
Dave Asprey on The Bulletproof Diet

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Mike: In Silicon Valley, [inaudible 00:00:03] computer security expert, an entrepreneur who spent fifteen years and two hundred and fifty thousand to hack his own biology. He upgraded his brain by twenty IQ points, lowered his biological age, and lost a hundred pounds without using calories or exercise. Financial Times calls him a bio-hacker who takes self quantification to the extreme of self experimentation. He's written for The New York Times, Fortune, and spoken [inaudible 00:00:31] and UC California, Singularity University; has a BS in computer information systems from California State University and MBA from Norton. I give you Dave Asprey.

Dave Asprey: Thanks, Mike. We're going to go through The Bulletproof Diet today. The Bulletproof Diet is something that I've been working on for a very long time to increase my own personal resilience. Backing it up are between a thousand and thirteen hundred studies that we used to put this into a form that we use to increase fertility. We're publishing our book in December with Wiley. The book is actually about what to do before and during pregnancy to cause pathogenic changes, but the nutrition plan and all the research that went into it applies to everyone.

I've used this to lose a hundred pounds and to increase resilience. We'll talk about fourteen reasons that The Bullet Proof diet works, different ways of looking at what you can do to your metabolism to sort of hack yourself, take control of your biology. Then I'll actually talk about the diet itself. The diet itself is a little bit small for projecting. You can go to bulletproofexec.com and you can download it for free. It's a printable thing that goes on your refrigerator.

There's no cost or anything like that. In order to give you the information for you to sort of take notes on the individual foods and what order they go in doesn't make sense. Take a deep breath, don't worry about writing all of that down. We'll publish the video on the website and we're streaming live as well I think. Are we streaming live? Hey, everyone listening! Pretty soon we'll have them able to ask questions too, we haven't wired that up yet. That's on the list. If you know how to do that send me an email. Can you guys see this okay?

Speaker 3: No.

Dave Asprey: No? I can turn off the other light but then the videos going to be really poor. Mr and Mrs [inaudible 00:02:24] I think.

Speaker 4: We can see it, we can see it.

Dave Asprey: You can read it at least. This is an improvement. What we're talking about here with bio-hacking is ... It's an art and it's a science. The idea is that you can take control of your biology and you use data. This isn't just how do I feel, but it's what do I do to measure how I'm performing? Things like Big Data. Big Data is a recent thing that's part of cloud computing, what I do for my day job as vice president at a company called Trend Micro.

What we're doing with Big Data though is we're taking massive data sets, the sort of things that only NASA would have had twenty years ago, and we're saying, "We can apply that just to you. To look at your genome, to look a whole bunch of lab markers. To look at how often your heart beats and to look at the spacing between your heartbeats." All that gives you information that was completely unavailable to you in all of history. What you get out of this is essentially you can be stronger, you can be faster, you can be smarter and I'm serious when I say twenty IQ points or more. It's absolutely achievable by pretty much everyone out there and it doesn't take as long as you would think. It's hard.

Speaker 5: How about adding younger to this.

Dave Asprey: You can add younger to it but I think as I age I get sexier. Is anyone going to disagree? What you really get to be is resilient and resilience is part of being younger.

Speaker 6: They're a bit distracting.

Dave Asprey: Excuse me. He guys. It's getting kind of loud. Okay. We were talking about resilience. There was one little thing, the fine print. If you can't read that it says, "At your own risk you guinea pig you." If you're going to be a guinea pig on yourself you may get the ice burns on fifteen percent of your body like I did, but you also may experience profound increases in what you can do as a human being and that's really cool. The diet is one part of bio-hacking.

I'll tell you a little bit about how I got here. This is me when I was twenty-something, early twenties. I had all of the symptoms of Asperger's syndrome including OCD, ODD, sensitive nervous system, inability to remember names, make eye contact. I was really socially awkward. I stuttered, not super bad, but enough that it bothered me. I hit two hundred and ninety-seven pounds when I was studying computer science. I started bio-hacking myself.

This photo is from Entrepreneur Magazine. I was the first guy to sell anything over the internet. I sold caffeine t-shirts to twelve countries to pay for my computer science degree. It was either me or the guys who started wind.com. I'm one of those guys who does it ten years before anyone else and that's the actual photo from the magazine.

Four years later. I worked at University of California Santa Cruz extension. In the evenings I ran the web and internet sharing program. I also had really amazing amounts of stress because during the day I worked at the company basically invented cloud computing. It's called eXos Communications. Google, Hotmail, Yahoo, all of them put their first servers in our building to use our network.

My brain started to misfire. I made six million dollars. That was kind of nice when I was twenty-six. But I was getting cognitive dysfunction, that was a real problem. I used a program called FreeCell. How many of you have heard of FreeCell? If you've used Windows for a while it's the free Solitaire game that comes with Windows. It turns out if you play it regularly you know how you perform. I noticed some days I'd perform really poorly, some days I performed really well, therefore it's not just me. This is an outside of me measure of my internal state. Because maybe I just thought I was tired. Maybe I wasn't.

I noticed I was getting getting really highly variable performance in my brain work and I was really bothered by it because ... I actually bought disability insurance. I said, "I can barely work a whole day. I'm so tired. I don't remember whole meetings," so something is going on. I'm still really fat. I maybe lost a little bit of weight but the seventh grade people were right. I actually was getting stupid so I started hacking my brain as well.

Ten years, a quarter of a million dollars later ... I've had a very fortunate career. I've had a chance to work at a venture capitalist on Central Road. I've twice run strategy for companies with more than a billion dollars in revenue. I'm a spokesperson for a billion dollar company right now, Fly Around, I've had just an amazing career. I've been an Angel Investor, my book is coming out soon, I have two wonderful kids.

This number is wrong, "This month ninety thousand people read my blog," it's now one of the top twenty-five thousand websites in the U.S. which I am amazingly grateful for given that eighteen months ago I haven't done anything. I'm about two hundred and ten pounds depending on whether I decide I want to stand on a vibrating plate and add a pound or two of muscle or not. I'm smarter, my visions better, my hearings better, my memory is better, and my energy is way better. Here's how I did it, at least part of it, the diet part of it.

I wanted to get a diet that wasn't just about losing weight because when I weighed three hundred pounds I worked out six days a week, I ate eighteen hundred calories a day. I did that for a year and a half. Forty-five minutes of cardio, forty-five minutes of weights. I couldn't lose the weight, it just wouldn't come off. The notion that you're going to tell your body that you're in a famine which means low calories, low fat, and there's a tiger chasing you which means doing cardio and lifting weights every day relentlessly, six days a week, is not actually a way to lose weight. It's also not a way to build a resilient person, it's a way to break yourself.

I wanted to be more resilient. I wanted to be able to withstand things that I probably couldn't do when I was eighteen. In fact, I had arthritis in my knees. When I was fourteen I was diagnosed with it. I wanted to be younger than I was when I was young. I wanted my brain to work all the time, even if I was tired. I didn't want to have to worry about losing weight. I didn't want to age. In fact, living forever seems like a decent idea. Eventually we built fertility into this

because fertility is one of the best ways to measure how you're doing biochemically and epigenetically.

In fact, if we had a good way to measure, say, sperm motility you could track what you're doing this week, as a man anyway, and you can look at what the affect of that would be on the quality of your semen. It turns out that people who are fertile and have regular cycles for women and have normal libido for both sexes, that that's really important. That's part of being young and resilient and powerful. You need bacon, that's a part of the diet.

Speaker 7: Yay.

Dave Asprey: The first reason it works is that it tastes good. I have a blog post about why bacon actually isn't bad for you if it's properly processed and it's properly cooked. It has some healthy fats in it. It turns out that if you want to have a diet that works denial is not the way to do it because you're going to be doing this for the rest of your life. "I'm going to deny myself for this one month." Then two months later you'll be fatter. We've all done that. If you've ever tried dieting, cutting calories, it's not the way to do it so that was a bad idea.

