DR. MICHAEL GREGER INTERVIEW

Author of *How Not to Diet*

By Chris Wark
What's up, everybody? It's Chris. I'm here with Dr. Michael Greger. You may have seen my interview with him before. Dr. Greger is the founder of NutritionFacts.org – one of the best websites on the planet for nutrition information. A personal favorite of mine. He's the author of How Not to Die, which again, don't let your head get too big here, but I think it is one of the best books, if not the best book on nutritional science ever written. That's a big claim.

Dr. Greger: Big claim.

Chris: But that is what I tell people when you're not around.

Dr. Greger: Well, I tend to agree, but I'm not disinterested.

Chris: I have permission to extol…?

Dr. Greger: Please. Go crazy.

Chris: So, I will link to that book in the show notes. But Dr. Greger has a new book called How Not to Diet. And this is also a tome. I mean, it's a massive volume of research. And I would love for you to talk about... You told your story last time we did the interview, how you got into nutritional science and became an MD focused on nutrition. So, we don't have to revisit that. But I'd love to just dig right into what prompted you to write this book. And then, some of the surprises that you learned, maybe assumptions you had, that were completely overturned by dietary research.

Dr. Greger: You know, with so much nutritional noise and nonsense these days, I just wanted there to finally be an evidence-based diet book. And to that end, I cite literally thousands of studies digging up every possible tip, trick, tweak, technique proven to accelerate the loss of body fat. To get people every possible advantage. And basically, build the optimal weight loss solution from the ground up. In terms of surprises... Well, you know, in medical school we're taught that a calorie is a calorie. A calorie from one source is just as fattening as a calorie from any other. But it turns out this is a trope broadcast by the food industry to absolve itself will culpability. Coca Cola even put an ad out there to emphasize this, what's it called, "one simple common sense fact." But it is not true.

Dr. Greger: And I use the... So, the two past chairs of Harvard's nutrition department talk about the central argument from industry that the overconsumption of calories from carrots would have the same effect on calorie balance as
the overconsumption of calories from soda. So, I talk about Coca-Cola versus carrots. And yeah, I mean, in a laboratory setting, the 240 calories of carrots (about 10 carrots), would have the same effect on calorie balancing as the 240 calories in a bottle of Coke. But that really falls flat on its face out in the real world, right? Taking less than a minute to chug down those liquid candy calories, whereas it would take more than two and a half hours of constant chewing to get through that many carrots. It's actually been tested.

Chris: And how many carrots was it?

Dr. Greger: So, that's like five cups of carrots. And so, people might not even be able to fit them all in their stomach. Right? I mean in a lab, a calorie's a calorie. But in life, it's really far from it.

Chris: Yeah. I mean, that is the difference between eating whole foods that have a lot of bulk and volume that fill you up, and liquid calories that people just siphon through their bodies and pack on 50, 100, 200 extra pounds. And yet, it's the same. According to them!

Dr. Greger: Only them. Yeah. Ridiculous. Yeah. But it turns out, even if we absorb the same number of calories, eat the same number of calories... Different foods can have different effects, even if we eat the same food at different times or in different meal distributions or after a different amount of sleep, it can result in a different depositing of body fat on the body. So, it's not just what you eat, but how, and when. That was really fascinating to me.

Chris: Talk about that. I'd love for you to.

Dr. Greger: So, chronobiology. This whole new, I mean it's not a new specialty, new to me... It's one of the biggest chapters in the book. I'd long known about chronotherapeutics, where timing of chemotherapy (for example) makes a difference in terms of side effects, in terms of efficacy. The exact same does, the exact same drug, given a different time of day can have different effects. It's wild. So, maybe we should not be surprised that there's such thing as chronic prevention, that the timing of meals and exercise and stress management can also differentially affect us.

And so, it turns out, calories eaten in the morning are less fattening than the exact same calories eaten at night. The same snack you eat at night deposits more body fat in the body than the exact same snack eaten earlier in the day. The fewer calories after sundown, the better. We really should try to shift our calories towards the morning because they just don't count as much. This has implications of blood sugars and all sorts of things. Just really remarkable. In fact, you randomize people to do 2000 calories in the morning and the exact same 2000 calories in the evening, as a single meal, just as an experiment of the trial. And the
morning group loses weight and the evening group gains weight. I mean, it's the exact same number of calories. Exact same foods.

