

EPISODE 192

[INTRODUCTION]

[00:00:10] AVH: Hey everybody, thanks for being here. Today, we are chatting with everyone's favorite primal guru, Mark Sisson about his new book, *The Keto Reset Diet*. You probably already know Mark from his very popular, *Mark's Daily Apple* blog and podcast where he recently, by the way, mentioned this very podcast as one of his favorite health podcast for 2018. That's a pretty good endorsement if you ask me.

He's got a bunch of very popular books, all of which I have on my bookshelf because I am a nerd like that and he has his Primal Kitchen line of delicious food and snacks and this new book, *The Keto Reset Diet* is a good one because it's written in a way that isn't overly complicated or intimidating and it makes keto seem like a plan that could be enjoyable and sustainable.

And worth trying especially if you are dealing with issues like carb dependence or overweight or you just are kind of looking for something that may better suit your lifestyle. Rather than making keto seem like this weird fringe diet that only bio hackers who hate carbs would do and it's not something that you'll have to do forever. Anyway, we get into it but it comes from a very well informed paleo-primal background obviously.

Someone who struggled with carb dependence personally based on his own athletic background and training. He definitely knows what he's talking about. Maybe it's the abs, maybe it's the delicious primal kitchen mayo but he made me feel better about the whole keto thing. Any case, this is a podcast you don't want to miss.

But, before we get into it, this week's homework for you guys is to put June 23rd and 24th in your calendar and then book a ticket to boulder Colorado because that is where Paleo Magazine is holding their first Paleo Magazine Expo, health and wellness event and it's where all the cool kids are going to be hanging out.

It's a two day event featuring some of the biggest names in paleo, health and wellness and there are going to be plenty of things to do and learn and buy and eat and people to connect with and I know it's going to be great.

I will be there, Larid Hamilton will be there, Mark Sisson will be there, I mean, who else do you need really? You can learn more about the event and get tickets at thepaleomagazineexpo.com and if you're interested in being a vendor, you can go to the website and click on get involved to learn more.

Or, you can just send any questions via social media @paleomagazine or me personally on Instagram @themusclemaven. That's it, now, here is my chat with Mark Sisson.

[INTERVIEW]

[0:02:44.2] AVH: Mark, welcome to the podcast, thanks for coming back.

[0:02:46.6] MS: Ashley, so good to be here.

[0:02:48.9] AVH: Great. It was great to see you all so briefly at the Bullet Proof Conference there in October. I'd love for you to talk about what you – because this was my first time at the conference and what did you think about it? What did you think about the conference and the kind of energy and the people you find there?

[0:03:03.6] MS: I mean, look, the energy is awesome and the people are awesome and it's a breath of fresh air its a shot of adrenaline to go to these events. I have been involved in seeking human performance for 30 years. That sort of a conference is a great opportunity to kind of get to a point where you know, you can see the latest and the greatest advances in the pursuit of human performance.

In that regard, it was spectacular. Now, I have to give you a little caveat and say, I have to roll my eyes at some of the stuff that I see there too. Because this idea of hacking your biochemistry, it's not quitter as appealing to me as getting there organically. The search for shortcuts which is look, human nature.

We like to do as little as possible, we like to get away with as much as we can, I'm guilty of that in my life as well. But at some point, you got to do the work, you know, at some point, you have to go "Okay, if I want to become a fat burning beast, I can't take these magical potions and convert me into a fat burning beast, I have to train my body to burn more fat".

"I have to build the mitochondria myself". No amount of chemical intervention is going to build those mitochondria. You know, at some point, if you want to train for a 10k marathon, you have to go do the work, you may get a little benefit here or there from sitting on a magic bike with cooling pads and altitude masks and stuff like that but you know, at some point, you got to go hit the road and put the miles in.

I have a mixed, kind of, mixed feelings about all this and then you know, don't get me started on the sort of wearable tech that's measuring all the data points. Because I'm very suspect of a lot of that stuff.

[0:04:51.2] AVH: Have you read Brian McKenzie's book, *The Unplugged* about trying to -

[0:04:55.7] MS: You know I haven't but you know, Brian and I are simpatico, I see him once in a while around Malibu, you know, it's a great, I haven't read the book because I bet, I know everything in it and I agree with everything in it, right?

That's kind of how I live my life, I don't wear any measuring devices, I don't pay attention to the data, I don't care, you know, if a FitBit says that I did 12,000 steps today and I wanted to do 15 because that was my goal. You know, how many of those steps were made nervously shaking my foot while I'm on the phone. Or the HRV stuff is interesting but you know, I have from years of overtraining, I have a damaged left ventricle.

I have thickening of the scar tissue of my left ventricle which causes premature ventricular contractions. If I get my heart-rate about 90 or 95, my heart skips every third beat. On an HRV, that, the algorithm goes, "Wow, this is awesome, this guy is – his interval is all over the place.

He's ready to go train", and in fact, the exact opposite is true. When I'm in that state, I'm like, the least likely, ready to train. I could go on and on about, you know, I wrote a piece years ago about when I went to a doctor and I actually went to see a doctor for a skin thing, they just wanted to get, I'm a fair haired, blue eyed, Nordic living in southern California so I have to get my skin checked for pre-cancer stuff every once in a while.

They did my blood pressure when I was waiting in the office. The doctor comes in and says, "We're going to have to put you on blood pressure meds", I go, "What are you taking about?" He's says, "Well, you know, the nurse got your blood pressure at 140 over 105."

I said, "Well that's interesting because that's the highest it's ever been". I went home and I bought two of the best blood pressure cuffs that you can buy on the market and over the next week, proceeded to measure my blood pressure 50 times.

At no point did I ever get a reading as high as 140 over 105, at no point did I ever get the same reading twice, in many cases, there were days and times of day when I got a reading of like 105/62. I just don't trust the data most of the time and I think there's a possibility, look, I mean, you know, if you have issues and you're pre-diabetic and you want to monitor blood sugar, those are numbers that you have to pay attention to but for a lot of this at home, do it yourself. Measurable tech stuff, I'm not just buying it.

