



**Transcript – June Q&A: Psoriasis, Soda Replacements, Alternative Education & More - #322**



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Speaker 1: Bulletproof Radio, a station of high-performance.

Dave: Hey, It's Dave Asprey with Bulletproof Radio. Today's cool fact of the day is that if you're getting cold, maybe you should consider eating a few more Bulletproof foods because it turns out that maybe 12% of your daily calories are used for thermogenesis, which is a process needed to keep you warm, digest food, and fuel your response to stress.

This is not well known, but your mitochondrial efficiency can drive how good you are at thermogenesis. In other words, in some people they eat calories and they get warm, other people they eat the same amount of calories, they don't get warm, they store fat. That's one of the reasons that a calorie is not just a calorie, and if you believe in conservation of energy or some other misapplied principle of physics or chemistry then you need to rethink that because we are complex systems and a calorie is simply not just a calorie. If it was, you could eat coal for dinner and you'd be just fine and that doesn't work and we know it.

I figured it out, I've discovered the key to an amazing shave. It's simple, it's exactly what [dollarshaveclub.com](http://dollarshaveclub.com) does and why I'm a happy member like millions of others. [dollarshaveclub.com](http://dollarshaveclub.com) delivers amazing razors right to my door for a third of the price of what the greedy razor corporations charge. That means when you join the club, you can afford to shave with a fresh blade any time you want which feels fantastic.

I get a first class shave when I use the Executive Blade and that's without even hurting my wallet. When I use the Executive with their Dr. Carver's Shave Butter the blade just gently glides for the smoothest shave ever. It's not your average shave cream. It has high-quality ingredients to make your skin feel soft, smooth and moisturized. In order to get the most amazing shave possible, take it from me, use a fresh DSC Executive Blade and Dr. Carver's Shave Butter. Those are two reasons you should join Dollar Shave Club today. Head on over to [dollarshaveclub.com/bulletproof](http://dollarshaveclub.com/bulletproof) today. That's [dollarshaveclub.com/bulletproof](http://dollarshaveclub.com/bulletproof).

Today is one of my favorite kind of Bulletproof Radio episodes because I'm here with Dr. Mark Atkinson who heads the Bulletproof Training Institute and we are here to answer your questions together. What we've done is we'd ask you to post on social media and on the blog on comments, Twitter, wherever else you like to do it, we collect your requests and answer those questions here. I'm really grateful that you did that.

Before we get going on the Q and A, check out [bulletproofconference.com](http://bulletproofconference.com) which is where you can go to get information on this. We're expecting more than 2000 people at the conference. There will be a whole 50,000 square foot floor laid out and we are going to have all sorts of experiential things. We can actually experience biohacking, not just have some lectures. You'll get lectures from world leaders of course, but that's not all, you get the community and you get the experience of hands-on biohacking. Those are my favorite things to do every year. I'm looking forward to seeing you there, head on over now and you can still save money on your tickets.

If this is your first time ever listening to a Bulletproof Q and A, this is Dr. Mark Atkinson and Mark is not only the leader of the Bulletproof Training Institute, he is an integrative medicine physician and he's been working at Bulletproof for about a year now. I've really enjoyed getting to know him and you should check out the other episodes because he knows a lot about Bulletproof. He has more medical perspective. We're both big fans of personal development, personal growth, the psychological side of high-performance, entering flow states and things like that, but having the medical side and the hacker side combined for Q and A means you're going to get answers that are like no other. Mark, thanks for making it out to the set.

Mark: I'm really excited to be here and just looking forward to getting on and answering some of the questions we've got.

Dave: Now, you may notice something. In fact, you should be watching the videos. If you haven't checked out the video, we're now running a three camera setup. We have professional video editing, so you can head on over to [bulletproofexec.com/youtube](http://bulletproofexec.com/youtube) and that'll give you a link to our channel.

If you are watching you'd see, for instance, that I have something in my glass that is not Bulletproof Coffee. The reason is that I'm here with Mark, who, if you heard him speak, is obviously from Great Britain and he's been teaching me to hold a cup of coffee with my little finger up. I'm doing that to be polite and actually what's in the cup is from the garden. It's an infusion of, let's see, lemon balm and peppermint or spearmint, some sort of mint family that I cut down on the way out here and it's because we're recording this later in the evening, and I actually don't want any caffeine and I didn't have time to brew some Bulletproof decaf, plus it's kind of cool. It's full of green stuff.

Mark: It tastes great as well. Okay, question number one.

Dave: Let's do it.

Mark: This is from Stephanie, she is aged 29. "Hi Dave, as someone who gave up soda almost two years ago, I need something to replace soda with, so naturally I turned to mineral or sparkling water. There are two specific brands that I tend to reach for and that is Topo Chico or LaCroix. I was wondering if you've been able to delve further into what the long-term effects of these types of beverages and what that realistically looks like in terms of the volume of, at the volume you're doing more harm and maybe just replacing your soda with something that isn't a ton better. Thanks in advance."

Dave: I have lots of thoughts on this but I'm curious what the physician side of things says.

