

Making the Best of Basics

FAMILY PREPAREDNESS HANDBOOK

Basics of Genetic Engineering

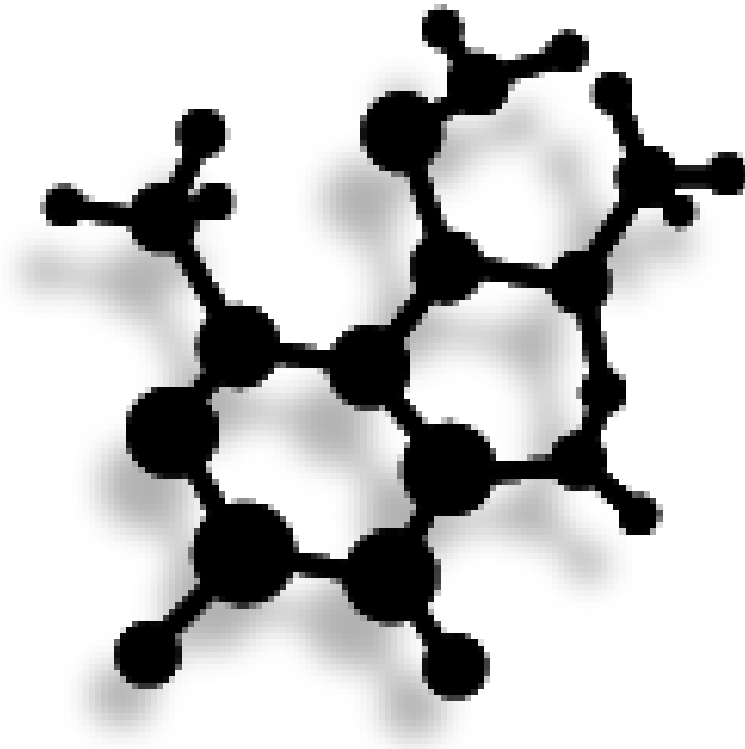
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by
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Making the Best of Basics
Family Preparedness Handbook
(11th Edition)
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"Surgery not Included"

“You are consigned ultimately to live in the future—prepared or not! The choices you make today will determine your tomorrows. The choice is truly yours!”



Basics of Genetic Engineering

In the late 1980's, a health epidemic struck the United States, killing more than 100 people, and ultimately affected another 5,000 to 10,000 people who became deathly ill, some of whom became disabled. It took more than 4 years to discover the cause of the epidemic. Finally, the source of the epidemic was identified as L-tryptophan, a sixty-year old, well-accepted form of food supplementation. It was determined a certain brand had genetically engineered a new form that resulted in the health catastrophe¹.

Genetic engineering of plants and animals is aggressively and distinctly becoming what could become the most massive challenge yet to human beings because the changes can be self-perpetuating, and any errors will be genetically passed on to the next generation.

Caution:

The FDA has not evaluated all of these statements. This information is for educational purposes only. Always consult your own personal doctor or licensed professional for medical advice.

The genetically engineered plants that are the most common in the United States are corn, soy, canola, cottonseed oil, and wheat. It is estimated that 40% of the corn supply and 80% of the soybean supply are genetically engineered. It is practically impossible in the marketplace today to escape genetically altered products—they have become ingredients in the dominant part of the products in our grocery stores—60% of food products in the typical grocery store have genetically modified content, and therefore are inevitably in our kitchens and pantries.

In May 2009, The American Academy of Environmental Medicine (AAEM) released its position paper on Genetically Modified (GMO) foods stating that:

“GMO foods pose a serious health risk...” and calling for a moratorium on GMO foods. Citing several animal studies, the AAEM concludes *“...there is more than a casual association between GMO foods and adverse health effects”* and that *“...GMO foods pose a serious health risk in the areas of toxicology, allergy and immune function, reproductive health, and metabolic, physiologic, and genetic health.”*¹

The AAEM called for the following actions to be taken:

- a moratorium on GMO food;
- implementation of immediate long term safety testing and labeling of GMO food;
- physicians to educate their patients, the medical community and the public to avoid GMO foods;
- physicians to consider the role of GMO foods in their patients' disease processes; and
- more independent long-term scientific studies to begin gathering data to investigate the role of GMO foods on human health.

