



Product/Health FAQs

Soy and Cancer

We are not rodents folks and therefore all the soy research showing it's bad for humans especially as it relates to breast cancer is bogus food politics if you ask me. Asians who consume soy don't get breast cancer...unless they move to America and start consuming DAIRY – here is an article from American Cancer Society

<http://www.cancer.org/cancer/news/expertvoices/post/2012/08/02/the-bottom-line-on-soy-and-breast-cancer-risk.aspx>

Having said that, it is still good to avoid GMO soy and concentrated soy powders. Juice Plus Complete uses proprietary, low-processed, water washed non-GMO soy and tofu along with other plant sources of protein, mixed in with fruit and veggie powders, complex carbohydrates to make it a more balanced approach to achieving optimal nutrition.

There is growing evidence that soy consumption reduces risk of hormone-related cancers such as breast, ovarian and prostate as soy phytoestrogens act as SERMs (competitive inhibitors of estrogen)

Prostate Health and Soy

- a. A recent analysis of eight studies concluded that regular consumption of soy foods was associated with a 30 percent lower risk of prostate cancer (International Journal of Cancer, November 20, 2005)
- b. Review by Dr. Andrew Weil (top ten reducers of prostate cancer – many of which you can get daily through JP capsules, Complete shakes and Complete bars

<http://www.stayinformed.info/health/prostatecancer.htm>



Breast Health and Soy

The reason it isn't blatantly clear to us that eating soybeans and other beans legumes and vegetables helps prevent breast cancer is because breast cancer is big business. Phytoestrogens (plant-estrogens) in beans, legumes and vegetables are preventative foods because some phytoestrogens act as SERMs or selective estrogen receptor modulators. SERMs block the effects of estrogen in the breast and other tissue - SERMs work by sitting in the estrogen receptors in breast cells. If a SERM is in the estrogen receptor, there is no room for estrogen and it can't attach to the cell. If estrogen isn't attached to a breast cell, the cell doesn't receive estrogen's signals to grow and multiply. Simple. Except that this is also the sales pitch for major SERM pharmaceuticals that unfortunately also come with side effects. Native plant SERMs are much safer. Soy is a major source of phytoestrogens. Asians who consume soy and less animal products including dairy have a much lower risk of breast cancer.

<http://www.cancer.org/cancer/news/expertvoices/post/2012/08/02/the-bottom-line-on-soy-and-breast-cancer-risk>.

http://www.breastcancer.org/tips/nutrition/reduce_risk/foods/soy

<http://jnci.oxfordjournals.org/content/95/12/906.long>

a. In their 2010 review, Hilakivi-Clarke et al. sum up the evidence on soy and breast cancer:

Results reviewed here suggest that women consuming moderate amounts of soy throughout their life have lower breast cancer risk than women who do not consume soy; however, this protective effect may originate from soy intake early in life. We also review the literature regarding potential risks genistein poses for breast cancer survivors. Findings obtained in 2 recent human studies show that a moderate consumption of diet containing this isoflavone does not increase the risk



of breast cancer recurrence in Western women, and Asian breast cancer survivors exhibit better prognosis if they continue consuming a soy diet.

<http://www.ncbi.nlm.nih.gov/pubmed/20980638>

b. Another report speculates “that breast cancer protection in Asian women consuming a traditional soy-containing diet is derived from early exposure to soybean products containing genistein. We believe that early events are essential for the benefits of cancer protection.”

<http://ajcn.nutrition.org/content/71/6/1705s.abstract>

c. A landmark article in JAMA stated that “Among women with breast cancer, soy food consumption was significantly associated with decreased risk of death and recurrence.” *JAMA*. 2009;302(22):2437-2443. doi:10.1001/jama.2009.1783.

