Dr. Joseph Pizzorno



**Rebekah Kelley:** Today we have a great guest, Dr. Joseph Pizzorno. Before I introduce Dr. Joe, I want to remind everyone to subscribe, to get all of our variety of casts in audio, video, and transcription at HumanizedHealth.com. I would also like to thank our lead sponsor Village Green Apothecary, at MyVillageGreen.com.

Our guest, Dr. Joe Pizzorno, is the founding president of Bastyr University, current chairman of the Institute for Functional Medicine and author of many top-selling books on evidence-based natural medicine, including "The Toxin Solution" and "The Encyclopedia of Natural Medicine," and has sold more than 2 million books. Dr. Joe will be talking on the consequences of chemically grown food, and how food is our biggest driver of toxins.



Welcome Dr. Joe. You've done a deep dive into the negative impact on human and animal health of chemically grown food. Today I want to focus on our strategies for detoxification and clean eating. So how important is eating organically grown and non-GMO foods for health?

**Dr. Joe Pizzorno:** You can't overstate how important non-GMO foods are. It's not just that they have higher levels of nutrients, but they also have much lower levels of toxins. And they have much higher levels of all these other factors in foods that we're now finding are important.

You have to realize that vitamins and minerals were first determined to be important in humans starting around 100 years ago. At that time, the technology that was available was fairly limited. Now that we have better technology available, we're finding there are many more molecules in food that are important. A lot of these important molecules for food have been lost from the food supply. So let's go back and look at what are the worst toxins, what's causing the most damage to the body, and where are they coming from. I'll start with two that are really scary.

The first one is arsenic. So if you look at the CDC, the Centers for Disease Control, they list what are the worst environmental toxins. Arsenic is number one. So when I saw that, I was kind of like, well, why is arsenic number one? I started looking at the research. And it was very, very worrisome. I mean, frankly, scary. There's a study that was done with Native Americans. So, it's possible their genetics may be different from other genetic backgrounds, but it's a good study. And they looked at 4,000 of them. And what they did is they looked at their arsenic levels. And what they determined was that the arsenic levels that they had accounted for one quarter to one third of the major cancers. We're talking about lung cancer, and pancreatic cancer, and prostate cancer; these are the cancers that tend to kill people. Okay, and they found that one quarter to one third were due to arsenic. Well, that's very worrisome.

And then the other study, and this was looking at lead, [both] cause mortality and cardiovascular disease. And they determined that lead accounted for 18% of all-cause mortality. And one third of death from cardiovascular disease.

Again, this is what kills people, two toxins: arsenic and lead. So it turns out it's not just our food supply that is contaminated with these things, it's in the water. And if you look at people in the age group where most disease starts showing up, in the 50s and 60s, think about what other thing also happens during that time. People tend to lose bone. What is stored in bone? So now you're going to get all this lead and I start seeing all this disease coming up.

So, it turns out that a lot of the disease that we see now is not preordained. We're not genetically designed to get a lot of disease, but rather we've so disrupted our physiology that we're getting a lot of disease. We're seeing more chronic disease in every age group ever in human history. Well, we need to do something about that.

So how do you live a life as low in toxins as possible? I'll walk you through our house. So we're going to come to the front door. The first thing I'm going to do is ask you to take off your shoes, because those shoes are tracking in toxins from the environment.

And if you live anywhere near a farming community, it's full of dust in that air around there; it's full of pesticides. Okay. So you take off your shoes.

Then you walk in and let's see what your kitchen looks like. Walk in the kitchen; open the refrigerator door. There's no plastic in there. It's all glass. All the storage containers are glass. Okay. Because those plastic containers leak bisphenol A, or all bisphenols, I should say. (They're now replacing bisphenol A with other bisphenols that are every bit as toxic, as near as I can tell.) And anyway, they leak thiolates when they're in the food as well. So we don't have plastic containers.

Look at our cookware. There's no nonstick cookware. If you get the nonstick cookware it means, yeah, the food doesn't stick to the pan, you might say. But the pan does stick to the food. You eat that food, you'll eat what are called PFOAs. Okay. These are perfluoro compounds; they are endocrine disruptors. So, no nonstick. Okay. Then, of course, that food that we're putting in there is all organically grown.

Then how about the water? You cook with the water that you're drinking. So we have a carbon block filter for all the water coming into our house. Now, if you can't do that, you can use something called the Zero Filter. I have no commercial relationship with them, but I just looked at the research and it does a good job of taking the garbage out of the water. The water's clear.

How about the air? So, if you have a forced-air heating system, replace your filter with a filter rated at least Merv 12. Now we have a Merv 16 in our house. It clears the garbage out of the air, all the particulate matter, VOCs and things like this, compounds in the air. So by putting in a really good filter that runs 24/7, it's always running, it clears the air. And by the way, when we did this, we did it about 3 years ago, we were stunned—our house isn't dusty anymore. Because we cleaned the air so well! It's quite remarkable.

