

## **VIDEO\_ Diet Doctor Podcast with Jeffry Gerber and Ivor Cummins (Episode 3)**

**Dr. Bret Scher:** Welcome to the DietDoctor podcast. I'm your host Dr. Bret Scher. Today it's my pleasure to be joined by Ivor Cummins, [fatemperor.com](http://fatemperor.com), and Denver's Diet Doctor Dr. Jeffry Gerber. They are the authors of this fantastic book, "Eat Rich, Live Long, the power of low-carb and keto for weight loss and great health." And the two of them are a fantastic team, I really enjoyed talking to them.

We talk about coronary calcium scores, we talk about the benefits of a low-carb diet, how it works, why it works and how it's sort of one piece of the puzzle for solving health problems. It's a nice overview with some very good practical takeaways that you can walk away with and see how can I improve my life now.

So I hope you enjoy this episode. If you want to learn more you can look at us at [DietDoctor.com](http://DietDoctor.com) and you can learn more about me at [lowcarbcardiologist.com](http://lowcarbcardiologist.com). Now stay tuned, I hope you'll enjoy this interview with Dr. Jeffry Gerber and Ivor Cummins. Dr. Jeffry Gerber and Ivor Cummins, thank you so much for joining me on the DietDoctor podcast today.

**Ivor Cummins:** Great to be here, Bret.

**Dr. Jeffry Gerber:** Thanks, Bret.

**Dr. Bret Scher:** The first thing I want to talk to you about is I learned from you guys you have to be very careful who you choose to write a book with. Because then you're sort of stuck with that person, right? You guys are doing so much together, probably so many joint interviews, you are scheduled to talk together at the conference today and now we even have you sharing one microphone.

So maybe I want to ask you if you're happy with your choice, but I don't know if we want to talk about that right away, so instead talk to me a little bit about of what led up to your book "Eat Rich, Live Long, the power of low-carb and keto for weight loss and great health". Give me a little bit of the background. What inspired you to write this book and what led to it?

**Ivor Cummins:** Well, Jeff your history with low-carb goes back a lot longer, so maybe give your history first?

**Dr. Jeffry Gerber:** Yes, Brett, it actually ties into your original question. So I've been interested in nutrition for over 20 years. As you know, I am a family physician having done this for now 30 years almost and about 20 years ago I started to teach myself about nutrition after patients had approached me, family members approached me, I had some experience with losing 40 pounds on my own and just realized we didn't learn much about nutrition in medical school.

You know we maybe had two hours or less and so like all of us we taught ourselves. And so it was about four or five years ago that I had met Ivor. I had a particular interest not only in nutrition but cardiovascular disease. And I always joke if it wasn't for cholesterol we'd probably all be on a low-carb diet.

So at any rate, four years and a half years ago this chemical engineer out of nowhere puts up this video, "The cholesterol conundrum" and I immediately contacted this guy and I realized how connected we were that the engineer from one walk of life and the doctor from the other walk of life, our paths crossed at this opportune time and realizing that we were both focused on diet and cardiovascular risk and I had said back then to Ivor, we had done a little private video Skype and I said to the guy, "I think we need to collaborate".

And you know he said, "What's the happening?" and then he said to his wife, "Who is this crazy doctor from Colorado that wants to collaborate?" And so essentially this is what it's turned into.

**Dr. Bret Scher:** That's fantastic.

**Ivor Cummins:** And the genesis of the cholesterol conundrum was around 2012 I got some very poor blood tests. I won't go into details, but multiple doctors I consulted couldn't really explain the two key things about any challenge.

You know, what's the implication for mortality/morbidity and what are the root causes that would drive those blood metrics. And basically not getting any answers I began to research intensively on... within weeks I was on carbohydrate metabolism as the cause.

**Dr. Bret Scher:** Yeah, we see it time and time again, someone has this personal experience that sends them on this path of discovery and they end up with a low-carb diet as being such a powerful treatment for what they're looking for and yet we were taught nothing of that. We were taught nothing of that in medical school and residency, so I'm amazed that you had been practicing this way for more than a decade.

And at that time these conferences like Low-Carb USA or Low-Carb Breckinridge didn't exist. So how do you feel now when you come to a conference like this and they ask you or ask the crowd, "How many people are physicians?" and so many hands go up? I mean you must feel a little bit of pride in that.