Mark: I get asked this a lot by my patients when they start coming off cola and sugar based beverages, or high fructose corn syrup. They say, "Well, what do I drink?" I say, "There's a couple of options here." We also like sparkling mineral waters because particularly for those people who may be have chosen not to drink alcohol anymore because they feel so much better when they don't drink alcohol. I also like sparkling mineral water. I'm big fan of San Pellegrino. I know you are as

well. I'm really pleased this is a question that's being sent in. Some people say, "Well, you know isn't sparkling mineral water a weak acid? Is that going to affect my health?" The absolute answer is no as long as it does not have sugar in it and it's citric acid as well. Then also you have to have to drink a lot of it to harm your health. Basically most sparkling mineral waters are pretty healthy and we're big fans of San Pellegrino because of the sulfate content.

Dave: It's kind of funny, this who acid alkaline thing. There is a circadian rhythm to your acid alkaline balance and Steve Folks who's been a guest on Bulletproof Radio, guy who's one of the world most expert guy on smart drugs and a personal friend and advisor to the Anti-Aging nonprofit that I run. Talks a lot about this and in fact, he might have even talked about this at one of the conferences. Here's the thing. You want to change your body's pH really rapidly, it's called breathing. Carbon dioxide makes your body more acidic. It's not like acid is bad and base is good. You can actually have something called hyper alkalosis, where your body is too alkaline and it actually kills you. Funny enough, on the Bulletproof diet which is full of bad acid forming foods, I actually was borderline to alkaline which technically if you believed all the mumbo jumbo about acid alkaline balance wouldn't be possible.

That said, you can have too much acidity or too much alkalinity but it's not as simple as don't drink soda. I can tell you categorically don't eat a lot of fructose. Don't eat sugar. Stick to the principles of Bulletproof diet but if you did drink more of the sparkling water and you did get a higher amount of CO<sub>2</sub> which raised your acid levels it would actually then cause your body to use more oxygen and you would balance it out. You would breathe. I don't have any concern about that whatsoever. The brands you're talking about I don't know what's in Topo Chico or LaCroix. I like to get a glass bottle to avoid some of the plastic bottles. You can get safe plastic but not everyone uses it.

The other thing is there's something called TDS which is Total Dissolved Solids. This is a measure of the amount of minerals that are in your water but TDS is not necessarily good for you because they don't tell you what the Dissolved Solids are cadmium, lead, and uranium you got a little problem with your water but it does have a high TDS count. If it's mostly calcium, you also can have a problem there because getting excess calcium in the body tends to not be good for you. It affects your mitochondria, it affects calcipitation of your tissues. It's one of the reasons that I recommend that you take magnesium but not calcium especially if you consume dairy. Butter isn't a high calcium dairy but if you're eating milk and cheese and things.

What I like about San Pellogrino is not that it's owned by Nestle which is like an abusive company from some perspectives around water rights, particularly I do believe that water is a fundamental human right and the head of Nestle is on record saying that he doesn't believe it's a fundamental human right. That is evil. If you're listening Mr. Head of Nestle whose name I don't know who you are, seriously we got your number. That's not cool. The people have to live here. When they don't have water, they will try and kill you and me so let's make sure everyone has water, all right?

That said, San Pellogrino is a healing spring and it has been for hundreds, maybe thousands, of years. It's become there's a high amount of sulfate in water and with the right gut bacteria, you can actually vitamin D sulfate when you're in it. People get better when they drink that water.

It's the only water I've been able to find that has that. I can suspect that the Whole Foods brand of sparkling water that's also from Italy that's probably bottled next door is also high in that but I don't know for sure. There are various other brands. There's even a calculator online, I don't know the URL off the top of my head, that'll tell you what dissolved solids are in what waters. Bottom line is if you like bubbles, enjoy the bubbles. You're not going to harm yourself. If you like sugar, don't!

Mark: Just to add to that as well, what I find with some of my patients is that those having cravings throughout the day, so rather than kind of indulge the craving, pour yourself a glass of sparkling mineral water. Those release some glass, actually can create an experience or feeling of feeling a little bit kind of full as well. With all those type of things, experiment which means use your chosen brand and see how it makes you feel. When you drink it, if you feel good and it hydrates you and you look good and it hydrates your skin, then that's great. If it doesn't feel good, then change what you do. At least monitor the impact it has on you.

Dave: One of my oldest friends, his name is Lance, is competitive kick boxer. He actually talked to me years ago, he's like, "Dave, when I drink sparkling water my workouts just aren't where I want them to be. I don't feel good, I quit drinking it." It didn't work for him. There is something that happens in a workout where you want to start out with acid and then you want to finish with alkalinity. There's actually ... I believe there's a rowing team or swimming team or something that changed the pH of their drink as they were racing to account for this. He may have been hitting that, where he raised acidity when he needed to be in alkaline zone for endurance. I have no idea. It's not like anything can't have an affect like that.

The other thing that's not well known about this, I love the science behind this stuff, is that we have these taste receptors in our mouth that are not well known. There's the normal sense of taste that we're all taught about in grade school but we also have this sense for umami which is the savory taste. Basically it means MSG. There's naturally occurring MSG. These are unbound glutamic acid and it tastes shockingly good to us and it triggers food cravings. It actually makes you more hungry so I actually advocate cooking in ways that do not create umami and instead using savory flavors that come from herbs like oregano and sage and things like that. Umami is a different taste.

We also have a taste bud for fat which is independent of all the other flavors. That's why if you put Brain Octane oil in something, like white rice it tastes dramatically better but it doesn't taste like butter rice, it tastes like white rice but more like white rice. It's because you activated a second receptor. You also have a carbon dioxide taste receptor that no one recognized before. The reason, and it's stronger in some of those than others especially if you're a super taster like I'm very perceptive on my taste. I suspect if you really like these things you probably have more carbon dioxide or better carbon dioxide receptors for taste on your tongue and it feels good to have it and I like doing what feels good.

