

Soy

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Soy History

Soy is a plant with a bean and is one of the 16,000 varieties of legumes. The word legume is from the Latin root *legere*, meaning "to gather". In popular terms legume refers to a plant where its seed is in a case or pod, such as pea-pod. In biology a legume is defined as a pod that splits into two when ripe and the seeds are attached to alternate sides of the pod. Clover is a legume.

The Chinese began using soy well over 2000 years ago. By rotating their fields with soy plants their vegetables grew better. This is because soy fixes nitrogen into the soil as a fertilizer for healthy vegetables. The Chinese considered soy unacceptable as food.

In the beginning of this century, the US Department of Agriculture listed soy as an industrial product to be used as feed for chickens, turkeys, pigs, cows and salmon, but not as a food crop for humans. Advances in processing allowed the development of isolated soy protein which has never earned GRAS (Generally Recognized As Safe) status for anything other than as a binder in cardboard boxes. Since the late seventies, soy has been touted as a miracle food. We've all heard the increasing number of health claims made regarding this "wonder crop". Farmers were reluctant to plow in the soy rotational crop and sought to sell it.

Soy: The Dark Side

Some of the problems associated with these toxins are: thyroid problems where the thyroid swells into a goiter and becomes dysfunctional, the blood clots excessively due to a molecule called haemagglutinin, digestive inhibitors block protein metabolism by inhibiting the pancreatic enzyme called trypsin, and soybeans contain phytic acid which effectively blocks the absorption of minerals such as calcium.

The highly studied phytic acid has the scientific community in general agreement that legume and grain based diets are one of the leading causes of mineral deficiency. Soybeans have one of the highest levels of phytic acid of any food studied. Phytic acid is known to block our uptake of calcium, copper, iron, magnesium and zinc, all of which are critical to a healthy body.

Soybeans are high in oxalate, a salt of oxalic acid which is often used as a stain remover. Consuming oxalate is associated with kidney dysfunction, and when combined with calcium results in the formation of kidney stones. When the American Dietetic Association studied 13 types of soy based foods for oxalate levels including soy drinks, soy cheese and tofu, they found that all products exceeded the maximum level to be safe for people with a history of kidney stones. Some of the products tested contained upwards of 50 times the recommended safe levels.

To digest our proteins into usable parts our pancreas produces a digestive enzyme called trypsin. Many plant based foods have an enzyme to inhibit trypsin and in most cases this enzyme is removed through soaking in water or cooking with water. In the case with soy this water process does not work. If our trypsin cannot work we develop serious deficiencies in amino acids and gastric distress. When we are lacking an adequate supply of amino acids, our bodies are prone to chronic illness and vulnerable to disease. Studies have shown that test animals with diets high in trypsin inhibitors

" Soybean contains large quantities of natural toxins which are bad for our health. "

experience enlargement of the pancreas and develop various diseases including pancreatic cancer.

While the soy producers use a series of treatments to reduce toxins in the finished product, the process itself is as unappetizing as the original bean. It begins in factories where a chemical solution is added to a thin, watery mixture of soybeans to remove fibre. A series of chemical washings results in curds which are spray-dried at high temperature and become a powder. During the chemical wash process, high levels of aluminum are absorbed, and a toxin called lysinoalanine is formed. The spray-drying stage of the process forms nitrites which are known to be very powerful cancer causing agents.

- ❖ **Nuts and seeds as the best sources of protein for humans.**
- ❖ **An alternative to soy milk could be almond milk.**
- ❖ **In fact soy blocks calcium absorption.**
- ❖ **Eating as little as two tablespoons isoflavones /day could lead to hypothyroidism.**

Many government organizations around the world have issued health warnings regarding soy protein products over the past fifteen years. In 1991, Japanese researchers found that due to a high content of isoflavones, eating as little as two tablespoons per day could lead to hypothyroidism. In 1998, the FDA's National Centre for Toxicological Research repeated those findings. In 1992, the Swiss Health Authority reported that 100 grams of soy protein contains an amount of estrogen equal to that of a birth control pill. It is generally known now that the estrogen based birth control pills lead to breast cancer. In 1998 the British Government report on phytoestrogens once again warned against potential adverse effects. A recent Vancouver newspaper article even compared soy to asbestos.



If the nutritional aspects of soy protein are not bad enough, consider this. To mask the very unpleasant taste of soy products and get people to buy the products they enhance the flavor with things like MSG, synthetic nutrients and sweeteners. For a longer shelf life they add many preservatives.

If you changed your diet to include soy products as a result of claims that it works wonders in regard to various health problems, you are not alone. Advertising

campaigns promoting soy have been numerous and the use of soy has become widespread. Some of the claims include a reduction in osteoporosis, when in fact soy blocks calcium absorption. One promotion claimed that soy reduces cancer when soy is directly linked to pancreatic cancer and now there are suggestions of soy being linked to thyroid cancer. Soy products can be made safer for consumption by fermenting them. The fermentation process takes more time than a chemical wash and this adds to the cost. These safer soy products include miso soup and fermented soy sauce. Unfortunately most soy sauces are not fermented anymore and are mostly MSG. While fermented soy products may be consumed in moderate quantities, isolated soy protein has a long list of health risks associated with it and should not be consumed by anyone. SPI (Soy Protein Isolate) is the key ingredient in soy foods such as imitation cheese and meat, baby formula and some brands of soy milk.

Here at Rebound Health we continue to promote nuts and seeds as the best sources of protein for humans. Roasted and salted is a better choice than raw when it comes to the moist nuts and seeds, such as peanuts. A snack of trail mix would be better than a soy burger. An alternative to soy milk could be almond milk. Peanut butter on a celery stick is a smart choice. A rice protein isolate is much better than soy or whey. Our recommended food guide can be found [here](#). Bon Appetit!