**Dr. Jeffrey Gerber:** Yeah, when I first got involved with it in the year 2000 I was on my own. And interestingly it wasn't until I think 2005. Still on my own I had done my own research, reading medical journals, fascinated with the metabolic syndrome, understanding how that was a root cause, but in 2005 the first person I reached out to on social media was Jackie Eberstein, who was the nurse of Dr. Atkins.

And my hands were shaking, I somehow found her website, found her email and I thought that this person would never reply. And she replied right back and she was lovely, she was warm, she answered all my questions, so that was kind of the beginning. And, you know, the Internet social media was nothing back then, but slowly but surely it grew.

I connected with Jimmy Moore and we really have to give him credit, because if it wasn't for him, I really don't think this community would be as connected as we are. So to his credit as well I became a member of an obesity Society.

And it was funny back then, there were a lot of physicians and myself and Dr. Eric Westman would walk around the room and real quietly say to the other doctor, "I'm low-carb. Are you low-carb, doctor?" And you had to really like...

**Dr. Bret Scher:** Keep it on the down low.

**Dr. Jeffrey Gerber:** Keep it on the down low and slowly but surely it's grown, Dr. Westman became the president of the society and that's really helped to make, I think, physicians aware and, you know, we've just watched this blossom ever since. And Ivor and I both attended the summit in Cape Town South Africa from Tim Noakes. This was back in 2015. And we thought it would be a great idea to bring conferences to the United States.

So with my co-organizer Rod Taylor we have conferences in Colorado, we have one coming up next year in 2019 in March in Denver, and like you said it is just rewarding to see healthcare professionals attending these things, because honestly they are the guys, they're the gatekeepers that need to learn this first. But we also love having the general public and these events that we're at today really helped to bring everybody together and advance nutritional science.

**Dr. Bret Scher:** Yeah, that's so true and it seems like the doctors are catching on, but Ivor engineers are leading the way and that's the fascinating part. And what I really

like about most engineers, I can't group you all into one, but in general the problem-solving skills in the way of thinking things as problem solvers is unique to the world of medicine unfortunately, but that's sort of what we need and you talk a lot about the Pareto principle and you talk about sort of problem-solving metrics. So give us a little overview of how you think your approach to problems differ than the average physicians approach to health problems.

**Ivor Cummins:** Right, Bret. Well, essentially we use a lot of tools, systematic tools. So there is the Pareto principle, which is a rack and stack of the most important factors based on the evidence and that's really important. Those comparative analysis, a tool called Kepner Tragoe, where you prosecute all of the distinctions between what the problem is and is not and then you record the inferences.

So it's kind of like a little epidemiological. It's looking at all the differences and what might cause them and that can become a very long list. And then there's hypothesis for against charts, where you look at many hypothesis for a single problem. And we split up many, many hypothesis and they are constantly judged against each other based on the evidence for each individual one and against.

And there's never any clarity early in a complex problem, especially a multifactor. So you have many, many hypotheses and they are pitched against each other. And that's an enormously important discipline, which doesn't really happen in medicine. Usually a hypothesis gains ground, becomes established, the orthodoxy get behind it and it kind of transcends into dogma. So there's a huge difference.

And then statistical inference and design of experiments to test hypotheses is an automatic part of our life. An autopsy, so intense autopsy with electron microscopes and other tools to dig in and scrutinize the problem at a physical level. And again you don't have so much of that medicine.

**Dr. Bret Scher:** When I hear you go through this checklist and then I think in my mind how we write guidelines in medicine and they're so polar opposite. I mean the guidelines are... you get a group of people together that do a sort of a cursory evaluation of the evidence, they come up with their best case scenario and their opinions of what the guidelines should be. That is a far cry from what you just described.

**Ivor Cummins:** And one crucial thing I'll just add, there are many more tools, but also the experience of decades of using these tools... you less and less make mistakes or jump to conclusions through sheer experience. But a crucial one is to always look for black swans, for contradictory evidence against your hypothesis.

So that's an enormous part of the time to resolution and success in engineering is you look for negative data that conflicts with your hypothesis and you rapidly kill incorrect hypotheses or you rewrite them to accommodate the conflicting data. And that's just so central but I must say in nutritional medicine that's the most extraordinary difference.

Confirmatory data is always looked for to build up more and more evidence to support a hypothesis, whereas one or two conflicting pieces of data could reset the whole team and get you back on the correct path doesn't happen.