Eating good stuff is pretty easy to do. Not eating good stuff is hard to do. This isn't rocket science yet. When you get cravings, eventually, during a moment of weakness you'll probably give in. If you don't have cravings because you're getting all the nutrition you need then, wow, that works much better. You'll be satisfied if you eat food that tastes good like bacon. If you eat good food you'll be happy. If you're happy you do more good stuff. This is like the most obvious slide ever but whoever thought of Grape-Nuts with skim milk, they didn't get this. I'm sorry. If you want to feel crappy all day you have that for breakfast.

The other thing here, just dealing with hunger. You don't want to be hungry. If you're hungry all the time you're sending yourself signals that you're in a famine. We have the caloric restriction, genetic stuff you can do. We heard about [inaudible 00:10:20], there's [inaudible 00:10:21], there's also intermittent fasting; there's other ways to get the genetic effects of caloric without actually being hungry all the time because you do get cranky. You're catecholamines go up and your quality of life goes down.

When you're hungry you're not kind. You don't think well. You open your mouth without thinking and you say things that aren't nice. It turns out that if you just eat moderate protein you get less hunger versus eating, say, Grape-Nuts. If you eat a lot of healthy fat, including butter, you actually feel full between meals. If you eat high real nutrient density you'll be full too. By the way, real nutrient density includes water and fiber. When you go to whole foods and they sell you on nutrient density, they forgot to mention that that high nutrient density spinach is mostly water. They're selling you the most expensive water ever in those vegetables and not very many nutrients. Vegetables are still good for you

but they're not high in nutrient density. They're low in nutrient density because they're high water. Meat, That's high nutrient density.

Regulating hunger hormones ... Works. I think I have a typo on that. That's annoying. The idea here is that if you regulate your hunger hormones you don't feel hungry and eating properly does that and we'll get into the details of why that works. You need to reset your leptin sensitivity. That's actually a picture of leptin. If your cells are unable to respond to the hunger hormone called leptin you will be fat, and you will be weaker, and you will get tired and most of the claims in here have numbers after them and there's studies that I can put on website that talk about this. I'm not just making this stuff up.

Leptin sensitive people are the opposite of leptin insensitive people. When you increase your leptin sensitivity you are more resilient and you tend to be immune naturally. It turns out if you're getting to be insulin resistant you're already leptin resistant. Your leptin sensitivity goes away before your insulin does. If you're approaching type two diabetes, you're pre-diabetic, you already have broken down your leptin. You need to reset it and you can to that on The Bulletproof Diet.

If you have high triglycerides, which are a major problem when you eat fructose and lots of carbs, you will develop insulin sensitivity. I'm picking up a vibration here. You got it? If you're eating one of these kinds of foods you're going to get leptin resistant. It's amazing. They can make these things and [inaudible 00:12:55] smart dogs. There's no dogs in here even. It's all vegetable protein. Terrible. These are basically not food. If you're going to eat this you're going to get leptin resistance.

Speaker 8: What is leptin?

Dave Asprey: Leptin is a hunger hormone. You have insulin in your body. This is one of the other things. This is the one that signals you to be hungry and signals fat storage. By controlling this with the things in the diet ... One of the reasons the diet works is because it does control your leptin and if you eat the way we're talking about here your body will learn, your cells will learn to be sensitive to your leptin levels again so you'll manage your hunger very effectively. You'll also have more energy. It's one of the hormones in your body.

Speaker 9: Don't talk to your doctor about it. They won't know about it.

Dave Asprey: Your doctor won't know what we're talking about? A few of them will, in fact, the kind of doctors in this room will. There's a big difference. Not all doctors are bad. Many of them are good, in fact, I'm married to one. She's good. How many of you have heard of VIP, which stands for vasoactive intestinal peptide? I'm guessing almost no one. One? [inaudible 00:14:00]. Two, three, okay, a few people. It turns out this is really important. This is one of the reasons The Bulletproof Diet works. This hormone, or peptide, controls some brain function.

It controls how you sleep, how your gut works, if you have gut problems this is part of it, and it generally controls your metabolism.

If you have inflammation this is one of the things that may cause it especially if it's environmentally triggered inflammation. If your leptin is off your VIP will be off, but if your leptin is working your VIP may still be broken. This is an important, different thing that causes inflammation that many people don't understand. The Bulletproof Diet addresses VIP. If you have toxins or stress in your life your VIP levels can be off and this is one of the reasons that stress effects your diet. VIP is the way it works and it turns out eating high amounts of healthy fats without toxins in them allows your VIP to work. If you don't have VIP you won't have enough stomach acid to digest your food.

Speaker 10: [inaudible 00:15:10]

Dave Asprey: What?

Speaker 10: The sound is really unpleasant.

Speaker 4: Your sound is over modulated.

Speaker 10: Yeah.

Dave Asprey: What should I do?

Speaker 4: You need to turn the modulation down.

Mike: There's not much that you can do.

Dave Asprey: Should I use the other mic?

Mike: You could try that, yeah.

Speaker 8: It's not that bad.

Speaker 10: It is on this side of the room. [crosstalk 00:15:35]

Dave Asprey: Is this better. Still? [inaudible 00:15:41]

Mike: I'm going to turn you up a bit.

Dave Asprey: How about now?

Speaker 8: Yeah.

Dave Asprey: All right. We're good. If I do this you need to tell me. I'm pretty good about not doing it but sometimes it still happens. It turns out if you avoid toxins, and you

get your leptin levels reset, your VIP improves, your gut improves, and your inflammation levels go down. Controlling inflammation is really important.

There's also something called autophagy. This is a picture of a cell doing autophagy. We mentioned autophagy briefly with benagene presentation that Al presented earlier today. This is a process that your cells use to clean themselves out. You have lipofuscin, you have other things, and there are things you can do to trigger your cells to clean themselves. You really, really want to this. You take a shower, you need to cells to do the same thing.

There a study and a reference there that you get accelerated aging from these things. You want anti-aging, you want to be young for longer, you need to do this. Autophagy gets rid of the gunk. It keeps our muscles up. I went two years on five hours of sleep and four thousand calories a day without exercising and I grew a six pack during that time and I posted a picture of it on my website. I'm not saying that everyone should do that but what I'm saying is that those things are possible. This is from a guy that was formally obese. I have stretch marks from when I was obese. If I can do that someone who doesn't have all the health problems that I started out with can definitely do that. That's an example of what we're capable of. Maintaining muscle mass without exercise is absolutely possible if you pay attention.

You can reduce the affect of aging by using autophagy. The way you get this ... You go into ketosis which is what this diet does, which means you go into fat burning mode. There's a protocol on the website called Bulletproof Intermittent Fasting where you avoid eating in the morning anything except for fat and coffee. When you do that you get profound effects on muscle and fat levels and you get the benefits of autophagy.

One day a week you restrict protein. You don't eat any protein one day of the week. That can have profound anti-aging effects in just a couple months and you can also do exercise if you so desire. I'm not opposed to exercise, I'm opposed to excess exercise which most people do. Most people now over train because they believe that they're good people if they exercise every day.

Bile turnover. How many people have heard of a bile turnover as a measure of health? Also a couple people. This is one of those random things but it works. Your bile clears the toxins out of your body. This is what you use when you're digesting fat. It's a signaling molecule within your GI tract. You don't absorb your vitamins like your vitamin d, your vitamin a, without bile. If you don't have bile you basically have fat digestion by definition. If you get more bile and you excrete more of the bile, so you basically create more. It's like taking the dirty oil out of your car. If you do this right you'll be much better off.

You eat a high fat diet, you avoid toxins, you'll have much more bile turnover. There's a study about that. When you do that you'll be healthier. Those are the names of three types of toxins we'll talk about in a minute. Controlling

inflammation is terribly important. Chronic inflammation is stress, pathogens in the gut, food toxins which are a huge problem in the American diet, environmental toxins which also affect the way you digest your food, and just being fat.

One of my clients lost seventy-five pounds in seventy-five days on the kind of protocols we're talking about without any significant exercise. It turns out being fat is something you can fix within usually sixty days, even if you're really, really obese so you just don't need to do it anymore. Here's the thing about food toxins. Leptins, which are common in food ... The info-graphics that I'll show you automatically help you avoid these things. Leptins will damage your gut. Wheat is a major source of it. The nightshade family: potatoes, tomatoes, peppers for a lot of people cause problems. One of our audience members was just telling me that by avoiding leptins her symptoms of MS magically went away. Maybe it wasn't MS in the first place, it was all of the leptins.

