



**Transcript of “Jonathan Bailor: SANE Solutions,  
Counting Calories & Online Trolls – #210”**

Bulletproof Radio podcast #210



## Warning and Disclaimer

The statements in this report have not been evaluated by the FDA (U.S. Food & Drug Administration).

Information provided here and products sold on [bulletproofexec.com](http://bulletproofexec.com) and/or [upgradedself.com](http://upgradedself.com) and/or [betterbabybook.com](http://betterbabybook.com) are not intended to diagnose, treat, cure, or prevent any disease.

The information provided by these sites and/or by this report is not a substitute for a face-to-face consultation with your physician, and should not be construed as medical advice of any sort. It is a list of resources for further self-research and work with your physician.

We certify that at least one statement on the above-mentioned web sites and/or in this report is wrong. By using any of this information, or reading it, you are accepting responsibility for your own health and health decisions and expressly release The Bulletproof Executive and its employees, partners, and vendors from from any and all liability whatsoever, including that arising from negligence.

Do not run with scissors. Hot drinks may be hot and burn you.

**If you do not agree to the above conditions, please do not read further and delete this document.**

Dave: Hi, everyone. It's Dave Asprey with Bulletproof Radio. Today's cool fact of the day is that scientists are able to convert human skin cells into the same kind of brain cells that help you to control your body movement. In the studies, these cells not only survived when they were implanted into mice, but they were functional in the mice brains just like other brain cells, which is kind of cool because we may be able to scrape something from your skin and then give you a movement upgrade which would be kind of cool and relatively safe compared to using someone else's stem cells or some stem cells that were grown in a vat somewhere in China.

Today's guest on the show is my buddy Jonathan Bailor. Jonathan is a New York Times best-selling author and a USA Today best-selling author. Jonathan, high-five for those.

Jonathan: Thanks, Dave.

Dave: I know how hard that is, because I have joined you on both those lists. It's an achievement to reach that number of people. Your book is "The Calorie Myth," which is a book that I have endorsed. Listeners have endured hearing me talk about it before. If you haven't heard past conversations with Jonathan, he's the founder of SANESolution.com. He's talked with hundreds of scientists but looked at 1300 studies over a decade to look at why calories aren't the end-all-be-all for weightloss or many other things, like they are a flawed way to look at food. He and I are in full alignment on that, so I hope this isn't too much of a love fest on the podcast, but I might have to give him a virtual hug.

Jonathan: I just want some of your skin cells, Dave.

Dave: Maybe we could do like a swap. New York Times best-selling skin cell bank. I'm sure there's a demand for four people on earth for that. What's cool is that you looked at the studies and then you have had some top doctors and scientists from like Harvard and Johns Hopkins and The Mayo Clinic and The Cleveland Clinic endorse your work. As a writer, it

feels good when you hear news that a "real" doctor has said do this. I heard just yesterday, someone posted like, "My cardiologist gave me a copy of your book instead of a prescription and so I just went to your page." I don't even know which cardiologist that was, but when I see that kind of stuff, it makes me feel like, you know, the hard work that goes into creating a book like the one that you just did, "The Calorie Myth," that it's worth it.

Jonathan: Absolutely, man. My hat's off to you. This work is so important. A funny story, like the one you just mentioned. One of the areas we're really trying to help with now is families. As you know, the childhood obesity epidemic is just heart-breaking, childhood diabetes. Recently got an email with a PowerPoint presentation attached to it. It was from a 15 year-old girl who had given a book report on "The Calorie Myth" to her health class. I was just like, "Oh my goodness; this is amazing." I just want to give kudos to you and kudos to your listeners for being part of the solution here, man, because we are all doing some important work."

Dave: Talking about important work, the other reason I always have fun chatting with you is that at Microsoft you were part of the Nike plus connect training Xbox fitness, like the whole biohacking using technology to see what your body is doing and then playing it back to you, similar to the stuff that I did with Basis and all. It's interesting we both are techies who came into this from hacking the human biology sort of perspective. What I wanted to talk to you about today is how you built a process and a system around the research that you have done. You already know what you know about the limitations of using calories as a way to view everything that happens in your body, but knowing that, seeing 1300 studies, putting it into something usable, how did you go about that process of making your SANE Solutions methodology?

Jonathan: We are still going through it because it is a Herculean task but the fundamental shift I think, what has made it easier is having a very clear, what some people call a commander's intent, which is just like the overarching rule. The example of this I have heard a lot is from the, blanking on it right now, but the CEO of Southwest Airlines, is that Herb Kelleher

Dave: That sounds right.

Jonathan: Okay, so let's say Herb Kelleher. He was like, you know, Southwest-

Dave: L. Ron Hubbard, wait, isn't-

Jonathan: Wait, Leonardo DiCaprio. Wait, no he played The Aviator. Dang it! All right, so Southwest Airlines is, most people don't realize this, but if you ask someone of the companies that existed in the I think the 1970s or 1980s and you invested \$100 in them, which company would have returned the most today. It's actually Southwest Airlines, because remember a lot of the big companies that exist today didn't even exist in the 70s and 80s. Anyway, when they were asking Herb Kelleher what one of his tips were, from day one he was like, "We will be the low-cost airline. We will be the low-cost airline." His team would bring him ideas. "Hey, can we serve chicken salad on our planes?" He said, "would that help us be a lower cost airline? If the answer is 'no,' the decision is made."

