



Transcript: #509 The Nutrients Needed to Maximize Detox with Dr. Russell Jaffe

Dr. Wendy Myers:

Hello, everyone. I'm Dr. Wendy Myers. Welcome to the Myers Detox Podcast, and today I have a very good friend, Dr. Russell Jaffe on the show. This is such a good interview. Dr. Russell Jaffe is such an expert. He's the inventor of the ELISA test that tests for heavy metal sensitivities. He has an extensive line of supplements that help with detoxification. He's got just so many different research studies on his supplements that he's had since the 1980s when he started his company. He's such a wealth of information and he's also a speaker in my upcoming Heavy Docuseries, which will be released on Valentine's Day next year in 2024. He has a new book out, it's called How to Thrive in the 21st Century, and it's all about nutrition and how to optimize your nutrition for detoxification.

We're going to be talking about that, we're going to be talking about vitamin C, we'll be talking about different nutrients like magnesium, the top five detox foods that you eat every day, and why you need to take choline to help improve magnesium. We'll talk about how tripling your magnesium intake can improve detox, brain, heart, digestion, and metabolism, and we also talk about how heavy metals in the body cause free radicals, which reduce your antioxidant defenses, which ages you, and this slows down your metabolism so that you gain weight more easily. There's so much in this podcast, I really can't get into it all, but that'll give you just a few highlights.

I know you guys watching the show are concerned about heavy metal detoxification, and your heavy metal load, and are looking to detox, so I created a quiz that you can find at heavymetalsquiz.com. Only takes a couple of minutes and after taking that quiz, you'll get your results on your relative levels of toxins in your body, whether you have high levels, medium, or low levels based on some lifestyle questions. Go take that quiz, takes just a couple of seconds, then you get a free video series afterward, after your results, and that will answer all of your frequently asked questions about how to detox, how long it takes, what

kind of testing you should do, et cetera, so that you can get started today on your detox journey.

Our guest today, Dr. Russell Jaffe, he's an MD, a PhD, and an ACCN fellow at Health College's Collegium and he is the founder and chairman of PERQUE Integrative Health. It's perque.com and this is a company that offers the world's scientifically proven integrative health solutions to speed the transition from sick care to healthful caring. Dr. Jaffe is also the founder and chairman of Biotherapeutics and ELISA/ACT Biotechnologies, which does food sensitivities testing and heavy metal sensitivities testing. Dr. Jaffe has more than 40 years of experience contributing to molecular biology and clinical diagnostics, and 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.

He received his BS, MD, and PhD from Boston University School of Medicine, 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 think tank. Dr. Jaffe is board-certified in clinical pathology and in chemical pathology, and he's the recipient of the Merck. Sharp and Dhom Excellence and Research Award, the JD Lane Award, and he was honored as an international scientist in 2003 by the IBC Oxford England UK for his lifetime contributions to clinical medicine, biochemistry, immunology methodology, and integrative health policy. He's widely published and sought to explain complex subjects to any audience. You can learn more about Dr. Jaffe and his work at drrusselljaffe.com and learn more about his supplement line at perque.com and his food sensitivities testing at elisaact.com.

Today I have Dr. Russell Jaffe with me. Thanks so much for joining us.

Dr. Russel Jaffe: Thanks for having me.

Dr. Wendy Myers: Yes. Why don't you tell us a little bit about yourself and how you got so interested in heavy metals and heavy metal detoxification and the importance of that for our health?

Dr. Russel Jaffe: Well, it goes back to my childhood actually, but the point that might be of more interest to our listeners, I did internal medicine training at Boston University Medical Center. I helped define how collagen and elastin connective tissue cross-links form and what inhibits them, so I've been involved with fascia and connective tissue for half a century. I then matriculated to the National Institutes of Health after my internal medicine training and did a second training in laboratory medicine clinical pathology where I'm doubly board-certified. Since the early 1980s, I have been speeding the transition from sick care to healthcare in policy practice and research through the Health Studies Collegium Foundation, through ELISA/ACT Biotechnologies, which provides cell culture,

immunology responses, and PERQUE Integrative Health, which provides supplements and guidance about how to more safely and effectively use what you need and let the rest slide.

I've been at this, depending on how you count it, 40 or 50 years. I will also put in a footnote that while I am in my mid-70s chronologically, I'm reminded of that every time I look at my birth certificate, I am functioning as a 35 to 40-year-old adult and I want to stay that way for another 30, 40, 50 years. I would like to be dancing with my friends when I'm 120. The good news is that if you follow physiology before pharmacology, if you follow nature, nurture, and wholeness, if you follow nature's pharmacy and nature's alkaline way, you can most likely gain within a few months of effort, years, and decades of quality life. It's a bulletin to my colleagues as well as to consumers because the answer is not a pill or a procedure. The answer is to change what you eat, drink, think, and do. It's all for that lifestyle, which we now call epigenetics, is coming to the fore and we've been pioneering epigenetic results for decades.