<http://jama.jamanetwork.com/article.aspx?articleid=185034>



Ovarian Health and Soy

A 2010 review by Wendy N. Jefferson of the Laboratory of Reproductive and Developmental Toxicology, National Institute of Environmental Health Sciences, summarized the literature on soy and ovarian function:

For the most part, the studies conducted to date suggest that a diet containing lower levels of soy, e.g. 1–2 servings of soy/d, as part of a well-balanced diet should not pose harmful effects on the function of the ovary as it relates to ovulation. These levels are similar to that found in a traditional Asian diet (10–25 mg/day isoflavones) and even up to 50 mg/day isoflavones has little impact on serum circulating levels of hormones involved in reproduction. Although the levels of phytoestrogens typically found in soy foods pose minimal risk in the adult female, the female reproductive system is dependent on hormones for proper function and phytoestrogens at very high levels can interfere with this process. <http://www.ncbi.nlm.nih.gov/pubmed/20980642>

Additionally, a 2009 meta-analysis of five retrospective and two prospective studies found that participants with a higher soy intake (roughly one serving per day) had a reduced risk for endometrial cancer and breast cancer, when compared with lower soy intakes. <http://www.ncbi.nlm.nih.gov/pubmed/20380569>



Dairy link to cancer:

I recommend two excellent best-selling books by Prof. T. Colin Campbell, 'the father of nutritional biochemistry' are *The China Study* and *Whole*. These books describe decades of research linking cancer with the consumption of casein (the predominant protein in dairy), and animal food consumption in general. The New York Times calls the China Study "the Grand Prix of Epidemiology"

[-http://www.nytimes.com/1990/05/08/science/huge-study-of-diet-indicts-fat-and-meat.html](http://www.nytimes.com/1990/05/08/science/huge-study-of-diet-indicts-fat-and-meat.html).

[-http://well.blogs.nytimes.com/2011/01/07/nutrition-advice-from-the-china-study/?_php=true&_type=blogs&_r=0](http://well.blogs.nytimes.com/2011/01/07/nutrition-advice-from-the-china-study/?_php=true&_type=blogs&_r=0)

Also here is a quick list of papers on the topic.

- [1]. Rohrmann S, Platz EA, Kavanagh CJ, et al. Meat and dairy consumption and subsequent risk of prostate cancer in a US cohort study. *Cancer Causes Control* 2007; 18: 41-50.
- [2]. Mitrou PN, Albanes D, Weinstein SJ, et al. A prospective study of dietary calcium, dairy products and prostate cancer risk (Finland). *Int J Cancer* 2007; 120: 2466-73
- [3]. Willett WC. Nutrition and cancer. *Salud Publica Mex* 1997; 39: 298-309.
- [4]. Chan JM, Stampfer MJ, Ma J, et al. Dairy products, calcium, and prostate cancer risk in the Physicians' Health Study. *Am J Clin Nutr* 2001; 74: 549-54
- [5]. Tseng M, Breslow RA, Graubard BI, Ziegler RG. Dairy, calcium, and vitamin D intakes and prostate cancer risk in the National Health and Nutrition Examination Epidemiologic Follow-up Study cohort. *Am J Clin Nutr* 2005; 81: 1147-54
- [6]. Veierod MB, Laake P, Thelle DS. Dietary fat intake and risk of prostate cancer: a prospective study of 25,708 Norwegian men. *Int J Cancer* 1997; 73: 634-8.
- [7]. Grant WB. An ecologic study of dietary links to prostate



cancer. *Altern Med Rev* 1999; 4: 162-9.

[8]. Kushi LH, Mink PJ, Folsom AR, et al. Prospective study of diet and ovarian cancer. *Am J Epidemiol* 1999; 149: 21-31.

[9]. Fairfield KM, Hunter DJ, Colditz GA, et al. A prospective study of dietary lactose and ovarian

cancer. *Int J Cancer* 2004; 110: 271-7

[10]. Schwartz GG, Hulka BS. Is vitamin D deficiency a risk factor for prostate cancer? (Hypothesis). *Anticancer Res* 1990; 10: 1307-11.

[11]. Miller A, Stanton C, Murphy J, Devery R. Conjugated linoleic acid (CLA)-enriched milk fat inhibits growth and modulates CLA-responsive biomarkers in MCF-7 and SW480 human cancer cell lines. *Br J Nutr* 2003; 90: 877-85.

[12]. O'Shea M, Devery R, Lawless F, et al. Milk fat conjugated linoleic acid (CLA) inhibits growth of human mammary MCF-7 cancer cells. *Anticancer Res* 2000; 20: 3591-601.