According to Dr. Amy Dean, PR chair and Board Member of AAEM,

“Multiple animal studies have shown that GMO foods cause damage to various organ systems in the body. With this mounting evidence, it is imperative to have a moratorium on GMO foods for the safety of our patients' and the public's health.”

One of the main reasons for the problems with the GMO's is that as a result of the genetic modification, these crops produce new proteins that have never been present before which, are in effect, truly alien to the earth! As a result of this, our bodies are not capable of properly breaking them down. As a result, the proteins produced and consumed cause the animal or human to have allergic reactions to the “alien” protein. This reaction will cause inflammation within the body.

This *inflammation in the system is the true problem* because it has been shown that inflammation is the cause of many of the major health problems today. These include arthritis, heart disease, and even cancer.

The major problem with GMO's is they are part of the content of virtually everything we eat! GMO's started as experimental and it was assumed that they would never enter the food supply. However, that has all changed. Now, unless you are consuming a food that is certified as organic, chances are there is some substance in the product that is genetically modified.

WHY GENETICALLY MODIFIED SEED?

There are several reasons for the development of GMO seeds—they are created to be resistant:

- to pests and
- to herbicides.

GMO seeds are also purported to have better:

- cold tolerance, and
- disease resistance.

The plan was to increase yields and “*feed the world.*” At this point, it is highly questionable if this will be achieved—in fact it appears that the overall production may be diminishing.

In the past, farmers would harvest their crops, sell, and/or save the grain, holding back some grain for seeds for their next year's crops. With the development of GMO's, if the farmers buy and plant the GMO seeds it is illegal to hold grain back for seed because legally the seed is owned by companies such as Monsanto. The companies control the distribution and pricing of their patented seed products.

¹ <http://www.aeemonline.org/GMOpressrelease.html>

A number of studies over the past decade have revealed that genetically engineered foods can pose serious risks to humans, domesticated animals, wildlife, and the environment.

WHAT ARE SOME SIDE EFFECTS OF RAISING GMO PLANTS?

A reported side effect of raising GMO's is the genetically modified plant are cross-pollinating with non-modified plants and causing a gene transfer in the otherwise normal plant. For example, the GMO plants that are developed to be pesticide-resistant will actually produce their own pesticides, and these genetic modifications may even cause the same types of production through cross-pollination in regular plants. Then it is entirely possible that this production—since it is may be in the form of a virus or bacteria that was introduced into the plant for resistance—could take place in our own intestinal system, which in turn could cause our own body to produce the pesticide or herbicide within the intestinal tract or other organ.

These problems may be some of the causes for the new mystery illnesses that are becoming more abundant, such as chronic fatigue and fibromyalgia, and other health problems which include higher risks of toxicity, allergies, antibiotic resistance, immune-suppression, and cancer.

There are possible effects on the environment:

- biological pollution causing plants and animals to become extinct,
- creation of a strain of super weeds, and the
- possibility of unknown viruses.

Then, too, there is the high probability of contamination of non-altered as well as engineered plants and animals. The problem is that we just don't know:

- Have we opened a Pandora's Box with inherently dangerous alterations?
- Have we created new allergies?

GMO soybeans and corn each contain two new proteins with allergenic properties², nutritional related problems, and diseases—and perhaps even poisons. Scientists are arguing for long-term testing.

According to Canadian geneticist David Suzuki, there isn't any scientific evidence to show the GMO plants and food are safe, and he warns,

“The experiments simply haven't been done and we now have become the guinea pigs.” He continues, *“Anyone that says, ‘Oh, we know that this is perfectly safe’; I say is either unbelievably stupid or deliberately lying³.”*

Of equally high concern is an untested and unregulated category of “nanotechnology” that also alters food products, nutritional supplements, and packaging. Nanotechnology is also referred to as *molecular manufacturing*—which is the alteration of materials on a *nanoscale* of a millionth of a millimeter (180,000th the size of human hair!)⁴

According to a definition in a recent report in *Nanotechnology in Agriculture and Food*, May 5, 2006, food is “*nanofood*” when nanoparticles, nanotechnology techniques, or tools are used during cultivation, production, processing, or packaging of the food.

Nanotechnology is promoted on the forecasting of improved food flavor, nutrition and processing. There is to be a category of “*functional foods*” (common, everyday foods that are capable of conveying medications and supplements). This is all promoted, for worldwide approval, on the back of the promise of increased production and economics—that this technology will save the world from starvation.

