## Doctor Talks Introduction

Welcome to Doctor Talks, the podcast where every episode leads to a healthier you. Join us as we navigate the world of optimal health, uncovering groundbreaking strategies to conquer chronic disease.

In each episode, we'll bring you the latest insights from leading health experts, medical innovators, and wellness warriors. If you're seeking to transform your health journey, or if you're looking for answers to burning questions, you've come to the right place.

Get ready to unlock the secrets of lifelong health and vitality. This is Doctor Talks, real talk from real doctors on the issues that matter to you most.

All right, everybody. Good day to you. Please stand. Sit. Move. But do not leave your screen. Whatever you're watching, you're going to have one of the most fascinating and provocative topics and interviews we've done.

And if you don't know Doctor Russell Jaffe, you're going to love him at the end of this segment and you're going to want to follow him. You're going to want to read his books and maybe explore his vitamin company.

## Introducing Dr. Russell Jaffe

And I say that unabashedly because I'm one of the biggest fans, bachelors, MD, PhD, Boston University, advanced training at National Institutes of Health, advanced training in anatomic pathology plus an enormous amount of eastern medicine, formal training, acupuncture, mind body, a very unusual combination of solid academic Western medicine and very ancient and, healing eastern medicine that culminated in writing many papers, many books, a think tank, the health collegium, and a wonderful integrative vitamin company called Burke Berkuah, which I'm a big fan of and have been through, the certification process, which I'd encourage anybody in the health field to explore.

It was just fascinating. If you want to know about acid base load and many other topics, Doctor Jaffe may be the world expert on, so welcome, welcome.

We're going to blow apart everybody's thinking on heart disease today. Right? I'm going to try. Yeah, but it isn't possible in academic way. I mean I said to somebody I interviewed, you can't talk about reversing heart disease unless number one you can measure it.

And number two, you understand why it develops. And then you can apply strategies to halt or reverse what's driving. And then you're going to we had some great imaging talks because that's how we can actually measure.

And now actually document reversal in this current decade more accurately than ever. But you're going to tell us to rethink, the very origin of cardiovascular disease, predominantly atherosclerosis.

So take it away. Talk about repair deficits, oxidative damage, metabolic acidosis to a general public audience. Well, thanks for the opportunity. Yes, I am cross trained.

I was curious and skeptical to feel to find, to explore, to research, to document that we are looking far downstream. We look through the lens of the pathologist.

Now, I'm a clinical pathologist, not an anatomic pathologist, but I'm a clinical chemist pathologist, doubly board certified. But what I discovered, along with the cross training, was that causes are very different than symptomatic consequences.

And if you treat the symptoms, you will never, ever get to the cause. Now, what's the cause? The cause is too

much bad and not enough good. What does that mean?

The cause of atherosclerosis, coronary artery disease, all cardiovascular diseases stem from sugar imbalance. You probably know about that from hemoglobin A1, C.

But then inflammation which is really repair deficit.

## Rethinking Heart Disease Causes

If you look at inflammation from the lens of the pathologist you see five different harms and hopelessness. When you see the opportunity to repair deficit and remove the consequences, the symptoms go away.

When the connective tissue, which means college and any lasting are repaired and the rest of you is repaired in that process because it's all of us, mind and body.

Yes, for full disclosure, I'm a man of science and a man of spirit, and I find them complementary, not competitive. So I think everybody listening, you know, is just fascinated by what you just said.

And is also probably familiar, at least broadly, with the term inflammation. And the middle word is flame. The immunologic system, maybe specifically that which is geared to react to cardiovascular pathology is overactive, but because there is pathology going on.

But when you talk about repair deficit, are you talking about, you know, trace mineral deficiencies, nutritional deficiencies, genetic predisposition to have weak collagen, which is the structure of arteries, 92% of lifetime health is epigenetic lifestyle.

8% is transgenerational. Influences and genetics. So I'm going to talk mostly about epigenetic lifestyle, because if you get that right, it corrects most of the genetic problems as well.