Fitates make you unable to absorb minerals. These come from eating legumes. Gluten is bad. Mycotoxins are one of the areas where I spent a lot of time researching. Mycotoxins come from our environment and they come from our food. Small amounts of moldy food get blended in with lots of non-moldy food because of our industrial manufacturing processes and those-

Speaker 10: Does that mean we should avoid mushrooms?

Dave Asprey: I recommend that people avoid all but medicinal mushrooms at least at the beginning of the diet. There's actually really good research that even those normal, white ones you buy that are canned, they're very common, button mushrooms cause smooth cell wall proliferation. There are pretty good reasons to use them medicinally but not as a food source.

There's a little bit of a problem here. Some toxins are useful for making your liver stronger. Vegetable defense systems are there to keep you from eating the vegetable, and keep bugs from eating the vegetable ... Those are toxins but some of them can make your liver stronger. A lot of what we are told are nutrients for us are actually things that are there to protect the vegetables, that are toxins that make us stronger. You don't want to avoid all toxins. You want to avoid the toxins that make you weak.

Toxins from food processing are a big problem. If you use barbecuing you're going to get toxin formation. If you heat your meat to over three hundred degrees ... Ideally even three twenty-five, three fifty you can get away with, you form HCAs. If you grill you get PAH's. Frying makes advanced glycation end products. You cook your polyunsaturated fatty acids, you get oxidized oils. I recommend you cook your food carefully and with consciousness. Lower levels of heat, shorter duration cooking, and a little bit of liquid or even a little bit of antioxidant on it. When you do that the meal become far less inflammatory. Less inflammation equals less spare tire and better thinking brain.

You can also test. Don't eat any of this stuff for a week and then have a nice big juicy, grilled steak that's charred on the outside and look at what it does to how you sleep, what it does to how you feel. Look your breath in the morning and see if you can't tell. You can. Biogenic amines. How many people know what a biogenic amine is? A small percentage of the audience. How many people know what histamine is? There we go. That's one of the most famous biogenic amines. If you have lots of histamine you're going to have problems with allergies.

Did you know that protein breakdown in food, especially certain types of food and certain types of breakdown, causes histamine to form in the food? Day old fresh fish that wasn't frozen has huge amounts of histamine. There are other things like putrescine and spermidine that cause similar problems. Histamine is a major stimulating neurotransmitter. That's why if you take Benadryl it knocks you on your butt because your stimulating neurotransmitters got turned off. If you eat something, say a bad cup of coffee that was processed improperly and is full of histamine, you will have negative effects including potentially headaches and including inflammation, including hives. This is in a lot of the food you eat.

It affects these things: your hormones, your hunger, your metabolism. If you eat something and your craving, craving more food, soy sauce. Full of histamines. It makes you eat more. These things cause headache. They make you nauseous after you eat and they can make you think you have allergies when you don't. These are the names of some of them. All of them are toxic in excess. There's studies like that forever. One of the biggest sources of this is fermented food.

We've all been told, "Eat your fermented soy." Fermented soy is the second highest source of biogenic amines out there. It's not good for you, it simply isn't. Even if you don't have a strong response, you have a robust histamine digesting system using an enzyme called DAO, you still are not doing yourself any favors by exposing yourself to that. Fermented fish is even worse. The fish sauce from Asian food is not something you should choose to eat and my lovely Swedish wife shouldn't eat that really stinky Swedish spoiled fish dish either.

Speaker 7: What about sauerkraut?

Dave Asprey: Sauerkraut? It largely depends on what fermented sauerkraut, what species. Was it a biogenic amine forming species of bacteria and yeast? I can tell you which ones in capsules for biogenic amines in the gut. It's a major problem with probiotics you can buy today. Most common brands have lactobacillus plantarum and [inaudible 00:24:23], both of which cause biogenic amines to form in the gut.

I accidentally gave my kids some and they got hives for two weeks afterwards because I didn't read the label well enough. This is a major issue and I have a big piece on biogenic amines and probiotics coming out on the blog soon. You also want to be in frequent ketosis, less than seventy-five grams of carbs. If you eat

MCT oil, which is an extract of coconut oil, you can tolerate more carbs and still stay in ketosis.

On the podcast that I run we actually had a physician named Mary Newport, not Inig, Newport who cured her husband's early onset Alzheimer's using MCT oil from coconut. If you're in ketosis you have more blood in your brain, more oxygen, more toxins can be removed. Your neurotransmitters get better, your heart works better. If you go in and out of ketosis on a regular basis you'll be a higher performing human.

I also say limit your fructose. Basically fructose goes to your liver. It's treated kind of like a toxin, like get it out of here, raises your triglycerides, gives you gout potentially. It's much more likely to form these advanced glycation end products that cause higher levels of oxidants in the body. It cross-links with your collagen, causes skin aging ... One of the things I like to do but I won't because of the chairs over there, I can put my ankle behind my head without warming up or anything like that. I turned forty this year.

Speaker 10: Wow.

Dave Asprey: In fact, I should just do it. See, you guys. I'm trying to make a point here about eating collagen and not eating fructose. Let's hope my jeans work.

Speaker 10: What was it like before?

Dave Asprey: Before? I couldn't touch my toes for the the first half of my life. I weighed three hundred pounds and I was not flexible at all. I was the guy on the soccer team who couldn't do the things. This is, for me, a clean diet. I've also taken some enzymes and other things that break up scar tissue but ... I haven't done yoga in a long time either.

Fructose gives you oxidized LDL and [inaudible 00:26:37]. Keep your fructose to less than fifty grams and, ideally, even less than twenty-five grams a day. I eat very little fructose. By the way, did you know blueberries have more fructose than bananas?

Speaker 10: No.

Dave Asprey: They do I eat raspberries instead of blueberries. [inaudible 00:26:50]. Health gut flora matters enormously so you need to support that by eating a diet that's not full of toxins that kill healthy gut flora. You have a hundred trillion bacteria in the gut. They're responsible for some of your energy balance. You will be in a bad mood if you have the wrong bacteria in your gut. You will have huge amounts of inflammation if you have the wrong ones and you'll get leptin resistance if the wrong things are left in your gut.

If you eat toxins you will have bad bacteria in your gut. It's almost unavoidable. Your immune system will stop working as well as it should and if you're highly stressed your bacteria gets stressed. They pick up on that and they get stressed by the environment around you. If you eat things that make them stressed then they respond by pumping out toxins. That's what all microbes do when they get stressed: they protect themselves just like we do.

This, if you can't tell, is my daughter and this is ... [crosstalk 00:27:45]. Absolutely. Kerrygold grass fed Irish butter. She got that for Christmas. First time she ever sat on Santa's lap he said, "What do you want for Christmas, little girl?" She said, "I want my own stick of salted butter." He looked at me like, "Oh my God, you're an abusive father." Yes. She had a bicycle and all her toys and that was her fav ... She picked it up, she opened it, and she hold it above her head like an Olympic torch and she around the house screaming, "Yay! Butter!" My kids eat butter on a regular basis because it's good for their brains and there's a lot of that science in the book. I eat a stick of butter a day on this diet on purpose.

By the way, micro-nutrients are kind of funny. A recent study I reference in here ... If you wanted to just get the U.S. [inaudible 00:28:33], which is completely jacked anyway, you only need to eat twenty-seven thousand calories a day. Yes, this lovely vision you have of getting all of our nutrition from our food? Yeah, good luck with that. If you're not getting the right nutrients or eating toxins you're going to lose more nutrients anyway. The Bulletproof way we do this is you eat nutrient dense foods. Butter is a highly nutrient dense food, so is liver, so is beef from grass fed animals, you don't burn your food, and you pick foods that don't have toxins in them in the first place because their quality foods and because they're the right foods.

Here's the philosophy behind it: most people don't know what it feels like to feel awesome. You might think you know what it's like to feel awesome but it's like being colorblind. If you've always been colorblind, "Sure, I can see the color red. It looks like that." You really do think you see the color red because you've never experienced it. The Bulletproof Diet is actually presented as a spectrum here. You'll see the spectrum in the next couple slides. That spectrum will allow you to choose to be as clean in your diet as you possibly can be.

