The Health Nugget

Soy On

July 2012

by Risë Rafferty

It's the food fear of the present. "Don't eat soy. It's "effeminating". Soy is for sissies and will make you less of a man." Soy's integrity is in question. Its status as a health food has been relegated. But do we really have our facts straight?

Soy is a legume, that in its whole form is chock full of nutrition. In comparison to other beans, soy is higher in protein and fat and lower in carbohydrates. It is rich in omega-3 fatty acids, notably found in fish and flax. Because soy protein is comparable to the protein profile found in animal proteins, it is the most highly rated of all plant proteins. Soy also contains isoflavones. Isoflavones are classified as phytoestrogens. Phyto, or plant estrogens have a chemical structure that is similar to the steroid hormone estrogen, and are thought to weakly mimic or modulate the effects of estrogen in the body, and this is where things have gotten soy sticky.

Due to its content of phytoestrogens, soy has been suspected for lowering testosterone and raising estrogen levels in men, causing everything from impotence and low sperm count, to enlarged breasts. Is this true?

It is true that once ingested phytoestrogens bond with estrogen receptor sites on cells. While this may appear to be promoting estrogenic activity, remember that phytoestrogens are plant hormones, not steroid hormones. In the human body phytoestrogens have been found to behave in both an estrogenic and anti-estrogenic manner. Phytoestrogens have been observed to support hormonal activity when levels are low. However, when an adequate amount of estrogen exists the isoflavones actually block excess estrogen from bonding to cells and aid in maintaining a constant level of the hormone. They do this by "competing for binding sites with the much stronger endogenous and exogenous estrogens, and actually may help to reduce excessive hormonal stimulation on estrogen-sensitive tissues, offering a protective effect against breast and prostatic cancers."[1]

In New York City, September of 2009, a symposium and workshop was held entitled "Soy Summit: Exploration of the Nutrition and Health Effects of Whole Soy." A consensus was given as an answer to the question: "Does soy cause the development of breasts in men or have other feminizing affects on men?

"Answer: No! Although soy has been suspected of lowering testosterone and raising estrogen levels in men, a 2010 meta-analysis in the *Journal of Urology* found that soy foods neither raised nor lowered male sex hormones. The good news for guys is soy contains a plant chemical called genistein that has been shown to have a protective benefit of fighting prostate cancer. In fact, a recent Japanese randomized placebo-controlled study found a significant reduction in prostate cancer occurrence in men 65 years of age or older in the soy group compared to the placebo group."[2]

Reported in the *Journal of Nutrition*, March 1, 2002, fourteen young men were given 40 mg/day of concentrated soy isoflavones for two months. This was found to have no effect on sperm concentration, count, or motility.

A review published in a 2009 issue of the *Journal Fertility and Sterility* analyzed all the studies on soy's effects in men and confirmed that soy does not lower testosterone or raise estrogen levels.

While more research is being done assessing the impact of soy and isoflavones on hormones, the experiments in which phytoestrogens have been found to mess with men appear to use extremely large amounts of these substances. Some studies that found altered hormone levels and tender breasts used not twice as much, not four times as much soy as typically eaten, but 60

to 120 times the average amount consumed. Men in Asian countries where a moderate amount of soy is a common part of the national diet report no hormonal interferences or fertility problems.

Men who want to beef up their masculinity and avoid the very real concern of elevated estrogen levels typically utter their warning against soy eating, with hamburger in hand. What they don't know is that unless the hamburger is organic, they are getting a much greater hormonal hit from the hormones that have been pumped into cattle.

Hormones are given to U.S. and Canadian beef cattle during their fattening up period. They increase the weight of the cattle. "The most common hormone in current use is estradiol, a potent cancer-causing and gene-damaging estrogen. The Food and Drug Administration maintains that residues of estradiol and other hormones in meat are within 'normal' levels, and has waived any requirements for monitoring and chemical testing. . . . However, confidential industry reports to the FDA, obtained under the Freedom of Information Act, reveal high hormone residues in meat products, even under ideal test conditions."[3] Because of this, the European Union has banned the import and sale of hormone-treated American beef in Europe since the late 1980s. Scientific experts have been seeking for the same ban on hormone treated meat here and have petitioned the FDA. Samuel Epstein, MD, who, with others has written the petition states, "There is explicit evidence that the use of sex hormones to increase meat production poses serious dangers to consumers."[4]

Not only does the meat of cows pose a threat to our health as a result of their contribution of hormones, but, "According to Ganmaa Davaasambuu, a physician and scientist at the Harvard School of Public Health, dairy products account for 60 to 80 percent of the estrogen consumed in the typical American diet."[5]

Japanese researchers are in agreement. "Among the routes of human exposure to estrogens, we are particularly concerned about cows' milk, which contains considerable amounts of estrogens. The major sources of animal-derived estrogens in the human diet are milk and dairy products, which account for 60-70% of the estrogens consumed. . . . The milk that we now consume may be quite unlike that consumed 100 years ago."[6]

They hypothesize that the exposure may be a potential factor in the development of male reproductive disorders, including prostate cancer.

While I say, soy on gentlemen, be aware that soy has been genetically tampered with. Plus, some can be highly refined and comes in various forms. Soy can be overdone and its derivatives should not be considered in the same way. Choosing organic and in its least processed forms is advised.

Society emphasizes that hormones make the man. As important as hormones are, it is character, not hormones, that makes the man. Faithful, true hearted, unafraid to say no to temptation, men who are not half as anxious to do a great work as to live with faithfulness, a warrior for right, even when it entails fighting against oneself. Such men are great in the sight of God. A Christian is the highest type of man, for he is a representative of Christ.

[1] Jillian Stansbury, "Phytoestrogen Review," http://www.botanicalmedicine.org/References/09merefs/StansburyPhytoestRef.pdf.

[2] David Grotto, RD, LDN, "Soy O'Boy," WebMD, (Nov. 21, 2011), http://blogs.webmd.com/food-and-nutrition/2011/11/soy-o-boy.html.

[3] "None of Us Should Eat Extra Estrogen," *Los Angeles Times*, (March 24, 1997), http://www.preventcancer.com/press/editorials/march24_97.htm.

[4] "A Ban on Hormonal Meat is Three Decades Overdue," *World Wire*, (Feb. 2, 2010), http://www.world-wire.com/news/1002020001.html.

[5] Lawrence Adams, "Does Milk Raise Estrogen in Men?" LiveStrong.com, (Jan. 30, 2012), http://www.livestrong.com/article/554285-does-milk-raise-estrogen-in-men/#ixzz1w6658g8J.

[6] D. Ganmaa, PY Wang, LQ Qin, "Is Milk Responsible for Male Reprodcutive Disorders?" PubMed.gov, (Oct. 2001), http://www.ncbi.nlm.nih.gov/pubmed/11601881.

Light Bearers Ministry
37457 Jasper Lowell Rd • Jasper, OR 97438
ph (541)988-3333 • *fax* (541)988-3300
www.lbm.org • *email* rise@lbm.org