Diet Doctor Podcast
with Gary Taubes
Episode 62

Dr. Bret Scher: Welcome back to the DietDoctor podcast. I'm your host Dr. Bret Scher. Today I'm joined by Gary Taubes, or I should say rejoined because I had the privilege of interviewing Gary to kick off the DietDoctor podcast episode number one and now here he is back for another episode, thank goodness we didn't scare him off the first time and he's willing to come back for another episode.

And it's such a pleasure to interview him because let's face it, if you have any knowledge of low-carb it likely has been traced back to Gary Taubes in some way.

You know, you can think of the modern revolution of low-carb started with Dr. Atkins and then sort of fizzled out and then was reignited by Gary Taubes with this 2002 article in the New York Times magazine followed by his book "Good Calories Bad Calories" and other very important books as well; "Why We Get Fat", "The Case Against Sugar" and now he's back with another book, "The Case For Keto".

And we discussed about his sort of rationale... why he wrote this, who he wrote this for, and you can see it's a very personal journey, but at the same time he really tries to paint the picture of who this book is for and he interviewed over a hundred physicians and clinicians about this book to get their experience, he knows the literature but he sees it from an outsider's perspective, because he's not a scientist, he is not a physician.

And some people are going to criticize him for that and some people are going to recognize that that's a strength of his, because he's not sort of entrenched in the dogma, in the status quo, and he doesn't sort of have a dog in the fight so to speak because of the way he's been practicing or doing his research.

Instead he is trying to approach it with his inquisitive mind. And he asked great questions and he brings up the point that probably within the traditional medical world we are not asking enough questions and that's part of the problem.

But we get into a lot of the concept of calories versus carbohydrates and insulin and not just what it means from a science perspective, but what it means from a personal perspective, from a hormonal perspective, from a hunger perspective, from a sustainability perspective and we talk about how people can walk away with information that could help them.

And that's really what this book is about. You'll see how he describes his book, He wants this to be a book that you share with your family members that you share with your physician to make

the case for keto. Maybe not for everybody, but for the right person there's a case to be made.

So, as always Gary Taubes got great stories, great anecdotes and a wonderful perspective so I hope you enjoy this interview with Gary Taubes. Sorry for the interruption, but just a quick break. I just wanted to tell you about the new meal planner we have at Diet Doctor for all Diet Doctor members who now have access to our personalized meal planner. So we had a pretty good meal planner before, I got to be honest.

We have a thousand recipes and it could come up with a great set of meal plans and shopping list for you, but now we've made it even better by personalizing it. So just a couple of simple questions about who you are, your age, your height, what your weight loss goals are, if you have any medical condition.

Just a couple of questions to better understand who you are then we could even better formulate the diet that's right for you, pulling from our best recipes that are going to fit the profile that's going to impact you the most.

So, if you are already a Diet Doctor member make sure you check out our personalized meal planner and if you're not, this is a great opportunity to sign up to become a Diet Doctor member so you can have access to our personalized meal planner with the shopping lists and of course all the other benefits you get from being a DietDoctor member. And the first 30 days are free. So you really have nothing to lose. It's definitely worth checking out.

So, go to DietDoctor.com to learn more. Now back to the interview. Gary Taubes, welcome back to the Diet Doctor podcast. It's great to have you back again.

Gary Taubes: Okay, Bret, thank you for having me.

Bret: It's so great to have you back. You helped us kick off the Diet Doctor podcast episode #1 and now you're back for another episode and am excited because you just now have the release of your new book "The Case For Keto".

But I definitely want to get into the details of this book, but before just give a sort of a little background on what you're hoping to accomplish with this book, who is it for, and then we will dig a little bit deeper into the specifics.

Gary: Well, I'm writing it for those of us who are on that spectrum from overweight to obesity, from metabolic syndrome, prediabetes to diabetes, like we are the people who fatten easily, who can't control our blood sugar and for whom the conventional wisdom doesn't work. Because if the conventional wisdom worked, we wouldn't be here.

And by the way, the lean and healthy, I'm not counting them out, is the potential readers, I just figure by the time they become like us, which many of them will over time, then they can decide that they have to do something about it and they can go on this sort of down the rabbit hole where we've all gone to learn what the right thing is.

And then over the course of the past five to eight years mostly, since my book "Why We Get Fat", the world has changed dramatically. So when I did "Why We Get Fat" for instance, I interviewed a half-dozen physicians who were prescribing low-carb high-fat diets and these were the ones I knew out there who were doing it, who had bought into it, had clinical experience and there were like six of them that I knew.

Bret: Just six at that time.

Gary: Mike Eades, Eric Westman, David Ludwig a few other... David Ludwig was more or less low-carb high-fat, more just restricted carbs. So now by my estimate there's a few tens of thousands at least worldwide. Now there are organizations like DietDoctor.com that have international reach, and diabetes.co.uk and ditchthecarbs and... so I wanted to find out, I've always been obsessed with the problem, without really long-term clinical trials with the question what works and what doesn't.

And I wanted to find out from these physicians what was working for them and what it didn't work, why didn't work and what the challenges were to the physicians and the challenges were to the patients. And then also there was this sort of profound disconnect between what we believe and still what the authorities believe.

And this is represented by... a U.S. News & World Report for instance, which every year they have a committee of 20 or 30 nutritional authorities who decide what the healthiest diets are and invariably the low-carb high-fat, ketogenic diets, are the least healthy of the 35 to 40 they include every year. So, we're committed to what they think it's unhealthy unsustainable and I wanted to explain that disconnect.

And then I just wanted people to understand there's so many misconceptions about diet and health and what it means to eat a low-carb... the way Diet Doctor for instance prescribes and I wanted to address all of those.

So I wanted to put everything in context, I wanted to write the book that people could read so they would know that the real logic behind what they're doing and go to all these sites health that say do this and it will make you healthy. And I wanted to explain why we believe that and what the conflicts were.

Bret: That's one of the things I noticed about the book. It does a really good job of explaining sort of the history. You are a journalist, you are great at digging up history, you did a great job of explaining the history of how we think of obesity... when I say we, I say sort of like the medical community.

