

The Human Upgrade: Episode 1101

[00:00:05] **Dave:** You're listening to The Human Upgrade with Dave Asprey. Today, we're going to talk about something that's really fun. In the world of nutrition, in the world of biohacking, we used to say, everyone needs 12 servings of grains and three servings of protein, which might include beans, which aren't really protein, and all sorts of stuff like that. And the idea is that everyone needs is total BS.

[00:00:31] What we're seeing now, and I'm seeing this in all of the work I'm doing, is personalization. There's genetics. There's the stuff that Viome is doing around what's going on in your gut bacteria. And it's different between different people. And at Upgrade Labs, we're using AI to figure out, what are the exact biohacks to use in what order to get you the results you want?

[00:00:54] And it's time to do this with nutrition so that instead of saying, I'm going to follow this one plan because it worked for this one guy, if it worked for that one guy and you happen to be a 90 pounds Asian woman, who's 50, it might not be the same diet for you because you have different genetics, you have a different body size, you're a different gender. All that stuff matters.

[00:01:18] So what do you do about it? Our guests today are returning to the show. We've got Matt, who was on Episode 996, and Wade, who was on Episode 807. These are the guys from BiOptimizers. They just wrote a book called the Ultimate Nutrition Bible, and it's massive. I'm holding it right now, but the idea here is, how do you create the perfect diet for your lifestyle, your goals, and your genetics?

[00:01:45] And this is what matters, because your lifestyle is a part of it. So if you're eating a diet that's perfect for a Crossfitter but you actually just sit in a chair all day, maybe your lifestyle is a mismatch. Maybe your genetics just aren't supporting that, and maybe you have different goals. So like Wade here, he wants to be a balloon animal because he's a bodybuilder kind of thing. Is that accurate?

[00:02:13] **Wade Lightheart:** Used to be, but then I became a marathoner recently just to throw a curveball at things.

[00:02:17] **Dave:** Are you joking?

[00:02:18] **Wade Lightheart:** No.

[00:02:18] **Dave:** So you're into self-abuse just straight up?

The Human Upgrade: Episode 1101

[00:02:21] **Wade Lightheart:** Yeah, it's a Canadian thing. You can appreciate that.

[00:02:24] **Dave:** I can. You know the guy who ran the first marathon died as a result of doing it, right?

[00:02:28] **Wade Lightheart:** Yeah, he did. So they say.

[00:02:31] **Dave:** So they say, oh, it's a--

[00:02:32] **Wade Lightheart:** It was called a marathon, but who's to say that there wasn't a lot of people that ran a marathon before, but nobody reported it.

[00:02:39] **Dave:** So there might have been someone who ran that far before and didn't die. That's a fair point. And maybe he was just running extra fast because his entire civilization was at risk.

[00:02:47] **Wade Lightheart:** Yeah, and he just fought a war, I think, too, prior to. So I didn't fight a war before I engaged in the marathon.

[00:02:53] **Dave:** Greek people are not lazy.

[00:02:54] **Wade Lightheart:** Yeah, being lazy 2,500 years ago was probably a death sentence.

[00:02:59] **Dave:** That's a good point. In fact, that's why we still have shame over the fact that our bodies try to conserve energy, and that's why running marathon's actually epic one time because it's just showing that your mind can overcome the lack of inertia from your body. Are you doing lots of marathons or just one?

[00:03:16] **Wade Lightheart:** No, I just want to do one to actually prove some of the aspects of the strategies we outlined because there's your goal, your genetics, and your lifestyle. So I was like, okay, how many bodybuilders do a bodybuilding contest and then decide to run a marathon? Virtually none.

[00:03:32] **Dave:** It's supposed to be impossible. In fact, in Smarter Not Harder, you can pick a goal that, did you want VO2 max? And do you want to look like a marathoner, which is lean with big legs, or do you want to look like a bodybuilder, which is more muscle up top that you have to carry around and your knees have to support?

The Human Upgrade: Episode 1101

[00:03:51] So you're breaking some rules to do that. And by the way, I just said Matt and Wade because I know them really well. Matt Gallant and Wade Lightheart is an important thing for you guys to know. And BiOptimizers is their company. They've been on lots of times if you're a long-time listener because they make really good supplements. But we're not going to talk as much about supplements today, really about the Ultimate Nutrition Bible because I have my perspectives on food like, don't eat certain toxins, especially if you're more susceptible to those.

[00:04:22] I had a bone to pick with you guys. So I'm looking at the cover of this right now, and it says-- let's see. I'm just looking at the picture here. We've got black sesame. We've got farmed salmon. I can tell it's farmed with the way it looks because it's not red enough. And then we've got nightshade goji berries, and we've got white sesame. I think that's sesame, right?

[00:04:47] Yeah, I think so. White sesame which is full of both lectins, and phytic acid, and oxalic acid. And you've got oats, which are one of the dumbest foods on the planet from a phytic acid and a blood sugar perspective. And you have a little bit of beef in the corner here, but why is the beef not somewhere better?

[00:05:05] **Matt Gallant:** So one of the things we say in the book is, there's no evil foods, which I know I just took a lot of air out of your balloon, right?

[00:05:14] **Dave:** Twinkies are not evil.

[00:05:15] **Matt Gallant:** Did you read about the Twinkies diet success story?

[00:05:19] **Dave:** Absolutely. They still evil. They make you old.

[00:05:24] **Matt Gallant:** Elevated blood sugar will definitely--

[00:05:28] **Dave:** And so will hydrogenated fat.

[00:05:29] **Matt Gallant:** So we did experiments in the lab recently, a couple of months ago. And the thing that's bad about seed oils is something called malondialdehyde, which is mutagenic. So if you look at the research on cell culture experiments with malondialdehyde, which when you have rancid fats, you get a lot more of, it is mutagenic. The cool thing is we tried breaking it down with kApex, which is a blend of pieces.

[00:05:58] **Dave:** It's one that you make. It's one of your products.

The Human Upgrade: Episode 1101

[00:06:00] **Matt Gallant:** Yeah. And you're able to break it down into fatty acids. So even something like seed oils, again, there are solutions. And I think even mentally, there's so much fear being propagated around food. If you go on Instagram for a week and you just get sucked into the food algorithm or nutrition algorithm, at the end of the week, you're going to be scared to go and buy almost anything.

[00:06:27] **Dave:** You don't need fear. You need awareness. But there's a lot of evidence that linoleic acid, which is the fatty acid that even kApex is to break things down into, right?

[00:06:38] **Matt Gallant:** Mm-hmm.

[00:06:39] **Dave:** Linoleic acid, when it's a higher ratio of what you eat, it goes into your white fat, and it goes into your brain preferentially before it goes into your other tissues. And it's what animals eat to go into hibernation. It slows your metabolism, and it appears to change the membranes and cells, and it's probably the biggest cause of diabetes.

[00:06:57] **Matt Gallant:** I think one of the core principles in biological optimization or nutrition is the dose creates the effect.

[00:07:04] **Dave:** That's a fair point.

[00:07:05] **Matt Gallant:** So if you eat a kale salad every week, which is one of your favorite enemies, and again, you're not genetically prone to have problems with oxalates, it's not going to affect you that much. If you drink one Coke Zero a week with a little bit of sucralose, it's not going to impact you that much. Of course, if you're drinking a six pack every day, you're eating a massive kale salad every day, yes, the odds you're going to have some issues go up. So even just being aware that you can have a pizza once in a while. You can have a donut once in a while.

[00:07:37] **Dave:** I'm going to Turkey in a couple of weeks for the Harvest Series. I'll be doing a five-day workshop with a small group. It's going to be really epic. I'm planning on eating a baklava every single day because it's made with European soft wheat instead of American hard wheat. And if you take some good enzymes, like the stuff you guys make, what's it called? The gluten something.

[00:07:57] **Matt Gallant:** Gluten Guardian.

The Human Upgrade: Episode 1101

[00:07:58] **Dave:** Gluten Guardian. Thank you. I always have a bottle of it with me whenever I go to Europe because I'm probably going to eat a croissant. So you certainly can do graceful degradation. I'm seeing a lot of people, though, who are saying, my joints hurt all the time, and I have interstitial cystitis, and they're only having a kale salad or a spinach salad once a week, but they're having a bowl of raspberries every day, and they're having them almonds every day, and they're actually building up their oxalate levels to the point that it's causing crystals in the urethra, so they have to pee all the time.