There's a lot of science there behind what you drink but I think we're pretty good. Maybe throw some lime or lemon juice, that's what I like to do.

Mark: Absolutely. Just kind of squeeze fresh lemon, lime, that's great. Okay, next question. This is from

Carrie, age 26. "I would love more information about psoriasis. Treatment, causes, genetics, hacks, food, leaky gut. Thank you very much."

Dave: Wow, lots to do here. You want to start?

Mark: Absolutely. Maybe let's just take a big picture step back. Let's talk about what psoriasis is.

Dave: I can do that.

Mark: It's an autoimmune condition, predominately affects the skin. If you've never had psoriasis, you probably seen someone who has it. It's classically a red itchy, scaly rash. It can be really very disturbing for someone who has it. You tend to get it on the elbows, the knees, the scalp, the back, and it affects a lot of people. You're looking at about 7 and a half million Americans will have psoriasis. 125 million people worldwide with psoriasis.

Dave: It's getting worse as I understand it.

Mark: It's getting worse as is the trend for most autoimmune diseases as well. What we do know about psoriasis is there's a significant genetic component to it.

Mark: It has that underlying susceptibility and what seems to happen is there's a meeting of biological factors and environmental factors which can include infection which come together to trigger this. What we now know is there's a particular type of immune in the skin called the T cell that basically gets activated. It thinks the skin is being under attack so it responds as such. It floods that patch of skin with this inflammation. Normally the turn around time for skin cells is about 28 days. Someone with psoriasis is 2 to 3 days. It's very distressing. Traditionally you go to your conventional medical doctor. You're going to be given things like steroids. You're going to get vitamin A, vitamin D, and aloe creams. You may get narrowed band UVB ray. I've worked a lot with people with psoriasis. Most people integrate functional meds and the first thing there is to know there is so much that you can be doing. What I'll do I'm just going to map out a big picture and we can talk about some of the specifics.

Dave: Absolutely.

Mark: I think the first thing is to reduce inflammation. How do we reduce inflammation? First of all, we start making healthy food choices and that means actually about avoiding sugar, refined carbohydrates, really importantly food sensitivities as well. There's no quick to inflame your body than consistently eat foods that you're kind of sensitive to.

Dave: If you were to look at Bulletproof road map, just the suspect foods, those are usually the triggers but eggs which are on the Bulletproof foods may be a trigger for you as well. They're actually a relatively common allergen but egg yolks are such a powerful boost for your performance that they're in that green zone. You should just get a blood test, I would say. What do you think about that? If you're dealing with psoriasis, you need to know.

Mark: You absolutely do and you got to start with your food and also then really, the health of good

gut as well is important. We know that we have trends of bacteria that live inside our gut and that bacteria is constantly influencing the biology of our body but also the psychology. How we think, how we feel as well. We often find people with what's called dysbiosis. That's imbalance in the gut flora. Taking a high quality probiotic at the same time as eating healthy, really important. Some people will have fungal infections or bacterial dysbiosis so working with a functional medicine practitioner. If you get abdominal cramping or loose stools or bloating or a lot of wind, then there's almost certain you're going to be dysbiosis then.

Dave: That comment just applied to probably 3 quarters of people listening.

Mark: That's right.

Dave: Few people have healthy guts so we're talking about 1 autoimmune condition but the number of people with an autoimmune condition is remarkably high and the approach is very similar for pretty much all of them. Don't kind of tune out on this part of Bulletproof Radio because we're talking about the recipe for making your immune system behave itself which is the root thing you do to make psoriasis better.

Mark: Absolutely. Everything that we're saying is kind of core principles of what's required to restore the vitality of your body. Along with that is also managing stress. Stress creates inflammation in the body and so doing things you're passionate about, having downtime, having a relaxation practice of some sort. Engaging things you like. Exposing yourself to sun sample, we know that vitamin D is so important for skin health, for skin regulation, but also for autoimmune disease. There's a correlation between your level of vitamin D and your probability of developing autoimmune disease. Most people do not get enough safe sun exposure. What I mean by safe sun exposure depends where you live of course but we need to be exposed to sun for a period of time, normally 10 to 20 minutes in strong sunlight. Most people should get their vitamin D levels checked.

Dave: In fact supplementing vitamin D which something I recommend, there's great evidence for that is inferior to getting some sunlight. One thing I do, I don't have psoriasis but I have a sun tanning lamp that makes ultra violet B radiation. It makes a little bit UVA which is the stuff that causes aging and more UVB which is what causes the good stuff. Especially because I live in Canada so I end up getting less during winter. I just get less sun and funny in Canada psoriasis, Alzheimer's, MS, lupus, and just about every other autoimmune condition you can find are much higher and they drop ... Oh and autism too. They drop as you get closer to the equator. If you want to live a long time and you live in Canada, you should have not just a bottle of vitamin D, you should have sun tanning lamps. You can make vitamin D sulfate.

Stephanie Seneff, who is a guest on Bulletproof Radio earlier, I don't remember the episode number, we talk a lot about vitamin D sulfate and she's one of the leading voice saying you should use those suntanning lamp. So is Dr. Mercola who's been a guest on the show and has become a friend. Dr. Mercola just quit selling suntanning lamps because he was making claims, truthful claims about what they did and FDC said, "There's no evidence, was not true." He's like, "Fine. I'll keep telling the truth and I'll stop selling them. Ha ha." You can go on Amazon today and you can buy a vitamin D lamp. I think that is a really good idea if you have psoriasis.