When we talk about eating sanely and we talk about creating this new system that makes these 1300 studies usable, we say, "Look, at the end of the day, you have a choice to make, because you can only focus on one thing. You can only have one top priority. It's either quantity or it's quality. One of them has to hold the top spot. We believe the top spot should be quality. That applies to many other things other than food. When you say quality holds the top spot, well then, for example, using a scale to measure weight, that doesn't work because that's a quantity measure and using calories to evaluate food, that doesn't work either because that's a quantity measure. We have to come up with alternatives that have a basis in quality and qualitative measure, that's a fun engineering problem, so I'm glad I'm able to combine the biology with the technology once again.

Dave: It's a little bit harder for the average person to understand that quality metric because, let's face it, if you ask the average guy on the street who is not into biohacking, who's not into eating to look good or feel good or whatever their nutritional practices are, they are going to tell you, "Well, it's about taste. I want pizza because it tastes good. I want whatever

tastes good. I want ice cream and I want French fries, and I'm craving it." The whole idea that food cravings are different than hunger is also not well understood by people because most people have cravings all the time.

How do you teach someone to know the difference between quality food and tasty food because neither of those is quantity?

Jonathan: Yeah, it's a challenge. I think, the only way I have found, and this has been a tough journey for me, because I'm Mr. Science. I'm sometimes a little too computer-like in my thinking, but sometimes all the science in the world isn't going to convince someone of something they believe emotionally. Right? I think it was Melissa Hartwig over at Whole 30, who I was interviewing her once, and she ... We were talking about something and she said, "Jonathan, that's a great logical explanation to an emotional problem." I was like, "Wow, that is a great way to describe this."

By way of analogy, by way of emotional appeal, if we think of our relationship with food like we would think of our relationship with another person, I think that's an interesting model because we think of quality time with someone and we think of having a healthy relationship with a person. When you think about food, we need to look at the quality of our relationship with food. I don't want to be crude, but I mean, you don't want to just put anything into your body. You don't want to just expose yourself to anything, from a people perspective, from a food perspective, so just like you are going to be discerning in the quality of music you listen to, and the quality of the people you associate with, doesn't it make sense to be discerning with the quality of food you are putting into your body? That's an intimate action.

Dave: I'd say you don't want to be in an abusive relationship with food? No.

Jonathan: You don't want to be in an abusive relationship and you want to understand that you deserve better. Another mental action is, I'm sure you see this a lot, Dave, where people say, "what should I do with my kids?" Or, "is this safe for my children?" Whereas we have this concept that like what we put into kids' bodies, that matters, or what we eat

when we are pregnant, that matters. Look, what we eat, what we put into any human being's body at any point in time, matters. I think when we understand that, we already understand it impacts children. It impacts pre-children in utero. It impacts you just as much now. Once you understand that and you feel the difference like you have and all your fans have, there is never any going back.

Dave: Yeah, it's getting people to feel that one day, like this is how it's supposed to be every day that at least sparks the fire. But then you find people who go, "all right, I'm going eat a high quality meal," and then they go to ... This seems like, they go to a raw vegan restaurant. For people who don't know it, I was a raw vegan for quite a while and you feel really good when you first do it. There's reasons for that and then it starts to create systemic weaknesses and sometimes autoimmunity and other problems, but you go to one of these places and you are going to get a plate with artfully vegetables that contain about zero calories or less than 100 or something. It looks all pretty.

It's probably got some nutritional yeast because it provides an MSG-like experience, which includes making you hungry. Then you are going to walk out of there going, "oh my god, I want ice cream. I want something sugary." Because your body is like, "you gave me a bunch of stuff and I don't even have enough energy to digest it." Then you are supposed to wear a medal, like a red badge of courage because you know, "I ate a healthy ..." but actually you made yourself weak, but you believe, because you have been taught this that you just ate a high-quality ... It was \$19 for that little piece of marinated asparagus or whatever. How do you show people, this is not high quality? It might have been clean. It might have been really good, but if you want a high-quality meal made out of that stuff, you better back up the truck because you are going to have to eat a bowl just to get enough calories in the fuel yourself, a bowl this big and it's going to take you two hours to eat it because you have to chew it. How do you teach that?

Jonathan: Backing up the truck is the first step, Dave, because we have to first agree on like we said, what is high quality? We can go around all day. If someone is just listening casually to this conversation, they are not really tuned in, they are like, "so your takeaway is eat healthy. Got it!"



We have to define what is healthy eating, what is high quality food. That is I guess the thing that I'm most proud of with the looking at all that research is what we tried to do is distill it down. My brand is SANE, but SANE is actually an acronym for what you could call the golden nugget from all that research, which are the things that you actually need to look at to determine the quality of food you are putting in your body.

The S stands for satiety. How quickly a food fills you up and how long it keeps you full. The A is aggression, so what the hormonal responses in your body. The N is nutrition or nutrient quality, so the ratio of good stuff to bad stuff. The E is efficiency or how easily your body can use this as energy or store it as fat.

If you can get people to buy into, and this is hard, because it's a little academic and we are still trying to figure out how to best communicate it, is look. Healthy means ten different things to ten different people and it's been so bastardized by society that we kind of need to throw that out and start over. We are going to say, we are not going to use the word "healthy" anymore. We are going to use the word "SANE," because SANE is a scientifically-proven framework that evaluates food and anything you can put into your body on an established scale. We can't really disagree because the scale is clear.

Once you do that, you just stack stuff on a SANE spectrum and you say, "Look, is it sane? Is it insane?" Much like your bulletproof diet spectrum and you say, the saner it is, the more of it you eat, the healthier you will be. The more insane it is, the more of it you eat, the sicker you will be. People already get that they need to eat healthy. They understand that conceptually, but that's so confusing that people say forget it. I'm just going to eat less food because that at least makes sense to me intuitively.

What we need is that clear framework about, look, we are talking about nutrition; we are not talking about morality. We are not talking about sustainability. There's nothing wrong with talking about those things, but those are different conversations. From a nutrition perspective, we know what's essential for human life. We know what foods provides the



most of what's essential and the least of what's non-essential or toxic, so why not just flood our body with more of that stuff?

