

The Primal Blueprint Podcast – Episode #26: Introducing Dr. Cate Shanahan and The Primal Advantage

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Mark Sisson: I am here today with Dr. Cate Shanahan, author of "Deep Nutrition." My intention today is to announce a new program that we are doing together, a very exciting new program. But first of all I need to tell you that she just came from meeting with the Los Angeles Lakers where she is advising them on their diet. I want to hear all about that. What is going on with the Lakers?

Dr. Cate Shanahan: [00:00:34] The Lakers are getting a lot of help with their diet, with their metabolism. They were getting the usual sport drinks, like Gatorade-based, and carbo-loading based diet. We have completely eliminated that. We have them on paleo compliant, primal compliant, deep nutrition protocol pretty much from top to bottom. They get a lot of food from the Lakers' organization. The players do. There is a lot of opportunity for us to control exactly what they get to eat. At the facility, they eat twice a day. I have worked very closely with their excellent chef, Sandra Padilla, who prepares food for 35 people twice a day and pulls it off well. She is spending a lot more time now than she used to have to. She really got into it. And the players love it, actually. At the beginning of the year, the staff gets together and a bunch of the coaches and their families commented to Sandra that the players eat better there than they do at home. I think that made her really happy. It made me really happy to hear that people like this way of eating.

Mark Sisson: [00:01:51] That's great and I hear that little buzz word is "bone broth."

Dr. Cate Shanahan: Yes, bone broth is what makes this such hard work for Sandra because to make bone broth, (I am sure you have done it, Mark) you boil bones...it takes 24 hours. It is a lot of little processes that have to go on but it is essential to this program.

Mark Sisson: Why is it essential?

Dr. Cate Shanahan: Well, I call the nutrients that you get when you boil bone broth this way the missing food groups in the American diet because there are categorized molecules called glycosaminoglycans and you cannot get them unless you go through this process of boiling and cooking and straining. And the reason they are so good for us is these molecules, they are like magic. They act very differently from ordinary food. Normally, it's meat, protein foods. We eat them. They spend some time in the digestive system to get broken down. These molecules get a free pass through the digestive barrier. They travel around to the blood stream and then they actually [visit target areas where they are needed]. This is how we know this. So they radio traced these molecules that show up as injured tissue and injured joints specifically where they kind of heal the injured tissue. It is kind of frayed and the bone broth helps straighten it out. They are active growth factors. They are like a miracle compound. For people who have never tried this. If you get on a healthy diet where you get the inflammation out of the way, you can feel the

effects of this kind of bone stock the next day. A lot of people say that and I feel it myself in my fingers when I get up in the morning.

Mark Sisson: Well, for basketball players, I am sure joint issues are of huge concern. It's probably a career-ending phenomenon to have bad joints in the NBA.

Dr. Cate Shanahan: We tell them this is not just good for you right now. It is not just going to help you recover from whatever injury you might be struggling with. There are a lot of repetitive motion injuries. It is going to extend your career. One example is of one of my favorite players, Steve Blake. He told us that for a year that he had chronic knee problems that were holding him back, and after 2 months of eating this kind of way, he said the problems of his knees were gone. He was sold. And most importantly, his wife was sold and she is the one doing the work.

Mark Sisson: The magic of Deep Nutrition and the Primal Blueprint together, right?

Dr. Cate Shanahan: Absolutely. It is amazing what a human body can do when you just feed it properly. Feed it the fuel it was designed to get.

Mark Sisson: [00:04:43] Speaking of that, as an M.D., the classic story is that you didn't get much nutrition training in medical school.

Dr. Cate Shanahan: No, we didn't. And you know what? That, alone, gives us the message that there is not just that much to know about the field of nutrition. I had a one-credit course that was mostly about the Krebs cycle and some other cycles that were of basically no interest to me, until recently when we started studying more deeply about going into ketosis. So the idea of all you need to know is in a one-credit course. It sends the message that nutrition really isn't that powerful. I think that, alone, is one of the most important messages that I want to get across to my patients. It is that nutrition is extremely powerful and there are options to medicalization with medications and surgical intervention.