Chris: Exact same meal.

Dr. Greger: I mean, remarkable.

Chris: I've seen your video on this. And is it roughly true that the insulin responses doubled from 8:00 AM to 8:00 PM? On the same meal?

Dr. Greger: Unbelievable. So, the exact same food can have a significantly higher blood sugar spike. So, you may test normal in the morning but be pre-diabetic in the evening, just because your ability to control blood sugars declines as time gets late. So, late eating has lots of negative effects.

Chris: Why do they think that happens?

Dr. Greger: It's because of our circadian rhythms.

Chris: Okay.

Dr. Greger: And so, our circadian system, our 24 hour-ish system, is the major control of gene expression in the body. So, almost every process you can name – from body temperature to stress hormones, blood pressure – cycles throughout the day. And there's all sorts of really interesting mechanisms...I won't go into that. But that's the basic understanding. It's not just activities. It's not just like you just woke up or eating right before you go to bed. It has nothing to do with that. You can do these so called "chronic disruption studies" where you stick people in a basement under dim constant light and feed them at irregular times.

Chris: Sounds fun.

Dr. Greger: And so, you totally screw them up and they have no idea what time it is. And then, you can go in there and have them exercise at night and stay up during the day. It doesn't matter. It still sticks in that cycle. Their body knows. And so, it's independent activity. It's the circadian rhythm.

Chris: That's incredibly fascinating. And you talk about intermittent fasting in the book. And there's been a lot of studies on intermittent fasting. And this lines up with... So, years ago, I interviewed Dr. Valter Longo. And Valter said to me, "Don't skip breakfast. People who skip breakfast have worse health."

Dr. Greger: Yes.

Chris: And I was like, "Really? Okay. This is new information." Because a lot of people are skipping breakfast, they're intermittent fasting, they're eating lunch and dinner, or whatever. And then your book comes out and you
start talking about this circadian rhythm situation, and the doubling of blood sugar from eating at night. And it was starting to click! So, were there other things that you learned that you talk about in the book about intermittent fasting strategies? Or time restricted eating strategies that seem to be the most beneficial?

Dr. Greger: Yeah. So, the way you do it is early time restricted feeding. So, time-restricted eating is cutting your daily eating window to 12 hours or less and fasting half the time. But what was really interesting when I dived into this literature is some studies show it’s great for you. Other studies, apparently the same amount same window, say it’s terrible for you. So weird to see this kind of disparate results in literature. Same biomarker, same general populations of folks. And it turns out, it was the timing of the window. All the early time restricted feeding showed these remarkable benefits beyond just the chronobiological benefits of eating earlier, but the restriction. Whereas the evening, the chronobiological adverse effects of eating late and skipping breakfast were such that they overwhelmed the benefits of the time restricted feeding. They actually had adverse effects overall. And so, if you’re gonna skip any meals, you should be skipping dinner, not breakfast.

Chris: And this is pretty doable, by the way. I mean, it’s pretty easy for someone to eat breakfast at 6:00 or 7:00 AM and be done eating by 6:00 or 7:00 PM. I mean, that’s the 12 hour window. Right?

Dr. Greger: There you go!

Chris: Even if they aren’t skipping dinner.

Dr. Greger: I encourage people to stop eating after 7:00.

Chris: Okay. Yep. Now, what about the shorter eating windows? Like I know some folks are doing eight hour feeding windows. Did you find anything in the literature that’s made you think, “Wow, this is even better than 12 hours”?

Dr. Greger: So, there is a benefit to the time restricted feeding. The data isn’t granular enough to find out the optimal window. So, they all show remarkable benefits, but we have yet to tease out the optimal amount. But we do know the timing. We do know the window.

Chris: Got it. Any other surprises?

