

Doctor Warns: Eat This and You'll Look 5 Years Older

(the danger of Synthetic Processed and GMO soybeans)

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By **Dr. Mercola**

In the early 1990's, soy and soy products exploded onto the supermarket scene with promises of bountiful health benefits. This "new miracle food," soy, was supposed to lower cholesterol, take the heat out of hot flashes, protect against breast and prostate cancer and offer a filling alternative to earth-loving vegetarians.

The problem with these claims?

Most of them are true for natural soy but false for GMO or processed soy.

Sadly, most of what you have been led to believe by the media about soy is simply untrue. The sudden upsurge in the recommendation of soy as a health food has been nothing more than a clever marketing gimmick to further reduce the cost and nutritional content of your food.

For you vegetarians out there staring at the screen in open-mouthed shock, fear not. There are plenty of other healthy vegetarian alternatives, which I will discuss later in this article. What was once considered a minor industrial crop back in 1913 now covers over 72 million acres of farmland. But first, let's examine the dangers and side effects of soy protein isolate and GMO foods.

Soy Protein Isolate -- What is It, and How is it Getting in My Food?

The Soyfoods Association of America has a soy protein "fact sheet" defining soy protein isolate as the following:

"Soy protein isolate is a dry powder food ingredient that has been separated or isolated from the other components of the soybean, making it 90 to 95 percent protein and nearly carbohydrate and fat-free."

Soy protein isolate can be found in protein bars, meal replacement shakes, bottled fruit drinks, soups and sauces, meat analogs, baked goods, breakfast cereals and some dietary supplements.

Bodybuilders beware: because many weight gainer powders, bars and shakes contain this dangerous ingredient and it can cause troubling side effects such as diminished libido and erectile dysfunction -- and this is just the start. You'll find out more about these disturbing health effects later on in this article.

Even if you are not a vegetarian and do not use soymilk or tofu, it is important to become a label reader. There are so many different names for soy additives, you could be bringing home a genetically modified soy-based product without even realizing it. Dr. Daniel offers a [free Special Report, "Where the Soys Are,"](#) on her Web site. It lists the many "aliases" that soy might be hiding under in ingredient lists -- words like "boullion," "natural flavor" and "textured plant protein."

Here are a few other names soy tends to hide under:

- Mono-diglyceride
- Soya, Soja or Yuba
- TSF (textured soy flour) or TSP (textured soy protein)
- TVP (textured vegetable protein)
- Lecithin
- [MSG](#) (monosodium glutamate)

Not all textured vegetable protein is made from soy, but a great deal of it is. Lecithin can be made from soy, eggs, sunflower or corn. Be sure to contact the manufacturer to find out which is in your product if the label doesn't reveal this information.

GMO -- Making Soy Even Worse

One of the worst problems with soy comes from the fact that [90 to 95 percent of soybeans grown in the US are genetically modified \(GM\)](#), and these are used to create soy protein isolate.

Why the genetic tinkering?

Genetically modified soybeans are designed to be "Roundup ready." That's right, they are chemically engineered to withstand heavy doses of herbicides without killing the plant! What does this mean for your health and the health of your unborn or yet-to-be-conceived children? Read on.

GM Soy Can Lead to Hormonal Disruption and Miscarriages

The active ingredient in Roundup herbicide is called glyphosate, which is responsible for the disruption of the delicate hormonal balance of the female reproductive cycle.

"It's an endocrine buster," says [UK pathologist Stanley Ewen](#), "that interferes with aromatase, which produces estrogen."

What's more, glyphosate is toxic to the placenta, which is responsible for delivering vital nutrients from mother to child, and eliminating waste products. Once the placenta has been damaged or destroyed, the result can be miscarriage. In those children born to mothers who have been exposed to even a small amount of glyphosate, serious birth defects can result.

In an [excellent summary of glyphosate-related effects by the Pesticide Action Network](#), Dr. Andreas Carrasco of the Embryology Laboratory, Faculty of Medicine in Buenos Aires, simply and expertly explains the serious risks for unborn children exposed to Roundup-laden GMO soy products.