Mark Sisson: I think the big question in my mind is: what is the limit there? I make this sort of bold statement that 80 or 90 percent of people who present at a hospital are suffering from some issue, some affliction, some condition that was initially brought on by a dietary or other lifestyle choice that didn't serve them well over a lifetime. I think the understanding that most Americans have about the medical system is that I am broken because of my genes, my family history, or I am just unlucky, or I was just involved in an accident and hurt my back or whatever it was. There are all of these issues that people assume are bad luck when, in fact, and this is my case, so much of this, whether it was bad luck, it was probably due to some choices that you made that could have been otherwise. The good news is there are lots of things we can do to reclaim that health. Would you agree with that?

Dr. Cate Shanahan: I have to say that 80 to 90 percent is being conservative. I guess, unless someone is actually aware of the primal way of living, the paleo way of living (who have read my book), there are things that they could be doing better. I would have to say that when people end up in hospital, it seems to me that unless it is like a car wreck or something completely random, there are things that could be done that could keep them from showing up in a hospital again. This goes for 100 percent of the people who are there.

Mark Sisson: [00:07:15] Which brings us to why you and I are here today. We are discussing the launch of this new program where we will have an actual medical person, an M.D., able to consult with you directly on issues that involve metabolic arrangement or any metabolic issues you may have encountered in your life up until now. This is a new frontier in medical consulting and we hesitate to call it medical. We are starting out to call it metabolic consulting. Let's talk a little bit about it. What is the main basis of this program?

Dr. Cate Shanahan: Well the idea is basically what you talk about with the genetic switches where if you have your genes operating properly, you can reverse a lot of medical problems that you have. The same applies to metabolism because it is actually the mechanisms of metabolism that make those switches turn on and turn off. What I would like to do in the service I would like to help people with, is to take the

metabolism from one state (that is sub-optimal, where they probably wouldn't feel that they need any help) and bring it to another state just based on simple intervention that people can do if they can eat. Just with food...just completely naturally. So we are going to basically upgrade your metabolism...maybe a little bit or maybe a lot, depending where you start out and depending on what you can do. I tell my patients, "You really don't even know where you are with your health. You don't really know how old you are until you get your metabolism functioning at the best level it could possibly be." That is actually a great way to reverse aging in addition to all of the other diseases that we call "metabolic diseases." One of the biggest buzzwords now in the field of preventative medicine is this thing we call "metabolic syndrome." So metabolic syndrome is a dietary disease. It is completely preventable by getting rid of the stuff you shouldn't eat, and it is completely reversible by eating better.

Mark Sisson: [00:09:40] Now the basis of this program is based in science. There will be lab tests involved. You are calling this, I love this, a "metabolic snapshot." Is that the term?

Dr. Cate Shanahan: Yes, a metabolic snapshot.

Mark Sisson: So a person can sign up for this consulting program will be working with their own personal physician in addition to working with you. You are sort of metabolic coach, using lab information and lab work, which most physicians have a really difficult time being able to dig deep and parse all of those different numbers. Look at the lipid profile, for instance. Look at all of the different components of the cholesterol tests now. It is quite daunting to the average M.D. or the average general practitioner. This is an area where you can come in and consult with whoever the person is and their physician is and show them ways in which they either ought to be concerned or need not be concerned or ways in which they might alter their diet, or their sleep patterns or whatever else we are going to get involved with, to maybe see if we can shift those numbers around to a place where their risk is less for anything bad happening.

Dr. Cate Shanahan: Absolutely. It is one of things I love doing the most, actually, is working with my patients to help them understand what their numbers mean and how they got that way and what they can do about them. A lot of times they come to me from previous doctors where they have been told, "Your cholesterol is high." I ask them, "What do you mean? Is the good cholesterol high, the total, or what...?" And they don't really know. They say, "That is a good question." We get in to that to explain and it is really interesting for people to understand these exactly these details. This is what I specialize in now. It is such an easy thing to do to help people understand what something means: What is actually happening in the body, and what they can do specifically to reverse it, and what time frame are you going to expect these changes?

Mark Sisson: Great. One of the things I found most appealing about this concept is that you are going to be spending hours with a client as opposed to the traditional 7-1/2 minutes. So people who sign up for this program will be able to interact with you first of all, on-line and, also almost most importantly, on the phone. So will spend time on the phone going over the numbers and actually coaching in a way that most physicians are unable to allocate that amount of time.

Dr. Cate Shanahan: I think it is most important to be able to have that back and forth with a physician because of the time constraints that physicians, even like myself, are normally under on a busy clinic day. We just can't get into because you just can't take that time. It is so important to allow people to have the opportunity to say, "Okay, so what you just said was that my total cholesterol number doesn't mean anything. So what numbers should I be looking at?" And we just go back and forth until they feel really comfortable with their understanding of what their body is doing right now.