Dr. Greger: Oh my God, the whole book was... I mean, people don’t realize that I learn as much as anybody else when I write these books. I mean, if I knew it all, I wouldn’t have to do all the research. I mean, there’s a half million papers in scientific literature on obesity, with a hundred new ones published every day. Like I wasn’t taught this in medical school. And so, yeah, it was starting from scratch really.
Dr. Greger: And so, yeah, I mean it was all just absolutely fascinating. All these like spices like proven in placebo-controlled, randomized-controlled trials where you can pack it into a little capsule. These foods are so potent. And pit it head to head against sugar pill placebos and prove that you can celebrate loss of body fat regardless of what you eat the rest of the time. It’s just remarkable. And why haven’t I heard about this? Because it comes out to be like 2 cents a day. You’re not going to thrill your stockholders selling something you can’t patent that just costs 3 cents a day. So that’s why we don’t hear about the benefits of ground ginger and garlic powder and black cumin, all these other things. But the data is there. But you just never hear about it.

And so, that’s really how I see my role in the world: taking this mountain of data that already exists out there, and just translating it and getting it out there. When a new drug comes out, a new medical procedure, of course you’re going to hear about it because there’s a corporate machine driving its promotion. There’ll be ads on TV. People will hear about it. But when some study comes out and says that broccoli does some things, it just disappears. So, the studies are out there, they just never see the light of day.

Chris: I think most of my audience understands the incentives, or disincentives, for studies like that that never go anywhere. There’s no money in broccoli and cauliflower and blueberries. But it is surprising. Even though there’s no incentive, it’s still surprising because I think we all want to believe the best about people. And we all feel like, “Gosh, if we learn something great, everyone really would want everyone to know about it, right?”

Dr. Greger: Well, I mean, you can want someone to know about it. And you can stand up on a soapbox on the street corner and tell as many people as you can about it. But if you can’t buy the airway, then the masses aren’t going to hear about it.

Chris: And the prescription drug companies are the second largest advertiser on TV. Cars are number one, as far as I know.

Dr. Greger: I mean, yeah, junk food and big pharma are way up there.

Chris: Yeah. So, you mentioned three spices: ginger, garlic, black cumin.

Dr. Greger: No, regular cumin works too as an appetite suppressant.

Chris: Any other top performers in helping with weight loss?

Dr. Greger: So, two teaspoons of vinegar with each meal activates an enzyme called AMPK, which accelerates the loss of body fat. Just remarkable benefits. And this is even proven in placebo-controlled studies, where they compared one to two tablespoons of apple cider vinegar a day beverage, compared to a placebo beverage with a different kind of acid (it didn't
have any actual vinegar). Then you’d use CT scanning and precisely measure. But they had significant decrease in body fat in the vinegar group, not the fake vinegar group. No one knew until the code was broken at the end. I mean, remarkable studies like this. But again, you never hear about it. So, I was so excited to bring it out to the world.

Chris: Plant-based nutrition is your focus....

Dr. Greger: No, no. Evidence-based nutrition is my focus. It happens to be plant-based because that’s what the evidence is. It’s like the American lung association doctors are accused of being anti-smoking. They’re just pro-lung. They’re just pro-health. And it just so happens that smoking isn’t good for your lungs.

Chris: Yup. And the overwhelming majority of evidence is pointing to a plant-based diet for optimal health. Obviously that’s what I adopted and still follow. And it's been 16 years. And weight loss is important. Not just because we want to look good on the beach. It’s important because obesity is the second leading cause of cancer. And so, for my audience, about half my audience are cancer patients and the other half are really into prevention because they’ve seen their mom, their dad, brother, sister, friends, sometimes children go through, suffer, and die. And so, this is just so important. So, it’s sort of a secondary mission for me to help people get back to a healthy body weight. One thing that I learned was that there was a study on cancer patients... I don't want to butcher the summary, but they found that just because they had a normal BMI didn't lower their risk. Because you can have normal BMI and still be overweight. And so, that gets a little tricky, right?

Dr. Greger: Well, that’s why you need...it’s critical to have....

Chris: It's like the belly fat, right?

Dr. Greger: Yeah. It’s critical to have, in addition to BMI, some measure of the visceral fat. That’s the fat underneath your abdominal musculature, deep inside, infiltrating your organs, coiled around your organs. That’s the dangerous fat. It’s not the superficial flab. And so, that’s why the current recommendation is both for BMI (body weight), plus some measure of abdominal... Typically it’s abdominal circumference. So, your doctor should be putting a measuring tape around your waist and give both. And what you want is an abdominal circumference less than half your height.

