

Ask Dr. Tastebud



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Dear Dr. Tastebud,

I have heard people talk about GMOs lately and how they are bad for you. What exactly are GMOs and what makes them so bad for you? Is there any way I can avoid them?

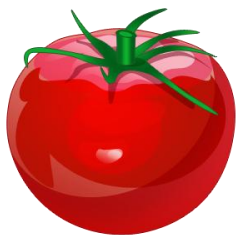
Concerned Parent

Dear Concerned Parent,

Let's begin by talking about what GMOs are. GMO stands for genetically modified organism. A GMO is a plant or animal that has been modified on the genetic level so that it can grow to certain standards and contain specific traits.

GMOs are made so that our food products can obtain new, ideal traits or enhance certain characteristics. These ideal traits include: resistance to bad weather conditions, resistance to pests, resistance to herbicides, increased nutrient content, increased yield of the food, and less required maintenance to keep the plant or animal healthy during growth.

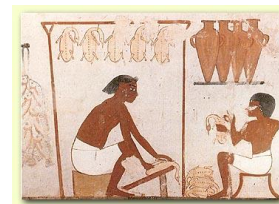
Genetic modification can be done by selecting certain seeds out of a group, by crossbreeding certain varieties of foods, or by mutation. When we think of GMOs we often think of mutation, which is the manipulation of an organism's DNA manually.



The genes for these ideal traits are put into the DNA of the plant or animal that needs to be modified and then the plant or animal can use these ideal traits to its own benefit. The whole idea of this is to create a "super" plant or animal and save time and money, while increasing yield.

GMOs are only sold to the public through plant sources as genetically modified animals are not yet approved for human consumption.

Genetic modification of food has been around since the ancient Egyptians have walked the earth about 10,000 years ago. Today's crops do not share much resemblance to those thousands of years ago.



Food Sources that Contain GMOs

GMOs can be found in many foods that we consume every day. Some of these foods include: corn, soy, canola, tomatoes, potatoes, potatoes, apples, wheat, peppers, carrots, sugar beets, papaya.

With so many products containing high fructose corn syrup as well as many products being fried in corn oil, the prevalence of GMO corn in many foods is astonishing.

The Truth about GMOs

It's important to mention that a summary of 1,783 articles covered by a team of Italian researchers indicated that GMOs pose no health risk whatsoever. Most of the studies actually back the claims that they will improve yield, show pest resistance, contain more nutrients, and be environmentally friendly as well. They seem to be what we need to support a constantly growing population in a way that's more sustainable with less environmental impact than our current methods.

GMOs are becoming more and more popular within our food supply and it can be pretty tricky to avoid them. They get a bad rap because of media hype.

One of the purposes of GMOs is to produce crops that are disease and pest resistant. Modifying crops so that pests or diseases won't affect them is a huge potential benefit to farmers and can overall save them money through using less added pesticides on crops and hopefully increasing yields from this as well. The papaya is commonly modified to be resistant to a disease that is notorious for devastating papaya fields in Hawaii. Bt corn is also effective at killing born boring monarch caterpillars, which are known for eating all the corn before it can be harvested. Most research indicates that these traits do not affect the safety of the foods at all.

GMOs are also a way to potentially increase the nutrient value and shelf-life of our foods. Foods that have longer shelf lives can lead to less waste and financially benefit farmers as well as the consumer. The FLAVR SAVR tomato is an example of how they used genes to modify the way tomatoes ripen to allow them to ripen slower. Possibly obtaining higher nutritional value could be a nice benefit as well. There is a strain of rice in the process of being made that contains added vitamin A and is gold colored, for example.

In the future of GMOS, they even plan on having foods with edible vaccines in them, such as potatoes for third world countries with a vaccine for polio. These traits would all be ideal benefits of GMOs but they are still a work in progress.

Overall, the health implications of GMOs are inconclusive. There are indefinite benefits to genetically modified organisms; however, we are not sure what the health drawbacks are, if there are any.

Hype

- They are unregulated and unknown.
- They disrupt nature and hurt the environment.
- There is an emergence of super weeds because of them
- They are unsafe and cause cancer
- They have unpredictable consequences

Truth

- GMOs have been around for over 10,000 years.
- Many organizations causing panic are strongly one-sided.
- The hype isn't evidence based.
- Not a single instance of harm to humans has been recorded from GMOs.
- There are no credible environmental effects noted.



For more information:

- <http://tinyurl.com/mzkz796>
- <http://tinyurl.com/mh74c33>
- <http://tinyurl.com/nax5pdc>