[00:08:27] I talked to someone recently. I'm like, just lay off the raspberries for a little bit. Three days later, it's like, I've had this condition for 10 years, and it's gone. So I'm working on helping people not be afraid, but just be aware. If you do a lot of this, it's a problem. How does that work out with the Ultimate Nutrition Bible?

[00:08:42] **Matt Gallant:** What you're talking about is biofeedback. And Wade, you've been tuned into biofeedback since your early bodybuilding days. Maybe talk about how you use that because self-awareness of what's going on in your body is a critical part of this whole puzzle.

[00:08:56] **Wade Lightheart:** Yeah. I do believe that bodybuilders are the original biohackers because they're overcoming two evolutionary biases. One, having an excess amount of muscle is not biologically productive, and having suboptimal levels of body fat for what's aesthetic purposes for a bodybuilding competition are also counter to longevity, health, vitality, all of the things that we advocate for.

[00:09:23] However, because we're overcoming these genetic aspects, they developed a wide variety of strategies to overcome that. And then many of those strategies have been adopted and optimized in the biohacking space. And so when we started out, we didn't have all the tech that's available that you advocate for-- all these things.

[00:09:41] So we had to get really in tune to how we feel journaling, becoming intuitively aware of how food was impacting us both internally and visually, because that's what you're defined by in those contests. And what I can say is that's helped me understand the dietary cult dynamics. I think that like religion, there is-- and Patanjali has Yama Niyama, the do's and don'ts is the foundational aspect of yoga.

The Human Upgrade: Episode 1101

[00:10:10] And I think people become attracted to a diet because, obviously, what they've determined, that whatever they've tried is not working. They're unhealthy, they're fat, they're sick, they're disease, whatever that case is, and they gravitate to some personality that has created some sort of "religion" that says, do this, don't do that, and it works for a while.

[00:10:33] **Dave:** Like the vegan diet, six weeks, you'll feel great.

[00:10:35] **Wade Lightheart:** Exactly. Or raw food. We've experimented.

[00:10:37] **Dave:** I was raw vegan too.

[00:10:38] **Wade Lightheart:** Yeah. And the thing is, the raw food community is a great example. A lot of people get into that community are really sick, and it is the hyper reductionist version of dietary strategies.

[00:10:55] **Dave:** So you're saying that the raw food movement is like the Charles Manson of diets. Is that what I'm hearing?

[00:11:00] **Wade Lightheart:** Almost. You could say that. You could say that. The point is, for a lot of those people-- I was raw food for two years.

[00:11:10] **Dave:** Okay, me too. So guys, we're making fun of the raw food diet, but not of you. We both did it for a reason, and the same reason you're probably doing it. So this isn't meant to be mean-spirited. It's meant to be honest.

[00:11:20] **Wade Lightheart:** Yeah. And you start producing all these results because of the restrictive nature. And then the benefits start to diminish, but you've been so indoctrinated with the cult dynamics that you stop listening to yourself. And the good news is data came out to actually expose people's lack of trust in their own intuitive or observational patterns that help people break out of that. And that's where we are today.

[00:11:46] I think most of the dietary experts, whatever they advocate for, have recognized that people fall within a bell curve, and you're going to have people who are the major advocates in the top two percentile, and the people that are the total haters are in the bottom 2%. And what we're trying to do is obliterate that and provide a way that you can optimize any diet based on these core principles.

The Human Upgrade: Episode 1101

[00:12:08] **Matt Gallant:** And I have a crazy success story to share with raw food diets. He's a neighbor of mine. He's a good friend. His name is Dr. Aris LaTham. You can go check him out on Instagram. He's 73. He's been a raw foodist for 37 years. Looks amazing. Full of energy and vitality. But he's got Jamaican genetics. Obviously, it's working for him. Now, that's a big point in the book, is that-- and I learned this as a trainer. I used to think the ketogenic diet was for everybody, and I remember one of my clients turned gray. He lost a bunch of weight, but he looked horrible. People tell me, you looked better before.

[00:12:45] **Dave:** With the gray skin, the sagging face, hollow cheekbones. You lose your minerals, so you turn gray.

[00:12:51] **Matt Gallant:** Exactly. And then I had some other clients that had digestive issues on a ketogenic diet. We struggled as well as he couldn't metabolize the fats.

[00:12:59] **Wade Lightheart:** Jordan Peterson's another great example. He's a guy that went completely carnivore and corrected a wide variety of things. And I'm a plant-based guy, so should I say that, oh, Peterson's bad because he's corrected all of his health issues with a carnivore diet?

[00:13:13] **Dave:** I think most people who go carnivore for long periods of time actually harm themselves as much as going vegan for long periods of time. And I did the carnivore diet. We didn't have a name back then, but when I was testing the corners of the Bulletproof Diet, I did about three to six months.

[00:13:30] But after about three months of just meat and eggs, and I'd raw-- not raw, but I had grass-fed butter as well, and man, my sleep quality went away. I was waking up 20 times a night. And something wasn't right. It turns out I'd gotten leaky gut from it and gave myself an egg allergy during that time. So I would just say it's fine to do almost any diet for a month.

[00:13:54] **Matt Gallant:** Let's talk about that. When you switch diets, especially when you go from the standard American diet to any type of structured diet, you'll tend to fix some deficiencies and lower the toxicities. So no matter what diet you're on, whether it's a plant-based, vegan, raw food, carnivore. You need to be mindful of the potential deficiencies which change depending what type of diet you're on. We cover that in the book. So Wade, talk about some of the potential like plant-based deficiencies as an example.

The Human Upgrade: Episode 1101

[00:14:24] **Wade Lightheart:** Yeah, exactly. So there are some aspects of the plant-based diet, particularly for myself, that are suboptimal. And I embrace those constraints as an experimental side, especially being a bodybuilder, because most people say, you can't be a bodybuilder on a plant-based diet.

[00:14:41] **Dave:** You take a lot of supplements because you manufacture a lot of really good ones, so you're relying on technology to do that, but if you're in a cave and on a plant-based diet, you'd be unable to reproduce.

[00:14:47] **Wade Lightheart:** I think that if you look at the life expectancy for cavemen, they were much less than we have today. So we can abandon those ideologies based on what our ancestors ate. I think we're living in a completely different environment nowadays, and for myself, for example, I would do pretty well on a standard bodybuilding diet of high protein, moderate carbohydrates, low fat, because I have the genetics that process fats very well.

[00:15:18] And I have suboptimal genetics for blood sugar regulation, and I have a low satiety, delay. So in other words, I have a tendency to overeat. So understanding that aspect within my genetics, I can go, okay, I'm going to boost my protein content to be more suited for bodybuilding and for satiation.

[00:15:38] I'm going to eat a big ass salad every afternoon because that helps me with my satiety because I'll overeat otherwise. And then I'll supplement with the key elements that I'm not getting in my vegetarian diet so that I can optimize my dietary strategy for my goals.

[00:15:53] **Dave:** So vegetarian is no different than plant-based. So you're vegetarian or you're entirely plant-based?

[00:15:59] **Wade Lightheart:** Well, I would say that I'm a cheegan in the fact that I eat eggs or dairy recreationally in social situations.

[00:16:10] **Matt Gallant:** That's how he parties.

[00:16:12] **Dave:** Got it. So you have no standards.

[00:16:14] **Wade Lightheart:** Yeah, I have very high standards. Most people wouldn't be aware of them. And I don't recommend people to follow my diet. I'd rather people understand how did I

The Human Upgrade: Episode 1101

optimize the diet for me based on my goals and my personal interests? That's what we're advocating.

[00:16:30] **Dave:** This is a really important conversation. You said something earlier that's worth repeating. I also noticed that bodybuilders are very good biohackers. And the reason I started the biohacking movement is I wanted to get bodybuilders, and my extreme longevity friends, and neuroscientists all in the same room, along with a few NASA people, and special forces people, and pro athletes, because those are the areas where we're pushing the boundaries of humans, but they weren't talking before that.

