Doctors' Health Warning:

Avoid Genetically Modified Foods





Why isn't the FDA protecting us?

The Food and Drug Administration policy on genetically modified organisms (GMOs), released in 1992, falsely claims that the agency had no information showing that GM foods are substantially different. Thousands of secret memos later made public by a lawsuit reveal just the opposite. FDA scientists repeatedly warned of possible allergies, toxins, new diseases, and nutritional problems; they urged long-term safety studies. But the FDA official in charge of policy was Michael Taylor, Monsanto's former attorney, later their vice president, and now the US Food Safety Czar.

The FDA ignored their scientists, and doesn't require a single safety test. Instead, companies such as Monsanto, which have been found guilty of hiding toxic effects of their other products, get to decide if their GMOs are safe for us to eat. And the superficial studies they do conduct are widely criticized as rigged to avoid finding problems.

GMOs: unnatural, imprecise, prone to side-effects

Gene insertion into plants is done by shooting cells with a "gene gun" or using bacteria to infect the cells. Then





the cells are cloned into plants. These laboratory techniques are imprecise and bear no resemblance to natural breeding. The technology is based on outdated scientific assumptions and can lead to massive collateral damage in the plant. The DNA of GMOs, for example, can have hundreds or thousands of mutations, and the activity of up to 5% of their natural genes can be significantly changed. Even the inserted gene can be damaged or rearranged, creating proteins that trigger allergies or promote disease.

GM foods on the market

The six major GMO crops are soy, corn, canola, cotton, sugar beets, and alfalfa. Each has added bacterial genes, allowing plants to survive an otherwise deadly dose of weed killer such as Roundup. Farmers use considerably more herbicide on these crops, causing higher herbicide residues in our food.

The second most popular trait is a built-in pesticide, found in GM corn and cotton. An inserted gene from soil bacteria called Bt (Bacillus thuringiensis) secretes the insect-killing Bt-toxin in every cell.

The other GM crops are Hawaiian papaya and a small amount of zucchini and yellow crookneck squash, which are engineered to resist a plant virus.







Growing Evidence of Harm from GMOs

GMOs and allergic reactions

- Soy allergies skyrocketed by 50% in the UK, soon after GM soy was introduced.
- Cooked GM soy contains as much as 7 times the amount of a known soy allergen.
- GM corn contains an allergen not found in natural varieties.
- GM soy also has an allergen not found in wild soy, and some people react in a skin prick allergy test to the GM variety, but not the wild type.

Bt corn and cotton linked to allergies

Natural Bt bacteria has been used in spray-form by farmers for years, although it biodegrades quickly. The Bt in GM crops is designed to be more toxic than the natural spray, is thousands of times more concentrated, and doesn't biodegrade.

Hundreds of people exposed to natural Bt spray had allergic symptoms, and mice fed natural Bt-toxin had damaged intestines and powerful immune responses. Now mice and rats fed Bt corn show immune responses, and people exposed to Bt cotton are getting the allergic reactions.

A study in Canada found Bt-toxin and herbicide residues from GM crops in the blood of women and fetuses.



Thousands of Indian farm workers get rashes and reactions from Bt cotton.

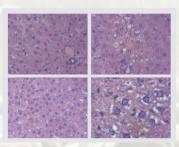
For more on the health risks, see ResponsibleTechnology.org or consult the book, *Genetic Roulette: The Documented Health Risks of Genetically Engineered Foods*, by Jeffrey M. Smith.

GMOs fail allergy tests

No tests can guarantee that a GMO will not cause allergies. Although the World Health Organization recommends a screening protocol, the GM soy, corn, and papaya in our food supply fail those tests—because their GM proteins have properties of known allergens.