**Dr. Jeffrey Gerber:** So we do have criteria in medicine that prove or disprove hypotheses. And that's the Bradford Hill criteria, but we've set the bar so low that we don't look at it like a scientist or an engineer looks at it.

**Dr. Bret Scher:** Right and I wonder how many doctors are even aware of the Bradford Hill criteria. And when you're interpreting an observational study that shows a relative risk of 1.18 and that makes it as causative, which, you know, that doesn't even scratch the Bradford Hill criteria, I think it's just an underused tool for sure.

**Ivor Cummins:** And actually another example of Bradford Hill that just springs to mind, there has to be directionality of dose-response. So cause X supposedly driving Y, as X increases, why should increase? But we have many examples including cholesterol and other things, whether is not a dose-response. Yes so Bradford Hill is excellent actually in principle, but it's utilization is almost zero from what I've seen.

**Dr. Bret Scher:** Let's get into some of the specifics. So you talked about the dose-response, Ivor. And you spoke about that in your talk yesterday, specifically about coronary calcium score. So I know you're a big proponent of the coronary calcium score. And one of the things you said was there are 17 studies I think you quoted where LDL does not correlate with the degree of coronary calcium score.

**Ivor Cummins:** Yeah, actually there's a 2009 paper and a book publication I think in 15, can't recall the author, but I think it's closer to 20 and even includes familial hypercholesterolemia studies. And across the board with one exception in 19 studies, there's a very slight correlation between prospective LDL and coronary calcium. Now coronary calcium is far and away the best metric of atherosclerosis extent and future risk. It beats all the risk factors together.

And it's because it sees the actual disease process, the calcification that's the response to injury for this inflammatory vascular disease. But it is interesting there's almost no correlation with cholesterol metrics. Interest needed do highlight that insulin pops up several times, but not cholesterol.

So I think to engineers working on cholesterol, that and myriads other kind of negative pieces of evidence would've caused us to totally retool the cholesterol hypothesis very early in the prosecution of the problem-solving effort. And we have 50 years now where the negative evidence is essentially almost suppressed, but certainly ignored.

**Dr. Jeffry Gerber:** So it's interesting... mainstream, half of the cardiologists think that the calcium score has a benefit, half of them don't, but it's interesting when you look at guidelines, they try to tack on calcium score with your AHA risk markers, and what we're suggesting is that that's not the right way to use the tools that use... just simply look at calcium score by itself, independent of cholesterol and what I can add is just clinically we see that LDL cholesterol LDL-P is all over the board and it doesn't correlate with the calcium score.

And this is especially... so we see lots of patients who have been doing low-carb paleo diets and I had many over years where there are these cholesterol hyperresponders where they tend to high LDL-C, high LDL P and many of them have calcium scores of zero, a perfect score of zero, which gives you a 15 year warranty.

**Dr. Bret Scher:** Let's talk about that 15 year warranty for a second, because I have to be honest, I have a little bit of trouble with that term, because it almost implies the risk is zero. So I think we have to admit if you have a calcium score of zero, your risk of a cardiac event in the next 10 years is not zero. It's very low, it's between 1% and 2%, but it's not zero. So I think that's important to sort of clarifying the warranty.

**Ivor Cummins:** It's really important to clarify and anyone that infers from the word warranty it's zero is mistaking obviously. And the warranty I think there were two papers were warranty was used in the title of the publication and it probably is unfortunate. So one of the largest study showed just from memory that zero scoring middle-age people I think 12 years later at 99.6% were still alive. And high-scoring people 75.6 were still alive.

Now that's an enormous difference in mortality. So although enormous, there's no zero, and I think Jeff you probably agree that if you're zero calcium, there are exceptions. On one end there are people with zero who have rapid progression of atherosclerosis and a soft plaque does rupture before there's significant calcification to show up in the scan. I mean later you could look and probably find diffuse calcification, but not enough to register.

Interestingly on the other end of the scale there's a small maybe 1% of people who have huge calcification and who don't seem to have events and they appear to be the people where the protective effect of calcification, which is to protect the arteries

when they're inflamed, is so advanced and rapidly progressing that they actually end up with massive calcification but relatively stable arteries, they almost have a full metal jacket.

So I think those two corner cases around 1% at each end illustrate the protective nature of calcium, it's a fantastic evolutionary process, it's actually bone matrix, it's identical to bone matrix formation, but of course people rapidly progressing may have their event before the calcification establishes. So around 1% events in the following 10 years for zero versus in your recent paper, Jeff, around 37% for high scores close to 1,000. People just need to see it's not 100% perfect.