Yes, we have spent 25 plus billion dollars on the human genome project and I will tell you that Eric Lander, who did sequence a genome before even NIH did as head of the Broad Institute and then before that the Whitehead Institute, he says 92% of your health is lifestyle, 8% of your health is transgenerational, genomics have less harm, are mitigated by your lifestyle. If you have enough antioxidants and buffering minerals, if you have enough cofactors and have them in the natural safer form, you can pay for these snips, snaps, and DNA RNA tests. But what I want to know is the quality of your lifestyle.

Do you eat modestly and moderately low on the food chain but yummy? Do you stay hydrated? Do you spend time relaxing or in mindfulness practice? Do you stretch? You might exercise, but do you stretch before and after exercise? Do you stretch before you get into bed at night and in the morning before you get out of bed? Your restorative sleep, your productivity, and your ability to have stable and happy moods are all rolled up into this lifestyle epigenetics. I'm happy to unpack that. I'm happy to take that in any direction that you want, but there is good news and there is a hazard in the 21st century that abounds. So we have to be proactive.

Dr. Wendy Myers: Yes. You wrote a book about this. Can you talk about that a little bit?

Dr. Russel Jaffe: I did. Yes. It took me half a century to write a book called How to Thrive. Not just survive, but How to Thrive in the 21st Century. That has been received very well. It explains that if you're willing to devote a few minutes several times a day to self-care, you can undo most of the harm, then you can reduce by 80% the toxins you bring into your home by making wiser choices and the remaining 20%, your liver, spleen, and kidneys can detoxify. If you sweat now and then that helps detoxify. You might want to use low-temperature saunas with green dichromatic lights or abdominal breathing. These are all included in our lifestyle recommendations.

It does take a few minutes. I think investing in yourself is worth the effort and I feel and function so much better, other people tell me they feel and function so much better when they follow this proactive approach that I would say now I am so rewarded for following this approach that if I get into a stressful situation or into a sedentary situation or into a less than positive situation, it's so uncomfortable to be out of ease that I come back to what I preach and practice.

Now, preaching is easy, practice is hard. What you do matters, what helps inform what you do. But of course, are you important enough to invest in yourself? I think you are, but I also think you're sweet enough as you are and you don't need to add sugar or artificial sweeteners. I think that ultra-processed foods should be banished. I think that whole foods should be brought in abundance and eating low on the food chain gives you the chance to have better nutrition and less contamination. So it's up to us.

Dr. Wendy Myers: Yes. You're an expert in heavy metals and environmental toxins. What role are heavy metals playing in the obesity epidemic also paints a picture of how people are becoming so toxic these days?

Dr. Russel Jaffe: Yes, heavy metals, lead, mercury, arsenic, nickel, and cadmium to start with are more prevalent today than they used to be. In fact, a hundred tons of mercury and other toxic metals get lifted up in Africa in tiny sand grains and carried across the ocean to be deposited from Newfoundland to the Caribbean. If you're on the West Coast and you think you got away with this, we get another hundred tons from China because of coal-fired power plants and other techniques. We are being exposed to more heavy metals. The consequences are everything from diabetes and weight issues to arthritis and joint issues, sarcopenia, loss of muscle, osteoporosis, and osteopenia, loss of bone.

Toxic metals are really well-named. You don't need them but your birthright is to get exposed to 20 micrograms on the average day and the first two grams of nature's ascorbate that you take helps remove from the blood these toxic metals and it acts as a chelator. It complexes around these heavy metals and safely removes them in urine, stool, and sweat. We can save our lives by reducing exposure and then more importantly, what we do get exposed to, we should be able to mitigate.

Dr. Wendy Myers: Then that's vitamin C that you're talking about?

Dr. Russel Jaffe: Yes. Well, I'm specifically talking about nature's ascorbate in contrast to commercial vitamin C or ascorbate. Nature's ascorbate is 100% L ascorbate fully buffered and fully reduced. It's not acidic. It has calcium, magnesium, potassium, and zinc-balanced minerals in it and most importantly, if you use the C Cleanse to determine on a weekly basis how much ascorbate you need, you have the most personalized and scientific way of adjusting your ascorbate intake based on the stress and toxins you're being exposed to. But I want to say again that 100%

L ascorbate requires a nitrogen blanket in production. Most vitamin C ascorbate is produced in the air. It's cheaper, but the air has oxygen in it and oxygen oxidizes and damages the ascorbate. Most of what you buy in the store, even the health food store and certainly in the supermarket, is a mixture of ascorbate but also Dehydroascorbate and Diketogulonic acid.