[0:07:30.2] AVH: Yeah, I guess it's ultimately, it's about listening to your body first, maybe these tools can come next or can supplement and can help in some cases but it's about knowing how to listen to your body first which makes sense.

I think even some of these bio hackers at the conference, even Dave Asprey himself in some of these speeches he was giving was saying, all of these pills and extra crazy stuff that I like to do can only go so far if you're not sorting out the major components first, like sleep and stress and food and movement which is again, those aren't bio hacks, those are being healthy and taking care of your body.

I think that's probably the thing that I took from it most is, "Yeah, there's all kinds of weird technology and fun things to play around with but it's still the hard work", like you said, the hard work still needs to be done.

[0:08:14.8] MS: You know, some of it's not hard work, some of it is just staying focused and dedicated. I mean, you know, the term hard work is maybe a little bit of a hyperbole but yeah, you have to do the work.

[0:08:25.5] AVH: Sometimes.

[0:08:27.6] MS: Yeah, just to your point about the intuitive nature of things, I would suggest that there's – one of the uses of measurable tech is almost the reverse of what you said, which is use it for a while and then throw it away because now you've developed an intuitive ability to know how you feel and where you are when you were in certain ranges.

Use a FitBit if you think you're getting a lot of movement and at the end of the day you've got 3,500 paces in. You know, but from there, you don't really need to – you're just using it to keep you honest. In the old days, I was one of the first guys to train with a heart monitor and this was just wearing a chest belt and a readout when Polar came out with their first monitors.

Back in the olden days Ashley. We didn't use it to see how high we could get our heart, we used it to keep us honest, to set a maximum level that we didn't want to go over. That was very useful but after a while, most of us stopped using it because we developed sort of this intuitive knowledge about where that line was in terms of perception of effort and things like that on a bike.

Again, we used the technology initially to sort of determine baselines and to figure out what it felt like to be at a certain level but then after a while, it's like, "Okay, I don't need that information anymore because I've developed this deep intuitive knowledge and ability to dial it in myself".

That's been my main goal with *Mark's Daily Apple* for 11 and a half years now. That is, I don't want people to kind of read my articles or read my books and go, "What would Mark do or what

did Mark say back in that article?" I want people to develop that intuitive ability to make choices on the fly without having to think about the numbers or the data and just be able to say –

"You know, here's the workout I'm doing today, it feels good, it fits how I feel today, it's structured or unstructured, I don't care. Here's the meal I'm contemplating next. Tastes good, looks good, feels good, I don't really need to count calories because I don't use that anymore, I use the skill I've developed which is you know, after six or eight bites, am I really hungry for the next bite?"

"Not, am I full", not, "Is there stuff still left on my plate but am I really hungry for the next bite?" It's that ability, eventually to intuitively dial in all of these things and make these choices with ease and grace and without guilt or remorse or second thinking.

[0:10:55.4] AVH: Right. I want to get into that a little bit more in terms of the book that we're going to talk about too because I do think that people in this industry often, one of the tough things about what you're talking about is our ability to step back from attempting perfection, which no one ever really achieves anyway, but we stress out about it forever trying to get there.

Instead, trying to, like you said, just come up with these healthy habits that are right for us and that feel good and don't come with a lot of guilt and don't come with a lot of stress. Sometimes that is easier said than done but I like that you address that a lot in the book so I want to talk about that.

Let's talk about *The Keto Reset Diet*, your book, why do you think keto, or maybe it's just how I'm seeing it but it, seems like it's really exploding in popularity in like the last years. Do you think it's like a natural evolution from paleo or primal once you start adopting those general principles, it's like the next step or why do you think it's suddenly becoming so popular?

[0:11:51.5] MS: Yeah, I think that's a good assessment, that was certainly my reason for going here. I think low carb's been around now for long enough that there are millions, tens of millions of people who have adopted or have played with it. For me, keto was like the next level, it's like okay, "My life is awesome living low carb, living, eating primally, keeping my carbs to maybe a hundred to a 110 grams, 120 grams a day and I got there simply by eliminating the crap.

I mean, I cut out long ago, I cut out the sugars but you know, sugars, sweet beverages, not a big fan of desserts, don't eat much fruit but I do eat berries and the like. Had cut out processed grains and whole grains a long time ago because of my gut issues and that sort of left me with a list of carb containing foods that was green leafy vegetables, colorful vegetables of all kinds.

A couple of starchy tubers here or there, potatoes, turnips, rutabagas, sweet potatoes, things like that. Maybe because I relaxed my stance on legumes, maybe the occasional hummus, lentil soup, bean dip or something like that and even with that collection of food, I was hard pressed to go over 120 grams of carbs a day. I was living what most people would consider a low carb lifestyle. And I had all the energy I needed.

I had the muscle mass that I built, worked so hard to build, stayed on, I don't get sick, my cognition is fine, most importantly, I wasn't getting hungry. Hunger wasn't an issue with my life. You know, for 15 years I'd been living this way and it was great.

But you know, I'm a seeker of human performance that's why I was at the Bullet Proof Conference and I'm always looking for kind of the next thing. I'd written enough about the keto diet, I spent days or weeks at a time keto, almost by accident.

I'd look back over the past three days and go, "Jeez, I had a salad with some dressing on it the other day and some protein, I had a steak with some grilled vegetables but that's all I had yesterday and then today, wow, I've spent three days basically with my carbs under 50 grams with no adverse effect by the way."

I had written about keto, I had done research on it but I had never done a real deep dive and so I thought, "Well you know, that's the next thing for me". Last year, I did a two month deep dive into keto and spent two months aggressively cutting carbs to see if I noticed the difference. I did, I noticed a little bit more energy, I noticed that I maintained a little bit – I was able to actually build muscle on top of the fact that I was burning more fat which is kind of really almost counterintuitive but then as you dip into the science you see why that is.