So to be specific we start with four self-assess months which define whether you are in balance or out of balance. And then we move on to eight. Just eight tests cover all of lifestyle epigenetics, all of the 92%.

You can do something about. And we use those eight tests to either we interpret those eight tests based on the best outcome goal value. I don't even look at this statistical range from the lab because it confuses me.

But I want to know whether your hemoglobin A1 C is less than 5%, whether your HSA crp is less than 0.5, whether your homocysteine is less than six, whether your lymphocyte response assay, which my lab does a specializes in whether you're tolerant or intolerant to what you're eating because what you're eating might be eating you, then you need to know your vitamin D.

You need to know how much acid is coming out in the urine first in the morning after rest, you need to know what your omega three index is. And then there's an odd test or a urine test, an easy to do test called eight oxo guanine, which measures damage in your DNA.

And in answer to your question, it depends on how much antioxidant you need, how much minerals you need, how much anti nutrients you're taking, and you want to reduce the anti nutrients.

You want to increase the good protective nutrients. Ascorbate is the maternal antioxidant that chaperons and restores all other antioxidant. And so we've developed something.

Vitamin C comes in different versions. And you all oh no I'm only talking about nature's or sorbate. I'm only talking about nature's vitamin C. I'm only talking about fully buffered, fully reduced L ascorbate.

Most of what you get on the shelf, even in the health food store, is vitamin C. It is vitamin C, but it's damaged. It's damaged because it's made in air, not under a nitrogen blanket.

It's damaged because ascorbate requires a healthy low oxidation state.

## Four Self-Assessments for Health Balance

You can make tons of vitamin C that is damaged, and I don't recommend I'm only talking about nature's ascorbate, which means fully buffered, fully reduced L ascorbate as in not discard, not 50% D, which is the synthetic version of vitamin C, very cheap, but half of it doesn't get into your body and it's irritating to the digestive track.

So you must have nature's ascorbate. And I will talk extensively if you want, about nature's version of Antioch's intense and what does that mean? And minerals and what does that mean and cofactors and what are the essential cofactors and what does that mean.

Because this can be explained in simple language, the chemistry that's a bit complex. I'm not going to get into electron donors and electron recipients.

If you want to talk to me about that, I'm happy to talk about that on another occasion. Well, you know, again, we've already had a, a university hour of information in our first ten, 12 minutes.

I want to go a little deeper with you in your very well thought out eight predictive biomarkers of health and longevity. I will tell you, I have to my right on the wall of my office, your handout and those eight.

And I review them with almost every patient. And I tell them why we're getting advanced labs because these are predictive science based measures. But you said something about five minutes ago, first about I think you called it four pillars of, you know, pathophysiology of maybe all diseases or heart disease.

Can you just flesh out what that comment was? Because I don't think we heard it. Yeah. The headline is physiology before pharmacology. And I'm not opposed to good medicine.

I'm not opposed to prescription medicine when they're helpful and needed. But most of the time what we need is to induce repair, which means more antioxidants, more buffering minerals, more cofactors, and reducing the harmful bad anti nutrients that we're bathed in in the 21st century.

And that's why we wrote a book called How to Thrive, as opposed to Just survive 80 plus percent of people are surviving today. They're just getting by.

They don't really feel well. They don't get restore a new sleep. They're not really very pleasant to be around because they don't feel well. They get by day by day.

They're in survival mode. So when we want to get people out of survival mode and into thriving, we start with for self self-assessment, just for very simple, very inexpensive.

What is your digestive transit? How long does it take from the time you eat until you poop? How much ascorbate does it take to do a cleanse? But we call the sequence.

This is a global measurement of how much antioxidant you need to deal with the oxidative stress that you're under, that you may not be aware of. Then there are two more we want to know.

If you're well hydrated. You can decide whether you're well hydrated in two seconds if you know what you're doing. So these four self-assessments are very inexpensive.