Now I'm becoming a biochemist, but I am a biochemist. Diketogulonic acid is an excretory product that would build up free radicals if it stayed in your body, so we've got to get rid of that. You're taking in something that you've got to get rid of immediately. Dehydroascorbate has to be reduced in the body, in the cells back to ascorbate to be effective. That uses up antioxidants that don't contribute to antioxidants. We have emphasized nature's form of nutrients including ascorbate. Then you get the right form to do the right job, which means accept and contribute electrons and I'm going to now quote Albert Szent-György, the man who first isolated ascorbate from Hungarian paprika. He said ascorbate is as important in biology as light and oxygen.

Is it as important as breathing? Yes. Your cells breathe when they receive nature's ascorbate. The redox potential, the electrochemical potential of every cell in your body is set by a score of eight and only ascorbate and if you take too little, then your redox becomes high and you are now vulnerable to parasites, viruses, pathogens, mood disorders, hormone disruption, neurochemical disorders. It turns out that toxic metals are insidious, and because they are so polymorphous and perverse, they're so harmful to the body that only a few specialists seem to understand them properly, and most doctors kind of ignore them.

When I was a young doctor at Boston City Hospital, the acceptable lead level in the blood was 50, then it went to 30, then it went to 20, then it went to 15. I believe it's now five. I recently saw an interview with a pediatrician from the Center for Disease Control and the senator asked the pediatrician, "When we see lead in the blood, what does it mean?" The pediatrician said, "It's too late when we see the lead in the blood." It's already harming everything from the gut nervous system to the central nervous system, everything from digestion to cardiovascular health, moods, and obesity. Many, many people think they have a problem with their weight when they have a problem with the toxins that are causing their metabolism to be impaired.

This is another reason why in the 21st century, we really have to take toxic metals more seriously and we have to use nature's way of detoxifying starting with ascorbate, but then remember that magnesium and choline citrate, enhanced uptake magnesium with choline citrate, triples the uptake of the magnesium. If magnesium is adequate then the ion channel in the intestine excludes toxic metals. If magnesium is low, the ion channel opens up to take any divalent cation including these toxic metals. Then in addition to ascorbate and magnesium choline citrate, we want to recognize the sources. If you eat any

ultra-processed foods, in fact, if you eat anything that comes from a plastic bag or a package, I would probably skip it.

At my R&D center where I live, we have about a half-acre garden. Right now, I'm pretty much eating from the garden. My dinner last night was lettuce, sage, blueberries, and sweet peas. That's not a filet mignon, but it gave me quality, digestion, restorative sleep, and adequate weight. I think these lifestyle issues are lifestyle opportunities. If people understand how to reduce their exposure, if people understand how to increase the good antioxidants, buffering minerals, and co-factors, and I will put in my point of view, which is even if you're eating the perfect diet and you don't have stress in your life, and I would be surprised if that was true, but even if you have no stress and you're living on the top of the mountain in a monastery and eating perfect food, in the 21st century, and this was proved by Royal Dutch Shell, then by the World Health Organization, the Center for Disease Control, you will be exposed to harm.

The question is how much. If you're going to be exposed to harm, are you doing the things that are anti-toxic, that are physiology? These are the antioxidants like ascorbate, these are the magnesium choline citrates and now I get to Thomas Jefferson's recommendation. President Thomas Jefferson said garlic, ginger, onions, brassica sprouts, and eggs should be staples in your diet, not condiments. He also recommended not eating too much high-protein food. It turns out the magic answer is that humans need 60 to 80 grams of protein, not more. If you've taken more protein, it's not good. If you've taken more protein, it will contribute to metabolic acidosis and metabolic acidosis makes the toxic metals worse. All of the ills of modern society are worse if you have low magnesium in the cell and therefore, metabolic acidosis.

My friend Julian Seifer from Massachusetts General Hospital writes in the New England Journal of Medicine and Harrison's Textbook of Medicine about how important and overlooked are metabolic acidosis. High-sulfur foods, this is the GGOBE, garlic, ginger, onions, brassica sprouts, and eggs, also help remove harmful substances including toxic metals from your body. What you put in your mouth can either add or subtract from the heavy metal burden.

Dr. Wendy Myers: Can you talk about the phenomenon of mineralizing your body that will help to push out and displace heavy metals and solve a lot of our health issues and why that's one of the most natural ways to detox?

