

To Bean or Not to Bean: Is Soy Myth or Medicine?

By Elissa Marie Kerhulas

Jennifer Stills drops a carton of soy ice cream in her shopping cart and smiles. “I’ve lost 35 pounds incorporating soy products into my diet,” she says.

Another shopper, Reese Bradley, who once drank soymilk daily now drinks rice milk and avoids all soy. “If you drink too much soymilk, it can give you cancer,” he says. Then he adds, “I’m not sure if that’s true.”

Indeed, even some experts are not sure what to believe about soy. While soy in moderation can be a healthy addition to the diet, it’s not the miracle food that some crafty marketers have led us to believe. And for some people soy is harmful, several new studies suggest. For anyone, the value of soy depends on how it is grown, prepared and eaten. The new message to health-conscious consumers is: know what soy can and can’t do, shop smart for the best soy products, and determine if you should avoid soy completely.

WHAT SOY CAN DO

While not everyone agrees, the consensus is that soy can be a part of a healthy diet for most people. Animal and cell culture studies show that it may prevent body fat accumulation, increase lean body mass, restore bone loss, reduce cholesterol and even inhibit cancer cell growth, according to studies at the National Institute of Health and

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Nutrition in Tokyo and at the University of Ulster (Cancer Weekly, NewsRX.com, Oct. 12, 2004).

WHAT IT CAN'T DO

Yet recent human studies reveal that soy does not live up to its earlier promises. Researchers at the Julius Center for Health Sciences and Primary Care in Minneapolis, Minnesota, discovered that soy isoflavones do not aid menopausal symptoms. Over 2300 menopausal women took part in the study for 17 weeks in eight soy food trials, all but one proved as ineffective as the placebo in relieving hot flashes.

And it doesn't look like soy will prevent bladder cancer. "We started out hoping that soy would be an agent to bladder health," says Dr. Mimi C. Yu of the University of Southern California's Norris Comprehensive Cancer Center. She was surprised to verify an earlier study that linked soy to increased bladder cancer risk. Chinese men, aged 45 to 64, reported their soy intake for three years and were found to be at higher risk when they ate soy three to seven times per week. Yet Dr. Yu feels that more studies are needed because the Chinese prepare tofu with chlorinated water, a known carcinogen.

THE CAVEATS OF SOY

For specific groups of people, soy should be avoided. If you have a thyroid condition, soy may exacerbate the problem. Soy protein isoflavones contain goitrogens, substances that

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block thyroid hormones and interfere with thyroid medication. At the Ishizuki Thyroid Clinic in Japan, Dr. Y. Ishizuki demonstrated that consuming 30 grams of pickled soybeans per day induced thyroid disruptions in only 30 days. Compare that to drinking one glass of soymilk, which contains 224 grams of soy, and you can understand how powerful the effect of even a little soy.

If you have sensitivity reactions such as coughing, sneezing, runny nose, shortness of breath, hives or diarrhea, you may be allergic to soy, says Dr. Kaayla T. Daniel, a Certified Clinical Nutritionist from the International Association of Clinical Nutritionists in Dallas, Texas and author of *The Whole Soy Story* (New Trends, 2005). As soy lurks in thousands of canned, prepared and fast foods and is often listed by its many aliases, it can be hard to avoid it completely. Names like “textured vegetable protein” (TVP), “MSG” and even “natural flavor” can mean soy is present.

Those at highest risk for soy allergy already have asthma and peanut allergies. “Peanuts and soybeans are members of the same botanical family, the grain-legume type,” Daniel says, “and scientists have known for years that people allergic to one are often allergic to the other.” In Sweden, four children, known to be allergic to peanuts but not soy, died from eating one to 10 grams of soy, hidden as an additive in meat or bread products, according to Ingrid Malmheden Yman, Ph.D., of the Swedish National Food Administration and co-author of the study.