In fact, now this going to be maybe piss off Mark, I don't know, but there is really interesting research about getting ultraviolet B in the eye. We have those, "Oh my goodness, you got to protect your eyes from UVB" except in the sunlight all day, we've evolved to have some UVB. Ultraviolet B and all the other colors you see are actually signaling your brain to do different things. I think there's evidence you should go outside without your sunglasses on, even if you have light sensitivity the way I have at various times in life. Go out there and make yourself do it for a little while or even if you're in a suntanning booth with UVB but not a lot of UVA, pop your glasses off for 15 seconds or something. I don't know the optimal amount but there's something to be said for signaling the brain to turn down inflammation and the way into the brain is through the eyes more so than through the skin. That's a little bit controversial. I've not heard that said before.

The other thing is low dose hydro cortisone, not topically but orally on a sustained basis basically, it's hormone replacement therapy for adrenal hormones. There is amazing evidence that low dose cortisol can resolve. Psoriasis and many other broad spectrum autoimmune conditions. It's almost unheard of for most modern doctors but it works extremely well. Not prednisone but actually cortisone, or cortisol, the same stuff your body makes. 5 milligrams 4 times a day divided doses. I've seen it work and there's great evidence that it works and that it is absolutely safe to do for decades on end if necessary.

Mark:

There's another option as well which is a plant based fat called sterols or sterolants. They actually act similar to steroids as well. You need to take quite a load of it. Most people know about sterols for helping to reduce cholesterol. That's another controversial subject, why you want to be doing that in the first place. Some people do, most people don't. However, you can use plant based sterols. A lot of this in the functional medicine field use sterols with people with autoimmune disease and a lot really help people. If you optimize the vitamin D level and most of us should be aiming for target of about 50 nano grams per mil. That's 125 nanomils per liter. That's the kind of target range. Most people need to be in the 5,000 international units per day of vitamin D. Obviously if you get natural sun exposure, you don't need to be doing that but you need to be monitoring your vitamin D. Adding in plant sterol would be something to consider as well.

I really hope that helps. I did some final things. This kind of subject is just so important because it affects so many people. So many people suffer unnecessarily with it and it can affect things like self-esteem. I just want to acknowledge that side of it. It can really affect the way you perceive yourself and obviously can look unsightly sometimes. Hydrating the skin is really important as well. There are so many different creams and lotions and preparations. I found that with some of my patients they really find just coconut oil rubbed in or extra virgin olive oil, oatmeal baths keeping it hydrated is really important as well.

Dave:

That was good. Want to read the next one?

Mark:

Yes I do. This is Abraham, age 48. Question, "Dave, I have 2 unrelated questions." Let's do question 1 first. "I heard you mention you have a child at a Waldorf school. I do as well, I have a first grader. I'm active at the school. I am hoping I can discuss with you the possibility of

getting you involved in some form of marketing for the Waldorf education. Some people, having the guy who works tirelessly trying to find his way to peak performance in all facets of life, choosing Waldorf says quite a bit about Waldorf. I think many families will benefit from hearing someone like you discuss Waldorf and why you choose it."

Dave:

To differentiate Waldorf school from Waldorf salad, Waldorf salad is sour cream, apples, walnuts, and some celery which I very much enjoy except sour cream isn't really Bulletproof so don't really do that much anymore. Darn it. Waldorf schools. The other thing, these are basically the ultimate hippie school, to be perfectly straightforward. Your kids spend 2 hours a day outdoors. They sing songs, they light candles, there's no tests. They are pretty much the anti-thesis of American education. It's interesting that Apple Computers' Head of Sales for K through 12 educations sends ... It's probably her kids, I don't know if it's a him or her but that person sends their kids, to use a general neutral pronoun there, to a Waldorf school. In fact, a lot of Silicon Valley people send their kids to Waldorf schools. One rule is no screams at all. They're not supposed to use iPhones, iPads, computers, WiFi, none of that stuff. They hold hands, they sing songs, they play with string. They learn how to knit. They jump up and down, like, "Oh, look a stick!" That kind of thing.

Here's the thinking behind it. Emotional and neurological development, movement patterns, learning ... They learn to read late. Learning to read at a time when the meat in your body is ready, I think there's value in that. The idea is that you can take a young child and force them to overemphasize their cognitive abilities and that comes at a cost. It comes at physical abilities and it comes at a cost of emotional abilities. I rather that my kids, before they're 8, focus on healthy relationships and focus on basically being in a sympathetic, active state where they think the world is an amazing, wonderful place full of fairies rather than a pretty scary place full of murders. You know how many murders my kids have seen on TV? None, ever. You want to know how many TV shows my kids have watched? We watch a National Geographic show about penguins once. Nothing. People are like, "How is this even possible?" The Waldorf philosophy is based on that kind of stuff.