They're very easy to do. They confirm for most people that they're out of equilibrium. They're out of balance. And what I want is to get them back into balance using physiology before pharmacology.

Okay, I'm already people are saying, where can I get that information? I know you don't have five hours with no no no no no no. So I want to tell people I'm looking I'm cheating.

I'm looking at your website perk p e r q u e.com.

## The Eight Predictive Biomarkers

And there's a heading called The Alkaline Way, which is a wonderful e-book you wrote. And then there's a section there called Self Tests. And what you just said, people can take the time and go through and actually do those four tests of their physiology, before pharmacology and find out their transit time, their hydration.

So I just wanted people to know, there's a lot to think about. And it's all nicely, laid out on your website. Of course, you've got it there to make it easy for people.

So we're trying to make it easy for people to make the transition from sick care to healthful caring. So let's let's go a little slower. For people listening, I want everybody take out a piece of paper.

But I assure you, if you go to perk p e r qe.com, these eight biomarkers are going to be there for you to learn about, and, study a little more, but let's go through those.

There are urine and blood tests that predict longevity and overall health. So I'm looking to my right. And I see hemoglobin A1CA average three month blood sugar glycation an easily available blood test.

What's the optimal level and how predictive is that for health and longevity. Hemoglobin A1, C hemoglobin a1 c should be less than 5%. If you keep it less than 5%, you will live 20 to 30 years longer at low cost because you will avoid diabetes.

It turns out that blood sugar and insulin are less reliable than hemoglobin A1. C there are rare cases where hemoglobin A1 C is not reliable because red cells are being destroyed too quickly.

And then you do fructose. I mean, but please go to perc or go to Doctor Russell jaffe.com to learn more. Right. And I will say anybody listening can ask their nurse practitioner or physician assistant gynecologist, family doc internist or endocrinologist or God forbid their cardiologist and say, can you please check my hemoglobin A1?

C I would say cardiologists. Cardiologists today know about hemoglobin A1, C but they're trying to get it to less than seven and I want it to be less than five.

Yeah. And interestingly we now have a number of drugs developed for diabetes. The lower the hemoglobin A1 C that are being repurposed to congestive heart failure and other, syndrome.

So we actually are accidentally lowering hemoglobin C more. And that's just how far aggressive it is helpful before. And that is helpful. But it is not as helpful as the physiologic restoration of sugar balance, which is what I recommend, which does even better.

So yes, we have a number of drugs that lower hemoglobin A1, C. But then they interfere with your digestion or B12 uptake or magnesium uptake. So they are two edged.

They help and they harm. And I want to help without harm. And I would say in my practice, where for at least a decade every patient has gotten the hemoglobin A1, C well under 10% have a human globin ANC under five.

So we got a lot of work to do to optimize them. We got a lot of work to do, and that's about right. 80 plus percent of people are out of balance. Occasionally you meet someone who is pretty healthy and they're in balance and they want to stay in balance, and they should probably the two most familiar of the eight predictive biomarkers, let's say vitamin D, everybody's heard.

I hope most people have had that check. What's your optimal level of vitamin D for health, longevity, functional age? We absolutely know the question and we know the answer.

Although it's controversial, 50 to 80. This is nanograms per deciliter 50 to 80 is the healthy range. The average American is low. There was an article in the New York Times that said recently, you shouldn't even test because everyone is low, therefore it's normal.

That means statistically average or normal to be low. So don't measure, don't know, don't care. I was very disappointed in that article. I wrote a response which is on our website and that was written by a very fine science writer.

I am very disappointed that she was so smoked now. Absolutely. Because what is statistically true, I used to teach statistics so that, you know, you can make it interesting if you make it relevant. But the word normal has a meaning in math that is different than in common parlance.

And I'll bet the readers of the New York Times took it to mean normal, as in healthy. Exactly. And I'm saying the healthy vitamin D range is 50 to 80.

We absolutely know that you don't want too much. You don't want too little. It's almost always the Goldilocks scenario. Just right is just right. Yeah.

