herbal formula made famous in 1922 by nurse Rene Caisse. This anticancer treatment is used widely by complementary and traditional practitioners, with many “miracle recoveries” still tied to this ageless product. Look for more information on the internet. Dosage: 2 ounces twice daily for 12 consecutive weeks. Best used under the direction of a qualified practitioner.

5. OMEGA 3, 6, 9 ESSENTIAL FATTY ACIDS (EFA)

Recommended essential fatty acids include omega 3 (flaxseed, fish oil); omega 6 (primrose, GLA, borage); and omega 9 (olive oil). Low concentrations of omega-3 fatty acids have been found in the adipose tissue of breast cancer patients. GLA is useful as an adjunct to primary tamoxifen in treating breast cancer, as it reduces the sensitivity of estrogen receptors. Dosage: 1,000-3,000 mg daily.

6. FOLIC ACID

Research suggests that high doses of folic acid (5-10 mg) provide protection against breast cancer, particularly in women who drink alcohol. Folate (folic acid) is highly effective in preventing breast cancer in both pre- and postmenopausal women. Dosage: 300-1,000 mcg daily.

7. SOY

Soy concentrate supplements (isoflavones) are chemo-protective and anti-carcinogenic. Isoflavones (especially genistein, an antioxidant found in soy beans) have an inhibitory effect on the growth of cancer cells in the breast. This effect is most likely gained by soy's ability to compete for the estrogen-receptor site, thus blocking estrogen accumulation in breast cells. Dosage: as directed.

8. IP-6 CELL FORTE (Inositol hexaphosphate)

This is a component of fiber found in highest concentrations in cereals and legumes, especially the bran part of wheat. IP-6 has antioxidant activity and may cause malignant cells to revert back to normal. Studies have shown IP6's anti-tumor properties in colon and breast cancer models. One study claims that IP6 enhances the effects of the chemo drugs adriamycin and tamoxifen which are commonly used in breast cancer and post-cancer treatment. Dosage: 800 mg 1-4 times a day.

9. ASTRALAGUS

A powerful herb from China, astragalus is an adaptogen that stimulates the immune system and improves the anticancer activity of T-killer cells. Sometimes astragalus is used in combination with ginseng as an adjunct to chemotherapy. Dosage: ranges from 10-30 grams a day, as directed by a qualified practitioner.

10. LUTEIN AND ZEAXANTHIN

There is significant evidence that carotenoids display anticancer effects and decrease the risk of breast cancer. Dosage: as directed.

11. CALCIUM D-GLUCARATE (CDG)

CDG may help control different stages of the carcinogenic process by blocking circulating estrogen and lowering endogenous estradiol levels. CDG may help control different stages of the carcinogenic process by blocking circulating estrogen and lowering endogenous estradiol levels. CDG is found in apples, grapefruits, and sprouts. A CDG-supplemented diet can inhibit mammary carcinogenesis and tumorigenesis. Dosage: 1,000-2,000 mg daily.

12. MEDICINAL MUSHROOMS

Reishi, Shitake, and Maitake mushrooms are adaptogens that have a long history of cancer-fighting effects. Dosage: as directed.

13. IPRIFLAVONE

Ipriflavone is a synthetic form of isoflavones known to have the therapeutic effect of decreasing the risk of osteolytic bone metastasis in human breast cancer patients. Dosage: 200-600 mg daily.

14. WORMWOOD (*Artemisia annua*)

A specific compound isolated from sweet wormwood may be an effective new treatment for breast cancer. Although long used as a treatment for malaria, artemisinin combines with free radicals and iron that may cause damage to breast cancer cells, as observed in malaria. Dosage: see a qualified practitioner. [Dan—do you want to say: Long used as a treatment for malaria, artemisinin has been found to combine with free radicals and iron. In a similar way, artemisinin, when used to treat breast-cancer patients, combines with free radicals and iron that may cause damage to breast cancer cells.]

15. PLANT STEROLS, STEROLINS

These healthy “fats” from plants display anti-inflammatory activity and may aid in T-cell activation. Dosage: as directed.

16. MELATONIN

Melatonin has been shown to have notable anticancer effects in both the test tube and animal studies. A dose of 10 mg twice a day may improve treatment with chemotherapy.

17. CAT'S CLAW

This potent herb from the rainforests of South America may neutralize free radicals and increase the anticancer activity of T-killer cells. Cat's claw may decrease the side-effects of chemotherapy (along with melatonin), and display anticancer effects of its own. Dosage: as directed by a qualified practitioner.

18. MISTLETOE

A fermented preparation of European mistletoe is approved for medical use in Germany and Switzerland. The commercial product (*Isadora*) enhances immune function, and its usefulness over the last fifty years has been documented in a great number of cases. Dosage: as directed by a qualified practitioner.

19. AMERICAN GINSENG

Combining ginseng with chemotherapy does not interfere with the action of the drug agents, and research has shown that ginseng may have anti-cancer effects in estrogen-receptor-positive breast cancer cells. American ginseng may be helpful in reducing postmenopausal symptoms associated with breast cancer recovery. Dosage: as directed on label.

Note: A British study on women with breast cancer found that women taking 2.8 gm daily of GLA (borage oil), in combination with tamoxifen, saw their tumors shrink within 6 weeks, faster than with tamoxifen alone. The cancer cells in estrogen-receptor-positive breast cancer have receptors for estrogen. Researchers believe that like tamoxifen, GLA hooks into these receptors and shuts them down so that estrogen can no longer nourish the cancerous cells.

SOY, ESTROGEN, AND BREAST CANCER

Estrogen is a steroidal hormone produced by mammalian species. There are NO plants that contain estrogen; it is a common misconception that they do. Soy products such as tofu, tempeh, and soy proteins are rich in ISOFLAVONES, most notably GENISTEIN. Studies have shown extremely low rates of breast and prostate cancer in certain Asian cultures due to the amount of soy products in their diet. While incidence rates of cancer remain lowest in these Asian nations, they remain highest in Western nations, including the U.S., which consume less soy.

When possible, organic soy products should ALWAYS be used. Soy products and cruciferous vegetables are rich forms of phytoestrogens, which have the ability to prevent and protect against breast cancer. Soy isoflavones bind to estrogen-receptor sites because they resemble the structure of estrogen—thus the name phytoestrogen. When phytoestrogens such as genistein bind to estrogen receptors in breast tissue, they can prevent the binding of estradiol (a potential cancer-causing substance) and xenoestrogens (cancer-causing estrogen look-alikes found in pesticides, pollutants, and some plastics).

Ipriflavone is a synthetic form of soy isoflavones that inhibits osteolytic bone metastasis in breast cancer patients. Ipriflavone also exhibits antitumor effects *in vivo* and *in vitro* and may be used as a therapeutic agent in bone metastasis.

A Note of Caution Regarding TAMOXIFEN and SOY

When a woman is taking the drug tamoxifen (Nolvadex) after she has had breast cancer, excessive soy in the diet would compete at the estrogen-receptor sites and may cause the tamoxifen to be less effective.

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