Introduction and Guest Background

Welcome to the Parkinson's Solutions Summit. I'm your host, Dr. Ken Sharlin. You're going to hear a wonderful interview today with an esteemed gast, Joseph Pizzorno, a naturopathic doctor who's worn many hats of leadership from his establishment of the premier American University of Naturopathic Medicine Baster University to being chairman of the Institute for Functional Medicine.

As I understand it, for your third time and editor in chief of the number one Journal of Integrative Medicine. Dr. Pizzorno, it's such a pleasure to welcome you to the Parkinson's Solutions Summit.

Well, thank you for your very fine, very kind introduction. And also thank you for doing this work. Just yet, yet another chronic degenerative disease that you know a lot about, that information stopping you sounds a little fixed up.

Yes. Let's fix this. Dr. Pizzorno, as we get into our conversation, I wonder if you would just tell the audience a little bit about yourself. You're known for really being a true pioneer in the area of natural medicine.

And I just even wondering how you got interested in this in the first place and where you're where your journey has has taken you. Well, that's actually a surprisingly interesting question, because while most people got into natural medicine, because some kind of a personal experience with their health or close family member, I got into it more intellectually.

So let me just kind of back up a little bit. So I've been involved in medicine now for literally over half a century. I started working in commercial medicine research.

I was loving doing research. I was working at the University of Washington's School of Medicine Rheumatology. I was working with MD., PhD., trying to find a cure for arthritis and was going great.

And I hadn't have dinner with the my college roommate and his wife. And they have been shared where I live. And their revision, I said, let's have dinner and chat.

And during that dinner, his wife said to me, you know, I'm suffering from juvenile rheumatoid arthritis in my ankles and her hands are underneath, etc..

And she said, you know, I've been cured. I said, What? It's incurable disease. I know nothing terrible because, you know, all these researchers, not just at our local facility, but all over the country trying to find a cure.

I said I said, you got cured out of sight scientists. I was curious. She said, Oh, I went to naturopathic doctor. I said, What's that? At that point I don't know any other than MD.

How Natural Medicine Changed Dr. Pizzorno's Path

is doing medicine. Wow. So I went to the next breath doctor and asked them, So what did you do for my friend? She said, I taught her how to eat properly and detoxified her liver for what the heck was her diet?

And her liver had to do with a joint spacewalk. But anyway, no words kind cure. So I said, What? I spent a few days with you. See, I treat patients but cures.

So she quote miracle cure after miracle cure of people with commercial medicine can help. And this guy, through these simple things of diet and detoxification, vitamins and herbs, they get better.

I thought, well, I was intrigued was enough to make a difference in terms of my life. I was intrigued. And then the second thing happened, and that is I'm kind of a philosophical reason, kind of spiritual reason.

I became vegetarian. I saw my blog with a lot of changes being a vegetarian. I asked the animator MDs I was working with, What do these changes mean? And his comment was Your love.

Remember, this is 50 years ago. His comment was their airs and your observation because that doesn't affect you. Okay. If you do kind of standard American diet.

No difference. I thought, well, I seen these changes. Kind of hard to ignore. So I decided, you know, logically cast the naturopathic doctor the exact same questions which bookshelf pulls out guides medical physiology and shows me how to change my diet has changed my physiology the way that the niche path knows physiology better than the M. D.s.

I work at this researcher and this I'm working with. But that was kind of interesting. But it didn't make a change. Yeah, we work along, doing research, getting published, The good stuff.

And then I was helping an M. D. who came to our lab is doing a post-doc on a new drug for arthritis. And of course, I'm still on the drug model, but that's fine.

And I helped her. And at that point, we're using a duck model. And we use the duck model because, you know, their feet are kind of splayed out, fill it with ease and measure how inflamed their joints were.

So Statton duck model, they're genetically bred to get arthritis. That was standard model and used for drug research. So the gun that got into the ducks got him into the by barium.

By the way, as a vegetarian, being a vivarium, which where you do animal research with a terrible place to be. But anyway, it was my job to do it. I'm sure you know what that's like.

So anyway, so we go to the lab and check the ducks and they're miserable. I mean, if anybody as at as a pet knows what missile and. Well, looks like. So you thought Cage was like one foot by one foot by one foot.

And they're just looking terrible. So being kind hearted woman and you want your doctor to be kind hearted. She gets there with her husband and they decide to make life better for the ducks.