Dr. Russel Jaffe: Yes, and I'll start with Americans consuming several billion dollars a year of calcium channel blockers. These are medications that affect the ion channel, and there is a relative excess of calcium, but there's an absolute deficiency of magnesium. You would think that we would give more magnesium to solve the problem. The problem is unless you use the choline citrate to enhance the uptake, only one-third of the magnesium you take gets in through the ion channel and if you take enough magnesium, as much as I would recommend, you will run to the bathroom with diarrhea. This is widely known.

In our study, we did an outcome clinical trial, we not only saw a reduction in blood pressure and improvement in blood serum magnesium, but we also saw the most significant improvement in cardiovascular function, and yes, people did tend to lose weight, although we weren't doing a weight reduction program, and we now can confirm that tripling the uptake of magnesium reduces the toxic burden and improves everything from your blood vessels, brain and heart to your digestion and metabolism.

Dr. Wendy Myers: I don't think people realize how important magnesium is in detoxification and the entire functioning of your whole body, and most people are deficient as well, or they're taking it, not taking enough. Like, "Oh, there's a magnesium of my multivitamin" and it's not nearly enough to what people need.

Dr. Russel Jaffe: Mildred Seelig, one of my mentors, Mildred Seelig, who was the president of the American Nutrition Society for many years, I asked her why in addition to doing such profound research on magnesium, she was running that society and she said that people would not forget about magnesium. Magnesium has been very important and deficient yet it's been hard to get magnesium in until we found how to use choline citrate with the magnesium to triple the uptake, and then the magic of magnesium is available to you today.

Dr. Wendy Myers: Can you talk about some mechanisms by which heavy metals and environmental toxins are contributing to our obesity epidemic and also touch on how it's not people's fault typically that they're overweight? Yes, diet and lifestyle play a role, and yes, some people overeat, but more often than not my patients and many colleagues' patients, they're obese, but they're eating a normal diet, they're exercising, they're checking all the boxes and doing everything right, and they just can't lose weight. What is going on there and why are doctors blaming the patients for not complying with their directives?

Dr. Russel Jaffe: Well, that's a very big question, and I'm going to try and give a short answer and then I can unpack it if you want. What do heavy metals do when they're inside the body to cellular metabolism? They impair it, and they cause free radical antioxidant deficiencies, free radical-induced antioxidant deficiencies. Your metabolism goes down when the toxins build up. If your metabolism goes down, you can starve yourself and you won't lose weight. Dr. Phil Felix, someone from whom I learned a lot many years ago, took morbidly obese, these were people who weighed between 300 and 500 pounds, put them in the hospital, monitored their intake, put them on a low-calorie diet, and they lost some weight, but then they plateaued and they didn't lose weight until they got the bad stuff out and put the good stuff in.

What's the bad stuff? Immunotoxins. Toxic metals can be immunoreactive or just toxic in their own right. You should measure both. The way to measure minerals inside the cell is the D-penicillamine protocol. That tells you what the balance of nutritional essential minerals is and also what the toxic mineral

burden is, and then you can use biological detoxification to get the bad stuff out if it's present, and it most likely will be, especially in people with weight issues. I want to reinforce what you said. Most doctors have body language and a look that blames the victim when the patient doesn't respond. The patient may look back and say, "But I did what you asked me to do and I didn't get the result." Then more or less the health professional says, "Well, you didn't really do what I said."

Well, maybe in the 19th century, this would've worked and into part of the 20th century, this would have worked. But in our toxic milieu, in our stressful environment today with immunotoxins and direct toxins, that explains why our metabolism is so sluggish, why we have difficulty losing weight, and why we find the weight we have lost too easily. Now, this is very personal for me because my mother weighed between 200 and 400 pounds and she oscillated, she did yo-yo dieting, and she could get down to a lean 200. My mother was very strong, both of will and of muscle, and she was very confident that the rest of the world was a problem, but she did not have any problems. I lived with someone when she got married. was only five feet four. When my mother got married, she probably weighed 100 pounds dripping wet. I never knew that person because, by the time I was aware of my parents, my mother had traumas, terrible, terrible traumas from which she never recovered.

Now, that's rare. It turns out most people don't overeat. They eat the wrong things. They eat ultra-processed foods, or they eat convenience foods or they eat out in restaurants too much because, and I'm sad to say this both for me and for you, but today it is very hard to find a restaurant where you can get healthy food. When I go to restaurants today, especially in the evening, I will eat one or two vegetables, these are side dishes, and that's it. I eat most of my calories at midday. Why? Because my digestion and metabolism and restorative sleep and mood and productivity and concentration and joy of living are all enhanced that way. I just say I'm on a diet and I eat light at night.

