## The Paleo Solution Guest: Robb Wolf October 31

Robb Wolf is the author of the bestselling book The Paleo Solution.

**WOODS:** In a nutshell, what is the "paleo solution"?

WOLF: Well, the paleo solution is this template that folks can use to look at nutrition, lifestyle, community, exercise and use this to make some informed choices about how they might want to live their life. We're using this kind of evolutionary biology template and because there are so many disparate views out there—maybe we should eat the Mediterranean diet or maybe we should eat the Okinawan diet, and different things like that—and so what this evolutionary biology perspective does is it assumes that humans are a part of nature just like all the critters in the world. And using that framework, we can make some informed decisions about nutrition and exercise and photo period. And I do a lot of work with the military and also police and fire. What we find in those communities is a lot of problems related to photo period, shift work, and nobody has really understood why this is an issue until we've really gotten in and started looking at circadian rhythm and evolutionary biology implications of sleep and disturbing sleep. And so it's using this framework so it's not just a diet. It's kind of an overarching view to make some informed decision and with that people can either take it or leave it. What we find is folks that are looking for performance improvements, high-end athletes and also people who are quite sick, tend to be highly motivated to try something different and so that tends to be the two bookmark-bracketed kinds of population that are interested in this topic.

WOODS: So what exactly is the type of food that somebody on a paleo regimen would consume?

**WOLF:** Oh gosh! You could either do it inclusively or exclusively.

**WOODS:** Why don't we do it exclusively? What do you avoid?

WOLF: You avoid grains, legumes and dairy as a baseline. I approach this in a very non-religious format and I throw it out there as my greasy used car salesman pitch is, "Let's try this for 30 days and see how you look, feel and perform." Check biomarkers, health and disease and then re-evaluate at the end of that. Hopefully, things have improved and hopefully the return on investment is worth whatever suffering is involved with that. What we find generally is people end up looking better, feeling better and performing better and they actually find that they like the nutrition and the way of eating and they find some kind of 80/20 kind of thing where maybe Monday through Friday they're pretty tight with this way of eating and on the weekend they maybe kick their heels up a little bit and have a little bit of fun and go off the rails. That seems to be a really nice middle ground to find with this. If someone is sick they don't get as much latitude, and that should make a lot of sense to folks. My background was in autoimmunity and cancer research and probably the greatest impact that I've had is actually folks with autoimmune disease. So if you have multiple sclerosis, lupus, rheumatoid arthritis and you are facing potentially shortened life span or at the very minimum a very dramatically impacted lifestyle, then those folks may be highly motivated to be very, very strict on this and what we've found is it is quite successful in remedying their situations.

**WOODS:** Now I've had Mark Sisson on the Peter Schiff Show when I've been guest hosting. I've had him on this program. I'm familiar with the Primal Blueprint and you guys are all friends and it's an ecumenical

community, but at the same time there are differences and just because I have imposed the Primal stuff so heavily on my hapless audience, I think we should at least pause to note one major difference and of course you hit on it with the dairy. Now, what exactly is so bad about dairy that, with the exceptions that you make, and occasionally you go off the rails or something, what is it about dairy that should make me want to avoid it all together? Not just the skim milk and the one percent or even whole milk or raw milk—why should it be chucked?

**WOLF:** For a lot of people, they end up understanding, say, the gluten reactivity issue, that these proteins in wheat, rye, oats, barley, millet may cause some kind of gastrointestinal inflammatory response which then manifests in a systemic inflammatory response, and unfortunately dairy has very similar effects as grains do on quite a number of people. I would say that fermented dairy is better than non-fermented dairy, raw fermented dairy is better yet. Things like butter and whole cream, particularly from grass-fed horses, are even better because they have a very low protein content. So the way that Mark approaches this is he kind of allows an 80/20 approach with this right up front, and if things aren't working well then he tightens them up later. The way I approach this is I really hold my folks deep to the fire: let's start with 30 days, assuming we've got kind of a China syndrome meltdown with loads of problems. We just assume that everything is guilty and then we slowly, via reintroduction, we reintroduce dairy. Maybe reintroduce some grains and see how you react and working in the clinical practices that I have, I found that from my own experience, people tend to get very, very good results with this. And then, because we've eliminated all of the major suspects, including dairy, then when we reintroduce them, we can see if you react to it at all or if it is very minimal and you can get away with one or two days a week, but not three or four days a week without getting gastrointestinal distress or some of the systemic inflammatory issues like joint inflammation and stuff like that. This goes way, way, way beyond lactose intolerance issues. This is actually dealing with the proteins themselves, which have some cross-reactivity in the GI tract, particularly when people are sensitive to, say, gluten. There's a high cross-reactivity of celiac individuals and non-celiac gluten intolerance and dairy.