When you do that you'll experience profound improvements in brain fog and cognitive function, in energy levels. A very common feedback I get after someone goes on the diet even for just a week or two is, "Oh my God. I feel like I drank jet fuel. I feel so good. I'm sleeping an hour less per night, not because I can't sleep, because I don't need to sleep to recover and my brain works. I've gotten so many things done. I've become more creative." This is what your body's capable of and you don't know what's getting in your way. You just remove all the things likely to do it and then you learn.

You need to find your kryptonite. For someone over here it might be gluten, in fact, for almost all of you it's gluten. [inaudible 00:30:22] quite well and low

protein, but for many other people that might be one of the things that makes them weak. For others it's nightshades, other people it might be nitric oxide in food. I went through, over the years, and pulled out all the stuff that research shows is likely to cause major problems. Now you can eat as clean as you want and then you can go in the other direction. If you want to be able to feel dirty you'll have to feel clean first or you'll never know.

Once you find something that really messes you up ... You've not had it for a week, you try it, you fall down when you're done with whatever it was. Now you eliminate that and you can go back and test the other things. There's multiple variables here. Maybe your problem is if you eat a spice you're allergic to and dairy together. You find out you're allergic to a spice, you stop eating the spice, maybe your dairy allergy just got better or vice versa. It's a constant process of building awareness. If you become self aware of the effect of your environment on you ... Your environment becomes a deliberate thing that you choose rather than something that happens to you. That's why The Bulletproof Diet is so profound because it builds mindfulness of what your food and what the world around you does to you.

Now we get into the specifics of the diet. How many servings should I eat per day? Healthy vegetables I say six to eleven servings. These are FDA servings which are sort of dumb because ketchup is a serving here. Sorry. Healthy fats, five to nine servings and those servings are relatively high calorie obviously. Animal protein, a good amount of protein, and one to two servings of fruit. Fruit and vegetables is like fish and bicycles. They're not the same thing. In your mind you need to separate them out so that you can say, "I'm going to eat a fruit." A fruit is a bag of sugar water. It's a candy and it has some vitamins in it too. It really does. A vegetable has a very different affect on the body. Divide them up.

How should I allocate my calories per day? This is fruit. Up to seventy percent healthy fats, at least fifty percent. This is really important for a whole variety of reasons including ketosis, including cognitive function, including the bile turnover. If you say, "I'm going to do The Bulletproof Diet but low fat," you will fail. Animal protein, approximately twenty percent of your calories and a whole bunch of vegetables. Vegetables are mostly water. They're not that many calories.

Now, things that really mess you up; starch, sugar, processed foods. I almost said, "Feed these to your mother-in-law but that wasn't very nice." Grains and soy are simply bad for you. Milk and cheese, there are a whole variety of reasons you shouldn't have those, but butter doesn't have the downside that's present in milk which is both milk protein and toxins from what the cows ate that accumulate in the protein and very specifically in the cheese. This is how The Bulletproof Diet looks and I'm hoping this is visible. Can you guys read these at all?

Speaker 8: Yes.

Speaker 10: Yeah.

Dave Asprey: Good. What we do is we say, "Green. Red." You're on The Bulletproof Diet even if you say, "You know what, today I'm going to have pastured duck. I could have been more perfect," but let's face it: if you spend your entire life trying to be more perfect you probably can do it. You can make sure that the walnut you ate was blessed by a one armed monk so it's slightly better than it was before. There's a law of diminishing returns. You don't have to only eat the perfect food all the time. What you do is you say ... If I'm saying I'm at a restaurant and I see a menu and I can eating factory farmed eggs and meat in a quiche or they have, over here, say a smoked sockeye salmon. Now you have a map that tells you, "If I choose this I'm going to be more bulletproof than if I choose this but if I choose this I'm still on The Bulletproof Diet. I just choose to eat on the red side of The Bulletproof Diet."

Every meal is a combination of choices and this is just a road map to help you make better choices. What we focus on over here is animals that have less polyunsaturated omega six oils. Very specifically we recommend grass fed animals because grass fed animals have a very different fatty acid and a very different toxin level than factory farm beef. In fact, if you notice, factory farmed meat is here. Grass fed beef and lamb is here.

It's that big of a difference. I can't stress that enough. If you're going to go to a restaurant, and you're going to order something that's not wild or grass fed, you want to get the leanest possible thing you can get. Usually the filet mignon is a good choice. You want to do that because that fat from those animals is the wrong kind of fat, and it's full of toxins, and if it's not organic it's fully of synthetic xenoestrogens that they put in the animals.

People believe in a calorie diet don't know what to say when I tell them ranchers buy something called Zeranol. It's a waxy tablet full of an extractive toxic mold that you put in a cows ear. It melts into the cow, and they pick up the fat, and this estrogen increases [inaudible 00:35:31] deficiency by thirty percent. What this means is that the presence of a tiny, waxy tablet in your ear meant that you had to eat thirty percent less calories to get the animal fat. Do you still think that it's calories in minus calories out? It just isn't and that's only one of many things that affect whether a calorie makes you fat.

In the middle we put pastured duck and goose because even though they're pastured they're still full of fats that aren't that compatible with humans. They taste good. I eat geese and ducks but I don't eat them every day, I don't eat them as health foods, and chicken breasts are not high on my list of health foods. From an oil and fat perspective we're looking for saturated fats that don't have toxins in them and we're looking for omega three oils. We're trying to avoid omega six oils wherever possible.

We picked coconut and MCT oil which is an extract of coconut. No GMO soy lecithin or other sources of lecithin are important for forming good nerves. No other part of the soy is useful to eat. Even this one may have allergy pollens for a few people but it's usually okay. Olive oil is good. If you think you're going to eat all olive oil and be healthy though, you're not. Eating too much olive oil is going to give you too many omega six oils but it is one of the healthy oils and it's one you should never heat.

Chocolate, cocoa butter, you can eat as much of that as you want pretty much as long as it's not moldy. Avocado or avocado oils from the avocados that was not heated is also a good source. We go into some nut oils that are somewhat polyunsaturated and you get over here to GMO brand oils like corn oil, and margarine, and cake oils. This is one of the most important slides. If you simply drew a line about here and said ... You can draw it here and said, "I want to go in that direction," you'll profoundly transform your health. Eating the wrong kinds of fat will mess you up.

Now I'm going to talk about secret butter powers. I need a need a t-shirt like that, like a butter stick. That would be awesome. There's something in butter called Butyrate. How many of you know Butyrate? Cool. We have a Butyrate-aware audience. My son, who's two and a half, looked at me the other day and said, "Daddy, why do I need more Butyrate?"

Speaker 4: Awesome.

Dave Asprey: It's a short chain saturated fatty acid. Short and medium chain saturated fats act very differently than the long chain saturated fats we're use to hearing about. In humans this is what Butyrate does: it's anti-inflammatory. In fact, in the brain, it's profoundly anti-inflammatory. One of the reasons people go, "Oh my God, I just woke up. I want to have Bulletproof coffee," which is a recipe on the site of mixing unsalted butter and low toxin coffee, blending it instead of using cream in the coffee so you get more Butyrate. People who do that go, "Wow, I feel better than I have before in years," because the Butyrate and caffeine together ... Butyrate stops brain inflammation and so does some of the compounds in coffee, so suddenly their brain works better than it has in years.

You get this anti-inflammatory affect, you inhibit inflammation, it's a profound human part of the gut. Sorry, not part of the gut, but it has a profound healing impact on the gut. You can get it from dairy, four percent from cultured, grass fed butter, or goat butter is five percent Butyrate, or if you're lucky enough to have intact gut flora of the right species and eat the kind of fiber they like you can grow Butyrate in your gut itself if you eat a high starch, high fiber diet. But you may fart a lot.

In mice it's shown to protect against mental illness. I believe it does the same in humans. It also makes you burn more calories and improves body composition. You get leaner when you eat butter because butter because butter is four

percent Butyric acid. That's awesome. Put butter on your food. No vegetable should ever be without butter. Also Butyrate reduces the negative effects of type one diabetes.

