The Consequences of Chemically Grown Food

Dr. Joseph Pizzorno
Rebekah Kelley: Welcome to the Humanized Podcast, all about personalizing your health. I am your host, Rebekah Kelley. I'm very excited to have Dr. Joe Pizzorno.

Before I introduce Dr. Joe, I want to remind everyone to subscribe to Humanized Health to get all of our variety of casts in audio, video and transcription at Humanizedhealth.com. I'd also like to thank our lead sponsor, Village Green Apothecary. Find them online at MyVillageGreen.com.

Our guest, Dr. Joe Pizzorno, is the founding president of Bastyr University. He is also the current chairman of the Institute of Functional Medicine and author of many top-selling books on evidence-based, natural medicine, including The Toxin Solution and The Encyclopedia of Natural Medicine. Having sold more than 2 million books, Dr. Joe will be talking on "The Consequences of Chemically Grown Food," explaining how foods are the big drivers of toxins.

Welcome Dr. Joe. I want to point out that I have both of those books here, right off my bookcase. So I'm one of the 2 million who bought it! I use it so much; I'm grateful and appreciative. Thank you so much for bringing your knowledge, sharing it, and allowing someone like me to really understand, dive deep, and get to great health.

Dr. Joe Pizzorno: First, let me say thank you. That's great to hear. That's why Mike [Dr. Michael Murray] and I wrote the book. Part of the good news is that it's now been translated into six languages. Now we're not only helping English- speaking people, but people throughout the world.

Rebekah Kelley: Well, I'm grateful to you. I wanted to let you know, personally, it's impacted my life and made it so much better. I've shared it with friends and loved ones. I wanted to express my appreciation. It's quite an honor to be able to talk to you today.
We want to now focus on more knowledge that you can share. What is being done to our food, and what is it doing to us? Specifically, what chemicals have you examined in your research regarding farm-grown foods?

**Dr. Joe Pizzorno:** One of the challenges we have is that as we’ve started to use chemicals to both grow food in larger amounts and use less labor. There have been some unexpected consequences. The chemicals we’re using are still in the foods.

These chemicals range from things that we can get rid of very easily, what we call non-persistent toxins, to some that are actually very persistent and very hard to get out of the body. An organically grown food has less metal, less chemicals, and more nutrients. Foods grown chemically have things like cadmium in them. They have organic phosphate pesticides (that are neurotoxins). They have organic chlorine pesticides (that are neurotoxins)... I can go through the list, but as near as I can tell, about 60% of the toxic environmental metals and chemicals that people are exposed to today come from the food we are eating.

**Rebekah Kelley:** Are there some chemicals that are worse than others?

**Dr. Joe Pizzorno:** Yes, but it is difficult to answer that because there's a huge variance in people's susceptibility to toxins based on their genetics and based on the nutritional status. So for example, if a person is deficient in B vitamins, which is surprisingly common, arsenic is much more toxic to them. That's because we need methyl groups that are created by B-vitamins to get the arsenic out of the body.

Another group are the organic phosphate pesticides. These are neurotoxins. Some people have a deficiency in the enzyme glutathione in the liver that's responsible for breaking down those neurotoxic chemicals to get them out of the body.

So there are huge variations in genetics. I think that's one reason why the medical community has been slow to recognize these problems. They kind of look at generic information for the general population and say, well, for an average man, it's not that bad. But for specific individuals, they're terrible.
Rebekah Kelley: Right Outliers.

Dr. Joe Pizzorno: Outliers, yes. But it turns out that chemical use in food growth affects a big portion of the population. I would assert maybe as much as one half of all chronic disease is due to environmental toxins. So, if we can stop our exposure to these toxins, get them out of the body, we can make a huge impact on people’s health.

Rebekah Kelley: Wow. It just kind of blows my mind. What has your research revealed about glyphosate, the active ingredient in Roundup? What is its impact on GMO foods or when it’s used as a desiccant, or drying agent in oats and other grains?

Dr. Joe Pizzorno: I would recommend you read the research of Gilles-Eric Seralini, a PhD from France, who did important research on glyphosate and the industrial products using glyphosate. It’s an important differentiation. Glyphosate as a chemical has some toxicities, not terrible; but glyphosate as an industrial chemical has a lot of toxicity.

So you look at the work of Dr. Seralini and he showed that while you have a certain level of toxicity with glyphosate, the actual industrial product is a thousand times more toxic.

Glyphosate safety was used to justify the product, but it’s only 50% of the actual industrial product. And because of international treaties, the manufacturers do not need to disclose their trade secrets. Which is what that other 50% is. And it’s way more toxic.

Rebekah Kelley: What do you think are the consequences of chemically grown food to human health or to livestock that may be consumed by humans?
Dr. Joe Pizzorno: Well, it affects virtually every disease. I think people are aware we’re having an epidemic of diabetes in our country. When I was in naturopathic medical school, half a century ago, diabetes affected less than 1% of the population. I remember it took me one year in practice before I saw my first diabetic patient. You might say, well, young practitioner, not very busy... But I was fully booked within six months. Within a year, I had a three months waiting list. People really wanted nutritional medicine.

So it took a year before I saw my first diabetic patient. Now the fact is about 10% of the population, and one out of every three people, are projected to get diabetes in their lifetime. What happened? Our genetics didn't change.

People like us, who are very nutritionally oriented, would say we're consuming too much sugar, right? Yes. We're consuming too much sugar.

But if you look at the growth of sugar consumption and look at the instance of diabetes, they don't correlate. We started consuming too much sugar decades before we saw the diabetes epidemic. So it doesn't correlate.

