

EPISODE 189

[INTRODUCTION]

[00:00:10] AVH: Hey everybody, welcome to the podcast. Thanks for being here. Before we get in to today's guest and a very important book that he wrote. I want to give you a quick overview of the Bulletproof Conference that I attended in Pasadena last month. I feel like people are either firmly in the biohacking camp, where they're totally in to Bulletproof coffee and trying new tropics and experimental pills, weird technology and trying to hack their brains and their bodies.

And then then there's people who think like it's complete snake oil, for only weirdos with too much time and money to get in to biohacking. I don't know if that sounds too judgmental but it's just what I hear from like different sides. So, I think a lot of Paleo folks think biohacking is incompatible with their lifestyle because it's not necessarily all about nature, and sunshine, and real food.

Some folks see it as trying shortcuts and trying to outsmart our physiology maybe and maybe there's an element to that but one that I was pleasantly surprised to discover at the Bulletproof Conference was that even among the supplements and the pure oxygen chambers and infrared saunas, the sort of repeated refrain always seem to be that the best biohacks are good old consistent health practices, like focusing on quality sleep, real food, and movement.

And, yeah there are a lot of gadgets that can help you with that and vibrating machines, and blue light blocking glasses and like all of that stuff. But, not of that is necessary and even these biohackers were saying that. They are just tools you can use should you feel inclined and even Dave Asprey the founder of Bulletproof and the head of this conference said that, "There is no pill that's going to make up for - you know, it's going to make you live longer if you aren't taking care of your basic health first."

So, I think that's a really valuable lesson and I think that should make everybody feel better or worse depending on who you are because it basically means that while there's plenty of technology out there that can help you hack the system, you still have to do the hard work, the

consistent repeated right decisions for you in terms of how do you eat and how do you sleep and how you exercise and how you manage stress.

So, there are some shortcuts but I mean, you still going to do the hard stuff first. I was also pleased to see, I think that the show had a more diverse group of individuals than I expected. There were plenty of age groups, plenty of men and women. People from a lot of different athletic and nutritional backgrounds. Like, I said I was covering the show on social media because it's all about the constant quest for learning, right? Figuring out what different view points and research, and information, and technology works for you.

Picking and choosing the pieces that makes sense for you. And, yeah, Bulletproof coffee really does taste good you guys, even if it is just a million calories and I mean not necessarily not just their brands like Bulletproof coffee in general, I mean that stuff is just good. I always kind of stayed away from it because I don't necessarily need a three hundred calorie coffee but, you know, I won't be adding it to my daily diet necessarily but it was pretty fun to have unlimited Bulletproof coffee for a few days.

And, I met some really, really cool interesting, enthusiastic, smart people and we're going to have some really, really good podcast that come out of some of those interactions that I had. So, that's my two cents but the conference, it really was better than even I expected and if you're looking to up your health and fitness game and want to connect with some like-minded people. You know, we have one, we have a conference coming up that might be suitable for you guys. Paleo Magazine is hosting their own event.

Paleo Magazine Expo in Boulder in June this year so definitely follow the account online, on Instagram, and Facebook @Paleomagexpo, you can find out more at the Paleomagazineexpo.com whether you want to be an attendee or an exhibiter, we're really, really pumped for this conference. I think we've attended and been a part of enough health and wellness events now that we are going to crush it, we know what we're doing.

So, I hope that I see you at our expo in June. Alright, now on to the real reason we're here today. I am speaking with Chris Kresser who just came out with the new book called *Unconventional Medicine: Join The Revolution To Reinvent Healthcare, Reverse Chronic*

Disease, And Create A Practice You Love. So, that's a pretty self-explanatory title, the book is for medical professionals as well as individuals looking to more about what functional medicine is and how it can help them, their families, their communities, and even the doctors providing the care.

I think it's an incredibly important book. It always strikes me as both baffling and scary, that the term functional medicine which essentially seeks to understand medical issues from a holistic, you know, whole body approach in realizing the interconnectedness of our bodies and our minds and looking to address the root cause. That's considered the weird way to do things, instead of just attacking things with medicine and medicating the symptoms.

It's just bizarre that, that is not the norm and that it's a weird revolutionary way to do medicine. I mean, it's kind of scary. But anyway this book offers a lot of hope so – and hopefully with books like this coming out it will start to become the norm. Functional medicine will be the way that we approach sickness. Without further ado let's talk to the man behind the book Chris Kresser.

[INTERVIEW]

[00:05:45] AVH: Alright, Chris thank you very much for being here, welcome to the podcast.

[00:05:42] CK: Oh, it's a pleasure to be here Ashleigh. Thanks for having me.

[00:05:45] AVH: Awesome, so we are here today to talk about your new book *Unconventional Medicine* and I guess I'd like for you to just introduce it a little bit to us, why you decided to write this book now and really who the book is for.

[00:05:58] CK: Yeah, so several years ago I wrote a book called *Personal Paleo Code* it's not Paleo Cure and paperback and the purpose of that was to help individuals take back their health and that's an important goal and we definitely need that to happen. This book is really more about taking back our healthcare, which I've come to believe is an equally important, if not more important goal because we are simply buckling under the burden of chronic disease.