I'm not saying that it's the right thing. Montessori schools are really good. Some Waldorf schools are much more effective than others. They generally suffer from a lack of organization and this is because ... Every Waldorf teacher now is what I'm talking about. It's because the original guy, Rudolph Steiner who envisioned neurological, emotional, psychosocial development of kids decided that school administrations were generally evil. Which is true, if you've ever dealt with the school administration. We all know that's true. However, a bunch of teachers who spend their entire day in the head space of kindergartners and fourth graders are also really, really crappy administrators. You want to find a Waldorf school, if you choose to go this way, you want to interview the teachers and make sure they have a functioning organization and this is the Achilles heel of Waldorf education system. I say this, my wife's on the school board, so it's not like the pot's calling the kettle black here. In every Waldorf parent I've ever talked to there's a balance between those things. Between having a functioning school where everyone does what they say they're going to do when they say they're going to do it and having emotionally healthy kids. I rather have a dysfunctional administration and happy teachers and happy kids.

I look back to my childhood. I got my first computer when I was 8. There aren't a lot of people in

their 40s who did that. My first computer was before DOS was invented. It was called CPM for those of you who are old geeks like I am. It didn't harm me to not have technology before then. I went on to do some foundational things around the creation of cloud computing and virtualization and some early networking coolness called low balancing. If I could have a career like mine in tech and I didn't have a computer until I was 8, and none of my contemporaries had them until they were probably 12 or 15, I'm pretty sure my kids will be just fine if they get their tech skills a little bit later in life. Could be entirely wrong, regardless my kids will be happy.

Will I get involved in marketing Waldorf? No. Waldorf is a bunch of small schools that are highly distributed. Whether you bring your kids to Waldorf school is a function of what schools are in your community. If there isn't a Waldorf school, it's probably going to be hard to send your kids there. Pick a Montessori school. I will get involved in marketing that says what you do before you conceive your kids, what you do in the womb, and what you do in those first 7 years of life are more important than what college they go to, what neighborhood you live in, or anything else. It's all about what happens. You get it right from the start, it's way easier to keep it right than it is to fix it later. I say that having done a lot of fixing on myself and doing that kind of work with clients. Any other thoughts there?

Mark: My kids go to Montessori so I can just say a little bit about that. It really depends on the school first of all. Gosh, you can have Waldorf at home, there are a whole bunch of Waldorf. They were just chaos. There was just no way we were going to send the kids there. The other schools, the Waldorf, were just well organized and it just depends.

Dave: It depends on the school.

Mark: It just depends on the school. You have to see what's available to you. We're very fortunate. We're next to a Montessori academy that actually takes children from age 4 to age 18. They're there all the time. The thing that struck me about the children when I walked around was the other children looking me in the eyes and saying, "Good morning." That's a little thing right? It's a really important thing, because for children to learn courtesy, poise, inner confidence, is such a gift that will hold them well throughout their life. The whole Montessori system is built around building character and meeting the physical, the emotional, the social, the spiritual needs of the children and wrapping them around this creative learning environment that the teacher guides. Is that suited to most kids? Absolutely not. Is it suited to some children? Yes, and you have to kind of work out what your values are as an individual and as a family. Whether you can afford it because there's a fee attached to it. All these different things. If you can find a school that you visit in and you sit in the classes before you commit and you feel good about it and the teachers are healthy and the kids are engaged, go for it. It really depends on the school.

Dave: I would also look at homeschooling or even unschooling. Those are other options that are often times more affordable. If you have a great public school and you like your kids' teachers, it's really cool. The other thing that I found valuable is kids are supposed to learn from other kids and when you do that weird thing where kids only spend time with their own age, it's actually unhealthy for them. You don't want a bunch of third graders only talking to third graders. What you want is you want first graders, third graders, and fifth graders all interacting so that the third graders can learn all the swear words from the fifth graders. That's how swear words float

down. When you teach them to be kind and not to bully and things like that which is part of the curriculum at my kids' school what you end up with is just a different vibe where literally you'll see a 10 year old happily helping a 5 year old do something and it's built in that helping helps. I think that's more valuable than learning calculus when you're 10. It doesn't matter. You can learn calculus whenever you want to.

Mark: I just think fostering the kind of virtues of respect and generosity and that kind of internal mentoring system. It's the same in Montessori. You have different age kids in all the same class. They look out for each other, they extend themselves. These are just kind of fundamental qualities what it means to be a good, healthy human being and the value within a system. You know what, there is no rush to cognitively overload a kid who's only aged 6. All in good time. The whole idea is build the character on good foundations. You start with character development, emotional needs, really importantly keeping kids connected to nature as well. Kids naturally in nature will just come fully alive so you want to preserve that aliveness and not shut it down by going straight into the head which is cognitively overloading kids which just stresses them out.

Dave: We were just talking about our coach training program, the Bulletproof training for coaches and a big part of that is teaching people to get out of their head. For me, this was nothing I ever learned. I learned to read at 18 months. I've always been in my head, almost exclusively. When you realize there's other intelligent systems that are in the body that are manageable and hackable and useful, it's kind of cool. I realized for my kids that I rather they work on that emotional development. That cognitive conscious stuff, your brain isn't even done cooking until you're like 24. I rather fill it and there's interesting data that says kids who spend more time on the social and emotional aspects when they're younger, they're actually academically delayed in middle school and then they kick everyone's ass...

Mark: They catch up.

Dave: ... in high school. I'll tell you in 20 years whether you or I made a good choice. There's no AB testing with the same kid because different kids love different results. Who knows, we all do our best and I think every parent does the very best they can with what they've got. I don't know that Waldorf is right for everyone but I did it.