You know, I had more – I found that I could sleep better at night, I needed a little bit less sleep and I suspect that that's because the brain does what it does when you sleep a little bit more efficiently on ketones than on glucose.

Yeah, I had all these benefits that I had assumed I kind of maxed out on, that got incrementally better. That's why I started to think, well you know, if I'm noticing these benefits, imagine how many people who are stuck, who are plateaued, you know, in their efforts to lose weight or get off the meds or decrease their blood glucose or whatever, improve their mobility or decrease the inflammatory nature of their lives.

I mean, all these things are available from doing a keto reset. The keto reset isn't about, "You got to spend your rest of your life in keto", this is about using a strategy, a tool if you will, to improve metabolic flexibility and the amount of time that I suggest people stay keto once or twice a year would be six weeks.

The benefits of having done that six week reset kind of last for the rest of the year as long as you don't go back to your sad standard American diet ways of eating 4 - 500 grams of carbs a day.

[0:15:50.8] AVH: Right, okay, this leads to my next question because what I loved about, I loved a lot of things about the book, but one of the things that I loved was that you don't make trying this keto reset seem too intimidating, it seems like it's something that you can actually accomplish because some of the stuff out there makes it – it's very scientific, it's very – you got to be keto, if you're not keto, you're wrong.

It can seem a little bit scary but with that said, I think that achieving ketosis for some people, depending on where you're starting can be a lot of work and so you talk about some options in the book, different options like cyclic ketosis or like annual, like you're saying, but you're saying now that you can be in ketosis for a little while and then not for the rest of the time and you're still –

Your body, because you've done that reset, your body still can be fat adapted or it can still use ketones better or it can use the glucose better. I guess I always felt like if you're doing all the

hard work to getting ketosis and then you are out of it, it's like you wasted all that time and now you're back to being a sugar burner and it's kind of like you have to be one or the other.

Talk a little bit about –

[0:16:55.5] MS: Yeah, no, that's a great sort of observation of how people might think this and they're wrong. The idea is to – the ultimate goal of a keto reset is improving metabolic flexibility and metabolic efficiency. Now, improving metabolic flexibility means you are better at burning fat, you are better at making ketones and burning ketones. You are better, more efficient at burning glucose when glucose or glycogen are present or available.

You are less likely to burn protein, amino acids, because you have access to all these other fuels first. Now, conversely, someone who is a sugar burner is really good at burning sugar but when sugar is not present like every three hours throughout the day or every three meals a day plus snacks, when you haven't consumed adequate amounts of carbohydrate at every meal, then you do get into that pattern where in the absence of readily available supplies of stored glycogen or glucose, your body starts this frantic attempt to build glucose by creating a stress response that causes cortisol to circulate and strip down protein so they can salvage a couple of amino acids and send those to deliver to become glucose to run the brain.

It's this kind of feedback loop that just does not serve us well, it's adequate if you have access to carbohydrate every meal, if that's the path you've chosen, but it doesn't allow you to become good at burning fat, it doesn't allow you to build the metabolic machinery to burn fat or to burn ketones.

You know, it doesn't create the metabolic flexibility and metabolic efficiency that we're seeking. Most people, and I mean most people, live their lives in this carbohydrate paradigm and the sugar burning paradigm. Where as long as they have regular meals, everything's fine. But you know, God forbid, they skip a meal and that's when you get angry. You get angry because the brain has not been used to burning ketones, it doesn't know how to burn ketones efficiently, the muscles haven't created the mitochondria, the machinery to burn fat efficiently and so all hell breaks loose when you skip a meal or when you go on a fast.

That's a real thing. You know, when people talk about cannibalizing muscle tissue and all this other stuff, yeah, that actually does happen if you're in the sugar burning paradigm. Well, the idea behind the keto reset is to become metabolically flexible and metabolically efficient and to do that, you have to go through a controlled period where you withhold carbohydrates, you force the body to burn fat.

Now, you do it in a way in my book, we do it in a way that stair-steps you into it so you don't get slammed upside the head, you know, with an all-in kind of mentality which says, "Okay, I used to eat 400 grams of carbs a day, 600 grams of carbs a day, I'm going down to 20.

You know, people do that and they survive but it's not pleasant, right? It's a real – that's where the keto flu comes in or the low carb flu as they used to call it, that's where you know, people after six days of it just when it's starting to get good, they bail because they can't take it anymore. In the book, we use the keto reset, it's a stair-step method, we want it to be a kinder, gentler way to increase metabolic flexibility by improving the number of mitochondria that you have in your muscles.

And the efficiency of those mitochondria. They're better at burning fat. You're better at extracting energy from your own stored body fat versus having to depend on a fresh supply of carbohydrate to make glucose every couple of hours. You do this long enough and the body starts to recognize, this is basically gene signaling.

It's basically just epigenetics at its finest. You start to – you create an environment where the body goes, "Hey, jeez, if this clown's not going to be feeding me carbs anymore, I better go to plan B which is to burn fat and to use ketones instead of glucose in my brain. It takes days or weeks to get to that point where the up regulation of these enzyme systems kind of really fully kicks in. Because in the absence of the time and the dedication to put in the days or weeks to get that to make that happen, the body has this sort of short term homeostatic solution which is just based on hormones.

You skip a meal, if you're sugar burning, you skip one meal, you get hungry for a little bit because of the hormonal response, you know, the brains and signals, the adrenals secrete to

secrete cortisol. The cortisol then causes a bit of gluconeogenesis. Blood sugar dips, it's sort of a normal real time, short term adaptation to that which goes away once you eat.

That's why people will seek the snickers bar or the bagel in the lunch room.

[0:21:51.4] AVH: Is this why it's so important that, you're talking about this kind of gradual process into keto and is that why you would say probably like one of the most key parts of this is this 21 day, the metabolic reset, at the beginning where you're just, you're not necessarily weighing and measuring and checking and putting everything – checking your macros and all this stuff and your glucose.

