THE SPECTRUM OF HEALTH PODCAST

Podcast Session #17

How to Create Foundational Health

With Dr. Thomas Cowan

Dr. Thomas Cowan talks with Dr. Schaffner about cardiovascular health, foundational health, microbiomes, and so much more.

To learn more about Dr. Cowan, please visit www.fourfoldhealing.com

00:07 Dr. Christine Schaffner: Welcome to the Spectrum of Health Podcast. I'm Dr. Christine Schaffner, and today, I am interviewing Dr. Thomas Cowan. Dr. Thomas Cowan has studied and written about many subjects in medicine, including nutrition, anthroposophical medicine, and herbal medicine. He is the principal author of "The Fourfold Path to Healing" and co-author with Sally Fallon of "The Nourishing Traditions Book of Baby & Child Care". Dr. Cowan has served as a vice president of the Physicians Association for Anthroposophic Medicine, and is a founding board member of the Weston Price Foundation. He also writes the "Ask the Doctor" column in "Wise Traditions in Food, Farming and the Healing Arts," and has lectured throughout the United States and Canada. He has three grown children and practices medicine in San Francisco, where he resides with his wife, Lynda Smith.

00:56 CS: I was drawn to Dr. Cowan's work when I learned about his book "Human Heart, Cosmic Heart." I think he has a really unique understanding of the heart and the cardiovascular system, as well as a really important understanding of how to create foundational health and support our gut microbiomes, our children's health, and the health of our planet in the future. He's really committed to speaking out about this, and he has a new book coming out in the fall about vaccines and autoimmunity, and we'll share a bunch of resources so you can learn more about his amazing product line and his book. Please enjoy my conversation today with Dr. Thomas Cowan.

01:44 CS: Welcome, Dr. Cowan, I'm so excited to have you on the podcast today.

01:47 Dr. Thomas Cowan: Thank you for having me on your show.

01:49 CS: Well, I've known about your work for a while now, especially with your book "Human Heart, Cosmic Heart", and my patients have learned a lot about your work through the information you put out online. I think it's just going to be a really interesting conversation today, and I'm excited to learn more from you personally. Here you are, a conventionally trained medical doctor, and you found yourself studying anthroposophical medicine and nutrition with the Weston Price Foundation. I would love to hear how your journey unfolded into becoming a specialist in looking at the heart in this unconventional

model.

02:33 TC: All I can say, really, is I ended up graduating early from my undergraduate program at Duke, mostly because I didn't like it there, and I had no idea what to do next, so I decided to join the Peace Corps and teach gardening, even though I didn't know anything about gardening. I ended up living in a little village in southern Africa called Swaziland. Swaziland was the country, not the village, and when I went there, the only other expatriate living within miles of me had lived and worked on a biodynamic farm in Rhodesia and was in Swaziland escaping the Rhodesian Army service. So basically, there I was in a hut in Swaziland, and he gave me books by Rudolf Steiner and Weston Price on food and anthroposophy, and since I had nothing else to do, and had nothing else to read, I read Steiner and Weston Price.

03:38 TC: At that point, I realized that my revulsion about being a doctor was more a revulsion about being that kind of doctor, so that allowed me to think that I could, in fact, go to medical school. Basically from day one, so we're talking from the late '70s, I have been pursuing ideas about
anthroposophical medicine, and food, and whatever else I could figure out that might help me understand how the human body works and where disease comes from, more than the medical stuff that I was given in medical school.

04:18 CS: I completely understand that. I'm a naturopathic doctor, and I'm on a different educational path, obviously, than a medical doctor, but I always have compassion for medical doctors, in that there is this great training, but the tools are limited, right? Obviously, they serve a purpose in acute traumatic care, but here, both of us treat chronically ill people. I'm so glad that you found those resources so early in your journey, and that has obviously made an impact. Fast forward, here we are. Did "Human Heart, Cosmic Heart" come out in 2016, Dr. Cowan?

05:00 TC: Yes, it was October or November 2016, I think.

05:05 CS: That book has really influenced a lot of us in this alternative space to have this

other understanding about the heart, and how the heart is actually potentially not a pump in our physical structure, but that it has this other purpose. Can you just share about, really, how that knowledge came to be in your work and what you mean when you say that the heart is not a pump?