**Dr. Bret Scher:** And that's a great point to bring up though because I think we can fall into a trap of being sort of overly reassured with a score of zero. It's not, "Your score is zero, see you later, you don't have to worry about anything." It's, "Your score is zero, but now you're on our radar screen to follow again to make sure there's no progression."

**Dr. Jeffry Gerber:** So one other point is criticism of the test is that it doesn't visualize soft plaque. And when you look at the data first of all, so when your score goes from zero to 1,000, this is independent of whether you see soft plaque or not. If you have a zero score you still have a small chance of having an event.

Now the question is if you can visualize soft plaque, would that change your ability to predict risk for these people that have a low calcium score? So you can do a CTMR, you could do a CT angiogram and then you get to see the soft plaque. But in our experience it doesn't change the data looking at a CT calcium by itself.

**Dr. Bret Scher:** So Jeff, what do you think about the carotid intima media thickness as a surrogate for that? Obviously again we're not talking about the specific site we're concerned about and we're not even talking about plaque so much. It's just the thickness of the intima of the carotid artery, but something you can measure quickly without radiation that might be a decent surrogate marker for the soft plaque as well.

**Dr. Jeffry Gerber:** Yeah, so again you describe that nice... Well, the intima is just the lining of the wall of the artery and so I don't know who created the technology, but what he tried to do was to age the blood vessel based on the thickness of the intima. And on literature review it really does not correlate with events and mortality. So it's interesting, in our office we actually do the CIMT, because it comes along with a limited Doppler.

So the limited Doppler, we're actually looking for plaque buildup within the lumen itself. And that perhaps is a surrogate test for say a coronary calcium score. It's not quantifiable quite like a coronary calcium score. The idea is if you could image all the

blood vessels in the body and look at the plaque burden, that would give you a great idea about overall risk. But we do like the calcium score, because it's looking at those tiny little coronary arteries that, you know, you are at risk for heart attack and stroke. So CIMT doesn't really correlate.

**Dr. Bret Scher:** I'd like to see the rate of change study sort of like with the coronary calcium score that has a fast change or slow change, same for CIMT, and correlate that. I don't know if the rate of change studies have been done quite as well.

**Ivor Cummins:** No not really. In fact there's not much really linking CIMT impressively to future risk prediction. I mean it's a useful tool to quantify and track, but it's just very weak compared to calcium. Because as you say it's surrogate in different vessel, there is operator variation, quite large, they have to pick the region, you know, with to mouse clicks.

And you can't have people who have quite a large intimal thickening, but really have very stable arteries with no real vulnerable plaque and vice versa. It's just the calcium is vastly better. You did mention an interesting point, the radiation, and I researched that myself out of interest because I often hear this, but machines nowadays are around 1 mSv, which is around the same as a bilateral mammogram. And if you look back at research in the past decades,

Chernobyl and even Hiroshima and the nuclear accident in Brazil, the biggest civilian nuclear accident, they tracked the people who had much, much higher exposures than this. I mean much higher. And generally over decades no signal between them and controls. So I think the expert Douglas Boyd who invented the calcium scanner, I interviewed him the other day, he said that that risk is maybe one in 10,000 of some possibility, it's theoretical for 41 mSv, it's tiny and it really is a distraction from the topic of how powerful the scan is.

**Dr. Bret Scher:** Yeah, that's a great point about how we interpret the risk of radiation, because in medicine there's this concept of ALARA, as low as reasonably acceptable, and it almost teaches us to think of it as a way... it doesn't matter how high the radiation exposure is. What matters is how much is the test going to contribute to the care. And is it worth it for any amount of radiation exposure?

Certainly a one-time calcium score or following every five years or so. Where I get a little concerned is if someone wants to follow a calcium score every six months or everyone year, because we don't have data to say that short-term of a progression on happens or what it means, but more of the longer term following. Would you agree with that statement?

**Dr. Jeffrey Gerber:** Yeah. So interestingly I've been working with my hospital next-door, that they've had a 64 slice GE machine for quite some time, GE Optima, and last year they purchased the cardiac package. And I've been bugging them right next door, I said, "Hey, we got to get this thing set up for calcium scans."

And I've learned a lot because I've sat in there with their radiologist, the radiology technician over lunch, we just sit down and just... fascinating stuff. And first of all there's much less user input error when you do this calcium score. You know, they calibrate the machine and the machine does the calculation to measure the calcium.