I don't get into any drama. I don't think that's the time to try to convince people to change their lifestyle. But if you read our *How to Thrive in the 21st Century*, you'll be guided to spend a few minutes several times a day so that you too can thrive, not just survive. 80% of people are in survival mode. I want to be a minority and an exception that shows the possible thriving in the 21st century and I want to show you how you can confirm, replicate, and get all the benefits I'm talking about from our writings, from our online resources, from our videos on YouTube. I don't see private patients. I come up with solutions that private physicians and health coaches use to solve 21st-century problems at their cause.

Dr. Wendy Myers:

That's exactly why I wanted to have you on, to impart just a wealth of knowledge about heavy metals and toxins. Let's talk about diabetes. This is an epidemic sweeping the world. Just like your mother, I watched my father, heavy his whole life and then eventually the cholesterol-lowering medications and then diabetes and then just taking enough insulin to kill a horse, really an

incredible expense at that, and it didn't work, and he eventually got cancer and then passed away. But what is going on? How are heavy metals and toxins contributing to diabetes and why is simply doing insulin replacement not going to work?

Dr. Russel Jaffe:

Well, symptom-reactive care, like the use of insulin to manage blood sugar, turns out to not work very much at all. This is not just about insulin. This is about treating symptoms versus getting to the cause. The cause is stress. Look at the cortisol DHEA that causes an imbalance in hormones including cortisol steel. Look at male and female hormones in saliva or in plasma. Give people ways of practicing a relaxation response with abdominal breathing and green dichromatic lights and their improvement in restorative sleep, in function, and in weight especially will be dramatic. Now, I have a bulletin about diabetes. It doesn't matter what your blood sugar is, it doesn't matter what your insulin is, your hemoglobin A1C matters a lot. While medications are designed today to reduce your hemoglobin A1C to less than seven, a healthy hemoglobin A1C is five, and I want yours to be like mine.

Since I lost weight, which was five or six years ago, maybe more, I lost 65 pounds and I lost my prediabetes and I lost my insulin resistance and I lost my disposition to just feeling bad. I've lost the weight long enough that I'm not going to find it again. I do want you to know what your hemoglobin A1C is. That's one of eight predictive biomarkers that covers all of epigenetics. I do want you to know what your high-sensitivity C-reactive protein is. That's a measure of inflammation and autoimmunity, and I want that to be 0.5. I'd like you to have a healthy immune response by lymphocyte response assay, and LRA by ELISA/ACT. I'd like you to have a healthy homocysteine level. I'd like you to have a healthy vitamin D level.

Your dad highly likely was typical of most Americans, which means their vitamin D level was low. In fact, there was an article in the New York Times by a very famous science writer that said, "Well, it's normal, statistically normal, average, to be low in vitamin D. Therefore, it's okay to be low. Don't measure, don't supplement. Take one a day." I know this science journalist. I am astounded that she did not know the facts of that piece of that blog, that article. Your vitamin D should be 50 to 80. You need a little vitamin K too, but concentrate on your vitamin D and the other things we'll follow. Your vitamin D should be 50 to 80. But Michael Holick, Dr. Sunshine, says that 40 or more million Americans don't take up vitamin D from their gut because of maldigestion, dysbiosis, and digestive problems. You need drops under the tongue before swallowing to get yourself into the 50 to 80 range. For me, that means 10 drops of 500 units each, which is 5,000 units, twice a day, and that keeps me at about 60.

I don't know exactly how many drops you need, but the good news about vitamin D is it changes rapidly. Even in a month, you can recheck your vitamin D. I've had the privilege of talking to most of the vitamin D experts who also turn out to be diabetologists because there's such an intimate connection between

nutrients, especially vitamin D, and health. Vitamin D, then Omega supplementation, but your Omega should be distilled under nitrogen. It should have nothing bad in it, it should be free of any fish antigen or shellfish antigen, and it should be distilled under nitrogen to protect it from air oxidation. If you do that and the best of the best companies do that, then you put it in a soft gel and you would take three to six grams a day. I take eight grams a day now. Again, you can determine through the Omega-3 index test, whether you're taking in enough and enough of a balance of Omega-3 to Omega-6.

We do need both. Omega-6 is not bad, it's just that we have 30 to 50 times more Omega-6 than Omega-3, according to the NHANES National Nutrition Survey. My colleague Artemis Dimopoulos has a brilliant book with thousands of references about how we need today to deal with this pre-diabetes to the diabetes epidemic. The conventional treatment is symptom-reactive and rarely works, and the consequences are enormous. The consequences are cardiovascular and heart attacks and strokes, maldigestion and dysbiosis, mood disorders and sleep disorders. It's interesting how all things are connected, yet we can see through the complexity to an elegant simplicity, an elegant frugality of means. That's what William Ellerie Chairman said. I try to live that way. I enjoy wholeness, which includes whole foods and hydration. I include being active but stretching. I include practicing some relaxation response or meditation or mindfulness practice because they each contribute to well-being and to reduction in diabetes risk.

