Unimportant Molecules

Joseph Pizzorno, ND

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Rebekah Kelley: Welcome to the Humanized podcast, all about personalizing your health. I am your host Rebekah Kelley, and here to share his knowledge today is Dr. Joseph Pizzorno, about Unimportant Molecules. And before I introduce Dr. Pizzorno, I want to remind everyone to subscribe 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, at MyVillageGreen.com.

A little bit about Dr. Pizzorno. He is a world leading authority on science-based natural medicine. He's a naturopathic physician, educator, researcher, founding president of Bastyr University and the current chair of the board of the Institute for Functional Medicine. He is also the author of numerous books, including the *Textbook of Natural Medicine*, and most recently, *The Toxin Solution,* of which both I have. Great books. So Dr. Pizzorno is an expert in toxins and detoxification, and we're thrilled to have him here today to talk about the consequences of chemically grown food, but I guess that's related more to the unimportant molecules. So, thanks for being here.

Joseph Pizzorno: Thank you for the kind introduction and invitation.

Rebekah Kelley: And my first question is what are unimportant molecules? Cause it sounds unimportant, but you're here to talk about them. So they must be important.

Joseph Pizzorno: Yeah. Sorry, being a little facetious there. So let's go back a hundred years ago when the researchers were first studying nutrition, trying to figure out what in food was important. And they were limited by both the technology at the time, but also by our limited understanding of physiology. So they were doing animal research and they were pretty much looking at, well, what's in food that's necessary for animals to stay alive. And they started looking at, they're finding these minerals and they're finding these things they called vitamins. And they're finding these amino acids that are necessary and fatty acids that are necessary, and kind of step by step, as you kind of look at the research, year by year, decade by decade, they're finding these vitamins and minerals and things, and came up with 43 minerals and molecules that are necessary for life. And that was fine.

And then they decided, okay, so as long as food has these minerals and molecules in it that we know are necessary for life, then when we start growing foods, chemically, as long as we're maintaining a reasonable amount of these nutrients, well we should be just fine. But there was a problem. And that is, they were looking at only what nutrients were necessary for life. They weren't looking at what was necessary for health because that was a much harder thing to measure. So, then you started looking at more modern research and we started looking at, well, how many molecules are actually in foods? You want to guess how many molecules are in food?

Rebekah Kelley: Probably a ridiculous number, right? So much more than 52, or however much they...

Joseph Pizzorno: Right? So it's 43 was what they came up with as being necessary. Okay. 50,000. So we decided that 99.9% of the molecules in food were not important. So when we grow foods chemically and they're lost, nobody worried about it. But now we're doing research, kind of backfill, and we're realizing, wait a minute. A lot of these molecules were actually very important. So even though the researchers a hundred years ago said they were unimportant, now we know they're important.

So people now talk about things like these super, super nutrients. You've heard about phytonutrients, and experiments are being done with humans who were given these molecules and they do better. And it's, oh, isn't this a wonderful new thing. Well, it was in the food to begin with and then we lost it.

So let's look at some examples where that's important. Let's look at this pandemic we're having with COVID-19. What people don't realize is that when foods are grown properly, they are full of flavonoids that are antiviral. The foods produce these antiviral molecules to protect themselves from viruses. And they produce antibacterial molecules. They produce molecules to protect themselves from ultraviolet, they produce molecules to protect themselves from becoming cancerous – and all these molecules were not considered important.

So we're saying, well, look at these wonderful things we should now be taking as supplements, and that's fine, but they should have been in the food supply to begin with.

So there was a study that really grabbed my attention. The study was done where they're comparing chemically grown foods to organically grown foods. And in particular, they did this with tomatoes and did it in a greenhouse. So they had a totally controlled situation, same sun, same amount of water, same seeds, same soil. The only thing was different was putting chemicals on, versus natural things. And then over a year's period of time, they looked at the levels of these various molecules in foods. And what they found was that the chemically grown foods either had dramatically lower levels of these molecules, or they weren't even there at all. So the molecules that were being conserved, that were considered important, were the ones that typically give the food its characteristic color. Okay, so tomatoes are still pretty much red, but all those other molecules that are so important for health, they're not in the tomatoes anymore.

So what does that mean for our health? So you look at chronic disease after chronic disease, right now we suffer the highest burden of chronic disease in every age group ever in human history.

Something's wrong. And it turns out with these major diseases, not only are the environmental toxins causing these diseases, but we've lost our protection from many toxic molecules because these molecules that are supposed to be healthy for us in the food supply, they're not there anymore.

Rebekah Kelley: So, I know you mentioned that they were grown with chemicals, but is that, I mean... why have they left the food supply? Is it only because of that or are there other ways that we're doing... but what's causing it?

Joseph Pizzorno: So there are many reasons, both overt and subtle. Let's look at some examples.