Your intestinal permeability, which allows intact proteins through your immune system to attack to give you food allergies, also goes down. Your gut will heal if you eat more butter. That sounds crazy but it's true and it works. You get thinner and you get smarter when you eat butter. Now, I say that one without a study. I'm working with Stanford and [inaudible 00:40:03] from Google on doing an IRB approved study of the effects of grass fed butter in low toxin coffee versus no butter and regular, bad coffee. We're actually going to have data. I would ask you if you're interested in being apart of the study. It'll be two weeks where I send you some coffee and you drink really good creamy coffee on some morning and not other morning.

Speaker 7: Cool.

Dave Asprey: I would love to have you participate. If you're interested hit me up on twitter. I'll give you my email and the end of this and it would be really cool to have your help. Let's talk veggies. Vegetables are good for you, right?

Speaker 3: Right.

Dave Asprey: Not necessarily. Notice fruit is over here and vegetables are here. Some fruits are better for others and here, for instance, eggplants, peppers, tomatoes are in the middle here. They're not particularly good for you because they're full of leptin. lecithins are responsible ... I won't say responsible. Lecithins are proteins that go through your gut lining intact. They stick to the polysaccharides, the sugars the line our cells. Different lecithins stick to different cells in your body. Lecithins are the defensive mechanism from those things. They're there to keep bugs and animals from eating those vegetables because they're poisons.

Sarin nerve gas is actually based on a lecithin from jack beans. This are potent things. Twenty percent of all arthritis comes from, not garlic and onion, but eggplants, peppers, tomatoes, and potatoes but their potatoes are even worse because of their starch content. Garlic and onion are here which makes a lot of people very upset. I live garlic and I like onions. That's okay, I like them too. But particularly garlic is a medicinal herb. Dosing yourself with garlic all the time is not a good idea. How many of you here are Italian? How many of you know Italian housewives? There's a stereotype there and I'm not saying whether it's true or not except that it came from somewhere.

What I'm saying there is that there are studies that showed garlic inhibits alpha brains waves, so does onion. It has an unstable nitrogen bond in the molecule that's relative similar to THC. EEG studies will show you that you have a harder time entering a relaxed mental state when you eat garlic. I've done advanced neuro feedback training, forty years of zen meditation. Not that I learned all the

stuff you learned studying that but I did achieve the same brain state as someone who spent time every day of their life meditating.

If I eat garlic it takes me four days to be able to get back to having my brain to what it can do. When you train your brain using the kind of software that we have that teaches you to be smarter, same thing. A quote from my business partner, "Dave, I didn't believe you about garlic but now that I trained my brain to do the duel [inaudible 00:42:47] training that raises your IQ" ... For him it was eighteen points. If I have garlic my brain doesn't do what it can do. You lose abilities if you eat garlic every day. If you eat this every day you will never know it's doing that to you because it's in all the food you get at every restaurant. Go without garlic for two weeks and see how your meditation changes.

Over here we have vegetables that are healthier for you and over here. You can go this far. Artichokes, higher in starch. We start hitting extra starch and extra fructose, and we get into the very high fructose over here, and high corn syrup at this end. It's not that you shouldn't eat canned fruit. If you do you're eating something that's on the red side of The Bulletproof Diet and not the green side. You're making a less optimal choice but you didn't fail.

Nuts and legumes. Nuts are over here. Coconut is by far the best. The next version of this diet that comes out ... We come out once a year, once every six months, with the latest things. We're actually going to shift these a little bit to the right because of concerns about ... The last couple of years the number of toxins in nuts, they seem to have been going up.

This is reflected from drought and weather conditions for the most part, but we'll shift these over a half inch. You won't notice much difference. These are some other things you can do. When you get over here, garbanzo beans ... I'm sorry, hummus is not the new guacamole. Hummus is not that good for you. It's relative to high in omega six oils and it's very high in lectins. Pick the guac, not the hummus.

Grains. There's not a lot over here. This is actually an old rev of the slide and I should have put the right one up. White rice belongs here and this one belongs here. White rice has less toxins than brown or wild rice. They're both relatively good for you as far as grains go. You get quinoa and oats. If you're gluten sensitive you don't even want to do those. After that you really don't want to be eating this stuff. This is not bulletproof food.

From a dairy perspective: butter and ghee, non-organic grass fed, it's a question of what the animal ate. That's what controls almost everything to decide. You get here and past this you're basically into ... You really ought not to eat this stuff. Pretty much all cheese is over there. The reason cheese is there is that most of the toxins the animal ate get concentrated in cheese and then we ferment the cheese. When we ferment the cheese we basically put some

microbes on it and we say, "Here, enjoy the cheese." The thing is microbes like to protect their cheese. They don't like to share with other microbes so ...

You've heard of Roquefort, the cheese, right? Have you heard of Roquefortisan? That's the toxin that Roquefort makes to protect its cheese from the other things that's trying to eat the cheese. There's a little microbial warfare happening on the cheese. In addition to taking all the toxins from what the cow ate and dumping it into the cheese, then we allow a little war to happen, and then we eat it. It tastes good. I'm not not doubting cheese, you know, quesadillas are wonderful they're just not very bulletproof. I actually have some recipes on the site. I don't know if I posted that one but it's written where you can make things that are cheese-like that don't have cheese in them that taste really, really good because you used the butter fat ... you still get the fat from cheese but you replaced the rest of it with vegetables.

Speaker 10: Why is skim milk there?

Dave Asprey: Skim milk is there because they, in order to make skim milk, remove the butyric acid and all the healthy fat. Then they spray dry the milk which oxidizes what cholesterol left in it and denatures the proteins. They get powdered milk from that. They add it back into the skim milk. Skim milk is gross. It is not food that humans should eat, especially kids. It is not healthy drink water before you drink skim milk. In fact, I'm not sure if Coke or skim milk ... I think I would have picked Coke. I'm not joking.

When you look at spices this is a huge, huge issue. Spices are full of biogenic amines. Micro-toxins are a known issue, a very big one. A huge percentage of spices globally are lost to mold infestation. They take spices that are not that moldy but are known to have the species that generate the worst toxins like [inaudible 00:46:46] and aflatoxin. They say, "Well, the levels of these species are very low and we can't irradiate these because people won't buy them so we're going to just package them up."

Then as good consumers we take the spices and we put them in the cabinet above the stove where the steam goes. Then those spices, they keep getting moldier and moldier. That paprika that you haven't opened since you cooked last Christmas or something? When you open that thing up it is going to give you a headache. I bet you money it does. One of the easiest things you can do is toss your spices. Move them out of the kitchen or at least away from sources of heat and keep them very carefully sealed. I know people who keep theirs in the freezer even in jars. I like to do that and what I've done is I found that things like oregano or turmeric ... I think that oregano is a great replacement for garlic. If you put enough oregano on something you really don't miss garlic.

I focus on apple cider vinegar and these spices here. I'm a gourmet cook. You can do amazing things with these things. You don't need to have a spice blend with eighty-five different spices. Spice blends are almost always lower quality spices

and they quite often have MSG in them. In the U.S. if it's less than seventy-five percent MSG you can label it as spices. You can label it as flavor extract, spice extract, and many other things. If you have problems when you go to restaurants quite often MSG is a hidden culprit and they will tell you, legally, no added MSG. But they put a pound of three quarters MSG in there but they don't have to tell you legally. That's just a standard. That's why spices, flavorings, MSG are there.

Speaker 4: How about chili peppers?

Dave Asprey: Chili peppers are tough. Where do I have those here?

Speaker 4: Like the really spicy ones.

Dave Asprey: I love super spicy ones. How could they not be here, my favorite ones. I like to cry when I eat chili peppers. I grew up in New Mexico, like really, I grew up on habaneros. They're relatively good unless you're lectin sensitive. If you're sensitives to lectins in chili peppers they may cause significant problems for you so you need to test them. Go without them for a while then add them back in and see what happens.

Speaker 7: What about lemon juice?

Dave Asprey: Lemon juice is fine. I didn't count it as a spice. I guess it's a flavoring. It would be over here. Lemon juice is totally okay. Lime juice is awesome. I use it in some of the recipes too.

Speaker 11: Isn't apple cider vinegar fermented?