And I will again offer from a whole lot of vitamin D blood levels in patients unless patients are supplementing even those that are in sunshine states, even some that have outside jobs, it's very rare to see 50 to 80 without supplementation.

Even if you're a lifeguard on Tel Aviv beach, you probably need supplements because many people Michael Holick, Doctor Sunshine says that over 40 or 50 million Americans don't absorb vitamin D from their gut, so they must take drops under the tongue to get it to the brain first, and then the body, and then you can correct into the 50 to 80 range.

How many drops do you need? Well, as much as you need to get you into the 50 to 80 range. And you can measure vitamin D as soon as a month, it shifts very quickly.

It's actually a neuroendocrine hormone. We call it a vitamin, but it's really a neuroendocrine hormone right. Let's move on to another one. I think most people will have familiarity with and hopefully know their blood level.

They high sensitivity CRP, C-reactive protein, optimal level for longevity. Everybody should strive for. 0.5 this is the work of Nader and Rafi, two guys from Harvard.

They showed that the average CRP is not sensitive enough at the low range to be meaningful, to guide care, but the high sensitivity CRP is and it should be less than 0.5.

Okay, easy test to ask your medical team to get for you. Then we maybe get one more that I would say would be maybe two more easy to get your homocysteine blood levels.

Simple blood test. Every lab does it. What are we shooting for in that situation? Well, Kilmer McCauley showed in the 1960s that if your homocysteine is low, your methionine will be high.

Your methylation will be adequate and good. And so we want a homocysteine of less than six so that methylation and cardiovascular repair can take place.

All right. And we may have to alter diet. We may have to use supplements to reach that optimal level. Correct. And nature supplement always nature's form of the supplement.

They are essential. They are called essential because we can't make them. We have to take them in just this is a this is a segue, but your preferred, version of vitamin B12, which is sometimes needed to lower homocysteine to the optimal.

Well, of course we need b-complex. But with regard to vitamin B12, it's always nature's form, which is hydroxyl component, never methyl combo element, never acetyl carbon, and never other things.

Element. So it turns out it's fairly easy to pharmacologically and negatively influence methylation methyl cavallo and causes hypermethylation. That means too much methylation.

So always nature's form, always hydroxyl. Never a mixture of different B12 forms. That's just a gimmick. So nature's form of B12 hydroxyl group element.

Thank you. What do I recommend. Hydroxyl carbon element. And we again we have little dots that go under the tongue and get dissolved before swallowing to go to the brain first and then the body and to get adequate B12 and b-complex.

That'll get a few people to scratch your head, because they go look at their big. And it may not be hydroxyl, B12, but take a look. It's out there. Of course, Perc makes, the optimal, formulations.

What about, one that's a little trickier to get, from your primary care doc and omega three index, but it is available at quest and LabCorp. I find the hospital labs do not run it right.

They don't offer it. So again, I would refer people to the two big national labs, quest and LabCorp. What's the optimal result we'd like for health and longevity as a biomarker, right.

More than 8%, according to Bill Harris, who developed the omega three index, is desirable. I happen to measure in at 13.4. So I called up Bill Harris and I said yes, 13.4 better than eight, he says.

We don't have enough people up at your level to know, but we think that's better. So definitely more than 8%. We've taken too much omega six by a lot.

And too little omega three by too little. So we want to up the omega three. This usually means supplements. We want to reduce the omega six, which means processed food can eat your chia and your ground flags and your walnuts and your greens.

And you can, take, vegan algae based omega three supplements. And of course, there are very pure fish based, anchovy based, krill based omega three supplements.

But it's probably going to require something beyond, an average diet. I find again, that the single most common nutritional deficiency in my patients is extremely low.

## Omega-3, Urine pH, and Oxidative Stress Tests

Omega three. Nobody gets taught you need it. You know, make it. You better find a source one way or another. Okay, let's get exotic. So just to just to put a very important point in, then the omega three supplement must be distilled under nitrogen to remove harmful ingredients and to protect the omega three from damage from oxidation.

