

## Problems with Soy

Public Comment to the Sonoma Valley Unified School District by Lauren Ayers, 12-14-10

Hello Educators and Parents,

Tonight's 3-minute symposium is about soy. No, I'm not going to laud its health benefits.

In ancient China, soy was rotated with other annual crops because it can fix nitrogen. That's why the ancient calligraphy character for soy pictures roots. Soy contains so many anti-nutrients that it's not edible for us humans without a lot more processing than other seeds.

First, there are the trypsin inhibitors. Trypsin is a digestive enzyme from the pancreas. When it's deactivated by soy you get gas, bloating, possibly pain and diarrhea. Luckily, fermenting soy deactivates most of the trypsin inhibitors. So miso and tempeh are OK.

Then there are the phytoestrogens. One writer says that tofu, which is not fermented, was invented 164 BCE by monks to help them keep their vows of celibacy because soy's phytoestrogens lower testosterone levels. In traditional Asian diets, soy is served as a condiment, not the main course.

Next we have the phytates. These plant chemicals bind with minerals (calcium, iron, magnesium, and all the essential trace minerals) in your digestive tract so they can't be absorbed.

Soy is also a goitrogen, meaning it can suppress and permanently damage your thyroid if eaten in large amounts.

These factoids are from *Against the Grain*, by Richard Manning. His subtitle is "How Agriculture Has Hijacked Civilization." The U.S. Research Council reports that infants fed soy formula have 6 to 11 times higher concentrations of the phytoestrogens that inhibit thyroid hormone biosynthesis.

One cup of soy milk, which has 60 grams of soy protein, contains 45 mg of isoflavones. A half cup of roasted soy beans has three times as much isoflavones, 128 mg. The World Health Organization spent \$5 million researching "natural" contraceptives in order to find something safer than the birth control pill. But the natural sources, such as soy, flax, and red clover, had side effects similar, and in soy's case, as serious as the pill.

How about what soy does to the brain. Dr. Lon R. White is a neuro-epidemiologist in Honolulu who studied over 4000 men and 5000 women using cognitive testing, MRIs, and some autopsies. The results were unequivocal: those who ate tofu at least twice a week had "accelerated brain aging, diminished cognitive ability, and were more than twice as likely to be clinically diagnosed with Alzheimer's disease." In fact, the more tofu eaten, the more cognitive impairment and/or brain atrophy.

Dr. White comments that soy milk containers should warn consumers that the contents are a drug, not a food. *Against the Grain* reports that soy formula, which gives babies 38 mg of isoflavones a day, is equivalent to three to five birth control pills! There has been an epidemic in undescended testicles and abnormal urethras - and boys who have these problems are five times more likely to have a vegetarian mom.

Soy has also been linked to the epidemic of precocious female puberty.

Sorry, friends, you have been trying so hard to eat right and reduce your carbon footprint - soy seemed like such a good idea. Perhaps it's the arrogance of our consumer society that makes us ignore the facts. Whatever. But maybe we can learn something from traditional people, and the diets that supported their health for millennia. Soy was never a big part of the Chinese and Japanese diet, while fish, poultry, and meat were valued for their rich fats and organ meats. That's why I submit to you that soy should not be in school food.