And how it became sort of ingrained, you know, that common word ingrained, that it's really just a behavioral issue, it's gluttony, it's eating too much, and all you have to do is control yourself better and that will fix everything. How we got to this position? And you pointed out very clearly how if it's a thin doctors who-- or a thin scientist or mostly a thin doctor who never had trouble with their weight, it just makes sense, right? It works for me.

And here we have some science to support it seemingly, so it should work for everybody. But that's not the case and you wrote the book in a very personal way. There is a lot of people like us, like we, because you personally were in a position where you found yourself that kind of the paradigm from the skinny healthy doctors was not working for you. So I guess that kick started this journey many years ago for you, didn't it?

Gary: Actually it's funny, because I got into this without any bias whatsoever. I got into it because I was interested in good science and bad science and I had reasons to believe that the nutrition science had a considerable amount of bad science. I didn't know what it was, so I spent the 90s like everyone else eating low-fat diets and mostly plants and exercising one hour a day and not being able to control my weight.

But what I realized doing this-- and a lot of this goes back oddly enough to Malcolm Gladwell. So Malcolm Gladwell, one of his first pieces he ever did for the New Yorker in 1998 was called the Pima paradox and it was about obesity the review of the obesity. So it had very much the same subject that I took on to the New York Times magazine three years later.

But Malcolm didn't have-- In those three years a lot happened. Like Eric Westman happened, and then David Ludwig happened and Steve Phinney and Jeff Volek happened. So, where I had authorities I could interview who were taking low-carb high-fat diets seriously and had tested them in clinical trials, Malcolm didn't. So, he breaks down, he parses diet books and he kind of makes fun of the fact that we all have the same structure.

And they start with the conversion experience of the physician. So doctor, says, I was suffering from... I was overweight or I was obese or I suffered from this disease or that disorder, I couldn't sleep, or whatever it was and I tried everything that the conventional wisdom offered and it didn't help so I went down into the basement of the library, the medical school library and down there I found this tome that held these secret and I tried it and it worked for me.

And it sounds like a sales job. And that's kind of how Malcolm intended... he sort of suggested this is part of the diet book con. But what I realized then talking to over 100 physicians, first of all they've all gone through this. You went through it, I went through it. If you're lean and healthy and you're doing what the conventional wisdom recommends, there's nothing to learn. There is no conflict between their experience and hypothesis.

So, science starts with an observation of this is what I believe, but it's not what I'm seeing. And then from there you generate a hypothesis to explain what you're seeing and then you test the hypothesis and all of science goes from there. But if you are lean and healthy and you are eating in moderation and exercising, I have no reason to doubt those as weight loss advice.

And so that's what your tell your overweight and obese subjects to do and even though evenly and healthy physicians have patients who get heavier with each passing year and more diabetic, they just assume they're not taking their diet advice. But then you get the point where it doesn't work for you. So, if you are actually one of these people and this is why I keep referring to us were, we are the people who can do the experiment ourselves to see if it works.

And you have to be willing to do that experiment yourself. Being someone who is gaining weight year in, year out regardless. And I don't believe thin people can understand this. Because it's not within their life experience. So they assume that they're lean by eating in moderation... everyone can. They don't know that the world is full of people who if we tried to eat in moderation we get fatter anyway or we just get too hungry.

Bret: Right, and that's so important that we get too hungry to keep it up and that's a concept that is really... I hate to say the word "ignored", but sort of has been ignored by guidelines and in the common practice, that we're giving a diet that probably is going to stimulate hunger in 90% or more of the people who are going to do it, but we expect it to be successful. So you really focus on hunger in this book and you talk a lot about it.

Gary: Well, there's this misconception there as well, because the community has thought of hunger as something independent of the physiology of the body. So maybe they'll talk about satiety and how quickly or not you digest the food you consume, so fat it's supposed to be satiating when they believe fats are satiating, because they are slower to digest than protein or carb.

The reality is you need a certain amount of energy to run your body and if some of that energy is being trapped in your fat tissue because you're accumulating fat and your fat tissue is trying to accumulate it, you're not going to have enough energy to fuel your body and that's going to spur hunger. So it's sort of this concept of fuel availability, and I won't go into a lot of detail, but you can separate hunger from fat accumulation.

The two are ... there are two sides of the same phenomenon. So that was one of the many misconception that's been out there for 50 or 100 years.

Bret: This concept that hunger means we need nourishment, that we're somehow missing food and nourishment, it's sort of the general conception, but when we have all the calories and nourishment that we need in our stores, we just can't get to them there's that disconnect.

Gary: You know, it's funny, I just saw a paper came out last week... this week... from the Physicians Committee for Responsible Medicine, Neal Barnard is the last author, it was published in JAMA, it's a vegan diet for weight loss. And so they randomized something like 250 subjects to eating a vegan diet and/or just doing nothing. So you either stay in the standard American diet with all the sugary beverages and all the beer and all its crap or you think and eat healthy and eat a vegan diet.

And they report that over the course of 16 weeks they lose like 12 pounds. And so this is a good thing in their mind. But they also report that they restrict their calories to 1200 cal a day in order to lose 60 to 100 pounds. And we know from the most famous clinical trials ever performed, the Ancel Keys famous starvation study, that people can sustain 1200 cal a day diets.

But that level of hunger eventually will drive them crazy. They might be able to sustain it for 16 weeks. But they can't sustain it forever. And so you have this disconnect. Again one of the argument against the low-carb high-fat ketogenic diet today... and we should explain why I referred to it as low-carb high-fat ketogenic, but we'll get back to that... is it's unsustainable.

But a diet that requires you to semi starve yourself while getting to have the occasional crackers and ice cream is considered sustainable on the flipside. But we believe is a diet that doesn't make you hungry but does make you healthy will be sustainable easily because you want to sustain your good health. Any diet that makes you hungry is going to fail.

Bret: I think there is that disconnect like you said. And going back to it to Dr. Keys' study, the starvation study, a lot of people think about him from just the Seven Country study, but the starvation study and the stories that you told about some of the reactions people had, the psychological reactions people had, was mind-boggling, I mean I've never heard of that. That's worth just reading the book in itself just to... read some of those crazy stories.

Gary: This is early as the World War II. They know that when and if they win the war in Europe, they're going to be facing major famine areas with the liberation of Europe, particularly Easter Europe, so they want to do a study to understand starvation and famine so they know how to deal with that.

