WOMEN'S HEALTH

Natural Hope for Breast Cancer

KEY WORDS

breast cancer, DNA, diet, women, curcumin, boswellia, vitamin D, iodine, Japan, bromide, chloride, fluoride, methylation, tumors, cells, AKBA, mutation, sleeping gene, inflammation, free-radical damage

Breast cancer is terrifyingly widespread in America. Over 230,000 women dealt with the disease in 2011 alone. It is second only to lung cancer for its mortality in the United States.

Because of this, there can be a sense of inevitability about breast cancer. It is not surprising, considering that for many women – up to 80% – the disease has no precedent in the family. Instead, it appears to strike due to genetic factors that are shaped by the environment, aging, and/or stress, rather than heredity.

First, take a look at your diet. Whenever possible, eat organic foods. Eating foods the way nature intended them, and not combined with synthetic lab-created substances, is your best bet. Also, it's important to get active. Find something that you love to do and try to do it every day. Get your heart pounding and your blood moving! Humans are not designed to sit still all day at work, then go home and sit still all evening, and then just go to bed and start the whole routine over again. We were meant to be active!

Aside from lifestyle changes, there are proven natural supplements that may be some of the strongest weapons ever for fighting breast cancer. And they are the subject of this *Terry Talks Nutrition*®.

Cancer and Inflammation

As prevalent as cancer is, it is not normal. Normal cells do what they should: grow and divide to form the tissues in our bodies, grow old, die, and then are replaced by new cells. In cancer, this doesn't happen. Instead, cells grow out of control. They multiply too quickly, and do not die. Then, in a process called "metastasis," they spread to other organs.

While many factors are involved in the origins of cancer in the body, one of the most dangerous root causes is inflammation. As the body fights to control inflammatory markers, it actually creates free radicals. The problem is, sometimes our bodies respond to this threat by creating more cells to make up for the damage from what it views as free radical "invaders". But the process doesn't always work properly, and damaged DNA can begin overreplicating cells. This sets the stage for cellular

"population explosions" that can even draw in cells from surrounding unrelated tissue. So what you really have here is a relationship between inflammation, free-radical damage, and DNA mutation. And this is why finding the right nutrients is so important.

Curcumin: Extraordinary Inflammation Fighter

Curcumin, the key compound from the spice turmeric, can stop inflammation and free radical damage in their tracks. It inhibits the way the body overexpresses inflammatory markers, including interleukin 1b (IL-1b), interleukin 6 (IL-6), and tumor necrosis factor-a (TNF-a). This is important, because inflammation fuels the growth of cancer.

And in very direct way, curcumin alters the potential for tumors by inhibiting the activity of matrix metalloproteinase-9 (MMP-9) and MMP-2. These enzymes (also known as proteases) are normally involved with building tissue, which in most cases is a good thing, but obviously that's not the case when you're talking about tumors. Curcumin has been shown to inhibit these proteases as they try to build tumors in liver cancer cells. Beyond that, other studies have shown that curcumin can inhibit the spread of not just breast cancer,but cancers of the bladder, lung, pancreas, prostate, colon, cervix, ovary, kidney and brain. It can also fight osteosarcoma, leukemia, and melanoma.

So, curcumin is important because it stops all three stages of cancer. It stops cancer cells from forming, kills existing cancer cells, and stops cancer cells from spreading. Curcumin has been used as both a preventative and as an addition to chemotherapy or radiation treatment. While common chemotherapuetic drugs cause serious side effects, curcumin produces none. Common anticancer drugs are immunosuppressive. Curcumin is an immune-restorer. Plus, most common anticancer medications cannot cross the blood/brain barrier, and curcumin can.

There have been some challenges, though. Standard curcumin doesn't absorb well, and because of this, clinical trials have had to use increasingly larger dosages (up to 10-12 grams daily) in order to get even a small amount into the bloodstream. There's no toxicity associated with curcumin, even at these very high dosage levels, but cost, comfort and compliance are very real issues here.

However, there is a powerful curcumin extract which I recommend that has been extremely successful. It combines micronized curcumin (reduced to a very small particle) and turmeric essential oils. That allows this bioavailable curcumin extract to have *up to 10*



times the bioavailability and greater blood retention time than standard 95% curcumin extracts.

If you have concerns about breast cancer, the bioavailable curcumin extract that I recommend is one of the strongest natural cancer fighters to have as part of your regimen.

Boswellia: An Amazing Cell-Protector

Boswellia (Boswellia serrata) is another strong botanical that can protect against tumor growth. Like curcumin, it reduces inflammation (although along somewhat different pathways) so that normal cellular growth and reproduction isn't compromised. The most recent, cutting-edge research regarding boswellia and cancer has involved cellular studies on colorectal, prostate, and breast cancer cells, but so far, it seems very promising and certainly points to boswellia as being a "must have" herbal ingredient.

One of the ways boswellia works is by activating the "sleeping" genes that protect us from tumor growth. The study of the activation and suppression of gene expression is called "epigenetics". I think you'll hear much more in the coming years of how epigenetic changes are the root cause of about 98% of all cancers.

Of course, the type of boswellia extract here is crucial. One thing I would stress about boswellia is to look for a very specific type of extract. Make sure it is a "low beta" boswellia extract, which simply means that it contains very little of beta-boswellic acids, which can pro-inflammatory. This same boswellia extract should also provide at least 70% total organic and boswellic acids, including the

More...

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most active anti-inflammatory boswellic acids known as AKBA (Acetyl-11-keto- B-boswellic acids).