It's just I want to try to eat lower carbs and just play with it.

[0:22:16.8] MS: Yeah, basically the first 21 days, you're going primal, you're just getting rid of the crap, you're getting rid of bagels and cakes, the pies, the cookies, the candies, the sweetened beverages, the sweetened lattes, the processed grains that are in the center aisle everywhere.

You're getting rid of all that stuff, you're getting rid of the industrial seed oils too by the way which also have negative impact and in their place, you're starting to eat real food. When you limit your dietary menu to real food, A, you know, everybody kind of knows it's better for you. B, you're getting rid of those offensive, offending pro-inflammatory insulin producing ingredients so the first part of this is the 21 days.

In that process, because you're withholding some amount of carbs, you certainly withholding the simple carbohydrates that your brain used to kind of sort of rejoice in getting every couple of hours. In its place, you're saying, you know, there's going to be a reduction in carbs and so we're going to have to start to learn to burn fat.

We talk about you know, how you exercise in that context so that you don't set yourself up for failure by doing hard exercise. You know, by doing like chronic cardio at the same time that you're stair-stepping your way down into this process, because you don't want to burn through all your glycogen stores and cause that same sort of immediate stress response.

There's a way we show you how to exercise, how to orchestrate your sleep. You want to be sure we dial these things in and then as you know, in the book, there's like literally midterm exam halfway through the book, you have to earn the right to go keto from there and some of the questions have less to do with whether your blood ketone levels and what's your blood sugar after this. They're more to do with how do you feel? How do you feel when you wake up in the morning?

Do you feel like you need to eat breakfast, can you do a workout without having a pre-workout meal or a post workout meal after it.? How was your sleep, are you getting seven and a half to eight and a half, nine hours of sleep at night? Is it quality sleep?

All these things are important when you decide now, I've earned the right to go keto and I'm going to go keto for six weeks and it's going to be a great, pleasant, enjoyable experience and I'm going to –

Now, all I really have to do is find 60 grams of carbs a day that I'm not going to eat based on what I'm currently eating. You know, it's not a big ask to go, "Okay, where are there 60 grams of carbs that I'm currently eating to get me down to stay below 50?"

[0:24:44.8] AVH: Okay. You talk, you mentioned briefly the keto flu and for people who are already sort of eating primally and maybe in the hundred to 150 gram of carbs per day situation, it may not be as much of a thing.

But for people who are starting out at like 500 grams of carbs and they're starting this 21 day reset and they're methodically working their way down but they are going to experience maybe these keto flu symptoms. What are some tangible tools to kind of prepare for that to deal with it?

Because you know, you talk in the book about, "Don't measure, don't be worried about fat, eat as much as you need so that you don't feel like you're deprived and you're not hungry", but you may still have these sort of mental barriers like you're walking by a donut shop and you freak out.

What are some ways to kind of deal with that if you – especially if you can prepare and know that it may come sometime for that.

[0:25:34.5] MS: No, good question. You know, I tell people that the biggest issue that we all face here is hunger. If we can mitigate the hunger, if we can cut the hunger off at the pass then we will be geared towards success. One of the secrets is to have lots of what I would call primal approved snacks around.

It could be beef jerky, it could be – I mean, my favorite go to has always been coconut butter. This is the nut butter of the coconut meat, not the coconut cream. You know, Artisana make a great one, you know what I'm talking about. Spoon full of coconut butter has this amazing ability to take the edge off hunger, to feel like it's a sweetened treat, provides a little bit of MCT oil within it so that the brain can, the liver can convert that into some form of ketones and supply the brain with a little bit of extra fuel.

That's the sort of thing that if you've diligently entered into this 21 day process and now it's 3:30 in the afternoon and you had lunch but it's a long way away to get to dinner and you go, well, I'm walking by the donut room or the bagel room and I smell somebody heating up a bear claw or whatever.

Now, as long as you have surrounded yourself, you say, "Well, back at my desk, I have a little packet of coconut butter or almond butter or you know, walnut butter".

There's all sorts of choices of nut butter these days, it's incredible, the number of nut butter choices. That would be one of my go to snacks or you know, beef jerky because I feel like I need to be chewing on something that's going to take the edge off. Another secret would be, go for a walk, you know, if you got a call to make, go for a 20 minute walk and make the call during the walk because walking tends to take the edge of hunger because it kind of stimulates the mobilization of fat in order to fuel the walk.

There are lots of little secrets and God, I'm going to use the word actually. There are a couple of 'hacks' here that would allow you to get through that low period until the next meal. Now, one of

the things that you mentioned which I just want to kind of focus on a little bit is this idea that at some point, this works because you're reducing your macros, you're reducing –

Certainly reducing carbohydrates and at some point, you find, when you're keto that your appetite is dramatically reduced and you find that you don't need to eat as many calories to efficiently comfortably get through a day until that point, we don't count macros. Until that point, we're not even looking to lose stored body fat, we're looking to teach your body to burn fat and then teach your body to make ketones.

The first phase is certainly to just get used to lowered carbohydrates and to get used to having fat accessible. At some point, fairly soon in the process, we do have to look at macros. You know, there's been studies done over the years, people who are on a truly high fat, low carb diet can eat 4,500 calories a day and not gain weight because there's no insulin secretion or the insulin secretion isn't driving excess calories into the fat cells.

Well, what the body's doing is it's finding ways to ramp up body temperature, it's finding ways to use thermal events to burn off the excess calories. But that's the good news, the bad news is you don't lose weight doing that so you could go years thinking, "I'm keto, I'm on a very low carb diet" unless you actually, at some point, restrict calories.

You won't burn off your stored body fat. You'll just maintain a particular weight which is fine, you won't be gaining weight. In order to lose weight, you have to, I mean, you know, we've talked about the calories in, calories out, second law of thermal dynamics over the years. It's not about calories in, calories out.

It's about calories burned versus calories stored. As long as you burn off more calories than you store, you will lose body fat, you'll lose weight. By the way, when I say lose weight, you do want to lose body fat, you don't want to lose muscle.