So, Ancel Keys, famous nutritionist... this made him famous at the University of Minnesota, recruits I think was 25 or 32 conscientious objectors, young men, who are from lean to what they considered overweight back then, which was a lot different than what we think are overweight today.

And then they put them on what they described as the Eastern European diet, but 1600 cal. So, it's basically a little bit of lean meat, green vegetables and starchy vegetables and very low-fat. And it would be considered a very healthy diet today in our sort of low-fat, low saturated fat oriented world, and these young men go crazy.

To the point that a few of them called it, I think the term was starvation psychosis and one of them tried to cut off his fingers to get off the study and then eventually succeeds. One of them gets hospitalized. And they thought about food constantly, they dreamt about food at night, one of them took to chewing 40 pieces of chewing gum during the day to make up for his hunger.

And the survey, the Minnesota starvation experiment, the starvation was 1600 cal a day, which is what the conventional wisdom, the NIH, the CDC or the American Heart Association will describe for men in weight loss. For women in weight loss diet were often prescribed 1200 - 1500 calories. So, again, clearly when they did this advice, the idea was those who were overweight and obese were just supposed to be able to deal with the hunger.

Bret: Right, as if it exists in a vacuum. You just put the advice out there and people do it and comply with it and there are no other factors to consider but clearly they are--

Gary: ...people fail, it's clearly, because they're not following the advice. And then they come up with the theory that nobody follow the dietary advice. So one of the misconceptions I would like to erase the world forever and I discussed in this book is the idea that the diet that works is the diet that you'll sustain.

So you don't actually define any criteria by which the diet works like this could actually make you healthier, or improve your lipid profile, or reduce your weight significantly or make you more energetic or happier, or you sleep better... none of that. So, if you can sustain it, then that's a good diet.

I didn't mention this in the book but I know this is recently. In my next -- I've been reading all the diabetes literature to the latest lifestyle guidelines from the American Diabetes Association, they actually recommend that physicians advise the patients to eat exactly how many carbohydrates that they've always been eating, because that way they know they'll take their advice.

Bret: Oh, God. That's just...

Gary: And then we are laughing. I can actually pull it up. I had to put in the book, I mentioned this in my book in the draft. I have a footnote, because I know nobody's going to believe that this is what they really say and in the footnote, quotes exactly, which is the diet that works is the diet that they adhere to. So therefore tell them to do what they've always been doing and what all their friends are eating and that way we can have confidence that they'll adhere to that diet advice.

Bret: That's disturbing. And then this gets to one of the other disconnects that you bring up in your book, is the disconnect between what the obesity textbooks say and what the biochemistry book say. What is sort of the biochemistry of fat gain and then what do they clinically tell us to do.

And I thought it was really good the way you pointed out the difference. So, tell us a little bit about that difference, because I think it's so important.

Gary: Okay, so the conventional wisdom is you get fat because you're taking more calories than you expend. That you overeat. The biblical term would be gluttony and sloth. And then if you look at the textbook, the textbooks will tell you that the diet that works is the diet that reduces calorie

intake. Because these people believe you get-- Every diet has a theory attached to it. Implicitly or explicitly.

And that theory is about what the cause of the disorder is that the diet must be fixing. So if you have... There's a diet that works, the one that you adhere to, that supposedly thinks that you get fat if you eat too many calories and you're going to eat less on this way of eating. So the textbook of obesity, the last... edition, the only edition I think it was published was in 2012, says the diets work when they reduce caloric intake.

If you actually look in the endocrinology textbooks or metabolism textbooks or even medical textbooks, under the regulation of the fat storage in fat cells, you can go to the index and look up the word "adipocyte", which is the technical term for fat cell, fat metabolism. And there's another one that will tell you that fat cells get fatter when their insulin levels are elevated.

So one of the many things the hormone insulin does it tells your fat tissue to take up fat and it inhibits the enzyme that releases fat out into the circulation again to be used for fuel. So if you pay attention to what the textbooks say about fat cells, fat cells get fatter because we secrete too much insulin, our insulin levels stay elevated too long, but fat cells are exquisitely sensitive to insulin.

So even the littlest bit of insulin in your fat cells are being told to hold on the fat they have accumulated. But the same textbooks will say that obesity is caused by eating too much. And completely ignore the sort of biological endocrinological knowledge about what's happening to the fat cells themselves.

And all we've done is say, we are the accumulation of all our fat cells. So if we are overweight or obese, we have either too many overstuffed fat cells, or we've got too overstocked fat cells, and the way you get the fat out of the fat cells is by lowering insulin. Minimizing insulin ideally, and the way you do that is by avoiding carb rich foods and sugars. So starches, grains and sugars. And if you do that we have copious anecdotal evidence and some pretty good clinical trial evidence that it solves the problem.

Bret: It certainly makes sense now, but I guess you could say part of the problem is how good ketogenic diets are at reducing appetite and having people naturally reduce their calories which then leads some of the detractors to say well it's only because you reduce your calories that it's working. Because it's hard to find this study at least in free living people where you don't purposely restrict or mandate their calories.

It's hard to find a study were someone who starts a ketogenic diet doesn't reduce their calories naturally. So it's almost like--

Gary: Yeah, except that we all went through periods. And again this is where it gets confusing because often when I talked to the critics, they'll say, all you've got is anecdotes. That it works better than other diets. So on one level-- And again there are a lot of issues unpacked, just was the sentence like that. But not everyone eats less when they go on these diets.

We all know what it was like to try and lose weight the conventional way. I mean I would do it every six months to my 20s. I was a football player in college; I was a defensive lineman, so I was not very good, but I was the kind of guy who got heavier when I got older and my playing weight was about 238 pounds the heaviest I could get when I was 21 years old.

And then when football ended I dropped down to 210 by basically eating less and eating a lot less crap, drinking diet cokes instead of cokes, stuff like that. And then you start gaining weight; two pounds a year. And I would, you know, every few... once a year I would go on a diet. You remember what it was like the small portion of food.

The palm-sized portion of tuna fish on a lettuce, that would be my lunch. I once got accused... actually a woman in a café in Midtown in New York while I was working got mad at me because I had finished my ice cream scoop worth of tuna fish and she was sitting at a table next to me and I was staring at her plate.

