Introduction to Dr. Russell Jaffe

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This is Dr. Talks. Hey, everybody. Good day to you. Please stand, sit, move, but do not leave your screen whenever 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 Dr. Russell Jaffe, you are going love him at the end of this segment, and you going want to follow him. Going to want read his books and maybe explore his vitamin company.

I say that unabashedly because I'm one the biggest fans. Bachelor's, 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 him writing many papers, many books, at Think Tank, the Health Collegium, and a wonderful integrative vitamin company called PERC, B-E-R-Q-U- E.

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, Dr. 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 in a thoughtful and 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, understand why it develops. Then you apply strategies to halt or reverse. What's driving it? And 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 are going 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, but to feel, to find, explore, research, and document that we are looking far downstream.

Rethinking the Causes of Heart Disease

We look through the lens of the pathologist. Now, i'm a clinical pathologists, not an anatomic pathologyist, But i am 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 cost? The cause is too much bad and not enough good. What does that mean? Because of atherosclerosis, coronary artery disease, all cardiovascular diseases, stem from sugar imbalance, you probably

know about that from hemoglobin A1C, but then inflammation, which is really repair deficit.

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 deficits and remove the consequences, the symptoms go away.

when the connective tissue, which means collagen and elastin, 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 men of spirit, and I find them complementary, not competitive.

So I think everybody listening, you know, was just fascinated by what you just said and is also probably familiar at least broadly with the term inflammation.

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 pathological going on.

But when you talk about repair deficit, are you talking about Trace mineral deficiencies, nutritional deficiences, genetic physician 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 epi genetic 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-assessments, 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 the 92% you can do something about.

And we use those eight tests to either, we interpret those tests based on the best outcome goal value. I don't even look at the statistical range from the lab because it confuses me, but I want to know whether your hemoglobin A1C is less than 5%, whether you're HSCRP is 0.5, whether homocysteine is 6, your lymphocyte response assay, which my lab does specialize it in, whether you're tolerant or intolerant to what you are eating, because what your eating might be eating you.

Then you need to know your vitamin D, you to need know how much acid is coming out in the urine first in morning after rest. You need you know what omega 3 index is and then there's an odd test, a urine test an easy to do test called 8-oxoguanine which measures damage in your DNA.

And in answer to your question, it depends on how much antioxidant you need, how many minerals you'll need. How much anti-nutrients you're taking in. You want to reduce the anti nutrients, you want it increase the good protective nutrients.

Ascorbate is the maternal antioxident that chaperones and restores all other antioxidants.

Four Self-Assessments for Health Balance

So we developed something. Vitamin C. comes in different versions and you… Well, oh no, I'm only talking about Nature's ascorbate. I am only taking about nature's vitamin C.

i'm talking only about fully buffered, fully reduced L-ascorbates. 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.

Its damaged because it is made in air, not under a nitrogen blanket. its damaged, because ascorbate requires a healthy low oxidation state. 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-ascorbates, as in not D-ascorbate 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 tract.

So you must have nature's ascorbate. And I will talk extensively, if you want, about nature version of antioxidants and what does that mean, and minerals and cofactors, what are the essential co-factories, because this can be explained in simple language.

The chemistry, that's a bit complex. I'm not gonna get into electron donors and electron recipients. If you wanna talk to me about that, I am happy to talk about it on another occasion.

Well, you know, again, we've already had a university hour of information in our first 10, 12 minutes. I want to go a little deeper with you in your very well thought out eight predicted biomarkers of health and longevity.

handout on 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 pathophysiology of maybe all diseases or heart disease.

Can you just flesh out what that comment was? Cause I don't think we heard it. Yeah, the headline is physiology before pharmacology. I'm not opposed to good medicine, I am not to prescription medicines 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, and more cofactors, reducing the harmful bad anti-nutrients that we're bathed in in the 21st century.

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

they don't really feel well. They don t get restorative sleep. T hey're not really very pleasant to be around because they d n't feel them. The get by, day by day.

they're in survival mode. So when we want to get people out of survival and into thriving, We start with four self-assessments, just four. 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 a take to do a cleanse? What we call the C cleanse.