05:35 TC: So originally, I heard this first, probably in the early to mid '80s, that Rudolf Steiner... And I just want to point out that just because I say Rudolf Steiner doesn't mean that means he's correct.

05:49 TC: He certainly knew some interesting stuff and had an interesting way of knowing things. Anyways, it's the first place I heard it, when he said, one of the most important things for the future of humanity was understanding that the heart is not a pump. Then I ran into a mechanical engineer named Ralph Marinelli, who did mechanical models of the heart. (I have a website called humanheartcosmicheart.com, where we put articles under the news section, and there's an article by Marinelli called "The Heart is Not a Pump", so people can read that.)

06:29 TC: The idea, basically, and it's important to get it... To be careful with the wording semantics here. When we say a pump, we mean a pressure propulsion device, and what that means is, if you ask the question, "Why does the blood move around the body?" The normal answer is that it's pumped, or pushed, or let's even use another word, propelled, because of the mechanical squeezing of the muscular walls of the heart. So in other words, you have this approximately 1.1 pound muscle, which has very thin walls at certain points, and this muscle squeezes or contracts, and therefore, essentially, it decreases its internal diameter, and that muscular contraction pushes this blood around the body. That's the idea of a pressure propulsion model.

07:32 TC: Now, what I pointed out in my book, after 30-some years of looking into this, is that first of all, there's a lot of blood. With the amount of blood vessels in a human body, if you put them end to end, it would be enough to encircle the Earth three times. If you put them next to each other, they would cover a football field, so that's a lot of blood and a lot of blood vessels, and we're talking about very viscous, sticky fluid, with stuff floating inside.

And so, to think that you're going to take this one pound organ, and squeeze really hard, and push this sticky fluid three times around the Earth, just on the face of it, is a little bit incredible. That can't be.

08:24 TC: But it gets even worse, because if you do a flow diagram, in all fluids, you basically measure the volume and the velocity. The velocity, or the speed of movement of the blood as it enters the heart, is approximately the same as it exits the heart, and then, as the blood being "pushed" by the heart exits the aortic arch, and then the aorta, and then the abdominal aorta, the big blood vessels, and then it starts going into smaller and smaller blood vessels until it gets to the capillaries, which is the point where it offloads oxygen and food and takes up carbon dioxide and water, so it basically has to stop there. So it goes basically fastest at the heart and then slower and slower and slower, and then it stops at the capillaries, where it does this little shimmy, and then it gets going again. What they're telling us is that the reason for the movement is the point back when it was moving the fastest.

09:30 TC: Now, if you think about that, that's a little strange. First of all, if it doesn't make it go faster, so what did it do to the blood that's this so-called propulsion device, and then second of all, if it goes slower and slower and slower and then stops halfway in its journey, how did it get going again, if we're told that the only reason for the movement is the push from behind? The analogy that I usually give people is, it's like getting on a bus from San Francisco, where I live, to New York, and the bus stops in St. Louis and offloads passengers and luggage and then takes on different passengers, and then it gets going again. And all I can say is, if the bus doesn't have an engine in St. Louis, and I need to get to New York, I'm not going to get on that bus, because I don't know how the bus is going to get going again.

10:23 TC: That also tells us that the actual reason for the movement of the blood has to be at the capillaries, because that's where the blood stopped. And then, if you started moving then, and then you go up the narrower and narrower capillaries, or... It goes from like a watershed into large, venous blood vessels, so as it restricts the flow like a river going from a wetlands and then into a river, it'll go faster and faster by itself. So the point of it is,

you just have to get it going at the capillaries, and then it essentially will go by itself, so the pump has to be at the capillaries.

11:05 TC: Now, there's a third interesting factor, which is very interesting for the pump model. If you look at the outflow tube of the heart, which is called the aortic valve, and then it goes through the aortic arch, and the analogy that I make here to help people understand this is, it's like you have a spigot off the side of your house, and then you put a flexible garden hose shaped in the form of an arch onto the spigot, so that's like, there's the left ventricle, with its very thin-walled apex, and then it exits upwards through the aortic arch, and it looks like a McDonald's arch, and then it goes up, and then back down to the body and, as anybody would know, if you have the spigot off and then you turn it on really hard, because obviously, if you're going to pump three times around the Earth, you better pump pretty hard, what would happen to the aortic arch during this maximum pump?

