Estrogen - What's Next?

NOTE: This is the second document in a series of three about Estrogen. If you haven't yet read the document "Estrogens - An Introduction", please do so before reading this document. It will help you better understand some of the terminology.

Hopefully now that you understand a bit more about estrogen receptors and some of the basic forms of estrogen, the question is "What do we do about it?"

In addition to removing harmful endocrine disruptors, we can help regulate estrogen uptake by providing our bodies with beneficial phytoestogens. We already learned in the previous document that plants have a type of weak estrogen called phytoestrogens. It is those which we want to have in our bodies to occupy the estrogen receptor sites on hormone positive cancerous tumors.

Enter isoflavones ... an excellent type of phytoestrogen. "Isoflavones (genistein, daidzein, formononetin, and biochanin A) are primarily found in the bean family (Fabaceae) and are some of the most potent and well-researched phytoestrogens. Soybeans (Glycine max, Fabaceae) appear to be the most concentrated dietary source of isoflavones. Soy foods, listed in order of isoflavone concentration, include miso, tempeh, soymilk, tofu, and edamame. Soy is one of the most controversial foods today, either vilified as a harmful substance or praised for its nutritional superiority.

Most of the confusion and misinformation about soy stems from two misunderstandings: One, people do not differentiate soy's whole fermented organic traditional forms, such as miso, tamari, and tempeh from its industrial counterpart -- soy protein isolate. Many authors and speakers extrapolate from studies done on soy protein isolate to include all soy foods. That is simply inaccurate, and similar to lumping high fructose corn syrup together with organicallygrown, non GMO corn tortillas, and declaring all of corn-derived foods as unhealthy and unnatural. Two, people do not understand how phytoestrogens, sourced from whole plant foods and herbs, are part of traditional diets all over the planet, and that our hormonal systems evolved with these substances." https://chestnutherbs.com/the-ecology-of-estrogenin-the-female-human-body/? utm content=buffer46637&utm medium=social&ut m source=facebook.com&utm campaign=buffer

Another common reason for confusion with soy comes from the fact that most soy available today are GMO frankenfoods, an un-natural food product foreign to our bodies, something which must be avoided.

The highest concentrations of isoflavones are found in soybeans and soybean products followed by legumes, whereas lignans are the primary source of phytoestrogens found in nuts and oilseeds (e.g. flax) and also found in cereals, legumes, fruits and vegetables.

Flaxseeds provide the richest dietary source of lignans, which are present in the seeds and the oil of the flax plant. Lignans belong to a class of compounds known as phytoestrogens and are also present in soy foods. When you eat lignans, your body converts them to substances that weakly mimic the female hormone estrogen.



"In 2005, the journal Clinical Cancer Research published a placebo-controlled study involving patients who received a 25 gram flaxseedcontaining muffin over the course of 32 days. After observing a reduction in tumor markers and an increase in programmed cell death (apoptosis) in the flaxseed-treated patients, the authors concluded: "Dietary flaxseed has the potential to reduce tumor growth in patients with breast cancer."

Another excellent source of phytoestrogens are cruciferous vegetables. Do not underestimate the power of having cruciferous vegetables as part of your diet. Cruciferous vegetables contain powerful antioxidants, which may decrease inflammation and reduce the risk of certain chronic diseases. They contain glucosinolates, crambene, indole-3-carbinol and isothiocyanates, which have been shown to decrease cancer risks.

The most common cruciferous vegetables include Brussels sprouts, cauliflower and broccoli. Several leafy cruciferous vegetables such as bok choy, collard greens, kale, red and green cabbage, chard, turnip greens, arugula, mustard greens, savoy cabbage, Chinese cabbage, rapini and watercress are also eaten frequently. Some of the commonly consumed cruciferous root vegetables include radish, horseradish, turnip, rutabaga, wasabi and Oriental radish. Cooking cruciferous vegetables until they are just tender crisp helps to retain their color and flavor and prevents loss of vitamin C, folate and cancer-fighting glucosinolates.

"Isothiocyanates and indoles, the biologically active compounds formed after glucosinolates are broken down, lower cancer risk by decreasing activity of enzymes that stimulate carcinogens and protect DNA from damage. They also prevent normal cells from becoming cancerous cells, slow the growth of cancer cells and may even cause cancer cells to self destruct, according to the Linus Pauling Institute and the American Institute for Cancer Research. Regular consumption of cruciferous vegetables lowers risk of lung, colorectal, prostate, bladder and breast cancers and may even protect against melanoma and esophageal cancer. In April 2012, Vanderbilt-Ingram Cancer Center scientists reported that survival rates of women diagnosed with breast cancer increased with a high intake of cruciferous vegetables.