Chris: Yeah. I’ve seen some folks walking around about as wide as they are are tall. That’s concerning.

Dr. Greger: It's not a good thing.
Chris: So, has this changed the way you eat at all? Has your research on diet... I mean, you're a slim guy, so you're not struggling with weight or weight loss. But has it changed the way that you eat at all? In your dietary research?

Dr. Greger: Oh, well, absolutely. Everything I read. "Oh. I've gotta eat more parsley? I'll eat more parsley." "Oh, all of the sudden I've got to cut this all out. Okay." So, I mean, lots of big changes. So, for example, from How Not to Die, I tell people that's the problem with doing books. It's harder to change. As opposed to videos, you can just take down the video and put up a new video. So, in the original How Not to Die, I tell people to toast your walnuts, toast your Sesame seeds. So much more delicious, fragrant. That's the way I make pesto. Blah, blah, blah.

Chris: And doesn't it release some nutrients?

Dr. Greger: No, it's not that. It creates these inaudible products. When you expose high fat, high protein foods to high enough temperatures, they produce these glycotoxins, which are no good for you. And so, I actually talk about glycotoxins in the book and the top 20 sources – like Chicken McNuggets and broiled hot dogs. And they're all what you'd expect. But it turns out, I learned later that they put nuts in the tests. Well, yeah, duh. High fat protein, you expose them to the same temperatures. Yeah, they create these toxins. So, now I encourage people to eat raw nuts and seeds, nut butters. So, that was a big change for me.

And so, I mean, those kind of things were every day. I mean, that's where the daily dozen came from. The daily dozen checklists of all the healthiest of healthy foods I encourage people to add to their daily routine. I mean, it started as whiteboard checkboxes on my fridge. I'd read in some new study about how amazing legumes are for you – beans, split peas, chickpeas, and lentils. I'd be like, "When is the last time I ate some?" I was like, "Oh my god. Of course they're so good for me." I'd just get reminded by something like, "Oh, I've got to remember! Okay, I'm going to remember to eat beans sometime today." You know? And then, "Oh, I gotta eat greens. Oh, I gotta eat berries. Oh, I gotta eat a quarter teaspoon of turmeric. Oh, I gotta eat a tablespoon of ground flaxseed." And so, I was using it for myself. Now it's kind of second nature. And it's like, I would look down at a dish and think, "How can I add nutrition and make this healthier? I can add beans, I can add greens." I'm always thinking. But that's how it originally came out. It was my personal... There's so much great stuff out there I wanted to...

Chris: Good opportunity to plug the app! Because there's a daily dozen app.

Dr. Greger: Free on iPhone and Android: Dr. Greger's Daily Dozen. And it's now been updated to reflect the new book too. So, you can toggle over weight loss mode. If you're not just concerned about preventing or reversing chronic disease, toggle over weight loss. And then, it'll have the 21 tweaks on
There as well, which are all these weight loss boosters, regardless of what you eat the rest of the time.

Chris: Like time restricted and herbs?

Dr. Greger: And vinegar. Yeah. All that stuff.

Chris: Yeah. This is a great app because it’s literally a daily checklist to help you make sure you’re getting enough servings of greens, fruit, legumes, things like that.

Dr. Greger: It’s just trying to inspire people to include some of the healthiest foods.

Chris: Well, I mean, everybody’s tracking everything these days. Right? And so, it’s the perfect time. I know in my audience there’s just a lot of people that are really, really focused and hardcore.

Dr. Greger: Awesome, I love it. Well, we’re talking about cancer, right? If there’s anything to be hardcore about, it is the health and wellbeing of yourself and your family.

Chris: Yep. And so, look up Dr. Greger’s Daily Dozen on the iTunes and Android store. You mentioned changing everything every time you read something new. I’m the same way. Right. You read something and you’re like, “Oh my gosh, I need more nutritional yeast in my life.”

Dr. Greger: Exactly.

Chris: I’d love for you to talk about the difference between raw and cooked food, and which foods are really best consumed raw. Fruit is kind of obvious, but maybe in the veggie and other world. Raw versus cooked. And I know a variety of both is good.