This is important because research shows that AKBA suppresses the activation of NF-kB, a protein complex that under the duress of inflammation, promotes the growth of tumor cells. In fact, some of the most exciting recent research has shown that AKBA has a powerful ability to re-awaken "sleeping" genes and get them back to their work of preventing cancer growth. The process, called DNA "demethylation", can potentially prevent aberrant cell division. (DNA methylation is responsible for much of the improper cell growth that leads to tumor formation.) Overall, the high-AKBA boswellic extract inhibited cell proliferation, decreased cancer cell viability, and decreased the survival of clonogenic cells – the mutated cells that create tumors.

Alone, or with the absorbable curcumin extract I outlined above, boswellia is an excellent ingredient to bolster a cancer-protective regimen of healthy diet, exercise, and other strong supplementation.

lodine: A Forgotten Mineral

lodine is essential to good health. It's required by the thyroid (along with the amino acid, L-tyrosine) to create the hormones you need for healthy metabolism.

But, aside from thyroid support, iodine's anti-cancer functions may be one of its most important benefits.

Scientific tests using estrogen sensitive breast cancer cells exposed to iodine have shown that they are less likely to grow and spread. Fibrocystic breast disease is also a common concern, and creates swelling, tenderness, and discomfort. In one study, 98% of women receiving iodine treatment were pain-free by the study's end, and 72% had improvements in breast tissue. (Ghent WR, et al. lodine replacement in fibrocystic disease of the breast. Can J Surg 1993;36:453-460.)

As it happens, life expectancy in Japan is just over 82 years old, while in the United States it is about 78 years. The infant mortality in Japan is half of that of the United States. And, America faces three times the number of deaths from breast cancer than Japan.

Studies note a connection between thyroid abnormalities and breast cancer, and iodine intake may be a factor. Today, **one in seven** American women will develop breast cancer during her lifetime. Compare that to thirty years ago, when iodine consumption was much higher, and one in 20 women developed breast cancer. Women in Japan who consume high amounts of dietary iodine have much lower rates of breast cancer and thyroid problems.

However, when women emigrate from Japan to the United States and begin eating a Western diet, with its fractional amount of iodine, their breast cancer and thyroid diseases increase dramatically.

Unfortunately, this isn't surprising. Iodine helps rid the body of toxic bromide, chloride, and fluoride – three iodine impostors that attach themselves to iodine receptor sites in the body and are all too common in our environment. That's one of the many reasons that I believe it is critical that we get high levels of iodine each day.

Bear in mind that dosage levels can vary. The thyroid alone needs approximately 5 mgs of iodine per day, but iodine is used by the cells of the breast, ovaries, uterus and prostate as well. Holistic physicians treat fibrocystic breast disease, which causes cysts, nodules and hardness of the breast, with iodine. They've also had significant success in treating breast cancer with high doses of iodine. This is also true for the nodules, cysts and cancer that can be found in the ovaries, uterus and prostate. So, a maintenance dosage for an adult would be 12.5 mgs. For the higher the dosage of iodine, recommended by holistic physicians, you're looking at up to 50 mgs per day. For breast cancer, possibly 100 mg of iodine per day is appropriate, although I would urge you to discuss this with your integrative practitioner.

Vitamin D: An Undervalued Miracle

Vitamin D is a miracle, no doubt about it. It can reduce the risk of Alzheimer's and Parkinson's, build bones and stop osteoporosis, and prevent up to 70% of cancers. So why are so many Americans – up to 58% – so deficient in vitamin D?

Mostly because this vitamin – actually a pro-hormone – has very few food sources, and many people don't get the vitamin D they need from exposure to sunlight. Plus, because vitamin D uses cholesterol as a building block, cholesterol-lowering drugs actually make it more difficult for your body to synthesize vitamin D. And as we age, our skin changes structure in a way that can reduce vitamin D production by up to 60%.

Plus, there are genetic factors involved as well. A polymorphism – a slight mutation – on the VDR (vitamin D receptor) gene makes it more difficult for the body to absorb and use available vitamin D, whether from sunlight or supplements.

Our old recommended daily requirements for vitamin D are partly to blame as well. They have been set at 400 IUs, which is barely 10% of what the body needs. Unfortunately, vitamin D deficiency is associated with at least 17 forms of cancer.

Clinical research has found that over 75% of breast cancer survivors in their studies were vitamin D deficient, and other studies conclude that high levels of vitamin D — much higher than our current recommendations — may reduce the risk of breast cancer by 50%! That's an amazing statistic — if vitamin D were a pharmaceutical drug, the manufacturer could practically boast a "miracle cure". And yet, we tend to overlook something as simple as a nutrient like vitamin D.

Other studies have found that vitamin D is able to enter breast cancer cells and trigger cell death — in other words, vitamin D can kill breast cancer cells.

While there is no agreement on how much vitamin D a person needs for a daily intake, current research certainly shows a need for higher recommendations. In some disease treatment, extremely high dosages of 50,000 to 100,000 IU have been used, but for most of us, a daily intake of 1,000 to 2,000 IU of vitamin D – possibly boosting it in a range of 4,000 to 6,000 IU for cancer prevention – is probably just right.

You can fight back

Of course, the best way to fight cancer is to do everything you can to prevent it from gaining a hold to begin with. Stopping inflammation and helping the cells of the body develop normally is one of the most important ways to do just that. That's why finding and supplementing with the best bioavailable curcumin, boswellia extract purified to contain less than 5% beta-boswellic acid and at least 10% AKBA, high-quality iodine, and meaningful levels of vitamin D I've outlined here is a must.