So they get up plywood and some sand and a plastic swimming pool like a duck run, throwing some fresh fruits and vegetables in addition to standard duck chow.

And now the ducks are running around. Quack, quack. And really happy. Everything's fine now. We're waiting for their get their arthritis so we can trust the dog drug on them.

And we wait. And we wait and we wait. They never got the arthritis that they're genetically bred to get. Start the going away party for this M. D. Everybody's consoling her for all your experiments fail.

It was terrible. Your postdoc was didn't work out. And look at and say, wait a minute, If they don't get the root arthritis, they don't need the drugs.

Don't you realize what just happened? You had a genetically bred duck that always gets rheumatoid arthritis is so reliable, which has drugs on it. And they didn't get it because you improved their environment and the nutrition.

Oh, you know something? I think I'm going to go the next SRO. Mia Farrow started. Wow. That is such a great story and such an important message for folks to understand to.

You know, we often come from this perspective that things are just going to happen. It runs in my family, etc., where, you know, in my clinic, we often screen for the APOE4 gene, which impacts not just Alzheimer's, but

Parkinson's, ALS, M. S.

and so forth. And yet we tell folks this is information that should ultimately be even more empowering to adopt this anti-inflammatory diet and lifestyle.

Right. Not hey, you carry a bullet for it. That's all. You know, it's all over. So I gave a lecture in New Zealand, oh, 20 years ago on Alzheimer's disease.

And everybody's talking about it for at that point. I think you show your sympathy for people that they before that have increased symptoms of it, no question about So but now, look, here's how much it increases the risk.

Now look at these dietary unliked factors you can do. They actually decrease the risk more than they were before. So it's not that deterministic. It's just you can be more careful.

Not to be more careful. So I want to frame are probably what will be the remainder of our discussion over the next 30 minutes with a paper. And I have to admit I don't have it in front of me, but I recall it was either published in the Journal of the American Medical Association or what would have been archives in neurology.

JAMA, Neurology, And it was an epidemiological study looking at Parkinson's disease over over time, over the decades. And and while we know, for example, that Alzheimer's disease is the most prevalent of the neurodegenerative disorders, with about 6.6 million people affected and compared to Parkinson's, around a million or so 1 to 1.

Environment, Genetics, and Rising Chronic Disease

2 million, the incidence, the new cases of Parkinson's, if we look at the rate of rise of Parkinson's over time, it's actually dramatic and it really outpaces even Alzheimer's disease.

So, you know, there's that old question, and I've heard people like even Jeff Bland kind of mentioned that he's sort of as, you know, one of the other sort of the founding fathers of functional medicine like yourself, that, you know, the genes once again, if we say, well, this is all genetic.

Clearly, the genes have not really changed that much in 100 years. But what has changed, in fact, is the environment. The environment. Can you talk a little bit about the environment and its impact on these chronic diseases and of course, specifically Parkinson's? Yes.

So 100% of the issue before our medical review, some of the research on Parkinson's incidence here. Right. Is it's going up, whereas it is fairly flat.

Parkinson's Clinic going up. So I think you're well aware we now suffer the heartburn, chronic disease in every age group ever in human history. What happened?

Took a while. People may see a lot of diseases due to genetics is no less than 50% of disease is due to genetics. All the rest is diet, lifestyle and toxins.

So as I now lecture literally all of the world that environmental toxins have become the primary drivers of chronic disease go after disease after disease after disease that very well documented Parkinson's is not quite as clear.

Just little more conflicting information with enough there to figure out. No question about it. Neurotoxins have a big effect, but also interacts with the presence, connects them to their status.

I'll get that in a second. The disease, which has the best research I think is so illustrative of what's going on is diabetes. So diabetes, way back when I first got into practice and in the late 1970s, pictured only 1% of the population, I remember being it being it being practiced for about a year before I started, my first diabetic patient just wasn't very common.

Now it affects at least ten times, at least 10% of the population. And the current projections are that one third of people get diabetes in their lifetime.

Okay. So obviously genetic then can change. So some people say, well, from my worldview, what must be too much sugar consumption? Well, what's interesting is the sugar consumption levels haven't increased much either during that time, this epidemic.

So then you look at, well, what are the factors about obesity? No question about it. People with obesity dramatically more diabetes. But here's the kicker.