Dave: That isn't rocket science when you put it that way. Just to say, look, more of the stuff that makes you strong and less of the stuff that makes you weak. Your sane framework is a good one. It has some of the common thinking that I think comes out of tech, even for the network engineers out there, there's the OSI model, which is the way we look at networks. There's all these different layers, like the communication we are having right now. There's the way that the electrons flow on a copper wire if there even is copper. The way that we look at light inside fiberoptics and then the way they talk to the level above it and the level above it. It's all invisible to us, but there's a way of thinking that tech people adopt, because we have to work on systems where you don't know what happened five layers down, and I see the flavor of that in the way you have looked at SANE.

You are like, "Here's the order of operations in SANE." You are looking at the S first, do I have that right in terms of like you wouldn't look at the E before you look at the S? Or is every one of those variables equally weighted?

Jonathan: Right, yeah. Every one of those variables is equally weighted.

Dave: Okay.

Jonathan: But they all need to be considered in unison, because that's another problem we face with the nutrition community, is something might be very unaggressive. Yeah, what's semolina wheat or however you pronounce that-

Dave: Semolina.

Jonathan: Pasta. Yeah, you know, it has a very low glycemic load and it has a small hormonal response. Well, okay, but what about its satiety? What about it's nutritional value? What about its efficiency? They're all equally weighted I would say, but what you do need to look at from an ordering perspective and this is one of the things we are most excited about, is

we are actually getting a patent on a, let's call it a Calories 2.0 or let's call it a SANE score. We are trying to develop one single measure that evaluates the quality of a food. Someday instead of just seeing the calorie count on a label, ideally you see a calorie count and a SANE score, which is just a red-to-green indicator. That algorithm is actually pretty interesting.

Dave: I'm eager to see the results of that work because there is other guy in the neighborhood called ANDI, Aggregate Nutrient Density Index. Tell me what you think about ANDI.

Jonathan: Well, ANDI and existing things like ANDI, because there are a couple of things like it, they inappropriately penalize food for providing you with energy.

Dave: Exactly. They tell you to eat foods that don't have any energy in them.

Jonathan: Right, that gets us back to the calorie myth, right? A calorie is an essential nutrient. Sometimes people call water an essential nutrient, which isn't technically true, but the people who are listening to this are smart enough to understand what we are meaning to communicate. If you don't eat calories, you die. Therefore, calories are essential. A calorie isn't a bad thing. It isn't a thing to be avoided, any more than water is a bad thing or a thing to be avoided. Saying that something has a low ANDI score because it provides you with more of an essential nutrient really doesn't make much sense.

Dave: It's really weird to me, because the perfect ANDI food would be a glass of water and a multi-vitamin. That's all you can eat if you want to maximize your ANDI score. Of course, you will die if you do that. Logically, it just makes no sense, but it is a hell of a way to sell kale for six dollars a pound, especially if it was picked by fairies. My kids have a fairy forest in the back yard, and I'm sure fairies picked their vegetables too, right? But you can make up mythical creatures and you can sell more vegetables for more than the cost of eggs, which have far more nutrition in them than a vegetable is going to. Vegetables might have different antioxidants and things like that; they are not substantially equivalent.

When I hear people coming on Facebook and they are like, "Dave, I'm working to eat a better diet that makes me feel better, but I'm on a budget." If they fall for the ANDI, honestly, I don't think it's intended to be a scam, but the ANDI application or mis-application of scientific principles based on a flawed assumption, they are going to spend their money on things that don't leave them full, leave them craving, suck up their will power, and they are going to wonder why at the end of the day they are dizzy and tired and they don't feel good and they yell at their kids. It's not okay.

I'm tired of grocery stores using ANDI to try and sell vegetables for more than meat and more than eggs and more than butter and more than the foods that provide us calories and essential fats.

Jonathan: It's unfortunate because, you are right, it's like calories. It's an incomplete measure. It's not that the ANDI score doesn't provide any useful data. In fact, from a SANE perspective, it's the N. Of the four factors that we look at, you could argue that one of them is ANDI, but that's one of four factors. That's it. You have to look at more than that. There's this oversimplification that takes place. Is it simple to say that the sum of any two numbers is 42? Yeah, it's really simple, but it's wrong. Simplicity can't be the only metric and that underlies the penchant toward calorie counting. It underlies the penchant towards the ANDI score and I think that's something we need to fix.

Dave: It's something that we can fix. Part of it is what you have done in your book, which is taking apart the calorie myth and saying, they are just not bad. A calorie that is filled with lead and cyanide is probably not a calorie you should eat. A calorie of high fructose corn syrup has a different metabolic effect than a calorie of corn oil than a calorie of candle wax, which you can't even metabolize. It's a meaningless word. In any thinking biochemical nutritionist way, calories are not a very useful thing to do except to figure out energy, which is a small function of food. Energy is not a bad thing in my world. In fact, when I travel, when I stay up late, when I am getting less sleep, this is a shocking thing. I actually burn more calories and I eat more so that I can sustain that energy. Who would have thought, right?

Jonathan: Absolutely, man. I think a great distinction, and I have seen this resonate with people of all walks of life is neither you nor I are saying that calories don't exist or that they don't matter. In fact, we are actually saying they are critical and they are essential for health, but a calorie is a unit of energy. To anyone out there who is like, "A calorie is a calorie." First of all, from a kindergarten logic perspective, you are correct. You are correct in the same sense that the following statement is true: "I have two 8 oz glasses in front of me. One of them contains 8 oz of gasoline. The other contains 8 oz of purified water." 8 oz is 8 oz in a kindergarten sense, but would you drink both of those glasses? No. Right? I have two rooms in my house. They are both the same square footage. One is full of oxygen. The other is full of carbon monoxide. Would you tuck your child into bed in both of them? It's the same quantity of gas!

