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Mark Wulfe: [00:00:00] From The Aasgaard Company studios in beautiful Wichita Falls, Texas... From the finest mind in the modern fitness industry.... The one true voice in the strength and conditioning profession... The most important podcast on the internet... Ladies and Gentlemen! Starting Strength Radio.

Mark Rippetoe: [00:00:21] Welcome to Starting Strength Radio. We are here on your Friday. Glad you joined us. And today we are going to eliminate Comments from the Haters! Because fuck those people. We'll talk about them later. That's Comments from the Haters!

Mark Rippetoe: [00:00:46] And instead, we're going to talk about the latest buzz on the internet. We're going to talk about the vegan propaganda film, The Game Changers. Now, this film was released back in January of 2018. And for some reason that I'm not quite sure I understand, Joe Rogan picked it up and started talking about it a couple of months ago. And the thing has just exploded and it's all over the internet now, whereas it was safely ignored for most of a couple of years. But Joe Rogan had to, you know, come up with a discussion with Chris Kresser about the film.

Mark Rippetoe: [00:01:43] It's worth discussing for one very, very important reason: the film is an expensive, beautifully photographed, beautifully edited, masterfully directed propaganda film. It really is. It's an hour and a half long and it is just an amazing movie. Leni Riefenstahl would have been proud of this movie. And I am absolutely comfortable with that analogy. This is Goebbels-level propaganda.

Mark Rippetoe: [00:02:26] And we're going to talk about it for a little while here today. We're to talk... We're going to use it as a springboard for other discussion. But this... if you haven't seen this movie yet, try to watch it. I would never have watched it if we weren't going to talk about it today because you get about 10 minutes into it and it's so tedious and there's so many egregious, bald-faced lies and factual errors and mischaracterizations and cherry-picked data. It is classic propaganda in that sense. So we're going to talk about it today.

Mark Rippetoe: [00:03:01] And with me today are Carlos Santana. Robert Santana. You'd be more useful as a guitarist.

Robert Santana: [00:03:14] Perhaps.

Mark Rippetoe: [00:03:17] I don't know. Did you never play the guitar?

Robert Santana: [00:03:19] Haven't tried.

Mark Rippetoe: [00:03:19] It's a Cuban thing, you know.

Robert Santana: [00:03:21] Maybe I could figure it out.

Mark Rippetoe: [00:03:22] I think you could figure it out in a couple of hours.

Robert Santana: [00:03:24] You think so.

Mark Rippetoe: [00:03:25] I think you ought to try that. That should be your next project.

Robert Santana: [00:03:28] All right.

Mark Rippetoe: [00:03:28] And with us also today is Dr stef Bradford, who we've pressed into service here because of her credentials and all the good ideas she constantly has even though she won't come talk to us unless I make her do it. So...

stef bradford: [00:03:46] You wouldn't let me have my dog in here.

Mark Rippetoe: [00:03:49] You can be without your dog for an hour and a half.

stef bradford: [00:03:51] It's very stressful.

Mark Rippetoe: [00:03:53] I understand. I like him, too. He's a good boy.

Mark Rippetoe: [00:03:56] So we've all watched this movie. We all made ourselves watch this movie, I think... Robert watched it more than I did and more than stef did, because Robert, I guess feels guilty. Feels guilty about stuff and he's trying to atone for past sins and errors and omissions and things like that. But he actually... How many times did you watch this damn thing?

Robert Santana: [00:04:28] Like five or six or six times.

Mark Rippetoe: [00:04:31] That's that's unnecessary.

stef bradford: [00:04:32] That's terrible. I was looking for a way to speed it up.

Robert Santana: [00:04:35] I fell asleep the first couple of times in my defense.

Mark Rippetoe: [00:04:38] You'll all admit I think the three of us will admit that it's a well produced. It's an expensive it's an expensive project. There are twelve executive producers on this thing, all most of which are, from what I understand, have money in the production. And it's... there are several problems with that list of people and we'll we'll get to them eventually. But the the damn thing...

Mark Rippetoe: [00:05:09] The only reason we're going to talk about it is because it's gotten a bunch of a bunch of attention from everybody else and because it is such a very well done film that it has the capacity to change people's minds because people watch this and they're persuaded by it. Despite the fact that it's wall to wall bullshit.

stef bradford: [00:05:36] Well, that's the whole idea, right?

Mark Rippetoe: [00:05:36] Wall to wall bullshit, but it's it's slick.

stef bradford: [00:05:40] I mean, a movie. You're setting up a movie. You have individuals that you're focusing on to drive the narrative because that is how you push emotional buttons with people.

Mark Rippetoe: [00:05:49] Yes, and they do.

stef bradford: [00:05:52] You set up things, you film certain things, certain ways, you bring in experts. Right? Who - no matter what data they're presenting or what claims they are making - it's because they're experts. Most people are going to look into it any further than the surface. In fact, they're not going to look into it all. What they're going to do is react emotionally. And that's the entire idea of producing a film.

Mark Rippetoe: [00:06:12] They're going to react to the color of authority under which the information is presented. And they they go to great lengths to do this. It's... we'll talk about some of the some of the tricks they've used here. But my God, they've done a good job on this. They really have.

Mark Rippetoe: [00:06:30] So let's let's start with you [Robert Santana]. I think both of you have some extensive notes here. Let's just go from the top down and discuss the methods used here.

Robert Santana: [00:06:42] Well, why don't we start by talking about who's narrating the film, right? Because, you know, he's the narrator supposed to be some sort of expert. Obviously, he put the film together.

stef bradford: [00:06:53] He makes him he makes some statements in the film that make him look really dumb. Because they are DUMB statements.

Mark Rippetoe: [00:07:01] Wilkes.

Robert Santana: [00:07:01] Yeah. James Wilkes.

Mark Rippetoe: [00:07:03] James Wilkes, former UFC fighter.

Robert Santana: [00:07:05] So he is a fighter and he coaches Marines, I believe, on how to fight. Military fighting coach.

Mark Rippetoe: [00:07:12] Teaches people out of fight. Hand to hand combat stuff.

Robert Santana: [00:07:15] So then he got injured and decided that he wanted to do a bunch of research on how to heal up faster. I mean, the real problem here is he's a high

level athlete. High level athletes get injured. Kind of comes with the territory regardless of what they eat. So, you know, somehow he got into a pile of research that supported a plant based diets.

stef bradford: [00:07:40] Whoa, whoa, whoa. That's actually one of the first things that jumps out is "plant based." What is that supposed to mean? That's never defined. Nearly everyone eats a plant-based diet.

Mark Rippetoe: [00:07:53] Do they say the word "vegan" anywhere in this film?

Robert Santana: [00:07:55] I don't think they do. Vegetarian.

Mark Rippetoe: [00:07:58] They say vegetarian. We call them VEGans, not veegans - because I can read. And they've gone to great lengths to too... This is part of the propaganda. They've cast it as "plant-based."

Mark Rippetoe: [00:08:16] Now plant-based would mean - I mean if we're just looking at the normal English definition - that it would mean that most of your diet is plants.

stef bradford: [00:08:27] And what do you... I mean just talking about Americans. What do most people eat? A bunch of carbs. Where did carbs come from?

