



Top Takeaways: #293 How Heavy Metals Cause Food Sensitivities

with Dr. Russell Jaffe

1. Russell recommends a C cleanse every week.
2. Healthy stool transit from consumption to elimination is 12 to 18 hours, but the average American takes 3 to 7 days.
3. You need to drink 4 plus quarts of water per day, plus an additional 8 ounces for any sweetened, caffeinated, or alcoholic beverage to stay properly hydrated.
4. It is completely safe to increase the minerals in your diet, because any excess water-soluble elements, like potassium and magnesium, will regulate themselves through the kidneys.
5. If you can take in foods that you can digest, assimilate and eliminate without any burden, parasites in your system will go away.
6. We need to evoke our healing responses with self-tests, predictive biomarkers, and interpret them for their best outcome goal values, in order to determine whether you're tolerant or intolerant to the foods you are taking in.
7. Taking self-tests to measure transit time, urine Ph after rest, and hydration status, are great indications of whether or not your body is holding up, or if you need supplementation in any way.
8. Russell suggests eating GGOBE, sulfur rich foods, as staples in your diet as long as you are immune capable and tolerant to them.
9. If you grew up after 1950, you have a strong risk of having radioactive material in your bones. To fight this you need to take in only a daily basis sulfur rich foods, and pulse, on a weekly basis, ascorbate, vitamin C, and C cleanses.
10. Russell eats easy to digest grasses like millet, quinoa, barley, wild rice etc, and stays away from grains and meat.
11. A healthy diet consists of 20% from fat, from seeds and nuts, and 20% from protein.
12. We need 40 to 100 grams of fiber, as well as 40 to 100 billion bugs from healthy fermented foods, and healthy, alive supplements.

13. Russell is no longer interested in diagnosis, and instead focuses on cause and function in individuals, because if you start from the consequence and interpret the cause, there will be confusion.
14. 50% of Americans have anti-insulin antibodies, because we take in toxic metals from the environment, from water, from air, and from food that form sulfur bonds, called thioether bonds, which are permanent chemical bonds with insulin that distort the structure of that insulin, making it foreign to the body, which makes our immune system attack insulin.
15. Reducing the amount of toxic metals you take in from your diet, and enhancing your immune systems ability to get rid of abnormal consequences of these toxic metals, can help the body live longer.
16. Diabetes that causes a half a million deaths per year, nutritional deprivation that causes a quarter of a million deaths per year, and environmental toxins that cause a quarter of a million deaths per year are avoidable through these steps
17. We can save our lives and those of the people we love, but we must be proactive, predictive, personalized, with primary prevention practices.
18. You can learn more about Dr. Russell Jaffe at drusselljaffe.com
19. Learn more about Dr. Jaffe's supplements at perque.com
20. Learn about ELISA/ACT, the laboratory where you can learn about LRA testing, and take health appraisal questionnaires, at elisaact.com.

Wendy Myers:

Hello, my name is Wendy Myers. Welcome to the Myers Detox Podcast, where we discuss topics related to heavy metal protocols, supplements, cleansing, things that work and don't work, and how heavy metals are causing today's health issues and what you can do about it. Today's guest is Russell Jaffe, he is a pioneer in food sensitivities testing, in so many areas of supplementation, detoxification, functional medicine. Such a wealth of information on today's show. We're going to be talking about why metals cause food sensitivities, the cross-reactivity involved and the body launching an immune attack on a metal, but then ends up launching an attack on a food instead. We'll be talking about topics related to nutrients, what nutrients we need to aid detoxification, the top five foods to aid detoxification and why we need more nutrients, more supplements, more nutrient dense foods than is actually required by the body nutritionally because it needs extra nutrients to facilitate detoxification, removal of its toxic burden of metals and chemicals. We're also going to be talking about so many other topics. Such an interesting conversation today on the show. I'm so excited to share it with you.

Wendy Myers:

I know so many of you guys listening are concerned about heavy metals and their impact on your health. Are they causing your symptoms? Are they causing your health issues, your diagnoses, those of your loved ones, those of your children? That's why I created the heavy metals quiz. You can take it at heavymetalsquiz.com to learn your body burden of heavy metals. I developed this quiz so that you could very quickly assess what your levels or relative levels of heavy metals that you have in your body, and then what are the next steps to take to remove them. So many people, if you listen to this podcast long enough, you know you have metals, you know they're a problem, but what do you do next? What is the

first step? After you take this quiz, you get a free video series on what the next steps are that you should take to then act on that information that you received in the quiz. Go to heavymetalsquiz.com to take it.

Wendy Myers:

Our guest today, Dr. Russell Jaffe is an MD, he has a PhD and CCN Fellow, the Health Studies Collegium. Russell Jaffe is Founder and Chairman of PERQUE Integrative Health, LLC. You can find that company at perque.com, P-E-R-Q-U-E.com. That's a company that offers the world's scientifically proven integrative health solutions to speed the transition from sick care to healthful care. Amazing supplement line. Dr. Jaffe is also Founder and Chairman of MAGique BioTherapeutics and ELISA/ACT Biotechnologies, which was world renowned for food sensitivities testing. Dr. Jaffe has more than 40 years of experience contributing to molecular biology and clinical diagnostics. His focus is on functional predictive tests and procedures designed to improve the precision of both diagnosis and treatment outcomes. He's authored nearly 100 articles on the subject.