And this is a lot of work that comes out of a research lab run by somebody actually in South Korea. And what she showed is to actually look at obese people and then measure the pilot of environmental toxins.

Obese people in the bottom 20% of pilot environmental toxins have no increased incidence of diabetes. Conversely, a lean person with a in the top 20% of environmental toxic load has 2% of have diabetes.

Okay, So it's like it's I'm not saying being fat and obese is good for you. Okay, be clear. But it's not. What's the fat? It's what's in the fat. When the fat is full of diabetic genes is a metals and chemicals from the environment that caused it.

Guess what? You get diabetes. You say the same thing and show me every other disease. I've looked at. The best predictor of most diseases is the level of toxins in a person's body.

So another one was a lot of good research is and it's going to be blood people mine away is arsenic. People think, well, I think the only problem spots are trying to kill you.

Well, that could indeed be a problem, but it turns out that arsenic accounts for one quarter to one third of all the major cancers. About one quarter of cardiovascular death.

Now, wait a minute. What's going on here? It turns out that 3% of people in America have arsenic levels high enough to be known to induce disease. At worst, they come from come from water, come from rice, come from chicken, come from industrial contamination. Hmm.

So what's happened is we have we have basically saturate our environment with all these toxins, including neurotoxins. Why? We've seen so much autism.

Why so much ADHD? Why the increase in Parkinson's disease? They're all because of neurotoxins. So where are the neurotoxins coming from? We're spraying them on our food.

The organophosphates where the class of chemicals used in World War One in chemical warfare. Okay, we modified these toxic to be not quite so toxic. Our dish chemicals would be not quite so toxic.

And now we're spray it on our food, and now we're wondering why are we getting neurological damage? Why are kids so screwed up? Because we're poisoning neurological, but make it even worse.

So I've got to one but one of my soapboxes here making it even worse as we increase the exposure of our bodies to toxins from food, we have systematically removed the quality of nutrients in the foods.

I wrote an editorial. You might find you can going to PubMed and find it. And the editorial is called unimportant molecules. So it's kind of facetious, right?

So so in that article, I point out that most of our nutrition research actually happened 100 years ago. So 100 years ago, that's where they figure out the vitamins and minerals and things like that.

But we were limited at that time by the physiology and physiology of it. I mean, years ago, early in our

understanding physiology, and we're pretty much stuck with just using.

And the second part is the equipment we had to determine what was in food was not very sophisticated. And we're stuck with animal models, military to what was necessary to keep animals alive. Okay.

And some situations keep animals from. So if a if something the food was not necessary to keep an animal live or fertile, it was not considered important.

So we end up with 42 elements in markets vitamins, minerals, fatty acids. 40 to be important for health. And then as we started growing food chemically, rather organically, as long as those 42 molecules were reasonably well maintained before all the foods just by coming up, you asked yourself how many macros are there into it?

We're all talking. So we talk now about, right, you know, all these wonderful nutrients that people talk about. These are phytonutrients. How important are all these great miracle things, etc.?

Yeah, right. I mean, what those are in food. Look at all liquids all over the world. About 50,000. So we decided that 99.9% of the molecules in food were not important.

And so we grow food and we lost them. Again, a difference. So while technically it's true, those other 50,000 molecules by 42 are not necessary for life.

They're critical for health. So some examples of how the critical for health looks like, for example, for certain is a flavonoid. You don't need to know a lot about it.

But fortune is interesting because remember, I just talk about arsenic, how bad it is. Yeah, water helps increase the rate at which we detoxify arsenic and protects our DNA from the damage from arsenic that causes cancer.

So let's look at what happens. We grow foods chemically rather than organically. There's a great study done where they did this with tomatoes. They agreed tomatoes in a greenhouse.

So it was a controlled environment, same sun, same light and seeds, same soil, everything. Everything's the same except for the fertilizer. They then, over a one year period of time, I really like this study because they didn't just do one time.

Toxins, Food Quality, and Hidden Exposures

They actually measured the fiber content of the food every month for years period of time and compared them and they started looking at these other unimportant molecules they disappeared to only once the were maintained were the ones that were just enough for them to maintain the appropriate color for the food.

So the tomatoes are still kind of red and a little bit of the flavor of the tomatoes. But everything else, which McClure said planted 90% lower. So what's happened is as we increase our exposure to these toxins, nerve, etc., we've been removing the protective molecules from food that we need so we don't get them damage from the double whammy, neither providing bad stuff is removing the good stuff.