Robert Santana: [00:08:36] Plants.

Mark Rippetoe: [00:08:36] Potatoes. In the American diet - potatoes and corn.

stef bradford: [00:08:36] They eat a bunch of carbs, a bunch of industrial seed oils. That's. And you know, that's the basis of the diet. It's not... very few people have meat-based diet. There are groups that do, and in fact thrive on those diets. Those are never discussed.

Mark Rippetoe: [00:08:58] Not in this film.

stef bradford: [00:09:00] Right, not in this film.

Robert Santana: [00:09:00] I used to work at a dialysis center. And for those of you watching that don't know what that is, it's basically an artificial kidney. These guys have to sit on a chair and get their blood cleaned three times a week on average, some more, some less.

Mark Rippetoe: [00:09:13] Because their kidneys have been destroyed for some reason or another.

Robert Santana: [00:09:16] Yeah. So this is an extremely catabolic process and they have to eat lots of protein to avoid atrophy. They should be training too, but that's a whole 'nother discussion.

Mark Rippetoe: [00:09:26] If they were going to train, they wouldn't be in the chair.

Robert Santana: [00:09:30] Yeah. Well, know there's sometimes genetic, you know, influences there, but yeah a lot of them got themselves there. I would agree with that.

Robert Santana: [00:09:36] So when I'd sit there and ask them what they eat or look at what's on their chair, because they'd bring food with them. It's just a lot of junk. High sugar. High fat, you know. And then you tell them to eat meat and they're like, "Oh I eat chicken." And then I'd say, "Well, what part of chicken do you eat?" "Oh, the wing." Which is, you know, purely fat.

Robert Santana: [00:09:52] So getting these people who represent the typical American diet, whose diet represents a typical American diet, to eat more protein -- and by more protein, their guideline is 1.2 grams per kg. So that's not even high protein. Just to get them to do that was hard. They'd say oh like, I just don't want to eat meat. And sometimes, you know, they do lose their palate because of the treatment. So there's certainly some of that, too. But a lot of them just eat a lot of crap.

stef bradford: [00:10:16] So what you're saying is it's a lot of the industrial food, a lot of the snack food, a lot of the portable food, a lot of. A lot of things that everybody pretty much agrees is bad, right? If you look across diet is don't eat crappy stuff. And what do people eat? Crappy stuff.

Mark Rippetoe: [00:10:34] Well, and a lot of this is... comes from the repeated medical wisdom that - and you'll hear it every time you go to the doctor's office: Protein's bad for the kidneys. You know. So here we are in a dialysis center trying to communicate to these people that they need more protein.

stef bradford: [00:10:57] And those people are being monitored, too. And they're being monitored. They know if things are getting worse or better.

Mark Rippetoe: [00:11:03] These are people whose GFR is not normal, but they still need to eat enough protein to maintain their muscle mass. But on the other hand, protein and you know this is mentioned in the film that animal protein's bad for the kidneys.

stef bradford: [00:11:19] There's this bias that if you eat too much protein that's somehow the worst thing you possibly do. So it's like it's this anti-protein stance is kind of kind of a bizarre thing that you see forever. I mean, just recently I saw, you know, flashing by me on the internet - the way it does that a diet is considered low carb, you know, by the authorities if it's less than 45 percent carb.

Robert Santana: [00:11:47] Where did you see that? That's new.

stef bradford: [00:11:53] It was one of these... and it might have been from a different country you know how those things overlap. But the thing is and I'm like, are you serious? I'm thinking how could I possibly eat 45 percent carb. I'm much more of a low carb kind of person.

Mark Rippetoe: [00:12:06] So anyway, James Wilkes is fighter is a fighter and a coach. He hurt his knee. He's laid up.

stef bradford: [00:12:15] It was knees, wasn't it? I saw braces on both knees. He messed himself up pretty bad.

Mark Rippetoe: [00:12:21] Yeah, he had both his knees. So he decided to sit on the couch for eight weeks because that's what he was told by the doctor. Instead of actually rehabbing his knees, he's going to read about vegetables. And... OK, James. That is

easier than squatting and deadlifting, I understand. The bizarre conclusions that he came to. This is the story that they tell, that's... this is the narrative that...

stef bradford: [00:12:51] The manufactured 20/20 hindsight, the coherent, self-identified story.

Robert Santana: [00:12:59] Then his father, who's over 70, has a heart attack over 70. Which is pretty good since most men start to have them in their 50s.

Mark Rippetoe: [00:13:06] Right. If they're going to have, they'll have them in their 50s.

Robert Santana: [00:13:10] Well, this must have been the meat consumption. Nothing to do with him...

Mark Rippetoe: [00:13:13] What else could it be?

Robert Santana: [00:13:14] He's a male over 70.

Mark Rippetoe: [00:13:15] I mean, you know what they say...

Robert Santana: [00:13:16] What do they say, Rip? They say a lot of things.

Mark Rippetoe: [00:13:20] They say that eating meat is bad for you.

Robert Santana: [00:13:25] It's bad.

Mark Rippetoe: [00:13:26] It's bad. So, he had a heart attack and James rides to the rescue and puts the old man on the salad diet. And he's suddenly better.

Robert Santana: [00:13:39] Yeah. I mean, he survived the heart attack. So did the meat kill him?

Mark Rippetoe: [00:13:47] Well, I don't know his status now.

Robert Santana: [00:13:51] Now he's a VEGan. So if he dies, does that mean the plants killed him? By their logic...

[bunch of overtalk]: [00:13:56] Well see, that's that's an interesting thing, that's an interesting point. Aside from the.

Robert Santana: [00:14:01] Maybe he's immortal. He hasn't died yet.

stef bradford: [00:14:02] Aside from the idea... you guys just on this sidetrack here... God aside from this whole idea that that it must have been an identifiable thing that caused this problem instead of an interaction of genetics with nutrition...

Mark Rippetoe: [00:14:18] With 70 years of being alive...

[00:14:20] 70 years, genetics, everything else that's going on. We know there's many factors in, you know, who's more predisposed to having any kind of cardiovascular event. You know, whether it is a heart attack whether a stroke, there's all that that history... We don't we don't know enough about what actually is a causative factor in any of that, even though some people like to say we do. We don't, because nutrition science really isn't much of a science. We'll talk about that a second. But what's interesting is they'll put that whole history on - now that he does something for a short period time, everything's better, supposedly. Well, he's changed a bunch of things. I guarantee you he's on drugs. He's probably lost some weight. You know, weight loss changes a lot of stuff.

Mark Rippetoe: [00:15:01] He's probably one of the few people in the demographic that benefits from statins.

stef bradford: [00:15:06] Right. Just on a statistical basis. May not [benefit] personally, because it's a very small effect. But anyway, so here we have a long period of time the guy was doing whatever the heck he was doing and it probably changed over his lifetime. And then he changes something. And then we look we're looking at it essentially a short term effect.

stef bradford: [00:15:29] And when we look at these people in the film, it's the same thing. So have people - they didn't develop on this diet. They changed that... They changed their diet in some way - it's not always clear what - although the implication from.... They don't specifically say, but that it's a VEGan. Right. So they don't say what they started from. Right. There's no detail where they started from and there's no detail...