**WOODS:** Now, one of the arguments that people in the paleo community have made is that there are tremendous health benefits that come from observing a regimen like this, but then at the same time, people reading the news or listening to critics might be inclined to be a little bit concerned because of something like the so-called China study. Supporters of that study suggest that eating red meat is actually terrible for people and that you're giving terrifyingly bad advice. Why are these people wrong?

**WOLF:** The China study is a great example of kind of politicization of science. And Campbell is a brilliant guy and he's done some really amazing work but early in his research, some of the research in the China study like the lab-based research involved feeding mice, interestingly both a toxin called aphalatoxin, which is known to cause various types of cancer, and they were given a dairy derivative, whey protein. What they found, interestingly, though, is that a high protein intake from dairy caused greater morbidity and mortality in these mice in the long run, but actually it was preventative in developing cancer in the short run. This is some of the information that kind of gets round filed in this whole story. And so what we understand pretty clearly is that once you have cancer, cancer does a great job of metabolizing glucose and also does a very good job of converting protein via this process called gluconeogenesis. It converts amino acids into glucose. Cancer is very robust in some ways, but it's also very metabolically limited. It can't use lipids, it can't really use proteins directly as a fuel source. It really, really relies on glucose, which actually should inform our eating just a little bit if we were to think about it, but it's interesting with the China study. Campbell never really published some of the earlier research that he had or has not made as much noise about it, that high protein intake is actually preventative against developing cancer. But then as we've all experienced, once you have cancer, it's a very difficult thing to manage. Like we've been in the war on cancer since the Nixon era and survivability, morbidity, mortality really haven't improved all that much except in some very specific situations because cancer is effectively just a modified form of us. It's not as simple as taking an antibiotic and being able to shut down like a pathogenic bacteria; it is a modified form of us and so our current chemotherapeutics are trying to poison something incredibly similar to us but at the same time not kill us off. So that's been some of the challenge of cancer treatment in general, but it's interesting the main story that we get from the government, the main story we get from the media, is that we should be eating a low-fat, high-carb, more or less vegan-based diet, which is fascinating from a resource sustainability issue. That doesn't represent any type of a vibrant ecosystem anywhere on the planet. Everywhere we look we see plants and animals interacting in both a trophic kind of format in which plants convert sunlight into carbohydrates and other substrates and then animals eat those plants and then other animals eat the animals and this whole cycle goes on and on. But it's fascinating that the push is to produce a very lopsided, unsustainable food production story and something that really doesn't jibe at all with the anthropology, evolutionary biology, or what a good analysis of the data would tell us.

**WOODS:** Now your book, *The Paleo Solution*, was a *New York Times* bestseller and is still selling pretty strongly. Of course, as authors, you and I know that when you have a bestselling book it sells pretty well, but if it's not a fiction title that is promoted by Oprah, it doesn't sell as well as everybody assumes it sells, so everybody thinks that you and I have \$80 million in the bank and why aren't we bigger philanthropists with all the money bags we've got. But the fact is you are one of the most important names attached to this movement with the writing that you've done, and now of course you have the Paleo Solution Podcast. You must get a lot of testimonials from people who say, "I started listening to you and I was skeptical and then I did it and now—" What follows that? What do they tell you?

WOLF: Gosh, some of the most fascinating stuff that we've had are folks that had some really well documented pathology. They've had multiple sclerosis, lupus, and rheumatoid arthritis. We've had a number of folks that had a clear imaging MRI showing brain lesions, showing lesions in the central nervous system before eating paleo, going paleo for 30 to 90 days and then showing reversal in these lesions and then, more important, showing a complete reversal in the symptomology they had. We see internuclear antibodies in rheumatoid arthritis the titer being quite high, which indicates that the body—I don't know if folks are aware of this but an autoimmune condition is when our own immune system thinks that tissues in our body are foreign invaders and then starts attacking our own tissues and can attack anything from the heart to the lungs, the brain. Anything is really fair game and we are very, very poorly equipped for treating these conditions. One of the main things that is done is putting people on immunosuppresants but then when you suppress the immune system, you're in a situation in which you're in high likelihood of the same complications that we see in HIV/AIDS. Fungal infections, sarcoma or a number of things like that. So we really don't have a good way to treat these things.