And I actually have been looking at the studies. So the radiating dosage, so the effective radiation dosage... So the device puts out a certain amount of radiation, so it'll measure in DLP units, and I think our machine is about 165 DLP.

So that is what the machine puts out and then you have to do a fudge factor calculation for the effective dosage. So there's a chest factor. And when we do the calculation, our calcium score is... the millisieverts is about 1.2.

And so you know I'm watching that really carefully and there's things that the technicians can do so they can make a smaller window and the idea is that really is a small dosage. And if you have a zero score you could probably say that you don't need any more, but it is okay to track... you can track every 3 to 5 years, maybe sooner if people are concerned.

**Dr. Bret Scher:** Yeah, especially if someone's changed their lifestyle significantly and you want to see what impact that has. So yeah, I think that's a pretty good summary of calcium score. Let's transition to a second about... transition to weight loss.

Jeff, you talked about weight loss in your talk today and what is so interesting is a lot of people come to a low-carb diet for the purpose of weight loss. But would you say weight loss is the most important metric to follow?

**Dr. Jeffrey Gerber:** No, not at all. So again as I mentioned earlier, my understanding of cardiovascular disease led me to the metabolic syndrome. And so I think why we're here as engineers and doctors is we're trying to understand how do treat and prevent chronic disease. And weight loss is just kind of a consequence of doing all this.

**Dr. Bret Scher:** And so, Ivor, when we talk about the mechanisms of weight loss or the mechanisms of improving metabolic health, there's the debate of the calories in calories out versus the carbohydrate insulin model or some combination thereof when you factor in psychological factors... How do you break down and say what is the reason why a low-carb diet works?

**Ivor Cummins:** Yeah, that's the million-dollar question. So I will take a shot at it. I think that calories... there is a place for calories, there's no question. It's not like the CI-CO, that is simply eat less, move more, because the body is far more complex than that, with myriad hormonal control feedback loops. So I think the primary benefit of a low-carb diet actually is appetite control and management. It's a really big factor.

So when I went on a low-carb diet, and I'm not speaking N=1, but it's seen in studies and all over the place, ad lib. low-carb diets have beaten calorie controlled low-fat diets. And we see again and again that when you switch over from a glucose based metabolism to a more fat burning metabolism, appetite comes under your control. In my case it was striking. I was actually shocked within weeks of how I could blithely not have to eat when I didn't want to.

So I think that's one of the big factors. Now when your insulin is high and you are hyperinsulinemic, like probably the majority of American adults today, that will tend towards trapping fat and tend against the burning of your body fat, so that is another factor.

But I would say appetite control is the central linchpin with the metabolic advantage that's being discussed and the lowering of insulin being another strong element, but it's not fully quantified, I think that's fair to say. What would you say, Jeff?

**Dr. Jeffry Gerber:** Yes, so there's a lot of factor to consider that it's not necessarily all insulin. There's many hormones and signals such as leptin, the gut incretins, we have to all consider that when we are thinking about regulating appetite, but of course insulin is probably the master hormone involved. And when you consider that perhaps two thirds of the US population adults over age 45 are currently diabetic and prediabetic that when you treat them with carbohydrate restriction, you're going to have most success.

**Dr. Bret Scher:** And I think that's a very good answer because we like to simplify things and almost to a fault, because we want to know, "Is it the calories in, calories out? Is it the carbohydrate insulin?" And the truth is it's far more complex than that. That's basically how I would summarize your answer, so I thank you for that. The next question though Jeff is I'm sure you see these patients all the time in your office that they come in with a stall.

And you can define the stall on different ways, but basically whatever metric they are following, whether it's their weight loss, whether it's their insulin sensitivity, it just plateaus and they get frustrated. What kind of advice can you give to people about your general approach? When you see a stall what do you think about... what are your sort of go to top two or three things to ask them to do?

**Dr. Jeffry Gerber:** Right, so if you're insulin resistant you just respond rapidly, your appetite is controlled, you correct insulin resistance and the fat that is trapped in a damper behind insulin... it opens these insulin floodgates and energy just pours out from fat tissue. But what often happens and I mean I'm just thinking of a patient I saw last week... they never lost weight from the beginning even though they were markedly insulin resistant when we measured all the parameters.

This particular person was told by a trainer, "You have to eat 180 g of fat a day. No matter if you're hungry or not hungry." And she was heeding the advice and pumping in the fat. And nothing happened. I mean that's just an extreme example, but the point is that what you are eating at the beginning is not going to be the same when you hit this plateau.

