

## **GMO's - Pros and Cons**

GMO's are microorganisms, plants, and animals that have their genes altered. Usually they are modified either to further scientific research or to alter the food supply. Common genetic modifications include: adding antibacterial genes to plants, introducing genes that make the organism bigger or hardier, making new foods by adding genes from existing foods, and adding animals genes to plants and vice versa.

Most American crops are now genetically modified and the percentage of GMO's in our food supply is growing extremely rapidly. Products that are genetically modified do not have to be labeled as such.

### **Pros**

The government and agribusiness tout the benefits of GMO's to the public. They say that they are doing this to increase the food supply, help underfed nations, and assist farmers.

Some of the benefits they claim are better food quality and taste, and making crops disease resistant so we have higher yields and more efficient production. GMO's allow farmer to skip steps in the production process, like spraying herbicides and pesticides, because the crops are already resistant. In some crops they claim the foods are modified to contain additional vitamins and minerals. These are supposed to be beneficial to people in countries that do not have an adequate supply of these nutrients. They claim that since fewer pesticides are used, it is good for the environment. Their most important claim is that GMO's are safe for human consumption.

### **Cons**

The biggest concern is that there has not been enough testing of GMO's and no real long--term testing to detect possible problems.

Another problem is allergic reactions; genetic modification often mixes or adds proteins that weren't indigenous to the original plant, causing new allergic reactions to the human body, according to Brown University.

Some GMO foods have had antibiotic features added to them so they are resistant to certain diseases and viruses. When humans eat them, these antibiotics features persist in our bodies and make actual antibiotic medications less effective, according to Iowa State University.

Another risk is that the modified genes may escape into the wild. Brown University warns if herbicide resistant genes cross into wild weeds, a super weed that is resistant to herbicides can be created. Making plants resistant to bacteria can cause bacteria to become stronger and harder to kill.

There have been isolated cases of animals dying after eating genetically modified foods.

Dr. William Davis says, "The new genetically modified wheat has a new protein call gliadin. This gliadin binds to the opiate receptors in our brain and in most people stimulates appetites, such that we consume 440 more calories per day." Davis claims clinical studies show this happening to hundreds of thousands of people. He suggests totally avoiding wheat.

In my own practice, while testing for food allergens using the elimination diet, I have found several patients that improved when all GMO's were eliminated from their diet.

As you can see, there are pros and cons to this issue. I wanted to try and discuss both sides of the issue so you can make your own decision. At the present time I do not recommend using any GMO foods until more testing is done, and true long--term studies can alleviate my concerns.

## References

- Brown University: What is Genetically Modified Food?
- University of California: San Diego: 20 Questions About GMO Food
- Iowa State University: The Debate on Labeling Genetically Modified Food
- Oklahoma State University: GMO Facts
- Food and Agricultural Organization of the United Nations: Weighing the GMO Arguments