Wendy Myers:

Dr. Jaffe received his BS, MD and PhD from the Boston University School of Medicine. He completed residency training in clinical chemistry at the National Institutes of Health, and remained on the permanent senior staff before pursuing other interests, including starting the Health Studies Collegium, a think tank. Dr. Jaffe is board certified in clinical pathology and in chemical pathology, and he is the recipient of the Merck, Sharp & Dohme Excellence and Research Award, the J.D. Lane Award, and the U.S.P.H.S. Meritorious Service Award. Dr. Jaffe was honored as an international scientist of 2003 by the IBC, Oxford, England, UK for his lifetime contributions to clinical medicine, biochemistry, immunology, methodology and integrative health policy. He is widely published and sought after to explain complex subjects.

Wendy Myers:

Learn more about Dr. Jaffe and his work at drrusselljaffe.com. Let's talk about cleansing. Cleansing is really, really popular. People think about juice cleansing, and they think about other types of cleansing, colon cleansing, what not. How often do you suggest cleansing? What does cleansing look like to you?

Dr. Jaffe:

No, I'm really glad you asked the question, because it's a simple question, how do I cleanse in the 21st century to maintain the quality of my health for life? How do I live long and well, like Leonard Nimoy? The answer is it's complicated. Sorry, but it's complicated. We recommend a C cleanse once a week. How much ascorbate do you need to deal with the oxidative total burden of those five categories that we talked about just a few minutes ago? That's the C cleanse. Then what's your transit time? Healthy transit from consumption to elimination, healthy transit is 12 to 18 hours. The average American takes three to seven days to produce stool, to produce poop. I have people all the time, or colleagues all the time to who say to me, "Well I'm regular. I got to the bathroom every day." I say, "Well, did you take that in yesterday or did you take that in last week?" They don't know. They can find out.

Dr. Jaffe: Now you can do this with beets. When I have roasted beets as a main course at night, I expect to see red in the commode in the morning. But I must tell you, after all these years, when I see red in the commode in the morning, my first thought is not, "Oh, I had beets last night." We recommend charcoal. There's a dioxin-free charcoal. There's only one company that makes it. This is medical grade charcoal of course. We recommend people use that based on how big or what their weight is, and you swallow these when you're finishing a meal, and when the black crumbly stuff comes out, you mark the time and difference in hours is your transit time.

Dr. Jaffe: Then we have a hydration test, because it turns out being even a little bit dehydrated, if you don't drink four plus quarts or liters of water a day, and I like sparkling as well as still, we have well water and Pellegrino that's my preference, but if you're not drinking four plus quarts a day, plus an additional eight ounces for any artificially sweetened, for any sugared, for any caffeinated beverage, any adult alcoholic beverage, you're dehydrated. By definition, and you can prove it, here's how I'm going to prove that I think I'm well hydrated. Yes, my skin, when I pinch it on the back of my wrist goes flat in 1/1000. If it doesn't, I go and drink a glass of eight or 10 ounces of water, water uncontaminated, glass full of water, and then in an hour, I'm re-hydrated.

Dr. Jaffe: These are self-assessments. Then there's morning urine pH, after rest, which is a measure of metabolic acidosis, which is a complicated but very important issue. But it relates to cellular magnesium. If your urine pH, in the morning after rest or after six hours of rest is below 6.5, you are in deficit of this essential mineral magnesium, which is hard to get in. We know it runs out as fast as you get it in, we know that the DASH Diet, which is a very big large scale long-term diet proved that if you are really diligent for two plus years, you could replenish the deficit in magnesium. I, oh I'm an advocate of this work, I would not wait two years.

Dr. Jaffe: Actually, we pioneered this, but there is enhanced uptake and chaperone delivery form of magnesium that we have made available for the last 20 years. By the way, no one, and we looked very carefully for this, no one who has kidneys, if you don't have kidneys, you can call us and we'll get you to a good nephrologist for dialysis. You have to have kidneys. But if you have kidneys, the water soluble elements like potassium and magnesium regulate themselves. If you need to retain more, your kidneys will do that for you. If you have a little bit more of the water soluble minerals, not fat soluble, water soluble, your kidneys, your sweat, your stool will eliminate them. It's completely safely to increase to up the minerals in your diet.

Dr. Jaffe: Now my diet is mostly organic, then it's biodynamic, and then we have a community supported agriculture. Then on top of that, my son started seven years ago a biodynamic food force in our front yard. Chris, he said, "Why do we need lawn?" I said, "I don't need lawn." Now we have about a dozen and a half fruit-bearing trees, we have multiple kitchen gardeners,

like tonight I went out and I took a frond of the rosemary, and some tarragon, and I put it in with the vegetables, and onions and the soup, because I eat wet. I want to take in more water. All of us, every America, if you could do one thing, now you have to do more than one thing, but if you could do one thing to save America, it would be have them drink water.

Wendy Myers: Yeah, I agree, I agree. I did a whole podcast on dehydration that's coming out soon, how to take water and make it more available, make it so you're taking in more.

Dr. Jaffe: Since you've been so kind, I'm going to tell you a very quick story. So my son Sky, goes to North Sulawesi, Indonesia, to work on a food forest. And I encouraged him to do that, and then he says one out of three people has a waterborne infection every year. I said, Sky, the latrine is draining into the drinking water. He says, "Oh no, the latrine is over here, and the drink water's over there." I said, "Sky, I'm going to send you a little vial, a little vessel, and it has a blue dye in it. I want you to pour it in the commode, and when it comes out in the drinking water, I want you to convince them to boil the drinking water." First of all, if you are concerned about parasites, or equivalent, if you stop feeding them, they go away. This is a surprise, to me at least. We are among the scientists that have proven this, but if you feed them they will come. You can be at risk, and then you get exposed. If you feed them, they will come. If you stop feeding them, what does that mean?