If you look at what causes diabetes, toxins are number one, stress is number two, modern lifestyle is number three, and there's not much more after that. If you balance out those and take our advice on living well in the 21st century, lots of other benefits accrue. Diabetes kills, diabetes is a cost, and diabetes is a choice. Diabetes is a lifestyle choice. If you have pre-diabetes or diabetes, you probably are mis-eating. You are not bad or wrong. You probably don't know what are the good things to eat and what turns out to be an illusion of quick, convenient, and toxic.

Dr. Wendy Myers: Can you give us some recommendations on how to naturally reverse diabetes? We know detoxification is important, but do you have any other recommendations for supplements or anything to improve insulin resistance?

Dr. Russel Jaffe: Yes, and by the way, insulin resistance is mostly because toxic metals get to the insulin, altering the shape of the insulin and causing non-insulin antibodies, which is another level of the problem with diabetes. But I start with the fact that you're sweet enough as you are, you don't need to add sugar to anything. That includes artificial sweeteners, which are increasingly found to be at least as bad as sugar, maybe worse. Number one, don't add sugar to anything. You get sweetness from berries, whole fruit, and proper food combining. You snack on seeds and nuts or whole fruit or berries. The way I handled the snacking issue was I didn't bring it into my home. At three o'clock in the morning, if I happen to

get up, I will eat whatever is the least healthy thing in the house. If the least healthy thing is peanuts or sesame seeds, that probably won't do much harm.

Now, I did have a physician who said she would go five miles to buy a Snickers at that time in the morning, and I said, "Well, we should talk." The answer to diabetes is eating whole foods that you do not have immune reactions to. You should measure your lymphocyte response and assay cell culture to know if you have antibodies, immune complexes or T cells that are reacting because it's called the immune defense and repair system. It has to do defense first, but it also has to do repair. Now, repair is mostly done when you're getting restorative sleep at night. During the day, your immune system may be on surveillance defending you. That's all okay. But if defense work builds up as it often does because of toxins and environmental chemicals and processed foods and so forth, then you have to break that cycle by introducing whole foods for which you do not have immune reactions.

You might have reactions to lettuce or parsnips. You might have a reaction to an unusual item. That's why we look so carefully and in such personal detail with less than 3% variance on thousands of blind split samples. We are very reproducible and we have found ourselves to be very outcome effective. In fact, we have the most successful outcome study in type one diabetes and the most successful outcome study in type two diabetes. In essence, people started at the best standard of care according to the American Diabetes Association. They were divided in half, a control group and an experimental group. The experimental group we worked with for six months, and reduced their hemoglobin A1C by a full milligram percent. What that means is we added 20 or more years of quality life at a low cost to their future. We do know the answer to diabetes, and it is lifestyle management perhaps the way we do it.

Dr. Wendy Myers: Yes, and that's just amazing. You've done so many different types of studies. You're the founder of ELISA. You're the founder, correct?

Dr. Russel Jaffe: Yes. I'm the founder of ELISA/ACT Biotechnologies, which provides the LRA. In addition to the cell culture of lymphocyte response assay, we provide a guide and an interpretation for free. This is my interpretation of what the results of the test mean because this is such advanced technology that in the beginning in 1983, '84 when we started, my colleagues were saying to me, "Wow, we're getting all this useful information. What does it mean?" We include an interpretation of hidden places where you might find this chemical substance or food. Then we provide guidance for how to build your way back up, and how to climb out of the hole metaphorically that you're in, which includes better insulin, energy metabolism, and regulation.

Dr. Wendy Myers: Because when you eat food you're sensitive to, it causes inflammation which can increase insulin resistance and just all this cascade of symptoms that people don't like, whether they have food reactions and food sensitivity reactions.

Dr. Russel Jaffe:

That's exactly true, and that's why we provided this cell culture because it gives us information about T-cells and immune complexes and meaningful as opposed to random information about antibodies so that we then can provide a livable plan to reconstruct, rehabilitate, repair, and among the studies we have done, we have shown that if you follow our guidance, you build new bone. Your osteoporosis and osteopenia recede or go away and you build a new bone. Not reducing the loss of bone, building new bone, which many people will tell you you can't do, and reversing cardiovascular diseases which happen in association with diabetes all too often.