[00:16:59] And I had Frank Zane on the show a while ago, one of the most conscious people I've met. He plays the flute for an hour a day, and it's this semi-enlightened guy. But the stereotype is that bodybuilders are meatheads. And it's not true because you notice, if I do this, I get this. And that is at the core of biohacking. And the reason I haven't published every single supplement I take, or here's what you should do in a day.

[00:17:27] It's because I don't want people to do what I do, because like you, I've been creating what works over 20 years for my biology as a 6'4 guy who used to be obese and had chronic inflammation, and fibromyalgia, and all these things wrong with me. And my goal too, I'm going to live to at least 180, and I want my brain to work amazingly well, and I want to look reasonably good and have a body with enough muscle to keep me alive for a long time. I don't want to, have massive bowling ball shoulders.

[00:17:53] It'd be kind of fun, but I'm not willing to do the work for that. The goals are so different. I would not feel comfortable if I said, here's all the stuff I take because I know a whole bunch of followers-- and I'm sorry, guys. I know you want me to do this. You would try to do the same thing, and it would probably make you sick.

[00:18:07] So what I'm doing is very similar to what you guys are doing in the Ultimate Nutrition Bible. I'm saying, if you're like this and you want this, you should use this supplement. So I'm working on a series of videos about different supplements, and why I take that one, and why you might want to take it, but I'm not publishing a list with doses for everything because your dose will vary by you.

The Human Upgrade: Episode 1101

[00:18:29] And I think it's the same with steak, or salad, or anything else. So you have a really good approach here. I would say it's a step beyond in the Bulletproof Diet. If you guys have ever seen the roadmap on it, these are more likely to be good. These are less likely to be good. So if you want to cheat, just cheat in the middle instead of going all the way to the Twinkie diet, washing down Diet Coke to cancel it out.

[00:18:54] So it's not like if you cheat on your diet, you have to just punch yourself in the face over and over and feel like crap for a week and have food cravings, which is what I used to do. The cheat day was really a bad idea because that cheat day equals four days of cravings. So when someone opens the Ultimate Nutrition Bible, how do you start?

[00:19:14] **Matt Gallant:** It's definitely a choose your own adventure kind of book, so depending on what you're interested in, what your goals are, you can jump to that chapter and read that. Of course, if you want to read it cover to cover, go for it. It really just depends on what your goals are. One thing I want to harp on, which has been proven with a Twinkie diet, it was proven with a guy doing a McDonald diet, is that when people lose weight, no matter what diet they're on, their biomarkers improve. And if people gain weight, no matter what diet they're on, their biomarkers get worse. So now--

[00:19:51] **Dave:** Hold on. Gain fat, you mean? Because you gain muscle or more skeletal mass. Okay, right.

[00:19:57] **Matt Gallant:** So that's a really important point. Again, if people want to lose weight, your biomarkers will get better no matter what diet you're on.

[00:20:05] **Dave:** So you like Ozempic.

[00:20:08] **Matt Gallant:** Let's talk about that. So one of the key points we talk about in the book is starvation survival mechanisms. And both Wade and I have been victims of those, and maybe you have as well, where you diet too hard, too fast. And my experience of that was for my wedding, I've been losing weight steadily.

[00:20:26] I went from 220 down to 185, and I'm like, okay, I'm going to lose the last 10 pounds, and I'm going to do whatever it takes. I started literally sprinting in the jungles of Panama, doing

The Human Upgrade: Episode 1101

crazy things up the hill and just push my body to the absolute limit. And after the wedding, I was hungry for about two years and regained almost all of it. And Wade, maybe talk--

[00:20:49] **Dave:** Your thing.

[00:20:50] **Matt Gallant:** Your story.

[00:20:50] **Wade Lightheart:** I did the same thing when I competed my first Mr. Universe contest. I gained 42 pounds of fat and water in 11 weeks after 11 months of extreme dieting on it.

[00:21:00] **Dave:** Forty two pounds?

[00:21:02] **Wade Lightheart:** Yeah, 42 pounds. So I went from Mr. Universe to Mr. Marshmallow. And that was an aha moment because I realized the difference between a performance-based diet and a health-based diet. So I had literally suffered the consequences of a performance diet, sacrificing everything. This is not a good idea long term. And that really started me on the journey to understand your microbiome and its influence.

[00:21:28] And then going back to the book, to answer your question circularly, we basically outlined five basic goals that people can choose to start moving towards. And then we have a pyramid of nutritional decisions to consider at every stage once you reach your goal, even before you get to that goal, or if you're choosing another goal, because 97% of people who engage in a diet are going to regress backwards.

[00:21:56] So we want to invert that to make 97% successful. And people such as yourself and the people you bring on the podcast, the experts, have created those tweaks for themselves so they can sustain it for life. And it goes into that nutritional pyramid of decisions.

[00:22:13] **Dave:** And I very much appreciate you talking about that on the bodybuilder side. I know so many fitness competitors who I've consulted with, and they're like, I never looked better and felt worse. It is a very standard thing, especially for women. I think it's worse for women than for men.

[00:22:30] **Wade Lightheart:** Especially as they're young. When they're young, the girls that are attracted to that, it's--Scott Abel probably wrote the best books on that. So if you're a fitness competitor, I would refer to Scott Abel's work. I think he identified metabolic issues, and he's trained more fitness competitors than anyone else and felt that that was really important because

The Human Upgrade: Episode 1101

so many young girls are destroying their metabolisms, they're destroying their ability to have children or to be metabolically robust, and it's a real problem.

[00:23:01] **Matt Gallant:** Yeah. So one of the things we talk about is you need to make your body feel safe as you're losing weight.

[00:23:06] **Dave:** Thank you for that.

[00:23:07] **Matt Gallant:** And one of the strategies to do that is you can do refeeds, whether it's once a week, or you can do diet breaks. Now, a diet break doesn't mean you're eating whatever you want or however much you want. You tend to go at maintenance. So calorie cycling-- again, there's a lot of different ways-- we have a whole chapter dedicated to that-- is one of the best strategies. Because when you go back to maintenance, your body's like, okay, I'm safe. I'm safe.

[00:23:32] And then once you're psychologically ready, you can go back into another dieting phase. And then once you reach your ideal weight, there's another diet you need to do, which is the reverse diet. So let's talk about homeostasis and breaking homeostasis. This is really important. So again, homeostasis means your body wants to be in balance. Our bodies don't want to change.

[00:23:54] Change is a threat. If you gain too much weight, whether it's muscle mass or body fat, obviously, it's more likely that animals are going to eat you. If you lose too much weight, again, the starvation survival mechanisms kick in and fight back. So your body is always striving for homeostasis. With reverse dieting, we're taking advantage of that, and let's say you're down to 1,200 calories, which for you, would be obviously an extremely low-calorie intake.

[00:24:22] **Dave:** Geez. I might as well just fast.

[00:24:24] **Matt Gallant:** Exactly. And again, when people bodybuild, they'll get down to really extremely low levels because that's what it takes sometimes to get to that incredible conditioning. The strategy is to add 50 to a 100 calories a week until you go back to maintenance. Now, I know that sounds extreme, but one of my coaches, she would reverse diet for the same amount of time that she took to get into shape.

[00:24:52] **Wade Lightheart:** That's a fitness competitor shape at national level competitiveness.

The Human Upgrade: Episode 1101

[00:24:57] **Dave:** And what's the body fat percentage for women as fitness competitors?

[00:25:00] **Wade Lightheart:** Usually, if you can get down to 10% and then you get into single digits, that's where a lot of women-- and it's going to vary. There's also set point data. So in other words, some people are just not predisposed to get to that single-body fat percentages.

[00:25:18] **Dave:** Also, boob size has a lot to do with that. There's a substantial amount of fat if you have large breasts, then you're never going to get as low for total body, but everywhere that's not a breast can do that.

[00:25:30] **Wade Lightheart:** And most fitness competitors are using breast augmentation strategy to create the feminine characteristics and, I would say, suboptimal for health, body fat levels for women. For a typical male competitor, you'll be in single digits. In a natural competition, maybe between eight and 10, if you get into the professional level of the no restrictions on drug usage. So that's a natural competitor at 8%. Then you can get into that 5%, 4%, 3% range, which is really bad for your health.