Dr. Jaffe: If you take in foods you can digest, assimilate and eliminate without immune burden, they go away. Giardia, cryptosporidia, name the parasite you fear the most, name the virus, name the infectious pathogen you fear the most. I've met them all, I'm a microbiologist. The challenge and the opportunity for people like me, is to speak in ways that people can understand so they can take action. So first of all, most doctors, most of my colleagues, MDDO doctors, they know from nothing, about nutrition, attitude, environment, and invoking healing responses. And in fact, we're kind of deprecating about it. We actually practice the nocebo, rather than the placebo. And I don't even want to call it the placebo, I want to call it the human healing response. And I want you, as I think you are, because I see how healthy you look, and I would like to think I am also in that situation, we evoke healing responses on a daily basis, by getting enough of the good stuff in.

Dr. Jaffe: Not everybody needs everything. You get enough of the good stuff you need personally, because it's about me. When I go to a doctor, which is very rare, but when I go to a doctor, it's all about me. And I think for you, or for anyone, when you go to a health professional, it should be about you. You're not going for a book report, you're not going for an academic exercise, you're going to find out where am I at risk, where do I have strengths. If I have strengths, I want to celebrate, and if I have risks, I want to close them, and that's what I think healing response evocation, or what we're talking about, is really all about.

- Wendy Myers:** Yes. Yeah, so is there anything else that's important you want to touch on, when it comes to functional detoxification.
- Dr. Jaffe:** Thanks for asking that. It does get personal. For example, everyone should do GGOBE, garlic, ginger, onions, broccoli sprouts, and eggs. Do you have a heavy metal burden that is sufficient, that you should do a D-penicillamine provocation, for both essential, the beneficial minerals, like magnesium, et cetera, and the toxic minerals. It's called the Jaffe D-penicillamine Protocol, so I'm talking about myself, and I'm a young old person, so I don't mean to advocate for just my science, but I can tell you, I am a functional practitioner who was at the ... I was at the first meeting where the word wellness medicine was used. It was John Travis, in Mill Valley, California, 1975. And I just spoke to him today. He's alive and well, and he sent me this really lovely email that said, "Oh my god, in 45 minutes you taught em and my spouse more than I've learned in the last 20 years."
- Dr. Jaffe:** Now, I know that is a compliment to me, almost didn't say it, but my point is, we have a lot of evidence, a lot of science, a lot of opportunity to survive the 21st century, or to be crushed by the 21st century. To me it is absolutely that dichotomous, it's that clear. If we choose to live, we're going to have to evoke our healing responses, with self tests, and predictive biomarkers, interpreted to their best outcome goal values, and that includes whether you're tolerant or intolerant to the foods you're taking in. What if you take in garlic, this is true about me, what if you take in garlic, and you now have an immune reaction because you have enough toxic metal exposure, because you do, that garlic is now a foreign item to you? Now I invented the test, that thing, so this is for full disclosure.
- Wendy Myers:** Yeah, I wanted to touch on this, because you're the founder and chairman of the ELISA/ACT Biotechnologies, which is used for food sensitivity testing.
- Dr. Jaffe:** Chemical, toxic metal, environmental substances. We even get dander, hair, and feathers if you want. Yes, that's me. That's me, but my test came back reactive to garlic. Now I know garlic is a biological detoxifier, and then it turned out, oh my gosh, 50 years ago I had had a root canal, and the root canal cracked, and it was leeching toxins into my body, including mercury, that bound to the garlic, making the garlic foreign to my body, and my body said don't take mercury, therefore don't take garlic. Now that was smart of my body, but when I looked at that result, I, who I'd been tested a lot, I was one of the quality control people for our lab in the early 1980s. We've been at this 80,000 plus cases, 25 million cell cultures. We are very precise. We are very reproducible. We are very accurate in a field that is full of promise, without much science.
- Dr. Jaffe:** But you know that my background is academic science. If I don't do good science, I should be taken out behind the woodshed and given a cold shower and whatever else you get with it. So what do I say? Start with the

self test. What's your transit time? What's your urine PH after rest? What's your hydration status? If you look at these self tests, which can be generally done for less than \$20, you'll have important information about whether globally you can rest assured, or like most of us in the 21st century, you need to go farther. And that means going to the eight predictive biomarkers, hemoglobin A1C, which should be less than five percent. hsCRP, that should be less than 0.5, 0.5 for the hsCRP. Homocysteine should be less than six. LRA lymphocyte response Assay should be tolerant with no food chemical sensitivity. Your urine PH after rest should be between 6.5 and 7.5. Your vitamin D level should be between 50 and 80.

Dr. Jaffe: Now I know that there was an article in the New York Times not too long ago that said everyone is deficient in the country, and that's normal, that's a statistical term, that's a confusing term, but it's normal to be low in vitamin D, so don't test, and don't supplement. I don't know who bought and put and paid that article. I know the woman who wrote it. She's a distinguished journalist. And either she didn't know what she was writing, which is doubt, or she must have been paid handsomely.

Wendy Myers: Here's my problem with a lot of articles that come out on health. They're a journalist that's spending a couple of months or three months researching a topic, and then publish an article like they're now an expert on that, and it's just, I see this a lot in journalism.

Dr. Jaffe: ... pointed that out. I'm so glad you-

Wendy Myers: Or Time Magazine, and it's just hoey. They don't have enough of a background to publish these types of articles.

Dr. Jaffe: They're on deadline. Now occasionally they contact me, and they're on deadline, and they have to get it right, they can't get it grossly wrong, but they have to get it right according to their editor.

Wendy Myers: Yeah.