Mark Rippetoe: [00:15:50] Except for the guy that ate a lot of fried chicken.

stef bradford: [00:15:52] But the point is, it's like... So how many other how many things changed? Right. How did the total protein intake change? How did the carb intake change? Right. How did the total calories in the diet change? What other things in training changed? All those things changed, but they're not discussed. They they try to imply that it's simply a matter of changing out...

Mark Rippetoe: [00:16:14] Removing animal products.

stef bradford: [00:16:17] Removing animal products. Right. And I... without even being said, it's it's unlikely that anyone was on a meat-based diet, even though they're completely comparing plant-based meat based plant-based meat. Over and over.

Mark Rippetoe: [00:16:31] It's presented as a dichotomy.

stef bradford: [00:16:33] Who's on it... Who is on a meat based diet. I don't know what these people are on.

stef bradford: [00:16:37] Now there's there's what we call the standard American diet. That's essentially horrible. You know, it's it's promotes disease and it goes along with a sedentary lifestyle. So these guys are already outliers in this respect. They're probably eating better than that. Although you don't know because there's a lot of athletes, especially when they're young, they just they eat so much, the eat constantly. And they have such good genetics, they can get away with stuff that you can't.

Mark Rippetoe: [00:16:59] The fried chicken guy. These people are all freak athletes in the movie. This cannot be emphasized enough. You are not.. there's nobody in this movie, except possibly Wilkes' dad who is not a genetic outlier to begin with.

stef bradford: [00:17:19] A genetic outlier and and somebody who's exercised in an outlying way. Whatever their sport, they've done their training in a much different way than everybody else. And God only knows what supplements are taking. Right.

Mark Rippetoe: [00:17:33] God only knows. Because they're elite athletes and we know what elite athletes will do.

stef bradford: [00:17:39] Trying to win. That's no secret.

Mark Rippetoe: [00:17:40] No. And if you've this is just this is just part of the part of the problem here. They very carefully constructed this entire narrative to to say one thing and one thing only. Is that you, the listening audience. You, the viewer, need to do exactly what the these people say they have done. Right.

stef bradford: [00:18:07] And we don't know what they done.

Mark Rippetoe: [00:18:10] We don't know what they've done. But we do know that what they have done is going to be different than what you have done. Because that's the point of the whole thing. These people... this is a this is an interesting little you know... here's a here's an interesting thing that I noticed, the minute I saw this thing. Is the... where they took the blood from the three guys on the three different meals and spun it down. Now that is this whole thing in a microcosm. Explain what we saw.

Robert Santana: [00:18:47] So they were talking about, you know, in general, they were talking about one thing and explaining another. So to into specifics there. So they kept throwing around the word endothelial function, knowing that mostly people watching this have no idea what the hell that means. So basically what that refers to is how well your arteries function or dilate, is what they're typically looking at when they're measuring it. What they measured was...

Mark Rippetoe: [00:19:07] They had some wonderful animations that they spent a bunch of money on.

Robert Santana: [00:19:12] So they said, OK, you know, we're looking at... it's blood flow. That's how they explained it. We need blood flow to our muscles when we're training, you know, and when you eat this meat, you're gonna get to an impairment in blood flow because your endothelial function's going to go down.

Robert Santana: [00:19:23] So what happens is when you eat a high fat meal, irrespective of whether it's meat or oil or whatever. When you eat a high fat meal, it creates an inflammatory response. Your endothelium becomes more permeable and you get endothelial dysfunction. That happens.

Robert Santana: [00:19:37] Now, how do you measure it? You don't measure it drawing blood. What they were measuring was lipemia. So how much triglyceride is circulating in your blood after a high fat meal. We know that it increases. It's obvious. You just ate a high fat meal.

Mark Rippetoe: [00:19:46] It's a transient phenomenon. Like everything else regarding diet.

stef bradford: [00:19:52] They showed one time point which is not a typical peak.

Robert Santana: [00:19:55] Yep. Single time point. So there's two ways to measure endothelial function. The first way is invasive. You do an angiogram and you infuse acetylcholine into the coronary arteries and then you look on the x-ray and you see how much dilation you get. That's the gold standard to measure that. They did not do that. The second way is the way that I'm more familiar with, that I was trained on, and that's called flow mediated dilation.

Robert Santana: [00:20:19] So they'll have you lay down on a bed and they'll put a blood pressure cuff on your brachial artery. So that's up here on your on your arm. So they usually put it on the forearm. And there's a bunch of methodological reasons for doing that, but they'll occlude your forearm and they'll do it rapidly.

Robert Santana: [00:20:32] So instead of like a regular blood pressure cuff where it's real gradual, it just grabs your forearm like in an instant. And they image the brachial artery with an ultrasound transducer - same device they used to look at babies and pregnant women - and they'll image the artery before they occlude it, during, and then after.

Robert Santana: [00:20:48] So then they leave the cuff on for five minutes because anything more than five minutes might be influenced by other factors. And then they'll release the cuff and look at how much it dilates from baseline. So when they release a cuff, obviously, you get a rush of blood flowing through. That's called reactive hyperemia and the arteries dilate above baseline if you're healthy. If you're not, you might not see that.

Robert Santana: [00:21:08] So there were studies done at ASU where they gave them high fat meal like a McDonald's Big Breakfast. And you can Google this. I believe the lead author's name was Tucker. And they had them do high intensity, high intensity intervals, after they ate this. And what they found was the control group, that did nothing, obviously, they had the endothelial dysfunction from eating the high fat meal. And the group that did the intervals they saw - they still saw a reduction below baseline, but not as much. So it attenuated it.

Robert Santana: [00:21:34] So they didn't mention that either they're saying, oh, we're gonna get a restriction in blood flow, flow from exercise because these inflammatory foods are gonna jack up your endothelium. But then they're also forgetting that exercise attenuates a lot of that, too. So if you're training, you're not going to get as much. Which is obvious.

stef bradford: [00:21:49] If you're active after you eat, it's different than sitting on your butt. Then if you're eating different things... if you're if you're eat that that meal had what it had fat and protein and carbs. So what happens if you're low carb? Do you get the you get the same sort of increase or is it taken up much quicker? It's taken up. You're primed to take it up.

Mark Rippetoe: [00:22:12] But what was amazing was... They spin the blood down and then they show you the spun down tube.

Robert Santana: [00:22:24] The animation was great, wasn't it?

Mark Rippetoe: [00:22:24] The animation was expensive. It was... This was just a beautiful movie. But they spin the blood down and then they what do they do? They show you the clear plasma versus the cloudy plasma. There's no numbers. There's no nothing.

stef bradford: [00:22:42] Dirty. Cloudy is dirty. Dirty is bad.