12:08 TC: And the answer, obviously, is the hose would straighten, right? So you would expect that the aortic arch would also straighten, but in fact, anybody who's seen a cardiac catheterization, which is what I actually had a job doing for a while, knows you see the aortic arch bend in, which makes absolutely no sense. If you're pushing fluid through a arch-shaped tube, how is it that the arch bends in just at the maximum push?

12:43 TC: What that tells you is that the heart is creating a suction, not a push. So Steiner actually said the heart functions like a hydraulic ram, which means that, hydraulic ram, you put in a fast-moving river, and it has a gate, and then it has flexible walls behind the gate, so as the water moves into this holding tank, the gate holds it back, the walls expand, and then there's positive pressure built up on the incoming side of the gate, and a vacuum on the opposite side of the gate, and when there's a pressure differential there, the gate will open, the outflow tube will suck in, just like you see with the aortic arch, and the water will be distributed to wherever you want it to go, and that, more or less, is exactly how the heart works.

13:45 TC: Now, it's a little bit more complicated than that, because the holding tank, which we call the left ventricle, actually takes this incoming blood, which is moving of its own

devices, not because it's being pushed by anything. So it has a movement mechanism, or an autonomous movement mechanism, and then it comes into the left ventricle, the left ventricle creates a vortex or a spiral formation out of this incoming blood, and then, when the pressure differential builds up and you create a suction on the back side, then the gate opens, the aortic valve opens, the vortex essentially sends the blood to where it needs to go, and there's no force required, there's nothing to wear out, as opposed to a pump, which couldn't possibly do this even for a day, let alone 70 years, and the whole thing suddenly makes perfect sense. At least to me.

14:48 CS: Absolutely, that's an excellent explanation, and I know a very new idea to most of the people who are listening. So Dr. Cowan, a lot of our patients who are chronically sick, they have what we would call micro-circulation issues, so that would be cold hands and feet, or poor circulation in their extremities, and I immediately think of their capillary system when we have micro-circulation issues. Drawing back to your understanding in this framework... There's a force or a propulsion in the capillary system, so can you walk us through what that looks like? And then, for people who have issues with that, what should we be thinking about? Maybe tools or strategies and how to support their body?

15:42 TC: Right. So the first thing I would say is, based on what I just said, we've identified that the source of the pump, or the source of the movement of the blood, has to be at the capillaries, not the heart. Now, I would also point out that there's essentially two people who are talking about this, there's me, and there's an anesthesiologist named Branko Furst, and on my website, I helped with an article that he wrote, and he wrote a book about this called "The Circulation Pump" or "Impedance Device" or something like that, and he says, basically, exactly the same thing, except in a much more academic, and I would say boring way.

[laughter]

16:27 TC: But it's very good, and his idea is that the heart can't possibly be a pump, it's an impedance device. The forward was written by the Head of Cardiac Anesthesiology at Harvard Medical School, who said, "This misunderstanding is the reason we can't treat

congestive heart failure any better now than 50 years ago." So there is relevance to this, and I'm not the only one who thinks this. Now, getting back to your question, what is the pump, and why does the blood move in the micro-circulation? And the other thing I would point out is that Branko understands intimately why the heart can't be a pump, and he says that the blood is an autonomous organ that moves of its own devices, but, at least in my take on it, he doesn't quite understand what makes the blood move. So that's, I guess, where I come in.

17:26 TC: So what I would say, and again, I credit the work of Gerald Pollack to helping me understand this--basically, what happens at the capillaries in the micro-circulation is, unlike what we're told, water exists in more than solid, liquid, and gas, and this idea that there's only three phases of matter. So then the question is, if there's only three phases of matter, what state of water is the water in our cells? And it's obviously not ice, and it's not steam, and it's definitely not water, because if you poke a hole in somebody's leg, you don't get water squirting out of their leg.