One in two American's now has chronic disease and one in four have multiple chronic diseases. If healthcare expenditures continue at their current pace the U.S. is expected to be bankrupted by the year 2025 because of healthcare expenditures. I'm sure some listeners might have seen in the news recently but there has been a few studies that have shown that today is the first generation of kids that are expected to actually live shorter lifespans than their parents, which is heart breaking as a parent myself.

And, also just simply because lifespan is continually increasing in the modern world since we've been measuring it. So, these are all very clear signs that we're moving in the wrong direction and that conventional medicine has, although it's fantastic for acute emergency and trauma type of situations, it has largely failed to address chronic disease, which is the biggest challenge that we face now from a healthcare perspective.

[00:07:24] AVH: I'd love for you to just talk a little bit about the difference between functional medicine and conventional medicine as terms for those who maybe a bit unfamiliar with those words. Can you just talk about the major differences, high level and then we kind of get in to it a little bit deeper as we go.

[00:07:39] CK: Sure, so, you know, conventional medicine is what we could – probably be more accurate to refer to it as sick care or disease management. So the typical paradigm is built around using drugs to suppress symptoms, sometimes surgery, and really to intervene after disease has already taken root and in some cases after it's already too late to reverse.

So, if you think of health on a spectrum on a far left you have perfect left and on the far right you have death. Conventional medicine is really mostly focused on intervening toward the right hand of that spectrum. And there are a lot of examples of this, one is, you know, if you go in to the doctor and you're fasting blood sugar because the range goes up to 99. You know, they might give you some vague advice about eating better but that's it.

They'll just say, "There's nothing to be done." And then, you go back; you know, three or four years later and you're fasting blood sugar is 99 or a 100, which then puts you in – all of a sudden you're pre diabetic and then you know, they've got drugs to prescribe for that. That doesn't make any sense.

Disease is not black or white and the disease progresses along a spectrum and so if somebody who is at 96 or 97 it doesn't mean they're fine, it means they're progressing along that spectrum and without any intervention, there eventually going to be; you know, in a pre-diabetic range and if they're in a pre-diabetic range and nothing is done there eventually going to be in a diabetic range.

In the conventional model they basically wait until you progress to that point to do anything about it but that's just silly because we've known for thousands of years, in fact, and there's a saying from the Huangdi Neijing which is an ancient 2500 year old Chinese medical text that goes "The wise physician treats disease before it occurs" and of course we have Ben Franklin who announced that "Prevention is worth a pound of cure."

So, we've known; you know, it's just common sense that if you – the earlier in the process you intervene the greater chance you will have of preventing that disease from occurring in the first places or if it's in the early stages of reversing it completely. Yeah, we have a more reactive model in conventional medicine that's really built around you know, not addressing the root cause of disease and just putting band aids on the problem.

So, if we would use an analogy, if you have a rock in your shoe and it's making your foot hurt, in the conventional medical model you get a diagnosis of foot pain or actually it will be something fancier than that; you know, they'll use a Latin word for foot and pain or something to make it sound more official.

[00:10:25] AVH: Right, it's scary.

[00:10:25] CK: You know, pedis delores, dolores or something like that and then –

[00:10:29] AVH: Right.

[00:10:29] CK: You'll get a prescription for a pain killer which certainly will help reduce the pain. But, you know I think we can all go agree that it will be better to just take off your shoe and dump the rock out. And, that's really what functional medicine is all about. It's based on

identifying and then addressing the root causes of disease, so that we can get long lasting results without the patient having to take unnecessary drugs or have unnecessary surgery.

So, to give you an example we can talk – I mean imagine a patient who has G.I. issues maybe they have; you know, loose stool, and gas, and bloating after meals. Maybe they've got skin problem like psoriasis or eczema, or acne, rosacea or something like that. Or maybe they have brain fog; you know, difficulty concentrating and; you know, some mood issues.

Those are all very common symptoms, right? The large percentage of the population suffers from, some of the symptoms, so in the conventional system what would happen is that person refers to go to a gastroenterologist perhaps and tell the G.I. Doctor about their gut symptoms. Then they will go to the dermatologist and tell that doctor about the skin symptoms and then might go to their primary care provider, perhaps be referred to a psychiatrist to talk about their cognitive and mood symptoms.

And, they would leave each of those appointments probably with a prescription for a medication that targets that particular symptom with very little, you know, if any discussion amongst those three practitioners about how those drugs might interact and whether they're even addressing the cause of the problem. Then often the patient might start taking those drugs and; you know, some symptoms might get better but then they might have a side effect.

You know, for example, maybe a drug that they take for the cognitive or behavioral issues that causes constipation which is, you know, maybe in this example that might be welcome since they have loose stools but let's say they had constipation in the first place and it gets worse so then they're going to need a drug that addresses that problem. Then before you know it the patient is taking five or six drugs and that's not at all uncommon.

[00:12:46] AVH: Right.

[00:12:46] CK: But if they go to functional medicine provider maybe that provider does some testing and finds that patient has an undiagnosed gluten intolerance; and that gluten intolerance in fact is leading to all of the patient's symptoms and all of those different domains. The skin problems, we know that gluten intolerance is linked to dermatitis and a lot of different skin

problems. We know of course that it can cause digestive issues and we know that it's linked to cognitive and mood, and behavioral disorders.