Mark Rippetoe: [00:22:46] Cloudy is bad. Clear is good. And how do you know that? Well, because it's intuitively obvious. It's intuitively obvious because clear is always better than cloudy. Like today. It's a clear day.

stef bradford: [00:22:59] And what happened... And why would why would you see a difference with the vegan burrito versus the ones that had meat in there? I mean, we're just assuming - and this is a huge assumption given the rest the movie - that there was equivalent amount of fat in all of them.

Mark Rippetoe: [00:23:21] Well, what they're asking you to assume is that the presence of the animal protein clouded the serum, clouded the plasma. That's the absolute conclusion that you are expected to draw. And that is insane.

stef bradford: [00:23:37] Right now. What's the difference there? I mean, they were trying to put... they will try to put avocados as the fat. Right, so that is high in oleic acid, whatever. I mean, you know, various other things...

Robert Santana: [00:23:49] That didn't look like a very big serving of avocado either.

stef bradford: [00:23:54] No, it didn't. You know, you should always have more avocados as far as I'm concerned. So what effects? Effects. They didn't show. They showed a two hour point. And if you look at studies, normally they do a time course. And the peak's later. And it depending on the context of the person, it's early or later for a peak of the fat in your blood after a meal. But the fat's going to go in unless you unless you're shitting it out, which is a different problem. Right.

stef bradford: [00:24:23] But so why would you why are not seeing the fat in there? I don't know maybe it has something to do with the fiber and the time course it's going in. Because they didn't show you that and two hours is pretty early. It's pretty early. It's probably not peak and it's early.

Mark Rippetoe: [00:24:37] It served their purposes.

Robert Santana: [00:24:41] My point is that if that meat was 70:30 and they put that little strip of avocado - and if it was guacamole, it's even lower in fat than just straight avocado - it's like it's pretty obvious that the fat content is probably not matched. We don't know that for sure. Just by looking at it, they're probably using 70/30 or 80/20. You know, they didn't mention how lean the meat was or not. But...

Mark Rippetoe: [00:25:00] One was chicken and one was beef.

Robert Santana: [00:25:04] Yeah. And what they cook it in? What did they add to it? You don't cook the avocado. You just put it on there. Right. So if they were cooking that meat in oil you're getting fat there too.

Mark Rippetoe: [00:25:11] But the statement the statement was the animal protein clouded the plasma. That was the statement. So now what mechanism would there be for that to occur?

Robert Santana: [00:25:28] They didn't explain that because it doesn't make any sense.

Mark Rippetoe: [00:25:29] They didn't explain that because there isn't one. But I'm telling you...

Mark Rippetoe: [00:25:35] But you show that to people without any kind of background in any of this. And what are they going to say?

Robert Santana: [00:25:44] Meat is bad. It kills.

Mark Rippetoe: [00:25:45] They're going to go. Well, you're you're right. Cloudy is worse than clear. Clear's always better. And this is why... I need to quit eating chicken.

Mark Rippetoe: [00:25:59] This is the problem with this film. That's the problem with the film is people people will believe that.

stef bradford: [00:26:10] People will believe that. And, you know, the problem too also is another thing. Ok, so what's actually happened over the last several decades with food? Well, the food industry has changed as far as how the industry has provided food. People have done what? They have dropped their meat consumption. They have drastically dropped their animal fat consumption. They have drastically increased their seed oil consumption - palm oil, soybean, all that kind of stuff - which is no bueno. No good for you. OK. They've increased the refined carbohydrates, they have increased their processed foods, they have increased the frequency of eating.

stef bradford: [00:26:42] And what's happened to people's health? Well, people have gotten, you know, much higher prevalence of obesity and diabetes and all these other bad things that are, you know, inflammatory. Remember, we were getting concerned with inflammation with the endothelial function. Right. So inflammatory... and lead to these chronic diseases.

stef bradford: [00:27:02] So you look at a problem, they're focusing on something that has been dropping anyway, animal protein. So it's kind of weird actually to focus on that and ignore everything else. But think about what happened over the time course of the government saying "You need to eat low fat." Right.

stef bradford: [00:27:18] Now, maybe these outliers, these elite athletes, people that are super concerned about their health. Those people go in and they said, OK, we're going to have chicken and rice we're bodybuilders. We're going to do X, Y and Z, we'll get our broccoli, include fruits and vegetables. Which again... what does that mean? Fruits and vegetables? Well, to most people, what it means is grains, refined flours and sugars.

Mark Rippetoe: [00:27:41] Snackwells.

stef bradford: [00:27:41] And that was exactly that's that where I was going to that's exactly where I was going to. What happens when you tell me eat low fat? Well, they eat snackwells. They eat more processed crap.

Mark Rippetoe: [00:27:52] That's where Snackwells came from. Right out of the brain of Ancel Keys, is where Snackwells came from. And that's a whole other show. And we ought to do that.

Robert Santana: [00:28:04] I think so.

stef bradford: [00:28:05] Well, there's there's that, but what also came out of it was the processed food industry that came out of Monsanto, ADM supermarket to the world.

Mark Rippetoe: [00:28:13] Ancel Keys created a market for Monsanto.

stef bradford: [00:28:16] Packaged food has a high margin and is entirely owned top to bottom by giant corporations and your government. That's all there is to it.

stef bradford: [00:28:25] Now, so the thing is. But what what do you ordinary people do? What are ordinary people going to do when if they go, hey, I saw a clear versus cloudy? Oh, geez, I'm going to ignore everything else. All I'm concerned about is I don't want that, you know, because I think it's bad. I think it's bad. What do they do?

stef bradford: [00:28:39] What are they gonna do? Are they going to eat? Go into the produce aisle and eat lovely fruits and vegetables that are high in...

[bunch of overtalk]: [00:28:48] Kale and kale, bok choy, bell peppers, artichoke.

Robert Santana: [00:28:52] It's also more expensive, by the way.

stef bradford: [00:28:55] Are they gonna eat all these things or are they going to eat...

Mark Rippetoe: [00:28:57] This might as well have been an ad for Whole Foods. An hour and a half long ad for Whole food's produce department.

stef bradford: [00:29:04]or or they're going to eat or then eat more shit? And the answer is they're gonna eat more shit. And they're gonna go and thereby disgusting manufactured pretend meat products, you know.

[bunch of overtalk]: [00:29:18] Fake meat, soy based "hamburgers" that sort of shit...textured vegetable protein, all these things. Impossible whopper. You eaten one. NO you know and I'm not going to. Yeah. They're going to eat. They're going to either nor you know what. Neither is anybody else.

stef bradford: [00:29:32] They're going to eat more manufactured, controlled things that have a huge amount of money to the people producing them.

Robert Santana: [00:29:39] Fake food.

stef bradford: [00:29:42] Yeah, but what what do we actually know? Now nutrition science is not really science. It's terrible. We can talk about that just a second. But what do we know for sure? We know processed... everyone like guys, c'mon, nasty processed food is not good. A bunch of unnatural food is not good. And this is just more unnatural food. Pea protein is really bizarre.

Mark Rippetoe: [00:30:01] Look. Soy protein. Boys and girls: soy milk is coffee-mate. OK. Don't use coffee-mate.