So I know a lot of folks. Know this disease. A lot of folks who maybe grow their own tomatoes say, you know, you eat a real tomato that I have grown. It's very different from the one that you buy in the store.

And then what you're saying is, you know, it's really due to thousands of compounds that we've eliminated from the food. So it's so important to recognize.

So we touched a little bit on organophosphates, arsenic. What are some of the other major offenders that are out there and how are they how are they getting into into our food supply or into our bodies?

Otherwise? So, yes, good question. As I've looked at the research, there are a number of different pesticides that

are showing up. It's not I wish there was more research on it.

The ones where it was the strongest research was on organic plastic pesticides, without question. But interestingly enough, to some degree, it depends upon a person's genetics, and that is how well they're able to detoxify.

They're down. Phosphates had a big impact on how toxic they were in their bodies. So I right now I'm sticking with the standard ones that are neurotoxic.

I consider anybody's neurological problem all neurotoxins to be remembered for. Even if they haven't been this research, I think they should be some of the other examples where they clearly causing trouble and just because they haven't been researched right now doesn't mean they're not causing trouble.

So I look at their phosphates, the the chlorinated chemicals that are sprayed on the food supply that they all cause the same kinds of problems. Yes. We look at things like mercury, cadmium, lead.

As you say, we're not presently on an individualized level measuring some of the chemical compounds in our patients on a you know, from a clinical perspective.

But, you know, we kind of automatically assume in the clinic that if you're living in 20, 23 and, you know, in the industrialized United States, you're probably exposed.

I have to tell you a quick little anecdote. I don't know if you know Norman Shealy at all. Norm Seeley and I met each other. I have known him probably about ten years or so when I started shifting my practice in this direction.

I had a nurse who had been a nurse of his, and you may know that he lives in Springfield, Missouri, or in the general area. But anyway, she had worked for him in his clinic and she said, I got to get you together with Norm.

You're going to love each other of he's a neurosurgeon by training. And folks, if you don't know who Dr. Norman Shealy is, he's considered sort of one of the founding fathers of holistic medicine and really a brilliant man.

But at any rate, and probably one of the more prolific, I think, Norm, certainly 35 books, but any rate. So I got together with Norm and I think he was about 82 at the time.

And of course he's going to live to 150, I'll tell you. But he said he was sort of despondent because he said, you know, I been living this life of clean eating and, you know, detoxification and all this stuff.

And I recently did my blood work and I tested positive for this compound, you know, and I don't remember it was but it was like an additive in gasoline or something like that.

And I was like, well, you know, I mean, first of all, detoxification and I'm sure you'll expound on this, it's not a one off kind of thing, right? It's a mindset, it's a lifestyle.

It's how can we live clean? But then we eat because we have to remember we will always be facing these challenges. Even if you're Dr. Norman Shealy, right? Yes. Yeah, Well said.

So I like to go back to your comment about Mercury. I just thought just before we got on, I just did a quick review of the research and right there at the top was a previous study looking at mercury and arsenic and Parkinson's and just showing how they directly caused physiologic abnormalities that induced Parkinson's disease.

I've looked at a lot of research on both Mercury and arsenic, and some of my most dramatic cases have been people with early stage dementia. I test them for mercury, got the mercury out of their bodies and the dementia went away.

I mean, I just it's just just remarkable. I had one woman, very wealthy woman in Canada, the wealthiest woman in Canada. Well, what good is money if your brain is going away?

She was having early dementia. She was memory loss. All the typical things that you see, a cluster mercury, mercury level 12, there are different kinds of tests you can use.

But the maximum level particular just I use this as fire curtains, 50 things. So I put them on my detox program. And a key that's really important for the audience to be to realize is detox is not fast.

I mean, if you don't want detox, be too fast, because if you loosen things from the tissues faster than the body can get rid of the images. Of course, there's plenty of Marmite, there's plenty of examples.

Rest up seven. Anyway, it took so it took. So I started on my program and remeasured her after six months and she'd gone from 50 down to 17. And her comment to me was, Dr.

Balzano, I can now see the light at the end of the tunnel. I can now see my symptoms are starting to reverse to another six months. She's now down to 17, not now down to eight.