So, in that case the functional medicine doctor is able to identify the single underlying cause that's like the root of a tree that's leading to all of these symptoms which were the branches. And if you address those roots, then the branches take care of themselves. So, that's really the promise of functional medicine compared to conventional medicine for chronic disease.

[00:13:42] AVH: Okay, now I would imagine that maybe one of the barriers to more doctors adopting a functional medicine approach maybe that because it's looking, you know, at the total system of the body, it's like looking – it's kind of a holistic approach in how all the different systems maze or affect one another or you're looking at proactive treatments, rather than reactive treatments. It seems like it would be a much more in-depth process on the like the general practitioners part and something they need to maybe work a little harder to – or know a little bit more, or invest a little bit more time individually. I mean is that accurate to say? That maybe one of the barriers why yeah –

[00:14:21] CK: Yeah, that's completely, that's completely accurate and in fact, in my book I talked about the three-part framework for how you address chronic disease and one part is an ancestral diet lifestyle, which your listeners of course will be really familiar with but we can talk about that more if you like.

The second piece of functional medicine which we just talked about, but the third piece is what you're referring to now which is changing the way that we deliver healthcare. Because if you accept the premise that the core root cause of all modern disease is the mismatch between our genes and our biology and the modern diet and lifestyle that we're living and then you accept the premise that in order to address chronic disease we can't just put band aids on diseases that have already expressed. We have to actually try to reverse them or better yet prevent them in the first and the best model for doing that is functional medicine.

Then, the natural conclusion is that we need a different model for delivering that care because you cannot deliver effective counselling on diet, behavior and lifestyle; and root cause medicine in a ten-minute appointment. And, the average visit with a primary care provider, according to

research, is eight to twelve minutes. And, the average amount of time that the patient gets to speak before they're interrupted by the doctors is just twelve seconds.

I don't say that to Malayan doctors, doctors are busy and they want to make sure they get what needs to be done in the appointment and they're under pressure and stressed, as you said. So, it's a problem with the system overall. So, we need to overhaul the system so that we can have longer appointment times in the patients and the focus to those appointments just being from drugs to the most important interventions, diet, lifestyle, and behavior and then addressing the root cause. Go ahead.

[00:16:18] AVH: I was going to say, it seems like not only do we need to look at a change from the patient's point of view but from the doctors' as well because I remember that I took a note here that in your book you said or there was a study that said some 54% of doctors reported feeling somewhat very negative about their work. I mean that's not an outlook that you want to have when looking at healthcare providers whose job is to come in and hopefully feel; you know, inspired and driven to help people, right?

[00:16:43] CK: Absolutely, such a good point. I mean, chronic disease doesn't just affect individuals; you know, in terms of quality of life and also financial impacts, medical expenses is the number one cause of individual bankruptcy. Far ahead of credit card debt or mortgage delinquency. It doesn't just affect society at large which is of course it does. It also affects healthcare practitioners as you pointed out. Many practitioners go in to medicine most I would say in my experience to help people and that to know that they're truly transforming their patients' lives.

And, the greatest reward is not financial itself, that sense of reward and fulfillment that comes from knowing that they're doing that. In today's kind of factory based, factory like medical system a lot of practitioners don't have that experience and so there are really high rates of burnout. A lot of doctors are thinking about leaving medicine if they have an already and this is a big problem because recent statistics suggests that we are going to have a shortage of over 50,000 primary care providers by the year 2025.

I think some of us at this point might be thinking, “Well, wait are you saying we need longer appointments and we already have a shortage of doctors with ten minute appointments, so how's that actually going to work? How can we can do that?” Well, one answer is that we don't. Doctors don't need to be the only people that are supporting patients in making diet, lifestyle, and behavior change, which is again the most important intervention.

And in fact, I would argue that they're not even the best people to do that, even if we didn't have a shortage of doctors. Doctors are not really trained extensively in supporting patients in making those kinds of changes. Usually doctors get maybe one nutrition class in college and it's often based on pretty out-dated information and the other thing is that information about diet and nutrition is simply not enough. We know that, right? We know that if just telling someone what they should do was enough we wouldn't have a problem with obesity and diabetes and all of the issues that we have now.

Most people know more or less what they should be doing. I mean, certainly there's, you know, some discrepancies about low carb, high carb, Paleo vs Mediterranean and all of that. But hopefully there's no doubt in anybody's mind that if everybody just ate real food, regardless if it's Paleo or Mediterranean; or lower carb or higher carb – we wouldn't be in the predicament that we are in now. So, it's not an information problem, it's a behavior change problem.

Behavior change is hard, we have some very hard-wired patterns; biological patterns that make it difficult for us. For example, humans evolve in an environment of food scarcity where starvation is always the biggest threat. So, we have all of these mechanisms in our brain that cause us to seek out calorie dents rewarding foods because that would have been a survival advantage in an environment of food scarcity.

Fast forward it today, we don't live in an environment with food scarcity. We live in an environment of food abundance where we have a 7-Eleven on every corner and a Costco down the road and at least for many people in this country and also even around the world, dying from eating too much, is much bigger threat than dying from not eating enough.