[00:26:04] **Dave:** I'm doing strategies right now to increase my body fat because, for longevity, I think nine is better, but with all the metabolic hacks. I effortlessly am maintaining this, so I actually pay attention for longevity because too low is not good.

[00:26:20] **Matt Gallant:** Yeah, I think everybody's got a sweet spot. And again, one of the things to pay attention to back to biofeedback is, how much is your body fighting back? Is hunger out of control? Do you feel good? Is your energy low? Is your energy high?

[00:26:34] **Dave:** I feel great. And I'm never hungry. I have to make myself eat.

[00:26:38] **Wade Lightheart:** I'll give you a great example for myself. So I don't have awesome genetics for bodybuilding. In fact, I have very poor genetics by the sport, and getting into an 8% body fat level for me is difficult. My body would regularly feel the best at around 12%. And recently, I decided to make a comeback and did the Olympia at 50.

[00:27:01] And afterwards, I wanted to see, how much weight would I gain post-contest before I would start adding lean body mass. So I was like, what's my safe zone. And here's a shocking fact. I went from 8% body fat to 15 before I gained a single gram of lean body mass. DEXA scan.

The Human Upgrade: Episode 1101

[00:27:27] **Dave:** There's one word that comes to mind. Vegetarian.

[00:27:31] **Wade Lightheart:** I think it's mostly understanding your set point. Now, I have friends who stay in single body fat percentages, but have a very difficult time gaining weight. So they're on the inverse of that equation. So it really comes down to, for me, that 10 to 12 range is optimal. I feel really good at that range. My brain operates, I think, at its optimal level at that range. And when I start getting into those single digits, my body starts creating these fighting mechanisms. And that's something to become aware of in your own dietary journey.

[00:28:02] **Dave:** Okay.

[00:28:02] **Matt Gallant:** And let's talk about the other side of breaking homeostasis. So the one strategy with reverse dieting is we want to maintain it. And again, as you're increasing calories, you're fooling your body. Your body's not noticing, and people tend to not gain any body fat or very little. So you can rebuild your metabolism. So for anybody who's got a destroyed or damaged metabolism, again, reverse dieting is amazing.

[00:28:26] But on the flip side, let's say you want to lose body fat or gain muscle mass. Then you need to break homeostasis. So bodybuilders, of course, there's the stimuli, which comes from resistance training, but you also need a calorie surplus, and we recommend typically about 300 calories a day of surplus because your body needs that extra energy to synthesize the lean muscle mass.

[00:28:53] Of course, you need enough amino acids in your body. You need mTOR activation. So typically, four meals a day is a good sweet spot. Some bodybuilders back in the day used to do six meals. Your lifestyle gets so hard.

[00:29:07] **Dave:** I did that in the '90s when I worked in tech. And I was just so trying to lose weight. I was going to the gym all the time and said, I'll go into starvation mode if I don't eat six times a day. And it didn't work.

[00:29:18] **Wade Lightheart:** One caveat too, I think, that needs to be clarified, when I'm doing this, this is with no TRT, no hormone optimization, no exogenous hormones of any level under that condition.

[00:29:31] **Dave:** Why wouldn't you take care of yourself?

The Human Upgrade: Episode 1101

[00:29:33] **Wade Lighheart:** Because under the rules of natural bodybuilding, you're not allowed to use those agents. You're under water testing. So that is an isolated aspect of non-hormonal manipulation, because I think once you add hormones, say, if I was to optimize my testosterone as a 50-year-old, and I'm an advocate of people using TRT and hormone augmentation and stuff, bodybuilders go to super physiological dosages.

[00:29:59] But I think for the average 50-year-old, at my age, I'm probably a great candidate for hormone replacement therapy. I just wanted to do the experiment with these constraints so that I could give you legitimate information for the general public and say, yeah, that's what you can do as a 50-year-old guy with suboptimal genetics, suboptimal testosterone levels, suboptimal muscle mass.

[00:30:20] What can you do with augmentation that are advocated in the biohacking space? A lot better. So I suspect, as my 60s and 70s, I can be in superior form than I am now with all the tech that's available.

[00:30:33] **Dave:** I went off of testosterone. So I've been on testosterone since I was 26 because I was tested, and I had lower testosterone than my mom, and I had excessive white fat. My testosterone very quickly turns to estrogen, still does if I don't block it, and that's probably a genetic thing. Okay, got it. I use an herb called chrisim. If I stopped taking that for three days, I'm like, oh, look, tender nipples that are perky. And that's not the look I'm going for.

[00:31:03] I've had boobs most of my life. It was embarrassing. All the guys in my family do. I don't have them now because I learned how to block it, so I've been on it, but I went off it for almost three years when I was testing the Bulletproof Diet and I was getting my lab tests, and I could get my testosterone up to about 700 if I did everything perfectly. High-fat diet, enough protein, proper sleep. But I'm also starting a company that's half a billion in revenue, and I'm a dad. So I don't think it's particularly sustainable for most people, but you should test. And if you don't need it, don't do it. Yeah.

[00:31:37] **Matt Gallant:** They use psychological aspect by everyone, and Wade is a rebel. So we have a whole chapter on the psychological side of dieting. So for Wade, when he creates an incredibly challenging goal, like being a vegetarian, competing naturally in a bodybuilding show, it really motivates him. It creates this incredible challenge that he gets excited about.

The Human Upgrade: Episode 1101

[00:32:03] Now, I'm a questioner, so for me, I need to understand all the scientific nuances. I want the proof. I want to understand the mechanisms. So those are just some of the differences between us. And you're probably also a little bit on the rebel side.

[00:32:19] **Dave:** There's a condition called oppositional defiant disorder, and I actually--

[00:32:24] **Wade Lightheart:** It's called thinking.

[00:32:25] **Dave:** Yeah. It's called thinking and acting, and I actually had that because I had Asperger's, and ADHD, and ODD, and OCD as a kid. I had the whole list. Actually, I was an A student, which was surprising.

[00:32:40] **Wade Lightheart:** D attitude.

[00:32:41] **Dave:** Yeah, exactly. And in fact, they wouldn't let me be valedictorian in high school because my attitude was so bad. But I'm like, I have the higher scores. Yeah, but you're an asshole. And it was all true, so yeah. And actually, I can tell you that was partly toxic mold and partly-- strep throat grows when you have toxic mold.

[00:33:00] And if kids get strep throat a lot, they develop antibodies to one of the strep things. And then that creates changes in the brain that makes you more OCD and ODD. So I used to have to scrunch my face, and I'd have to stim all the time. And there were certain things I had to do three times, all that kind of crap.

[00:33:15] But it also meant, like that Rage Against the Machine Song, fuck you. I won't do what you told me. So yeah, for me, doing the Bulletproof Diet, I tried all this shit that was supposed to work, and it just didn't, and so I thought it was my fault. And then I realized, maybe it's just dumb. So then eating way more fat than it's supposed to work did work, and it's worked for a lot of people as long as it's the right kind of fat.

[00:33:39] And that leads me to this next question, though. You're talking about calories. This is what big food does to tell you that you could drink 10 Cokes a day because there's x number of calories and the old Weight Watchers. You can swap a scoop of ice cream for three Graham Crackers, whatever the hell they did. Calories are stupid. Why are you guys counting it?

The Human Upgrade: Episode 1101

[00:34:01] **Matt Gallant:** I'm super excited to debate this one with you. So there's two camps. There's the calories in, calories out camp, which tries to simplify everything to just pure thermodynamics.

[00:34:14] **Dave:** Doesn't work.

[00:34:16] **Matt Gallant:** We'll get to that. There's another camp, which I think you're a part of, which wants to believe in other variables that change the equation. Now, here's what I'm saying, and what we're saying in the book. Both camps are right. And there's a whole chapter called the Optimized Metabolism, which we present, let's say, a more accurate version of calories in, calories out.

[00:34:40] First of all, no animal can escape the laws of thermodynamics. In this reality, meaning that if you have a calorie surplus, you're going to gain weight. If you're burning more energy than you're eating, you're going to lose weight. However, here's the part which you've been talking a lot about.