So most omega three supplements are damaged because they're produced in air. It's much cheaper. It's hard. It's actually pharmaceutical quality to distill under nitrogen to get the highest concentration.

Omega three with the minimum amount of toxic metals, okay. As through the last three of the big eight and 1 or 2 more questions. One that's simple to do.

First morning urine pH P in a cup dip. Test strip. Get a result? Anybody can do it. Of course. You sell the test strips and percom. They're very inexpensive.

What does that tell us? And what say optimal result. The optimal result is a urine pH of 6.5 to 7.5. If you're below 6.5, you are too acidic and you need more magnesium and choline citrate.

If you're above 7.5 consistently, you might have catabolic illness, and we should reverse the tearing down of the body by catabolic illness. So again the Goldilocks scenario 6.5 to 7.5.

You increase magnesium and choline citrate. If you're below that and you reverse catabolic illness if you're above that. And I will say if for reasons your doctor orders a simple urinalysis and it happens to be your morning urine, it does report the pH.

But you can do this test at home. Maybe the first one we call this. You must do this at home on a fresh urine. If you take a urine and bring it to the lab and let them analyze it, the chances are overwhelming.

The chances are overwhelming that the pH will be off because bugs are growing and things are changing and metabolism occurs. The reason that we recommend a less than a dollar a day test, which you do yourself fresh.

That's accurate. Yeah. We used to teach people at NIH how to measure their urine fresh. Not even send it to the lab, which took half an hour. You know, you'd be surprised how much change in metabolism can occur.

You want to do a urine pH fresh. You either pee on the strip or, better, more esthetically pleasing. You pee in a dry cup, and then you quickly put the drip in and measure it.

And then I recommend you keep a log of what your daily urine pH is and how you're feeling, and you will probably notice that you feel better the days when your 6.5 to 7.5, and the days when it's below or above that you feel worse.

Interesting. And I confirm, is that nature's alkaline way really works, right? And you, use that term. But I want to remind the audience there's a wonderful e-book you have at work, dot com and Doctor Russell jaffe.com called The Alkaline Way.

I've read it, I would highly recommend it. I think for sake of efficiency, I'm going to encourage we've got two more biomarkers for health and longevity.

They're a little more sophisticated. And I want to give people a chance to study them. They're on your website, Doctor Guaning. And the, I want to give you the at least now.

All right. And I want you to read that little bit more, challenging to find them, but if I can ask you, sir, for example, Quest Lab offers a urine test called ISO press stains, widely available as a marker of oxidative stress.

Do you find that interesting? Trouble with actual guaning, or. There's something you know. No, it's not interchangeable. And curiously, in the 1970s I did work with thrombotic, Saint and ISO proteins in our animal models of heart disease.

So I'm quite familiar with the difference. ISO proteins come from fatty acids, so they're a reflection of your omega three to omega six balance. ISO proteins are interesting, but they do not tell you whether your DNA is being oxidative leave damaged or not.

If they're whatever they are, they don't tell you about that. The eight oxo guanine test is a urine test that tells you about damage to the DNA. It also tells you that you might need more ascorbate and magnesium to protect the DNA, but it's specific for DNA.

Whereas ISO proteins are a global measure of how your fatty acids are metabolized. And they're interesting, especially to me, who's interested in cardiovascular disease, but they don't tell you about the the nucleus.

I want to get to two. You know, we chatted, we've chatted before, but you have a lot of people listening are taking supplements and some aren't, and a lot of taking code Q10.

Coenzyme Q10 is a cardiovascular, maybe general health support supplement. You have, you know, some

comments to say about whether you seek out ubiquitin all or the more widely available you be quinone the standard CoQ10 you might find in a big box store.

But many vitamin companies. So tell us why ubiquitin is superior, in your opinion?