So, I think what that brings us is that we have to be able to tap in to a whole different type of practitioner that can intensively support patients in making behavior change. And, that is

something that a health coach or a nutritionist, or a registered dietician can do very well if they have that, that type of training.

And so, that's a big part of the model that I have advocate for in the book because we don't have enough doctors to do with and we never will but that's okay because as I'm suggesting we have, there are money other possibilities for how these practitioners, like health coaches and nutritionists can work together in concert with doctors to provide a higher level of care to patients.

[00:21:12] AVH: Right. I love that in the book, that you do touch on this the nutrition part and the idea that, the concept of the Paleo diet can be a little bit misconstrued but the basic concepts or key and I think that's something that's being reflected in the Paleo community in general right now.

You know, the idea that they were different ancestral groups that ate differently depending on where they live and their environment and; you know, from Inuit, to desert tribes and people were eating differently but they weren't – we can all agree that they weren't drinking Coke and eating Big Macs, so it's the concept of going back to, you know, unrefined, unprocessed real foods being the general point.

And that's the starting point. I think, I guess it's the same as, you know, the same as how we should look at functional medicine there's no maybe one specific approach but it's about taking the time to understand the individual and their situation in their environment, right?

[00:22:06] CK: Absolutely, and what's really interesting is that; you know, a few years ago, several years ago when I started doing this work and talking about Paleo, it was really – and when I did my first book and did a whole bunch of media after that; you know, Paleo is kind of like a joke for a lot people, you know.

It was a “Oh, the caveman diet” and like the news host or, you know, the radio show host and people that I've talked to, all wanted to talk about it in those terms as if it was just some kind of fad. That it was a flash in the pan that was going to come quickly and go quickly like all of these other diet fads that come and go.

And you know, fast forward until today, not only is it's still around it's actually, I think further penetrating the public consciousness and any of the consciousness and academia. They're recently have been a series of articles in the New York Times, I'm not sure if you've seen them but this group of people in Bolivia called the Tsimane – they are subsistence farmers, hunter, gatherer population that has managed to more or less follow their traditional diet and lifestyle.

You know, they do eat some a little bit of corn, a little bit of rice I believe but for the most of their diet is still what we would call Paleo and fits very well with their ancestral template. They also walk an average of 17,000 steps a day which is; you know, about eight miles, they live in sync with the natural rhythms of light and dark. They're not exposed to a lot of artificial light at night.

You know, they live in close tribal and social groups. They get seven to eight plus hours of sleep and in fact when the researchers are trying to ask them about insomnia, they are having a hard time because they don't even have a word for insomnia in their language.

[00:23:58] AVH: Wow.

[00:23:58] CK: Yeah, so you know, they're about as close you're going to get to Paleo people today right? And, so a group of anthropologists, medical anthropologist who has been setting them for many months because they wanted to answer this question. You know, it's a great population to study because they share all of our same genes and yet they're living a totally different lifestyle. So that's a perfect population to answer the question: To what degree is environment contributing to our modern health problems versus genes, right?

So, recently a study was published showing that the instance of [affects + 00:24:38] grosses in the Tsimane is 80% lower than it is in the U.S. And, furthermore when they look at it they actually didn't just measure blood markers, they looked at CT scans in their arteries, and they found that nine out of ten adults aged 42 to 94 had completely clean arteries and that's virtually no risk of heart disease, which is very interesting because; you know, we've all in the Paleo community heard this old canard that “Oh, Paleo people; you know, hunter gatherers don't get chronic diseases like heart disease because they don't live long enough to acquire them.”

[00:25:20] AVH: Right.

[00:25:20] CK: Well, I have just said, there were adults up to age 94 in that study and they still; you know, generally didn't have nine out of ten of them didn't have any plaque build-up in their arteries. And, what's more they calculated that the average 80-year-old in the Tsimane had the - was the same in terms of their cardiovascular health is they average 50-year-old in the U.S.

So, basically the 80-year-old in the Tsimane had the heart health of a 50-year-old. And; you know, even though he's above 75 years old in the Tsimane population only 8% had a, a score of over 99 on the CT scan and the single person scored higher than 399. In the U.S. those numbers are much, much higher at a much younger age. So, there is another study, I think same group of researchers, slightly different they were looking at cognitive disorders like dementia and Alzheimer's and found that they are extremely rare in the Tsimane.

In the U.S. Alzheimer's is now the fifth leading cause of death and it's climbing up the list in a pretty alarming fashion. So, I thought it was interesting to see these articles in the New York Times. You know, they didn't use the word Paleo or even ancestral diet lifestyle but that's what exactly they're talking about. It was a very serious article wasn't – there were no cave man jokes or anything like this and so I think this perspective where we understand evolutionary biology and its contribution to medicine is now becoming mainstream and I find that encouraging.

[00:27:03] AVH: It's also an interesting reminder of how much of what we in the western world consider “normal aging” actually isn't necessarily the case that there are a lot of these sort of unpleasant side effect of getting old that doesn't actually have to exist if you're taking care of yourself so, yeah.