Bret: Because you are so hungry still.

Gary: Yeah, and then you compare this to... and then in between meals you think about food constantly.

Bret: Yeah.

Gary: And then, dinner, the same, just this constant... Steve Phinney would call these sort of constant thoughts of eating and food that you have... And then on this diet, this way of eating you have a nice big breakfast, eggs, bacon, you know, if you want five eggs, three pieces of bacon, sausage and then... it's true you don't need a snack. So you lose those calories, then you might not have the Coca-Cola you might otherwise have in the middle of the day or the sugar in the coffee you might otherwise have.

But then you get to lunch and you have a nice big lunch, a half of roast chicken with salad or you know... When I first tried this as an experiment I would have a big steak for lunch, because there was a restaurant nearby, an Argentine steak house so I could get cheap cuts of meat. And then you go to dinner and the same thing happens.

So you're missing out on the snack, because you're not hungry for reasons we pretty much understand, but you are having large portions of food for breakfast, lunch and dinner. There's no sense... so it is possible that you actually do restrict calories. But when you look at the studies closely, most of them don't talk about how they measure caloric consumption.

So they kind of assume that if somebody lost weight because they're programmed to think in terms of energy balance. If someone lost weight often what they'll do is kind of assume that somebody lost weight, they must have eaten less. I believe people have to eat less to lose weight. If not, it's against the laws of thermodynamics which is nonsense, but they don't understand that.

And since I believe that you have to eat less to lose weight and my subjects lost weight, therefore they must have eaten less and this confirms my belief that you have to eat less to lose weight. The whole idea of energy balance has circular logic built into it all along the way. And then again in simple language I'm trying to explain that to people here.

Bret: Right. And I think that is make it challenging because we get into these camps of calories versus carbohydrate insulin and when people dig into their camp it makes them so open to just confirmation bias and like you're saying, the circular logic, and makes it much harder to see that disconnect, like you pointed out, about the biochemistry of getting fat versus the recommendations for getting thin.

Gary: But this you know... what I mean about even... how people interpret the studies to confirm their prejudices or where they stop. I said these people have no curiosity about the implications.

And when my not-for-profit, NuSI, the Nutrition Science Initiative was viable and we were having quarterly meeting with these leading obesity researchers, and they would say... Again, ketogenic diets work because they inhibit appetite.

Okay, then, how do they inhibit appetite? Because then you've got two different hypotheses there. One is, they just make fuel available to be burned all day long, because you're not trapping your fat in your fat tissue and you have it available to use for fuel. The other is something magical that's happening in the brain. You have to differentiate that. But it's not enough to say the diet works because people eat less. Now you have to say why aren't they hungry?

Bret: Right.

Gary: And I said this in my very first book, "Good Calories Bad Calories", if the diet works because they eat less and why aren't they hungry and if they don't eat less, why do they lose weight.

Bret: Right.

Gary: And I cannot get around those questions. It's like a whack-a-mole, when you whack it one place... The only explanation, really the simplest explanation is they lower insulin and insulin allows fat to... You know, with the phrase I used which came from a Nobel laureate in 19-- She had won the Nobel Prize then, but this negative stimulus of insulin deficiency.

If the fat cells are sensitive to insulin, they lower insulin enough, fat is going to come out of fats cells... So, the fat cells are sort of waiting to see that no insulin signaling... like the green light for them is we got insulin low, and now they should dump their fat, you could burn the fat and the body works the way it's supposed to work.

Bret: I think that's a great point about the scientific curiosity, to keep asking why rather than just pick a reason that fits your bias and kind of run with that as to reason why. Now that we are having pretty a big surge of science and literature supporting low-carb diets, a lot of it comes down to this question of sustainability which you talk a lot about in the book, but how the message is crafted for sustainability.

Like somebody's studies like the DietFit study that says, we're going to start you on a very low-carb diet for the first six weeks I think it was, and then after that we're going to have you add back carbs, because we know you can't sustain that level of carb restriction for that long.

Or that's a way that Atkins program was set up; an initial keto diet, then you add carbs in. Like setting up from the beginning that it's not sustainable. So, what do you think about just how we counteract that message. Because if someone starts a diet thinking it's not sustainable, it's going to be a self-fulfilling prophecy.

Gary: Yeah, and they start thinking that it's kind of a magical diet that they could go on and then they lose the weight and then somehow go back to the way they've been eating and keep the weight off. And this is one of the misconceptions that I find really silly and it strikes me as bizarre, that I have to clear up and needs to be cleared up in 2020. The idea is diets work when they remove the cause of the problem.

And I use a very simplistic example, which is, when I was a kid I had a corn allergy... I still have a corn allergy... but I couldn't eat any food with corn in it without having serious gastrointestinal problems and my stomach always hurt. So my mother dragged me off the allergist, they run allergy tests and said, hey kid, you're allergic to corn. Don't eat these foods.

And I never ate these foods again. I mean again, when I do, I get G.I. problems even 55 years later and I know what the cause of them are. It's like... I miss popcorn, I miss corn on the cob when people sit down to dinner and they have spring corn and I look at it and I finally say, I'm going to have a bite and I'm going to have G.I. issues, but am going to deal with it. But the idea is it works when you remove the problem.

If you think the problem is too many calories the diet works when you eat fewer calories. If you think the problem is carbs, you remove it. And that the message should be, and I thought about this with DIETFITS... again my nonprofit helped fund that study, we didn't know about the way they were encouraging people to eat carbs. So, it wasn't like if you're having trouble with sustainability add carbs back. It's we are afraid you are going to have trouble in the future... Add carbs back now.

And the story I tell in the book is I was at a diabetes conference in Aspen, Colorado and I'm talking to a young woman who had been a subject in that study. She had been a student at Stanford, she had been always obese, struggling with obesity and she was 240 pounds and she was randomized into the low-carb arm.

There was a low-carb arm and a low-fat arm, that's another story. So, in the first six weeks she loses 30 pounds. Strict adherence to carbohydrate restriction and then they recommend that she add carbs back, healthy carbs, so berries. So she adds berries back at six weeks... three months, excuse me, in the next three months she loses five pounds. So she goes from losing 30 pounds in the first three months to five in the second.