Mark: Just by the virtue of the fact that we're asking the questions, we're talking. That's why when you have a discussion with your partner about what you want for your kids, even that alone is good because a lot of people would just send their kids to local school without asking this question. Good question, we appreciate you sending that in.

Dave: Let's do number 2 from Brad, or Abraham.

Mark: Part 2 of Abraham's question was, "I use your brain octane oil and I'm not sure how much is too much and whether it should be cycled or is it every day?. Keep up the good work, thank you."

Dave: I use it every day. You can go off of it if you want but what it's doing is it's giving you some energy that you're cells can make directly from fat even if you're eating carbohydrates. I put it in

my Bulletproof coffee every morning religiously. Sometimes I use insta mix when I'm traveling now which has brain octane in it but it's a powder. I do it at lunch. Today I had some sushi for lunch, I poured brain octane on my sushi and at dinner we'll have some kind of vegetable dish with some grass fed something or another on it and that'll have a tablespoon or two of brain octane poured on it, maybe in the salad dressing. It's present at every meal because it completely frees me from the need to think about food. I like having mild ketosis all the time so I perform better that way.

How much is too much? Disaster pants is a great thing. It's harder to give yourself disaster pants with brain octane. In fact I find it really difficult. It's not impossible on an empty stomach. If you're getting symptoms of just too much activation or I don't feel really good, you're probably pushing it. It depends on your body weight, depends on your constitution for a woman over 40 who's just getting going, sometimes a teaspoon is like a lot. Like, "Whew, I'm warm. My thyroid just got activated." Other times 2 tablespoons a day or 2 tablespoons a meal. I do about 2 tablespoons in the morning and at least a tablespoon per meal would be an average for me.

Mark: That all makes sense. Next question from Karla, age 53. Question, "I love all things Bulletproof. Please give us list of good books to read. I seek out intellectual books that will help me hack everything. I would love to have an extensive list of supplements that can help hack autoimmune disease. Thank you. The Bulletproof diet has changed my life. I have Bulletproof coffee everyday and I plan to visit the new coffee shop next month. Thanks Dave, love your work."

Dave: Wow, thanks for flying out Karla to California just to go to the store. I appreciate it. It's kind of a Mecca. I love going there. Maybe I'll be visiting in the robot. We have a robot that runs around the store where I actually control the robot. I'm moving around and my face is on it and I talk with people when I can't make it there in person so I have a chance to be connected with people which I appreciate. The top book I think you might want to think about here would be Isabella Wentz has a book on Hashimoto's Thyroiditis. It is a profoundly detailed book and since I don't know what autoimmune issues you have and Hashimoto's, which I used to have and I don't anymore, is an autoimmune condition. I think that is a good place to start. She's got a great list of supplements in the book. You have a single book you'd recommend?

Mark: Yes. For me one of the game changing books was Dr. David Perlmutter's Grain Brain book. Just really starting to understand the when you have grains and gluten sensitivity, how that impacts and creates inflammation in your body, etc. I would take a look at that. I don't know whether this is true Karla but what I picked up here is you want intellectual books. I also think, I tend to find sometimes people can overfocus on the body and disregard or at least diminish the importance of the emotional and the stress and the spiritual and the psychological so I just want to put it out there that there's one book that I have pretty much asked most of my patients to read and purchase. It's called The Presence Process. It is written by a South African author called Michael Brown. Basically it's a 10 week training program they mapped out in the book that teaches you how to become much more present to your self, to your emotions, how to welcome, work with them. For a lot of people, particularly those who have a lot of stress and tension and suffer from chronic illness, they found it to be really helpful, very enlightening, and to really start letting go of a lot of stress and tension, emotional baggage as well. Maybe take a

look at that as well.

Dave: I like it.

Mark: Emmanuel, age 46. "My wife has been experiencing depression on and off for 8 years. She has tried counseling, helped a bit, but I really want to know how I can help her. Thanks, love the show."

Dave: Depression's a biological condition. Counseling, talking about my biological condition ... I'm a fan of counseling because it helps you understand what's going on but it's kind of like if you don't address the biology, the counseling is unlikely to be affective long term and I think there's data to show that as well. Here's a hack and this isn't a treatment for depression but turn off all your lights at night. Get the low blue light. You want red or amber lights and be really militant especially screens. Screens mess you up. They ruin your sleep quality and you've got to have sleep. This is a big part of depression. A lot of people with depression don't get good quality sleep.

One of the things that's just a major issue, you're looking at your phone before you go to sleep. The phone is super bright blue light. Blue light ruins sleep. It actually makes you weak, it affects your mitochondria. If you have blue light, it should be when you're outdoors under a blue sky in sunlight. When you look at this before bed, it messes with you. You should not be doing that. If you run the iPhone or Android, you want to run the software that lowers the color temperature. We make something called the Bulletproof Zen Tech. It's a screen protector, I have it on my phone. It blocks some of that blue light which is a really good thing to do just for sleep quality in general.

The other thing if you're dealing with depression, the opposite side of this, is when you wake up in the morning, not just using a light box with your bright blue or bright white light actually using a sun tanning lamp. Getting some quality ultraviolet B in the morning. You want to send a very strong signal to your body that says it's morning time and you need to even go outside if you can if you're around sun so you get sun in your eyes, you get sun on your skin. You do that in combination with getting absolute real darkness. Turning off all those LEDs and committing to that, you'll feel incredibly different in a week if you do that. It's completely a game changer.