Amphibian embryos were exposed to a tiny concentration of glyphosate (diluted 5000 fold) and showed the following effects:

"Effects included reduced head size, genetic alterations in the central nervous system, increased death of cells that help form the skull, deformed cartilage, eye defects, and undeveloped kidneys. Carrasco also stated that the glyphosate was not breaking down in the cells, but was accumulating.

The findings lend weight to claims that abnormally high levels of cancer, birth defects, neonatal mortality, lupus, kidney disease, and skin and respiratory problems in

populations near Argentina's soybean fields may be linked to the aerial spraying of Roundup."

The long-term effects of the human consumption of genetically modified soy and soy-based products are staggering.

In April 2010, researchers at Russia's Institute of Ecology and Evolution of the Russian Academy of Sciences and the National Association for Gene Security found that after feeding hamsters GM soy for two years over three generations, by the third generation, most **lost the ability to have babies!** Now, let's take a close look at some of the health risks to YOU as a result of eating genetically modified soy.

Infertility in Women

Do you want to start a family? Have you had any trouble conceiving, perhaps due to irregular menstrual cycles or endometriosis? Have you ever experienced a miscarriage?

If so, what you're about to read will shock you.

A [Brazilian study published in 2009](#) looked at the impact of soy on the reproductive system of female rats. Female rats fed GM soy for 15 months showed significant changes in their uterus and reproductive cycles, compared to rats fed organic soy or no soy.

Extrapolating the findings to people, women who eat genetically modified soy products, such as the soy protein isolate in processed vegetarian fare, may be more likely to experience severe hormonal disruptions, including an overabundance of estrogen, a hair-growth stimulating hormone, and damage to the pituitary gland.

According to Dr. Stanley Ewen, the female rats fed GM soy probably had an [increase in progesterone](#), which could cause an increase in the number of eggs released during each ovulation cycle.

You might think this would lead to an increase in fertility. However, as discussed in [an article by Jeffrey Smith](#), women who consume genetically modified soy products are at increased risk for developing retrograde menstruation (the menstrual cycle backs up into the body instead of outward), causing endometriosis, which can lead to infertility.

The consumption of soy protein isolate and other soy-based products can also lead to abnormally heavy or longer menstrual periods. This is called menorrhagia and,

ironically, some commercials have been popping up with a new pill that supposedly offers the "cure" for this "mystery syndrome."

When in reality the real cure for some women is as simple as removing soy and soy-based products from the diet. The negative effects of soy are not restricted to women, however.

Loss of Libido & Erectile Dysfunction in Men

Guys, do you enjoy protein bars or use a weight gainer shake? If so, be sure to read the label to see if the products you use contain any soy ingredients. Did you know that [celibate monks living in monasteries and leading a vegetarian lifestyle find soy foods quite helpful for dampening libido?](#)

Another drawback: Soy has also been linked to erectile dysfunction. The two natural drugs found in soy, **genistein** and **daidzein**, mimic estrogen so well that they have been known to cause a variety of alarming side effects in men:

- Breast enlargement (gynecomastia)
- Decreased facial and body hair growth
- Decreased libido
- Mood swings and frequent crying jags
- Erectile dysfunction
- Lowered sperm count

For example, [one recent study](#) documented a case of gynecomastia in a 60-year-old man as a result of his soy consumption. [Another study](#) showed that juvenile rats exposed to daidzein showed impaired erectile function at maturity.

Men, if you've experienced one or any of these symptoms, soy could be the culprit. Remove it from your diet, but be sure to consult a trusted physician if your symptoms do not improve or get worse as this could be a sign of another serious condition.

The Healthy Aspects of Soy: Fermented vs. Unfermented

In order to back up the claim that soy is a health food, privately funded "researchers" have been quick to point out that Asians, who consume a diet high in soy, have less risk

of breast, uterine and prostate cancer. Unfortunately, they leave out two very important points:

- Asians, especially the Japanese, while having a decreased risk of the above-mentioned cancers, have a ***much higher risk of developing cancer of the esophagus, thyroid, stomach, pancreas and liver!***
- Asians also consume a diet rich in fermented soy, which is the only type of soy to offer health benefits.