In England soy allergies increased 50 percent in the year genetically-modified (GM) soybeans were introduced, says York Nutritional Laboratory in York, England. We

have the same problem here and its rising. As of 2004, 85 percent of soybeans grown in the U.S. are genetically modified (GM), according to researchers at the University of Richmond, Virginia who tract GM soy statistics.

Even when soybeans are not modified and grown organically, they are hard to digest. Daniel explains that soy's anti-nutrients are the problem. We can't digest soy's protein because of built-in protein blockers and its carbohydrate because we lack the enzyme.

Thousands of years ago, the Chinese found a solution: soaking, cooking and fermenting the soybean. "The process removes its toxins and transforms it into very healthy and digestible amino acids, simple sugars and fatty acids," says Daniel. Foods such as miso, tempeh and natto enjoy this advantage because they are prepared this way.

Asians have historically considered soy foods as condiments. But some Americans, especially vegans, who count on soy as a main protein source, may be eating more than anyone at any other time in history. As 600 new soy foods were added to US supermarket shelves, reaching 3,000-plus and soy is showing up in unlikely places, like orange juice, more Americans may be unwittingly overdosing on soy and its isoflavones.

While the experts are still putting soy to the test, its best to consult your doctor, choose the best products and follow Daniel's recommendation to limit soy intake to two servings per week or an average of 36 grams per day.

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Sidebar 1: Healthy Soy Guide:

To eat soy as part of a healthy diet, Dr. Kaayla T. Daniel, a Certified Clinical Nutritionist and author of *The Whole Soy Story* (New Trends, 2005), makes these suggestions:

- Choose organic fermented soy foods, such as tempeh, miso and natto, for better digestibility and less allergic reactions.
- Limit soy foods to twice per week or an average of 36 grams per day.
- Read package labels for other soy names such as “textured vegetable protein (TVP),” “textured plant protein,” “hydrolyzed vegetable protein (HVP),” “vegetable protein concentrate,” “vegetable oil” or “MSG (monosodium glutamate).” Soy can sometimes be found in lecithin, vegetable oil, vegetable broth, bouillon, natural flavor or mono-diglyceride.
- Consult your doctor about soy if you have allergies, a thyroid condition or are at risk for cancer.

Sidebar 2: What’s Next: Hemp

Not to be confused with the drug marijuana, nutty-flavored hemp seeds are developed specifically for food products and are predicted to be the next big thing, according to John Roulac, an advocate of industrial hemp products and founder of Nutiva, a leading hemp foods brand. Here are a few pluses to hemp:

- Complete Protein: Hemp foods contain all 20 known amino acids, including the nine essential amino acids our bodies can’t produce.

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Kerhulas
Page 6
SOY

- Easy to Digest: Hemp is high in fiber yet low in sugars and has no trypsin inhibitors to block protein absorption.
- Good fats: Hemp oil contains 75 to 80 percent polyunsaturated fatty acids and a good balance of 3:1 ratio of Omega 6 (linoleic/LA) to Omega 3 (alpha-linoleic/LNA).

Sidebar 3: Soy: A Look Back

While soy is a recent addition to American diets, soybeans were actually introduced here in 1170 when Ben Franklin, a vegetarian diet advocate, shipped seeds to Philadelphia, praising its Chinese product tofu, according to Dan Imhoff and Peter Warshall (“A Three Thousand Year History of Our Most Modern Oilseed” (*Whole Earth*, 1999). Before World War II, Henry Ford invested to develop industrial and culinary uses for the soybean. But it wasn’t until the 1960s and 1970s that soy started becoming more popular as a meat substitute and was first seen in products such as “Baco-Bits.”

As manufacturers worked to make the soybean more palatable and as the Federal Drug Administration supported the health claim in 1999 that soy protein lowered cholesterol, popularity rose. By 2002, retail sales were estimated to be more than three and a half billion dollars, according to Agricultural Marketing Resource Center at Iowa State University. And consumption continues to grow at a record pace.

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Kerhulas

Page 8

SOY

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