Okay. She says most of her symptoms are gone another year and a half shut down to three and all her symptoms are gone. And she thinks I'm the best doctor in the world.

You know, it's always nice when a successful patient is always great, but this is a woman. Glen To early dementia. Sure. So 65 not against the law anyway.

And now all of a sudden she got better. So that was ten years ago. I had the opportunity to talk to her a couple of years ago and she's still healthy, clear minds working great.

And she said, you know, didn't work out. My body was the best thing ever happened to me. So there's just I think it's important for people to realize that it's not just one thing.

Maybe Mercury has a little bit not too bad. Organophosphate me a little bit. Not too bad now a little bit. Not too bad. But the problem is we don't have these things in isolation.

They're synergistic. And you have to realize one plus one when you look at toxins does not equal two equals three. One plus one plus one does. Michael three equals ten because that's the toxin levels are going up.

We're depleting our ability to protect ourselves, particularly with, you know, one of our favorite molecules in the body called the fire. And you get more toxins, you do just fine.

And that can protect yourself from from the toxins So important. I have a couple similar anecdotes. A patient we've treated with ALS from Maryland, where area lives in a neighborhood where he said all the houses have radon.

It's just normal. And they're all built in such a way to ventilate the radon away from the house.

Mercury, Lead, and Parkinson's Case Examples

But they live in a raid on infested area, and this gentleman was obsessed with using a neti pot and his water supply was well water and he would use his neti pot every single evening and, you know, put this well water up his nose, essentially, which is a gateway to the brain.

Right. So I can't help in this case believing that it was, well, water exposure in this radon rich area played a major role in triggering his disease.

We have another patient we saw very recently who had a very high lead level, has Parkinson's disease, had a lead level of about 26, and it just in his blood got him on some DMEs say and I don't know that we've necessarily cured his Parkinson's right now this is fairly recent but his he and his wife both said that the symptomatic improvement just in removing that lead has been very dramatic for him.

So so it's so important. Jeff, are you familiar with some of the data that's come out moreso because you mentioned chlorinated compounds, but it's been big headlines in Parkinson's on trichloroethylene?

I have not seen that one. Don't tell me about I need to get it Well. And I'm, of course, not an environmental expert in this field, but try clear ethylene.

As I understand it, it has been used extremely widely and everything as from being an industrial lubricant to being used as in the dry cleaning business to being in common household chemicals.

And it's ubiquitous. And the problem from a just an epidemiological perspective is that exposure to trichloroethylene has been strongly, strongly associated with the risk of Parkinson's.

So we've just sort of live in this back of trichloroethylene. And I can go back on something now and it will water. Yes, everybody's on well, water must have the well water check for metal contamination.

Okay. So for example, I mentioned arsenic before the threshold for toxicity. With arsenic, we get about what's called a ten micrograms per liter of urine as kind of a threshold.

And that matches pretty well with what's in the water supply. So once you get about ten micrograms per liter of water, but to my surprise, approximately, you start seeing increased cancer, stroke, heart disease, diabetes, that all starts at around ten.

So 10% of the public water supplies have arsenic levels, more than ten and only half the water supply have reported to arsenic levels from the very beginning.

And in terms of wells, there are many wells that have high levels of arsenic. For example, there's out in Maine, there's an area where the well water has as much as 3000 micrograms of arsenic per liter of water.

Okay. So, you know, quite a lot above the they say, first of all, 300 times higher. So anybody's use of water, particularly if you're doing with the neti pot, you've got to check your well water for arsenic and it is a surprisingly common problem.

Well, there's a very, very classic environmental medicine study that that was sort of stumbled upon and well published on the role of AMPTP in triggering Parkinson's.

Most people would not be exposed to. And of course, this was initially observed as an outbreak of Parkinson's in the Los Angeles area. I believe, where drug addicts, opiate addicts had inadvertently gotten a supply of what they thought was heroin or something along those lines.

But it was laced with a compound that ultimately turned out to be a mitochondrial toxin. And as a result, triggered a Parkinson's disease like syndrome.

These individuals were responsive to leave a dopa. If you ever want to see what these they looked like. All of the videos from the original Lancet publication are available for free on YouTube.

But my point is that this was not only a great example of an environmental factor triggering Parkinson's, and it led to an animal model where people like Mayland, DeLong and Gary Alexander in his group could study Parkinson's in the lab, places like Hopkins and Emory.