Dave Asprey: Apple cider vinegar is fermented but it doesn't form biogenic amines when ferments and it doesn't form mycotoxins. The only thing that you need to worry about there is if it's organic apple cider vinegar you can form pacholin which is one of the mycotoxins that's really bad for your kidneys. It turns out organic apple juice has five thousand times more pacholin than non-organic apple juice. But that's okay. You're probably still okay because the fermentation process acidic acid reduces pacholin levels a good amount. I drink organic apple cider vinegar. I don't drink it but I use it in my [inaudible 00:49:31] seasoning to bring the sour taste in.

Speaker 12: What about coconut vinegar?

Dave Asprey: Coconut vinegar? I don't know. I haven't seen any good studies on it. I always use apple cider because there's a better study.

Speaker 4: Balsamic?

Dave Asprey: Balsamic? Full of lead usually and full of mycotoxins. Bad news, sorry. Tastes good, not good for you.

- Speaker 13: I didn't see millet on your grains scale.
- Dave Asprey: Millet would have been one of the grains kind of three quarters of the way towards the red. Thanks for bringing that up. I'll have to put that on the next one that comes out in a couple of months.
- Speaker 14: Red wine vinegar [inaudible 00:49:59].
- Dave Asprey: Red wine vinegar is pretty bad. I should have put ... I have an alcohol infographic. It's not on this presentation but I actually rank the alcohols from least toxic to most toxic. Red wine is the second most toxic. Red wine vinegar is not a good choice. I hate to say this all-
- Speaker 15: What's the least?
- Dave Asprey: The least toxic is potato vodka that's distilled and filtered.
- Speaker 10: What is Keffir.
- Dave Asprey: Keffir? It is fermented dairy. Some people do really well with Keffir but a lot of people don't so ... You also need to use raw milk to make Keffir if you want to. It's called a risky food but it may work for you. It's worth testing. GO without it for a while and add it back in and see if you get anything. Any other questions?
- Speaker 8: Egg whites?
- Dave Asprey: Egg whites? Egg whites are tough. If they're raw they have affitin. Affitin blocks the biotin in the yolk. What I typically do is I eat some raw egg whites and I just use more egg yolks. I have a recipe on the site called Get Some ice cream. When you eat this [inaudible 00:50:58] egg yolks and two or three egg whites. The ratio of yolk to white is proper and it's raw. It has a stick of unsalted butter, coconut oil, a sweetener which we cover in the next one of these. I use iotol or ribitol and some vanilla.
- When you make this, an hour after you eat it you're body gets an epogenic signal that says, "I am in a land of plenty with enough saturated fat to support neurological development of a baby. It's time to mate," which is why it's called Get Some ice cream. If you're dating the idea of, "Hey, let's have a drink," versus, "I made this ice cream for you because I think you're awesome." Trust me the ice cream is a better bet.
- Speaker 14: What about seaweed?
- Dave Asprey: Seaweed. Seaweed is good for you. Seaweed would actually be a nice addition there. But the seaweed they sell at sushi places has gluten in it from the way it's

processed. Nori is okay, but seaweed solid in the U.S. is not okay. It was the Google chef that taught me that.

Speaker 16: I'm curious how you might reconcile something that I've been studying. The people in the longevity hot-spots routinely eat fermented foods. It's one of the things that is similar in the diets of all the longest lived people is that they eat fermented foods. Not just every day, but pretty much with every meal, every day.

Dave Asprey: This is a major thing. In roughly nineteen eighty DuPont released something called Benomyl. Benomyl is a anti-fungal that's used on crops. We used it pretty heavily. There was concern that Benomyl kills ninety-eight percent of fungus of fungus. The other two percent though, it's a very potent eutogen and it's causes plasma level mutation, not single gene mutation. It's not evolutionary style mutation, it's X-Men style mutation. Plasmas can be traded like baseball cards between species. These things reproduce every twenty minutes. F

or the last twenty years we've been breeding super-toxic molds. When you put that cabbage on top of your fridge you don't know what's in it. The chances of you getting much higher levels of mycotoxins or much higher levels of biogenic amines goes up dramatically. I'm not saying all fermented food is bad for you. If the food is properly sterilized and it's fermented with the right strains, it can be very health promoting.

But since you don't know and so much organic, fermented food has excess histamine in it it's totally a crap-shoot. That's why I tell people avoid the fermented foods and then add them back in. Do the get clean and then get dirty thing. If you feel great on fermented food, and your digestions stronger and you feel really good, and you're still full of energy, great. I think you may find that it's not consistent. This week I felt great, next week I didn't. If you do the experimenting you'll find out that fermented foods are not as good for you as they use to be.

We also have a problem where round up spraying on top of this Benomyl creates five hundred times more toxins from soil microbes. What we've done is, first we ruined our own probiotics in our guts so we don't have good gut flora here. Now, thanks to things like vegan diets, and vegetarian things, and this whole idea that grains are good for you we've done the same thing to the planets probiotics which is our soil ecology. We're basically destroying the soil with these chemicals, the equivalent of taking antibiotics for your own GI tract [inaudible 00:54:10] fungicides in fields. We're sterilizing soil.

Those are the reasons that you're having problems with some fermented foods. The other thing is that when we want to create, say, a new chemical we can use a bio-reactor. We take aspergillus usually and we genetically modify it. Say, we wanted to make citric acid as it's toxin instead of one of the ochratoxins or

something. Then you put some sugar, put some aspergillus of your special stuff in a big steel vat, and you let it ferment for a little while.

As it ferments it makes more citric acid which is what you're trying to make, but it doesn't make enough so what do you do? First thing you do is you shake it, you stress it. After that you expose it to EMFs; hot, cold, hot, cold, hot, cold. You piss it off as much as you can and the more angry and threatened it gets the more toxin it makes to protect itself. When you're fermenting that stuff in your house, sitting next to your wireless router, I think there's probably an effect from that.

I also think there's a reason that in Korea they bury the stuff they ferment. We fermented it in root cellars a hundred years ago. Are you doing that now or are you doing that on top of your fridge? It matters. We know it matters because it's a manufacturing process we've done for a long time. I'm not saying all fermented foods are bad. I'm just saying the fermented food you're eating is probably bad unless you do it right.

Speaker 14: You have fish oil on the safe side, however, high levels [inaudible 00:55:28].

Dave Asprey: Question: how much fish oil is safe? One, two, maybe three grams? A lot of people excess dose fish oil. I actually prefer krill oil. On the blog I write about krill oil as a phosphoralted source of omega threes. Excess omega three can be a major problem because it oxidizes. psytrate is not cell oxidized. Their stable. Your cell walls, your brain, your hormones are mostly made of saturated fats with enough omega threes to allow flexibility for receptors to express through the cell wall. Even the notion of a cell wall is a bit funky. It's not really a cell wall. It's two layers of fat. It's called a lipid violator. Having the right fats there is important.

That cold exposure that I mentioned earlier helps to change that. The bulk of the diet though, by itself, really changes your omega six to omega three ratio. Some people have a forty to one, if you eat a standard American diet. Forty omega sixes for one omega three. I have one point five to one. That's about where I'd like it to be.

Speaker 17: The doctors who treat diabetes prescribe Metformin. Metformin affects your liver. Is that a positive affect or a negative affect I wonder?

Dave Asprey: The question is when you have diabetes doctors prescribe Metformin. Is it a positive affect on the liver or a negative affect on the liver? I took Metformin for about four years as an anti-aging substance. My understanding is that it's affect on the liver is usually okay if you're taking your vitamin B-12 because it does deplete B-12. You'd want to take B-12 with it. Taking Metformin in that way give you some of the genetic changes that happen as a result of caloric restriction.

It was BioMarker Pharmaceuticals who did a bunch of research on rabbits to show that it actually causes genetic expression changes it's pretty cool, there may be an argument for doing it. I know people who do it. I just found I didn't

really need to do it. My fasting blood glucose is eighty-nine even though I eat a stick of butter every day and a pound or two of red meat. Exercise is something I do for twenty minutes once every, maybe, ten days. That's all I need. I'm a little inflamed because of the ice stuff now but seriously, this is food. This is like ... I'm not the most ripped guy I ever met but I'm happy that I flew a hundred times last yet. I'm the vice president of a big company. I do this, I write books, I have little kids. I don't work out for an hour a day. It's a total waste of your life.