You want to have happy, healthy platelets that are nourished by ascorbate and polyphenols, magnesium and choline citrate, Omega-3 fats, et cetera because if your platelets get sticky, you are at risk of a heart attack or stroke or worse. My research at the National Institutes of Health was on cardiovascular disease, and we proved then, and since it's been reconfirmed and proven, your attitude, your activity, your hydration, and your diet largely determine your future. If you tell me that your family has diabetes that runs in it or cardiovascular disease runs in it, stroke, cancer, digestive disorders, or mood disorders, I will tell you that that's your history, but that doesn't have to be your future. If you follow this physiology before pharmacology, nature, nurture, and wholeness guidance guidelines, nature's alkaline way, and nature's pharmacy, you too can live well and long and function diabetes-free, complications of diabetes free for your whole life.

In fact, Paul Dudley White was President Dwight Eisenhower's physician, he helped invent the electrocardiogram machine, and he was a mass general physician for many years. Paul Dudley White taught me that in the 1930s heart attacks were so rare because people were active, well hydrated and ate whole foods. Heart attacks were so rare that if they had one heart attack in a year at Mass General, they wrote it up as an interesting case. 30 years later, 1960s and forward, cardiovascular disease kills more people globally and locally than anything else when you look at it fully.

Yes, between cardiovascular disease and cancer risk, which are both related to your metabolism detoxification and health, the best estimate that I can offer is that 80 to 90% of your total risk and nearly 100% of your risk from diabetes are manageable in the way that we have suggested, including the outcome studies and the many, many case reports. I came as a skeptic because I thought that somebody in healthcare or in medicine who was my senior would tell me what to do to manage lifestyle conditions. This is really still largely unfortunate and true. Most doctors are too sedentary. Most doctors eat the food that's in their institution and the food in the hospital. The food in the institution is probably, from my point of view, not edible.

I would rather go hungry briefly than consume something quick or convenient that is not good for me. If you feel really well and you eat something, consume something or get exposed to something that's toxic for you, your body will say,

"What are you doing?" At least my body says, "What are you doing?" I've learned to say thank you, no, to most of the harm and to consume and be active enough mentally and physically that it looks as if, if you take the results of my predictive biomarker epigenetic tests and project them through a lifespan, I'm scheduled to live between 110 and 120. Now wait a few years, that's 30, or 40 years forward, but I am reasonably confident that I can be dancing at that age. My main teacher lived to 110 and was Cambodian and a Buddhist, but the most remarkable guy who taught me a lot of what I have translated into the Western metaphor was inspired by his guidance.

We had 30 years together between the ages of 80 and 110. I come in peace. I want people to know that their choices matter, that it's not all over, but the shouting. In fact, it's very often reversible if you're willing to invest a small amount of time and effort into eating, drinking, thinking, and doing what you should.

Dr. Wendy Myers: What is your opinion on reversing diabetes? I mean, we know that when you're first diagnosed with high blood sugar or insulin resistance or pre-diabetes, it's easily reversible at that time. What do you feel about perhaps the metabolic damage from the high blood sugar or reversing that diagnosis, say, when someone's had diabetes for five or 10 or more years?

Dr. Russell Jaffe: Well, now we should talk about HSCRIP and what you correctly referred to as inflammation, but inflammation is a repair deficit, and you will correct the repair deficit as quickly as your body repairs it. Your hemoglobin A1C and HSCRIP will come down. Your homocysteine risk factor will come down. You will have fewer LRA immune reactors. Your vitamin D level will be healthier. Your Omega-3 index will be healthier. I would say in the last 30 years since we've done our outcome studies in diabetes that the individual case responses have been more than 90% of people who lose, that is no longer have diabetes. It really is what I said, diabetes kills and costs, but diabetes is a lifestyle choice. If you've had it for a long time, you may need a little more time to reverse, to repair, the metabolic and physical connective tissue, collagen elastin, and blood vessel impairments that you've accumulated.

But the good news is that if you follow this How to Thrive in the 21st Century approach, you can lose your diabetes, you can banish diabetes. I know that's a strong statement, but I've been at it for 30-plus years, guiding young people, old people, middle-aged people, all sorts of people, all sorts of cultures. By the way, you tell me the cuisine you prefer, and I'll tell you how to eat alkaline in that cuisine. In fact, I've made a study of all the long-life populations I could study and interestingly, whatever the cuisine is, people eat lots of fruits and vegetables, lots of seeds and nuts, not too much meat and high protein foods and they enjoy life. They laugh a lot, they move and dance or garden a lot, and they take time to relax and enjoy.