This is a global measurement of how anti-oxidant 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 wanna know if you're well hydrated. You can decide whether you are well-hydrated in two seconds if know what you doing. So these four self-assessments are very inexpensive, they're very easy to do.

They confirm for most people that they are out of equilibrium, that are of balance.

Key Biomarkers: A1C, Vitamin D, CRP, and Homocysteine

And what I want is to get them back into balance using physiology before pharmacology. 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. I want to tell people, I am looking, i'm cheating. iI'm looking at your website, PERQUE.com and there's a heading called the alkaline way, which is a wonderful ebook you wrote.

And then there is this 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 want 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.

We're trying to Make it Easy for People to Making the Transition from Sick Care to Healthful Caring. Let's go a little slower for people listening. I want everybody to take out a piece of paper, but I assure you, if you go to PerkPERQE.com, these eight biomarkers are going to be there for you to learn about and study a bit more.

But let's through those. They're urine and blood tests. that predict longevity and overall health. So I'm looking to my right and I see hemoglobin A, average three month blood sugar, glycation, easily available blood tests.

What's the optimal level and how predictive is that for health and longevity? Hemoglobin A1c should be less than 5%. If you keep it less then 5%, you will live 20 to 30 years longer at low cost because you'll avoid diabetes.

It turns out that blood sugar and insulin are less reliable than hemoglobulin A 1c. There are rare cases where hemoglobin A1C is not reliable because red cells are being destroyed too quickly and then you do fructosamine, but please go to PERC or go DrRussellJaffe.com.

to learn more. Right. And I will say, anybody listening can ask their nurse practitioner, physician assistant, gynecologist, family doc, internist, or endocrinologist or, God forbid, their cardiologist and say can you please check my hemoglobin A1c.

I would say… Cardiologists today know about hemaglobin, A 1c, but they're trying to get it to lesson seven and I want it be lesson five. Yeah. And interestingly, we now have a number of drugs developed for diabetes, the lower the hemoglobin A1C that are being repurposed to congestive heart failure and other syndromes.

So we actually are accidentally lowering hemaglobin. That is helpful. And that is helpful, but it is not as helpful as the physiologic restoration of sugar balance, which is what I recommend, and which does even better.

So yes, we have a number of drugs that lower hemoglobin A1c, But then they interfere with your digestion or B12 uptake or magnesium up take. 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 a hemoglobin A1c, well under 10% have a haemoglobulin A11c under five.

So we got a lot of work to do to optimize them. A lot a work 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 want to stay in-balance and 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 checked. What's your optimal level of vitamin B for health, longevity, functional age?

We absolutely know the question and we know, the answer, although it's controversial 50 to 80. This is 90 grams per deciliter. 50, 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 normal to be low. So don't measure, don' know, Don't care. I was very disappointed in that article. And that was written by a very fine science writer.

Yeah, absolutely. One is statistically true. I used to teach statistics. You know, you can make it interesting if you make 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. and I'm saying the healthy vitamin D range is 50 to 80. We absolutely know that.

you don't want too much. It's almost always the Goldilocks scenario. Just right is just right. 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, and 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 Halleck, Dr. 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 to need to you get you into 50-80 range and you measure vitamin 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 neural endocrin hormone, right? Let's move on to another one. I think most people will have familiarity with and hopefully know their blood level.

The high sensitivity CRP, C-reactive protein, optimal level for longevity. Everybody should strive for. Five, this is the work of Mater 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 CRPs 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 your homocysteine blood levels.

Simple blood test. Every lab does it. What are we shooting for in that situation? Well, Kilmer McCulley showed in the 1960s that if your homocysteine is low, your methionine will be high, you're methylation will adequate and good.

And so we want a homocistine of less than six so that methylation and cardiovascular repair can take place. We may have to alter diet, we may to use supplements to reach that optimal level, correct?

And nature supplements, always nature's form of the supplement.

Omega-3 Index, Urine pH, and Oxidative DNA Damage

They are essential. they are called essential because we can't make them. We have to take them in. Justice is that this is a segue, but your preferred version of vitamin B, 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 hydroxylcobalamin, never methylcobilamin never acetylcabolamin.

Never other things, cobalamins. It turns out it is fairly easy to pharmacologically and negatively influence methylation. Methylcobalamin causes hypermethylation.