Mark: I've worked with a lot of people with depression and their partners because it's ... Depression can have such an impact on the quality of relationship, on family life, on everything. I've really spent a lot of time in the past coming to better understand depression. I just want to outline some core principles that I think will be really helpful. I think the first thing is to realize depression is a symptom. It's not a diagnosis. It really doesn't tell us about what the underlying cause is so we have to do some detective work. More often than not the cause is biological. If I had one wish for the world of psychotherapy and counseling it would be to always consider that first and then to deal with the remaining psychology thereafter.

Some real basic things is I found that most people with depression will respond really well to stopping all sugar. Period. Getting some physical exercise. Exposing themselves to sunlight. Even just admitting there's a problem and be willing to get help is hugely important because some

people will get so stuck when they're in that kind of depressed state. Then it's a whole bunch of biological things we have to look for. Do you have hypothyroidism? What's happening to the thyroid? Do you have adrenal fatigue? Is stress happening here? Some people are struggling with addictions and your addictions is driving the underlying depression. If you have a history of significant trauma in the past and that can be a traumatic event or it could be what we call developmental trauma. Where basic needs weren't met in childhood and you haven't yet developed a healthy sense of self. You haven't learned how to work with emotions and work with stress.

All of these things need to be considered. That is a general rule of thumb. If you clean up the diet and really come off the sugar particularly, and I've seen this so many times. I would say at least 80 percent of people with depression have come to me, they've cleaned up the sugar, they feel so much better. Then you start eating more healthy because some people with sugar, their blood sugar's up and down all the time.

Dave: It feeds candida which also triggers depression, right?

Mark: If you have bloating, gas, abdominal distention. You've got this biofilm. If you've got sugar cravings, you probably got an overgrowth there as well. That has to be treated as well. What I would say to someone who's struggling with depression, hasn't been able to resolve with themselves within a couple of weeks is you got to find someone who is functionally aware. Whether it's a nutritional therapist or an MD functional medicine trainer, or just someone who really understands the importance of getting the biology right first. There's a whole bunch of times I've met people who are depressed because the thyroid's not working properly. It's a symptom of hypothyroidism. Then there are more nuance things and we talk about this a lot at Bulletproof but why? It's so important which is the issue of mold and allergies and environmental toxins. I mean, you know what? If you live in a moldy environment and you are sensitive, you will become depressed. Or you'll become angry or a mixture of both.

Dave: Or both, yeah. It's like PMS all the time for men.

Mark: A small subcategory is there's existential depression which is, "Who am I? Where am I going? What does this mean in my life?" That's not the major category. I feel for you. When you're a partner of someone who's depressed, that can bring a whole bunch of stuff for you. This desire to help, the frustration they're not helping themselves. I'd also just reach out to you and say make sure you're taking care of yourself. That you're well supported. You're dealing with your own stress because sometimes we can build resentment. We'd only be resentful towards our depressed partners but those resentments can come up so just take good care of yourself as well and I hope that you find a practitioner who can work mainly checking on these biological things first and then if there's a history of stress and trauma, then addressing those as well.

Dave: The most profitable business model that you can have would be to ignore the biological and just talk about it. That's really stressful. Now, if you deal with the biology, you can still be depressed because you didn't talk about it. This is the order of operations that matters. Just get the biology working and the depression may resolve and if it doesn't, you need to talk about it and you need to address the trauma and I'd look at neuro feedback. I'd look at heart rate variability training

and I'd look at EMDR which is a very, very powerful technology to do with a therapist. I'm all over. Talk therapy and any other kind of therapy, but how dare you eat a Snicker's bar and go into talk therapy. That's not how it works.

Mark: I'm really with you on that. Okay, great. Final question. Oscar, age 34. "I've been following the Bulletproof diet for 4 months. While I initially lost some weight, about 10 pounds, I've hit a plateau and can't seem to lose anymore weight. I need to lose another 20 pounds at least. I need tips."

Dave: When people don't lose weight on the Bulletproof diet it can be often times from a food sensitivity. The chances are pretty high that you are eating one of the suspect foods that is guilty for you that you don't know about. It's triggering inflammation. We don't know much about where the weight is or kind of how it manifests but quite often some of that is inflammation. You might want to get a blood test to see what you're allergic to or you might want to be more rigorous in the way you use the free thing it's called food detective. It's a free app that we put out there that helps you use your heart rate in order to determine whether you might have eaten something that you're sensitive to which is kind of a cool way to do this, just to dial in on it. You also could just be eating way too much. There's some people who put 10 tablespoons of butter in their Bulletproof coffee and then they have some sugar in it.

If you're not actually on the Bulletproof diet that's a problem. The sugar's a problem especially if you're going to go crazy on the butter. I found that when I first started doing this I couldn't get enough of the butter and the fat. My body desperately needed this. I was a raw vegan for awhile. I needed to replenish and I went literally sometimes I would so 7 or 8 tablespoons of butter and I was like, "Aww, I'm finally satisfied in a way that this sort of way." I do about a tablespoon of butter in the morning now. It's there to help the brain octane do its thing but I just don't have any desire to put that much butter in. You could be doing too much. Another really common problem is that people are like, "Ugh, paleo." They eat 16 pounds of meat every day.