Mark Sisson: I agree. I think one of the classic frustrations that a patient has is exiting a physical, for instance, in which the doctor says, "You need to eat better and exercise more." That is the sum total of the advice that is given. For most people don't really know what that looks like.

Dr. Cate Shanahan: Sometimes that advice, unfortunately, is from a doctor who weighs more than they do. I don't quite understand how that can really help a patient at all. The message is: You think it is important for me to do it, but not important for you to do it. So that is because doctors just don't get that education and we don't know what to do. One of the things I discovered...every factoid that I learned about nutrition that I learned in medical school was completely wrong.

Mark Sisson: That is ironic. The good news is you didn't get that much training so you didn't have a chance to learn that much wrong, right?

Dr. Cate Shanahan: Yes, it was not much more than what you get on the back of a Cheerios box. It is healthy because it is low cholesterol, low in salt, and high in fiber. That's pretty much the extent of what I learned. All of that is wrong.

Mark Sisson: [00:14:06] So what, as a potential of yours in this new program, can I expect to get once that I have completed my time with you?

Dr. Cate Shanahan: By the time someone has finished the program....I would estimate the fastest the person would be able to do it if they were really motivated would be in a month. It could take anywhere from that month to an average of 3 to 6 to 12 months depending. It is going to be a flexible program because life is unpredictable and I want to be able to work with people's schedules and changes that may come up. By the time they are done I want them to feel that they understand their body in a way that they never have before and to understand the connection of what they eat, how they feel, and what those lab numbers mean and why they matter. And then, of course, I want them to feel that they know specifically what to do for the long term. Whether or not they are able to make all of the changes, at least they know where to go next. There will be an option to sign up for more individualized coaching for those people who are able to. Something we forgot to talk about just now is, if people want to they can sign up for more extended one-on-one time.

Mark Sisson: My goal in what I do with Mark's Daily Apple and the Primal Blueprint is to empower people to arrive at a place in their lives where they so intuitively know what to eat, what choices to make, how to sleep, how much sun to get or not, that they don't have to over-think it and spend so much time agonizing over maybe making the wrong choices. I would assume that with this program that your intention is to dig deep enough with them on the phone to get them to the point where they, similarly, understand how the body works and how these choices manifest themselves in their particular situation, given their blood work, given the tests they have been doing, given their medical history. By the way, they will be filling out a very detailed metabolic and medical history before they begin with you.

Dr. Cate Shanahan: Yes, there will be an intake form.

Mark Sisson: The idea, again, to graduate from this program with a sense of empowerment that now I know what to eat and how to sleep and how to work out and all of the things that I had kind of an outline of in the Primal Blueprint or from reading paleo stuff, but working with Dr. Cate, I really got dialed in on the specific behaviors that I need to do.

Dr. Cate Shanahan: What you said is absolutely right because everybody's metabolic condition is different coming in to it. It is helpful to get clients to the point where they understand exactly.....does this really apply to me? How is this going to help me specifically with my condition and where I am right now with my health? They can read a lot but once you have the opportunity to go back and forth and say is this specifically going to help me with my thyroid problem, or how fast can I expect to lose weight, or why am I not losing weight? Am I doing it right? or maybe this diet isn't for me. Those kinds of things are what you need that ability to go back and forth with somebody who is familiar with all the ins and outs of the diet and how it affects the metabolism.

Mark Sisson: This is a follow-up to that thought. One of the things I tell people about this sort of information is that it is sort of good news/bad news situation. The good news is there are a lot of things you can do right now that will positively impact your health, that have a greater likelihood of the outcome that you desire. The bad news is now that you know when you make certain choices, you know the down side. You know the ramifications. There is nobody to blame but themselves for having made those choices. Again, these are not good or bad, right or wrong. These are just choices. These are lifestyles that we are offering which suggest that if you take on these sorts of activity patterns you will have the better likelihood of being that strong, lean, fit, happy, healthy person that you claim you want to be.

Dr. Cate Shanahan: [00:18:35] Absolutely. I see everybody as an athlete. The human body is designed for motion. It is designed for sport and play and fun and all the things that you talk about and when you deprive it of that, that is how people get sick. The joints are not meant to sit static. I see all of my patients, no matter their age, their weight, their medical conditions as athletes and I want to get them to the point where they can think of their bodies as athletic machines as well. No matter where we start...maybe a little bit of exercise combined with slightly better diet. I will work with them no matter what their goals are to get them from the point where they feel like maybe they are not where they want to be. They realize they are in [a rut]. What is the first thing that you do to get out of patterns, to get up and get your body into that athletic condition, to bring out your inner athlete with the diet and lifestyle.