The reason Asians have an increased risk for some cancers is the same reason they do not develop others: unfermented soy. The soy marketing and promotion gurus left out this critical piece of information. Would you rather have one cancer over another? Isn't that like asking whether or not you'd like to be whacked in the head with a two-by-four vs. a wooden stick?

You might be asking yourself what the big difference is between consuming a fermented soy product such as, say, tempeh, vs. tofu or a veggie burger. I'm here to tell you, the difference is night and day.

Unfermented AND fermented soy contains hormonal mimics in the form of isoflavones which can not only disrupt delicate hormone systems in your body, but also act as **goitrogens, substances that suppress your thyroid function**. When the thyroid is suppressed, a host of health problems result, namely:

- Anxiety and mood swings
- Insomnia
- Difficulty losing weight
- Difficulty conceiving children
- Digestive problems
- Food allergies

And so much more. No wonder **soy can lead to thyroid, esophagus and stomach cancer!** Unfermented soy is also chock full of **phytic acid**, an "antinutrient" responsible for leeching vital nutrients from your body. Phytic acid also blocks the uptake of essential minerals such as calcium, magnesium, copper, iron and zinc especially.

Now, fermented soy products do provide health benefits.

As I mentioned in [my previous article](#), some examples of healthful fermented soyproducts are as follows:

- **Tempeh**, a fermented soybean cake with a firm texture and nutty, mushroom-like flavor.
- **Miso**, a fermented soybean paste with a salty, buttery texture (commonly used in miso soup).
- **Natto**, fermented soybeans with a sticky texture and strong, cheese-like flavor.
- **Soy sauce**, which is traditionally made by fermenting soybeans, salt and enzymes; be wary because many varieties on the market today are made artificially using a chemical process.

For those of you who enjoy tofu, I'm sorry to say it didn't make this list because tofu is an unfermented soy product.

So, What Are The Health Benefits of Fermented Soy Products?

The claim that soy products can prevent osteoporosis, decrease your risk of cardiovascular disease and dementia and protect you from cancer of the prostate, lung and liver is actually true, but **ONLY** if the soy is fermented.

How?

The process of fermenting soy destroys the above-mentioned dangerous substances, thereby making it fit for consumption. Also, fermented soy products such as those listed above are a [rich source of vitamin K2](#), a vitamin that works in harmony with vitamin D to keep you healthy. Vitamin K regulates your body's blood clotting ability and helps prevent cancer, osteoporosis and heart disease. And [vitamin D is essential to the function of every system in your body](#).

Warning to Vegetarians about the Risk of Mineral Deficiency

Since phytic acid or phytates sap the nutrients from your body, if you're eating a vegetarian diet that has replaced meat with mostly unfermented soy such as veggie burgers containing GMO soy protein isolate, you are at risk for severe mineral deficiency.

In addition to this nutrient loss, many processed veggie burgers and the like are packed with [harmful artificial flavorings](#), particularly MSG and textured vegetable protein products to give them their strong "meat" flavor.

What's even worse is the process soy has to go through to become soy protein isolate. Acid washing in aluminum tanks, which is designed to remove some of the antinutrients (but the results often vary widely), leeches aluminum into the final product. [Aluminum can have adverse effects on brain development](#) and cause symptoms such as:

- Antisocial behavior
- Learning disabilities
- Alzheimer's Disease and [Dementia](#)

As I mentioned in a [previous article about soy](#), this makes processed vegetarian fare more palatable, but far from nutritious. Vegetarians have plenty of options for well-rounded, nutritious meals without needing to eat soy or soy-based products.