At the six month point they encourage her again to add healthy carbs back, and now she never loses another pound. So, to this woman the diet didn't work all that well for her, because she only lost 35 pounds out of 240 and the point I was making is had she remains strict she might've found that instead of only losing 30 pounds in three months, she might have lost 90 pounds in a year, she might've gone from 240 to 150.

I don't know, we don't know, maybe she would have peaked at 30 pound weight loss anyway. But if she had lost another 50 pounds, she might've decided that a life without blueberries and healthy carbs was worth it because she gets to be relatively lean and healthy for the first time in her life. She was healthy anyway, now she got to be lean.

Bret: Right, in a way that's almost though a backward success story because she didn't put back on the initial weight that she lost. And the other thing clinicians have to realize is when you start to liberalize the carbs it can be a slippery slope, because there are cravings for sugar, even the sugar in fruit and healthy carbs that can trigger other cravings.

So, she was fortunate that she could add this carbs and stay at those carbs and not start adding more and more and more and--

Gary: Although in all honesty, I never asked her how much he weighed when I was talking to her, which is about two years after the end of the study. So, she might have drifted back to 240. And then of course that's the problem. Because then you think, well, I tried carbohydrate restriction and didn't work.

Bret: And didn't work.

Gary: Yeah. And the point is she never really gave it a try. And so I always wondered... And the

message that I hammer on this in the book, we talk about ketogenic diets and ketosis and satiety and hunger, but the message ultimately is are carbohydrates fattening or not? Because if carbohydrates are fattening, then those of us who fatten easily can't eat them... and that's it. Just like I can eat corn because I get gastrointestinal distress I can't eat-- And when I talk to people about it, that's my message.

They say, what diet are you on? I say, I don't eat sugar, starches and grains because they make me fat and they make me hungry. Together... those two go together.

Bret: But it's worth recognizing that it's not a universal phenomenon. And I think that's sort of where the critics would say here are some examples where there's not the case, so it must not be true, when the people on keto might say well, here it works, so it must be true.

But is not necessarily true for everyone. You see people in the blue zone, you see Kitavans, you can pick your example where people are eating a high carb diet and are metabolically healthy, but that's very different from our current society and the way we eat carbohydrates in our society.

Gary: Well, that's the thing. So, there's a couple of issues there. One is clearly the world is full of people who can tolerate high carb diets. The question is, is the world full of people who can tolerate the standard American diet?

And we don't actually have any evidence that that's the case. Because there's population to become westernized, which includes primarily the addition of like highly refined grains and sugars and sugary beverages like the Coca-Cola effect. Those populations get obese and diabetic and then once you're there, how do you fix them? How do you fix us? Because we are very different.

A population that's been consuming high sugar, high processed grain, maybe high vegetable oils... I'm a little more agnostic about that... for a century, it's a very different population. Like each child who is born is born physiologically different than the Kitavans with their sweet potatoes.

So, again there's a lot of sloppy thinking and we are always in the position of saying one reason of why I wrote another book is because sort of my old book are four and nine years old and we haven't won yet. So, you have to keep repeating the argument and clarifying the argument and seeing how people are misconceiving them. I thought of dedicating this book to some of my most outspoken critics, because I'm basically writing to them.

This is... I'm not saying this, I'm saying that. I'm not saying everyone should eat a ketogenic diet, but I'm saying to everyone who fattens easily the link to diet goes to insulin and insulin is responding primarily to the carbohydrate content. So that's a different way.

Every time I wrote a piece on Nature or the British Medical Journal, which I've done on this different way, thinking about obesity as a fat accumulation disorder instead of an energy balance disorder. There's this younger neuro scientists in Seattle with whom I had a fiasco of a debate on the Joe Rogan show, who would write an article saying, you know, Taubes-- He would write a letter saying, Taubes says obesity researchers don't think in terms of hormones and we do, look at leptin.

So in this book I'm saying look, first of all we misconceived leptin. I don't get into that, but that's a problem. And then second of all, what we're talking about is hormones that regulate fat accumulation and fat metabolism, not hormones that might be regulating hunger and eating behavior, even though I think they are all hopelessly linked, but it's a diffeernt paradigm.

Bret: And sure, the paradigm, like so much research has been done on leptin to say what if we had a drug that could affect leptin, then we can eat however we want and not be hungry as opposed to why don't we find a diet that just makes us less hungry, so we don't have to worry as much about leptin.

Gary: It's funny, I'm working on this book on diabetes. And the diabetes story is interesting and I'm sure you know it pretty well, but until insulin came along basically it was a low-carb high-fat ketogenic diet. So they called it an animal diet, because it was animal products and green vegetables. And you actually boiled the green vegetable three times to get all the carbs out of them.

And preferably fatty animal foods not lean animal food, no milk because that had lactose in it. So that was a treatment. And then you get insulin and start giving insulin and now you need to balance the insulin with carbohydrates. Because hypoglycemia doesn't actually exist until you have insulin therapy.

There's no such thing as hypoglycemia until Banting and Best invented insulin. Created the first case of hypoglycemia while they're testing their experimental insulin on one of their dog models. So they get like the dog starts shaking and heart is palpitating and it's sweating... So, not only give carbs, but the idea is they have all these different theories now about how to deal with diabetes in order to control blood sugar.

And once we start giving insulin through injections... So, it's not the pancreas pumping out insulin and inhibiting glucagon and doing all the things that it does... the insulin is going straight into the liver, you're injecting insulin into the circulation. This is really incredibly sort of remarkably complex homeostatic system.

And what people try to do is say if we just add this drug or this device or this diet, we can fix the system rather than remove the problem that's disregulating it. And it's going even back to the pre-insulin era, they would say, look, we know people can survive on these animal diets, because the Inuit do it, and the Argentine Cowboys do it... It's the very same arguments we've been having today.

And there are animal studies showing that if you just remove the carbohydrates in the diabetic rats, they appear to be healthy rats, because their bodies work perfectly fine. The homeostasis works when you remove the cause of the problem, rather than try to keep the cause but add other you know monotherapies on top of that to try and deal with all the side-effects you get because you haven't removed the cause.

Bret: And that also sort of brings back another concept about sustainability is like you think it's healthy. And if we're taught that it's not healthy, it doesn't matter what all the science says. So, you talked about how eating this way being afraid you're going to have a heart attack at any moment.