And so guess what? Controlling appetite becomes most important. This is what I think about, the quantity of food that you consume, the calories the activity and then it trickles downhill. But we have to make people understand that the quantity of food is really important once you become more insulin sensitive.

**Dr. Bret Scher:** Yeah, very good point. And now to tag onto that a little bit more, to go a little bit deeper into the specifics of the diet... Ivor, this one's for you as a good Irishman... How does alcohol fit into the low-carb diet and the low-carb lifestyle?

**Ivor Cummins:** Rather well. No, actually alcohol, I think a glass or two of red wine a day is fine. You know, the beers are generally carby. I've heard beer described as liquid bread, which is a pretty good.

**Dr. Bret Scher:** A good description.

**Ivor Cummins:** Yeah so I think generally alcohol... interestingly there are studies done in the 60s on humans and calorie controlled, calorie for calorie alcohol replacing carbohydrate led to a slight drop in weight. And then replacing carbohydrate back in instead of alcohol iso-caloric increased the weight again. So well alcohol is the fourth food group.

So we know the protein has the thermogenesis effect, so over 100 calories of protein you eat maybe 75 will fully get into your system and there'll be losses for heat and fat and carbohydrate around 10% or 15% of losses. It appears alcohol as the fourth food group has losses also because of its metabolism.

But that's just an amusing aside. I think the advice is, you know, moderate alcohol, particularly something like dry red wine is low in carbs, low in sugar and it's a pleasurable social thing. But anyone who has any hint of an overindulgence nature, you know, maybe it's best to avoid alcohol altogether. And drinking excessively will

knock people out of ketosis and will lead to many other issues including their work performance and other things also.

**Dr. Bret Scher:** I see it sort of the same way as trying to decide what's the mechanism of weight loss. Well, you also have to factor in the psychological components of what you eat. So with alcohol how it affects your liver, how it affects your ketone production, but also the psychological aspects of alcohol. Because let's be honest, we don't make the best decisions once we've had a couple of drinks so we have to factor that in as well, beyond the physiological effects.

**Ivor Cummins:** That's a really, really important point... I wish I'd remembered to mention. Absolutely, when under the effects of alcohol that's often where you will do your cheats. You will recharge your hands, you will eat things you would never eat without being slightly affected by alcohol. So that indirect way can certainly lead to failures.

**Dr. Bret Scher:** Let's talk about your book for a second. It's a fantastic book, very detailed with great recipes, great scientific descriptions of why this works and how this works and some very practical tips. Can you share with us maybe one of the stories in this book that really jumped out at you, that's a motivating story for you and your patients?

**Dr. Jeffrey Gerber:** One particular female who was here last year at the conference had come in to see us... It's actually a typical story. She was... Actually I'd say it's not a typical story, it's an atypical story... So this patient had been going to the diabetes Center in Denver for many, many years and her weight kept going up and up, diabetes was out-of-control, taking more and more insulin.

And it was her partner that had brought to her attention the low-carb diet. So she was very frustrated at this point. And so on their own as a couple they pursued low-carb diet.

**Dr. Bret Scher:** On their own, not recommended by the Diabetes Center, not recommended by any physician.

**Dr. Jeffrey Gerber:** Absolutely on their own. And by the time they had come to see me she was already losing some weight. And to make the long story short, her A1c was in the range of 12 to 13.

**Dr. Bret Scher:** Wow, that's high!

**Dr. Jeffry Gerber:** She got off insulin, she got off all medication and presently... And it was funny because as we were writing the book, she kept losing more and more weight so we had to update... We had to keep updating the book.

**Dr. Bret Scher:** What a great story!

**Dr. Jeffry Gerber:** Yeah. So as of today, and this is probably maybe two years now, she lost over 100 pounds, I believe it's almost half her body weight. And her A1c is 5 or 5.2.

**Dr. Bret Scher:** From 12 to 5.2 getting off her medications.

**Dr. Jeffry Gerber:** Yes.

**Dr. Bret Scher:** That's a great story.

**Dr. Jeffry Gerber:** And you know she went to the elite diabetes center in town and they couldn't help her.

**Dr. Bret Scher:** Wow! So not your average case, not your standard case, but certainly shows the power that this can manifest in the frustration, that it wouldn't be discussed in an elite diabetes center. Now do you see that trend changing with the evidence from Virta health in a peer-reviewed journal that we can get people off their medications? You know, it's not doctors around town or N=1 stories telling their experience. Now it's a published article. So do you see the tide changing for that?