There are some nuances to those metrics but back to my – like one of my original discoveries when I was keto myself, I thought, "Holy crap, I literally thrive on 30% fewer calories per day now than I did even three or four years ago".

When I say thrive, build muscle, have energy, sleep well, full cognition and most importantly, never get hungry. Because hunger ruins everything, hunger destroys, hunger takes the wheel off of everything.

If you can create a system in your body, if you can develop the metabolic machinery that's efficient at extracting energy from the foods that you eat, that's metabolically efficient, that's efficient at extracting energy from the stored body fat.

Almost like a closed loop, if you're really good at this process, if you've built true robust metabolic efficiency, you can go two or three days without eating and not lose muscle mass because you've got this closed loop that says, "Okay, take fat out of storage, burn some of it, combust some of it too, move the muscles around. Send some of it to the liver to be converted to" – well it's already there but the liver converts some of the fat to ketones, the ketones become the fuel for the brain.

Whatever glucose needs are required by the brain and by some few other cells, red blood cells throughout the body that glucose can come from either gluconeogenesis which typically, by the way, if you take a triglyceride which is formed in which fat is presented, the three fatty acids become either combusted for energy in the muscles or they become ketones and then the glycerol part becomes a sub-straight to make glucose.

So you have this closed loop as long as you have some stored body fat. You have a closed loop and one of the effects of the closed loop is that there is an increase in an epigenetic signaling factor that spares protein. Your body is no longer delaminating protein and pissing them out but you're recirculating amino acids in this ongoing pool. So you don't lose that much in the way of protein. You don't lose that much in a way of nitrogen because one of the effects of being keto and not eating - one of the effects of not eating for three or four days is that there is a massive sparing of protein.

So you're literally a closed loop for two or three days to four days. Now I am not even suggesting people do that. I am just saying that's the mechanism that we evolved over hundreds of millions of years of evolution, but millions of years of human evolution, that allowed us to survive such a harsh environment that food was mostly not available.

It's ironic that our brains are wired to eat and sighting Robb Wolfe's book here but it's a great book and everybody ought to read it, *Wired to Eat*, meaning we're wired to overeat because historically millions of years ago, hundreds of thousands of years ago even tens of thousands of years ago, even in current hunter-gatherer environments food is scarce and in the absence of food and in the absence of a refrigerator, or a method of storing food for long periods of time, when you come across a supply of food, your brain is wired to overeat it.

Because the brain knows, "Wow I can get energy out of this right now but I am so good at storing excess calories as fat, I will overeat. I will store those excess calories as fat and then tomorrow and the next day and the next day when there is no food, I'm also really good at taking that fat out of storage and using it for fuel". That's the elegance of one of many but that's because it might be because of the field of study that I am in, that's one of the primary elegant features of the human body.

We are really good at storing fat and I think to a fault most of us today, right? But we are born and hardwired with a factory setting that has us being really good at using stored body fat to generate energy and move through the world. The problem is, we're surrounded by excessive amounts of foods everywhere we go. So we never get a chance to develop the second part of that equation which is taking fat out of storage and actually using it for energy.

[0:33:59.2] AVH: Right, so I really appreciate you pointing out that keto or being fat adapted does not necessarily mean all your body fat is going to melt away and I mean, I know because I have done it that you can absolutely eat way away too many macadamia nuts. I know that's a thing that can happen. That is the second part of it but I thought it was interesting too and this is something that I wanted to ask you about, saying that once you're really farther along this path, being fat adapted and you're body can really use your body fat for fuel, you're going to hit this comfortable lean, where your body wants to be.

But as we know in a lot of cases that sometimes people want to go a little bit further beyond what is ideal for them. I mean not everybody walks around comfortably and easy with a six pack but some of us want them. So if you want to get a little leaner maybe or even temporarily than

your body naturally wants you to be, you're going to have to restrict calories whether you're keto or not.

Is this something that you can do in a healthy way on keto? If you go on a vacation or you've got a photo shoot or you just want to be super fit for summer, is that something that you can do healthily on keto?

[0:35:09.7] MS: Oh yeah, for sure. Now we have to, there are a number of variables that come into play here. One of which is your family genetics, are you predisposed to being slightly larger boned and bigger mass than normal or average? Are you predisposed to being skinnier than average? In other words, what sort of genetic predispositions did your parents contribute to your particular gene set? Are you male or female? If you're a female, where are you in your cycle?

Because there are hormonal concerns there, the female body during childbearing years wants to preserve childbearing more than just about anything else and so it will sacrifice the cover of Shape Magazine to maintain a slightly more robust figure because the human body is this amazing support system for our brain. It's an amazing organism that is at its essence, the bizarre result of millions of years of evolution starting with two strands of RNA in the primordial [inaudible] .

With a predilection of a tendency to want to replicate, and so evolution sets us up to pass the genetic material along to the next generation and by the way evolution also doesn't care once we've done that how long we live. So we have to trick mother nature in that regard but so much of who we are and where we are goes back to this predisposition to want to preserve the life of the organism long enough to pass the genetic material along to the next generation.

I.E. in the case of a female, it's preserving fertility and so, digressing a little bit but I want to be clear that women are different from men in that regard when it comes to getting to that next level of 'rippedness' too. So it may be that you've been doing metabolic damage to yourself for decades. That stuff doesn't fix in two weeks or three weeks or even six months for some people. It might take years to recover the full robust metabolic flexibility that you're seeking.

But at least you're treading in the right direction. The bad news is that you might not be able to get down to that 8% body fat if you are a guy or that 13% body fat if you are a woman. Having said that, you know the body, another aspect of the human body is that it doesn't want to change unless it has to. So many of us who create this artificial scarcity of carbohydrates and learn to burn fat and become good at it and learn to make and burn ketones, we get to a point however where there's a plateau and I've seen it happen a lot where people said, a woman, "Geez, I was 260. I'm down to 170 now. I'm thrilled at having lost 90 pounds but Jesus, I can't get down to 129". Well the body doesn't want to do what it doesn't have to do. The body, again, in its attempt to survive long enough to pass the genetic material along to the next generation, it wants to preserve energy. I mean think about it, it really does want to preserve energy.