[00:27:21] CK: Such a good point. You know, we all it's so normalize in this country; you know, someone goes in to their doctor in their 50 or 60 and they're having difficulty recalling common words or remembering where their keys are. Doctor was kind of like pat them on the back in a conspiratorial way and say “Ah, you know, I have the same problem. This is just part of getting older,” and we all accept it because it's common.

[00:27:46] AVH: Right.

[00:27:46] CK: But as I've often said there's a very big difference between what's common and what's normal. Chronic disease is common, it's even becoming even common in kids; you know, almost 30% of kids now have a chronic disease and that's up from just 13% in 1994, that was just 25 years ago. I mean, I was a sophomore in college at that time. So that's in my adult lifetime.

We've seen over doubling in - of chronic disease in kids and yet our adventure say that most people and parents of even in that short 25 year period, in a relative time scale have already come to accept that change as just being common even though many of us as adults can remember a time in our lifetimes even where chronic disease was not common among kids and we would be shocked by the prevalence of chronic disease in kids today.

So, the Tsimane and other groups like that, like the Hadza, and the Kung San in Africa or the Kitava and the [inaudible + 00:28:44] in the South Pacific – they're very important to study because they show us what isn't normal for human beings when we follow a diet in my style that isn't in alignment with our genes and our biology. Then we can contrast that with what we observe in industrial populations today. Any industrialized world and we see that although chronic disease may be common it's absolutely not normal. It's normal even in to our old age, even as we get older.

[00:29:17] AVH: Right. So, I guess most of us I guess have experiences obviously with conventional medicine and going to that process when we're sick or that something's wrong and not maybe so many of us have experienced with a functional medicine practitioner. So can you like walk us through some of the ways that, that functional medicine relationship may be different from a standard and I know we talked a little bit about like longer appointments. Like you mentioned the book things like telemedicine but can you kind of walk as through kind of how that relationship would look and how would be different?

[00:29:48] CK: Yeah, and you know, the first thing to understand is this is not going to happen overnight and the change is going to be occurring at different paces and different arenas. So, I think that the fastest area that I see change is on a local, kind of grass roots individual practice level. You know, any practitioner can; you know, medical doctor, licensed clinician, chiropractor,

naturopath, acupuncturist etc. can get training in functional medicine and open an open an individual functional medicine and start practicing in a way that we're talking about right away. And all that's required for that is time and training and investment to make that happen.

So, there's no really limitation there, other than the number of people who are trained in that approach and ready to do it. Then if we start thinking about like on a larger level if we go all the way on the other end of that spectrum, we think about like Medicare and you know, government provided healthcare – obviously, we're not going to see that change overnight. There are an enormous number of things that need to be addressed in order to make that change.

And; you know, some of the biggest things on that list are addressing the misaligned incentives in healthcare. You know, right now it's not actually an insurance company's best interest to reduce expenditures because they only profit as healthcare expenditures grow. So, that's a tremendous problem because the interests of the insurance companies are not necessarily being aligned with the interest of the patient or the doctor.

Then we have the influence of course of big pharma and we've all heard those horror stories and I was just watching The Daily Show with Trevor Noah the other night actually and there's a really good segment about big pharma's lobbying influence and how that's how unfolded in the opioid epidemic. So, big pharma; you know, the NRA is a powerful lobby, right?

And regardless of how you feel about guns or the NRA, there's a lot of discussion about their lobbying influence in congress. Well, they spend about 10 million dollars a year, lobbying congress; that might sound like a lot until you learn that pharmaceutical companies spent 250 million dollars a year.

[00:32:07] AVH: So, this is the part that scares me the most like even if we can teach individuals about functional medicine and we can get some doctors thinking that is the right approach. I mean, as long as they're still a huge financial incentive not to practice functional medicine and as long as the insurance companies and the pharmaceutical companies have all this money and all this power. I mean how can in a micro level start making these changes. I mean there are medical studies being done backed by pharmaceutical companies. I mean, how do you deal with it?

[00:32:35] CK: Well, there is two answers to that and; you know, which one you think will come to freshen we'll probably depend on whether your glass is half empty or glass is half full type of person and maybe your political persuasion; whether, you're a democrat or republican, or libertarian. So, I'll lay them out and I'll listeners decide for themselves what they think might happen.

So, one way would be to continue, with the efforts that have already gained a lot of traction. Books like *Unconventional Medicine*. My book is coming out it's to raise awareness to this initiatives like Dr. Mark Hyman's Cleveland Clinic, Center for Functional Medicine which you know, has gotten huge attention, statistics exploding, they have a 2600 patient waitlist from patients in nine countries around the world.

You know; Cleveland Clinic is a hugely prestigious international organization and the fact that they've; you know, put invested 10s in millions of dollars in the Center For Functional Medicine is pretty compelling evidence that this is the future of medicine or; you know, we're moving in this direction.

The small group, initial group of people working together can make a big change. And you know, Mark and me had said "That's the only way big changes have ever happened."

[00:33:54] AVH: Right.

[00:33:54] CK: It always starts with the small group of committed people and eventually you reach a critical mass and things that seemed impossible before, it starts to become possible. So there's that way. There's also another way which is that we proceed along our current track and things just gets worse and worse, they are already really bad which; you know, became obvious in the healthcare debate earlier this year.