Dave: Yeah. It just doesn't pass the sniff test when you look at it from that perspective. On the flip-side, I see, there is like a group of relatively angry trolls online who love to walk around going, "here's a study that says it's all about caloric balance and you just need to burn more calories. You need to work out more." They are actually right, in that if you put someone in a calorie chamber where you are looking at every bit of food or other energy they take in, where the calories go, including the breath gas that comes out, the CO<sub>2</sub> you are breathing out, the temperature. All that stuff, there is a caloric balance in the body, which is why this is one of those things that just won't die, even though it should online. Why, when you dig into this, because you have talked with a lot of the same sort of experts, the same sort of science I am familiar with, but I want to hear your answer on this because it may be different.

Why when someone says that stuff, why is it actually true? How does everything you say fall along because it's almost like they are showing a point that says calories do count. In fact, they are all that counts when you seal the system off.

Jonathan: By way of analogy, someone, let's say I'm a football coach. Let's say I'm the coach of the Seattle Seahawks because I live here in Seattle. Let's say that the Seahawks lost and I have a press conference afterwards and

they say, "Jonathan, coach of the Seattle Seahawks. We brought you in. We replaced the existing coach. He was doing so well because we expected you would do a good job for us, and your team lost. Why did you lose?" I look down and I say, "guys, the other team scored more points than we did. That's why we lost." I would be accurate. What I said is true. We lost because we scored too few points and the other team scored too many. What people are actually asking is why did that happen and what can we do about it in the future.

If you go to a psychologist to just overwhelm the analogies, and say, "I'm having problems. I'm really sad. I just had a crisis happen in my life, and I am depressed." The psychologist said, "I've noticed that people who aren't depressed seem to smile more and frown less than you do. The problem is, I think you should just smile more and frown less." It's true, right? People that are happy probably do smile more and frown less, but what you are really asking is why is that so hard for me to do? What underlying is going on? What's going on in my mind? What's going on with my football team that's causing this?

In both cases, the statement is true, but it's incomplete and useless. Will you be happier if you frown less and smile more? Probably. No one's really debating that. What they are debating is how should you live your life that causes you to frown less and smile more? Does that make sense?

Dave: That makes a huge amount of sense to me. We want to understand the hormonal impact of the foods. The corollary argument that the trolls will make is, "Okay, so let's just concede what you said, which by the way I don't agree with because you are a bad man." They usually say that too or some variation of that. Then what they are going to say though is, "If a high fat diet works, it only works because it makes you eat less. Ketosis doesn't do anything. It just makes you eat less." How do you respond to that?

Jonathan: The same people that make these troll arguments are usually people who are really into their physiques.

Dave: Have you noticed?

Jonathan: Have you noticed? Yeah. I come from that world. I used to be ... I have pictures of me at some of the first Arnold body building expos that ever took place back in Columbus, Ohio with Jay Cutler, with Ronnie Coleman... I understand that industry. To those same people, I would say, "Okay, let's say you change nothing about your macros," which they love talking about. Macros, which is short for macronutrient. You start taking steroids. Will your body change? OK? You change nothing about your caloric balance and you have changed nothing about your macros, but if you start injecting your body with steroids, will your body change? Yes or no? Yes, it will change. Therefore, by definition, because negative knowledge is really powerful, we have just proven definitively, there is something other than a macronutrient or a calorie that can influence your body. They then have to concede that point.

You and I aren't arguing that macros and calories ... We aren't saying that macros and calories don't matter. Our position is super easy to defend, both from a scientific and from a common sense perspective, we are saying it's an incomplete picture. But someone that says calories are all that matter, or macros are all that matter, I mean, that ... Good luck defending that position, because the same people who take that position are the first to tell you how effective steroids are and chances are half of them are on steroids and they have experienced what that's like. And that isn't affecting the calories of the macros.

Dave: Yeah. There's this metric. I looked a lot at farming and ranching because we are allowed to do things to those animals that we don't do to people except maybe in prison, which still isn't very ethical, and farmers look at results because they go out of business when they don't. There's this metric that I love, it's called feed efficiency. It's how many pounds will an animal gain on x amount of feed. Funny enough, they can add an mold-derived xenoestrogen, essentially a hormone, but it's derived from zearalenone, which commonly grows on some kinds of feed and it also does the same thing to us. It's about a 1000 times more potent than normal estrogen our bodies make. When they get this stuff, they concentrate it. They put it into a little waxy pellet; they stick it into the cow's ear and then it melts into their bloodstream basically through the blood vessels in the ear. When they do that, they get a 30% increase in



feed efficiency. That means they feed them a 1/3 less and they still get fat.

If that is possible, and you believe this calories in, calories out stuff, that means that the cow stood still a lot so that they burned less energy so they could get fatter, but they are not doing that. What happened was something that wasn't a calorie affected the fat deposition in the muscles and around the organs of the animals. That's just how it is. To see that study, and then say calories in, calories out, at that point, we can calories in, calories out might be a good heuristic, just like the Newtonian picture of the universe is pretty good except a quantum might be more accurate. It's just harder to think in that, so we can imagine gravity. It's a good model. But it unfortunately breaks down where the rubber hits the road.