Sure, when you were interviewing all the other doctors and clinicians for this book, did they have very similar experiences that they personally had to get over that hurdle of thinking they were going to kill themselves and they have to address that with other patients as well to get over that hurdle that you're not going to kill yourself by eating this way, even though you're led to believe you might?

Gary: You know, we've been indoctrinated to fear fat, to think that high-fat diets are going to kill us. I was just asked today as a promo for the book...

There's a journalist that did the U.S. News & World Report who was writing an article about healthy fats and if I could suggest a couple on why they were how healthy high-fat foods, if I get a couple suggest a couple on why they were healthy, he would include me in the article with my name and The Case For Keto and I might sell three books.

So, they sent along with... what do you ate so far? And it was avocados, salmon, extra virgin olive oil. And I said to the publicist, if I say bacon and butter, he is not going to use it. He can't use it, right? It's a cognitive dissonance. We are living in different areas, in different paradigms. And yet I actually believe bacon and butter are benign... Let's put it that way.

I don't know if you noticed, they use the word benign a lot. Because I think there are harmful foods, you know, sugar and refined grains for those who fatten easily, starch, and then there are foods that don't cause any harm and our body works perfectly. I don't know if I'll live longer if I eat a lot of butter or little butter. I'm programmed to think a little butter is better but I have no idea.

Bret: Right, and I think it's good to use benign or neutral as a term. I mean it's really as good as you can get in most cases in nutrition.

Gary: Yeah, and let our body to work the way it's supposed to work. And ideally we'll cook along for whatever it is, three score years and 20 at this point, so four score years. So because the nutrition obesity community embraced beginning around 1930 this idea that obesity is an energy balance problem, that the only difference between fat people who get fat and people who stay lean is how much they eat and exercise.

Which is when you think about it again almost insane. But I wonder, have these people ever known somebody like a child or a sibling or a relative with a weight problem that they really think that the only problem with these people is that they ate too much? That their bodies weren't trying to do something differently than their body?

Once they embrace that, now they've got... ...first of all kind of a meaningless paradigm is logical, and we can get into that, but it doesn't explain anything and clearly it doesn't lead you to a cure because eating less and exercising more doesn't work, just makes people hungry. So, then they start adding layer and layer and layer of what in the philosophy of science we call epicycles.

So, you've got an underlying theory that doesn't work and then you got to keep explaining why it doesn't work. So, the diets don't work, because the people don't stay on the diet. And the diets do work if the people stay on them. You know, yeah, you won't really lose any weight by exercising, but maybe if you exercise one hour and a half a day, you'll maintain your weight loss. Even though who has time to exercise one hour and a half a day?

Bret: Would be nice. One of the other topics you bring up in the book is this concept of a well formulated ketogenic diet. Quoting Steve Phinney. But if there's a well formulated ketogenic diet that seems to imply that there is a poorly formulated ketogenic diet.

So, again just saying reducing the carbs works, there's more nuance there as well. So there you can do it properly or improperly, just like healthy fats implies there's unhealthy fats, although there's a big argument for that. So, how would you describe well formulated versus poorly formulated?

Gary: A well formulated ketogenic diet is more or less rigid abstinence to the carbohydrate rich foods and then replaces those calories with healthy fats which are naturally occurring fat that

we've been consuming for thousand to million years as a species. The poorly formulated ketogenic diet could be a personal thing. So this is one of the things we don't actually know. A, we don't know how important it is to actually be in ketosis.

That's why I refer to low carbohydrate high-fat/ketogenic diet. The idea is then I come back to this over and over again. It's a phrase that was used in the Physiology Of Taste, which was written in 1825 by Frenchman Anthelme Brillat-Savarin.

It has never been out of print, which I don't think many nonfiction books can claim other than the Bible. And Brillat-Savarin said the way you lose your excess weight is more or less rigid abstinence to the starches, grains and sugar in the diet. So, get rid of those, add back mostly fat, because protein some 60% of the amino acids and protein will get converted to glucose and that will stimulate insulin secretion so you actually don't want a low-fat diet, you want a higher fat diet and I know even this is...

There are physicians out there who are now advocating more protein rather than less and I go through this. The advantage of interviewing 120 physicians including most of the... you know, our peers, is you get a lot of different perspectives on what well formulated means.

Ultimately it means you've gotten healthy and you've gotten relatively lean. So the effects tell you you're doing it right. You have energy, your head is clear, you're sleeping well. And if you're not, you want to start experimenting with how to modulate the diet, there are components in the diet, to see what works and what doesn't.

Maybe if you're not losing enough weight, maybe you're eating your protein too lean, so maybe you need more fat and less protein. Or maybe you're eating too little protein. Ted Naiman would say you need more protein and less fat.

Bret: I think that's a great point, though, because it points out that there isn't one keto diet and that's the point I was hoping to make, and you made that very well. That there isn't one keto diet and there are lots of variations.

The other concept of protein, how much protein, what we consider moderate protein other people think as high protein. It's just a label you put on it. But if you're getting 20% to 30% of your calories as protein the clinical trials show there's really no clinical meaningful response to your blood sugar and your insulin levels in that level for most people.

Now if you're eating more than 30% or, you know, more than maybe 150 g and you're insulin resistant and obese, okay, maybe that's going to be an issue. But that gets boiled down to make sure you have low protein. So for some people that does not work and the terminology can be confusing.

And the same for high-fat. For some people 40% of their calories is high-fat, but that's probably not going to be enough on a keto diet. And for other people you can't overeat fat because then your body--

Gary: Yeah, but 40% of the calories of fat, that leaves 60% between protein and carbs. So, you're either getting too much carb or you are getting too much protein or you are eating so few calories that you'll be hungry all the time.

So there are two phrases in the book I address. One of the things I did at the end, again, the advantage of interviewing so many physicians, and you see getting to do these podcasts, we have

some really smart friends out there and allies and they have wonderful ways to think about this and to phrase this.

So at the end I go to sort of like how to think about how to eat a low-carb high-fat diet, how to think about how to eat if you're overweight, obese, diabetic, how to approach the problem. And I use quotes from various of our peers out there that I thought really did the best job capturing it.