That means too much methylation. So always nature's form, always hydroxo, never a mixture of different B12 forms, that's just a gimmick. So nature's form of B12, hydroxocobalamin.

Thank you. What do I recommend? Hydroxo-cobolamin 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 B-12 and B complex.

That'll get a few people to scratch their head because they go look at their B complex 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 in omega-3 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 lab corp. 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 3 index, is desirable. I happened to measure in at 13.4. So I called up Bill Harrison.

And I said, it's 13 point four 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 take in too much omega-6 by a lot and too little omega 3 by too.

Little. Right. We want to up the omega three. It usually means supplements. Right. You can eat your chia and your ground flax and you're walnuts and greens.

And you can take vegan algae based omega-3 supplements. Of course, there are very pure fish based, anchovy based grill based Omega- 3 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. Nobody gets taught. You need it, you don't make it.

You better find a source one way or another. Okay, let's get exotic. Just to put a very important point in, the omega-3 supplement must be distilled under nitrogen to remove harmful ingredients and to protect the Omega- 3 from damage, from oxidation.

So most omega-3 supplements are damaged because they're produced in air. It's much cheaper. it's hard, it is actually pharmaceutical quality to distill under nitrogen to get the highest concentration omega 3 with the minimum amount of toxic metals.

Let's do the last three of the big eight and one or two more questions. One that's simple to do. First morning urine pH, pee in a cup, a pH test strip, get a result.

Anybody can do it. Of course you sell the test strips at perc.com. They're very inexpensive. What does that tell us and what's the optimal result? The optimal results is a urine pH of 6.5 to 7. 5. If you're below 6 point 5 you are too acidic and you need more magnesium and choline citrate.

if you above 7 point five 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 your above that.

And I will say if for reasons your doctor orders a simple your analysis 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 go this, you must do that. 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 of their 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. 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'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 aesthetically 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 pH 6.5 to 7. 5 and the day is when it's below or above that, you'll feel worse.

Interesting. That confirms that nature's alkaline way really works. You use that term, but I want to remind the audience, there's a wonderful ebook you have at perc.com and drrusslejaffee.

com called The Alkaline Way. I've read it, I would highly recommend it. For sake of efficiency, we've got two more biomarkers for health and longevity.

Uh, they're a little more sophisticated and I want to give people the chance to study them. They're on your website, the Oxyguanine and the, I wanna give it to Elisa.

And I wanted you to read that a bit more challenging to find them, but if I can ask you, sir, for example, Questlab offers a urine test called isoprostanes.

widely available as a marker of oxidative stress. Do you find that interchangeable with oxoguanine or there's something unique?

CoQ10, Antioxidants, and Heart Repair

No, it's not interchangeble. Curiously, in the 1970s, I did work with rhomboxanes and isoprostanes in our animal models of heart disease. I'm quite familiar with the difference.

Isoprosthanes come from fatty acids. They're a reflection of your omega-3 to omega 6 balance. Isoprostanes are interesting, but they do not tell you whether your DNA is being oxidatively damaged or not.

Whatever they are, they don't tell about that. The 8-oxoguanine test is a urine test that tells you about damage to the DNA. It also tells that you might need more ascorbate and magnesium to protect the dna, But it's specific for DNA Whereas isoprostanes 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 nucleus. I want to get to two we've chatted before, about you have a lot of people listening.

Are taking supplements and some aren't, and a lot are taking CoQ10, Coenzyme Q10 as a cardiovascular, maybe general health support supplement. You have some comments to say about whether you seek out ubiquinol or the more widely available Ubiquinone, the standard Coq10 you might find in a big box store, but many vitamin companies.

So tell us why ubiquinal is superior in your opinion. Well, what you want is CoQ10 the way Falkers recommended it, which means micellized in 100% rice bran oil.

It turns out rice brand oil is unusual, it's a little expensive, but it keeps Coq10 available to come into the body. If you want to think about CoQ10, think of the Librea Tar Pits.

Think about something that's very thick and viscous and not very soluble. Most Coq10 is a placebo. most Co Q10 doesn't really get into the body. Right.

Of course. If you want CoQ10 to get into the body, you must micellize it in 100% rice bran oil. I actually combine Coq10 with ticoferol, vitamin E, because if you need Co210, then you probably need vitamin e.