That said, these debates, there must be like 10 trillion words of flaming back and forth about this topic and I'm to the point where we can have the conversation you and I just had. Maybe we should just take this clip, extract it, put it on Youtube, and always post it whenever someone does this because clearly in a calorie chamber, you can induce famine and you can induce weight loss. Of course those people gain the weight back more quickly and they tend to go crazy as Gary Taubes wrote about. I just interviewed him right before I interviewed you, like a couple of days I talked to him. Gary Taubes wrote "Good Calories, Bad Calories" for people who don't remember his name.

We know this stuff. It's established. For someone to, maybe I'm angry because I'm on too many steroids. I'm going to come back and spend another 10 hours on Facebook telling people calories are all that count. I'm done with that. There's so much written about and thinking people have come to that conclusion. You have come to that conclusion. That said, have you ever actually cut your calories on purpose to lose a little bit of weight?

Jonathan: The closest I came, so I have done two things. One was cutting. The other one was adding. I did intentionally over-consume the heck out of calories trying to get bigger and I couldn't. I think that's the easiest test. Look at naturally thin people and just over-feed them thousands and



thousands of calories and watch as they don't gain weight. The argument is okay. In fact, we talk about this in *The Calorie Myth* book. Okay, well that causes and increased calorie burn. Yeah, it's not that the calories in, calories out equation is a leprechaun riding a unicorn; it has some validity to it. It's part of the equation. It's part of the equation. It's not the entire equation. Back to your question.

When I was doing some of the intense research for the book that preceded *"The Calorie Myth," "The Smarter Science of Slim,"* one of the things I loved to do was to drink a whole bunch of green tea or coffee so a whole bunch of caffeine and walk on a treadmill on an incline for like three hours at a time while I was reading research studies because otherwise I would fall asleep because they are not the most interesting things in the world to read.

I was counting my calories out on those days and by doing that walking, I was increasing my calorie burn between 15 and 2000 calories per day. I didn't intentionally change my diet in any way. But I radically increased calories out. My weight changed in no way, shape or form. My over-feeding in my early years when I was doing double shots of olive oil trying to consume 6000 calories per day, I was unable to change my weight reliably in that case either. The only thing I have seen meaningful body composition changes, and I say body composition changes and not body weight changes is when I changed the quality of my eating. I increased the sanity, what I would call the sanity of my diet. For example, like nowadays, I just finished eating an early lunch. That lunch consisted of a meatloaf made of beef heart and beef liver and a green smoothie made of kale, Swiss chard, arugula, some macadamia nuts, and an avocado. Talk about a freaking sane high quality meal. That's a sane, high quality meal. My mind and my body have changed dramatically, but interestingly enough, my weight hasn't really changed.

Dave: Looking at your mind changing, given that your mind is using about a quarter of your calories, depending on how much you use your mind and how much you use your body, this whole food affects the mind thing is a big part of several chapters of my book. It's around will power. If you don't have enough energy to fuel your brain, then you will have less

energy for thinking. Do you buy that line of reasoning? There are people who don't, but-

Jonathan: One of the most compelling studies I have seen, and because, honestly it's due to a lack of studies, but starvation studies on humans. There's not a lot, because it's inhuman to starve someone unless you pay them and call them a personal trainer.

Dave: It's okay for models.

Jonathan: Exactly, and it's okay if it's on national television or that kind of thing. In the Minnesota starvation experiment conducted by everyone's favorite doctor, Ancel Keys. I mean, he did do some good stuff. The Minnesota Starvation Experiment was one of them. If you look at the rates of depression and psychosis that eating, wait for it, 1600 calories per day induced in males conscientious objectors, it's again, it's pretty irrefutable to say that starving the body is not going to have ... Do we really need to have a conversation about, if you put less fuel in your car's gas tank, that your car is going to be run for a shorter period of time? It's pretty common sense.

Dave: It seems pretty common sense. It's funny you mentioned the conscientious objectors. I'm filming a documentary that's going to come out in a couple of months. It's called "Moldy." It's about environmental toxic mold and what it does to your biology and how it's affecting 100 million people and they don't know it. This is stuff that grows in the wall of your house because we mess with our soil and it's messing with us back. I hired a film team and it turns out the guy who is doing the soundtrack and the audio on it is Eric Troyer, who is the lead keyboardist and singer for Electric Light Orchestra, which is a substantial band. I have had a chance to hang out with him. He has sung back-up on like half of the songs you and I have ever known. Really, just a cool guy. We have become friends.

He was a conscientious objector and he actually was one of those guys. I don't know if they did the radical calorie restriction with him, but he has stories about how, "Oh yeah, we could eat only exactly what they gave us in little boxes and we had to collect all of our pee and all of our poop

for weeks on end. I got used to that stuff." I'm like, "that's hardcore." That is the kind of stuff that they were doing to conscientious objectors back then. He was like, "It was better to do this than to go off and fight something I don't believe in." To hear the actual rubber hits the road stories from Eric, real science was done there even though it was really uncomfortable for the people who did it, because they didn't miss anything, at least anything they could measure. They didn't have mass spectrometers and whatnot back then.

Jonathan: Dave, I think sometimes, you know, people can debate all they want on the internet. That's wonderful. I'm not sure how much that's helping to end the obesity epidemic, but if that's how people like to spend their time.

Dave: It actually burns like 7 calories in ten minutes of trolling. It's true.

Jonathan: There is a couple different parts of your brain, right, as you all know. To anyone who claims to believe it's just about the quantity of calories you are consuming, I would be very interested to know what they feed their children or what they feed their pregnant wives.

Dave: Just granola bars. Nothing else.

Jonathan: If it's just about calories, then technically the guidance we give to pregnant women about what they should be eating is moot. They just need to eat calories, so that doesn't really matter. What you feed your kids growing up, why not? If they just need 2000 calories, why don't we just give them 2000 calories of Ding Dongs. It's super convenient. Then you won't have to cook at all.