Dr. Jaffe: Who's their editor? A journalist? Is that a scientist? Not likely. Is that someone who can sift through evidence? Not likely. Where do they get their evidence from? Online. I can tell you from personal experience, when I go out to research something about which I don't know, and by the way that happens all the time. When I go out to research something I don't know, I have trouble knowing whether the evidence or the facts or the information is evidence based, or phony bologna. And if I have trouble, I'm pretty sure other people have trouble, so what do I do? I go behind the scene, like the Wizard of Oz. I'm the guy who can open the curtain, I'm the little person in the Wizard of Oz. I can get to the authors. I can get to the sources, I can get to the editors. I can find out who paid what to whom to do what. It's really hard, but it's really important, from my point of view.

Dr. Jaffe: Why? Why? I consider myself a grieving optimist, but I consider myself an “authority”. People sometimes call me up and say what about this, what about Statens, what about that, and facts, and what about the other? And I almost always say things that, A, leave them laughing, which is part of my goal, and get them to think about taking action. And if they do take action, and they get back to me, they almost always say, “Oh my gosh, why didn't someone tell me that before?” And I say, “I don't know, but you now know it, so you now know it.”

Wendy Myers: So talk to us about whatever your kind of top detoxification supplements that people should be taking, and protocols that you think everyone needs to be doing. You mentioned people should be doing something every day towards detoxification.

Dr. Jaffe: Yes, I mean I start it at the global level, the GGOBE, these are detoxifying, sulfur rich foods, and they should be staples in our diet, as long as you're immune compatible and tolerant to them. But then, if you grew up after 1950, you have a significant risk of having radioactive material, caesium, strontium, et cetera, in your bones. And what do you do about that? Well, you take in on a daily basis, not just the sulfur rich foods, but in addition to that you pulse, on a weekly basis ascorbate, vitamin C, you do a C cleanse, you can look that up online, capital C cleanse, because the amount of ascorbate, the amount of vitamin C you need in the natural, fully buffered, fully reduced form, the amount of vitamin C you need is proportional to how much oxidative stress globally you're under.

Dr. Jaffe: So yes, we talked about all those five categories, and they're all important, and they mostly make people fearful, for good reason. What I want to tell people is that they can mitigate, they can eliminate, they can neutralize that risk, if they're taking enough of the right natural forms of nutrients, supplement, and yes, there are many phony supplements, but there are a few companies that say, we are full disclosure, that is every ingredient in every product is on the label, in the exact amount, and we have essays, post production third party essays to prove that what we say is not just an opinion, it's a fact. For example, many people today are aware that gluten is hard to digest and they want to be gluten free. Okay, I don't know if you know this, but I just learned that half of the gluten free foods are not gluten free.

Dr. Jaffe: And not only that, most people only pay attention to wheat gluten. It turns out all grains, anything sticky enough to make a bread, has something that is its gluten, wheat gluten, oat gluten, rice gluten, but what do I eat? Grasses. I eat easy to digest, assimilate, and eliminate grasses. What are this? Millet, quinoa, you can even throw in barley, certainly wild rice, and farro, the traditional foods. And by the way, I have the privilege to be at Health Studies Collegium, where I'm a fellow and an academic, to go globally, and ask what are the consumption patterns, what are the dietary patterns of people who lived over 100 years, and were dancing, because that's one of my goals. And the answer is, grasses not grains, you can

have some goat and sheep cheese, or yogurt, because fermented foods are good. Cow dairy, bad for planet, bad for you, bad for the cow, forget about it.

Dr. Jaffe: And now, this is the hard one for most Americans. No meat. Sorry? No meat. Eat lower on the food chain. I don't mean you have to be vegetarian and vegan. I actually, every once in a while, my body, which talks to me, and I hope your body talks to you too, but my body every once in a while says to me, "Fish!" And I said, "Oh, no, but we had fish a week or two ago." But the fish has to be line caught, and the fish has to have eyes that are not cloudy, which means never frozen. And even our Whole Foods market, and fortunately we have one, when we go there, and I say to the fish person, fish monger as they call them, I want the line caught, never frozen fish, they maybe have one. They have a lot of fish, and the fish look good. The question is, which ones were farmed.

Dr. Jaffe: I want you to know, no self respecting fish will ever be farmed, so don't eat farmed fish. No animal would ever want to be fed silage, corn, and GMO modified corn, and soy, and all that stuff. I've talked to Taylor Grandin, I've talked to the people who make healthy meat. It's a premium. I'm not saying this is ... if you're on food stamps, don't listen to the next thing I say, but I do have a certain amount of fresh, rendered and frozen, flash frozen meat, not for me particularly, but I have friends who come and they say, do you have anything edible? And I put out the salad, I put out the sprouts, and I put out the beans, and I put out the garbanzo and the hummus. And they say, "Oh, okay, that's the appetizer."

Wendy Myers: What's for dinner?

Dr. Jaffe: What's for dinner? Okay, hold on, don't leave.

Wendy Myers: Here are the meat and potatoes, they're in the back here.

Dr. Jaffe: No, we have lamb chops, we have a thing called flesh meat. It turns out I personally do not consume more than two or three ounces at a time of fish or flesh, but I'm not vegan. I admire people who are. I know some ultra marathon athletes who really seem to be thriving, and they're vegan, but it turns out my body, and it's only mine, but my body was brought up a little differently, and so I listen to it. And when I say we want some protein, I say okay, but not too much. And I'll give you the global assessment of a healthy diet, 20% from fat, whole fat. Do not have edible oils, I mean seeds and nuts and the foods that have oils protected in them, so they're not rancid. 20% calories from fat, only if you want to avoid diabetes and heart disease and stroke. Next, 20% from protein. Okay, what's in the diet?