Mark Rippetoe: [00:30:10] You see people in Whole Foods buy this almond milk and all this. I thought you guys were natural eaters? Do you not understand what soy milk is?

Robert Santana: [00:30:27] Do almonds have have tits?

stef bradford: [00:30:30] Yeah, it's it's it's it's it's a serious appropriation to apply "milk" to a non mammal.

Mark Rippetoe: [00:30:37] To a non mammal thing. That's true. Milk comes from mammals.

stef bradford: [00:30:40] But almond juice, almond juice, if you make it yourself, is is good. But but what you buy in a store is trash.

Robert Santana: [00:30:48] So they want us to start eating kibble, Rip. That's what it sounds like to me.

Mark Rippetoe: [00:30:51] That they would prefer that.

stef bradford: [00:30:53] They'd prefer that... like like commercial dog food.

Robert Santana: [00:30:55] Its equivalent.

Mark Rippetoe: [00:30:55] Soy lent Green.

Robert Santana: [00:30:57] I just told Rip, I got her off [got his puppy off] after like a month. I'm like, I'm not doing it.

stef bradford: [00:31:03] The the interestingly, it's a big it's a big thing for dogs. [They] have been having a lot of dilated cardiomyopathy and it seems to be associated... They're, you know, they're looking this it tracks with putting in a lot of foods that dogs don't normally eat a whole lot of, you know, like lentils. Right. So there's a lot of anti nutrients in plants. And apparently dogs are sensitive enough to it in this context.

Mark Rippetoe: [00:31:30] We'll keep this anti-nutrients in plants thing in mind as we further go through our little outline of the movie here. Because that's a... this extremely important point. More people are allergic to plant stuff than animal stuff.

Robert Santana: [00:31:44] They want us to eat kibble.

Mark Rippetoe: [00:31:46] They would they would prefer that we eat kibble so that they can control everything that goes in.

Robert Santana: [00:31:51] They'll call it something else, though.

Mark Rippetoe: [00:31:53] Yeah, it's soylent green...which is made of people. Soylent red was... Do you even know what I'm talking about? Oh, you haven't seen the movie.

Robert Santana: [00:32:06] Which movie?

Mark Rippetoe: [00:32:07] Soylent Green. Watch the movie.

Robert Santana: [00:32:09] It's about cannibalism?

Mark Rippetoe: [00:32:10] Watch the movie. It's it's the end point of this whole thing.

Robert Santana: [00:32:16] What year did this come out?

Mark Rippetoe: [00:32:18] Oh, this would have been early 70s. Charlton Heston. Yeah, it was when Charlton Heston was making science fiction movies back then.

Robert Santana: [00:32:27] He needed the money.

Mark Rippetoe: [00:32:29] But it was a great film. It's a great film. You need to watch it because it's it's incredibly prescient. Watch Soylent Green.

stef bradford: [00:32:39] So, yeah, you'll notice all these these things that keep occurring in our consciousness, in our movies and things like that. They're they're they're testing and test. They're test placement, you know, on these things.

Mark Rippetoe: [00:32:51] It's a trial balloon.

stef bradford: [00:32:52] It's a trial balloon. Yeah. It's like they think they're good ideas. Right. So, I mean, what's the thing is all this processed food is very much controlled. I mean, I think I think that's one of the reasons they are so anti the beef industry, even though here we have, you know, animals that are out in the sunshine eating grass, using land that's not usable for crops, you know. Right. Producing meat. And it's not under the control of big corporations.

stef bradford: [00:33:20] They'd prefer for you to be on a prescribed diet that they entirely control at the same time that you now - think about people you know - at the same time that most people have about zero food supplies in their house. What kind of a situation does that create? They have the food. You don't have the food. It's not a good situation.

Mark Rippetoe: [00:33:40] Not everybody has three freezers like we do.

stef bradford: [00:33:46] Or grass and cows, like we do.

Mark Rippetoe: [00:33:46] If you have a chest deep freeze, you suddenly become independent of the grocery store. This is... and those of you that that are interested in this need to watch our beef industry podcast again. Richard made a very good point. He said that 80 percent of the cattle in the United States, the national herd, are in groups of 30 or fewer.

Mark Rippetoe: [00:34:14] It's it's still basically a local industry. Now there are exceptions. All right. Timmerman is an exception, but most of the cattle in the country are held by individuals. And as a result, individuals are still in control of that market. And, you know, they would rather that you believed that cattle are industrially farmed because that's the way they'd like them to be, but they are not.

stef bradford: [00:34:43] So, you know, and you just put a cow out in your yard and they just take care of themselves. In fact, a funny story... a person I know she happens to be from Queens. She was asking me about, well, when you're out of town, who takes care of your cows? And it's like, well, they're just standing out there doing cow stuff, you know, eating. That's what cows do. They eat, they swat flies, they poop, they pee. If they see something or yours they try to smash into it to scratch and destroy it.

Robert Santana: [00:35:18] What a life!

Mark Rippetoe: [00:35:20] Look at this trailer...WHAM!

stef bradford: [00:35:20] That's what they do. They're just out there.

Mark Rippetoe: [00:35:24] Look at this fence! I think I'll push that down.

stef bradford: [00:35:29] And she's like, so you don't have to do anything? I'm like, no. We don't... you don't have to feed them, you don't have to give them water. You don't have to give them any kind of... ours, don't have any kind of like drugs or anything. They're just out there, eating grass, walking around...

Mark Rippetoe: [00:35:40] Growing and turning grass into meat, that we can't eat, you know, grass that we can't turn into anything.

stef bradford: [00:35:49] Or they're playing in the mud.

Mark Rippetoe: [00:35:50] They're just the middleman. But they're just the middle.

Robert Santana: [00:35:52] They're phenomenal.

stef bradford: [00:35:53] The middlemen are really good because I can't eat grass, OK. And the only thing that grows, by the way, North Texas is grass - our place is just native grass - mesquite, which is not native and shouldn't be up here at all, and prickly pear. Now you can prickly pear, but you have to really want to.

Mark Rippetoe: [00:36:10] It's you got to be real damn hungry. You've got to have used up all of the grass before you're going to eat prickly pear. But, you know, in droughts that happens. But but they they make the point over and over again in this. I can't remember how many times they said that cattle or cows are just the middle animals. They're great. They're just the middlemen.

Mark Rippetoe: [00:36:34] You idiots not understand that you have to have a middle man between grass and mesquite beans and eating something because we can't eat that.

Mark Rippetoe: [00:36:49] Do you see when you hear this, this doo doo. Think please. When you hear that gorillas are the strongest animals on earth. And some idiot in this film makes the point that gorillas don't eat meat.

Robert Santana: [00:37:11] Cool, I'm not a gorilla.

Mark Rippetoe: [00:37:12] Do I need really to explain to you that gorillas have a different digestive system? Do I actually need to point out the fact that in in some instances, gorillas do eat meat? Chimpanzees do eat meat on occasion, but even if they didn't, their gut is different than our gut. They can manufacture amino acids that we can't. So gorillas are not like us.

stef bradford: [00:37:45] In a few important ways.