We're already spending almost 20% of our gross domestic product on healthcare expenditures and some statistics suggest that number is actually more like 25%, if you include direct cost over three trillion dollars a year and; you know, the CDC just released statistics saying that a 100 million Americans have pre-diabetes or diabetes. The average time that it takes for

someone to progress from prediabetes to type 2 diabetes is only five years and 88% of people with prediabetes don't even know that they have it.

Now, it costs \$14,000 a year to treat a single patient with type 2 diabetes. So, if more and more people are getting diagnosed and the age of diagnosis is getting earlier and earlier, that single disease alone could bankrupt our healthcare system.

[00:35:07] AVH: Right.

[00:35:08] CK: So, there is a line of thinking that's like, "Hey, look we're going to get there one way or another to functional medicine because it's the only feasible way of addressing chronic disease. And, we'll get there the easier way where we are proactive and we move there voluntarily or we'll get there because our healthcare system completely falls apart and buckles under the pressure of chronic disease."

And then, we're forced to turn a methodology that is actually oriented around preventing and reversing chronic disease, rather than just addressing it after it occurs. I think that's the key point that I just want to reiterate. The healthcare debate was all about how to pay for healthcare. It was about health insurance. We often confuse health insurance with health care. They're not the same thing.

Health insurance is a method of paying for health care and that's an important discussion to have but it's even more important to understand that there is no method of paying for healthcare whether it's governments, corporations, or individuals that can adequately address the growing challenge of chronic disease. As long as we are based in a model of, you know, managing disease after it occurs.

So, it's simply no way and I hope the diabetes example makes that clear. So, we'll get there one way or the other. I'm still holding out for the easier more proactive way.

[00:36:38] AVH: The glass half full way.

[00:36:38] CK: Yeah, which is why I wrote my book but you know, guys like Rob Wolf, and Mark Siston who I've talked to both recently. I think they would both tell you that they are more kind of thinking that it's going to happen the latter way.

[00:36:53] AVH: I mean, if you look at the history of human behavior and what we've done up to this point it certainly seems like a glass half empty situation because I mean really most of us like you said, most of us know how to take care of ourselves in general.

Most of us know about the burden of chronic disease and, you know, how our insurance based healthcare system like eventually, you know, it can't support the number of people that are dealing with chronic disease. It's not really new a lot of this stuff but it seems like we can't frame it. It's like we're numb to it or something like we can't frame it in a way that's going to shock people in to paying attention until we are forced to, I don't know.

[00:37:31] CK: Yeah, so I'll tell you. I'll give you an idea for where I come down on this. I don't think it's going to be either or, I think it's going to be both. I think what's going to happen is what's already happening. You'll see tremendous progress in change happen on a grass roots, individual and local level. And, you'll start to see more and more examples of; you know, things like the Cleveland Clinic, IORA Health, I didn't mention before; they're a primary care group based in Denver and operating in Rocky Mountain area and they're reversing type 2 diabetes with an army of health coaches.

They basically hire a whole bunch of health coaches who then work intensively with the members of that; you know, an insurance company that they contract with and they go in, they do pantry clean offs, they take them to the grocery store, they give them rest, peace and meal plans. They take them to their doctor appointments. They do everything to hold their hand and help them – actually a system in making the behavior change.

Instead of just a doctor telling them to follow a health diet which never works and they're having incredible results. Then we've got Dubai which is setting itself up to be a center for medical tourism and they have Mark Hyman over there to talk about – because they're interested in functional medicine being kind of the default medical model that they provide who come there seeking solutions. We are doing a pilot program with Berkeley Fire Department right now.

I live in Berkeley and our clinics in Berkeley. They reach out to us to, as a way of helping our newest recruits to get healthy and stay healthy because for a municipal organization like the fire department. If their firefighters get injured or; you know, they have developed type 2 diabetes or whatever. They've got these pension plans where they basically have to pay, you know, if they have to retire early, they're paying that person salary forever and that's enormously expensive. So they're really interested in these proactive solutions.

So, I think we're going to see those kinds of solutions becoming more and more common and people are going to get more exposed to this way of care and that's going to start interesting conversations both locally but also on a national level. Congress people and senators are people too. They're going to hear about this, they're going to start wondering about it and then we're going to start seeing; you know, some activity there. Then on the other hand as you pointed out, yeah, if we're thinking insurance companies, for-profit insurance companies, and for-profit pharmaceutical companies are just going to lay down and say "Oh, okay."

"Well you know, we had a good run and now we're just going to relinquish our control and our market share and go farm coconuts in Nicaragua or something." Like, that's not going to happen so they're going to hold on and all of those entrenched interests that are deeply invested in maintaining the status quo aren't going to go away. But I think we're going to see things kind of unfolding on different tracks and we'll probably have a kind of hybrid type of approach for a while. Then eventually depending, again, if you're a glass half full or you're a glass half empty person.

I do believe that at some point, I'm not sure if it's, you know, when? 10 years, 20 years later, functional medicine just becomes medicine, we won't call it functional medicine. We will recognize that the only model that makes sense for addressing chronic disease is preventing it ideally before it occurs. Or actually trying to reverse it instead of just slapping band aids which don't work and are expensive and caught lead to patients for life.