I think to the degree that my book has remained very, very successful—our podcast bounces between number one and number five on iTunes for over three years—is we've thrown this idea out to folks and just ask them to please try it and then good, bad or indifferent, please tell us what your results have been so that we can refine the technology, refine the message so that we can help more people. We take kind of a back-of-the-envelope kind of survey of folks who had bought my book and I give all of the information in the book away for free on my website. I've got shopping and food guides. I have quick start guides. I go into much more detail in the book, but basically I give all of the information in the book away for free. hat we found is about 60 to 70 percent of the people buying the book had already downloaded all of the free material, got all the results that they were probably ever going to get and it was very, very good and impressive for them and then just to pay it forward, they actually went and bought like ten copies of my book. It's been this interesting kind of model that if I can give this thing away to enough people and just get them to try it, I will make tons of money helping people be healthier.

**WOODS:** I don't know about you but I always feel people who buy ten copies of my book are really models for all of mankind to emulate. So the website is RobbWolf.com with two b's. Is that the website that you're talking about?

**WOLF:** Correct.

**WOODS:** You've got a lot of people who are willing to try this out, give it a shot. Worst thing that can happen is that you just don't like it. What's the biggest trouble, the biggest stumbling block to getting people to do it in the first place when you're spelling out what you are convinced are all of the benefits? What's the problem in giving them that initial push? Why won't they do it? Why do they resist?

**WOLF:** I would say if we had 100 people and I gave folks a little bit of a talk on this topic and I said, "hey do you folks want to try this for thirty days," 50 percent of those folks would say, "Yeah, I want to give it a shot" and they're excited, they're engaged, they're willing to give it a shot. I don't need to bend their arm. They're going to jump in and try this thing on. I kind of equate it to putting on a sweater or a pair of jeans to try on to see if they look good in them and they kind of go from there. Of the remaining 50 percent, about half of those people require a lot of arm-bending, cajoling. They will go surf the Internet and bring up things like the China study and what about "my pyramid" and this dietician who is my sister's aunt's niece's friend told me that red meat would kill me, but you know those folks with some education and some arm-bending and cajoling and maybe a little bit of public shaming, they eventually come around. And then there's about 25 percent of the population that even if they are sick, not feeling good, they have tons of problems, they are the people that have been a pack-a-day smoker their whole life. They get the tracheotomy and they are smoking through the trach hole. There is no saving those folks.

So I find that there's a large chunk of the population that are very willing to give this a shot. A smaller chunk with a bit of arm-bending and cajoling, they will get in and try it. And again, I haven't had a TV show. I haven't had a marketing budget behind this, but the marketing gets tons of traffic, the show does well and the book, after being out for three years, is still selling very, very well. It's just because success begets success, but there is a kernel of folks that no amount of effort on my part is ever going to bring them in or it's a very diminishing return. It's like I would have to try incredibly hard to get one or two more percent of those folks and I just really don't have the time or the wherewithal to do that. I try to be a high-velocity kind of person and get this message out to as many people as I can as quickly as I can and the entrepreneurial people will give it a shot and it will either work for them or it won't. I think generally it does and that's part of the success of the whole story. I haven't spent a whole lot of time trying to convince the folks that are convinced that it's not going to work. I say okay, that's fine. I hope that your health insurance and life insurance are in a different branch from mine because I'm going to cost less and live longer than you are.

**WOODS:** In a way, it's like the molasses you can get caught in when you get in a Facebook or Internet argument in a comment box and you can spend all day arguing with someone and make zero progress. Think of all the good I could have done in this day if I had just focused my energy on people with open minds, and there are plenty of them out there.

How do you account for the fact that your first book is a New York Times bestseller?

**WOLF:** Gosh, you know, I guess to some degree it's a fifteen-year overnight success. I've just been chopping wood, carrying water on this topic for a long time. My first exposure to this topic was in 1998 and at that time, there were maybe a couple hundred, maybe a few thousand people in the world, that if you said