Rebekah Kelley: That's a wonderful benefit too, though. Less housework!

**Dr. Joe Pizzorno:** Because otherwise your lungs are cleaning that stuff. No, I mean, I'm here talking to you from Seattle. The last few years, there's been a bunch of forest fires here lately. Very sad, along the West coast. So, these filters are so good that in our house, you can't smell the smoke. You open the door and it's like, "Whoa, who just lit a match in my face?" So, kind of look at every way in which you're exposed to toxins, and decrease it. We can't control everything. But we have to control what we CAN control, and you can get your body load down.

It's surprising, by just eating organically grown foods, you can decrease your body load of these persistent toxins, at least in the blood, within just a few days. Now, of course, the fat-saturated toxins can take much longer, but at least you can get the blood levels down right away. I can keep talking, but I think I've tried to answer your questions.

**Rebekah Kelley:** That was amazing. It's almost, like, you have to become a defender of your home, right? Literally, for each and every place and parts, and all the way down to the water, the air you're breathing, every single thing that you're using.

Well, that actually ties perfectly into the next question. Should we be paying attention to the ingredients in our nutritional supplements and our body care, since we do absorb that. Obviously, we're taking it in and our skin absorbs whatever we put on it.

**Dr. Joe Pizzorno:** Right. So health and beauty aids are a major source of phthalates. Phthalates are a chemical put into health and beauty aids to help with their oiliness, you might say, and also to stabilize the fragrances. Okay. Well, those phthalates are endocrine disruptors that directly correlate with diabetes. So yes. Get clean health and beauty aids. And the good news is, there a number of apps available. Just take a little picture of the barcode and it'll tell you what's in it. So more and more companies are producing health and beauty aids without these toxic chemicals in them. Really, really important.

**Rebekah Kelley:** I believe if you can't eat it, you shouldn't be putting it on your skin.

Dr. Joe Pizzorno: Great. True.

**Rebekah Kelley:** Truly clean. Do clean, whole foods retain phytochemicals that assist our body in detoxification?

**Dr. Joe Pizzorno:** Yes, they do. Now a number of these molecules are heat and air sensitive. So, you realize that when you cook your food or if you store it for long periods of time, these things will tend to go away. Some are quite stable. Others are very fragile. We are now doing more and more green drinks, which is pretty exciting. We get out the Vitamix, we put in vegetables and some fruit to make it tasty, etc. And I've been kind of doing a little personal experiment. So we make it the right away. We taste to see what it tastes like; it tastes pretty good. Now we put it in the refrigerator. Taste again in an hour; it tastes different. The number of these molecules are either volatile, they evaporate off, or because the cells have now been broken apart, the enzymes are starting to break these things down.

Sometimes it breaks them down to beneficial things like cabbage family foods. So those glyco scintillates need to be produced by the cells. So if you cook cabbage, you'll lose a lot of them. So when you eat the cabbage raw or you juice it, these things are really strong, but they go away very, very quickly. And then I try to taste. What's it taste like a day later? These green drinks taste totally different a day later. It is just fascinating. So these molecules, they are fragile. So the fresher your food, the more raw you eat it, the better you're going to be.

**Rebekah Kelley:** So, detoxification is a broad and complex topic. Can you suggest a few key strategies for our listeners?

**Dr. Joe Pizzorno:** Sure. So here's my commercial break; my book, "The Toxin Solution," tells you how to do it. A concern I have is now people are becoming aware of how problematic environmental toxins are. They tend to go on detox programs. Now conceptually, that is a great idea. But if your organs of elimination, what the naturopaths call the emunctories, aren't working properly, stirring up those toxins without being able to get rid of them is not a good strategy.

Rebekah Kelley: Creating a storm, right?

**Dr. Joe Pizzorno:** You can make things worse. I mean, there is plenty of research on that with highly toxic populations. If you do put them on a fast, you start breaking off fat real quick. It is way more toxic. Okay. So I go through kind of a three-stage process. Well, four stages.

Stage one is stop the toxins coming in. No point going on a detox program when the toxins are still coming in.

And then the next day, just clean up the gut. Because our guts now have so many inappropriate bacteria in them that are producing toxic molecules, the liver is being overloaded, trying to deal with the toxic molecules from wrong bacteria in the gut. So it has less capability to deal with the chemicals we're being exposed to. Clean up the gut.

Then we have to get the liver working properly. And it turns out getting the liver working properly means make sure the nutrients necessary for the liver enzymes to work are there at high levels, like B vitamins.

Next, we have to get the kidneys working properly. We're having a kidney failure epidemic. I never saw people with kidney failure before. Now it's all over the place. So now I have to get the kidneys working properly. It turns out a lot of the problems with the kidneys are due to impaired blood supply to the kidneys. So that's where things like green drinks with beet juice in them, and with blueberries in them, help improve the blood supply to the kidneys so they can detoxify more effectively.