[0:41:19.6] AVH: Right, similarly we'll maybe one day be able stop calling it a Paleo diet just call it eating, just –

[0:41:25.4] CK: That's right.

[0:41:25.9] AVH: Just, common sense I think it's –

[0:41:26.5] CK: Exactly your point.

[0:41:24.6] AVH: The way it's supposed to be, right?

[0:41:30.4] CK: I mean, I've even moved to that to myself like as you know the Paleo was in the book once or twice. You know, I refer to it as ancestral diet lifestyle or just a nutrient dense anti-inflammatory diet. Because, you know, another way to think of it as species of appropriate diet. I like that way of talking about it or genetically aligned diet because it puts it in a larger context; you know, of biology and evolution which I think even kind of skeptics can get behind.

[0:42:02.2] AVH: Right. So, let's go back to cost for the individuals like in the book it talks about how functional medicine may incur some more upfront cost but in the long term it's much more cost effective for the individual, than standard practice. And besides, the fact that you ideally are going to be using less medication. Can you talk about how it's more cost effective and what some of those upfront costs might be?

[0:42:25.1] CK: Sure, so there's a lot of different levels to this question but first of all, I want to acknowledge that functional medicine is expensive for a lot of people right now. You know, not accessible to a lot of people because a lot of it is out of pocket and the cost for; you know, consultations and also for lab, lab tests and treatments can be pretty high on a relative basis especially compared to what people are accustomed to paying when they have insurance in a conventional model.

So, I don't want to try sugar coat that. That's a current reality and we definitely have work to do in order to make functional medicine more accessible to individuals in a short to intermediate term before it becomes the de facto method of care. But, I want to make a couple of points first on an individual basis of how the approach that I'm talking about in my book could be more accessible to individuals right away and then second a general point on costs of care, which is often missed in the overall discussion.

So, first for individuals, in my book I have something like I call, The Health Care Population Pyramid Medicine actually and I use it to kind of depict my thinking around how we can become more efficient in addressing chronic disease in this country and in any other country.

So, if you imagine a pyramid at the very top, let's say you got the top 5% of that pyramid are people with very severe acute problems. So, they are hospitalized or they're maybe in an intensive outpatient care type of situation and they benefit from and require conventional medicine intervention; you know, they are getting cancer, a cancerous tumor remove there. They've gotten in an accident they're in the hospital, whatever.

Then, below that you got another 25% of the population perhaps that has pretty debilitating chronic disease. Maybe they've got a MS or they've got rheumatoid arthritis. So they've got some other problem that is not life threatening but it you know, requires a lot of intervention and support.

So, they probably not hospitalized but they; you know, they need a lot of care. Those people I think would be best served by functional medicine for condition and, you know, quite possibly a specialist in the conventional model. Working together, you know, to maximize their respective background training and capabilities.

Then, you have the bottom 70% of the pyramid. These are people who; you know, many of whom have chronic disease because I've said one and two Americans has a chronic disease but their symptoms are not life threatening and not even necessarily super life altering, you know, they don't necessarily interfere with their ability to work and; you know, have a family. But they're there and they're irritating and they definitely would like them to go away and they can be debilitating at times but they're not at the level of the people that are higher in the pyramids. So, these might people with irritable bowel syndrome or skin problem or mild anxiety or depression or you know, sleep difficulties, or hormone imbalance, or this sort of thing.

I would argue that many of those people could actually be adequately served by a very well-trained health coach who understands nutrition and lifestyle, who's trained in evidence based

principles of behavior change, positive psychology, motivational interviewing, accountability, helping patients to set goals and stay; you know, stay on track and this sort of things.

I think those – that bottom 70% in many cases could be mostly served by these allied providers and maybe then interact with the functional medicine provider for the stuff that can't be addressed by a health coach or a nutritionist. Which could really reduce the cost of care overall for that individual and make it more accessible to like a much greater number of people.

Then, we can also start to use group visits and group classes; you know, grouping people with a common health condition in a functional medicine type of clinic and that's a promising new way to make care more accessible and affordable but still provide a high level of care. So, there are a lot of things that can be done to make functional medicine more accessible, even before we wait for changes on a government or societal level.

But, regarding those, I think we all need to recognize that the cost that; you know, we think of conventional medicine as being accessible or affordable but that's only because it's heavily subsidized. It's the same with food, right? You know, corn based products, soy based products, all this things that are cheap. They are only cheap because they're heavily subsidized and so, you know, I go back to that diabetes example if you, it has \$14,000 a year to treat a patient with type 2 diabetes.

That cost, most of that is not immediately apparent to the patient and not incurred by the patient but that doesn't mean it's not there. And, that doesn't mean that someone isn't paying it and including the patient, in the form of taxes and insurance premiums. So, the change again needs to happen in a short immediate term making it more accessible and also needs to and can happen over a longer term on the level of local, state and then federal government.

[0:48:24.1] AVH: Okay, so this all leads me to my next question about your specifically the adopt framework which is combining functional medicine with the ancestral diet and lifestyle and working with these allied providers as you call them, as you mentioned earlier. For folks who maybe want to bring this framework to their doctor, or they want to find a health coach. They want to start figuring out how they can incorporate this kind of framework to your medical care.