But in the end, it also gave us insight to the idea that that the mitochondria play a major role in Parkinson's and that toxins, whether it be arsenic, lead mercury in, you know, in other words, we're saying, well, why is it that these toxins cause Parkinson's?

Can you can you talk a little bit about more of the biochemical and sort of cell biology perspective and understanding why? That is a very good question.

I've been very deeply studying cancer lately, looking at natural medicine approaches to cancer. And what's fascinating is something I think most people don't realize is that mitochondrial at the in order for the cancer cells to survive, the mice sabotage the mitochondria.

And there's some interesting research where you take a cancer cell which has a nucleus and then the cytoplasm and the cytoplasm, the mitochondria, and you then transplant the nucleus into a healthy cell.

It did not become cancer. You transplant the mitochondria into healthy cells, it becomes cancerous. So it turns out a lot of the diseases describe a disease of particular things like cancer.

Ah didn't happen because of the mitochondria being sabotaged by the cancer. And it turns out these environmental toxins make it way, way easier to sabotage the mitochondria.

But equally important to love is the loss of unimportant molecules. So there's a number of molecules that are normally in food that protect the mitochondria from not just cancer but environmental toxins.

I mentioned before, and I don't know for certain protects mitochondria.

Mitochondria, Detox Strategies, and Practical Steps

I do not protect the DNA, I've checked the mitochondria, but the issue is when the market start becoming dysfunctional, it makes it much easier for the cells become cancers, but also as mitochondria become dysfunctional, they start producing the ATP that the neurons need to protect themselves from the environment to function properly.

So a lot of diseases, you look at virtually every created degenerative disease, there's mitochondrial dysfunction associated with it. So it's pretty clear what's happening there.

Sabotaged mitochondria, everything. This work doesn't work as well. My goodness. Well, Dr. Pizzorno, you've certainly raised the concern about toxins by reputation.

And in this and the work you do and in this interview, can you share some ideas that folks can perhaps utilize in their lives? You know, I'm worried now about toxins.

What can I do about it? Yes, I'm good. I'm glad everybody should be worried about it for good reason. Now, let me be clear. People say I'm going to detoxification program.

Okay? Most of them aren't particularly effective. And now they're going to be they're going to be somewhat beneficial. But they're not yet the problem.

And I'm I want to be real clear. People should not go into your, quote, detox program to release this toxin from the deep tissues because the bio stasis things away wants to get rid of them. Okay.

You can't release them fast and your body can get rid of them. So I I've written a book on it's called The Toxins Solution. And here's the basic concept.

Number one, got to avoid the start exposure. Just number one, stop the exposure. We really get the toxins there. Come to class of toxins. While people might think, well, chemicals versus metal, there's a better way of looking at it.

It's persistent versus non persistent. So non persistent means that the body has existing detox systems that get rid of them easily. For example, arsenic, half life of arsenic is like two days stop exposed to arsenic within a week it's all gone.

Bisphenol A same thing half life. One day stop exposure is gone. But then the other class, the toxins, they're typically the halogen added chemicals like the chlorinated or fluorinated chemicals.

These have long half life. You look at a PCBs, polychlorinated biphenyls, they were banned 50 years ago, but they're what are called persistent gas plumes.

Once again, get in the environment. What's to get in our bodies? Too hard to get rid of A half life of these things are from years to decades. So you've got your local restaurant and eat farmed fish.

The PCBs that farmed fish will probably with you the rest of your life. And why is that bad? They're neurotoxic. They cause cancer. The get back rheumatoid arthritis, particularly women, they're bad for us. So the reason I like to have people start with really careful, just just towards nothing else is because they do it properly.

Within two weeks they'll start feeling better because of biting, start working better. Typical things are gone. You have to really you have to be real religious about it.

And then I suggest now let's clear up the gap, because as you know, a lot of toxins come from the gut and wrong bacteria go to the right kind of bacteria in the gut.

And once you got the gut, no longer producing all these bad all the bad stuff, now clean up the liver so the liver can detoxify is releasing fats. And then finally, the other major detox system is the kidneys.

And as you know, because of all the toxicity exposed to, we have an epidemic of kidney failure going on right now because all these toxins people are exposed to and these talks are not just environmental chemicals or metals.

Many prescription and over-the-counter drugs are causing damage to the kidneys. So then now we got the organs of detoxification working properly. Now let's do Sandra's Good of Sandra.