18:07 TC: So the water in the cells is all in a gel phase, and this has huge ramifications for understanding our health and also the circulation. As Pollack points out, whenever you take a hydrophilic surface, like a protein, or nathian or plastic, and you put it in bulk water, it forms a gel phase that is negatively charged lining this protein or this hydrophilic surface. So if you think about it, the reason why the sap moves up in a tree is because the channels in the tree, so-called xylem channels, are these hydrophilic proteins, which create this negatively charged gel phase, lining the tubes, and wherever there's a negative charge, there's going to be a positive charge that is in the free water or liquid water or bulk water. So you have a negatively charged gel lining the tube, and then you have positive charged charges in the bulk water. The positive charges repel each other, and that starts the water moving up or the sap moving up the xylem channels in a tree, and that's how you can overcome the so-called barometric limit and get the water to move up a tree.

19:35 TC: In the capillaries, it's the same thing, you have these very hydrophilic tubes which interact with the water in the blood. They create this layer of negatively charged gel lining the capillaries, and then in the middle, there is this positively charged liquid or bulk

water, the positive charges repel each other, and they start the blood moving. It's a very ingenious water-based, no-energy-required system that's just based on the interaction of water in its fourth phase with hydrophilic surfaces. Now, any separation of charges obviously needs an energy source, and the energy source for this is a couple of things primarily. One is sun light, so if you put a rolled-up tube in water, and you put it in a lead box, it doesn't form these separation of charges, but if you shine the sun on it, it does, and then you'll get flow through the tube. So the sunlight in connection with the electro-magnetic field of the earth also charges up the tubes. And the third thing is the emanations or radiation from a human being, particularly their hands or feet will also supply the energy for charging up the tubes and creating flow.

21:03 TC: So essentially, the combination of eating good food and being in the sunlight, and connecting to the earth and having human or connections with animals, or some other living being is what creates flow in any tube, but particularly in the blood in our capillaries. That is the pump that moves the blood, and if you have a micro-circulation problem, you're having either a water problem or an energy to create gel problem, which is sunlight, earth, and human touch.

21:41 CS: That's an excellent explanation. Dr. Jerry Pollack, he is a friend of ours, and he lives in Seattle as well, we've learned a great deal about his work, and it really makes sense in this model. One of the things he educates us on as well is the use of infrared light, and also, that infrared is naturally occurring right in our environment. You're drawing the connection with a lot of these chronic ailments and conditions that we're seeing is this continual disconnection from our natural environment, and how the natural environment really heals us on so many levels. Bringing that connection into our treatment plans and into our daily life is essential for not only good heart health, but really good health in general. So I think that's an excellent point. Do you use light therapy in your practice, or do you ever recommend people do all these lifestyle practices, but still see them struggling with chronic symptoms? Do you have any tools to enhance this formation of exclusion zone water in the body?

22:57 TC: Actually, yes. There are so many things that are repercussions of this, whether

or not this gel phase forms properly. For example, there's so many of them, but the reason you don't have knee pain or osteoarthritis of your knee is, because you have this gel-based cushion that essentially is not only a gel, but has this negative charge so it repels each other, so that you get a smooth gliding effect in your joints. If over time your ability to form these gels is compromised, you'll eventually lose this cushioning gel, which we call the bursa, and you'll end up with bone on bone, and the cartilage, which also formed out of proteins and gels, deteriorates. So you can see that the whole disease process is a failure of the water to form into gels. So given that, one of the things that makes sense is to add extra light or so-called biophotons, it just means biological light therapy, adding energy to the system, which from my standpoint helps to increase the formation of these gels, which is the reason why you have proper function in the first place.

24:19 TC: It's basically pain relief and to help function, and basically to stimulate the formation of gels, and I would contend that most if not all diseases are somehow on their basic level water-based or a failure of this gel formation.