How do they even get started? Like give us an idea of really, what this is and how people can start implementing it?

[0:48:59.5] CK: Yeah, great question. Well, if you're not a practitioner and you're what I call, "A citizen scientist," or "Health activist." You know, which I'm sure many of the listeners to this program are. And, people who are not necessarily planning on ever becoming healthcare provider but just passionate about this in their own lives. Or you're dealing with a healthcare problem and you want to find someone who can help who is using this kind of framework.

First thing is you can go to kresserinstitute.com which is the website for my training program, practitioner training program, and up on that right, you can click find a provider and then you can do a search for people who've been through my adopt practitioner training program, which is my one year clinician training program in the adopt framework.

We just started in 2015 so we've got about 400 providers around the world which is obviously not a lot, not enough, but as the program continues we will be adding to that list. Next year, we're going to be starting our health coach training program in June for people who want to become a health coach who are already health coach but want training in the adapt framework. Then of course when people graduate from that program will be putting them up on provider directory as well. I'll tell you something that was interesting and maybe a little surprising to me is a lot of the clinicians who come to the Kresser Institute and train with us tell me that they found out about me and my work and the adapt framework, from their patients.

[0:50:35.6] AVH: Wow.

[0:50:35.6] CK: So yeah, that was really interesting, this suggest that health activists and citizen scientists do have a powerful voice. You know, you can help by spreading the word and being an evangelist for the cause. One way to do that would be to bring a copy of my book for example to the doctor, if you feel like they will be open to that or you know, send them a link to a blog article or they can actually download the first three chapters of my book for free at unconventionalmedicinebook.com.

The first three chapters are really designed as a call to action and it inspires people who are new to this approach. So sometimes that can be enough, just to tilt the balance and get somebody interested in that approach and open up their mind to a new way of doing things.

[0:51:27.7] AVH: Right, okay, I think that's a very good and positive place for us to end off here and I will add to the folks listening that one way you can get started if you're feeling like you need a change in the way that you're dealing with your health issues or the interaction, the relationship you have with your doctor or you're looking for a health coach.

I think one of the first things you can do really is read this book and it isn't just something for doctors or people who are super, super, high level. This book is absolutely accessible to everybody because I read it, and understood it, and enjoyed it.

So, if I can do it then anybody can so I think that's a really great place to start and I do think this book is going to help – it seems like sometimes when you're kind of looking at the state of healthcare today it's can seem insurmountable and it can seem overwhelming but I think that this book provides a lot of positive tangible ways to kind of move forward. And as you said earlier; sort of, make functional medicine be the conventional medicine.

Make it go from unconventional to conventional, I think that's what we would love to have happen. So I really appreciate you taking the time and writing this book for us and I guess one last question before we go is, when will it be available to folks, is it not out yet?

[0:52:42.9] CK: November 7th is – I'm not sure when this is coming out but November 7th it will be available on Amazon and Paperback, Kindle and Audiobook formats.

[0:52:53.8] AVH: Awesome, okay I think that it will – this is coming out that week so that it will be great timing and just to remind us again where folks can go and find out more about you and the programs you offer.

[0:53:03.9] CK: Sure, so chriskresser.com is my main website and if you're a practitioner interested in training or; you know, interested in becoming a practitioner kresserinstitute.com

and then if you'd like to read a little bit more about the book download those first free three chapters that's unconventionalmedicinebook.com.

[0:53:23.2] AVH: Awesome, alright Chris, thank you very much for your time today and enjoy the rest of your day.

[0:53:27.1] CK: Thank you, Ashleigh. It's a pleasure to be with you.

[0:53:30.3] AVH: Alright, take care.

[END OF INTERVIEW]

[0:53:33.5] AVH: Alright folks thanks for listening if you enjoyed it and plan on getting the book or you read it all already holler at us on social media at Paleo Magazine or me personally @themuscle Maven and let us know what you think because we always want to start conversation and hear from you guys as well.

So, as for next week if you want to hear me fangirl really hard tune in, I'll be talking to guest Jodie Esquibel. She's an MMA fighter in the UFC and basically just an incredible badass athlete and human all around. Someone who spends a lot of time working on her health and for what I can tell she's pretty Paleo too, actually.

So, we talked about her intense training, how she fuels to fight some of her recovery and health and wellness hacks, how to handle the immense pressure of what she does and that's just the tip of the iceberg, it's amazing.

And, we get in to, you know, what it's like to beat people up for a living because as far as I'm concerned, she's got my dream job. I'm really, really, excited to talk to her and just to have a conversation like this with such a high-level athlete. It's going to be amazing so please tune in with me next week and check that out. Make sure you're subscribed to Paleo Magazine Radio on iTunes and if you like what you hear go on take two seconds and give us a quick review it would make me so, so, happy.

So until next week thanks guys.

[OUTRO]

[0:55:00.8] AV: Paleo Magazine Radio is brought to you by the Paleo Media Group and is produced by We Edit Podcasts. Our show music features the song *Light It Up*, by Morgan Heritage and Jo Mersa Marley, and on behalf of everyone at Paleo Magazine, thank you for listening.

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