How I felt and based on research and just looking at what works and what doesn't work. The fermented food thing I would say if it works for you, great. It's fun. It's part of artisanal cooking. I eat local. My freezer right now has seven grass fed lambs and half of a grass fed cow in it because the good grass was just out in Victoria. That'll last me for a while. I'm all over the local, make it yourself thing.

Don't do the fermented stuff until you've tested without them and you know what clean feels like. Then add fermenting back in and you may find you do even better. Maybe your gut functions going to be awesome. You may be surprised at your results, and it may change with every batch, and it may change with the age of the batch, and how the batch was stored. Now I'll sound like a total hippie, it may change based on the phases of the moon because it turns out that the phases of the moon actually do control the toxin levels and microbes to an extent. It matters. They're part of the ecosystem around you.

Speaker 17: You're saying that you should have fifty percent of your food fat, healthy fat, and-

Speaker 5: Calories.

Speaker 4: Calories.

Speaker 17: Calories.

Dave Asprey: Fifty percent of your calories, right.

Speaker 17: How does that work. A lot of the fats like saturated, I'll tell you, it's really bad for you and the omega sixes-

Dave Asprey: It looks like this.

Speaker 17: How do you ever get your omega sixes ... How do you get it so low? They're very low. Usually it's three to four to one. Yours is extremely low.

Dave Asprey: How did I get mine so low? I don't eat omega six oils.

Speaker 17: What are you getting your fats throughout the day? Your healthy fats?

Dave Asprey: What I do for breakfast is I have Bulletproof coffee. I take this ... I actually designed the process for this coffee to not have amines, to not have mycotoxins in it. People who are allergic to coffee usually can drink this. They're not allergic to coffee, they're allergic to mold in coffee or they have histamine problems so they drink this and they're like, "Oh my God. I feel so much better than I have in years."

Because coffee is an adaptogen. I have a whole talk on coffee but it does really positive things for your brain. It even helps to fight brain cancer if you brew it right. I take this and I brew about four hundred milliliters of it, a large cup. I add about a quarter of a stick, maybe a third, of one of these Kerrygold to it. A big squirt of medium chain triglyceride oil, and I blend it so it has a big head of foam like a latte, and I have that for breakfast and I'm completely full, and I'm completely focused and I feel awesome.

Between about seven-thirty, eight AM and two PM I don't need anything else. I enter in ketosis at that time because I had a fast all night long while I was sleeping. Around two o'clock I'm like, "Wow, it's time to eat." If it's my one day in ten where I'm going to work out, I might work out for fifteen minutes standing on a vibrating plate holding a barbell or something. Then I go eat and I eat a pound of meat, vegetables blended with more butter, stuff like that.

Speaker 14: If you have a shake in the morning could you add whey protein?

Dave Asprey: If you have a shake in the morning ... If you're not trying to do Bulletproof intermittent fasting, yes, whey protein matters. But whey protein is very fickle so I recommend grass feed, denatured whey protein concentrate. I'm not trying to plug my stuff here. I formulated a whey protein that has the highest levels of immune stimulated [inaudible 01:00:55] in it. It's called Upgraded Whey. It's on the site. It's been getting very, very positive reviews and it's what I give my kids [inaudible 01:01:04].

Speaker 17: You gain fifty percent of your calories from that diet you just gave us?

Dave Asprey: Fifty percent? I get all my calories from that diet.

Speaker 17: Fat. Fat from that diet?

Dave Asprey: Absolutely.

Speaker 17: You gain fifty percent of your calories from fat-

Dave Asprey: Just put butter on everything.

Speaker 18: I do it. I get sixty-eighty percent and it's easy. I do it and I get sixty-eight percent of my diet.

Speaker 7: [inaudible 01:01:28]

Dave Asprey: Was your question because [inaudible 01:01:31] rates almost one to one? Are you saying how do I keep it so low because grass fed butter does some omega six in it, is that what you're asking?

Speaker 18: Yeah.

Dave Asprey: Okay. I don't eat any other omega six oils. I eat some fish.

Speaker 10: What are the omega six oils?

Dave Asprey: Canola oil, corn oil, vegetable oil. All the stuff on the red side of the oil I just don't do it.

Speaker 18: Olive oil-

Dave Asprey: I don't eat much olive oil. I might have a tablespoon of olive oil every couple days.

Speaker 3: What about nuts?

Dave Asprey: Nuts are there on the diet. Some nuts are worse than others. I have walnuts further to this side because they're the highest omega six.

Speaker 10: Yeah.

Dave Asprey: The way you process your nuts matters too. You want keto nuts particularly. I don't eat a ton of nuts. A lot of people on The Bulletproof Diet do and they do well. It depends. Nuts are also a higher risk of mycotoxins. It's one of those things that you have to look at your individual biochemistry.

This was the last one. I forgot to give you the sweet one. A lot of people in the paleo diet camp will tell you, "Get use to not eating sweet foods. Sweet tastes are bad." That's not technically true. I recommend xylitol. Arithroltol also should be here too. Those are the two safest sugar alcohols. Stevia which tastes horrible to me, but I have a gene that about twenty percent of people have where Stevias taste bitter and awful, the rest of you may love it. The other sugar alcohols do raise your insulin a little bit. They may kick you out of ketosis. They're not great but they're better. Table sugar is much better than ground sugar which is usually far more full of toxins, it's less filtered.

I wonder why I have two. This must mean organic. I have to fix that to say organic. Regular white sugar here is really not that good. Then you get into corn syrup, NutraSweet, and these artificial sweeteners. These are really important. If you care about brain function just don't eat that stuff. It's really not good. Even

[inaudible 01:03:23] potassium, which a lot of people say, "Oh, that's the safest one." It's linked to benign thyroid nodules.

In the mid nineties they ate a lot of [inaudible 01:03:33] potassium and I actually grew the nodule in my thyroid that comes as a result of it. You don't need fake sugar. Xylitol is fine. Raw honey is not something you should eat every day with breakfast or something but a little bit of raw honey before bed can have a profound affect on sleep because it raises your glucose in the brain specifically. You can even stay in ketosis if you have just a little bit like a teaspoon or two.

Speaker 18: What about green tea?

Dave Asprey: Green tea is really good for you. I should have something about drinks here. Low toxin coffee and green tea are both really good for you. Green tea, to a certain extent, coffee to a larger extent and chocolate all inhibit mTOR. mTOR is something that your body uses to build muscle. The way you build muscle is by inhibiting mTOR. When you stop inhibiting it, it springs back. When it springs back you build muscle. If you drink coffee, you do intermittent fasting, or you drink green tea, or you eat dark chocolate and you time it right you can actually use that to just build muscle. It's the same stimulant that exercise it except you didn't have to exercise. You got to eat chocolate. Two of the three, like intermittent fasting with coffee, wow. You've got a good morning and maybe grew some abs.

Speaker 18: Can you explain to me the correct timing?

Dave Asprey: The correct timing? Basically don't drink coffee, green tea, or eat chocolate after you exercise or right after you break a fast. You want to do them while you're fasting so should exercise in fasting state, you should consume those in a fasting state, and then break the fast. Coconut oil? Totally good.

Speaker 7: Turbinado, raw sugar?

Dave Asprey: Turbinado, raw sugar it would be about two thirds of the way to the right, like onto the reddish orange-ish side of things. Basically sugar itself is half fructose and half glucose. It's half dextrose and half fructose. That was suppose to say something else. This is actually a mistake. Sorry. Anyhow. Raw stuff isn't that much better.

Speaker 14: The timing on the fasting so your last meal of the day before you start your fast for the night is when?

Dave Asprey: First of all, you don't have to do fasting of any sort on The Bulletproof Diet. You can just eat all together. I don't want to mislead people but the Bulletproof intermittent fasting gives you some very big advantages even if you do it once or twice a day. Sorry, once or twice a day. Once or twice a week. In order to do that what I do ... The protocols is published on the site. I eat my last meal of the day

around eight or nine PM. Then I don't have anything except fat and coffee, that Bulletproof coffee, in the morning until two PM the next day.