It doesn't want to waste energy and so it might get to the point at 170 or 160 for that woman in question where the body says, "Jesus I like this! This is easy to maintain. I'm not hungry, I'm comfortable, I have all the energy I need, I don't get sick. I don't need to change. I don't need to drop 30 more pounds" and that maybe if you're that person that may be your quote, 'ideal body weight'. It might be your ideal body composition for now.

So ideal body composition isn't necessarily some photograph that you saw in the cover of a magazine. It's basically where your body says, "Jesus this is awesome! I love what you have done with the place. This is great! I'm going to hang out here for a while. I don't need to change". Now you can change it, you can make the decision to change it but it's going to be work. It's going to take an increased amount of sacrifice and discipline and by the way, it might not even be the healthiest choice you can make at that point.

It may be that your body is saying, "This is where I am comfortable. This is where I am healthy. This is where I feel like it's appropriate to stay at this weight for some amount of time" and again, that would be almost the definition of your ideal body composition in that regard. So to make the next, to get to the next level, it's going to take some sacrifice, some discipline more than you've already taken on. It's not to say that you can't do it or it's not to say it's a bad thing.

I'm just pointing out that this ideal body composition is a real thing and this is where I want to be because a posted a picture of a ripped female bikini model on my vision board isn't necessarily reality for some people yet or maybe ever for some people.

[0:40:11.1] AVH: Okay so related to that question, one of the interesting things in the book that I came across is the idea that well, you said that about up to 20 to 30% of people don't necessarily respond well to keto but it's because more often than not they are taking a flawed approach and in many cases, people like to talk about women or strength athletes or different groups not responding to it too well but there is more mounting evidence now that that's not necessarily the case.

And more often it's just that the approach that they are taking to it may not be ideal. In women's cases a lot, they're not taking in enough calories or the concern about this high fat thing and they are not taking in enough fat. I guess, what if you are an ultra-marathoner or you mentioned that there are specific exercise protocols that you want to pay attention to when you are getting into keto. You don't want to be doing this chronic exercise or working too hard when you are trying to get yourself fat adapted.

But what if you are talking to, you when you were in your running days, in your ultra-marathoning days and you're like, "Look I want to do keto but I'm going to be doing this training" like I'm going to do it so is there a way around that? Is it for people? How do you reconcile those two things or do you say, "Look, suck it up and take it easy for a while, while you are getting keto adapted" or is there a way to kind of reconcile the two?

[0:41:24.1] MS: Yeah, there's not a way to reconcile the two in my book. You know training is unnatural, training for competition is unnatural. Most hunter-gatherer societies would roll their eyes at the fact that someone would choose to go out and run ten miles without chasing a gazelle or without chasing a boar because hunter-gatherer societies understand that food is scarce, that they need to conserve energy, that the rampant wasting of energy by going and training for something is beyond ridiculous in the context of evolution.

So there's that and then if we look at "Okay, so having made that observation I still want to go out and run 60 or 70 or 80 miles a week. How do I do that?" Well you have to, knowing that it's unnatural, knowing that your body isn't really set up to do that, you have to understand how to work within the context of what you are doing to optimize it. I wrote a book two years ago called *Primal Endurance* and in that we talk about how do you optimize your training and optimize your

health while training, in a fashion that doesn't tear you down like I was torn down in my career and doesn't set you up for disaster and still allows you to improve speed, improve metabolic efficiency, you're driving more of the energy during your event from calories, from calcium and fat.

You know there's a way to do it but you have to understand the biology. You have to understand the times at which it's appropriate to go hard and the times at which it's more appropriate to go long and slow.

And develop this fat burning capacity and improve the amount of, or increase the number of mitochondria, improve their efficiency. All of these things are factors in performance and as I said, I've been chasing performance my whole life but I want to do it in a way that yields the best results and not tear me down. So if you're an athlete, you have to understand that. You know there are sites that are dedicated to improving performance as a weight training athlete or as a body builder.

I mean Lean Games is one of the sites where thousands of people go in there and share their experiences about being keto and being body builders and cutting body fat and improving their lift, personal records, while they're keto. It's not like you can't do it. You can definitely do it but there's a right way to do it. I mean look, there are lots of ways to do keto wrong because a lot of people have tried it. There's also lots of ways to do keto right.

I pick one of them in my book and focus on that but at the end of the day, you do have to look at what are your goals and how aggressive do you want to be with those goals and understanding how your body is set up and what your history is and what your age is and what those goals are. You can craft a strategy that will get you there.

[0:44:21.4] AVH: Right, tell me because it seems like these two always go hand in hand and I am sure the answer is "Not necessarily", but does keto and fasting have to go hand in hand or is it just that fasting is another tool that really helps with the fat adaptation or helps with the fat loss? It just seems like they're always part and parcel with each other.

[0:44:40.8] MS: Yeah, I mean right, they certainly go hand in hand. I think many of the benefits that accrue from keto, accrue because you did the work to be keto and then you fasted. So to the extent that you can create periods of time in your life when you don't eat and for a lot of people myself included, that's just simply a compressed eating window. I think a lot of cool stuff happens because I don't eat between 7 PM at night and 1 PM the next day.

So I really don't even call that fasting. I call it compressed eating windows. A lot of people now would say, "Oh Mark you are fasting every day. You are doing intermittent fasting" Nah, I'm not even. It's just a compressed eating window. There's just a lot more time where I don't eat where I suspect all of the good stuff's happening in my body and then during the window that I do eat, I'm enjoying food. I enjoy every bite of food that I eat.