**Dr. Jeffry Gerber:** Again I've been at it for almost 20 years and it's much slower than I would like, but again we can do it one-on-one, but that's not going to give us that global message that we're looking for. So you know hopefully we can infiltrate the ADA meetings, the American Heart Association meetings and bring the evidence to the table in that way and change the tide.

**Dr. Bret Scher:** So what's next for you guys? Ivor, what's next on your plate?

**Ivor Cummins:** Well for me it's mostly conferences in the next few months where we'll be obviously sharing the book and circulating that. I'm in Glasgow for a British cardiovascular society, I'm in Majorca for Low-Carb Majorca, Low-Carb Houston is on, Estonia has popped up for September, just a kind of health conference there and possibly Cuba in December, a diabetes conference, not low-carb but diabetes and health. And actually quite a few more heading into next year.

**Dr. Bret Scher:** That's great to hear that it's a diabetes conference in there, cardiovascular conference in there, so not just low-carb conferences.

**Ivor Cummins:** Well, actually my supporter, and I kind of report to David Bobbitt now of Irish Heart Disease Awareness and we certainly share the focus on getting the message out to wider communities because I think within the low-carb community our obsession is giving people the chance to discover their heart disease with the calcium scan and giving them the solutions which include low-carb, but obviously low-carb is only one part of the multifactor solution.

But the challenges that people within the low-carb community have a good idea for a lot of the science and they are quite ahead of the game and they are even now learning a lot about the calcification scan through our efforts and others. But the huge majority of people are outside the low-carb community.

So it's really vital for us to get to ordinary people, I mean those people at 52 or 53 of age that are going to drop dead of a heart attack and leave children behind and they are not obese and they don't smoke, but they have hyperinsulinemia unknown, undiagnosed, they have huge vascular disease that's going to kill them, but no one gave them a scan to wake them up. So our fixation is to get to those people. So I agree any conferences that are not just low-carb are our primary target.

**Dr. Bret Scher:** That's a very good point. I love how you brought up that the low-carb is one part of the solution and is so important to emphasize. And in your book you do put a strong emphasis on sun exposure and sleep and stress and physical activities and you have your list of 10 factors and I think that's really important to fall back on, that we focus so much on diet because it's something we're involved in every day and we have such an intimate relationship with food and it's so complex. But it's one piece of the puzzle so I'm glad you brought that up.

**Ivor Cummins:** Yeah absolutely, Bret, and again just thinking back to the Pareto principle, people say that heart disease has 300 factors now. It's apparently 300 that are listed. But obviously by the Pareto principle the top 5 or 10 will account for a huge amount of the disease on mortality and people can't focus on everything.

So it's very confusing to tell people too many factors including many lesser ones. And cholesterol can suffer from this problem as well, that is not a primary central factor, it's an interacting factor. But we like to focus on the top ones, the Big Bang for the book that will save most people.

**Dr. Bret Scher:** Good point. And Dr. Gerber, what's next for you?

**Dr. Jeffry Gerber:** Yes, so I don't go to as many conferences as Ivor, because I still have my day job as a family doctor and that takes up most of my time. And I have to say, you know, almost 30 years doing it I still enjoy it. There's passion and helping to

take people off medication and giving them tools where they can really make changes is really helpful.

But just a backup in terms of conferences, Ivor and I did attend a really important and interesting conference in Zürich. It was put on by the BMJ and Swiss RE. And the purpose of that conference was consensus. So we actually had the two sides come together and I'm a person of moderation and so trying to find consensus and this was just wonderful. And we hope that we could see more conferences like that into the future. So I pick and choose the conferences that I attend, I'm busy with our Denver conference that is coming up in March 2019 and we're always looking for interesting topics, keeping it fresh.

We have some of the returned regular speakers and then to find new speakers. And so our mantra for our conferences is that these are for doctors put on by doctors, so we offer educational credit and everyone else is invited.

**Dr. Bret Scher:** That's great, very good. Dr. Jeffry Gerber, Denver's Diet Doctor, thank you so much for joining me. Ivor Cummins, [fatemperor.com](http://fatemperor.com), thank you so much for joining me.

**Ivor Cummins:** Thanks a lot, Bret.

**Dr. Jeffry Gerber:** Thanks.