[00:34:59] On the calories outside, there's a lot of sub-variables that can increase or decrease the amount of energy you're burning. One of the big ones, which we've experienced many times is anabolism. So when you're really anabolic, your metabolism can go up 20, 30, 40%. I've seen as much as a 100% increase with some extreme bodybuilder experiments, which we're not going to talk about.

[00:35:27] **Wade Lightheart:** Look at the calorie consumption of, say, wide receivers in the NFL who are just doing sprint after sprint after sprint all day long. They're consuming massive amounts of calories.

[00:35:37] **Dave:** 10,000 calories.

[00:35:37] **Wade Lightheart:** And they're at 5%, 4% body fat, these gods that have speed. And they're slamming McDonald's every day because of the metabolic output that they've put forth with regard to their sport. And then you see them after they retire, and they just balloon up and can't figure out what happened. Of course, many of those guys have superior genetics to even be in the NFL.

The Human Upgrade: Episode 1101

[00:36:01] But again, as you age, your metabolism, these factors he's talking about on the calories, those start to diminish excessively unless you're engaging in the biohacking practices, which you've been advocating for years to invert the metabolic decline. So calories in, calories out is a general concept with a lot of assumptions inside of it. And we're trying to break down those assumptions because if you follow a diet strategy and just go with the calories in, calories out, eventually, you're going to fail.

[00:36:33] **Matt Gallant:** So one of the things we talk about is it's better to-- you don't want to be decreasing calories constantly and get down to, as one of my clients got down to, 800 calories on a Bernstein diet, and her metabolism was destroyed. It's better to focus on increasing calories out and getting to a reasonable amount of calories.

[00:36:54] So let's start with some other things. Thermic effect of protein. One of the reasons why diets work so well is because people increase their protein intake, which the general ballpark for thermic effect of protein is 25 to 30%. So here's another concept. Net calories--

[00:37:11] **Dave:** Just to translate that thermic effect, it takes about 30% of the calories in protein to digest the protein. Exactly. There you go.

[00:37:19] **Matt Gallant:** And there's an anabolic effect from the protein. So now you're getting the anabolism calorie burn on top of that. Here's another big one, and you wrote an entire book on, mitochondrial function. That's another metabolic boost. And anything you can do to improve your mitochondrial function will help improve your calories out.

[00:37:39] Here's another one, which I've experienced many times doing 40 Years of Zen. Pushing your brain hard and deep. When I'm doing a 40 Years of Zen, I almost need to double my calorie intake. And I won't gain any body weight because that's how much energy the brain's burning.

[00:37:55] **Dave:** There's an executive chef and unlimited food when people are spending five days at 40 Years of Zen because I found they couldn't do the intense mental work to reprogram themselves unless I fed them crazy amounts of food. And so the brain can do, what, about 20% of your calories if you're pushing it hard? So I say it's like running a marathon with your brain, or doing CrossFit every day with your brain. There's some other things, though.

The Human Upgrade: Episode 1101

[00:38:20] **Matt Gallant:** Yeah. There's one more big variable, which--

[00:38:22] **Dave:** And then I got some questions for you.

[00:38:24] **Matt Gallant:** Which you do as well. Cold exposure.

[00:38:26] **Dave:** Thank you.

[00:38:27] **Matt Gallant:** So cold exposure does two things. One, there's heat loss, especially in the cold plunge, anywhere from 300, 500 calories that your body has to replace, and then there's the brown fat activation. Brown fat is mitochondrial rich fat. And the more cold exposure you do, the more brown fat you build. So those are all variables that you can, again, manipulate to increase calories out. So again, calories in, calories out is accurate. It's scientifically true, but where a lot of people miss the boat is, they don't focus on improving the calories outside.

[00:39:05] **Dave:** So if it's scientifically true, my favorite drug is zeranol. Zeranol and is an extract of zearalenone, which is a mold toxin that's 10,000 times more estrogenic than human toxins. And it's not a drug that humans take, but what we do is we manufacture it in little waxy pellets and put it in a cow's ear, and then it basically melts into the fat in the cow. That cow will get fat on 30% less calories than a cow that hasn't been treated.

[00:39:37] **Matt Gallant:** So what's the mechanism? Again, it's decreasing calories out. Do you know how it's doing that?

[00:39:42] **Dave:** I don't believe it's decreasing calories out. The cows are just as active. So there is no evidence that there's a--

[00:39:48] **Wade Lightheart:** Oxygenation of the cow, which is going to lead to increased body fat, such as females have a higher level of body fat than males. And this is an issue for men as your testosterone drops. Now your estrogen to testosterone ratio becomes suboptimal and you're eating the same diet, and you're like, oh my God, how come I'm gaining so much weight? I haven't really changed anything. And this is something that virtually every middle-aged guy experiences.

[00:40:15] **Dave:** And they're doing the same workouts they did before. The estrogen levels are higher, even if their movement isn't lower. They haven't heated up their house. So they're not changing calories out in a meaningful way.

The Human Upgrade: Episode 1101

[00:40:26] **Matt Gallant:** The anabolism piece is changing. And again, when you're on TRT and if you use steroids and you're keeping your estrogen in check, the amount of calories you're burning is incredible. And of course, if your estrogen is too high and your testosterone is low, it changes the anabolic environment. So that, to me, is the variable that's changing in those situations.

[00:40:49] **Dave:** When I was 23 and decided I was going to lose that a 100 pounds of fat, no matter what, I went on a low-calorie diet. It was always less than 2,000 calories a day, and I went to the gym six days a week.

[00:41:03] **Matt Gallant:** You were doing cardio?

[00:41:04] **Dave:** I was doing 45 minutes of cardio. I couldn't run because of the arthritis and knee surgeries, so I would get on a treadmill at a 15-degree incline carrying a weighted pack for 45 minutes, and then I would lift legs or arms or something. So half weights, half cardio, six days a week. I took Sundays off, and I did this for 702 hours or 18 months, and I literally had a 46-inch waist when I started and when I was done.

[00:41:26] **Matt Gallant:** So let's talk about metabolic adaptation.

[00:41:28] **Dave:** Mm-hmm.

[00:41:29] **Matt Gallant:** When you're losing weight or decreasing calories, again, our bodies want homeostasis, so it's always adapting. Cardio, especially, doing excessive cardio, just increases the speed of that metabolic adaptation. So in our opinion, cardio, as far as just cardio machines and that repetitive motion, doing the same thing over and over again, your body adapts to that, and it just doesn't work.

[00:41:59] Let's say that week 1 of walking a treadmill, doing an elliptical, whatever, the amount of energy you're burning compared to, let's say, week 12, doing the exact same thing is completely different. Your body has adapted and decreased the amount of energy. So we're big believers. And of course, weight training being the foundational type of exercise you can do. Swimming is great because you've got the heat loss, plus you've got a good cardio form.

[00:42:25] **Dave:** And some breathwork too, holding your breath. Yeah.

[00:42:27] **Matt Gallant:** Yeah. Rebounding is great. Go ahead.

The Human Upgrade: Episode 1101

[00:42:28] **Wade Lightheart:** And just to further extend on that conversation, recently, did the Olympia and then went into endurance training, completely different training. So I knew that I had suboptimal mitochondrial VO2 max, which is an essential point. So what did I do? I went to the labs every day.

[00:42:46] **Dave:** Upgrade Labs.

[00:42:46] **Wade Lightheart:** Yeah. I went to Upgrade Labs. And I actually moved close to the lab so I could leverage the tech there. And I was doing [Inaudible] cell, and I'm doing the lymphatic drainage to handle the inflammation in my legs from the increased running. And I'm doing cryotherapy every day to help reduce the inflammation from my training.

[00:43:04] Now, what's interesting is I'm now doing an excessive amount of cardio than what I was doing, preparing for a bodybuilding show. And even though my mitochondrial function, my VO2 max went up so I could run a four-hour marathon, my body fat was actually increasing during that time.

[00:43:23] So it's inverse to the idea that a lot of people think, I just need to exercise more to lose the body fat. As I exercise more, my body became a fat storing machine. So the body becomes its function, I think, is something people have to recognize. So manipulating these components based on your goals and outcomes, I think, becomes a key factor, and we've identified how to do that specifically for whatever your goal is inside the book.