24:40 CS: Absolutely, I completely agree. I haven't gotten through Jerry's book "Cells, Gels". I can't remember the title. But I read part of it, and I know that the gel structure also maintains our cell voltage, and so that has a huge contributing factor to communication between our cells, and when that's lost, we see disease. I agree, I think we're so used to thinking about biochemistry, how to give somebody a pill or a substance to change our biochemistry, and I feel like we're not only talking about biochemistry here, but also biophysics, and about how we can use both tools to really have a deeper understanding of our physiology and also how to heal our body as well. So Dr. Cowan, this is such great information. I want to kind of jump into looking at the heart and the electrical system of the heart.

25:47 CS: One of the things that we see a lot in our practice is what we would call vagus nerve toxicity or autonomic dysfunction, and we look at the 10th cranial nerve, the vagus nerve, and if that is not functioning properly we can see a lot of symptoms not only with a digestive tract, but also the parasympathetic control of the heart. I know that you've had some great insights around this parasympathetic tone we would call to our heart, and for

our listeners, just really briefly, we have two parts of our autonomic nervous system, the sympathetic and parasympathetic. The parasympathetic we think about as rest and digest, and so those types of systems in the body. Sympathetic is fight or flight, and so we're always striving to have a balance. In modern day we're all probably in fight or flight more than we were meant to be. So how that shows up in the heart if we don't have good parasympathetic tone, is that we could have things like increased heart rate and other symptoms. Do you mind sharing some insights about the innervation in the nervous system with relationship to the heart?

27:05 TC: One part of this "Human Heart, Cosmic Heart" book that I wrote was that the heart is not a pump. And then I had to sort of figure out what it does and how the blood moves, which we talked about. The other part was probably to many equally or maybe more controversial, which is unlike what most of us think, not all heart attacks are caused by blocked arteries. In fact, if you go to another website by a friend of mine called heartattacknew.com, at the bottom of that is a print version, and there's a book re-printed by an Italian pathologist named Giorgio Baroldi who did autopsies on people who died of heart attacks for 40 years and studied the entire medical literature on why people die of heart attacks. He said only 41% have a significant blockage in the artery leading to the part of their heart that have the attack, and of those 50% came after the heart attack, not before, which means that 80% of heart attacks are not associated with significant blockages, which is strange from a modern cardiology point of view, because that seems to be all they are interested in. Yet 80% of the people don't even have that problem.

28:28 TC: As many know, there have been many studies on stents and bypasses, which show that they don't improve the life that people live. They don't prevent further heart attacks, and a recent study on stents reveals that if it was all about blocked arteries, if you put a stent in, that should be the end of it, but they don't even improve chest pain. So I'm not sure what the indication for a stent in a non-acute situation is. The question then is, why do these people have heart attacks if it's not from blocked arteries? There are a number of reasons, but one of them, which we now know, and which modern cardiology is somewhat aware of, is that approximately 90 plus percent of people who go on to have a heart attack have a decreased parasympathetic activity in the days, weeks and months

leading up to the event. So as you explained, we have two autonomic nervous systems, a sympathetic or fight or flight, and a parasympathetic or rest and digest, and they should always be in balance. Modern cardiology uses beta-blockers to block the sympathetic, but what has really been found is that it's not over activity of the sympathetic that causes people to have heart attacks, but decreased activity of the parasympathetic, which it's similar, but it's not the same.

29:56 TC: Now, this decreased activity of the parasympathetic nerve comes into our nervous system because of stress, poor diet, physical inactivity, diabetes, smoking, high blood pressure, all the things that cause people to have heart disease. So if you have decreased parasympathetic tone, that sets off a whole chain of events, which I described in my book and on articles, that actually leads people to have a heart attack. It was for that reason that I talk about a medicine called Strophanthus, which actually supports the parasympathetic activity specifically in the heart and has been used as a cardiotonic in prevention and treatment of heart disease for about a century or so. So that is a major factor, the parasympathetic nervous system, which is pretty much completely ignored in modern medicine and modern cardiology, but is a major factor in the etiology of heart disease, and there's numerous studies and case reports that actually prove this.

31:05 CS: I've learned about Strophanthus through your work, and I am still getting to know that with patients when it's clinically appropriate, but it's a great tool. What are some other tools, do you feel like Strophanthus is enough to give people that parasympathetic tone, or are there are other nutritional or lifestyle options? I think you made a really good point--it's not just the over-activity of the sympathetic nervous system, but also the decreased activity of the parasympathetic nervous system. How should our audience improve their parasympathetic activity in their life?