Here's the thing. This is a moderate to low protein diet. The problem is if you're eating lots of muscle protein and lots of whey protein, you're getting amino acids that can be inflammatory. When you do this right, you can download the Bulletproof diet roadmap. It's free. Just Google it on the or search for it on the website. On the top right part of it there's a little thing about Bulletproof intermittent fasting and there's the thing about Bulletproof protein fasting. Bulletproof protein fasting, one day a week you eat less than 15 grams of total protein the whole day. It's actually hard to do that because vegetables have protein in it. You eat a lot of olives and sauerkraut and some coconut milk and white rice and things like that. For some people, that absolutely just breaks through the plateau in a way that's amazing. If that doesn't work and Bulletproof intermittent fasting, where you only have Bulletproof coffee, no protein, no carbs in the morning, and that doesn't work, I would try a 24 to 48 hour water fast and see what that does to just break through it.

Mark: I'm with you on all of that. Food sensitivities is such a big one. When you struggle to lose weight, think inflammation. What's generating, causing the inflammation? When you come off those foods you're sensitive to, often that you hold a lot of water in your body. That water will go.



You'll start to lose weight. Also, you're relatively young. You're age 34. Certainly for other people who may be listening more relevant to them is check your hormone levels, particularly for women as well. Your estrogen levels, that has a big impact on your weight as well. The health of your adrenals. I would put my money with the food sensitivities. Also, I'm a big fan of intermittent fasting as well. I think for some people that's just enough the kind of metabolic upset to kind of really initiate the kind of proper functioning of the biology and losing weight. I think that's pretty good. Also just be really truthful with yourself. Just maybe track your food and what you drink for 3 days because sometimes we forget. We kind of drink a glass of beer at night time or a glass of wine. We just don't include, think of that as calories and stuff. Sometimes that can creep in. Certainly if portion size is significant problem for you as it is for some. Slow down your eating. Become more mindful.

Dave: Just add more vegetables.

Mark: Just keep adding vegetables. I think that's probably about it.

Dave: I did come across one woman who had lost 250 pounds over night. I'm like, "How did you do this?" Turns out she just got divorced.

Mark: That's the stress.

Dave: That's actually a lead in to stress and emotional stuff. If you have tons of stress in your life, whether it's from a relationship, a job, or something else, that actually can contribute to cortisol which can contribute to weight gain. Not that I recommend divorcing to lose weight but I would recommend looking at your relationships as part of that.

Mark: Just on that, it triggered another thought is some people struggle with food addiction. What that means is that certain folks they feel they have to eat compulsively and that can be pretty challenging. They get really controlling around their food but it creates so much stress and tension inside of you. What we tend to find is people transition to the Bulletproof diet and one of the first things they realize is, "I have more energy, my cravings go away."

Dave: Freedom from cravings.

Mark: That's what we want for you because I work with a lot of people with food addictions and once they start having their brain octane and they have more healthy fats, those cravings just aren't there anymore. Then once you start managing your stress, once you start living a more fulfilling life, and you feel using your skills and strengths, that's the foundations for being Bulletproof and really enjoying the best of life.

Dave: You said it really, really well in that that lack of cravings can translate to addressing the core causes of food addiction. It's really hard to tell from a question, from Oscar here, whether which of those it is but those are common things. I guess the other one I didn't mention if things really aren't working, you can also get an MTHFR test. You may have methylation issues. When I see clients who go Bulletproof, they do it right and they lose some weight but then they see inflammation that doesn't drop the way it's supposed to, it's almost always the fact that they



have a problem with their methylation pathways and I've had a couple podcasts with guests about that. When that happens specific forms of vitamin B the right doses can basically unlock those cycles and all of a sudden then your detox pathways start working better and magically you can lose weight again.

Mark: I'm just finally because one thought came to mind was just sometimes I prefer my clients to track their body fat percentage. If you're doing high intensity weight training or strength training, your weight may actually go up a little bit as you put on bulk and stuff. Also maybe check your body fat percentage. Also get really clear about why you want to lose weight and make sure it's healthy weight loss as well. It's a massive subject but I think we got some good points in there.

Dave: If you enjoyed today's show, which was mostly about sort of repairing stuff rather than our more human performance focused things, I'd love to know do you want more and brain hacks or do you want more of this kind of thing. I listen greatly to what you ask for so this is a set of questions people asked this time. You'll find Bulletproof Radio is all about how the body works, how the mind works, how the emotional body works, and what you can do to take control of it and perform even better. I think you got a lot of that in today's episode. I would love it if you would just keep sending in questions and we'll post links on where you can do that. You can just go straight to Facebook and do that and I'm grateful that you took time to listen and that you took the time to ask these things, for the 5 people whose questions we've chose. Mark, thanks.

Mark: Thanks so much.

Dave: If you liked today's episode give us a positive feedback on Facebook or on iTunes or anywhere else. Just let us know. If you haven't checked out the new subscription program for Bulletproof coffee, we'll save you money and we'll save you time and we'll send you brain octane. We'll send you Bulletproof coffee and if you like it, we'll send you insta mix which means when you travel, you'll always have Bulletproof coffee with grass-fed butter and brain octane. You'll always have it with you without having to carry anything that's refrigerated or requiring blending. It's a complete breakthrough in how I travel. I pretty much bring a case of Bulletproof bars and a case of insta mix with me and I'm completely food free. I'll have dinner when I get a chance but if not, I'm completely good to go. Have a wonderful day and I hope to see you at the Bulletproof Conference September 23 in Pasadena, California. [bulletproofconference.com](http://bulletproofconference.com)

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