Dave: They behave really well. In fact, I feed my kids just M&Ms, nothing else because there is a variety of colors and colors are the vitamins.

Jonathan: It's a good variety.

Dave: Calories are calories. Looking at, for people who have kids, it's the best experiment ever. If you think food quality doesn't matter, watch your kids go absolutely bonkers from eating poor quality food. Their brains cannot focus and kids want to be helpful, they just aren't able to pull it

off sometimes because they just can't bring it or they don't have the training. The difference in the quality of my life when my kids eat quality food is worth it just for reducing whining.

Jonathan: Absolutely man. Absolutely. I'm with you. Over the past year, there have been quite a few "episodes" where there have been these uprisings and people have posted things and at this point, I say to myself, "My rule is, is the time I'm going to spend right now helping to end the obesity and diabetes epidemic?" If the answer is no, I'm not going to spend my time on it because there is enough good that we need to do in the world, tying it back to earlier when you were talking about people writing in, seeing their life change. Anyone that wants to take up your time, anyone that wants to take up my time, anyone that wants to take up any of your listener or viewers' time saying, "Oh wait, you are trying to eat more sane, high quality, nutrient dense, energy rich food? Uh, I'm going to criticize you for that." I mean, dude, whatever. Some people want to watch the world burn, I guess cool. Knock yourself out.

Dave: There's two studies that I have come across about that kind of behavior. It was fascinating. One of them said that people who approach reality with a highly skeptical standpoint end up with 3 times the rate of senile cognitive dementia later in life, just on average. I have actually sent that study to online trolls. Good luck with your senile cognitive dementia. The level of skepticism here says we can't have a conversation about the science because there is just no conversation to be had here. The other study that is really interesting is one that the Huffington Post wrote about, or was a post on Huffington Post anyway, where I first saw it. It was looking at what happens with people who are really into the trolling and what is their psychological profile. The headline on this was, "It's true. Online trolls really are psychopaths and sociopaths." They looked at the incidence of those pathologies in people who profess to get pleasure from these online arguments, and it was kind of disturbing.

There's this really cool technology. I found I was wasting a lot of energy so I had to eat more because of these online things. I'm like, I'm working to help people here. Maybe I'm wrong. I'm willing to talk about the science and I'm willing to be wrong and to own it and then to correct it if I'm wrong. This is about a body of knowledge that supports the

operating system for humans. When this happens, I am burning all this energy and I can either continue to do it, and then eat some dark chocolate while I'm doing it so I can keep my energy balanced so nothing bad happens, or I can use the technology called ban.

It occurred to me, when I was looking at the energy balance between me and a troll, they write all this crap which is usually a bunch of personal attacks mixed in with some calories are all that matters kind of stuff and it takes them like ten minutes. I'm just going to assign one calorie per minute, so they used ten calories. It takes me a quarter calorie to click ban. From a caloric balance, I am actually losing weight when I ban trolls. The science is really clear, because the calorie balance, you see?

Jonathan: Oh, man. I forget who I was talking to, but it was related to this. Look at people who are really dialed into life, whether or not it's dialed into being just an amazing parent to children or whether it's being the president of the United States, or whether or not it's running a non-profit organization, or whether or not it's writing great poetry. People who are going to have hella eulogy, like when they die, they are going to have a lot of stuff that people are going to say about them, how much time do those people have to write negative nonsense on the internet?

Dave: Not a lot.

Jonathan: Not a lot man. In some ways, what I was having a conversation with this person, I used to get angry when I saw troll stuff, man, but I get sad now because it's like, "Damn, man," ... I'm sorry to curse ... I'm like, "What is going on in this person's life where they literally have nothing better to do than this?"

Dave: There's an explanation. It's actually in your book. What happened is they cut their calories so far that their pre-frontal cortex, the part that's supposed to regulate their emotions was disabled to a certain extent and they can only get energy from causing cortisol spikes from eating foods they are allergic to or MSG or something like that. They are sitting there, flying on cortisol, which makes you angry. They are probably shooting up some steroids so they can look pretty while they do it, so you got 'roid rage and inhibited pre-frontal cortex and they sitting there,

spreading, I don't know the right word for it ... Spreading shit on other people because they are too tired and they get a little charge from that which makes them at least wake up a little bit.

I don't want to sound super negative here, but I see this as actually what's happening. It's sad. It's really sad, because when people are well-fed, when people feel safe, when they are well cared for, when they have intact communities and friends, they don't act that way offline or online. The epidemic of it happening online has something to do with nutrition, it has something to do with antinutrients. It has something to do with trauma and other psychological things that aren't food related. When you mix all that stuff in there, it is sad. The question then is are you going to let that behavior work in your community? My policy is, look, if you are attacking other people on person stuff, you probably aren't a good fit for the whole thing we are doing here at Bulletproof, and if you do it over and over, I'm just going to click the ban button and it's okay.

If you come in and say, I don't agree with this, I don't understand it, I have a question, then, hey, that's what it's all about. That's fun. That level of do you approach a discourse from the perspective of a starving person or a person with adequate calories to think, it's entry-level for me, anyway.

Jonathan: Dave, I've never actually thought about it like that, but anecdotally, it's really interesting to note the eating habits of people who seem angry.

Dave: There's two big camps of them. I bet you can identify which two camps I'm talking about.

Jonathan: Yeah, it's like, all you happy people who seem to have your stuff together. You are wrong. Ignore the results in your life, and how you look and feel. You are wrong! Ah! I'm like, "Wow, man, you are not really making a good case for yourself."

Dave: I think personally, 30 bananas a day is not as good as 31 bananas a day. Let's face it. Because it makes you so calm and it makes you a kind person. It really does.



Jonathan: You know..