You know I'm productive, I'm not obsessing about the next meal. I'm just in this nice little zone where I'm comfortable, I'm energetic, I'm satiated, I don't get hungry and if I do, it's a mild hunger that I offset with great food. That, I think, is a strategy that a lot of people are employing right now which is to skip breakfast and then have a compressed eating window because you wake up in the morning and if you've become fat adapted and keto adapted, you can hit the ground running in the morning.

With a cup of coffee or not, just a glass of water or whatever. I happen to like coffee in the morning, yeah.

[0:46:13.2] AVH: You mentioned that there are different, like, circadian rhythms for food too which I thought was really interesting and I never really considered this before because I find personally that I have an easier time stopping eating earlier in the evening and not worrying about late night snack cravings but I always want to eat relatively early in the morning. It's hard for me to think about waiting until lunch time to eat.

So I guess as long as you can do this compressed eating window in a way that works for you, would a window from say 5 PM to 10 AM be as good as 8 PM to 1 PM for example?

[0:46:46.5] MS: Sure, yeah good point. Some people find that it's easier not to eat or have a small last meal of the day like you do at 5:00 or 4:00 or 3:00 and then eat breakfast because

they feel like they want to start the day with breakfast and there's some investigation recently into people like me who only have two meals a day but one of them is a true breakfast. You know it's a first part of the day, breakfast. So they might eat breakfast and then lunch and then not eat again until breakfast the next day and that works really well for them.

So there's a lot of possibility here and some of it does come back to who you are, where you are on your journey of fat adaptation, what your work is, what your daily work strategy is like, are you doing a lot of physical labor, are you sitting at a desk, what your goals are, are you comfortable not eating before you go to bed and all of these things. There'll all legitimate choices. I mean really at the end of the day all I'm giving people are choices and I just want them to make choices that serve them.

Based on science and based on a template that has worked and based on them having reviewed their own particular situation and said, "I think I'll try this".

[0:47:56.9] AVH: I have a specific coffee question for you. Do you always drink fat coffee or sometimes it's just black or sometimes do you just put heavy cream? How do you take your coffee in the morning?

[0:48:06.8] MS: I don't take my calories and coffee so I am not a big fan of fat coffee and I would say butter coffee or MCT oil in coffee for the most part, if you are providing 100, 150, 200 calories worth of fat that's breaking a fast. So that's not even fasting. So I put a little bit of cream in my coffee and I make a thick black pot of coffee and then just color change it with some cream and that's the only thing I do. I might put a little pinch of sugar.

Or if I'm really aggressively going on a keto binge which I do once in a while, it's going to be that with oil or something like that.

[0:48:49.4] AVH: Okay, I always wonder if by adding fat though or MCT or something to the coffee it can help with cortisol issues, like for me, I don't metabolize caffeine very well. I enjoy coffee but I normally have my only cup mid-morning or even around lunch time because I have heard and I have experienced for myself but having coffee first thing on the morning maybe on an empty stomach when your cortisol is already higher it's going to spike it.

It's going to maybe cause some problems and jitteriness but I wonder if by adding even some cream or fat if that makes a difference.

[0:49:21.3] MS: I mean it could for some people. I think the whole cortisol spike in the morning gets tampered by the fat adaptation. So if you're typically a sugar burner and you haven't become fat adapted, that morning spike of cortisol is a normal effect of having gone 12 hours without eating. So again, if you're fat adapted, if you are a sugar burner and you're not fat adapted, you wake up in the morning, you are fasted and the body is expecting some carbohydrate so the cortisol does spike a little bit.

If you are fat adapted and keto adapted and now you wake up in the morning and your body is like, "I'm already taking fat out of storage, don't worry about me" then there's that mitigated dampened effect of cortisol because you don't need to create glucose.

[0:50:09.0] AVH: One thing I want to mention to our listeners about this book that I really loved is the recipe section because it's so good and I'm so excited to try a lot of them and it's really interesting because as someone who aims to stay paleo-primal most of the time and likes to indulge every now and then, there is a lot of these ketos with really high fat recipes. They just come across as so indulgent because, maybe there is a little heavy cream in your eggs. And there's some goat cheese or cheese period but just really rich satiating recipes and some of them just looks so incredible. I'm really excited to dig into it.

Who came up with the recipes was this you? Did your daughter help you out? How did those come about?

[0:50:58.8] MS: So the recipes in my book are all collaborative efforts. So it's some people on my staff, it's my daughter, it's me wanting something to take place. Yeah, I've got a big support staff so we have a lot of fun creating recipes based on just like what you said, sort of decadent indulgent concepts and that's the irony here is that people who would look at this cookbook part of the keto reset dieting go, "Oh that can't be healthy. Jesus, there's way too much" you know?

And obviously these things because of the choice of ingredients, they taste phenomenal. They taste like they were made in a French restaurant using duck fat and butter and ghee and lard and all the things that we thought we were supposed to stay away from and now they're like not just okay, they're encouraged. That's the irony here. Now obviously you can't follow that up with Cinnabon or a pint of ice cream because then you're drive an insulin response.

That is going to take all of the excess calories and store them as fat but in the absence of the production of insulin, these recipes are very satiating, very delicious and very effective.

[0:52:07.4] AVH: Yeah and I think it's a lot easier to forgo the Cinnabon when you can have cheesecake and chicken thighs for dinner. So that makes it a lot easier too. I think people get over it. There is a mental reset that has to happen when you go from a standard American diet to paleo-primal keto or whatever. You have to get over the idea that you really can't and you really shouldn't be eating everything in the middle aisles of the grocery store every day.

It's not good for you and it's not real food but I think that this shows, more than perhaps many other examples, that eating this way and eating in a healthy low carb way is not in any way restrictive. I mean the types of foods, the amount, the variants it's incredible. I am looking through it right now and there's shredded beef cups, braised chicken thighs. I mean the desserts, crab stuffed portobello mushrooms, I mean it's amazing.

[0:53:05.4] MS: Yeah it is.