Mark Rippetoe: [00:37:49] In several important ways, gorillas are not like us.

Robert Santana: [00:37:52] Neither are oxen.

Mark Rippetoe: [00:37:52] Oxen are strong and they don't eat meat. I cannot believe...

stef bradford: [00:37:58] Well, I don't have the genetics for that, Santana. I really don't.

Mark Rippetoe: [00:38:01] I can believe it because the people in this film over and over and over again demonstrate their absolute lack of respect for the intelligence of the audience. Don't. Don't be stupid. OK.

stef bradford: [00:38:21] Well, I mean, you have statements like I said, you have statements from the narrator that are just, you know, indicate that he didn't get past like second grade biology because he didn't know like like about plants and amino acids. You know, he thought there just appeared whole cloth in an animal somehow.

stef bradford: [00:38:37] And there's other ones like that where you're like, you know, like, "I can't think of anything to eat that's VEGan except a burrito." It's like really? Are you being serious?

Mark Rippetoe: [00:38:51] What was do they think that that flour tortilla was VEGan? Oh, yeah, I guess they did. No lard in that, huh.

Mark Rippetoe: [00:39:04] So anyway, moving along through the film. What else stood out in terms of just the the the grandiose nature of this propaganda?

Robert Santana: [00:39:17] Well, let's talk about their sample of subjects. They chose predominantly elite level athletes who are gonna be bad motherfuckers no matter what.

stef bradford: [00:39:28] The training history, too. You know, so metabolically they ought to be in good shape. They're they're a little bit different. Yeah, they are.

Mark Rippetoe: [00:39:35] Elite athletes are different in several different ways. Psychologically every one of them is suffering from some degree of obsessive compulsive disorder. Psychologically, because that's how you get to be elite. Genetically, in terms of physiology, they're they're superior in that - now, I don't know about the the track cyclist girl, but all those other people have got a plus forty vertical, plus thirty inch vertical jumps. These are all explosive, talented physically... physical geniuses or they wouldn't have been on the show.

Robert Santana: [00:40:15] So do we have. We have an ultra distance marathon runner.

Mark Rippetoe: [00:40:18] Got an ultra distance marathoner.

Robert Santana: [00:40:19] Track cyclist, Olympian, Olympic weightlifter, a boxer, NFL football player, bodybuilder. I'm missing one, feel like I'm missing one.

Mark Rippetoe: [00:40:32] There's there's several you're missing, but...

Robert Santana: [00:40:33] A fighter, UFC fighter. But they're there. Yeah. And they're all performing at the highest levels.

Mark Rippetoe: [00:40:39] At least they were at one time.

stef bradford: [00:40:42] Well, the argument was supposedly that the performance is better, but I didn't see a lot of quantification of that.

Mark Rippetoe: [00:40:47] Well, here there were several things that they omitted. All right. Our friend Stan Efferding sends me a list.

Robert Santana: [00:40:56] Thanks, Stan.

Mark Rippetoe: [00:40:58] The following people were either stopped - this VEGanism shit - before it was too late or got out of the sport subsequent to becoming VEGans: Kim Chef. Andrew Luck. C.C. Sabathia. Novak Djokovic. Lauri Markkanen. Kyrie Irving. Morgan Mitchell. DeMarcus Cousins, Derrick Morgan. All these people are injured subsequent to becoming VEGans. Nate Diaz, who actually is not a VEGan (he eats fish and eggs). Kendrick Farris. Kendrick Ferris was in the movie. Kendrick Ferris, that's an interesting case.

Mark Rippetoe: [00:41:52] Kendrick became a VEGan. He was a VEGan for a couple years and then stopped weightlifting. Now and now I'm not. Look, there's more people on this list, probably that many again. But let's just I'm not going to commit the error that they do. I don't know for sure that the reason these people were injured and dropped out of the sport is because they became a VEGan.

Mark Rippetoe: [00:42:22] Everybody has a lifespan. Everybody gets out of the sport. OK, but to say that they thrived because of VEGanism is just that's just wrong. That's absolutely wrong. But that didn't keep them from saying that, now, did it?

stef bradford: [00:42:48] No. And then and even when when things aren't said, they were they were implied. So you're supposed to take home that message. And again...

Mark Rippetoe: [00:42:55] The implication part is what this film is good at. Beautiful. I can't emphasize this enough - this is a very persuasive product.

stef bradford: [00:43:08] I don't think anybody actually went through development and their whole career under these conditions. Right? They were all people who are already established like, "I'm going to change this and see what happens." And it's like, OK, so now you're probably doing a lot of things are different. I mean, what happens when somebody is just an ordinary person starts a diet? All of a sudden they start paying attention to what they're doing.

Robert Santana: [00:43:28] Well, the runner may have, I think. I think he may have on it.

stef bradford: [00:43:31] He was on for a longer period of time, for sure.

Mark Rippetoe: [00:43:34] The runner brings up an interesting question here. You know, what percentage of people in any one of these sports is VEGan? What is everybody else? All the other world champions and world record holders doing in these sports. Well they're not. They're not VEGans. They're eating meat.

Mark Rippetoe: [00:44:07] They only take away point here that you could possibly logically make is that some people are doing well on a vegan diet. But far more people are not eating a vegan diet and doing well, too. What an interesting conclusion that the viewer is supposed to draw here.

stef bradford: [00:44:28] Well, and I think, you know, you talk about our experience with actually training people and what happens when they stop, when they when they change your diets. OK. And they can change diets different ways and get more calories or less, more carbs, less carbs, more protein, less protein. The animal versus plant for the protein is is another issue. Right. But what have we actually seen in practice? You know, what have you seen with your clients?

Robert Santana: [00:44:56] Well, you kind of lead me to where we're going here. So I think there's a bigger point to be drawn here, because my first pass of this movie, when I was done watching it and I was like, well, they're stating the obvious and spinning into something else. Right. And the obvious is that all of us, most people primarily eat mostly plant based foods. Plant based. Right.

Mark Rippetoe: [00:45:18] Becausee protein's more expensive. Meat's more expensive.

stef bradford: [00:45:18] Unless... except for people who are using keto because they feel better on keto, especially all these people with autoimmune problem and things like that, and there's a huge amount of people that do and that prefer it.

Robert Santana: [00:45:33] But middle of the bell curve. You know, what did I say in the article? Assuming normal physiology, no craziness going on. Most people eat a mixed diet. That's mostly high in products that come from plants.

stef bradford: [00:45:45] Right. Everyone, you know, everyone except for a few people deliberately doing it or eating a plant based diet already. That's why it's so false to sit there and go "plant based. Plant based like me. It's like, dude, we're eating a plant based diet!

Mark Rippetoe: [00:45:58] If if we're eating 55 percent of our caloric intake from plants, is that a plant based diet? I would say probably is. Probably. You could you could say there's a there's a percentage of which it's plant based. But if the majority of your calories are coming from plants, I inferred that that would be.

Mark Rippetoe: [00:46:19] But they deliberately do not define it this way, because when they say plant based in this film, what they're saying is VEGan.

Robert Santana: [00:46:30] They don't want to call it that.