Then you say, well, what does correlate? Obesity? No question about it. Obese people have dramatically more diabetes; therefore, must be obesity.

But here's the kicker. Obese people in the bottom 20% of body load of environmental metals and chemicals, have no increased incidence of diabetes.

There. I just said, and everybody knows, obese people have way more diabetes. But if that fat is not full of toxins, they don't get the diabetes.

So I want to be clear. I'm not saying it's okay to be morbidly obese, as that will cause problems on its own. But as the explanation for the diabetes epidemic, no, it's almost entirely environmental chemicals and metals.
Rebekah Kelley: That blows my mind. I actually recently lost 20 pounds because I was becoming pre-diabetic. Suddenly my sugar was climbing; and I don't eat sugar, so it doesn't make sense. That's amazing. Wow. What a finding.

Can you compare and contrast the nutritional quality of chemically grown produce versus organic produce?

Dr. Joe Pizzorno: This is actually a little tricky. It's only been the last year that I've delved deeply into a pretty important factor. When we look at the vitamin and mineral content of organically grown foods versus chemically grown foods, it's clearly better. Not dramatically better, but clearly better. When we look at the research, comparing people who eat organically grown foods versus those who eat chemically grown foods, the organic eaters have a lot of health benefits. The nutritional differences aren't enough to explain it.

As we were having this huge pandemic with COVID-19, I started delving into the research. Early on, there was some interesting research on the use of hydroxychloroquine with zinc in the treatment. While some of that research was showing that it didn't work early on, most of that research has now been retracted because it turns out it does work early on. Late disease - doesn't work. Early disease - does work.

The mechanism that was proposed to explain it was that hydroxychloroquine acted as an ionophore for zinc. What that means is, it helps the cells absorb zinc more efficiently. When zinc is in the cells, it stops the virus from taking over the cellular machinery to reproduce that virus. That, in essence, is one of the main ways to protect ourselves.

So then I was mentioning this to my friend, Dr. Michael Murray - who I hope you've interviewed because he's incredibly knowledgeable, that's why we've written 2 books together...

Rebekah Kelley: We have.
Pizzorno: He said, "Bioflavonoids do that, as well." So that's interesting; bioflavonoids are antiviral. Bioflavonoids actually help take zinc into the cells. Now look at the research on that. Of course, Mike was right. Then I thought, is there a difference in bioflavonoid content between organically grown foods and chemically grown foods?

The research I found was stunning. Many of the carotenoids and flavonoids that plants produce themselves to protect themselves from viral infections, bacterial infections, insects, cancer, ultraviolet damage from the sun... Well, when we consume those modules, they help us, as well.

So when you look at organically grown versus chemically grown foods, many of these molecules are not only present in chemically grown foods at lower levels, some aren't even in them anymore. It turns out the molecules maintained were those to help give the food its characteristic color. But all the other carotenoids and flavonoids are so critical, not just for the plants' health, but for those of us who are eating those plants - they're gone. It's not only by means of minerals, it's lots of other molecules.

I've actually created a brand new lecture that I just gave for the first time a couple of months ago entitled, "Unimportant Molecules." We have decided, inexplicably, that only less than 50 molecules of vitamins and minerals in food are important. We decided that 99.9% of these molecules in food are not important. Therefore, when they were lost from chemically growing, it doesn't matter because they were not important.

It turns out they're hugely important. So going back to COVID-19, these molecules that normally help protect us from viruses both directly, by being antiviral and indirectly, by getting zinc into cells, they're not there anymore. So my prediction is more and more epidemics and pandemics because we've lost so many protective mechanisms.

Rebekah Kelley: Wow. They literally are the lost molecules and it's affecting us. That's amazing.

One last question. Can you compare and contrast the nutritional quality of livestock that has had chemicals added to their feed versus livestock that are not consuming chemicals in their feed?
Dr. Joe Pizzorno: I assume you could. I haven't looked at that research directly. I've just looked at the impact of what happens to people who eat these things. So I can't tell you.

Rebekah Kelley: Understand. Thank you so much. That was amazingly enlightening. My next question would be, in summing this up, what are the key takeaways that you would like our listeners or viewers to take away with them?

Dr. Joe Pizzorno: As you know, I'm a doctor. So I believe the body has tremendous ability to heal itself. If we just give it a chance. What does "given a chance" mean? We need to remove the blockages to cure. Okay. So what's that mean? Well, our bodies are enzyme machines. For them to work, you have to have the vitamins and minerals, but you have to avoid the toxins that poison enzymes, then our bodies don't work. When we look at how to live healthfully, we need to live a life where we limit our exposure to toxins as much as possible and eat foods that are rich in nutrients.

So how do you do that? You want to eat organically grown foods, preferably grown from heirloom seeds. As we've modified our food supply to give more of one particular molecule, like more protein, for example, then necessarily the plant is going to produce less of other molecules that we didn't think were important.

So if I said, "Wow, this tastes good." That's because it has all these molecules that are important. Our bodies are sensing more than just salt and things like that. We are actually able to detect a lot of other factors. So bottom line: Get nutrients in, keep toxins out.

Rebekah Kelley: It seems so simple when you put it like that. Thanks, Dr. Joe. These are really valuable insights.

Dr. Joe can be found at DrPizzorno.com. Let me remind you, subscribe and get access to all Humanized videos, podcasts, and transcriptions, for all our thought leaders on personalized health, at HumanizedHealth.com. Thank you so much.