Mark Sisson: [00:19:38] So somebody who has been really abusing themselves for decades now and medically what we would call in this space "metabolically damaged." Are there cases that are never going to recover? That they are hopeless?

Dr. Cate Shanahan: I always think there is hope as long as you are not dead. Our genes are always changing. Our living bio machines are always kicking in new information from the outside. That is what we talked about in the book, "Deep Nutrition," is that food is actually chemical information that instructs the DNA for the brain and the cells on what is going on outside. So what is there to get ready for...what to prepare for. So as long as you are getting the good information and telling the person that the play outside is dynamic and alive, it is going to start to make changes no matter where you are. So there are folks who lose weight. There are folks who regain their mobility like if you are overweight or if you have really bad joints aches and pains from arthritis. They start to inch in the right direction and then they see that there is hope and that really is very empowering for everyone. So everyone can improve. I have had patients who were on 20 or 30 medications, who walked with a cane, very disabled, and really suffering with chronic pain. They get on to the program and they are able to drop dosages of medications. Every improvement is an improvement. It is something to celebrate. We can drop dosages. We can drop numbers of medications. We can make them need the cane a little bit less. It is really remarkable and really gratifying to see those things happen.

Mark Sisson: [00:21:37] Now in this new program, will it be largely based on diet? Or will there be other lifestyle interventions included?

Dr. Cate Shanahan: It will largely based on diet but, of course, because the human body is designed to be athletic, I will talk to them about what kind of activity is going to be good for them....what kind of exercise they should do. People will ask me what is good for them, like cardio? or weight? So I just kind of point them in the right direction and point them towards resources that they can use to go deeper into that.

Mark Sisson: [00:22:11] Okay. Will we be covering the gamut of, for instance, hormone levels, cortisol, testosterone, estrogen, women who are in menopause? Obviously everybody is different in this arena. How will that interplay?

Dr. Cate Shanahan: Well, I am going to do with the metabolic snapshot is start out with an assessment of how their body is utilizing energy and taking the basic metabolic panel. By analyzing it in conjunction with the detailed history, I am able to gauge their metabolic health in 5 different parameters. One of them is hormonal health. It turns out that when your metabolism is operating properly, it improves your hormone sensitivity and it kind of helps the body measure its own hormone levels better and you lose some of the resistances that you have like insulin resistance. Insulin is a hormone. We know that everybody, even conventionally trained doctors, now understand that better diet improves insulin resistance and improves insulin sensitivity. It also improves sensitivity to every hormone, including the testosterone and estrogen.

Mark Sisson: This is interesting because there are two sides to the hormone question. One of which is what is the level of hormones that are circulating in the body and the production of those hormones based on signals being delivered by sunlight or food or whatever, but there is also the receptors because this is a communication system. These hormones are communicating with receptors and sometimes you don't need that much of a hormone level if you have a very exquisitely sensitive receptor system going on.

Dr. Cate Shanahan: Exactly. You really paint the picture really well. It is that physical connection between the hormones and the receptors on the cells. What is that receptor going to do? Can it even recognize the hormone? Can it even internalize and then translocate to the DNA and do its job? It turns out that a healthy functioning metabolism operates better at the same level of hormones so while we don't start measuring those levels, the first step is to get the metabolism upgraded a little bit. Maybe down the road, when necessary, there can be some individualized measuring of hormone levels.

Mark Sisson: [00:24:41] So when I talk about upgrading the metabolism, I talk about becoming a fat-burning beast. How does that resonate with you?

Dr. Cate Shanahan: We absolutely need to be able to burn fat. If you can't burn fat, how can you expect to lose body fat?

Mark Sisson: Well said.

Dr. Cate Shanahan: We talk about it a little bit like your ability to burn fat is like an operating system, your metabolism. You have your computer with its operating system that is the most up-to-date and if you can't burn fat, you have a computer that isn't designed for the apps that you have so things just don't work properly. And you really don't know what your body is capable of until you upgrade that operating system so that you can burn fat.

Mark Sisson: [00:25:31] So, Dr. Cate, who is the target market for this program?