Dr. Jaffe: Well, a lot of things you have to chew, called fiber, or they used to call it, I've forgotten what they used to call it, but it's fiber, it's beans, and lentils, and whole items that you cannot just throw in your mouth and swallow, because they have fiber in them. We need 40 to 100 grams of fiber. We

need 40 to 100 billion bugs from healthy fermented foods, and healthy, alive supplements. And by the way, most digestive supplements are dead. And I know some companies have actually made, what do they call it, a selling proposition out of, our bugs are dead.

Wendy Myers: But they still work.

Dr. Jaffe: How else do they work? They work from the grave, because dead bugs ran out of nutrients, they were grown up to a highest possible density of organisms, that's a technical term, and they cannibalized each other. [crosstalk 00:28:45] alive supplements, which means growing in log phase. And this is what we've been doing for the last 20 years, we have 40 to 100 billion organisms in just a few capsules, lyophilized, freeze dried. So you grow them up while they're really healthy, and just when they begin to plateau, you say enough, and you freeze dry them. Now, that's pharmaceutical grade supplements.

Dr. Jaffe: I think people deserve the quality of ACS grade, or pharmaceutical grade, or high quality grade, or something you can actually measure, aside from the company that sells it to you. Now the company that sells it to you says it's perfect, and just pay us money. I understand. My view is, you should do third party production tests, or have the company you rely on not just say, "Oh, thank you very much for sending us a bottle.", but actually every time, on every lot, do a third party post production testing. And we have done that for 32 years now.

Wendy Myers: Yes. I mean, that's decades before other companies were doing that.

Dr. Jaffe: Yes, thank you for pointing that out. My role, in part, is to show what's possible. When I wanted full disclosure labels, when I wanted third party post production testing on every lot, I can tell you that everyone, literally everyone in the supplement industry said no one else is asking for this, it's expensive, you will have a hobby if you start something called PERQUE, and not a company. Well I can tell you, it put shoes on the kids, because there were enough colleagues, there were enough consumers, who wanted quality. What a shock, that quality has a premium, not a super premium, there's a small premium, because by the way, the consumer will tell you what they're going to pay for the category.

Wendy Myers: Yeah.

Dr. Jaffe: I have, in my opinion, I have invented, or pioneered, a number of products that would be helpful, but at a price point that nobody would conceive of. So the consumer tells you, this is how much I'm willing to pay for quality vitamin C, this is how much I'm willing to pay for quality multivitamins, this is how much I'm willing to pay for CoQ10, et cetera. We have pioneered 100% bioavailability, 100% of the time, with third party post production essays. Why? Because that's where the industry should go, not just me, we set the standards for the future of the industry, and I'm glad to tell you that after 25 years, my friends at FDA are now coming to

us saying, "Oh, you pioneered a good path, can we follow you?" I said sure. And by the way, if you actually take the PERQEs, as opposed to talk about them, they work better when you take them.

Wendy Myers: That's great the FDA is asking you for advice, rather than showing up with guns blazing and confiscating everything.

Dr. Jaffe: ... friends who had the guns blazing. I will tell you that I once had a situation where I was controversial. It was many years ago, and I called up my friend, and she said that sounds like bad, and I said that's why I'm calling you. And he said, "Don't do anything, I'll get back to you." And I must tell you, they apologized. This is a very personal anecdote, but I was talking to a woman who had been chief of staff for Mr. Carl Albert when he was running the House of Representatives for the United States. So when she called, they took her call. And she called up and she said, "They were wrong, they admit it.", which is very rare by the way, "They were wrong, they admit it, and don't do it again."

Wendy Myers: Yeah.

Dr. Jaffe: So I've tried to keep a foot in both sides. I was raised in an academic in Boston, I came to NIH and was on the permanent senior staff. My "pedigree" is very clear. I went as a skeptic, and what we're talking about is what has saved my life, and I believe has saved my children's life, and I am sure helped my dad and my mom, but mostly my dad, through their healthful, long life. My father was supposed to die before the age of 50, and when I got to NIH, I got a memo, this was before the internet, and the memo said, "Your father has a zero percent chance of living five years." What did we do? Nothing they recommended, and he lived to 90. So I don't think that what we think of as the authorities, the MDs and DOs, they know what they know, they know about pharmaceuticals, they know about pathology, I am a doubly board certified pathologist-

Wendy Myers: They're great at diagnosis.

Dr. Jaffe: Good at diagnosis. I would give up diagnosis in favor of physiology any day of the week. I no longer care about the diagnosis, because I actually am enough of a pathologist to know it's never quite that clear.

Wendy Myers: Yeah.

Dr. Jaffe: So what are we going to do regardless? What are we going to do to restore tolerance? What are we going to do to restore your microbiome and your digestion? What are we going to do to help you detoxify through your metabolome? What are we going to do to preserve your kidneys, your heart, your lungs, your liver, your brain? To me, these are the important questions. What is the diagnosis of the pathology? I'm interested. I'm a doubly board certified pathologist, I'm not disinterested. I've given up on diagnosis. I'm much more interested in cause, in function, in individuals, because most of our science is statistical. This is a

technical point, but most of the science is based on outcome studies of populations.

Wendy Myers: That are then generalized to the population.