"paleo diet" they would have any understanding of what you were talking about. And typically it was a researcher, an evolutionary biologist, something like that, or maybe there were a few physicians like Boyd Eaton, who wrote a book and a piece that made it into the New England Journal of Medicine back in 1986, but it was a very, very small group of folks. I started writing about this stuff, blogging about it. I was involved in the very early iterations of this CrossFit strength and conditioning movement and I did their nutrition search for a number of years, so I started broadcasting this message. Loren Cordain, who is my mentor and he is really regarded as the godfather of this whole paleo diet concept—he and I talked about this being almost like SETI[AG1] —the search for extraterrestrial intelligence—in reverse. Instead of a big parabolic dish listening to the universe, we were also trying to beam this message out to the world and see if anybody received it and what their results were, and then kind of creating some sort of interface around that. I think that we had some timing that was well placed with regards to the Internet and social media and the ability for people to do some n=1 experimentation, just some self-experimentation to see how things worked, communicate with the folks that were broadcasting the message. And then people could read that and make some objective opinions out of it and read the literature as it became available. And I think that whenever we see a concept that works, that creates community, that makes people's lives better, I think we have the potential for it to become very sticky and for it to perpetuate itself. So I think that I had worked very long and hard answering literally thousands of form questions and blog questions. You know, people coming to my website and creating a rather large grassroots following and those people were very, very endeared to me and really worked hard to make the book successful.

**WOODS:** Now let me ask you something that, I don't know, maybe won't quite endear you to them so much. What you're talking about runs counter to your friend's aunt's neighbor who happens to be a dietician, yes, but it also runs counter to all government guidelines and the official food pyramid with all the grains at the bottom and the eleven servings a day and all that. So is there, if I may ask, a libertarian streak in Robb Wolf?

**WOLF:** Yeah, about a mile wide. I have some friends in the scene who have not come out of the closet yet. We won't name names, but both you and I know.

**WOODS:** We know whom you're talking about!

WOLF: Yeah, but we won't out them yet and it's interesting. I've been back and forth on this thing because part of me and part of the recommendation I've received from people who are more successful than I am: "Robb, keep your head down. You beat a good drum on this nutrition thing, but don't get into the politics and don't get out into the weeds with this stuff." The challenge that I've had is that the very system that we are in is fundamentally broken. Part of the reason why people make bad food decisions is primarily economics based. We subsidize the production of grains, those grains then get processed into very hyperpalatal, very tasty highly unhealthy foods and then they appear to be cheaper than apples and oranges and pork loin and whatnot because it's a false economy. Unless we fix that, I think this is something that both the liberals and kind of the religious Right—you can only guilt people into so much new action. There's a very small number of people who will change behavior out of guilt. There's an enormous number of people who will change behavior out of economic circumstance and, so this is where tackling the fundamental food production story, the fundamental story of, for example, a third-party health care system that is fraught with moral hazard, that doesn't produce accountability, that has all kinds of ways for people to fundamentally not be accountable. All of these things are very intimately tied together. Our food production, the health care system, the way that we tie all this stuff into the government. And at some point I just felt like I was going to be the little Dutch boy with the fingers in the dyke, I would plug up the hole and another would pop up and I would plug the hole and another would pop up and the only way

we're going to legitimately address this story is by a systemic overhaul, but this does freak out a number of people who follow me. It just freaks them out because they are not comfortable with this idea of markets improving health care, improving our food supply, but even right now it's interesting as we're recording this, we're still in this government shutdown, we're printing money like crazy and we have a very fragile food production system, and part of what I've been advocating is a decentralized non-government interventionist food production story that would survive an oil crisis. It would survive all kinds of ups and downs in current basements because it isn't centrally planned, and slowly this idea is getting out there. I've actually been getting some reach-out from some large Fortune 500 companies and I'm actually working on a project here in Reno, Nevada, where we did a risk assessment program with the Reno Police and Reno Fire where we found their high-risk police and firefighters who were high-risk cardiovascular disease, put them on the low-carb paleo diet and saved the City of Reno—just with the pilot study—\$22 million. We're scaling this up and hopefully taking it national and international, but you know these market-based forces, when you look at kind of libertarian market-based analysis of economics, this really is the one way that the world works. It may make people mad or it may make them feel warm inside, but it's just kind of the way the world works and on this other piece, the evolutionary biology piece, is the way that nature works. And when we meld these things together—it's not opinion—that's actually working with the way that nature functions. Economics and evolution, some people aren't comfortable with the elements of that. I can sympathize with it but if we're going to fix what ails us, I think that we really need to embrace both of those concepts and ride those ponies until the legs fall off of them.

**WOODS:** Robb, I appreciate your time. Sometime down the road when people need to have another Robb Wolf fix, we'll have plenty of stuff to talk about. I appreciate your time and thanks again.

WOLF: A huge honor being on your show. Thank you.

[AG1]I don't know what this is, and can't divine it.