

## ***What if there was one nutrient which...?***

1. Desensitized estrogen receptors in the breast.
2. Reduced estrogen production in overactive ovaries.
3. Reduced fibrocystic breast disease which often precedes breast cancer.
4. Caused cancer cell death, slowed down cell division and reduced blood vessel growth to tumors.
5. Caused more cell death than the chemo drug, Fluorouracil .
6. Prevented rats from getting cancer when they were fed the breast cancer causing toxin DMBA.

### ***Research suggests that some breast cancers may be an iodine deficiency disease.***

As iodine consumption has gone down, breast cancer rates have gone up. But the research goes far deeper, exploring the effects of iodine supplementation on breast disease and breast cancer. This important breakthrough has been in the research pipeline for years but only recently found momentum. After sifting through 50 years of iodine research and corresponding with researchers around the world, the editors report that abnormal iodine metabolism, due either to bromide dominance in the environment or a dietary deficiency of iodine, must be addressed as part of a preventive and or a therapeutic strategy.

#### **Iodine Deficiency Growing Worse**

- Iodine consumption by Americans has dropped 50% since the 1970s as breast cancer rates have risen (1). In the US Goiter Belt, where iodine in the soil is lower, breast cancer is higher (2).
- By contrast, the incidence and severity of breast cancer are less in Japan than in Europe and the US, attributable to the diet (3). Japanese women consume 25 times more dietary iodine than North American women and have lower breast cancer rates (4).
- Meanwhile, since the 1970s, in the US and several other countries, iodine-blocking bromides have been added to flour, some sodas, and medications, exacerbating the iodine deficiency.

- Fluoridated drinking water also depletes iodine absorption. Thus, as women consume less iodine and excrete more due to toxic elements, our risk for breast cancer grows(5).

## **Iodine and Benign Breast Disease**

- Blocking iodine in rats' food supply led to progressive human-like fibrocystic disease (atypia, sclerosing, calcifications, dysplastic changes) as the rats aged (6). Supplementing patients with fibrocystic disease with iodine helped to resolve fibrosis and reduced breast size (7).
- For women with painful breasts accompanying fibrocystic disease, iodine improved symptoms in more than 50% of the women who took 6.0 mg. of iodine for 6 months (8), and brown sea alga improved pain and nodularity in 94% of the women (9). From the editors' observations of the Iodine Investigation Project participants, depending on the kind of iodine agent used, painful breast symptoms have resolved in from 24 hours to two months.
- Since benign breast disease increases the risk of breast cancer (10), and iodine improves fibrocystic disease, we at Breast Cancer Choices propose studies to see if iodine supplementation decreases the risk of getting breast cancer and the risk of recurrence.

## **Iodine and Breast Cancer**

- For breast patients, iodine's therapeutic mechanisms of action may be at least three-pronged: Hormonal (11), Biochemical (12-18), Genetic (19).  
That is, iodine desensitizes the estrogen receptors, alters the chemical pathways as well effects on the genes, resulting in less cell growth, and causing anti-tumor effect by causing apoptosis (programmed cell death) of malignant cells.
- Iodine-rich seaweed exhibits an anti-cancer effect in rats and in the lab on human breast cancer cells.

Adding seaweed to rats' food delays the onset and number of rat mammary tumors (20,21). And in the lab, mekabu seaweed plant induced cell death in three kinds of human breast cancer cells. Mekabu had a stronger effect on the cells than the chemo drug, 5-fluorouracil (22).

- Adding iodine to chemically-induced (DMBA) rat breast tumors stops the growth of the tumors. Adding iodine plus medroxyprogesterone gave the highest level of response: the growth-suppressed tumors showed 100% times the iodine content than the full blown (nonsuppressed) tumors. The researchers suggest that the uptake of iodine was enhanced by medroxyprogesterone. (23). As David Brownstein, MD, phrased it, *"You cannot give breast cancer to rats that have sufficient iodine."*
- In small, preliminary patient studies, using the screening iodine-loading test, breast cancer patients excreted less urinary iodine than healthy people, implying iodine-deficiency (24,25).

## What to do about iodine deficiency?

- The editors at Breast Cancer Choices recommend patients read as much as they can from the Iodine Related Links on the top left side of this page.
- Secondly, we recommend taking the [Iodine Loading Test](#) which will provide a guideline to your current iodine sufficiency status. Then join the [Iodine Investigation Project](#) and participate in our confidential database so we can follow your progress. Next, consider finding an [iodine-literate practitioner](#) (ILP) from our directory or one willing to consider this non-toxic therapy.
- [Iodine Protocol](#). Depending upon the results of your screening iodine-loading test, most doctors we are familiar with currently recommend 50 mg or more of iodine daily in the form of Iodoral tablets (a combined iodine-iodide formula), but others recommend an iodine-only formulation or Lugol's iodine solution.
- **Where to Get Iodoral:** Iodoral tablets may be available from your health practitioner. The Breast Cancer Choices charity fund-raises for the Iodine investigation Project through [sales of Iodoral](#). If we have provided information to you, please consider buying from a charity rather than a for-profit company.
- **Iodine Companion Nutrients.** Many Iodine Literate Doctors suggest selenium(26), vitamin C (27), and magnesium(28) enhance the therapeutic value of iodine. Niacin was also recommended at the February 07 Iodine Conference. Thyroid function should be closely monitored and may require an adjustment of thyroid medications.

- For those experiencing uncommon detox side effects such as constipation, acne or rash, the Yahoo Iodine Group has used 1/2 teaspoon Celtic salt dissolved in a large glass of water, taken twice a day. Drinking additional water and taking extra vitamin C may help even more.

## What to Expect

The Breast Cancer Choices Iodine Investigation Project is currently following patients taking iodine to prevent recurrence. Most patients report no side effects. Some report a range of non-breast improvements such as change in thyroid status, need for less thyroid medication, weight loss, ovarian cysts resolving, fibroids shrinking, improved energy, mood and mental clarity.

But be aware some iodine takers report what we believe to be iodine detoxing bromide into the bloodstream causing symptoms of bromism.

According to a Department of Defense commissioned report, , bromism symptoms can manifest as lethargy, depression, "dark" thoughts, "brain fog," constipation, leg and hip pain, acne, rashes and other symptoms. These side effects are usually reversible in 24-48 hours by discontinuing the iodine and allowing a short period of washout before restarting at a lower dose. Again, as stated above, Celtic salt in water has relieved detox symptoms quickly by speeding up bromide detox through the kidneys. See full iodine protocol.

**CAUTION: DO NOT TAKE IODINE IF YOU ARE ALLERGIC TO IODIZED SALT**

- Since bromide excretion seems to be higher in breast cancer patients than undiagnosed persons (29), it is important that each patient develop a strategy with her physician to clear the bromide. Ways of eliminating bromide detox symptoms by taking 1/2 teaspoon of Celtic salt in water are currently being used.

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