Dr. Jaffe: Well, ergo propter hoc, therefore confusion. If you start from the consequence, and you interpret the cause, I predict you're going to get confused, and so did Hippocrates, Maimonides, Sir William Osler, I'm standing on their shoulders. It's not like we're coming saying, "Oh my god, the calvary is coming, and we're right, and the rest of the world, for thousands of years, have been wrong." We have been ignoring, for millennia, the people on whose shoulders' health stands. Well, if you want to be healthy, stand on the shoulders of the people who were the pioneers of health. And by the way, the reason that Hippocrates practiced on the Island of Kos, was because the conventional medical authorities in Athens drove him out of town.

Wendy Myers: History repeats itself, doesn't it?

Dr. Jaffe: [crosstalk 00:35:22]

Wendy Myers: That's the first time I've actually heard that. That's really funny.

Dr. Jaffe: That's part of my role. I'm a medical historian, I try to be an academic, but I'm functional, I'm holistic, I'm integrative. If you want to dismiss me because of that, that's okay, but look at my resume, and then dismiss me.

Wendy Myers: So let's talk a little bit about immunity, and how toxic metals and chemicals affect immunity, and that linked to food sensitivities, which you test with the ELISA/ACT testing, which so many of my clients have had that testing, so many people are having food sensitivities, and are limited to the amount of foods they can eat. What is the role in toxins? What's the toxin's role in that happening?

Dr. Jaffe: Yes, yes, very important question, a little complex, but I'm going to try and keep it consumer friendly. If you eat the food you can digest to assimilate and eliminate without immune burden, you are tolerant and healthier. You can still worry yourself sick, you can still have parents who are a challenge. Let me check, that's intergenerational, that's part of life. What you are saying, which is very important, what if you break tolerance? What if you're consuming a food that would otherwise be healthy, except for you, it's an immune toxin? And therefore it prevents you from repairing, it prevents your immune system from eliminating the cancer cells. And I'll tell you a secret, everybody makes cancer cells every day. And if you have a healthy immune defense and repair system, the natural killer cells, the cytotoxic T cells, the factors innate to your immune defense system, your immune system, eliminate them.

Dr. Jaffe: We can talk some other time about apoptosis and its mechanism, but the point is, we all make abnormal cells every day. How come we all don't

have cancer, because we have an innate mechanism, natural killer cells, cytotoxic T cells, these can be quantified. If they're low, I'm concerned, and I want to boost them by having you eat the foods you can digest, assimilate and eliminate without immune burden, and for that you need a lymphocyte response assay, an LRA, a lymphocyte response assay. By ELISA/ACT, we have the most advanced, functional, most specific, most validated version. There are many ways of measuring the immune system, and most of them are serum. You put out your arm, you take a random specimen, you send it to the lab, and they say you have antibodies, or you don't. And I tell you for sure, for sure, for sure, that will confuse you, the practitioner who recommended it, and the person who follows that advice.

Dr. Jaffe: Why? I have many immune memories of things I'm tolerant to. I have T cells which don't respond to antibodies, they don't respond to IGG, they don't respond to serum testing. You have to do a cell culture. And not only that, you have to do an ex vivo cell culture. You have to do a cell culture where everybody is present, and the reactions occur just as they happen inside the body. Well, from 1981 to 1983, we validated the assay, we introduced it then. Since then, we have 80 plus thousand cases in our database, 25 plus million cell cultures. We have less than three percent variance on 4,000 plus blind split samples. So I urge our active participants to send in blind splits. Two specimens from the same person, with different names, et cetera, and we report it at experimental biology.

Dr. Jaffe: Now, you may not go to the experimental biology meeting, but that's my people. These are the high priests of academic medicine. When we presented a cell culture that had less than three percent variance over thousands of consecutive, no dropout of data, out of consecutive specimens, people got up and said how do you do that? I said, well, we invented a novel microtiter plate, that's the amplification piece of plastic. We invented how to isolate and purify the antigens, because the commercial ones were too schmutzy, that's a technical term for Jersey, and we figured out how to make a monolayer, a single layer. And then, by the way, we figured out how to do the first ELISA, the first amplified procedure, that's also a cell culture, in one step. Because every step in a laboratory procedure adds three percent bearings.

Dr. Jaffe: And if you have a standard ELISA, a standard in vitro serum ELISA, an IGG ELISA, the best the lab can do is plus or minus 15%, because there's five steps, it's a sandwich, we know about it, bursa yellow, David Rodbard, et cetera. And I looked at that and I said why do we need five steps? Why don't we just tickle the body? Why don't we just get a specimen ex vivo, get a specimen that's not damaged, it's not activated, it's not harmed, get it to us quickly, so we do the cell culture, we do the amplified procedure in our lab, and then guess what, it became a new category, ELISA/ACT. Amplified cell culture, less than three percent variance, and as you know we've been at this 35 plus years. You don't do 80,000 cases in 20 minutes.

Wendy Myers: Yeah. And so what is the role of toxins interfering in the immune system response, to then respond to perfectly innocuous foods? So you gave us one example earlier of-

Dr. Jaffe: Thank you. Let me just give you one example. Today it is very common for colleagues, for doctors, to measure anti-insulin antibodies. What is insulin? Insulin is the hormone produced in your body, that goes to your cells, to open up the gate, to let the sugar in, because the sugar is the source of energy. So sugar is not your enemy, it's just you don't want too much, and you don't want too little. Okay, now we understand what insulin is. How come so many, and I mean over 50% of Americans, if tested, have anti-insulin antibodies? Well, we take in toxic metals from the environment, from the water, from the air, from the food, we take in toxic metals. Toxic metals love sulfur. Look it up, they love sulfur. So they form sulfur bonds, chemical bonds, permanent bonds, they're called thioether bonds if you're a biochemist, but they not only form permanent bonds with the insulin, because of that chemical bonding they distort the structure of that insulin, making it foreign to the body, and the immune system comes by and says you're not insulin.

