

# The Wellness Family

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## Is Your Food Genetically Modified?

In 1994, the commercial sale of genetically modified (GM) foods began with the delayed ripening tomato by Calgene. Today, an estimated 75% of foods in U.S. grocery stores contain GM ingredients. Genetically modified foods (GM foods or biotech foods) are foods derived from genetically modified organisms, which have had specific changes introduced into their DNA by genetic engineering techniques. These techniques can include introducing foreign DNA or synthetic genes into the food item or exposing it to mutagens.

The proposed purposes of genetically modifying foods include: faster growth; higher crop yields; resistance to pathogens, insects and other pests; extra nutrient production or other supposedly beneficial results.

### Current Research

Scientists in Norway recently published their findings from a 10-year study of the body's response to GM foods. The researchers found significant changes that affected weight gain, eating behaviors, and immune function in the animals fed GM foods. These changes included alterations in the micro-structure of their intestines, impairing their ability to digest certain proteins. The researchers, therefore, concluded that there is a positive link between GE (genetically engineered) corn and obesity, since all animals fed a GE corn diet gained weight quicker and retained it.

The lead author, Professor Krogdahl, explains: "It has often been claimed that the new genes in GM foods can't do any damage because all genes are broken down beyond recognition in the gut. Our results show the contrary." The fact that they were less able to digest proteins has huge implications in the biochemistry of amino acids necessary for all life processes. This not only may relate to a rise in obesity, but to increases in many modern diseases. These diseases may include diabetes, digestive disorders, inflammatory bowel disease, colitis, autism spectrum disorders, auto-immune diseases, sexual dysfunction, sterility, asthma, COPD and many more.

### Basic Concerns

Obviously, the most basic concern would be to wonder what effect the genetic modification of our food is having on its nutritional value. According to research conducted by noted food expert, Jeffrey M. Smith, food

related illness doubled during the period of 1994 and 2001, when GM foods began to flood the market.

His research has shown that GM foods can be allergenic, toxic, carcinogenic and anti-nutritional. Despite the claims of GMO manufacturers that genetically modified foods are no less healthy than non-GM foods, the research says otherwise. GM foods can cause cancer, contribute to food allergies, possibly cause damage to your immune system and potentially create super-viruses.

### Poisonous Foods

Vyvyan Howard, expert in infant toxico-pathology at Liverpool University Hospital in the United Kingdom



*"Swapping genes between organisms can produce allergies that are most likely to affect children."*

said, "Swapping genes between organisms can produce unknown toxic effects and allergies that are most likely to affect children." The UK Royal Society said that genetic modification "could lead to unpredictable harmful changes in the nutritional state of foods" and recommended that the potential health effects be rigorously researched before being fed to pregnant or breast-feeding women and babies."

According to the Royal Society of Canada, "The potentially widespread use of GM food products as food additives and staple foods, including use in baby foods, may lead to earlier introduction of these novel proteins to susceptible infants either directly or via the maternally ingested proteins in breast milk."

Clearly the concern is that children are much more susceptible to toxins than adults and the only research being conducted on these GMOs are being paid for by the companies making their money on the sale of these foods, the manufacturers.

Additionally, by having these newly created/modified foods patented, the company is allowed to prevent  
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independent studies under current patent laws. The result is, the basic information provided to the public is one-sided in the favor of the manufacturer.

### **Science Fiction?**

Like something out of a science fiction novel, "Bt corn" was created with a gene from the soil bacteria *Bacillus thuringiensis* (Bt), which produces Bt-toxin. This is a pesticide that breaks open the stomach of certain insects and kills them. This GE pesticide-corn was first introduced to the food supply in the 1990's and the government said that the toxin would only affect insects munching on the crop.

The manufacturer and the US Environmental Protection Agency claimed that the toxin would be completely destroyed in the human digestive system. They insist that the Bt-toxin doesn't bind or interact with the intestinal walls of mammals, and therefore humans. This is absolutely not true.

Doctors at Sherbrooke University Hospital in Quebec found Bt-toxin in the blood of 93% of pregnant women tested, 80% of umbilical blood in their babies and 67% of non-pregnant women. Additionally, government-sponsored research in Italy showed that mice fed Bt corn showed a wide range of immune responses such as those associated with allergies, infections, inflammatory responses including arthritis and cancer, as well as asthma, juvenile arthritis and connective tissue diseases.

### **Food for Thought**

Frankenfoods, as they're called by GM food critics, are probably already in your kitchen and due to the lobbying efforts of these GM food manufacturers, many governments, (even the European Union which has historically taken a strict, cautious stance regarding GM crops) are starting to buckle.

GM crops are banned in several European countries, however, recently the European Commission issued a proposal to drop their policy of zero tolerance for unapproved and untested GMOs in food. Should this policy change occur, it will be just a matter of time before these foods are hitting the grocery shelves worldwide unlabeled and unrecognizable.

Maybe one of the most disturbing facts of all is that the time may come when even organic foods might not be GMO-free. Some of these GM seeds are aggressive and have spread wildly into surrounding conventional farmer's fields resulting in these farmers being sued by manufacturers for patent infringement.

### **What To Do**

Unfortunately, since food manufacturers don't have to label their products that contain GM products, avoiding GMOs is not easy, but here are a few ideas:

1. Avoid processed foods, particularly High Fructose Corn Syrup (HFCS). Due to our increased demand for HFCS, corn production has sky rocketed and most corn produced now is genetically modified.
2. Consider eating vegetarian, limit meat consumption or only buy meat from grass-fed livestock.
3. Buy organic whenever possible. If the label says "certified organic" then it has to be GMO-free. Do not be misled by the label "all natural" as this is not the same. "All natural" simply means that it was grown in the ground.
4. Buy local. If you can, go to local farmer's markets or find other opportunities to buy directly from a certified organic farmer.
5. Make note of the eight genetically modified food crops on the market: soy, corn, cottonseed, canola, sugar from sugar beets, Hawaiian papaya, some varieties of zucchini and crookneck squash. Then be sure to buy only organic of these products and avoid purchasing any items that contain them in any form.

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*Dear Patient,*

*Dr. Glassman is dedicated to providing you with the absolute best in family wellness care. So take a moment today to discuss with your Family Wellness Chiropractor any concerns you may have regarding your family's overall health and wellness.*

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