Dave: ... watching myself, it makes me laugh.

Jonathan: You know, David, I think the neat thing, man, is people are going to say what they are going to say, but what I love is that if you look at ... This makes me happy inside simultaneously. Sometimes I get sad when I see this negativity on the internet, but then I walk down the street and talk to a normal person and ask them what they think about fat, and they tell me, "I think it gets stuck in my arteries because it's solid at room temperature, and I think it causes heart disease." Not only are they not reading the trolls on the internet, but they are actually not ...

We get scared. Oh, no, this bad information is going to negatively affect people. There is so much confusion out there and there is so much good work to be done that we need to focus on helping people on the things that I think we all agree with, which is I don't know ... I don't really spend much time reading what the trolls write, but I would imagine that even the trolls would think that feeding your child whole foods found in nature is probably preferable than an isocaloric diet of Doritos. Okay, cool man. We actually do kind of agree on something, so if our message is furthering that, maybe it should be focused on that. People in our country are dying. I'm not exaggerating. The global economic burden. McKenzie just did a study recently where they said the three biggest scourges on our planet. One is armed conflict, which has a global economic burden of, I think it's like 2.2 trillion. Then there was tobacco, drugs, things like that was 2.2 billion or 2.1 billion and the next one was obesity. It was at like 2 billion.

It's great that you have a six pack and you did this to get that six pack but right now people aren't dying from a lack of a six pack. They're dying from a basic understanding of that which is essential to their body, and I think we can all agree that calories are essential and that there are a bunch of other nutrients that are essential, and we can also establish pretty clearly which foods are richest in those essential things and then shouldn't we just eat those? What's the deal?



Dave: It's not rocket science there. But the six pack conversation is so polarizing. I posted something last week on the Bulletproof Facebook page. It was an article that said basically why I don't want a six pack. It was from a woman, she had a picture of her abs, which looked perfectly healthy, like a fertile woman's abs looked like in that they weren't completely chiseled, but they were shapely, and they had a layer of subcutaneous fat, which is high in DHA, which feeds the baby, which is why fertile women have hips and butts. They are storing up DHA. This was the topic of my first book, "The Better Baby Book." What do you eat before and during pregnancy to have kickass kids.

To see her write that was really cool. Almost 500,000 people saw this thing that I reposted. There was a couple hundred comments there. A whole bunch of them were super angry, like "How dare you pick on six packs?!" Her thing was, "I used to have a six pack, but I didn't feel good and I was cold all the time. Now I got rid of my six pack and my health is back and I'm menstruating and all that." All those things are completely glossed over by the calorie discussion but they are part and parcel of being a human. It's having the hormones in your body do what they are supposed to do for the age and sex that you. Stuff like that is missing from a lot of the online discourse. When you include "How do I feel today?" In the equation, you have to go toward something more like SANE, something more like Bulletproof, something more even like just Paleo or whatever else, versus "I'm going to eat what tastes good," because I think we have shown that doesn't work.

Jonathan: I think another thing that's missing from the six pack conversation ... I'm going to tip my hat to the folks with the six pack. I have a six pack. That's because it's a skill. It's a hobby of mine. There are some people that are really good at basketball. What you do to become really good at basketball is not ... I'm not going to criticize people who don't want to be good at basketball for not shooting 100 free-throws every day. It's probably true that if you want to become a great free-throw shooter that you need to shoot 100 free-throws per day. But to say that people who don't shoot 100 free-throws per day are wrong or bad, would be obviously false. Having a six pack for the majority of the population is a skill, and it is a skill that you need to conscientiously put your mind to

and say this is a priority in my life. It's not natural. Most people don't just have a six pack.

If that's a goal of yours, there are certain things you are going to need to do to make that happen. That's fine, but let's not conflate having a six pack with for example changing your cholesterol profile. They are completely different things. We conflate these things together as one thing. This is the way you should eat. False! That's not even a complete sentence. The complete sentence is: "this is how you should eat to \_\_\_\_". "This is how you should eat" is actually an inane sentence in and of itself. It's not a complete thought. It's "this is how you should eat for x." How you eat to get six pack abs I would argue does involve calorie counting for most people.

Dave: Yeah.

Jonathan: But I would argue that most people don't have the goal of having six pack abs, so why are we even talking about this, not you and I, but the internet.

Dave: Yeah. It's well said. If you want to cut calories, it takes will power, and will power is a finite resource. You can spend it on your abs, or you can spend it on changing the world or getting a better job or being a better parent. Maybe you are one of those people who can pull off all of that stuff at once because you are just steeped in will power and your mitochondria are rocking it full or something. Hats off to you. I don't know how to do it. I have a six pack right now. I have a ton of stretch marks on top of it from when I weighed 300 pounds, but I don't work on having a six pack. It just kind of happens. If I eat something that inadvertently caused inflammation, funny the six pack goes away and then it comes back three days later because it's not fat; it's inflammation.

A lot of people who don't have six packs are just inflamed. They're not even fat. Jonathan, we're coming up I just realized towards the end of the show, and it's always easy to talk with you for a long time, because you get it. Now, there's that question that I've asked every guest on Bulletproof Radio except for that episode 66 and we're I think at like

almost 210 episodes now. You have answered it in episode 81, but I want to see if your answers are different because I don't think you remember what they were. Actually, I'm hoping they're different. The question is, if you had three recommendations from everything you have learned in your life, recommendations for someone who wants to kick more ass ... You want to perform better at whatever it is you are doing, do these three things, what are they?