Anybody is interested in sort of should look at the work of Steven Genuis up in Edmonton, Alberta. She's done this great work which puts people into sauna scrapes, collects their sweat, compares what's in the sweat to it's in the blood to what's in the urine.

And what's fascinating, may toxins come out in the sweat that aren't in the blood or the urine to the by crowd sequestering away way as best it could and because you know it can't get rid of them any other way except by sweating.

Okay. So scientists are very very effective for getting rid of toxins. And now the protocol for a scientist that I've looked at is from straightforward.

The key for here key here is you need to sweat vigorously for at least 20 minutes. Okay. And get that about 20 minutes right now. Start getting the toxins out.

So the temperature for doing that depends upon individual some people. So just to highlight. So if you want to be real quick about it, use a higher temperature.

But in general, a little lower temperature, take a little longer, get sweaty, you can stand it for longer. So typically take ten, 15 minutes to get by temperature up.

I know. Do it for these 20 minutes. Plenty of fluids. Okay. You got to relax about. And then I also recommend with the fluids, add a little bit of ice, things like magnesium citrate, for example, because you acclimate the water a bit, it makes it easier for the kidneys to get rid of the activity of the toxins and for the body care about get them out of the tissues.

How often should you do it? Add some faith in research out of Finland where they weren't looking at toxins. They're looking at things like cardiovascular disease.

They compared people did science once a week to four times, week to every day. I'm not to say every day because that's a lot of work. But what they found was people would get farthest every day, decrease their cardiovascular

disease by 30% and decrease their dementia by about 75%.

Wow. Okay. So it was never progression to dementia anyway. So it's really clear. Sonnet are very effective. But don't think just just doing scientists is going to be enough.

You got to make sure you avoided the toxin to begin with and make sure contribute a lot of dietary fiber nothing. Most people don't realize this that delivers pretty good and get rid of a lot of these toxins.

But our liver developed its systems while we were on a diet that contained 150 grams of fiber a day, deliver a dump the garbage into the into the gut, bind to the fiber out through the stool.

Right. Well, when we are consuming 15 to 20 grams of fiber a day, those toxins are reabsorbed through something called intra pack circulation. A great example is mercury.

Mercury is hard to get rid of, but the body dumps about 1% of the by load into the gut every day. Okay. So it will get rid of it if you get a chance. But then because the fiber is so lower, the diet, it absorbs 95% of the mercury with all the stuff to get rid of because it's important there for detoxification.

So let me summarize couple of laboratory number one, avoid the toxins. Number two, plant fiber in your diet. Number three, regular scientists at least once a week, preferably twice a week.

Well, that's excellent, Dr. Pizzorno do you have any programs or anything going on that you'd like to let the audience know about that they could participate in or.

So you know, I'm on these days. These days I just do education. I've got a book, read my book, The Toxin Solution, frankly, folks that change your life.

But you have to do it. So maybe I've taught you that. Read your book. I had really good luck. I said, what? Did you actually do it? Well, no doctor if not going to do it.

Don't bother by the book book. Okay, But you do it a lot. You get the experience. Some real people have had dramatic improvement in your health within two weeks and over time systematically reversing the causes of disease.

Excellent. Dr. Joseph Pizzorno, thank you so much for me today at the Parkinson's Solutions Summit, You've shared some very valuable information. Get folks thinking about the toxins in their environment, and that's not just sight outside of the home.

Yes, sir. But one more thing. It's like I wrote a textbook for doctors called Clinical Environmental Medicine. Okay. And so for the doctors who are listening, who want to understand environmental medicine, Dr. Walter Cronin, I wrote the most comprehensive textbook available today on environmental medicine.

Needs to be on the shelf well, on your desk with it. Open that. That study. Just being used. But thank you so much for participating in the Parkinson's Solutions Summit.

We've learned a lot of valuable information. Got us thinking about the toxins outside our home, inside our home, in our food, etc., and what we can do about it.

This is important for Parkinson's disease and every other chronic disease out there. It is poisoning us and there are solutions to addressing our toxic environment and still enjoying living in the modern industrial age.

I, for one, don't want to go back to living in a cave. So so we have to learn how to live with it and we can live well. Thank you so much, Dr. Pizzorno.

Appreciate you joining us. Thanks for the invitation.