## CoQ10, Antioxidants, and Heart Support

Well, what you want is Co 210 the way Falkers recommended it, which means my surmised in 100% rice bran oil. It turns out rice bran oil is unusual. It's a little expensive, but it keeps Co 210 available to come into the body.

If you want to think about CoQ10, think about the La Brea Tar Pits. Think about something that is very thick and viscous and not very soluble. Most Co Q10 is a placebo.

Most CoQ10 doesn't really get into the body, right? And of course, if you want coke, you tend to get into the body. If you want coke, you tend to get into the body.

You must micelles it in 100% rice bran oil. I actually combine Coke Q10 with tocopherol vitamin E because if you need Coke, you then you probably need vitamin E.

And where do you need it? In the battery of the cell. In the mitochondrial battery of the cell. So this is very important. Detox fication occurs because of Co Q10.

And when coke you tend to slow detoxification doesn't happen as well. Coke Q10 is necessary to shuttle the electrons that produce the ATP, which is the work molecule of the body.

So we want ATP, but we get with the ATP one proton, one acid molecule that gets pushed out of the mitochondria into the cytoplasm. And if there's plenty of magnesium to buffer that it's okay.

All right. But if the acid continues to build up and magnesium is not there to mitigate it, to reverse it, the proton gradient, that's a little complicated.

But the proton gradient is what keeps the battery alive and working. The proton gradient collapses the mitochondria, goes to sleep to protect itself. And now you're left with what's called Emden, meyerhoff or sugar metabolism, which will get you to survival but not to thrive.

Again. Urge people to go over you do make a very fine product. I use perk, my toe guard. That is the form of Co Q10 with the proper form of vitamin E and vitamin A you were just referencing because you've done your work.

So let's shift to maybe the last bullseye here. Talking about getting reverse your heart disease. Naturally, we're a plant forward group here. What top nutrient or nutrients, in your opinion, should always be part of our toolbox for a healthy heart.

A toolbox for a healthy heart starts with a scar. Make. You might need other antioxidants, but you definitely need ascorbate. Nature's form. Then you need b-complex.

All the bees balance bees. Beatrice from Hunter taught us this 40 years ago. In addition to balanced bees, you might need more B12 or B6 or thiamin. Now you can do functional test of each of these nutrients.

I'm not going to get into that right now, but you can document that people need more B12, B6, thiamin, niacin, whatever folate. I'm a big fan of ascorbate, b-complex and co-factors like CoQ10, adequate to reach restore it to rehabilitate the levels in the body because today we're under assault from lots of toxins that deplete the antioxidants, the buffering minerals, the cofactors they get depleted.

So we have to up the good and decrease the bad. Provocative, maybe. Well, just one last comment. We, had a moment to preach chat and a slight little, internet glitch, and, we're back at it, but just talk.

I think it'll really interest people, though. Your view on the role of the molecule cholesterol in atherosclerosis cause innocent bystander. Where do you where is your take as a very, very bright man on that?

Well, let's start with what most people believe, which is what Don Fredricksen taught when he was director of NIH, which was the diet heart hypothesis, the amount of saturated fat or the amount of cholesterol that you ate influenced your blood cholesterol and triglyceride levels.

Except when people changed their lifestyle, their lipids changed. So the diet heart hypothesis, which assumed a genetic cause for hypercholesterolemia, turns out to be profoundly out of date and incorrect.

And most of the rest of the world has given up on this idea. But Don Fredrickson kept it alive. Now I work with Don fry, Bob Maley, and the three of us redefined heart disease in the late 70s.

Bob Marley coined the term lipoproteins, so he's kind of important in regard to blood fat. Don Fry is the guy who showed that at Bifurcate points in blood vessels, turbulence occurs when blood pressure goes up and atherosclerosis is accelerated.

That was Don fried. My role was to show that changes in blood clotting predicted heart disease years to decades before the catastrophe, and what caused platelets to be too reactive, a lack of vitamin C, a lack of magnesium, a lack of essentials and too much oxidative stress too much and, now we studied Foxhound dogs, we studied Yucatan pigs. Why?