Dr. Jaffe: We're tolerant to insulin, you're abnormal insulin, you're foreign insulin, you're toxic metal and intoxicated insulin. We're going to form antibodies against you, because anything foreign, anything foreign, if you make your own body foreign, that's called autoimmunity. If you take in toxins we call that inflammatory repair deficit, but anything foreign to your body is a real risk and a harm. So as the single example, and this is generalizable, I could talk for hours, but the bottom line is, don't do that. Reduce the amount of toxic metals you take in from your diet, enhance your immune system's ability to get rid of the abnormal consequences of these toxic metals, so that you can be dancing at 120 with me. And I can tell you, I pioneered the D-penicillamine Provocation for full disclosure, but if you really want to quantify the beneficial, essential minerals, and the toxic minerals, you take D-penicillamine for three days, and on the second day you measure a 24 hours urine.

Dr. Jaffe: I just did that on myself. I must tell you that remembering to pee in a jug for 24 hours, you have to have motivation or a little footnote, post it note. But the point is, we have tools and techniques, that functional, integrative, holistic colleagues can take advantage of, health coaches can take advantage of this, because they're available. They're available through portals like Better Lab Tests Now, they're available through physicians who are integrative, functional, and comprehensive. And again, a quick story. Rebecca's mother, Mia, goes to her cardiologist, who has put her on Statens. And Mia notices that behind the doctor, on the credenza, is a bottle of CoQ10 micellized in rice bran oil, that I pioneered. And so Mia says, "What is that?" And the doctor says, "Oh, that's mine." And Mia says, "Is that from Russell Jaffe?" And she says, "How do you know him?" She says, "Rebecca is the mother of his children, I do know him."

Dr. Jaffe: She says, "Oh, in that case, I can tell you how it saved my life." So anyone on the Staten should be taking micellized CoQ10 in rice bran oil. Anyone who's taking any medication that affects the QT interval, should be taking magnesium and Choline Citrate. Anyone who has digestive, microbiome issues, anyone who has metabolome detoxification issues, should be following the guidance of what we said. And yes, if they want, if you or any colleague or professional will contact us, we'll send you technical articles about why this is correct. But if you're simply a consumer, we will connect you with a health coach or a professional, who actually knows something about these fields. And just because they're credentialed and nice and professional, does not mean they know anything about the things they talk about, because I hear colleagues say things, and people contact me and they say so and so, a doctor, said such and such.

Dr. Jaffe: And I actually have to take a deep breath before I laugh, because that's never helpful, that's never helpful, but I try to communicate the true answer, because they have a simple question, and it's about them, and then I point out that people who don't know the question, they don't know the question, shouldn't offer an answer. And I include most of my MD, DO colleagues. 8,000 hours in training. I had 12,000, but 8,000 hours in the average medical school's training, and you get almost nothing about nutrition, attitude, lifestyle, relationship, intimacy. There's a lot of things missing. Eventually the curriculum hopefully will change, but in the meantime, you cannot assume that a person who is not educated in the subject you are interested in, like my mind and my body, and how they work together, you cannot assume that someone who is credentialed, he is an MD, or she has an MD and a DO, and they've got this on the wall, and they did internships and residencies.

Dr. Jaffe: Okay, I have a wall full of those credentials. It was being cross trained that I learned how little I knew about evoking healing responses. And now that's what I do, so I made an almost 180 degree switch, from diagnosis, and being the world's best "pathologist", to being someone who wanted to live. This is very personal. First of all, I wanted to live. Then it turns out my kids wanted me to live, which is not a bad thing. My parents wanted me to live, that's also not a bad thing. And the bottom line is, diabetes, which costs an extra half a million people a year, nutritional deprivation, which costs a quarter of a million deaths, extra deaths a year, environmental toxins that cause a quarter of a million deaths a year. They're avoidable. Here's what my friend Peter said, "Diabetes costs. Diabetes kills. Diabetes is a choice." And that's a headline, that's a quick aphorism kind of thing, but I promise you the science is totally supportive of them.

Wendy Myers: Yeah.

Dr. Jaffe: You can be diabetic. As long as you keep your sugar in a healthy range by not adding extra empty calories, sugar, or artificially sweetened things to your diet, you're still a diabetic, but you don't have any of the

consequences. You can't go out and eat a gallon of ice cream. My mother literally ate almost a gallon of ice cream while my brother sat in her bedroom. She was depressed, and so forth, for good reason. And he said to her, "Mother, are you eating ice cream?" And she said no. And then the ice cream started to drip out from under the bed clothes. And he said, "Mother, what is that?" She said, "I don't see it." How? He stopped. Fortunately he stopped at that point. I said, "Mitch, you won, you were right, but it didn't bring mom to an epiphany. It did not bring her to change her habits." And calling her out, making her wrong, I don't think that's ever a good thing to do. And by the way, most of the diagnoses that my colleagues make, make people wrong.

Dr. Jaffe: Oh, you're a diabetic. You're bad because you're ... no, no, you're just diabetic. You're not bad, you're not wrong. You're sweet enough as you are. This is the headline about diabetes. You're sweet enough as you are, do not add sugar to your diet. Eat whole foods that are sweet enough, vine ripened, and locally grown if possible, seasonal if possible, and you too can live long and well. You're still diabetic, you can't go out and have an ice cream sundae every night. And by the way, if you really miss it, and you want to do it once or twice a year, on your birthday, or on Mother's Day, or Father's Day, I'm not going to stop you. It's what you do 95% of the time that's more important. The five percent of "indiscretions" makes you an American. And by the way, I'm not perfect. I don't claim to be. I don't think you have to be. If you had to be perfect, most of us would already be dead, and since we're not, you don't have to be perfect, so I hope that's clear.