[13]. Larsson SC, Bergkvist L, Wolk A. High-fat dairy food and conjugated linoleic acid intakes in relation to colorectal cancer incidence in the Swedish Mammography Cohort. *Am J Clin Nutr* 2005; 82: 894-900.



Hormone balance with plant foods (soybeans and other beans and legumes, vegetables) – here is a summary on Phytoestrogens by Karen Jensen, ND

Phytoestrogens are hormone-like compounds found in all plants. They balance our hormones, support our immune systems, and prevent or ease the symptoms of menopause and osteoporosis.

Today's number one health concern for women is hormones. In light of recent evidence stacking the deck against hormone replacement therapy, women are looking for alternatives. This is evident in my practice, where female patients often ask me about the benefits of phytoestrogens, hormone-like compounds found in all plants in one form or another. They are one-fiftieth to one-twenty-thousandth weaker than the body's steroidal estrogens, which are made by the ovaries.

How do phytoestrogens work? They contain active chemical constituents such as isoflavones, coumestans and lignans, which work as hormone balancers; phytoestrogens both exert mild estrogenic effects themselves and compete with more potent steroidal and environmental estrogens (xenoestrogens) for "receptor binding sites" on cells. Imagine these receptor binding sites as parking spots reserved for hormones. Once "parked," the hormone can exert its effect on the cell. If the body's steroidal estrogen levels are low, phytoestrogens fill those parking spots and gently mimic the role played by steroidal estrogens. If the levels of steroidal or environmental estrogens in the body are too high, phytoestrogens block their access to estrogen receptor sites, substituting their own milder estrogenic activity for the excessively strong estrogenic effects created by overabundant steroidal or environmental estrogens.

In addition to their hormone-balancing activities, phytoestrogen compounds provide many other health-promoting benefits. Recent studies have documented that soy foods, which contain phytoestrogenic isoflavones, are antibacterial, antiviral, antifungal, antioxidant and anti-inflammatory. They also provide immune system support, prevent platelet aggregation (blood clotting), prevent or ease menopausal symptoms and both prevent and treat osteoporosis.



The American Heart Association states, “there is increasing evidence that the consumption of soy protein in place of animal protein lowers blood cholesterol levels and may provide other cardiovascular benefits” (*Circulation* 2000; 102: 2555). Further, the American Cancer Society recently revealed that breast cancer kills three

times as many American women as Japanese women, and that colon and prostate cancer in Japan is significantly lower than in North America (*National Dairy Council Nutrition Service Quarterly Review*, Winter 1998; 21-23). It has been suggested that environmental factors, especially the diet, play an important role. The intake of phyto-estrogens in Japan, for example, is 30 times greater than in North America.

Dietary Strategy

There are many ways women can take advantage of the benefits of phytoestrogens. You can begin by eating more foods rich in these plant compounds. Something to keep in mind is that the absorption of phytoestrogens depends on a healthy gut. The gut must contain enough healthy bacteria capable of converting phyto-estrogens into their active forms: once absorbed, phytoestrogens are transported to the liver and most are removed from circulation. Some, however, enter the bloodstream and eventually bind to estrogen-receptor sites to exert their balancing effect as required. As you’ve probably already guessed, imbalances in intestinal microbes, such as yeasts and fungi, can interfere with the absorption process; in this case, I would recommend taking probiotic supplements (acidophilus or bifidus) to help rebuild healthy gut bacteria.

The Goods on Soy

Soy products have become the most popular source of phyto-estrogens in North America. Thousands of soy-based products are available in the marketplace. It should be noted, however, that the Asian diet typically contains fermented soy products. Naturally fermented soy comes in foods such as miso and tempeh or whole-bean fermented soy powders. Since phytoestrogens can exert mild estrogenic effects in higher doses, many researchers feel this is why women in cultures consuming predominantly plant-based diets rarely experience hot flashes and other menopause-related



symptoms. And given that many of the world's cultures have been eating fermented soy bean products for thousands of years without ill effect, we can gather that using soy products to address menopausal symptoms is far safer than taking synthetic hormone replacement.