And my favorite one was from Carrie Diulus, a spine surgeon... She is a spine surgeon and used to work for the Cleveland clinic. She now has her own practice in Ohio, she's got type one diabetes herself. She said she used to weigh 300 pounds, so there's no way in the world she'd be a healthy woman.

And yet she has her diabetes and obesity under control and she eats a vegan ketogenic diet and the reason she does it is that she slowly realized that her body doesn't tolerate animal products. So the fewer she consumes the better she feels. And a chapter section starts off with a quote from her which is, "It's not a religion; it's just about how I feel." It's not a religion, you know...

And I play off Carrie with Georgia Ede, who is a psychologist who works in Western Massachusetts now, she used to be at Harvard. Georgia slowly became a carnivore, she eats a carnivore ketogenic diet because her body can't tolerate vegetable products. So you got two people who are both eating ketogenic diets.

One is eating all animal products, the other is eating all plants, that are completely in alignment about what they believe because that's what their body will tolerate. So they are both eating well formulated ketogenic diets, even though entirely different well formulated ketogenic diets. And as Georgia says, it's not a religion, but how you feel.

Like in an ideal world I would love to be able to be happy and healthy not eating animals, you know. I understand the argument of the vegetarians and the vegans. The ethical argument, and I sympathize with them, but I don't think I can be healthy doing that and I'm pretty damn sure I can't be happy. Even though I realize that my eating habits don't make the animals all that happy.

Bret: That's a good perspective and a good way to think about it for sure.

Gary: One of the other phenomena is another quote in there... Ken Berry, who said, "If this is what you're going to do, this is what you're going to become." And the idea is eating healthy requires-- it's about the most fundamental thing you can do in life. I mean you got your relationships and your children, and your job and sustaining yourself at the heart of all of that... feeling your body allows all of that to happen.

And it shouldn't be easy. It shouldn't be something you do, you know, without a lot of thought. You should put a lot of thought into it. And another quote from Susan Waller, associate professor at Virginia Commonwealth University, so it takes practice like everything else. And what you do is you think about it, you read about how to do it well.

Just if you are locavore or omnivore, Michael Pollan like omnivore, you're just a foodie... You would put an awful lot of work into thinking about what you're eating. Vegetarians and vegans put an enormous amount of work into thinking about what they're eating.

Bret: Yeah, I like that perspective in the book about how there are different ways to do it but yet they're still underlying principles to adhere to. And that's why at Diet Doctor we say limit your carbohydrates, prioritize your protein and then you add fat for satiety and taste because fat makes

the meals more enjoyable.

And, you know, that can be extra calories that you add so you're not hungry or you take away so you burn more of your own fat. So I really like that message in the book. Now one of the other things though is that in the book you say, "It's not doing keto. "It's understanding how to eat correctly for your weight and health and in a way that works with your physiology."

And I really liked the way you worded that. But yet the title is "The Case For Keto". And my guess is the publishers didn't want the title, "Understanding How To Eat Correctly For Your Weight And Your Health And How To Work With Your Physiology".

It's not as quite as gripping of a title. But the point I'm trying to make here is the word "keto" in the title is a polarizing word. And I'm trying to think back to when Dr. Atkins was doing this and back when you sort of reignited the fire of keto back in 2002 with your "Big Fat Lie" article and then "Good Calories, Bad Calories".

I'm not as aware of what the atmosphere was like in terms of polarization then, but it certainly seems to be incredibly polarizing now especially with the rise of social media. So I guess I just want to get your perspective. What is life like now in terms of the battle and the polarization, I can't think of a much better word, now versus what it was then.

Gary: Okay, so first I want to say you almost got it. The original title of this book... Of course I wanted to call it In Praise of Fad Diets. Because I had this revelation when I was being interviewed for a BBC documentary. I never used my spot, I'll tell you why...

Because they had recruited me because I'd written the only history sort of history of obesity in nutrition science and they wanted me to answer the question why do so many people read fad diet books. Why are those books so popular? Why are there so many fat diet book doctors?

And the interviewer was a University of Cambridge or Oxford geneticist who studies like the genes related to obesity and I was thinking about, they ask this question because, Jesus, there's so many fad diets because the conventional wisdom doesn't work. You get told to eat less and exercise more and eat a low-fat diet and mostly plants and it doesn't make anyone thinner.

So those of us who struggle with our weight look for alternatives, something else to try and the people who are promoting something else are by definition fad diets. But I knew my editors would never go for it and praise a fad diet. And then I would say in praise of some fad diets, because some I think are clearly insane and dangerous. So, the next title which my wife suggested was how to think about how to eat.

Bret: I like that.

Gary: That was the working title until about this time last year and then we realized that David Katz and Mark Bittman, two of the greatest promoters of the sort of conventional healthy diet, fruits, vegetables, whole-grain, beans, legumes, like tiny little pieces of meat... They had a book coming out in March called "How To Eat".

And mine was going to come out in April called "How To Think About How To Eat" and that clearly wouldn't work. So, they suggested, the publishers, that I had written a case against sugar, so they liked The Case For Keto... It kind of gave me the willies, but I realized that I've been making a case for keto since that 2002 New York Times magazine article one way or the other and I might as well live up to it.

What I don't like about it is not just that keto is polarizing, but it's something of a faddish term. I don't even know when it became keto, it used to be Atkins.

Bret: Right.

Gary: But if you're going to write another book advocating for the Atkins diet, you couldn't call it the Atkins diet, so you had to call it something else. So, somewhere... in the last six, seven, eight years it became keto and it's likely to morph again in the next 10 years. So by 2030 I don't know what it'll be called, maybe will go back to the animal diet that was 100 years ago, who knows, although you can have a vegan version of it.

When I started this, it was Atkins, and Atkins was incredibly polarizing. When I wrote Good Calories Bad Calories, it was still Atkins, but Atkins was a ketogenic diet. I have a friend here in Oakland, who has been working on a book on the ketogenic diet for epilepsy, and the history and the science, and he never actually thought of Atkins as a ketogenic diet.

And I had to give him a copy, one of my copies of the original Atkins. And said, the reason he got pilloried was because he was advocating a ketogenic diet when physicians still thought of ketones as diabetic ketoacidosis. So, yeah, today there are a lot of changes and I talked about this in the book.