[0:53:06.3] AVH: It is so rich and so delicious. It's pretty exciting. So okay, we're getting near to the end here and one of the questions that I want to ask you and this is not to try and find a hack or a half fast way of doing this but there are people who are probably struggling with their health and want something new and they want to change and they're interested in keto but they're never going to be the people who test their blood glucose.

They maybe are never going to even really want to monitor macros, they don't want to have that kind of approach to it. Are they destined to fail at this thing or is it something that you just have to be vigilant at first or is it a matter of if you're even aiming for keto, if you are aiming for high

fat low carb you're in a step at the right direction. I mean what do you tell people who maybe just aren't ready for the whole shebang?

[0:53:56.2] MS: Yeah, like I said I spent 15 years low carb, primal-paleo, whatever you want to call it and had tremendous results. So for me, this was an opportunity to get to the next level. You know maybe I am going to say a 10% or 12% increment from where I was but I could have hung out where I was for the rest of my life and been perfectly happy. So people who don't want to go keto are still going to be well served by getting rid of the crap in their diet.

So the first thing obviously is get rid of the sugar and by that I mean not just the sugar that you add and the sugar that's added to the foods that you buy, but the cakes, the candies, the pies, the cookies, the muffins and then get rid of the processed grains. So the breads, the pastas, the crackers, the cereals and then get rid of the industrial seed oils, the corn oil, soy bean oil, canola oil and in its place eat real food. If that's all you do is eliminate those things, which I guarantee you everybody knows you should be eliminating, and get rid of those and get down to eating lots of vegetables, clean sources of protein, meat, fish, fowl, eggs, nuts, seeds, vegetables, a little bit of fruit, you're going to be 80% of the way there.

You are going to see the kind of results and see the kind of change in energy and alterations in your fasting blood glucose and some of the metrics and numbers that make sense, that drop [inaudible] that maybe that increase in energy, maybe that dropping of weight, maybe that getting rid of your meds is enough for you to go, "Whoa if that was available to me during that, maybe I am ready to go keto now" maybe there's more.

[0:55:39.0] AVH: Right, yeah I have to say I have talked to a lot of people about keto and I tended to be one of those people who is like, "Oh it's not good for women" and blah-blah and I think it's because I just never really wanted to put the hard work into it but it's funny because looking back when I think about the period in my life when I was most effortlessly healthy was, looking at my diet, I think I was either pretty darn close to keto or keto.

I was eating just really, really low carb, no sugar, I was exercising a very reasonable amount, I was eating real whole foods and very, very low carb and I remember that was the best I've ever felt before I knew what the word keto was and before I really spent a lot of time monitoring and

things like that, and so it's really this book, again making it something that you are able to add into your lifestyle and it doesn't have to be a scary thing. It's more of an exciting kind of challenge and learning about your body.

I think this book, more than anything, has inspired me that I think I'm going to really give it a try again. So I'm really excited and I appreciate it. I'll let you know how it goes but Mark, I think everybody who listens knows who you are and where to find you but just in case, tell us where we can learn more about your book and what you're up to?

[0:56:49.0] MS: Sure, well of course the blog is marksdailyapple.com. The Keto Reset Diet is on Amazon. It's on Books a Million, Barnes & Nobles and anywhere books are sold but you can find out more about it at ketoreset.com because there's links to a couple of videos and again, finding out more about where you can purchase it online.

[0:57:07.1] AVH: Awesome and one last thing before we go, I have to mention, very excited, that you are going to be a speaker at The Paleo Magazine Expo in Boulder in June, right?

[0:57:16.4] MS: Yeah.

[0:57:17.3] AVH: I'm very excited about that, speaking of awesome gatherings with lots of energy and smart people and talking about cool fun things, we've got this big event in Boulder and I am really excited to see you there and talk about whatever is going on by the time we hit June. So I am very excited on that too.

[0:57:34.2] MS: Yeah, so it's always good to reconnect with you Ashleigh.

[0:57:35.5] AVH: Awesome, all right thanks Mark. I appreciate it. Enjoy the rest of your day.

[0:57:38.4] MS: You bet.

[0:57:38.7] AVH: Take care.

[0:57:39.1] MS: You too.

[END OF INTERVIEW]

[0:57:44.1] AVH: All right guys, I hope you enjoyed my chat with Mark as much as I did. He's such a charmer isn't he? And I am going to put it out there so I have some extra accountability but I think I'm going to do this. I'm really going to try this keto reset plan a 100% because I do remember in the past that I did something that I think was pretty close to keto before it was called that at least in my circles and before it was all about measuring your blood glucose and your ketones and all of that stuff.

It was just eating high fat very low carb and I remember it being a time in my life when I was probably the most effortlessly fit and felt good. So left to my own devices, I'm a big fat eater anyway. A big fat eater, oh man. So anyway, I think that it's just time for me to give this thing a try. I keep talking to all of these keto experts and why not give it a shot, right? And I think it would be a fun experiment and something that you guys can follow along and help me with.

Hold me accountable, learn about it, I love to talk about all of these things that I am trying. So if you follow me on Instagram @themusclemaven that is where I will be sharing all of my experiments and my trials and tribulations. So I hope you follow along and see how it goes with me. So speaking of keto, up next week on the podcast we have the president of No Foods, Yemani Masa. He is a former body builder and he used to work for Quest Nutrition.

So he and I have lots of meat head things to talk about but he's also a big proponent of Keto even for athletes and his company, No Foods, is leading the game for gluten-free, junk-free, low carb breads and snacks that you can't even call alternatives to the real thing anymore because they're so good you don't feel like you're settling, right? They just came out with these cookies that are serious, they are the size of my head. So already they got me interested and anyone who knows me knows that I like my cookies.

And these things are good, so anyway, we get into all of that, how you can fit that sort of food into a healthy diet, into a keto diet even, and we talk about muscles and stuff and yeah it will be fun. Stay tuned for next week and that's it. Thanks for listening. Have a great week guys.

[OUTRO]

[0:59:49.8] 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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