

## COMPLEMENTARY THERAPY FOR BREAST CANCER

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In discussing this topic, I want to be clear from the outset that I advocate a truly integrative approach, using both conventional and alternative/complementary therapies, when dealing with a potentially life threatening condition like breast cancer. That being said, I believe that each woman has to make her own choices in determining what therapies are best for her using all of the information at hand and taking into account her unique desires and circumstances. Exploring complementary therapies gives us the opportunity of examining ways of enhancing conventional treatments, i.e. surgery, radiation, and chemotherapy, by potentially increasing their effectiveness and lessening their side effects. It also allows us to look at addressing possible underlying causes from which we can develop possible prevention strategies as well as offer alternatives for those who have decided to forgo conventional treatment and yet still want to take an active role in their health.

One exciting area of research involves looking at the way the body metabolizes estrogen. In the liver, old estrogen is broken down by two main pathways, called 2-OH and 16-alpha-OH, to be excreted in the bile. A proper ratio of the two, with more 2-OH than 16-alpha-OH, is necessary for good health. Due to genetic and environmental factors, the ratio can become reversed with more 16-alpha-OH than 2-OH and there are now tests to measure this. This situation may occur in women with such problems as fibrocystic breast disease, PMS, and other menstrual disorders. When it is present, it also appears to be associated with a third pathway, called 4-OH, which takes place mostly in breast tissue. The 4-OH pathway has been associated with the production of compounds that cause damage to DNA and when it is overactive, may lead to increased cancer risk.

A nutritional strategy aimed at increasing 2-OH levels while decreasing 16- and 4-OH levels may therefore theoretically help in both preventing breast cancer and assisting in its treatment. This would include a diet rich in cruciferous vegetables like broccoli, cauliflower, cabbages, and Brussels sprouts that have compounds like indole-3-carbinol, and especially di-indole-methane. These compounds encourage the 2-OH pathway. They can also be found in some supplements. Green tea and licorice (not the candy!) also favor the 2-OH pathway but care must be taken when using licorice to make sure that blood pressure is not affected. Catechins found in green tea, as well as vitamin E, are beneficial as they inhibit the formation of the harmful 4-OH compounds.

There is debate over whether the phytoestrogen compounds found in soy, called isoflavones, have a positive or negative effect in breast cancer. Theoretically, these compounds should be beneficial in that they help to partially block the receptors of estrogen receptor positive (ER+) tumors. Some authorities are concerned about having breast cancer patients taking in any estrogenic compounds but many nutritionists point out that other phytoestrogens, such as lignans, are found in fruits, berries, legumes, grain fibers, and vegetable fibers. They find it hard to believe that all of these otherwise very healthy foods could possibly be harmful to breast cancer patients. Nevertheless, some experts in integrative cancer care reserve recommending soy isoflavones for younger patients only, i.e. under 65.

What appears to be important in all breast cancer patients is to eat more protein but not red meat. Poultry, fish, and dairy should be eaten instead. One study found a 30% reduction in death rates for patients eating the most poultry. In addition, while lower fat intake did not help once the diagnosis was made, increased fat intake before diagnosis was associated with a 70% increased risk of death after diagnosis. Saturated fat, found

particularly in red meat and butter, appears to be the worst culprit. Olive oil may actually be beneficial. One study found that mice that were given olive oil with the highest oleic acid content had the lowest level of tumors when exposed to a known carcinogen.

A number of other nutrients have shown promise as complements to conventional therapy. Melatonin, in doses up to 20 mg., has a number of synergistic effects when combined with the chemotherapy agent tamoxifen and may be helpful even in women not taking tamoxifen. Gamma linolenic acid (GLA) found in evening primrose, borage, and black currant seed oils has also been shown to enhance the effects of tamoxifen. Polyphenols found in green tea have been shown to reduce the tendencies of all cancers to spread to other parts of the body. They also enhance the effectiveness of the chemotherapy drug adriamycin. You have to drink about 6-10 cups or take 2-4 extract capsules a day to get the effect.

One last point deserves mention. A study from England showed that women with higher progesterone levels, such as those found during the second half of the menstrual period had significantly better survival rates after breast cancer surgery. Having surgery during the first half of the cycle seems to increase the risk of the cancer spreading to other parts of the body. Any woman contemplating surgery for breast cancer, if she is still menstruating, should discuss this with her surgeon and make sure the surgery is done during the second half of her cycle.