[00:43:52] **Dave:** So what I'm hearing here is that there is no way to know how many calories you burn every day.

[00:43:57] **Matt Gallant:** It's changing all the time.

[00:43:59] **Dave:** It is. It is.

[00:44:01] **Wade Lightheart:** And it's a simple observation. Am I gaining body fat, or am I losing body fat because a calorie surplus is required to gain body fat?

[00:44:09] **Dave:** Unless you're on estrogenic drugs.

[00:44:11] **Wade Lightheart:** It's still relative because what you're saying is, okay, you've suboptimized your metabolism, and now whatever calories you're taking at that point based on

The Human Upgrade: Episode 1101

those metabolic manipulators, you're now in a body fat gain situation as opposed to, let's say, I went on high levels of testosterone and growth hormone, maybe I could eat the same amount of calories and, all of a sudden, be gaining muscle and losing body fat. So without a complete understanding of this picture, the average person is caught in a paradigm of blindness, which will lead them to fail. That's why 97% fail.

[00:44:49] **Dave:** The really important point here is that if you're gaining fat, just cutting calories is probably not the strategy unless you do something else. And that's present in your book. And I want everyone hearing this, especially women-- I know so many women who are just always low-calorie. They're constantly hungry all the time. They're eating the wrong stuff. And they're saying, I'm still fat. I have to eat even less. And I fell for this when I was 300 pounds.

[00:45:12] I was starving myself, and I was working out really intensely, which changes cortisol, which changes fat deposition, changes how anabolic you are. So you can talk about calories in and calories out, and I acknowledge what you're saying there, however, if you cut your calories and assume that's what's going to make a difference, it might not. And it doesn't make a difference because your body adapted.

[00:45:37] And then the calories out, you can measure how many potato chips on the treadmill you're allowed to eat, and you get six potato chips for an hour of running or something, which is nonsense. But what you also don't know is, today, it was snowing, and I was outside for two hours, and you just burned another 300 calories. So calorie burn is completely unknown for everyone.

[00:45:58] **Matt Gallant:** Let's talk about another huge variable, which is great sleep. So they did experiments, again, comparing people that slept eight and a half versus five and a half hours of sleep. This is a really important point, when they were losing body fat, the amount of lean muscle mass that the five-and-a-half-hour group lost was exponentially higher than the eight and a half.

[00:46:24] Because, again, when you get that first stage of sleep, you're getting growth hormone production, and then you're getting testosterone production during your REM sleep. So if you're not getting high quality sleep, your ability to burn body fat gets extremely compromised. So for

The Human Upgrade: Episode 1101

anybody on any diet, whether it's muscle building or fat loss, you got to get your sleep in order. And again, that changes the anabolic equation.

[00:46:46] **Dave:** And there's two variables there. One is the amount of sleep, and the other one is the quality of sleep. And I think it's healthy and normal for people doing excessive training or maybe even excessive dieting to get more sleep than is normally necessary. And the studies that I've seen, there's now three of them looking at millions of people, the longest lived people are getting an average of six and half hours a night.

[00:47:16] But that doesn't mean that they're doing that during intense training. So the more you train, the more you're dieting, the more your quantity and quality has to go up. And I'm still at six and a half hours a night on average. I get about an hour and a half of REM and deep. And over the past year or so, I've gotten substantially leaner.

[00:47:39] And so I'll end up writing another book or some other stuff about that, just maybe share it on the blog, but one of the big variables there for me is thyroid. I had Hashimoto's since I was 26. And if you're new to this world, Hashimoto's is not immune condition where your immune system basically lowers your thyroid function. And thyroid is what determines how many calories you burn.

[00:48:05] So I've been treating this with thyroid hormone since, I don't know, 25 years or something, and it absolutely changes your brand, changes your life. I think most people over 50 would do really well on an eighth or a quarter grain because all people lose thyroid as they age and it's an anti-aging hormone. Unless your tests are high. You should test it before you do that.

[00:48:28] So thyroid will stick to almost anything. Even electrolytes, it will to. So I was lazy in the morning. I'm like, I'll just wash it down with coffee. And I knew it was a bad idea, but I'm like, how bad could it be? So I hadn't measured myself in a while, and for anti-aging and metabolic purposes, you want your TSH, which is how loud is your body asking for more thyroid. You want it to be at one or below.

[00:48:52] And a lot of times, you go to the doctor, like, oh, you're fine. No, you're not fine if you want to live a long time or be lean. Mine was at four because I wasn't absorbing the thyroid. So one of the things I did as I became religious about having thyroid next to my bed, I take it

The Human Upgrade: Episode 1101

right when I wake up, and then I don't have anything for 20 minutes. So it was a chance to absorb.

[00:49:11] And that is one of the reasons it worked. And I made some nutritional shifts as well. And so I want people listening to understand, if you're gaining weight, fat, for no reason, just cutting calories probably isn't going to work unless you have the stuff that's in the Nutrition Bible, unless you're manipulating the type of calories you're eating because there's a huge anabolic effect.

[00:49:37] And that's why I'm still in the calories in, calories out isn't very useful, because you don't know what percentage of the calories you ate was used to process the calories. And as we said, protein, 30% of it doesn't get absorbed. It gets basically used to absorb the rest of it. And likewise, if you're having an equivalent amount of chocolate cake, it's a completely different equation. And a super biohacker biochemist can probably make some estimations.

[00:50:06] The thing I like about the Ultimate Nutrition Bible is that you don't have to be a biochemist to do that. You're providing basic heuristics to say, do this or do that. And so the reality is that calories in, calories out is complex. And calories out is almost unknowable. And at the end of the day, there will be people on low calories who gain weight. And that was my thing. But you fix the metabolism, and then the body burns more calories.

[00:50:33] So you're right. The body burns more calories as we don't know how many it's burning. So to match the two, one thing that I've measured-- and when you go into Upgrade Labs, do the cell health analysis, and we'll do a pretty accurate basal metabolic rate. And last time I checked, mine's 2,400-ish, and I've had mine as high as 3,000 with various things.

[00:50:52] That means I need 3,000 calories a day to maintain my current state if I don't do more activity, or do a cold plunge, or think really hard at 40 Years of Zen, or any of that stuff. So at the end of the day, there's this amazing thing called hunger, as long as it's not a craving. And if you're hungry, you probably should eat. You should eat the right stuff.

[00:51:15] **Matt Gallant:** I want to talk about what we call the simplest secret. It's in the book. And Wade uses, successfully, almost every pro athlete. And it's something you probably do. Most people do this unconsciously. And Wade, talk about the power of eating the same thing on a regular basis, because this solves what you just mentioned.

The Human Upgrade: Episode 1101

[00:51:35] You're eating the same thing almost every day on a weekly basis, and you're using even something as simple as a tape measurement and a scale, you're able to see if you're succeeding or not. And just before I cue it up to Wade, the cheapest way to see if you're making progress is a scale and a tape measurement.

[00:51:55] **Wade Lightheart:** And a mirror.

[00:51:57] **Dave:** Yeah, the mirror is the most important nutritional tool because even the scale can lie.

[00:52:01] **Matt Gallant:** Yeah, but the scale with the tape measurement doesn't lie.

[00:52:04] **Dave:** That's true.

[00:52:04] **Matt Gallant:** So if you're measuring your waist, or if you're a woman with wider hips, and you're measuring your hips, and your hips went down, or your waist went down, and your weight stayed the same, then you probably gained some muscle mass and lost some body fat. Let's talk about the simplest secret.

[00:52:17] **Wade Lightheart:** I will. I want to qualify that for months. I've watched manipulations that I can--bodybuilders are great at manipulating their physiology. I've seen myself fluctuate six to seven pounds in lean body mass in a 24-hour period through hydration, carbohydrates, restriction, dehydration, all of these components. So you can gain lean body mass--

[00:52:39] **Dave:** As a percentage, but not by pounds.

[00:52:41] **Wade Lightheart:** Oh, yes. Oh, no, by pounds. And I've got the data rate. You could go check it at your labs. It's all in the computer, where I actually--

[00:52:47] **Dave:** You demonstrated water freeing body mass?