Dr. Greger: Yeah. So, the bottom line, and boy, we can go deep in the details... But the bottom line is we should consume our vegetables in whichever way will get us to eat the most vegetables. If you like steamed broccoli, eat steamed broccoli. If you like raw broccoli, eat raw broccoli. Whatever's going to give you more broccoli. Period. Period. Everything else is window dressing. But I’m sure you’ve got some window dressing folks, right? And wants to know the details. Right?

Chris: Yes. Yes.

Dr. Greger: Okay. But that’s the bottom line, before we get into any of the weeds. So, for example, there’s some heat sensitive nutrients like vitamin C and folate. And so, microwaving broccoli two minutes, for example, cuts down vitamin C content by about 15%. But if you like cooked broccoli, then it’s fine. Instead of eating five florets of raw broccoli, you eat six florets of microwaved broccoli. Get all the same nutrients. I mean, so it’s like,
we're just talking about a little bit. But if you're like completely agnostic as to whether you like raw broccoli or steamed broccoli...okay fine, raw broccoli is better. Right? But by small amounts. People have the sense that cooking destroys the nutrition. And in fact, there are some nutrients that become more absorbable upon cooking. You get more beta carotene in your bloodstream eating cooked carrots then raw carrots. More of these cancer fighting lycopene (the red pigment in tomatoes) in processed tomato parts, in tomato sauce, tomato paste, rather than the raw tomatoes. You actually absorb more into your bloodstream.

Chris: Cooked tomatoes kind of fall in that category too, right?

Dr. Greger: Absolutely. So, I encourage people to eat a combination of raw and cooked foods. But I mean, what we can learn from the raw food boom is these big salads. Oh my God. I mean, these people eat like these mixing bowls like, "Oh yeah man!"

Chris: That was me, man.

Dr. Greger: I mean, that's great, pounding in lots of stuff. But you can add canned beans and other cooked foods to that. Throw some nuts and seeds in that, some fruit. Oh my God. So, if there's anything raw foodists taught us, it's having these big salads. Like choosing like a steady meal for the day. And you can, of course, mix it up with different things. But that's a great meal.

Chris: So, the raw foodists were the first people I found, when I was diagnosed with cancer. And I kind of tried to mess around with raw recipes and they're complicated and it was really frustrating. And I just kind of came to this conclusion that like, "I need to get as much produce in my body as I can."

Dr. Greger: Oh, I love it. I love it.

Chris: "And the only way I can do that, the simplest way, the most sustainable, manageable way is to make these giant salads." So, I had no science man. There was no science helping me at this point. There was no Nutrition Facts. There were no Dr. Greger books. This was 2004. But broccoli, cauliflower, kale, cabbage, onions, mushrooms...

Dr. Greger: Oh, I love it. I love it.

Chris: Lentils, sprouted mung beans, cayenne pepper, garlic, sauerkraut.

Dr. Greger: You're making me hungry.

Chris: Yeah, like red and green peppers. I mean, every vegetable almost.

Dr. Greger: Yeah, I know. Beautiful, beautiful.
Chris: And then, a little apple cider vinegar and a little bit of olive oil. I was doing an oil and vinegar thing. And even curry powder. And man, it's just a wild... You've got the sauerkraut and the curry powder and garlic.

Dr. Greger: Every bite is different with the different textures!

Chris: And apple cider vinegar. It was great. And so, I made this concoction. And I was like, "Well, this is great. This is delicious." And so, I ate that every single day for love lunch and dinner.

Dr. Greger: I love it. Wow.

Chris: Every day for years.

Dr. Greger: Wow. Fitting in all sorts of really good stuff. Like cruciferous, the allium family, vegetables. Great.

Chris: Yeah! So, that was it. And I was also juicing and making fresh carrot and beet juice and things like that. But those were my two staple meals every single day. And then, working in some fresh berries and fruit smoothies and stuff. But I was operating on very little information, a few raw foodists, a few cancer survivors, and some natural health experts. Just going from book to book. And some VHS tapes and stuff.

Dr. Greger: Beta max!