GMOs may make you allergic to non-GM foods

- GM soy drastically reduces digestive enzymes in mice. If it also impairs your digestion, you may become sensitive and allergic to a variety of foods.
- Mice fed Bt-toxin started having immune reactions to formerly harmless foods.
- Mice fed experimental GM peas also started reacting to a range of other foods. (The peas had already passed the allergy tests normally done before a GMO gets on the market. Only this advanced test, which is never used on the GMOs we eat, revealed that the peas might actually be deadly.)



The livers of rats fed GM soy show significant changes. Also, rats fed GM potatoes had smaller, partially atrophied livers; livers of rats fed GM canola were 12-16% heavier; and the liver cells of mice fed GM soy appeared to suffer from a toxic insult.

GMOs, reproductive problems, and infant mortality

- More than half the babies of mother rats fed GM soy died within three weeks.
- Rodents fed GM soy had changes in their ovaries, uterus, or testicles, including altered young sperm cells.
- The DNA of mouse embryos functioned differently when the parents ate GM soy.

- Mice fed GM corn had fertility problems and smaller babies.
- By the third generation, most hamsters fed GM soy were unable to have babies and suffered high infant mortality; some had hair growing in their mouths.

Babies of female rats fed GM soy were considerably smaller, and more than half died within three weeks (compared to 10% of the non-GM soy controls).



Bt crops linked to sterility, disease, and death



Thousands of Indian buffalo, sheep, and goats died after grazing on Bt cotton plants after harvest. Others suffered poor health and reproductive problems.

- Farmers in Europe and Asia say that cows, water buffaloes, chickens, and horses died from eating Bt corn varieties.
- About two dozen US farmers report that Bt corn varieties caused widespread sterility in pigs or cows.
- Filipinos in at least five villages fell sick when a nearby Bt corn variety was pollinating.

Functioning GM genes remain inside you

The only published human feeding experiment on GMOs revealed that the genetic material inserted into GM soy transfers into bacteria living inside our intestines and continues to function. This means that long after we stop eating GM foods, we

may still have their GM proteins produced continuously inside us.

- If the antibiotic gene inserted into most GM crops were to transfer, it could create super diseases, resistant to antibiotics.
- If the gene that creates Bt-toxin in GM corn were to transfer, it might turn our intestinal bacteria into living pesticide factories.





The stomach lining of rats fed GM potatoes showed excessive cell growth, a condition that may lead to cancer. Rats also had damaged organs and immune systems.

 Animal studies show that DNA in food can travel into organs throughout the body, even into the fetus.

GM food supplement caused deadly epidemic

In the 1980s, a contaminated brand of a food supplement called L-tryptophan killed about 100 Americans and caused sickness and disability in another 5,000-10,000 people. The source of contaminants was almost certainly the genetic engineering process used in its production. The disease was only identified because the symptoms had three simultaneous characteristics: they were unique, acute, and fast-acting. If GM foods on the market cause common diseases, mild symptoms, or have long-term impacts, we may never know. There's no monitoring, and hardly any long-term animal studies. So we can't say for sure if GMOs contribute to the recent rise in chronic illness, food allergies, reproductive and digestive problems, autism, and other disorders. But medical organizations like the AAEM say we shouldn't keep eating GMOs while waiting for more studies.

References for the above material are found at Responsible Technology.org/health-risks.



Help end the genetic engineering of our food supply

When the tipping point of consumer concern about GMOs was achieved in Europe in 1999, within a single week most major food manufacturers committed to remove GM ingredients. The Campaign for Healthier Eating in America is designed to reach a similar tipping point in the US soon.

Our growing network of citizens and organizations is educating consumers about the health risks of GMOs and helping them select healthier non-GMO alternatives using our Non-GMO Shopping Pocket Guides, website (NonGMOShoppingGuide.com), and iPhone app (ShopNoGMO).

Yes! I want to participate...

Go to www.ResponsibleTechnology.org to learn more and to sign up for our free electronic newsletter.

You can also join the Non-GMO Tipping Point Network, with local and national Non-GMO Action Groups.

You may also make a tax-deductible donation:

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