Where do you meet it? In the mitochondrial battery of the cell. This is very important. Detoxification occurs because

of CoQ10, and when Coq10 is low, detoxification doesn't happen as well.

Co Q10 10 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. 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 grading 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-Meierhoff or sugar metabolism, which will get you to survival, but not to thrive. And I, again, urge people to go over.

You do make a very fine product. I use Perk MitoGuard. That is the form of CoQ10 with the proper form 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, again, 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 a toolbox for a healthy heart?

A toolbox or a health heart starts with ascorbate. You might need other antioxidants, but you definitely need ascorbate, nature's form. Then you need B complex, all the B's, balanced Bs.

Beatrice Trump 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 tests of each of these nutrients.

I'm not going to get into that right now, but that you can document that people need more B12, B6, thiamine, niacin, whatever, folate. I am a big fan of ascorbate, E-complex, and cofactors like CoQ10.

Adequate to reach, restore, to rehabilitate the levels in the body, because today We're under assault from lots of toxins that deplete the antioxidants, the buffering minerals, and the cofactors.

They get depleted. So we have to up the good and decrease the bad. That's provocative. I think it'll really interest people. Your view on the role of the molecule cholesterol in atherosclerosis.

Cause, innocent bystander. Where's your take as a very, very bright man on that? Well, let's start with what most people believe, which is what Don Fredrickson taught when he was director of NIH, Which was the diet heart hypothesis.

The amount of saturated fat or the amount 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 world has given up on this idea, but Don Fredrickson kept it alive.

Now I worked with Don Fry, Bob Mailey, and the three of us redefined heart disease in the late 70s. Bob Maley coined the term lipoprotein, so he's kind of important in regard to blood fats.

Don Fry is the guy who showed that at bifurcation points in blood vessels, turbulence occurs when blood pressure goes up and atherosclerosis is accelerated.

That was Don fry. My role was to show that changes in the 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 magnesium, lack essentials, and too much oxidative stress. Too much. Now we studied foxhound dogs. We studied eucatan pigs.

Why? Because the studies we were doing required animals, not human animals. 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 cardiovascular systems that's very similar to a human.

They do get spontaneous athroscleroses. We showed that cholesterol didn't matter.

Cholesterol, Oxidized Lipids, and the Path to Thriving

But oxidized cholesterol, a small amount of oxidize cholesterol buried in your total cholesterol will kill you. So we pay a lot of attention to antioxidants to prevent oxidized cholesterol from forming.

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

Then they become atherogenic. Only when they're damaged do they becomes harmful. So the notion of cholesterol at 200 or LDL at 100, they are 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 hearts occur to 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 oxidation cholesterol is zero, Which it should be if you're taking in enough antioxidants and not too much heavy metals and toxic metals, your oxidize cholesterol will be zero.

and that means your risk of atherosclerosis will less. Then I want you to be in repair mode. I wants your collagen and elastin to get repaired. i want your basement membrane to Get repaired, I Want yourselves to Be energetic and able to detoxify.

Conventional medicine doesn't pay enough attention to cause. Convention medicine is so occupied with fighting with the symptoms and suppressing and reversing the symptom of ill health that The reason we started the PIH Academy was to get doctors to understand cause, not consequence.

I think we have covered just some phenomenal ground. You've written incredibly insightful books. Again, the title of your newest book, I have it sitting next to me.

Right, Thriving in the 21st Century. We want you to thrive in… Yeah, and a lot of what we've talked about, there's 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 two? Yes, PERQ, P-E-R-Q-U- E, perq.com, p-e-r-q-u- e. com, and then drrusslejaffe.

You have to put in drrusslejaffe.com because Russell Jaffe is a poet and I am not. But Dr. Russell, Jaffee 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 hoped today had been of interest and therefore you will dig more deeply to prove that this is true. 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 you're 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 perc.com and learn more. A lot a urine checkers are going come out of this.

All good. The more we can know about ourselves, the more preventive and proactive attention. When I'm concerned, I am concerned mostly about me. 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. All right, we'll leave it at that and have a tremendous day. You've shared so much.

Thank you for tuning into Dr. 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.

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