Speaker 14: Eighteen hours?

Dave Asprey: It's an eighteen hour fast.

Speaker 14: Yeah.

Dave Asprey: But it doesn't feel like a fast. Most people who do intermittent fasting get a little bit tired, and cold, and cranky and they have work and they have family and they have stuff to do. They're like, "I'm going to force myself to make it." If you have a big cup of coffee with fat in it none of that happens. You feel like a Greek golden god and you get all of the benefits of fasting. It's awesome. That's the way to do it.

Speaker 6: If I do the caffeine and [inaudible 01:06:29].

Dave Asprey: Interesting.

Speaker 18: Can you repeat the question?

Dave Asprey: The question was MCT oil gives me a scratchy throat and caffeine makes me jump up and down and go, "Ahh!" It turns out I don't believe you about caffeine. I think you've been drinking bad coffee which does that.

Speaker 6: It does.

Dave Asprey: How did you get caffeine to know that it does that to you?

Speaker 6: Because I stopped it.

Dave Asprey: Yeah. You stopped drinking bad coffee because it made you feel bad. That was bad coffee. That wasn't caffeine.

Speaker 7: [inaudible 01:07:01] eight percent raw cocoa or something like that?

Dave Asprey: I think you probably have a sensitivity to amines, is the most likely thing there. If you have a very low amine chocolate ... I actually talk about brands of chocolate on the site. Lindt chocolate with a very high turnover for European standards. It's one of the cleanest chocolates out there. Most of the American, even organic, brands they don't have enough thread over so those chocolates form mycotoxins and amines. Chocolate and coffee can be not good for you, it can be good for you, based on the quality of it. If you want try the Bulletproof coffee. If it makes you feel tweaky send it back to me I'll give you your money back. I know hundreds of people who are like, "I can't have coffee. I can't have caffeine. It makes me feel bad," and then they drink that and they're like, "ahhh."

Speaker 7: [inaudible 01:07:45]

Dave Asprey: Have you tried different rounds of MCT?

Speaker 7: [inaudible 01:07:47]

Dave Asprey: Okay. [inaudible 01:07:48] does it?

Speaker 7: Yeah.

Dave Asprey: I've never heard of this before. Has anyone else had scratchy throat?

Speaker 17: I've heard of it.

Speaker 6: Yes.

Dave Asprey: You would know, sir.

Speaker 3: The reason that it happens is that MCT oil is hyper-fluid. It's very, very thin and if the membranes in your throat are susceptible the fluidizing affect of the MCT it too strong. There's a couple of things you can do. One is you can mix your MCT into coconut oil, which adds the long chain fats and thickens it, or you could do it with butter. Also, there may be some imbalance in the membranes that make you susceptible to this and it may be that if you do a higher fat diet for a while that you become more tolerant of MCT oil. My guess is that at least ten percent of people have this kind of problem with MCT oil taken straight, at least ten percent.

Dave Asprey: Let's see. A question back there.

Speaker 19: Yeah. Can you please explain that mTOR pathway. Was there a particular percent of the mTOR in the dark chocolate that you like.

Dave Asprey: If you're trying to inhibit mTOR so that you'll build muscle you need to have dark chocolate. Eighty-five to ninety percent dark. Otherwise you're going to get a ton of sugar which isn't so good for you, or milk, or whatever else they put in there that's no chocolate. Go ahead.

Speaker 20: It's all right to freeze meat? I always assumed freezing your foods was bad.

Dave Asprey: This is really counter intuitive.

Speaker 3: Repeat the question.

Dave Asprey: Sorry. Is it good to freeze your food or not? You meat, should you freeze it? When I bought this half of a cattle they were going to age it for twenty-one days.

I told them, "No. No. Leave it out. Chop it up and freeze it and I'll eat it." It's really good that way. Dried, aged meat has a nice flavor but they actually throw mold on the outside of it that sends hyphate through it and it develops biogenic amines and you lose thirty percent of the meat when they trim it off.

What we we do now, for none aged meat in the U.S., is we package it, Sometimes six weeks ago in these big vacuum sealed things and it forms biogenic amines. Sometimes they put carbon monoxide on it to make it look pretty so it develops a nice, red color. But the idea that you need to have fresh meat is very expensive environmentally and it's not beneficial. Frozen meat is going to be the least decomposed meat of all and, for God's sake, you're going to cook it. Why does it hurt that it was frozen if you're then going to cook it, right? If you're going to eat it raw then you might make an argument there but even then ... Sushi, we freeze sushi to kill parasites. It's fine to freeze your meat. It's actually preferable to get meat that was frozen as soon as possible and defrost it right before you cook it. That's going to have the least breakdown.

Speaker 21: Where were you getting most of your calories when you had the four thousand calorie diet?

Dave Asprey: Fat.

Speaker 21: Just butter?

Dave Asprey: Butter, MCT oil animal flesh, and some vegetables.

Speaker 21: Was it like two, three sticks of butter and then ...

Dave Asprey: Smoked salmon, meat. Two, three pounds of meat. By the way, if you're sleeping five hours a night you're basically working as a senior executive, you move countries, you're under enormous amounts of stress, you're brain uses twenty to thirty percent of what you're doing. If you stay up late you burn more calories. These fools say, "Staying up late is bad because it makes you eat more." You're thinking more, you should eat more to support your brain function. If you're going to stay up late and not eat more you're going to break your metabolism and that's bad. The reason I ate so much is because I needed to be in a very high performance state to deal with the huge amount of stress that I was under.

Speaker 22: You mentioned smoked salmon. Is that cold smoked, hot smoked?

Dave Asprey: The best is cold smoked sockeye. The lowest toxin salmon that's out there. They don't get exposed to mercury very much. Hot smoked is generally okay but cold smoked slightly preferable. I'm going to go to this side of the room and then I'll be back.

Speaker 23: I've heard and also seen supported on 23andMe, which I've had my genetics done on there, that there's big argument about whether caffeine is good or bad

for you. There's been some research that suggested that it actually depends on what sort of gene you have. You may be one type of caffeine type versus another depending on whether or not you have this gene. I was wondering if you could speak to that at all since you say caffeine is actually good for you.

Speaker 10: One kind is called slow metabolizer.

Dave Asprey: Basically some people metabolize caffeine faster than others. The question is, is coffee caffeine? It's not. Coffee itself has beneficial substances. A lot of them in it that are not caffeine. It's just one of the alkaloids that's in it. So things like [inaudible 01:12:16] and [inaudible 01:12:17] have profound anti-inflammatory effects in the brain. First of all, that's part of the equation versus a caffeine pill. Second of all, even if you're a slow metabolizer of caffeine you might want to have less caffeine but I haven't see the biochemistry to know whether those slow metabolizers break it down into something toxic, so I'm not sure the answer there. I love when people have actual [inaudible 01:12:38].

Speaker 24: Some research shows that people who are slow metabolizers that caffeine has good thing for the longevity where as fast metabolizers it helps. I've heard of other research that coffee is both preventative and helps to cure Alzheimer's disease and [inaudible 01:12:57]

Speaker 23: [inaudible 01:12:58], specifically.

Speaker 24: Use less if you're a slow metabolizer.

Dave Asprey: Yeah.

Speaker 23: The research that's also supported by [inaudible 01:13:10] says that if you're one type up to two cups of coffee or the equivalent of two cups of caffeine is actually okay. If you're the other type up to five or six cups is actually very good. If you are the type that can take five to six, then it's actually a protective factor for your heart. But it would be good to find out which kind you are if you care.

Dave Asprey: I do about two cups of coffee a day in the morning. I do it all in the morning so I can sleep. There's some other studies on coffee. Women who drink coffee end up with less depression. It stops about twenty percent of prostate cancer incidents in men, and a hundred percent in women. You know if you're a fast metabolizer if you get a genetic profile done by 23andMe for, what? Two hundred bucks?

Speaker 23: It's typically [inaudible 01:14:06].

Dave Asprey: Okay.

Speaker 23: Around Christmas time.

Speaker 4: Then they force you to pay a hundred dollar a year prescription so it's two hundred dollars.

Dave Asprey: Between one and two hundred dollars at 23andMe.