You will discover in another report, “*Out of the Laboratory and onto Our Plates: Nanotechnology in Food and Agriculture*⁵, ‘*Friends of the Earth*,’ 2nd ed., Apr. 2008, there is a conclusion that nanomaterials are in very popular drinks and packaging. I recommend to all readers they read this report to be aware of major brands and mer-

² See L Zolla, et al, “*Proteomics as a complementary tool for identifying unintended side effects occurring in transgenic maize seeds as a result of genetic modifications*,” *J Proteome Res.* 2008 May;7(5):1850-61; Hye-Yung Yum, Soo-Young Lee, Kyung-Eun Lee, Myung-Hyun Sohn, Kyu-Earn Kim, “*Genetically Modified and Wild Soybeans: An immunologic comparison*,” *Allergy and Asthma Proceedings* 26, no. 3 (May–June 2005): 210-216(7); and Gendel, “*The use of amino acid sequence alignments to assess potential allergenicity of proteins used in genetically modified foods*,” *Advances in Food and Nutrition Research* 42 (1998), 45–62.

³ “*Suzuki warns against hastily accepting GMO's*,” *The Leader-Post* (Canada), 26 April 2005.

⁴ “*Nanotechnology: More Hazardous than GMO's & Toxic Chemicals?*” *The Ecologist*, 7/23/09 (by Levitt)

⁵ *Ibid.*

chandisers selling such products and packaging. They are neither my statements nor necessarily my opinions, but certainly need considering.

“Nanotechnology can be very dangerous when used in food,” said report co-author Dr. Rye Senjen. *‘Early scientific evidence indicates that some nanomaterials produce free radicals which destroy or mutate DNA and can cause damage to the liver and kidneys. Existing regulations in the US did not require testing or labeling for nanomaterials when they were created from existing approved chemicals, despite major differences in potential toxicity.’”*

There are major differences between genetically engineering or modifying than that of breeding. Breeding does not cross species’ barriers and does not create plants and foods that could never naturally occur. Not only are there potential health and environment problems, there are also ethical questions that could be addressed about this technology.

To avoid the genetically altered, engineered, molecularly manufactured plants and products, plant your own garden and preserve your own foods. Buy locally grown meats and fresh organic food. When you must buy processed foods, read the labels thoroughly!

For more information, go to <http://www.safe-food.org/-consumer/shop> for a strong start on GMO attributes. Use your browser to find references about GMO on the Internet.

Learn to read product labels—however, reading labels is no guarantee you’ll get no GMO products, because the manufacturers are not required to list all ingredients used in their processes.

In conclusion: There is a long road to travel before these issues are resolved!

Inform yourself on these issues and determine whether you want to continue to support an industry-controlled harvest of genetically modified foods and food products with your food dollars.

ⁱ **Dr. Richard E. Busch III** is a nationally recognized Doctor of Chiropractic, author, speaker, and President Emeritus of *The American Chiropractor* magazine. He founded the Busch Chiropractic Pain Center in 1996 and since, he has successfully treated thousands of patients for chronic and severe disc conditions that traditionally would have required surgery. Dr. Busch is a pioneer in bringing the **DRS Protocol™**, utilizing spinal decompression technology, to the forefront of care for appropriate low back and neck conditions. He has served as a national consultant for the continuing development of this technology and the **DRS Protocol™**. This protocol incorporates unique and proprietary elements of nutrition as a significant element—as is enzyme therapy—in which Dr. Busch is certified. All elements of the protocol contribute to some of the highest success rates for the alleviation of back and neck pain. Dr. Busch trains physicians and chiropractors across the nation in the **DRS Protocol™** to help patients avoid surgery, and he is a consultant to many physicians and chiropractors. Dr. Busch has published a recent eye-opening book **“Surgery not Included: Freedom from Chronic Neck and Back Pain**. You can visit his website at www.surgerynotincluded.com. Dr. Busch’s wife, Jennifer, is active in the business and has authored the detailed information (see **Chapter 24**) included in the **“Basic Stress Battle Plan,”** and her wonderful book dealing with the results of stress entitled **All In My Mind? How to Overcome Adrenal Fatigue, Chronic Fatigue, and Fibromyalgia**.