Mark Rippetoe: [00:46:31] They don't want to call it that because it's a trigger word for some people apparently.

stef bradford: [00:46:35] And not just that. They think plant based equals... They want you to think plant based = good, meat based = Bad. Meat bad, protein bad, animals bad, bad, bad, bad, bad.

Mark Rippetoe: [00:46:46] Because the plasma was clear on plant based and clear is better than cloudy.

stef bradford: [00:46:52] At that time point. Under those conditions.

Robert Santana: [00:46:55] Anytime - back to that - anytime you eat something that has fat in it, you're going to get cloudiness.

stef bradford: [00:47:00] Your triglycerides go up.

Mark Rippetoe: [00:47:01] That's not what. That's a that's a detail. We can't worry about. right.

Robert Santana: [00:47:12] We're past that, Rip.

Mark Rippetoe: [00:47:12] We're past that. We can't worry about those details. We can't worry about the details that are that that are that are come right along with eating, that every meal produces transient effects.

Mark Rippetoe: [00:47:28] Every meal produces transient effects. That's why we eat them for the transit effects they produce. Right. Right. That's why we have three or four today, today, because we want to be full. We're hungry. Now we want to be full. Transient effect. Well, there's transient effects besides the way you perceive the effect, the satiety from the meal. It does things to your blood. All right. And this afternoon, we watched a movie that showed you one of those transient effects, only one of them.

stef bradford: [00:48:05] In a particular context.

Mark Rippetoe: [00:48:06] In a very particular context.

stef bradford: [00:48:08] So there's a difference like like I said, there's a difference if you eat and then you go out in the neighborhood and you walk around, you're gonna get a different time course in your blood, because what happens if you're actively using the things that you ate as they're entering your blood? You don't get the same higher levels.

Mark Rippetoe: [00:48:23] Remember Stan's advice? Walk 10 minutes after very meal. After every meal it mediates makes some of these effects. It makes damn good sense. He's a sharp guy.

Mark Rippetoe: [00:48:34] So the star of the movie seems to be this Patrick Baboumian guy. All right. He is 5'7" which means he's shorter than I am, if that's possible. He weighs 256.

stef bradford: [00:48:49] Rogan. He's very short.

Mark Rippetoe: [00:48:49] Rogan's short too. Is Rogan shorter than me?

stef bradford: [00:48:52] Oh, he's a midget.

Mark Rippetoe: [00:48:56] How tall is Rogan?

stef bradford: [00:48:57] You know how a Smurf is three apples high? A Smurf is like five Rogans tall.

Mark Rippetoe: [00:49:05] Oh God. I didn't know that. Maybe he'll quit calling now.

stef bradford: [00:49:10] Oh, I'm sorry.

Robert Santana: [00:49:12] He calls you?

stef bradford: [00:49:15] Have I ruined things for you? I mean, have I ruined things or made them better?

Mark Rippetoe: [00:49:19] I don't know.

stef bradford: [00:49:19] Do you want me to get rid of him? Let me answer the phone.

Mark Rippetoe: [00:49:22] I've tried to get him to quit calling. He won't quit calling me. He calls in the middle... I mean, he's being right now. I'd be in the bathroom, be washing my face, eating lunch, eating a bean burrito. Is he calling you too? I mean, it seems like he calls every time we're shooting one of these things.

stef bradford: [00:49:43] I think we have somebody like...all the surveillance is going on in this country. There's FISA warrant on here, they're reporting to him...

Mark Rippetoe: [00:49:51] I don't need to be giving Rogan any more publicity than we already do. I'm already responsible for the number of views that his podcasts get so I'm not gonna not gonna keep plugging him. All right.

Mark Rippetoe: [00:50:06] So Baboumian 5'7" about 250, something like that. He's a big, strong guy. OK. There's no doubt he's a big, strong guy, but he's not a professional, strongman. He never has been a professional strongman. And he's... at 5'7"... I mean, this is a this is a sport for people who are a foot taller than that. You know, the best professional strongmen are at least 6'4". They're just not... because it's a big man's game.

Mark Rippetoe: [00:50:40] And Baboumian was apparently... has been the beneficiary of this movie. He's become quite a... I mean, you just looked up Yoke Walk a while back and he's the first one that comes up. Now, that is a direct result of this film. This is a very important movie, for a lot of things, for a lot of people. And that's why we're talking about it today.

Mark Rippetoe: [00:51:08] The just so the audience will know, the record Yoke Walk is up in the fifteen hundred pounds. It's not where Baboumian was doing his. And a lot has been made of this guy. And I'm real proud for him for what he's accomplished, but here's an interesting place to to discuss the commercial effects of this movie.

Mark Rippetoe: [00:51:41] It's it's interesting that Arnold in the movie makes the comment that Burger King and Arby's and all of these places that that sell sandwiches that have meat on them, have marketed their products as for men, right? Men eat meat! Meats for man, whatever their...

Robert Santana: [00:52:07] Steak is the man.

Mark Rippetoe: [00:52:10] And he says that this is marketing, not reality. Now, what is this movie? All right. Do you know that the primary executive producer of this film, James Cameron, is heavily invested in pea protein company Ingredion, and that Patrick Baboumian takes a lot of pea protein every day.

Mark Rippetoe: [00:52:42] What I wonder how many total calories? See... he says ee gets all the protein he need from a plant based diet. If you're eating nine thousand calories of plant based diet a day and a huge part of that is pea protein then, yeah, I guess you could probably get two hundred and fifty grams of protein a day. OK. And

that would account for Mr. Baboumian appearance in the film as well. The guy eats a lot of food. You don't get that big by eating salads and bok choy.

Robert Santana: [00:53:17] Remember, French fries are vegetable.

Mark Rippetoe: [00:53:20] French fries are a vegetable.

stef bradford: [00:53:21] When you say fruits and vegetables, they think, you know, your produce aisle. But...

Mark Rippetoe: [00:53:26] They think the produce aisle in this movie and whole foods

stef bradford: [00:53:30] What people actually eat is potatoes and corn and rice.

Mark Rippetoe: [00:53:33] And chips and and. Yeah, and yes. Peas. English peas. Beans. Yeah.

stef bradford: [00:53:41] Beans... they're all very high carb foods.

Mark Rippetoe: [00:53:44] Yes. Beans are high carb foods. When the government of the United States says "meat and beans" without a comma.

stef bradford: [00:53:55] Like they're equivalent.

Mark Rippetoe: [00:53:56] They're not the same thing. OK. You need to know that when you hear meat and beans, you might as well be saying fish and flowers. They're not they're not the same thing. They're they're primarily a starchy food. That's that's why they make you fart.

Robert Santana: [00:54:16] But they're high protein.

Mark Rippetoe: [00:54:18] They're not high in protein.

stef bradford: [00:54:19] They're high in protein compared to a certain other things that are very low in protein.

Mark Rippetoe: [00:54:23] They're high protein compared to toilet paper. OK. But they're not high in protein relative to meat. Obviously, it was high in fiber and obviously not. OK. Obviously not.