[00:52:49] **Wade Lightheart:** Yeah, absolutely. And it'll blow your mind. So you can game those things. You can't game the mirror. And that's what everybody is really referring to. But the simplest secret, basically, the average person has about 25 meals in their recipe, their regular going. So the idea of diets are restrictive is a bad idea, but I've crafted about 12 specific meals

The Human Upgrade: Episode 1101

that fit my calorie components that satiate me, that feel good, that deliver the required nutrients in the right amounts to sustain me for my objectives.

[00:53:29] And that's what we're advocating, is pick your go to 12 meals. And then you can rotate in and out. I do four meals a day. That works for me. And I got some variants in each one of those meals, and I'm happy, and it's easy, and I don't have to think about it. I don't have to worry because if you get into that situation where you're thinking about your food, it's a quick spiral down to the hell with it.

[00:53:51] **Dave:** Right.

[00:53:51] **Wade Lightheart:** And you blow the diet, and then you go through all the negative self-talk.

[00:53:55] **Dave:** And also, you never know. You go to a restaurant, the calorie counts at restaurants are off by 100% quite often. And the quality of the oils and things like that, the quality of the protein, it's completely different.

[00:54:10] **Matt Gallant:** No, and I think, as Wade mentioned, it gets rid of decision fatigue. But there's another huge advantage. It makes it really easy to decrease calories. Let's just do a simple example. Let's say you're eating six eggs for lunch every day, you're having an omelette, and you're not losing body fat or weight and you want to lose weight. You can go from six eggs to four eggs. It makes it really easy. You don't need to calorie count. You just need to be reducing the portions.

[00:54:36] And one guy that's been incredibly successful with that strategy has been Stan Efferting. His vertical diet is a really great diet. He works with a lot of the top-strength athletes, power lifters, etc. And one of the main things he manipulates is just literally the amount of rice they eat, white rice.

[00:54:53] So when they want to gain body weight, they just keep increasing the amount of rice. And when they want to decrease their body weight, body fat, he just lowers the amount of rice. So it makes it really easy to change one thing or two things. And again, you're just looking at the scale tape measurements, and then you're just changing the amount from the meals you're eating.

The Human Upgrade: Episode 1101

[00:55:14] **Dave:** There's also something called the Randle Cycle. And when you get the percentage of fat in your diet above about 30%, you store fat, more likely. So what I found is that most people today have broken cell membranes because of eating far excess omega-6s. So it usually takes about two years to replace half the fat in your body.

[00:55:37] So you go on a 50% fat diet for two years eating only saturated fats and some monounsaturated. And after two years, you wake up one day, and you're like, you know I just don't want a half a cup of butter in my coffee anymore. The cravings went away. And at that point, you can start doing things like increasing protein.

[00:55:58] And, all of a sudden, for me, after I did that the dieting stuff that's supposed to work started to work. But when I had broken metabolism from just fat in my body, the wrong kinds of fat, no matter what I did, I wasn't getting results. So talk to me about percentage of calories from fat versus meat and rice.

[00:56:16] **Matt Gallant:** Yeah, let's talk about-- again, is really applicable to anybody on a ketogenic diet. So the first phase of a ketogenic diet, let's call it phase 1, it's the first two weeks. You go from not ever having to force your body to use fat as energy to adapting and building what's called lipolytic pathways. And people go through the keto flu, which MCT oil or ketones completely solves for anybody.

[00:56:41] **Dave:** Maybe some charcoal too.

[00:56:42] **Matt Gallant:** Yeah, yeah. From there, there's phase 2. It lasts, typically, maybe three months. And that's really where your body's learning to use fat as fuel. And that's where you really want a high percentage of fat. And once you get to phase 3 or phase 4, you can start decreasing the percentage of fats and increasing your percentage of protein. Now, what does that do?

[00:57:05] Again, you're going to decrease your net calories because of the thermic effect of protein, increasing anabolism. And one of my coaches, Kevin Weiss, who used to compete against Wade, who's a world record holder in powerlifting and bodybuilding, that was his strategy. So he would use a ketogenic diet to get absolutely shredded on bodybuilding stages.

The Human Upgrade: Episode 1101

[00:57:25] And all he did was increase the percentage of protein. And you can go up to even as high as 50, 55% protein. And in the book, I created this chart, which gives you all the different types of protein, animal proteins, in terms of percentage of fat, percentage of protein. So all you need to be doing is changing the type of animal protein or fats you're getting.

[00:57:51] For example, last night, I went to Daidu, had some lard and things like that. But as you're increasing the amount of protein and shifting to lower-fat cuts, you're going to find it a lot easier to burn body fat. So that's one thing. Another thing I want to talk about, which is personal to me, and again, we talk about in the book, if you're on a ketogenic diet and you don't do a nutrigenomic test, again, you're doing yourself a disservice.

[00:58:19] And this is a relatively new discovery for me. I don't have good genetics for saturated fats. And my lipid profile hasn't been great. So now what I'm doing is I've decreased the amount of saturated fats. I'm still eating some, but not as much, and I'm increasing my monosaturated fats with olive oil or macadamia nuts.

[00:58:36] **Dave:** That's a recommendation that I've made since the Bulletproof diet, is that if after two years of high saturated fat, you're still having higher LDL and you think it's a problem, you can measure if it's a problem by looking at Lp-PLA2. Then what you do, especially the APOE situation, we'll just call it that, is increase your olive oil and macadamia and maybe some avocados, but not avocado oil because it's largely fake and because it's largely oxidized, and avocados have a relatively high omega-6. So I like what you're doing there.

[00:59:12] What I wouldn't want to see is people with more normal genetics going all monounsaturated. It's way better than doing polyunsaturated. In fact, there's a company that I've been backing since the very first starting called Zero Acre Farms that's now making a monounsaturated oil for restaurants.

[00:59:31] **Matt Gallant:** We saw your post.

[00:59:32] **Dave:** You saw the posts on that. So this is really cool because I'd rather always have olive oil than crap oils. But if I ate only olive oil, it would slow my metabolism and wouldn't do well for me. And again, there's some genetic things in here as well. And the reason I talked about that two-year window is a lot of people, when they go keto, they go Bulletproof, they go carnivore, their LDL goes up.

The Human Upgrade: Episode 1101

[00:59:54] And that's happening because they're clearing liver fat. My liver fats under 1% now. All my visceral fat is at the low end of the range for an 18-year-old. And it typically goes up as you age. So the way you do that, though, is if you go on these diets, it can be really scary, but it doesn't have to be scary.

[01:00:16] It's one of those things, okay, if it's temporary and it's causing damage, you can see if it's causing damage. So you've dialed in the right kind of fat and you're doing that with testing or people can just try it, but it takes a couple of years of being consistent. And if you're saying, I'm consistent, but I really like the French fries in totally rancid canola oil twice a week, it doesn't work.

[01:00:35] **Wade Lightheart:** Yes.

[01:00:35] **Dave:** So you have to be religious about it. But there's something else I wanted to ask you about, and it's Charles Poliquin, who was a good friend. I dedicated one of my books to him. He noticed that people will deposit fat in different parts of their bodies based on hormone levels. So if you have the round belly, that's a cortisol problem. If you're putting fat in the back of your arms or on your hips, it's a different hormonal thing. What do you guys think about that?

[01:01:03] **Wade Lightheart:** Yeah, I totally agree with Charles. I think Charles was a complete genius, and he's observing the elite of the elite, the most ritualistic and a regimented athlete. So the variance and practical applications that he was able to develop, I, for myself, follow exactly in that category. I will deposit body fat in my stomach area, and I'll swell actually, if my adrenaline goes-- so if I go on the road and I'm doing a lot of trips and I'm doing stuff, I'll see a fluctuation of anywhere between five and ten pounds.

[01:01:41] **Dave:** And that's mostly water from aldosterone or what?

[01:01:43] **Wade Lightheart:** Yeah, exactly. Because again, that estrogenic pathway, it becomes suboptimized. Testosterone goes down. My estrogen goes up. I start to feel bloated, a little fat. It's not a regular fat. It's a weird--

[01:01:58] **Dave:** Spongy. Yeah.