In pilot studies conducted by Dr. J. Eden and colleagues at the Royal Hospital for Women in New South Wales, Australia, it was found that when women were given 160 mg of isoflavones (found in soy) daily for three months, a significant reduction in several menopausal symptoms, especially hot flashes, occurred. Further studies have shown smaller decreases in menopausal symptoms with a daily consumption of 40 mg of isoflavones. Research by McMichael-Phillips et al. found that 60 grams of soy protein providing 45 mg of isoflavones had estrogenic effects.



Soy and thyroid

In their 2006 review article, Messina and Redmond write:

The preponderance of evidence from clinical trials involving healthy adult men and women indicates that neither soy protein nor isoflavones adversely affect thyroid function. As noted the adverse effects reported by one Japanese study [Ishizuki Thyroid Clinic] are biologically implausible and contrast with the results of 13 other trials. Thus, despite their ability to [inhibit thyroid peroxidase] in vitro and in vivo in rodents, **isoflavones do not appear to cause thyroid hormone abnormalities in euthyroid individuals [people with genetically normal thyroid function].**

<http://www.ncbi.nlm.nih.gov/pubmed/16571087>

We know many people with thyroid issues who have benefited from Juice Plus Complete in their diet.

“I was reluctantly taking a low dose thyroid replacement for symptomatic Hashimoto's Thyroiditis. I felt this was only treating a symptom and not addressing the cause and I was suspecting toxins affecting my thyroid function. After 6 weeks on the Transform 30 program drinking 2 Complete shakes a day and continuing with the 3 JP+ blends, removing coffee I felt so much more energy that I didn't feel the need to continue taking my thyroid compound. Blood test 10 days later confirmed that my thyroid function was now normal and I no longer had the antibody indicative of the immune response causing Hashimoto's thyroiditis. I love the Complete smoothies and occasionally have more than 2 a day.”

– Sue Frederickson



Gas – so you've been on Transform30 and you have a little gas do ya? What would you rather have a little gas (healthy human function) or colon cancer? Read this NPR article:

Not long ago, we heard about a catchy for a cookbook: "Fart-free food for everybody."

In theory, these recipes would be helpful for some people — and those in their vicinity.

But being a bit gassy may actually be a small price to pay for a lot of benefits to our health.

We know that air often comes after eating nutrient-packed vegetables, such as cabbage, kale and broccoli. And researchers have found that fiber-rich foods, like beans and lentils, boost the levels of beneficial gut bacteria after only a few days, as we in December.

So all this got us wondering: Could passing gas, in some instances, be a sign that our gut microbes are busy keeping us healthy?



Absolutely, says , a gastroenterologist at the Mayo Clinic in Rochester, Minn.



"Eating foods that cause gas is the only way for the microbes in the gut to get nutrients," he says. "If we didn't feed them carbohydrates, it would be harder for them to live in our gut."



And we need to keep these colon-dwelling critters content, Kashyap says. When they gobble up food — and create gas — they also make molecules that boost the immune system, protect the lining of the intestine and prevent infections.

"A healthy individual can have up to 18 flatulences per day and be perfectly normal," he adds.

Gas gets into the digestive tract primarily through : Swallowing air (which we all do when we eat and chew gum) and your microbiome. That's the collection of organisms in the GI tract that scientists and doctors are currently all fired up about. (Check our colleague Rob Stein's recent on it.)

That microbiome includes hundreds of different bacteria. But there are also organisms from another kingdom shacking up with them: the .



All these microbes are gas-making fools. They eat up unused food in your large intestine, like fiber and other carbohydrates we don't digest, and churn out a bunch of gases as waste.

But that's not all they make. They also produce a slew of molecules (called short chain fatty acids) that may promote the growth of other beneficial bacteria and archaea.

And the more fiber you feed these friendly inhabitants, the more types of species appear, studies have found. This bump in microbial diversity has been linked to a .

"Undigested carbohydrates allow the whole ecosystem to thrive and flourish," Kashyap says.

Most gas made by the microbiome is odorless. It's simply carbon dioxide, hydrogen or methane. But sometimes a little sulfur slips in there.

"That's when it gets smelly," Kashyap says.