Wendy Myers: No, I'm not perfect either. I have my chocolate and my other things too.

Dr. Jaffe: Okay, but dark chocolate, but dark chocolate, because I defy a person, dark chocolate is more than 60% cacao, et cetera. Dark chocolate is a little bit bitter, but it's really good, and especially if you let it melt in your mouth, and you very slowly savor it, because it's very hard, in my experience, to overeat dark chocolate.

Wendy Myers: No, you get sick. I've done it many times. I've done a lot of experiments.

Dr. Jaffe: Well, keep experimenting.

Wendy Myers: How much dark chocolate can I eat?

Dr. Jaffe: I'll talk to you some other time about the dark chocolate I have, but yes, I'm sure that that's possible, but you understood what my message is. You can still have the things you "like", including dark chocolate, but not the things that will kill you like white chocolate and milk chocolate and sugar rich chocolate and so forth. And by the way, in Africa, where they actually only have dark chocolate, people have been eating cacao and cacao beans and whatever for millennia, as far as I can tell, but they don't eat that much. First of all, they don't have that much. Only in America can you be overfed and undernourished.

Dr. Jaffe: Oh, by the way, in Europe you can be overfed and undernourished too, because western civilization tends to have empty calories. I don't want any empty calories. To keep the weight that I want, to keep the feeling of vitality that I have, there's a certain amount of calories a day, 1,800 to 2,000. Every one of the calories I consume, I interrogate. If you're empty, I don't want you. If you're nutrient dense, and not intoxicated, come this way. So organic, biodynamic, community supported agriculture, have a food forest in your front yard if you want. We have 250 edible plants in my front yard.

Wendy Myers: I love it.

Dr. Jaffe: Yes, come visit, we'll enjoy each other's company. And by the way, relationship is important. And no, you don't have to be perfect, but it's okay to say I wasn't really up to my best when something happens, when you got in someone's face, or you irritated them. And I'm thinking about my own children at this point, because they're young adults, and they are young and immortal, but they mostly take their supplements, they eat really well, and they told me every one of my limitations, and that's their job.

Wendy Myers: That's so funny. I know my daughters, I'm getting paid, but I'm definitely getting a lot of karma coming back at me.

Dr. Jaffe: Welcome it now, and later you and they will enjoy and laugh and so forth together, at least that's how I see it.

Wendy Myers: Yes, yes. Well Dr. Jaffe, thank you so much for imparting your many, many years of wisdom on the listeners. And why don't you tell us where people can learn more, and try your supplement line. You have an amazing supplement line called PERQUE.

Dr. Jaffe: Let me first start with what I would call the science. I'm a fellow of the Health Studies Collegium, so it's healthstudiescollegium.org, but if you're quick on the acronym, it's the numeral four, capital H, capital S, capital C dot org. There you'll get the science. And you'll also meet other fellows of the Health Studies Collegium, all of whom I admire. Then there's Dr. Russell Jaffe, R-U-S-S-E-L-L J-A-F-F-E, because my mother believed that if you double all consonants, the child would somehow be better in life. Then there's what you asked about, which I'm happy to talk about, which is PERQUE, perque.com. That's the supplement company. And then there's ELISA/ACT, the laboratory, elisaact.com, where you can learn about LRA testing, health appraisal questionnaires, HAQ, we have lots of acronyms, but there's a questionnaire, and if you send us an ounce of blood, which may sound like a lot, but it's not, because you have seven liters, you have 7,000 ... excuse me, you have 2,500 ounces in your body at any moment.

Dr. Jaffe: And I was in NIH, by the way, when we established how much blood could you draw safely from a child, how much blood could you draw

safely from a pregnant woman, how much blood could you draw from an elder who was in decline. And the answer is, three percent of the weight in milliliters, so the math piece there, but if you have trouble with the math, contact me at drrusselljaffe.com, elisaact.com, or perque.com, or healthstudiescollegium.org, and I'm also a professor at GW Medical School. You can call me there. We can save our lives and the lives of the people we love and care for and about, but we have to be proactive, predictive, personalized, with primary prevention practices. If you notice, that was six P's in a row, that's called onomatopoeia for those who are poetic.

Wendy Myers: Fantastic. Well, Dr. Jaffe, thank you so much for joining us today on the Myers Detox Podcast. And everyone, thanks so much for tuning in every week, where you learn about all the latest topics, latest cutting edge techniques to detox your body, the latest supplements and protocols that help to remove the number one primary driver of disease and health issues today, heavy metals and chemicals, so thanks for tuning in.

Dr. Jaffe: And if I can jump in to thank you and to compliment you. I looked at the people you have recently interviewed, and the topics that they spoke about, and every one of them was well chosen, so congratulations for wanting people who can talk from evidence, and not just do a book report. Thank you for caring, thank you for wanting to share this information with your audience, and may we all be well and happy.

Wendy Myers: Yes, thank you so much, Dr. Jaffe. Thanks so much for contributing to the conversation, because I'm very passionate about this. Detoxing has helped my life, my family, and I've had family members suffer as a result and die, as a result of not detoxing their body and not being aware of this pressing health issue, so that's why I do what I do, and it's my pleasure to serve everyone listening and help them make those connections and figure out this missing piece of the puzzle in their health.

Dr. Jaffe: Thank you so much for doing what you do, and may you prosper and continue.

Wendy Myers: Yes. Everyone, thanks for tuning in. We will be back next week with another very, very interesting topic. Talk to you soon.