Jonathan: Eat more green vegetables. Sleep more. And maybe like lighten up / love more. Man, I used to get so amped up about stuff. I just used to get like angry and then I took a step back and I started talking with moms more. I actually don't have children, it's just me and my wife. I come from a very small family, and I live far away from them. The more time I spend around other people's family, like my wife's family, and I started getting more involved in helping moms learn how to feed their children, dude there's a great big world out there, like a lot of people that need a lot of help. When you get a little bit of perspective, either through your own children, through your own family, or through other people's, dude there's not enough time to be angry. There's not enough time to be stressed, so eat vegetables, sleep more, and love harder. That's what I would say.

Dave: Basically, you've got eat, sleep, sex. You are so primal. Just kidding. I had to twist your words into something you didn't say.

Jonathan: I love it.

Dave: Now on sleeping more. I have some people who sleep 11 hours a day. Are you saying they should sleep 12?

Jonathan: I would say from a baseline, if you look at the average American would be better served by eating more vegetables, sleeping more, and loving more.

Dave: I fully agree with that statement, and that's cool. Thank you for being on Bulletproof radio. Jonathan Bailor, can you give me your URL and where people should find you because I'm pretty sure people listening are going to want to check out the SANE way of thinking about their food?

Jonathan: Our new site and our new business, it's really exciting. We got funded and we are essentially a start-up now officially, so it's pretty neat.

Dave: Congratulations. I didn't know you got funded. Well done.

Jonathan: Thank you so much. We are in the process, it's a big undertaking, of essentially building ... let's call it, for lack of better terms ... I hate comparing myself to existing stuff, but it's an easy way to explain it ... Weight Watchers 2.0. Weight Watchers says, "Look, we are just going to provide a bunch of tools or systems that people or corporations can use to help them eat less." We are providing a bunch of tools and systems and apps and educational resources to help people eat saner, higher quality food. Instead of calorie counting apps, we have food quality apps. Instead of calorie counting meal plans, we have the ... It's the counterpoint.

If you want to eat 1200 calories of whatever, you should use Weight Watchers. Whether or not that's a healthy choice, we can talk about later. If you want to increase the sanity or the quality of what you are eating, we have got an alternative for you at SANE solution. We will provide a comprehensive suite of tools for you.

Dave: I'm pretty sure that when the Bulletproof coffee shop opens, hopefully within about 2 weeks of when I am recording this, maybe 3 weeks, that we will have a whole bunch of menu offerings other than Bulletproof coffee obviously. We have a full menu with grass-fed meat and all that, but the whole point is, when you walk out of there, you should feel full and no cravings and buzzing with energy. Shocking that food can do these things, but I think that will pass the SANE meter.

Jonathan: Ah, so people will go in there with their SANE app, they will snap a photo of what they are eating, they will get their SANE score, they will share it with their friends, and they will feel great.

Dave: That is awesome. I wish you the best of luck with the new company. It's so cool. I had forgotten you were in Seattle, because I am a float plane away. The new Bulletproof biohacking labs are going to be done real soon now and when that's up and running, there's going to be some



pretty incredible tech that we will have you over for an afternoon and eat some butter and grass-fed meat and things and dip you in ice tanks. Things like that.

Jonathan: That sounds fabulous, Dave. I'm looking forward to it.

Dave: Awesome. Jonathan, thanks for being on Bulletproof Radio.

Jonathan: Thanks, Dave.

Dave: If you enjoyed today's show, you can get a lot of them by downloading them from iTunes, and I would love it if you said thanks by heading over to bulletproof.com and picking up a Bulletproof product because that is what funds this show. I have done two of these a week for just about two years straight. It's an enormous amount of work to do it, to put it together, to edit this for you guys. I do it, I don't charge for this, I don't have a bunch of sponsorships. I don't talk for a half-hour about the latest cell phone plan. None of that stuff. That's because, you come and you get your coffee from a lab-tested source because you know brain octane works for you. Keep doing it. Thank you so much, and have an awesome day.

## Featured

[Jonathan Bailor](#)

[The Calorie Myth](#)

[Sane Blog](#)

[Sane Solutions](#)

[Jonathan Bailor on Facebook](#)

[Twitter - @jonathanbailor](#)

[Jonathan Bailor on Youtube](#)

[Sane Solution on Pinterest](#)

## Resources

[Stem cells](#)

[USA today](#)

[Ney York Times](#)



[Childhood obesity epidemic](#)  
[Childhood diabetes](#)  
[Nike plus](#)  
[Xbox fitness](#)  
[Basis](#)  
[Commanders intent](#)  
[Herbert "Herb" David Kelleher](#)  
[Auto-immunity](#)  
[Nutritional yeast](#)  
[Monosodium glutamate \(MSG\)](#)  
[Melissa Hartwig](#)  
[Whole 30](#)  
[Aggregate Nutrient Density Index\(ANDI\)](#)  
[High fructose corn syrup\(HFCS\)](#)  
[Macro nutrients](#)  
[Feed efficiency](#)  
[Lead](#)  
[Cyanide](#)  
[Steroids](#)  
[Estrogen](#)  
[Xenoestrogen](#)  
[Zearalenone](#)  
[Gary Taubes](#)  
[Good calories bad calories\(book\)](#)  
[The Smarter Science of Slim](#)  
[Ancel Keys](#)  
[Starvation experiment](#)  
[Eric Troyer](#)  
[Electric Light Orchestra](#)  
[Senile cognitive dementia](#)  
[Internet Trolls Really Are Horrible People](#)  
[Pre-frontal cortex](#)  
[Why I Don't Want A Six Pack](#)



[Docosahexaenoic acid\(DHA\)](#)

[Subcutaneous fat](#)

[Paleo diet](#)

**Bulletproof**

[Bulletproof Coffee](#)

[Bulletproof Diet Book](#)

[Bulletproof Conference](#)

[Moldy Documentary](#)