So for example, we, with our growing techniques, have constantly hybridized our foods and now we're doing genetic modification to induce in the foods more of some particular molecules that we want. So we want the food to be sweeter. We want it to be bigger. We want it to have more protein. Where every time you modify a food and select particular seeds to create some particular characteristic. Well, guess what? Many of the other ones are going to become less because the plants can only produce certain levels of these molecules.

But it gets worse. So when you now grow plants in a chemically controlled environment where you're now spraying them with chemicals to protect themselves from insects, well now they don't need to produce those molecules themselves to protect them from the insects. Well, many of those molecules have a lot of beneficial effects in the body and for humans, but they're not there anymore.

Let's go even further. How about glyphosate? People know about Roundup being sprayed on plants to kill off the weeds and we're now making, with GMOs, making plants resistant to glyphosate. Okay, well, that's fine. And you look at research on humans and with glyphosate and it has some toxicity, it's not terrible, but it's really toxic to plants that aren't protected by genetic modification. So it does that by poisoning something called the shikimate pathway. The shikimate pathway is necessary for plants to grow. And interestingly enough, many of these phenols, many of these flavonoids that are so important, depend upon the shikimate pathway to grow, to be produced. So now we give the plants glyphosate, they can't produce many of these important molecules. You look at example after example where we've modified our food supply to produce a whole lot more food, but that food is a shadow of itself of what it should be for our health.

You can try an experiment yourself. Go to the grocery store – now it's going take a little while to get this done, because when you hear what I'm going say at the end – go to the grocery store and buy a chemically grown tomato. That's the old conventionally grown tomato. Taste it. Not a lot of flavor. Then you buy an organically grown tomato. Wow, that's way better. Now grow a tomato in your own backyard and see what it tastes like. It's even better than organically grown

tomatoes. So when you say it tastes better, what does that mean? There's more molecules in the food that our body is sensing. Therefore, it tastes better because, oh, wow, there's a lot more taste sensations, rather than with these anemic, chemically grown tomatoes. There's not a lot there. No. It's got the color, it's got some of the taste, but the substance is just not there. And that lack of substance, that lack of these interesting tasty molecules is having a real big, negative impact on our health.

Rebekah Kelley: There's definitely a big difference with tomatoes. I mean, I'm glad you used that as an example. Cause I've had a gazpacho made out of chemically grown tomatoes and it's not a gazpacho. I don't know what it is, it definitely looks like a gazpacho, but it doesn't taste like one. Not really.

Joseph Pizzorno: You can add a lot more spices, to cover up the lack of taste from the food.

Rebekah Kelley: And I didn't understand why, but that makes so much more sense, the way you describe it. Of course my mouth is like, yeah, that doesn't have what I need in it. Right. So why does their loss cause disease?

Joseph Pizzorno: So there are just many, many examples, both kind of direct and indirect. A big one is, I think everybody is now aware of oxidative stress, free radicals, things like that, that cause so much trouble. So how do the plants protect themselves from the same oxidant molecules? It's with these carotenoids and flavonoids. But when you grow the foods chemically, you don't have as many of those antioxidants. So you might say, well, is this particular nutrient, molecule deficiency associated with this exact disease?

Well, there's some of it, but more importantly, it's associated with pretty much ALL disease because almost all disease has oxidative stress associated with it. So we basically made our bodies less resistant to all these diseases.

I was just not ready to show recently, where I was asked to predict the future – there was a lot of discussion about the Delta variant to the COVID -19. And I said to the radio audience, I said, well, you want to know what the future is? If we continue not taking care of our health, if we continue to have really weak immune systems, we're going to have more and more epidemics and pandemics. So you don't like masking up now? You don't like taking this experimental vaccine? Well, guess what? If we as a society don't fundamentally change how we're living our lives, we're going to be in lock-down with masking and vaccinations more and more and more. So this should be a wake-up call for people. You can't expect these medical interventions to take the place of being healthy. I'm not anti-vaccination, but people need to realize and not over-expect what vaccinations can do. All the vaccinations can do is protect you from one particular organism and from one particular variant of that organism. Well, guess what? These organisms keep mutating to get around that, and it'll keep happening. The most effective way to protect ourselves is with a good immune system.

Rebekah Kelley: Which is based on the foods that have the "unimportant molecules."

Joseph Pizzorno: Right. Based on foods rich in nutrients, unimportant molecules, and avoiding the environmental toxins that damage our immune system. Our immune system is extremely susceptible to damage from the metals and chemicals, which area leaked into our entire environment.

Rebekah Kelley: Thanks Dr. Pizzorno. These are really valuable insights. Dr. Joseph Pizzorno can be found at www.DrPizzorno.com. I'm going to spell that: D-R-P-I-Z-Z-O-R N-O.com. Let me remind you to subscribe and get access to all Humanized videos, podcasts and transcriptions from all our thought leaders on personalized health at HumanizedHealth.com. Thanks for being with us.