It's called the Greek Mediterranean diet or the traditional Japanese diet. But it turns out there are lots of such cuisines. If you like Thai food, I can show you how to eat healthy Thai. If you like Indian food, my senior colleague, one of my senior colleagues. She's from India and she's been vegetarian for generations, and they're bright-eyed and bushy-tailed people, but they're vegetarian and therefore they have lots of seasonings and herbs, and now I'll tell you a secret. Many herbs and seasonings are contaminated with toxins, heavy metals, and worse. If you look today at arsenic contamination, look at the rice. I no longer eat grains and rice is a grain, but wild rice turns out to be grass. We have organic or biodynamically sourced grasses like quinoa and millet. Our level of information is so distorted by marketing and other forces that it's even hard for people to know what's a grain and what's a grass.

I'll tell you the answer because the answer is if you have sticky components called gluten, which are in any grain, oats, rice, all of them if you can make bread out of it, it's got gluten. Maybe a different gluten. I see packages that say gluten-free, and they have oats or rice. Now I know that's illegal fiction. I assume that that label got looked at by somebody and passed by somebody and approved by somebody and all of that, but I know that grasses are easy to digest, from wild rice to quinoa to millet and others, and I want you to have the pleasure of a wide variety of foods in a wide variety of ways. If you want to take 80% of your heart and cancer risk and 95% of your diabetes risk, you'll follow our alkaline way.

You'll eat whole foods. You'll bring as little plastic into your home as possible. You'll store things in glass, ceramics, or metal. Come to my kitchen, easy to cook, and yummy, but I go to great lengths to get seasonings and herbs that are uncontaminated. It's hard today. But if you talk to experts in any field, including herb experts, they are horrified and mortified at what is happening in the commercial marketplace. I don't believe headlines. I want to know the details. I want to know the impact on digestion and metabolism. Yes, I think most people need help with their stomach, their small intestine, and their large intestine digestion. But we can help correct that. I think most people need antioxidants from ascorbate to others, but ascorbate is the maternal antioxidant that sacrifices itself so that all others can be regenerated, which is why we need so much more ascorbate today than before. We're marinating in a sea of toxins and stress. I don't think that's a surprise to people, but we are. We need to mitigate it with what we eat and drink, think, and do.

Dr. Wendy Myers:

Well, Dr. Jaffe, thank you so much for joining us. I Just love this interview. Why don't you tell us where we can learn more about your work and your PERQUE line of supplements and do some ELISA/ACT testing if people are concerned about their immunological status and want to check out their food and mental sensitivities?

Dr. Russel Jaffe:

Thank you. I would suggest you start with a website called drrusselljaffe.com, but also consider if you're a health professional looking at ELISA/ACT, www.elisaact.com. That's the lab. Yes, thank you for mentioning that. In 1987, I started a supplement company called PERQUE because I needed full-disclosure labels and I needed high bioavailability products. We have pioneered, in many cases, those, functionally superior, more bioavailable, no binders, fillers, excipients, flowing agents, and bulking agents, which means we have much more that we can pack active and bioavailable ingredients into the soft gel or into the capsule or the tabsule. We actually developed a novel delivery system called a tabsule, which has all the virtues of tablets without the disadvantages.

We have a super multivitamin called Lifeguard to guard your life. Lifeguard includes 40 ingredients in meaningful amounts because you need all 40. It's got a B complex, it's got a full mineral complex. It's got multiple co-factors. It's got tocotrienols and tocopherols. Always nature's form, never the synthetic work alike because I don't think the work alike works. Then we also have a consumer portal called betterlabtestsnow.com. These are for people who want to be their own doctors some of the time, and we want them to understand the meaning of results as well as the action plan that accompanies them. Then we have the foundation called the Health Studies Collegium, healthstudiescollegium.org, O-R-G. healthstudiescollegium.org researches, documents, and publishes. Our *How to Thrive in the 21st Century* was published by HSC Press.

Another book that we have brought out just very recently was co-authored by Susan Brown, my colleague. This is about healthy bones, joints, and muscles for life. We'll do two books a year to help guide people in this approach and I am actually humbled and more than thrilled at the feedback and testimonials that we're getting from people who are just deciding to live and practice life promotion, not disease treatment.

Dr. Wendy Myers:

Beautiful. I love that so much, that you're working with people who have decided to live. How powerful is that? We all make that choice. I think we all reach a point in our lives when we turn a corner or are in enough pain that we start making a different choice. That's what this series is all about, is helping to open people's eyes to a different choice, why what they're doing right now isn't really working, and why heavy metal in toxins and detoxification is such an essential part of making a different choice to choose health because you deserve to feel good. Everyone, I'm Dr. Wendy Myers. Thanks so much for tuning in again to another episode, and I'll see you guys in the next interview.