Rebekah Kelley: So, it's about how you do it.

Dr. Joe Pizzorno: Repair the body!

Now, once the body is repaired, something I really liked doing, that many people do, is saunas. So, saunas. If you look at the sweat and the sauna, and you want to learn more about that, look at the great research by Stephen Genuis, a doctor up in Edmonton, Alberta, Canada.

They've done a lot of great work where he takes people, puts them in a sauna, scrapes off their sweat to see what's in it—full of toxins! As a matter of fact, there are toxins in the sweat that don't even show up in the blood and the urine. It's so bad for the body, the body sequestered them, tried to put them away, keep them out of circulation.

Now we've got a chance to get rid of them. Well, let's do that. So start as I recommend to people; sweat heavily for at least 20 minutes, use whatever temperature you like. Sweat heavily for these 20 minutes, at least twice a week. Even once a week will be helpful. And, of course, drink plenty of fluids. I recommend also slightly alkalinizing fluids because if we alkalize the body a little bit, it's easier for the kidneys to get rid of the toxins.

Rebekah Kelley: I love a good sweat. I'll follow that for sure.

**Dr. Joe Pizzorno:** And by the way, it doesn't matter how you sweat. It could be a sauna, it could be running; it doesn't matter, as long as you're sweating.

**Rebekah Kelley:** Are there a few important nutritional supplements that you consider essential in this regard?

**Dr. Joe Pizzorno:** So, if a person could only take one supplement, I would recommend N-acetylcysteine, or NAC for short. And the reason for that is there's a critical molecule in our bodies called glutathione. Glutathione both protects us from oxidative damage from these environmental toxins, but also helps many of them get out of the body. So it plays a big role and getting rid of mercury. It plays a big role in Phase II conjugation to get the chemical toxins out through the liver.

The levels of glutathione in the body are determined by how fast the body is producing it, and by how fast the body's recycling after it's done this job. The rate-limiting step in the production of glutathione is an amino acid called cysteine. You can't take cysteine by itself because it'll be broken down by bacteria in the gut. So by taking N-acetylcysteine, we're able to absorb it.

So, 500 milligrams of N-acetyl cysteine twice a day will increase the blood levels of glutathione by about 30%. So this is by far the most effective supplement I know for detoxification.

The second one, which is very important obviously, maybe, I don't know, might be more important, is fiber. So when our bodies get rid of toxins through the liver, they're typically dumped into the gut, where our bodies are expecting those toxins to now be bound to fiber, to get out through the stool. Those systems evolved when we were consuming 100 to 150 grams of fiber a day. Now a person consumes 15 to 20 grams of fiber a day. So a lot of the toxins that normally would have been excreted are now reabsorbed through something called enterohepatic recirculation. So basically we sabotage a key detox system when we go on a diet low in fiber.

**Rebekah Kelley:** That rings so true to me. Yes. Fiber. Wow. Thank you so much, Dr. Pizzorno. That was again, even better than I expected. You blow my mind. So thank you. And just for our three to four key takeaways that you want to imprint on our listeners and viewers' minds, what would you want to leave behind for them?

**Dr. Joe Pizzorno:** My belief, looking at a lot of research and treating a lot of patients, is that toxins have now become the primary drivers of chronic disease. Not the only ones, but they have now become the biggest ones. Nutritional deficiencies, nutritional excesses, those problems have not gone away. We just added another problem.

So, key strategy, don't let these things into your body. Some are easy to get rid of, like arsenic for example. But some, like cadmium, are almost impossible to get rid of. The half-life of cadmium in the body is 16 years in the kidneys. And they are a major cause of the kidney failure epidemic we are seeing.

But there are other chemicals like PCBs, polychlorinated biphenyls. Now, they were banned over 40 years ago, which is great. But they're called persistent organic pollutants, or POPs for short, because they were designed to be difficult to break down. So again, in human bodies, the half-life of these PCBs ranges from 2 to 20 years.

And it takes four half-lives to get it out of the body. So a lot of these chemicals we're getting, they're almost impossible to get rid of, and they cause disruption of, for example, the thyroid. PCBs are a major cause of rheumatoid arthritis in women. I can show you a list of all the problems with these chemicals that we're being exposed to.

So one of the most important life promotion, health promotion, anti-aging strategies is: don't let the toxins into your bodies. Our bodies have a tremendous ability to heal, but if you poison the enzyme systems, they can't function.

**Rebekah Kelley:** So, defend yourself against those toxins in any way you can. Thank you, Dr. Joe. That was just, that was incredibly valuable. Dr. Joe can be found again at DrPizzorno.com.

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Thank you so much. It's been a complete pleasure.

**Dr. Joe Pizzorno:** Most welcome. Thanks for the great questions.

Rebekah Kelley: Thanks. Thanks. Have a great day.