31:49 TC: I mean, that's a big question.

[laughter]

31:50 CS: I know. No small question.

31:53 TC: Basically, that involves good diet, and physical activity, and emotional support, and human touch, and sunlight, and earthing, and not having toxic influences, not being exposed to glyphosate, and toxic metals, and all kinds of things that are basically modern life, including all the electromagnetic pollution that we're involved in. So basically, a life of parasympathetic support is not the modern American way of life.

32:33 CS: It's the antithesis, right?

32:37 TC: And how we're going to sort that out and have people live in that, with parasympathetic support, I think, remains to be worked out, but we're not going in the right direction as we are right now.

32:50 CS: I'm in complete agreement, and I'm glad you brought up the EMF piece of the conversation. I have a podcast with Nick Pineault, who's an investigative journalist, discussing the impact of EMF on our health. I work with Dr. Klinghardt in Seattle at Sophia Health Institute, and he's been talking about EMF from day one, about how that is really disturbing to not only our nervous systems, but it's disturbing our health on many levels, including the epigenetic expression of our DNA. I think it's probably going to get worse before it gets better, and I think we just need to continue to educate ourselves and our communities and, with 5G coming out...grounding and going out in nature is going to become even more important to help reduce the side effects of this exposure until we find another way, right?

33:55 TC: Yes, there's an urgent need for sanity in... Well, the world, but this country in particular, and there are a lot of influences that are not interested in pursuing this. I think I would say that, looking to normal governmental support or... Google isn't going to fix this problem.

[laughter]

34:25 CS: This is very true, and I think, like anything, when we are seeing the patients that

you and I both do, you just follow the money and the agenda of these industries... I'm trying to be politically correct, but they are not very motivated to change right now. I think with anything, it starts with grassroots, and educating your community, and making the choices that are going to be best for you and your family. Cumulative exposure over time is going to be the most harmful, so how do you reduce your exposure over time and do the things that you can do while we're all catching up, while society is catching up to understand that this is going to be probably looked at like second-hand smoke one day, or even worse.

35:18 TC: The curious thing is, and for those of us who are trained as medical doctors, if you were a dolphin vet, and somebody said, "Well, why is this dolphin sick?" One of the things you would look at is probably the water that the dolphin is swimming in. I don't know that for sure, and I don't know what vets do these days, but...

35:43 TC: I would think that would be an obvious source of investigation, and yet, that's the similar thing with, basically, our food, and water, and air, and electromagnetic fields, and houses, and everything--that's the water that we humans are swimming in, and the water is very polluted, really polluted. The problem is, no matter what you or I or anybody listening does as an individual, it's not effective enough, because this is a collective problem. Just like the dolphin, you could say, "Well, go swim over there, it's better there," and it may be better there. And so living in this house with this shield and this EMF device may be better, and I'm not saying it is or it isn't, my guess is it is, but ultimately, that's not going to work, because the whole water that we're swimming in is really affected in a way that is unprecedented for human beings, and it's getting worse.

36:54 TC: I'm not a politician or anybody who knows, well, here's the strategy to do something about that. All I can say is, unless we start paying attention to our water environment, and I mean that like a dolphin, we're not going to get anywhere with this, and that's a real problem.

37:17 CS: I'm in complete agreement with you. I see so many people who are sick and that are suffering way too much, they're doing everything right, and it's not from a lack of

trying that they're not well, and we're all scratching our heads like, why is this so hard? And ultimately, where I sit right now, it's that our bodies are this environment we've disrupted so much that this is one of the outcomes. I agree and I know that we can feel really depressed about this. How I see it, the more that we educate our communities and our patients, and we all make decisions that we have control over, then that has a ripple effect, but we do need to wake up. I think that all of the things that we're talking about are really, really important. As you've said, it's a synergistic effect. It's like one plus one doesn't equal two. We all know about glyphosate, but it's actually glyphosate, plus aluminium, plus the Gardasil vaccine, plus a mold exposure, plus emf... It's like there's the synergistic soup that we're in, that it's challenging to get out of.