Again when I wrote "Why We Get Fat", I found a dozen of physicians that had clinical experience prescribing this diet. For this book I interviewed 120 and I'm sure I could found thousands or tens of thousands.

My estimate that there are at least a few tens of thousands is based on the fact that there's a Facebook group in Canada for women physicians eating a low-carb high-fat diet. And there at 4000 women physicians on that Facebook group.

Bret: Wow, just on one Facebook group in Canada... that's amazing.

Gary: I'm assuming maybe 4000 men physicians as well, and now we get 8000 in Canada and we haven't even gone to the United States where there's an order of magnitude more physicians. So the world has changed, but we are up against a very powerful vegan vegetarian movement that argues that...

Essentially, the primary problem with modern diet is the meat, the animal product. Although they admit that a healthy vegan or vegetarian diet is the diet that also has some sugar and refined grains. And because of the their ethical arguments and environmental issues, which I'm not sure what to make of, they are certainly serious and need to be considered... but I'm sure the science is flawed there as it is in the nutrition world...

So there is a very powerful movement pushing towards mostly plants. A lot of the journalists papers, you know, the New York Times is often advocating for mostly plant diets for environmental reasons.

Bret: So, here you are here you are, a journalist, not a physician, not a scientist, countering that argument... So you sort of paint a target on your chest certainly on social media, but that's what we've sort of proven that we need is someone from the outside looking in to say, hang on a second; this might not be right.

Whether it's an engineer, whether it's a journalist. But now you've had that target for so long and

you're getting slings and arrows all over social media and Twitter. What is your thought about just the current state of nutritional warfare, nutritional social media...? Is there some good to it? Is at all negative attacking? Where can we go? How do we improve it? I mean this is a huge topic in and of itself but I'd love to get your opinions on that.

Gary: Okay, I try not to look at Twitter. Because whenever I do, it's... ...it brings up the worst in humanity. And there's always somebody out there who is willing to say something that I wish I hadn't read. Although my favorite at this point was... my wife is an author and she has an Instagram page.

She wrote a wonderful novel called "There Must Be A Word For That" and I recommend everyone reading it... So, she gets a comment on her Instagram page from someone who said "the poor girl is married to Gary Taubes... can you imagine being married to that?"

Bret: Oh my God. Who says that?

Gary: Not even "to him"... and my wife said she was being funny. It's like that... you're always telling people not to eat carbohydrate. I said, I am not. I am saying if you're worried about your weight, if you're trying to control your weight, stop screwing around and fix it the correct way, don't try to fix it by eating a mostly plant diet or...

Anyway, it's a shame that you have to get your diet advice from journalists or websites or anything else. People are getting the right advice from their physicians now as this message spreads. Not enough of them, but some of them. The key here is you can try it for yourself.

So you know if a vegan diet works and you can eat a well formulated vegan diet and you're not getting vitamin and mineral deficiencies and you feel good and you're healthy, then I'm all for it. And the same with the vegetarian or pescatarian or fruitarian. I mean, again those of us who struggle with their weight tend to try a lot of different things.

Bret: Right.

Gary: Many of the physicians I interviewed had gone to periods where they were vegans and periods where they were vegetarians. I spent 10 years eating a low-fat, mostly plant diet. So, when I switched, I got healthier quickly. And you could see it happen; this is the thing. And this is the point that Martin Andre made, a physician from Vancouver whom I interviewed, that the idea that physicians have been taught to prescribe diets by hypothesis.

The hypothesis to eat a low-fat diet or mostly plant diet or, you know, high PUFA diet that... you'll live longer and that will reduce your risk of heart disease. But you have no idea if it's a really going to work. Because you don't actually see any meaningful changes other than maybe your LDL goes down or your PMA goes down or something when you switch.

But you don't feel different, you don't look different, your weight for the most part doesn't change a lot unless you're willing to starve yourself. So... the alternative is you try the low-carb high-fat diet and eventually you might go through it again.

People cycled through the vegan diet, vegetarian diet, they tried this... many of these people were fanatic exercisers. Some of the people I interviewed were world-class athletes, Olympic athletes who were physicians. Eventually they got to the diet that physiologically makes sense, which is remove the carbs and their weight problems went away and their blood sugar came under control and their blood pressure... Everything worked properly when they did this.

So, you can try everything. And my fear is people who will try sort of vegetarian or vegan diets and get a little bit healthier because they're not consuming the sugary crap that they were consuming when they ate the standard American diet and they never realized that they could do much better.

Bret: Yeah.

Gary: That they are sort of... They are missing the point and the point is this more or less rigid abstinence to carbs.

Bret: Right. And that's the case for keto. It sums it up very nicely. As does the book... I think it walks through very well sort of where the misconceptions are and makes a very good case for keto. And again not necessarily for everybody, but for the right person it's going to do great. So I assume it's available wherever books are sold. And how can people learn more about it and you? Where would you direct them to go?

Gary: So, wherever books are sold... we don't know where books will be sold anymore. If you have an independent bookstore that's still open and still selling books, by all means, please... It's going to be on Amazon, it comes out December 29th.

I'm going to make the first chapter available on my website shortly, but I guess this'll come out and after that happens so... So, website is GaryTaubes.com I think it's an important book, I know we all do... authors always think their books are important.

Bret: Otherwise you wouldn't write it.

Gary: Otherwise you wouldn't write it. The other thing I wanted to do... is I do want people to have a book that they can give to their doctors.

Bret: Yes.

Gary: And say, you are against me doing this. I want to try this and you are against me doing it. Well, here's why I find this compelling. So if you take your medical degree seriously, spend a few hours and read this book and then go to DietDoctor.com and look at their videos and then support me through this.

Let's give it a try it. I could be your test case. And let's see what happens. In the meanhwile you could test my lipids and I could see you regularly so we can make sure this isn't doing harm. And you need the book you can give to your siblings who don't listen to you, who say "I'm not that ketogenic sh--, it's so faddish". Well, I've been through the keto sh--. Try "The Case For Keto". Let him make the case. And if you still think it's not worth trying, then I'll back off. But I think you could be healthier.

Bret: That's a great perspective and I hope people use this book. Thank you for all your work and your advocacy for just good science and trying what works so I really appreciate that. Thank you very much.

Gary: Thanks Bret.