"Consumption of cruciferous vegetables provides additional health benefits due to the presence of nutrients such as fiber, vitamin C, folate, calcium, beta-carotene and phytochemicals. The fiber content of these vegetables helps in weight loss by providing a feeling of fullness, decreases the risk of heart disease by lowering blood-cholesterol levels and reduces the risk of constipation and diverticulosis by maintaining bowel health. Other



nutrients in cruciferous vegetables also play a role in fighting infections, healing wounds, decreasing risk of type 2 diabetes and forming red blood cells." <u>http://healthyeating.sfgate.com/list-cruciferous-</u> <u>vegetables-2091.html</u>

Whereas I usually prefer to compose my own documents, once in a while I come across a page that has so much good information that copy and paste is the best option. The following is taken from http://www.chatelaine.com/health/diet/how-having-too-much-estrogen-can-make-you-gain-weight/

(Please note, I do take partial exception with #4. Yes, I wholeheartedly agree that we should go organic whenever possible, but I do not endorse the consumption of meat and dairy when it comes to healing cancer as animal proteins helps cancer grow. The reasons for that are discussed in more detail in my document, <u>Why a Plant-Based Diet?</u> As discussed above, I also do not agree with #8, when it comes to tofu and soy milk.)

"What causes estrogen dominance? There are only two ways to accumulate excess estrogen in the body: we either produce too much of it on our own, or acquire it from our environment or diet. Unfortunately, accumulating estrogen is not hard. We are constantly exposed to estrogen-like compounds in foods that contain toxic pesticides, herbicides, and growth hormones. Many of these toxins are known to cause weight gain, which serves to fuel the production of more estrogen from our own fat cells.

Pharmaceutical hormones, such as those used in hormone-replacement therapy (HRT), can also increase estrogen – whether we take them actively or absorb them when they make their way into our drinking water. We are living in a virtual sea of harmful estrogens, and researchers are only beginning to identify the extent of this exposure on health in humans – and even other species. How to correct estrogen dominance Use these foods or habits to decrease harmful estrogen:

1. Take care of your liver. Since the liver breaks down estrogen, alcohol consumption, drug use, a fatty liver, liver disease, and any other factor that impairs healthy liver function can spur an estrogen build-up.

2. Eat healthy bacteria. Bacterial imbalance in the gut, and other problems that compromise digestion, interfere with the proper elimination of estrogen from the body via the digestive tract. Try including a daily probiotic to your diet.

3. Boost your fibre intake. Insoluble fibre binds to excess estrogen in the digestive tract, which is then excreted by the body. A fibre supplement can also affect the composition of intestinal bacteria and reduce the build-up and reabsorption of free-floating estrogen. Good sources include wheat bran, corn bran, rice bran, the skins of fruits and vegetables (apples, pears, berries, tomatoes, eggplant, zucchini and carrots), nuts (especially almonds), seeds (particularly sunflower seeds), soybeans, dried beans, and whole-grain foods.

4. Co organic. Some dairy and meat products may contain hormone additives, so choosing organic dairy and meat may reduce your exposure to excess estrogen.

5. Change up your diet. Consume weak phytoestrogenic foods, which counteract the effects of estrogen, such as pomegranate, flaxseeds, pears, apples, berries, organic non-GMO fermented soy, wheat germ, oats, and barley.

6. Ensure you're getting your vitamins. The body requires sufficient intake of zinc, magnesium, vitamin B6 and other essential nutrients, not only to support the breakdown and elimination of estrogen, but also to aid the function of enzymes responsible for the conversion of testosterone to estrogen.

7. Be mindful of what you consume. Avoid exposure to xenoestrogens from plastics, cosmetics and the birth control pill. Xenoestrogens mimic the effects of estrogens, and tend to be found in water, soil and food products.

8. Be soy careful. Soy has a relatively high concentration of some types of estrogens, so try to avoid unfermented soy products like tofu and soy milk.

9. Manage your stress. As the body responds to high levels of stress, it "steals" progesterone to manufacture the stress hormone cortisol, often leaving a relative excess of estrogen.

10. Sleep well. Maintaining poor sleep habits cause a reduction in the hormone melatonin, which helps protect against estrogen dominance. Aim for seven to eight hours of sleep per night in a cool, dark room