Health and Wellness:
Genetically Modified Organisms & Food Safety

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Like it or not, Genetically Modified Organisms (GMOs), also known as genetically engineered or modified foods, are ever present in our grocery stores and most likely our refrigerators and cabinets. Simply stated, GMOs are a special set of technologies that alter the genetic makeup of organisms such as animals, plants or bacteria. The implications are enormous. Starting in the 1970s, GMOs have grown exponentially. In 2006, transgenic crops totaled 252 million acres. At the present time, between 60 to 70 percent of products on grocery store shelves contain at least one genetically engineered element. Some examples include: canola, corn, cantaloupe, flax, golden rice, graisin (giant raisin), lettuce, long-lasting tomatoes, potatoes, pluot (plum and apricot combined), seedless watermelon, soybeans, squash, strawberries, and sugar cane to name but a few. There are even plans to produce fish which mature more quickly; cows that are resistant to mad cow disease and fruit and nut trees which harvest years earlier.

Here are some other advantages and disadvantages to GMOs:

- Advantages-
  - GMOs can possibly control the occurrence of certain diseases;
  - By eliminating certain properties, GMOs are thought to prevent some allergies;
  - GMOs grow faster and have a longer shelf life than traditional foods to provide more food for Earth's inhabitants;
  - It costs less to produce GMOs mainly because it has a natural resistance to pests and insects saving on the cost of pesticides and insecticides while making them chemical free and environmentally friendly; and
  - GMOs tend to be higher in nutrients, vitamins and minerals while also tasting better than their traditional counterparts.
- Disadvantages -
  - GMOs can possibly increase one's chances of developing cancer;
  - An antibiotic-resistant strain of disease development is perhaps being created with GMOs;
  - Labeling in many countries, including the United States, is voluntary and will only be required when consumers demand to know (which will then increase cost);
  - Many consumers express legitimate opposition to transferring animal genes into plants and vice versa; and
  - The potential for unknown and/or unforeseen unintended consequences is vast

In the absence of any long-term, large-scale tests and studies, and since biotechnology is moving so quickly, safety remains a reasonable concern. GMOs have the potential to solve our world's hunger problems however unplanned human and environmental health concerns cannot be ignored. Some complain that our government is not protecting us enough. Until the health risks are better known, researching and deciding whether traditional foods would be better cannot be overemphasized. The first step is to know whether or not GMOs are being purchased and consumed. Then, become as well informed as possible about all of the various food choices to stay as healthy and well as possible. Here are a few places to begin reading more on this topic:

1) http://www.centerforfoodsafety.org/geneticall7.cfm
2) http://www.faqs.org/nutrition/Foo-Hea/Genetically-Modified-Foods.html
3) http://www.fmi.org/consumer/biotech/biotechnology.pdf
4) http://www.who.int/foodsafety/publications/biotech/20questions/en/
5) http://www.buzzle.com/articles/genetically-modified-foods-pros-and-cons.html

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