38:46 TC: That's for sure.

38:48 CS: Dr. Cowan, I have a couple other thoughts. Since we're thinking about cardiovascular health, can you touch on how to keep our cardiovascular system healthy? There's one big misconception where people still don't understand cholesterol, and so often our patients are educated about this. I would love to hear your thoughts. My mentor, Dr. Klinghardt's mentor told him, "When cholesterol goes, life goes." I know we probably have a very similar idea about cholesterol, but can you share just a few of your insights about somebody who is thinking about their overall health and is concerned about their cholesterol levels? What should we be concerned about? Is cholesterol really the problem, or is it just a symptom of something else that we need to be looking at?

39:54 TC: Cholesterol is definitely not the problem. Cholesterol is your body's main repair substance, so if you have injury to your vessels or inflammatory problems, which I would say you get inflammation because the gel protection of your inner lining is not healthy, so the vessel gets exposed, which creates damage to the vessel, and your body uses cholesterol essentially to seal the wound. That's the analogy because I like to speak in analogies. It's like going to a city, and there you see a lot of fire trucks, and you say, "Why do you have so many fire trucks?" And you say, "BeCause we have a lot of fires." And you say, "Well I know the solution to your problem is to get rid of the fire trucks." [chuckle] And that's obviously the reason they have a lot of fire trucks, is because they have a lot of fires,

and they've learned that they better have fire trucks. So if somebody has high cholesterol... First of all, generally speaking, the higher your cholesterol, the longer you live. That's what the studies actually show. The people with the lowest cholesterol have the highest all-cause mortality. There's no doubt of that.

41:09 TC: The argument is saying that when your body's repair substance wears out, then you're in trouble. So first of all, I wouldn't worry about high cholesterol, except in the sense that it means you're probably under some sort of physiological stress, and you might want to find out what that is and try not to be under that kind of stress--then, your cholesterol would usually normalize, which doesn't mean it will get low or where your cardiologist might want it, but at least it won't be a problem. But generally, there's way too much emphasis on cholesterol. Often the best strategy is, just don't do the test.

42:08 CS: Yes, absolutely. I think you've probably seen in your career the cholesterol reference ranges in the labs getting lower and lower, and I think that's no coincidence when we have drugs like statins to lower the numbers. I'm very comfortable with my patients having a cholesterol from over 200. And so a total cholesterol, and there's ways that we can look at HDL and LDL, and triglycerides, and then different lipoproteins to assess risk factors. I think the point I'm trying to get across is that if your cholesterol is "high", first of all, let's look at that number, and the solution is not just to lower that number. That doesn't always translate into solving the problem or gaining better health outcomes. I am surprised. I feel like it's the low-fat craze, so I think this idea is still perpetuated, and I just want to continue to share with people to think more thoroughly about this problem.

43:16 TC: Well, I would say as I just pointed out, plaque that's built up in the coronary arteries is not the only reason why people have heart attacks, and I would argue, is not even the predominant reason. My contribution to this debate, the debate amongst everybody before this is, and I don't want to sound weird about this, "What do we do about plaque? Do we stent? Do we bypass? Do we put people on statin drugs? Do we do chelation? Do we do low fat diets, no fat diets? What do we do about the plaque?" Everybody is concerned, alternative or otherwise, about the plaque.

44:03 TC: But what I'm saying is, the plaque only accounts for 20% of heart attacks in the first place. The reason people die of heart disease is because they die of disease of the metabolism, the energetics of the heart itself. It's not because of plaque; that's only a secondary complication. And interestingly, there are now cardiologists who are coming out and saying this because they're realizing that the billion dollar stent industry hasn't worked. There was an article in the New York Times saying "Headline: Stents proven useless", which means there has to be some other explanation. Until now there has been no explanation, well, why do people have heart attacks? That's what I actually wrote articles about in a book, "What causes heart attacks?" There are other reasons they've been known about, research for 100 years at least. So that gets us away from these ridiculous conversations about what somebody's cholesterol and even what their LDL and HDL is. That stuff, that's a misplaced focus. Let's just say that.