Mark Rippetoe: [00:54:36] So the commercial interests here. I just find it incredibly hypocritical that we're we're being told that the the fast food industry is selling its meat and it's just marketing. But this film is not selling vegetables or pea protein.

stef bradford: [00:55:01] There's another very false thing too, very false thing is where do those restaurants make their money? Where does fast food make their money? They make their money by all the fillers.

Mark Rippetoe: [00:55:12] They make their money...

stef bradford: [00:55:12] Make their money. Big margin on the Coke.

Mark Rippetoe: [00:55:14] The Cokes, a drink machine makes the margin.

stef bradford: [00:55:19] But beyond that, the French fries, the buns, all the cheap stuff. The meat's the only thing in there that's actually of any decent quality.

Mark Rippetoe: [00:55:26] Of any value. The bread, the fries, the coke.

Robert Santana: [00:55:31] And it's the only thing the meat is the only thing they give you the serving size on too. It's not for your benefit either. Right. It's so they can control their cost. Quarter pounder, 14 ounce rib eye. They always give you the serving size of the meat.

stef bradford: [00:55:45] Always limiting the meat because the meat costs money. But meat is providing the nutritional value there as far as like, you know, the protein, you're not... I mean just filling up in French fries, what are you getting? Well you're getting a bunch of crap, especially since they switched over to seed oils from beef tallow when French fries actually used to be good.

[00:56:01] Right. Well, seed oils, let's talk about this. Seed oils are an important development over the past 40 years. They are the direct result of our friend Ancel Keys telling everybody that that that animal fat causes heart disease and cholesterol causes heart disease.

Mark Rippetoe: [00:56:24] Seed oils don't have any animal fat or cholesterol in them. But seed oils are an interesting example of the effects that a lot of vegetables have that meats and animal products do not have.

stef bradford: [00:56:40] So let's just start with this to start with something that should or should everyone should think about, because a lot of these things are, you know, hey, there's when you talk about nutrition science, you're just talking about observational stuff, self-reported data. It's crap. But there are some things you do know. Just consider that this is completely artificial and really weird. There's really not a lot of oil in any of these things that are, you know. How much oil's in corn?

[bunch of overtalk]: [00:57:01] They're not much. Tiny bit.

stef bradford: [00:57:03] And how much corn oil comes out?

Mark Rippetoe: [00:57:05] You have to squeeze a whole bunch of corn to get a little bit of corn oil.

stef bradford: [00:57:09] All right. So it's a highly industrialized process. It's very weird. It's very recently introduced into the diet. So it's a huge shift in diet. And, you know, those are things we need to be cautious about, not not things like meat that we've been eating since the dawn of time.

Robert Santana: [00:57:23] Seed oils or pro-inflammatory. I think that's where you are going, right?

Mark Rippetoe: [00:57:26] Yeah. Absolute seed oils are pro-inflammatory. But a lot of plants, a lot of people are allergic to a lot of plant based things because lots and lots of plants don't want you to eat them.

Robert Santana: [00:57:38] Peanuts. Wheat.

Mark Rippetoe: [00:57:42] What I'm saying is that they have... plants have evolved... Plants have evolved toxins in a lot of instances. A lot of plants are toxic because that's a reproductive mechanism to discourage the the consumption of the plant by animals so that the plant can get to reproduction age and seed out and and reproduce.

stef bradford: [00:58:07] And then with the seeds also to be protected if they are ingested. Right. So you want to. You want to make it so the seeds reproduce. So you have these seeds actually have some the highest concentrations of some of these things that we react to like the lectins. So it's the kind of thing where we know-- animals fight you up front, plants fight you at the back.

Mark Rippetoe: [00:58:27] Animals don't actively want to be eaten now. Right. But once you kill them, they're relatively their meat is relatively benign.

stef bradford: [00:58:37] Yeah, that's true. As long as you leave out the Restaurant at the End of the Universe where they did want you to eat them.

Mark Rippetoe: [00:58:42] So what about the claim in the movie prominently toward the end of the movie that eating meat causes cancer?

Robert Santana: [00:58:49] Oh, yeah. When they were talking about nitrosamines and heterocyclic amines and all that fun stuff. They completely left out cooking method, preparation method, you know, just like meat in and of itself causes cancer. Which is a bold statement to make because let's just get this out of the way here, since we haven't said it and I've said it in other podcasts and papers, et cetera. We don't know what the hell people are eating. We have no way to measure intake. Yet we're draws deriving conclusions from decades old research of what people say they eat.

Mark Rippetoe: [00:59:22] Decades old research that is bad data. Nutrition science is by and large complete bullshit. Human nutrition science, human nutrition science. It's on par with exercise science. By and large it's complete bullshit. Now in in nutrition science defense, animal nutrition science is a relatively precise because there's so much money invested in this. I mean, these people that feed pigs that that take baby pigs and turn

them into pork know exactly what they're doing. It's it's a horrible industry. But in terms of the data, they have this dialed in. And they know exactly how much to feed a pig to make the most amount of meat on the pig.

stef bradford: [01:00:16] And that's on both sides. So they they know from feeding the pigs and they know because they're controlling the genetics of the pigs. So it's a completely different situation than humans. Now, what we do know about humans, cause you know, how some people are, they're going to say, well, why would people lie on self-reporting? OK, first of all, mother's memory issues. And second of all, we know that when you get when you get a new client in, they immediately start changing behaviors and reinventing what they did for the weeks prior.

stef bradford: [01:00:42] What when they when they take, you know, overweight people and they say, well, I don't really eat anything. Well, what we see is that consistently people that are overweight think they eat a lot less than they actually do once you actually box them in. Guess what happens when people that are underweight? They think they're eating a lot more than they actually are.

Mark Rippetoe: [01:00:58] "I just eat so much food." What you have for breakfast today? Well, I didn't have breakfast.

stef bradford: [01:01:03] But I had a Pop Tart, you know?

Mark Rippetoe: [01:01:08] But then, last night. Oh, God. I went I had a steak last night. Well what did you have with the steak? A potato. Well, what else? Well that's all. I got full.

[01:01:21]

Robert Santana: [01:01:21] I went to the buffet with my friend on Saturday. They'll say that.

Mark Rippetoe: [01:01:26] Oh that was... no that was Saturday three weeks ago.

Robert Santana: [01:01:28] Shit. Yeah. We've heard it. Yeah.

stef bradford: [01:01:31] So those things we know that so we know that people that are not trying to be... It takes a very little motivation for people start to reinventing what happened to them, reinventing their narrative and why things are and then the memory just, you know,.

Robert Santana: [01:01:43] Memory issues is huge.

stef bradford: [01:01:45] That's why we make you write down what you do for your training. Is because you can't remember what you did months and months ago, except in a very general sense. So... trendlines important in nutrition log and really helps people control what they're eating, but they actually see what they're eating and they're usually surprised because they're not actually looking at the calories. They're not looking at the macros.

Robert Santana: [01:02:04] Well, the problem with nutrition is it's a lot more to keep track of over a longer time period when you're up 16 hours versus three or four exercises in a one-two hour training session. So there's a lot of... Recall bias is very real.