- Beans are an inexpensive, protein-rich food that can be eaten alone, added to salads or served as a side dish. Be sure to purchase organic dried beans and cook them at home to avoid the [adverse health effects of eating canned food](#). Ideally it is also best to soak them for at least 12 hours before cooking them.
- Nuts are also an excellent source of protein. For optimal health benefits, reach for organic nuts such as almonds or walnuts, instead of overly processed mixed nuts.
- Quinoa is a gluten free grain that can be enjoyed as a cereal, side dish or added to homemade vegetable stews as a thickener.
- Flaxseed, which is rich in essential omega 3 fats like ALA, is an excellent source of protein. Add it to salads or sprinkle it over yogurt to infuse your meal with vital nutrients. However, it is important to grind flax seeds just prior to eating them because 100 percent of commercially ground flaxseeds are rancid. [Hemp seeds](#) are also an excellent source of protein.

Hope for the Lactose Intolerant

If you suffer from lactose intolerance and have been replacing milk with soy, you have three more healthful options: Almond milk, and now hemp milk. All are nutritious alternatives to soy, and almond milk has a richer, heartier flavor. [Hemp milk](#) is a very creamy, high protein alternative to soymilk, and it's easy to blend your own by whizzing up hemp seeds and water in a high-speed blender.

Babies -- Birth Control in a Bottle

As stated in a number of previous articles, [soy formula is one of the most dangerous foods you can feed your baby!](#)

"In 1998, investigators reported that the daily exposure of infants to isoflavones in soy infant formula is 6 to 11 times higher on a body-weight basis than the dose that has hormonal effects in adults consuming soy foods. Circulating concentrations of isoflavones in infants fed soy-based formula were 13,000 to 22,000 times higher than plasma estradiol concentrations in infants on cow's milk formula."

What does this mean? Feeding your infant soy-based formula can cause a host of health problems including:

- Behavioral problems
- Food allergies and digestive distress
- Early puberty and fertility problems (including the inability to menstruate)
- Asthma
- Precocious puberty for girls and gynecomastia (man boobs) for boys
- [Thyroid disease](#)
- Cancer

As I concluded in my [article on infant formula](#), babies who are fed exclusively from the breast from birth to six months enjoy [health benefits](#) such as:

- Lower risk of respiratory tract and middle ear infections
- Lower risk of eczema
- Lower risk of obesity
- Added protection against heart disease, diabetes, asthma, and allergies
- Improved brain function and immune system function

Soy formula is also laden with toxic chemicals such as aluminum and [manganese](#), which can cause both physical and mental health problems, learning disabilities, brain damage and behavioral problems. If, for some reason, you are unable to breastfeed or have adopted a baby, look into [these recipes for homemade infant formula](#).

School Lunch -- Children's Nutrition Left Behind

In order to comply with new US Government standards, soy products are now being used to replace whole, nutritious foods in school lunches. Due to the decreased fat content of soy, it is touted as a healthful alternative to the meat and dairy of yesterday's hot meal.

Nothing could be further from the truth.

Soy added to your child's hot lunch depletes the necessary nutrients needed for healthy growth and has been linked to learning disabilities. I encourage you to [watch this sobering video](#) to learn more about the dangers in your child's school lunch. Do your children a favor and send them to school with a healthy, home-packed meal.

Senior Citizens -- Aging Less Gracefully

According to a [study done by Dr. Lon White](#) of the Hawaii Center for Health Research, senior citizens who consumed a lot of tofu in mid-life were more likely to experience accelerated brain aging and a more pronounced loss of cognitive function.

"What's more," said Dr White, "those who ate a lot of tofu, by the time they were 75 or 80, looked five years older."

If you're heading toward your golden years and are looking to avoid soy protein, become a label reader. Meal replacement drinks like Ensure are filled with soy protein and are best avoided. If you're looking for a wholesome, nutrient-filled vegetarian meal replacement drink, try my [100% Pure Pea Protein supplement](#). As you can see, unfermented soy is anything but a health food.

Do your own research, try eliminating it from your family's diet and judge the results for yourself. Remember, an educated consumer is an armed consumer. Big companies can only produce and sell these harmful products as long as you're buying them.

Vote with your wallet by spending your money on healthier alternatives!