45:22 CS: So when you talk about this metabolic issue in the heart, are you talking about not only the energy production of the heart cells and the mitochondrial function? Or are you talking about this whole fluid dynamic issue within the heart itself? You talked earlier too, about how the blood organizes itself in the heart. Are you talking about both of those things?

45:52 TC: Yes, and it's all explained in my book. People have heart attacks because they're not able to generate the energy they need in the mitochondria, as similar with cancer. They do it in the cytoplasm through fermentation or glycolysis, that builds up lactic acid in the tissues. Just like lactic acid in your leg causes cramps and pain, in your heart it causes angina, but the difference between your leg and your heart is your leg can stop, and your heart can't. So the lactic acid continues to build up in your heart, you get a localized metabolic acidosis, meaning an acidification of the tissues in your heart, and that causes necrosis or ischemia infarction of your heart.

46:44 TC: That's very clear in this medicine Strophanthus that I talk about, it converts the lactic acid into pyruvate to be used as a fuel, and that breaks the cycle, and everybody would agree that without lactic acid build up, there can be no necrosis or infarction of the heart. So, if you can break that cycle by improving the energetics of the heart, and then if

needed, it actually gets rid of the lactic acid, you make a big step in addressing this disease. Now, why do we get a mitochondrial failure in our cells? That gets back to poor diet, too many carbohydrates, heavy metals, EMFs, poor water, stress, all those things; all those things affect mitochrondrial function. What I'm saying is that this whole thing that we now know as intimate to the cancer process, the same process is happening in the heart. It's all about energy flow, water dynamics, poisoning, etcetera, all that usual stuff.

47:56 CS: Yes, living on the planet.

47:58 TC: Right.

48:00 CS: That's an excellent insight, and I'm so glad you touched on that. I know that we're coming up on the end of our time, Dr. Cowan. You mentioned Strophanthus, and then obviously your book, but you have a great website as well with some of your trusted tools and remedies. I know that you also have a garden in, I believe, Napa Valley, where you're producing a lot of your herbs and products. Can you just share a little bit about where people can learn more about these remedies?

48:32 TC: The two main websites are drcowansgarden.com, that's where my family has a business where we take vegetables, and we make them into powder to essentially try to diversify people's vegetable intake. I wrote a little book about that, "How and Why To Eat More Vegetables". And then this thing to do with heart and medicines is on the humanheartcosmicheart.com website. I also have another book coming out at the end of August, early September, and I ask people to go to Amazon in the first week in September and buy the book from them, I've heard that increases your visibility, and that's probably a good thing. If you can write a review, that also helps. The book is called "Vaccines and Autoimmunity and the Changing Nature of Childhood Disease". In the book, I take a look at what childhood disease is, and look at this whole business of how water influences our physiology, and what is happening when we vaccinate a child. I hope people take a look at that as well.

49:52 CS: Absolutely. It's such a great and important topic. I would love to have you back

on the podcast in the fall to talk more about that. Actually, I'm 34 weeks pregnant with my first child, so this is an important topic near and dear to my heart. I'm so glad that you're courageous enough to talk about it, it's really much needed right now.

50:13 TC: Courageous, or I'm crazy?

50:16 CS: [laughter] I think that's both, right? We're on the spectrum of both.

50:20 CS: [chuckle] Well, I can't thank you enough for your time. I know that you're very busy, and I really enjoyed our conversation today. I know that we could dive deeper on each of these topics, and I encourage our audience to look at your work, and to buy your books. You have so many great insights that explain a lot about why we're seeing so many of the chronic conditions that we are right now. I'm really grateful for your work and for all that you're doing right now.

50:48 TC: Okay. Thank you for having me on your show.

50:50 CS: Thank you, Dr. Cowan.

50:53 CS: Thank you for listening to the Spectrum of Health Podcast. I hope you enjoyed my conversation today with Dr. Thomas Cowan. If you want to learn more about Dr. Cowan's work, you can visit humanheartcosmicheart.com, as well as check out his amazing bio-dynamic products by visiting drcowansgarden.com. We will be sharing more information about his book "Vaccines and Autoimmunity" that's due out the fall of 2018. Thank you so much.