Dr. Cate Shanahan: I am a family practice doctor so I love helping everybody. There really isn't a person who can't benefit from this kind of a program, whether or not you are somebody who wants to lose 10 pounds for a wedding or you want to lose your baby weight. You are a busy mom. You want your children to lose weight. You are an athlete or you are somebody who is having difficulty losing weight after getting to a certain age. Really everybody can benefit from this way of eating. I want to benefit everybody.

Mark Sisson: And now that you work with some of the most elite athletes in the world, you can now add that market segment to your resume.

Dr. Cate Shanahan: Yes, I work with the Los Angeles Lakers. I have been with them for a couple of years. I work with them one on one and I also work with the team itself. We have really been able to see huge benefits to these athletes because it seems as though these athletes get the worst nutrition information, unfortunately, because the science that we now understand, that write about in our books and we have been talking about here, is so far ahead of the marketing. The marketing is driving the diet of the whole country, particularly the athletes. Particularly the idea that loading up on...

Mark Sisson: Carb-loading has become sugar-loading now.

Dr. Cate Shanahan: Exactly. Suddenly sugar equals energy and helping them transition from having a body that is adapted to burning sugar and then being able to make the transition to now you can burn fat. Depending on your genetics, what you have done with your diet, and how you have trained, it can be a difficult transition or a hugely easy one. A lot of times you need a little guidance from an expert to kind of coach you through it. I really love that kind of work.

Mark Sisson: [00:27:35] Let's say you have a full-on guy who is doing all the wads [?] and is getting ready for the games and is ostensibly very fit. What can you do with a guy like that?

Dr. Cate Shanahan: First, I would take a metabolic snapshot and make an assessment to see if his metabolism is as fit as it could possibly be in all 5 of the parameters that we measure. One of them that really pertains to athletic performance is energy. If they are needing a little bit of help there, we are just going to edge them in a direction where I call it energy independence. Athletes really do spend a lot of time making sure, fiddling with little products here and there, to make sure they have enough to eat during their performance. Now once your metabolism is upgraded to where you have the fat-burn on, you don't actually

need to refuel during a performance. This is incredible. For a lot of athletes, it is hard to understand. It doesn't even compute. That is a big one that helping you to not have to fuss over what you are going to have just before your performance or carry with you for example a long bike ride. Also there are nutrients that your body needs to really help their joints recover. A lot of athletes know that protein is important for muscle building and muscle bulking but what do you do for your joints? What do you do to refuel your joints? We talk about that. How to get your joints to be able to keep up with all the activity that you are asking your muscles to do.

Mark Sisson: So you are only as strong as your weakest link and part of this program is identifying what your weakest link is and then doing what needs to be done to repair that.

Dr. Cate Shanahan: Exactly. So we'll measure the five parameters and will start working on whichever one strikes the person as the most important to them, whichever one the weakest one is. We can use the strengths as well to help them round out their whole metabolic health.

Mark Sisson: [00:29:45] Now, conversely, you now have a woman who is tethered the medical system. She has 20 meds. She is in bad health. Things are not looking good. She is working with multiple physicians already. Is that someone you can get involved with and help?

Dr. Cate Shanahan: Absolutely. You can break it down to one step at a time. Just take literally one meal at a time. Figure out what is the most important thing to do or not do for that meal. You get that mastered and then you move on to the next, and the next. Like I say, everybody will benefit from getting the metabolic system operating the way it needs to. You can then start to peel away medications, peel away the pounds, up the energy. All the good stuff.

Mark Sisson: When I think about that one meal at a time, I always come back to visiting my mother in the hospital coming out of surgery to remove one of the lobes of her lungs. She had lung cancer. She is very healthy today, I might add. But to look down at the tray in front of her...her first meal was mashed potatoes, jello, a cookie, skim milk and orange juice.

Dr. Cate Shanahan: Sadly, my brother has spent a goodly amount of time in the hospital, too. I have spent too much time looking at those menus and trying to figure out what on earth?! I am glad you mentioned the jello.

Mark Sisson: Yes, the jello would be the one that you would choose above all for its glycosaminoglycans. And I remember in the old days the only source of glycosaminoglycans was green-lipped oysters. That was the main source of glycosaminoglycans in the supplement industry.

Dr. Cate Shanahan: Wow! That was fascinating bit of oyster trivia.

Mark Sisson: Well, on that note, why don't we wrap it up.