

Is Soy Good For You?

Do you eat soy? Drink it? Supplement with it? Does the debate going on about the pros and cons of this now common legume concern you?

In the West, soy is no longer just for vegetarians or the health conscious. Meat eaters are also getting a dose, albeit second hand, as in fact some 98% of soy protein meal is used as feed for livestock. The animals eaten are likely to have been subsisting on soy themselves! Soy has made its way into popularised gluten-free products, and various health claims as to its prostate protecting, cardioprotective, and hormone balancing see it an ever-increasing commodity in the shopping basket.

Data from the UN Food and Agriculture Organization (2003) indicates that in most European and North American countries soy protein consumption is under 1 gram (g) per day; however, particular subgroups (vegans, vegetarians, and infants on soy-based formula for example) have higher rates of consumption. Many Asian countries consume much more soy protein per capita; most notably the Japanese at 8.7 g; Koreans, 6.2–9.6 g; and Indonesians, 7.4 g. The notably reduced rates of reproductive cancers and osteoporosis in these countries were originally hailed as evidence that soy properties (in particular the hormone-mimicking isoflavones in soy) are health promoting, anti-cancer agents. The increased incidence of other diseases such as cancers of the stomach, oesophagus, and thyroid disease seem to be forgotten in this dialogue. The high salt content of many of the traditional Asian soy foods may be in part to blame for these increased cancer risks. There is much more to the soy story than just the marketing hype.

Traditional Asian diets include soy in whole food preparations such as edamame (whole soybeans), miso, tofu, tempeh, natto, and soy flour. Many of the traditional soy products are

fermented – a process that can reduce and eliminate some of the undesirable qualities from soy including endocrine disrupters, enzyme inhibitors and other antinutrients like phytic acid (a potent mineral absorption blocker) and enzymes that lead to trypsin inhibition (trypsin is an important digestive secretion).

In Europe and America, there is an ever-increasing trend towards using soy as animal feed, as a replacement for other foodstuffs, and as a “bonus” health ingredient added to products such as bread. In the West, soy is generally consumed in a highly processed form: soy protein isolate (SPI).

SPI is a highly processed product and is the key ingredient in most soy foods that are designed for their palatability in the Western diet. SPI is used to imitate meat and dairy products. Textured vegetable protein (TVP) is found in the vegetarian option or low-cholesterol products (sausages/burgers etc.) and sold on its own is also made from SPI. SPI is in soy baby formulas. The isolate is also utilised for various protein fortified foods, for supplements, and for protein and meal replacement shakes.

As SPI is not fermented, a number of other processing steps must be taken to remove unwanted properties. The process is highly chemical, leaching aluminium into the product from processing vats, denaturing proteins in the heat treatment, and introducing the development of further unwanted chemicals such as the carcinogen lysinoalanine (in alkaline processing).

Since the 1970s, soy lecithin has been widely used in food manufacturing as an emulsifier and sold in health food shops as a food supplement. The recent call for fewer trans fatty acids has resulted in a reduction in the use of partially hydrogenated soybean oil; however, soy protein ingredients play functional roles in baked goods, processed meats, and other products. Soy ingredients are also used to add nutrition to processed foods. If you are eating something packaged right

now, take a look at the label!

On top of the concern that soy may not be entitled to its proclaimed status as a health food, the more sinister side to soy is the relationship between soy and disease. Soy is considered a goitrogen and is thus linked to reduced thyroid function. Suspected health threats from soy intake range from the mild – hypothyroid patients may need to increase their thyroxine medication, to the extreme – soy causes thyroid disease, various cancers, and serious hormonal issues in both male and female consumers.



In the USA and other major production countries, the vast majority of soy is genetically modified (GMO). In the EU, GMO products are required to be labelled as such (this is not a requirement in the US), but there is increasing concern about GMO contamination of non-GMO crops and the insidious infiltration of GMO (and other hazards) into the globalised food manufacture chain. We are ever more likely to be eating foodstuff such as soy in a way nature never intended. The safety of GMO produce is a long way from being confirmed. Many scientists agreeing that is a dangerous gamble with unpredictable health consequences.

So should we be eating soy? A recent (2015) research project from the University of Illinois looks to have provided a key to unlocking the conflicting evidence. Researchers studying genes, soy, and breast cancer found that the compounds in minimally processed soy flour stimulate genes that suppress cancer, whilst highly processed soy isoflavones stimulate oncogenes that promote tumor growth. Genistein, the controversial dominant isoflavone in soy, was equally present in both diets used in the animal experiment. The purified isoflavones also negatively affected immune function, whereas

soy flour had a positive impact on immunity. This finding supports the hypothesis that it is the synergistic action of properties in whole soy that confer health benefits, whereas highly processed isoflavones have the potential to produce the opposite effect.

The message at this stage is what we will always fall back to: eat as close to nature as possible. GMO foods have no place at our table. Highly processed anything is unlikely to be health promoting. If you couldn't make it in your own kitchen, you probably shouldn't be eating it! Moderate servings of traditionally prepared foods, provided you have good thyroid health and are not allergic (soy is a major allergen), may confer health benefits, but SPI is to be avoided.

Author

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Recommended Reading:

- *Detox Cheap and Easy Without Fasting – Recipes Included*
- *How To Detoxify and Heal From Vaccinations – For Adults and Children*
- *The Power of Our Hormones and How To Balance Them*
- *Understand Hypothyroidism – Prevention and Natural Remedies*