[01:01:59] **Wade Lightheart:** Jelly. Yeah. It's like a jelly hangs out over your pants, going, God, I better go home. And you get back home, you get some good sleep. You stop the caffeine for a

The Human Upgrade: Episode 1101

few days. You stop the drive. And then within five or six days, you deregulate back. And that's what I think all biohackers at the highest level get to do because of testing personal observation and understanding the tactics to go along with the strategies. You start getting tactics to mitigate the strategic goals that you've outlined within the diet strategy that you're using.

[01:02:36] **Dave:** I've said this a lot. If you wake up with love handles that weren't there the day before, they're probably not fat. They're inflammation. And that means it's your fault. It's something you did. Maybe it was pulling an all-nighter. I did that at Burning Man. I wasn't really strong the next day. Or maybe it's flying all over the place, or you ate a really bad meal, or you were just too stressed, or you got in a fight, but something in your life.

[01:02:59] **Wade Lightheart:** Sounds like the average trip that we do.

[01:03:00] **Dave:** All the above. And there are also ways to handle that. I actually increased my cortisol intake. I use cortisol as an anti-aging bioidentical herb. I also don't make enough cortisol, so I can, oh look, I'm going to be crossing-- I'm flying to Turkey for this thing that's coming up here, the Harvest Series, and then I'm going to go to Dubai, so I'll bump my cortisol by five milligrams a day, which gives you a lot more resilience, which means I don't have to make adrenaline because cortisol does something different than adrenaline. I'm not raising it above where it should be. I'm just making it where I want it to be.

[01:03:31] So all these are variables if you're a professional biohacker. So there's so much nuance in this. And I think you guys captured it really well. Something that I can see you tried to do in the book is you're saying, you can do any diet you want. Here's how to succeed on a vegan diet.

[01:03:47] I don't think you're going to live as long or be as fertile no matter what you do as a vegan. You'd be a vegetarian and blow it off. I just haven't seen very many-- I know, basically, three vegans who are older, who haven't broken bones and aren't having all this weird aging stuff. And so it's exceptionally rare and probably genetically based.

[01:04:08] So I wouldn't want a listener to say, okay, I have ascribed to this philosophy for whatever reason, whether it's vegan or zone diet, doesn't really matter, but I've identified my personality with his diet, so I have to succeed on this diet. Dude, either your diet works or it doesn't work.

The Human Upgrade: Episode 1101

[01:04:23] And if it does work as a vegan, you're getting all the results you want, you're exceptionally unusual, and I still predict that within five years, you'll most likely have oxalate kidney stones from all of the plants you're eating. So there's that.

[01:04:36] **Wade Lightheart:** So here's the challenge that I'll put out there because I've been vegetarian for, what now, 20 some years.

[01:04:42] **Dave:** Yeah, vegetarian, you can do. Sure.

[01:04:45] **Wade Lightheart:** But I would say that my diet is 95% plants. And what we'll do is we'll say, hey, the person who wins will give the eulogy at each other's funerals. So if you outlive me, because we're about the same age, you can give the eulogy at my thing and say, I told you, and inversely. How about that? Is that a fair idea?

[01:05:05] **Dave:** Yeah. Right.

[01:05:06] **Wade Lightheart:** I think having constraints--

[01:05:08] **Dave:** Here lies a man who was wrong.

[01:05:09] **Wade Lightheart:** Yeah.

[01:05:09] **Matt Gallant:** I beat your ass.

[01:05:11] **Wade Lightheart:** I won. So again, the book's about ending the diet wars. And Matt and I have what would, on the surface, appear polar opposite strategies. You're somewhere in between the two of us. And I think robust discussion in the experimentation of what is optimal is important. And I'm on the extreme side. I think you're on the extreme side, Dave. And I think Matt's on the extreme side, and our listeners are probably somewhere in the aspirational stage of one of those strategies.

[01:05:44] And then that's the idea behind it, is you don't have to be like me. I've got my own set of goals, my own set of rituals, my own set of plans. And I like constraints. I like extremism. I like ridiculous experiments that may be suboptimal. And maybe inside of that, we discover some things that would be really extraordinary.

[01:06:01] **Dave:** And to be really clear, all of us are willing to take risks to do that. And if you're listening, you may or may not be. I did 4,500 calories a day for almost a year when I was testing

The Human Upgrade: Episode 1101

the Bulletproof Diet, and I was actually planning to gain weight. I cut my sleep. I stopped exercising.

[01:06:18] I'm like, I'm going to only gain this much, but I'm going to have this huge calorie surplus. So I should have gained 20 pounds, but actually grew abs during that time. And I put them up on social media. And then Joe Rogan said it was fake, which was funny, but I think might have had a bone to pick at the time.

[01:06:34] But it wasn't fake. It was like, what just happened? And you could say it's because you were eating more protein or whatever it was, but I was forcing myself to eat this incredible calorie surplus. The Kerrygold sticks, a full stick of butter every day. And I took a lipase. I couldn't buy kApex at the time. You didn't make it.

[01:06:53] So I took lipase to make sure I was absorbing all the fat. I wasn't having greasy stools, all the stuff that happens if you don't absorb fat. I'm like, this shouldn't be possible, but it's working. So that was a risk. In fact, it probably made me older. I don't think it was good for me in the slightest.

[01:07:07] So if you're listening, you don't have to go to extremes. What I think you want to do, though, is start looking at results, as they say in the book, get a tape measure and a scale, or coming to Upgrade Labs and do the whole cell health analysis, or work with your doctor, and all that. But if you're not getting the results you want, if you look at the Ultimate Nutrition Bible, I think there's a lot of new knowledge in here. You guys think about it in a different way.

[01:07:28] **Matt Gallant:** There's 875 scientific references.

[01:07:31] **Dave:** That's it?

[01:07:31] **Matt Gallant:** Yeah, that's it.

[01:07:32] **Dave:** Slacking off.

[01:07:34] **Matt Gallant:** Let's talk about where people can get it. So ultimatenutritionssystem.com/dave. Not only have we written this book. We spent a week in the Hollywood Hills. We filmed the entire course, filmed the entire book. Not only do you get the book and the entire video series. The original draft of the book was a 1,000 pages.

The Human Upgrade: Episode 1101

[01:07:59] So we took all the supplement content. People get an instant downloadable PDF. There is a summary of every scientific reference in another PDF, another book, that people get for free. You get three cookbooks for free, including a plant-based one, including a carnivore one, including a paleo one, and you get some other goodies. So you get all of that at the ultimatenutritionssystem.com/dave.

[01:08:24] **Dave:** All right. So you guys heard that. The book is called the Ultimate Nutrition Bible, and the website is ultimatenutritionssystem.com/dave. And I mentioned earlier, these are the guys behind BiOptimizers who make really, really good supplements. And in fact, I use your gluten supplement. I take MassZymes with every meal, and that might be one of the reasons that I'm succeeding, because I actually absorb everything I eat. A lot of people don't.

[01:08:49] **Matt Gallant:** Read out the data. It turns protein into a pool of amino acids and peptides in 30 minutes. We test it against every other enzyme, and it's destroyed all of them.

[01:08:58] **Dave:** It's a really good one. And also, I actually had an occasion to take antibiotics recently, which, generally, I don't like to do that. It was a right call for me. I got some mold in an RV, so I was getting a little bit of a throat infection. I'm like, I'm just going to take-- so predictably, you get the runs after that. So when I went off the antibiotics, I had the things.

[01:09:23] So I took P3-OM, which is your probiotic, and a bunch of fiber and stuff like that, but it resolved in one day. And I actually tried another kind of probiotics the first day. Didn't work. So it was the P3-OM that really did it. And that's where you design that for. So guys, I just want you to know, Matt and Wade are solid in the work that they're doing in the world as they make cool stuff.

[01:09:50] And go to ultimatenutritionssystem.com/dave and pick up their book and get all that cool stuff. Oh yeah, there you go. Use code DAVE, and they'll give you 10% off and tons of freebies, way more freebies than I do with my books. I film courses, but I haven't written five extra books to just give them. So congrats on being highly productive. If you like this episode, you know what to do. You probably should read the book. It's worth it. And maybe you're lazy. Just buy the book, and then just watch the videos. That works too.