Because the studies we were doing required animals, not human animals, but study animals. It turns out that foxhounds don't get atherosclerosis. And so if you find it, you did it to them.

And Yucatan pigs have a cardiovascular system, very much like people having nothing to do with the pig. It just happens to have a cardiovascular system that's very similar to a human.

And they do get spontaneous atherosclerosis. We showed that cholesterol didn't matter, but oxidized cholesterol, a small amount of oxidized cholesterol buried in your total cholesterol will kill you.

So we pay a lot of attention to antioxidants to prevent oxidized cholesterol from forming.

## Cholesterol, Oxidized Lipids, and Repair

It turns out that magnesium is an antioxidant that protects essential fats in transit. And if you don't have enough magnesium, your essential fats get oxidized, which means damaged.

Then they become after regenerate. Only when they're damaged do they become harmful. So the notion of cholesterol at 200 or LDL at 100, they're easy numbers to remember.

They're using numbers to teach. They have almost nothing to do with atherosclerosis. Half the heart attacks occur with people below 200 cholesterol. Half the heart attacks occur with people above 200.

So what's magical about 200? It turns out that cholesterol is easy to measure. We've been measuring it for half a century or more. But what is important is to measure the oxidized cholesterol, which almost never gets measured.

And if the oxidized cholesterol is zero, which it should be. If you're taking enough antioxidant to not too much heavy metals and toxic metals, and your oxidized cholesterol will be zero, and that means your risk of atherosclerosis will be less, then I want you to be in repair mode.

I want your collagen and elastin to get repaired. I want your basement membrane to get repaired. I want your cells to be energetic and able to detoxify.

Conventional medicine doesn't pay enough attention attention to cause conventional medicine is so occupied with

finding with the symptoms and suppressing and reversing the symptoms of ill health that the reason we started the pediatric Academy was to get doctors to understand cause, not consequence.

Well, I think we have covered just some phenomenal ground. And again, you can't cover everything. You've written incredibly insightful books. Again, the title of your newest book, I have it sitting next to me.

Right. So arriving in the 21st century, we want you to thrive in the 21st century. Yeah. And a lot of what we've talked about, there's, you know, more depth.

But I found it a very readable book and would recommend it to everybody. And the two websites where people can, go deep on biomarkers and tests and supplements are which to yes perk PR to youi perk ecom PR to you.

Welcome. And then Doctor Russell jaffe.com okay you have to put in doctor Russell jaffe.com because Russell Jaffe is a poet and I am not. But Doctor Russell Jaffe will get me on YouTube.

We have a website that presents this information in accessible forms, both for consumers and for professionals. So I hope today has been an appetizer.

I hope today has been an interest. And therefore you will dig more deeply to prove that this is true. Right? I think that's a great term. It is indeed an appetizer because it would require, you know, literally hours and hours. But this has been great.

So thank you for your time and your education and your really unique background and experience. I think we have upgraded the health of a lot of people, and they're going to go over to Broadcom and learn more.

So a lot of you're in checkers are going to come out of this. All all good all good. The more we can know about ourselves the more we can take preventive and proactive attention.

## Closing Thoughts and Resources

When I'm concerned I'm concerned mostly about me. Well, I want people to know about themselves and then share the good news that together, you and I can speed the transition from sick care to healthful caring.

We can look at the causes, not just the consequences, and we can avoid the catastrophes. Excellent, excellent. All right. We'll leave it at that and have a tremendous day.

You shared so much. Thank you for tuning in to Doctor Talks. We hope today's episode has enlightened and inspired you on your path to optimal health. Each day is a new opportunity to make choices that empower your well-being.

For more insights and strategies, subscribe to our podcast and visit our website WW doc Doctor talk.com. Stay connected, stay healthy and join us next time on Doctor Talks.

Real talks from real doctors on the issues that matter to you most.