Chris: Yeah! So, just going from that stuff, like using that. And I was like, "I'm going to overdose on nutrition. This is the goal. If I'm not doing chemo, I've got to be just as hardcore massive action as I can." And it helped me get well.

Dr. Greger: That's awesome.

Chris: And so, that's what I'm still encouraging people to do. Like just eat a ridiculous amount. And that was about 15 to 20 servings of vegetables every day. With the juices and everything.

Dr. Greger: I love it! I love it! I love it!

Chris: Now, I know there's a newer consensus where they're saying now 10 servings of vegetables a day is optimal, as opposed to it used to be 5.

Dr. Greger: Yeah. Well, yeah. I mean technically, I mean the official recommendation is 9-13.


Dr. Greger: The official dietary guidelines.
Chris: That's great. The last thing I had seen was something about 10, which I was like, "Oh that's great. That's better than 5." But 13 is getting close to when I was doing and still do.

Dr. Greger: Great. Keep it up! I wish I could find that in airport food courts.

Chris: Yeah. Good luck. You can get a bunch of bananas, six bananas. Okay. I want to be respectful of your time. I just appreciate it so much, you taking the time to do this. You do 200 speaking dates a year.

Dr. Greger: It's brutal.

Chris: Do you post those on your website?

Dr. Greger: Oh yeah. NutritionFacts.org/speaking-dates. And it's in calendar form, and you can search for your city. You can sign up right there and get tickets or whatever. Yeah, yeah, yeah, yeah.

Chris: Go see Dr. Greger. Go to NutritionFacts.org/speaking-dates. He's hilarious. I mean, his talks are awesome. They'll blow your mind, A) with nutritional science, and B) he's just an amazing speaker. Hilarious. Just like so much personality. You do such a great job.

Dr. Greger: And if the talk is sold out, contact me through the website and say that Chris sent you, and I'll get you in.

Chris: Yeah. That's the VIP hookup right there. I love it. Dr. Greger. Thank you so much. This was really fun. Again, folks, brand new book. How Not to Diet. Is it officially a bestseller?

Dr. Greger: Absolutely! Premiered at number two! And of course, I was disappointed. But still, that's pretty good.

Chris: That's pretty dang good. Something to be happy about. How Not to Diet. You can get it anywhere. Bookstores, Amazon.

Dr. Greger: Or your local public library for free!

Chris: There you go. And How Not to Die. So, I'm giving a huge endorsement for both of these books. Amazing. They will blow your mind. If you really want to see what the science literature says about nutrition, about healthy eating, your head will explode in the best way possible. And again, I just want to give you a heartfelt thanks because the cool thing about you to me is that... I just told you what I did, right? I had no science. There were no studies.

Dr. Greger: Yeah. Amazing.
Chris:  There wasn't anything. I mean the books I was reading, back in time, were making claims. But there weren't references. There weren't citations. It was like nothing. Right? And so, I was just kind of like on a wing and a prayer hoping like, "I hope this is right." And my instincts and intuition were telling me like, "This has got to be good for you." Right? But then, when I started blogging in 2010 and sharing my story, I realized like, "Wait a second. Maybe I'm wrong. I know what I did. Obviously I'm alive and thriving and all that. But I need to learn more." And I don't know when Nutrition Facts started....

Dr. Greger:  2011.

Chris:  Okay. I found you probably around that time. Pretty early days. And it was like all the light bulbs were going off. And I got so excited to see like, "Oh there is evidence! It makes sense. This is why what I did helped me." Because in the back of your mind you're thinking, "Maybe I'm just a fluke. Maybe I'm just lucky." And I was like, "No. This is why what I did can help other people. Here's the evidence." So, again, one more high five for that. Oops we missed. Thank you so much. I mean, you've been a huge blessing in my life. You've helped me reach more people. You've brought research to me that I've been able to share with my audience. And I just appreciate being on the same team.

Dr. Greger:  So glad to help. Anything I can do to help, let me know.

Chris:  Awesome. Alright, everybody. Thanks for watching. Please share this video. Get both of Dr. Greger's books. Sign up for NutritionFacts.org email newsletters. Everything he does, pay attention to it. Follow it, do it, your life will be better. You'll be healthier for it. And that's the best endorsement I can give, right there. So, thanks for watching. See you on the next one!