

## The Human Upgrade: Episode 1137

[00:00:00] **Dave:** All right. Glucose Goddess. You guys probably follow Glucose Goddess because she has 3 million followers, but you may not. If you don't, her stuff is really good. And so I've been a fan of blood sugar for a long time. In fact, in maybe 2014, after I started the first blog, I opened a package one day and in it was a Dexcom glucose monitor.

[00:00:23] I used one, and it was with this really nice letter from a woman who said, Dave, I'm a type 1 diabetic. Your Bulletproof Coffee in this MCT oil especially has made such a difference in my life because now my blood sugar goes low. I don't go into seizure because I have ketones as a backup, and it's been life-changing. I got a new monitor. I know you'll want to geek out with this one.

[00:00:47] **Jessie:** Wow. So one of your fans sent you one.

[00:00:49] **Dave:** Yeah, it was just a Dexcom gift.

[00:00:50] **Jessie:** That's great.

[00:00:51] **Dave:** And I was like, this is cool. So I played around with it, but it was an older one. The newer ones, I work with Levels. Do you work with Levels or a similar company?

[00:00:59] **Jessie:** No, I don't work with any of the companies.

[00:01:00] **Dave:** Okay. So I'm an investor in Levels now, and Levels does the stick-on white thing that you see a lot of people wearing.

[00:01:05] **Jessie:** The Libre.

[00:01:06] **Dave:** Yeah. And I wore that on Dr. Oz, and he's like, what's that? I'm like, oh, that's my cyborg arm. So I have an Oura Ring and my little white thing. He's like, it looks weird on the camera.

[00:01:15] **Jessie:** Love it.

[00:01:15] **Dave:** So we're both nerds on that, and many listeners, you guys are nerds too, but some of you aren't. So we're going to talk in details about glucose because you're not just an influencer.

[00:01:27] **Jessie:** No.

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[00:01:27] **Dave:** You're a scientist.

[00:01:28] **Jessie:** Yes.

[00:01:29] **Dave:** And by the way, guys, everyone who says I'm not a scientist, number one, fuck off. Number two, I'm a computer scientist, so okay. Anyway, I am a scientist also, but you're a scientist in--

[00:01:42] **Jessie:** I'm like a proper scientist.

[00:01:43] **Dave:** Yeah, because you went to Georgetown.

[00:01:45] **Jessie:** Yeah, I went to a lab and worked on rat models and stuff like that.

[00:01:48] **Dave:** Nice.

[00:01:49] **Jessie:** Yeah.

[00:01:49] **Dave:** I worked on rat models once.

[00:01:51] **Jessie:** Really?

[00:01:51] **Dave:** I bought them at the store, and you glue them together and paint them like little rats.

[00:01:55] **Jessie:** What?

[00:01:56] **Dave:** Is that what a rat model is? It's like Legos, but for rats.

[00:01:59] **Jessie:** What are you talking about? No. Oh God.

[00:02:02] **Dave:** You're easy to fool.

[00:02:04] **Jessie:** Okay, I'm going to be better now. Next joke, I won't be fooled.

[00:02:08] **Dave:** I think I've got you. All right. Tell me about glucose.

[00:02:14] **Jessie:** Well, Dave, as you know, glucose is your body's favorite source of energy. So as we're laughing and joking around, our brain cells are using glucose, our heart cells are using glucose. Wait, when you hang on to that water bottle, your finger cells are using glucose. So in most bodies, all of your cells are using glucose all the time.

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[00:02:35] **Dave:** Even the neurons.

[00:02:36] **Jessie:** Even the neurons.

[00:02:38] **Dave:** We're going to have to talk about that one.

[00:02:39] **Jessie:** Well, it just depends. But I'm just talking in general, for most people.

[00:02:45] **Dave:** It's a primary fuel source.

[00:02:46] **Jessie:** Primary fuel, yes. But please, add some layers and some complexity, but I like to start from the beginning. Primary fuel source, principal energy for the body, and then we can talk about what happens if you don't want to do that. But the main way that most of us currently give glucose to our body is by eating food, by eating carbs mostly, so starches, bread, rice, pasta, potatoes, oats, and anything that tastes sweet from an apple.

[00:03:13] **Dave:** Except for stevia.

[00:03:14] **Jessie:** Yes, except for stevia. Correct. Except for sweeteners. So anything from an apple to a slice of cake, right?

[00:03:20] **Dave:** Yeah. What about broccoli?

[00:03:22] **Jessie:** Broccoli? Well, broccoli is mostly fiber and water. Very tiny, tiny, tiny, tiny amounts of glucose, but that's not going to spike your glucose levels.

[00:03:31] **Dave:** So when you eat broccoli, though, doesn't a meaningful amount of the carbohydrate eventually become--

[00:03:37] **Jessie:** Well, the thing is, in broccoli, most of the carbs are actually fiber.

[00:03:41] **Dave:** That's true.

[00:03:41] **Jessie:** There's very little starch. So the fiber's not going to turn back into glucose molecules. There's a very small amount of starch in broccoli that will turn to glucose, but if you eat a pound of broccoli versus a pound of bread, it's not at all the same thing.

[00:03:54] **Dave:** It's negligible. And what about the protein in the broccoli?

[00:03:56] **Jessie:** Yes. There's not much protein in broccoli.

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[00:03:59] **Dave:** There's about as much glucose forming starch as there is protein. But vegans believe it's high protein.

[00:04:03] **Jessie:** Well, listen, protein does turn to glucose at a much higher rate. So when people hear this, like, okay, so glucose, energy. I want lots of energy. Carbs give me energy, so I should eat loads of carbs. That's a common conclusion you might reach.

[00:04:20] **Dave:** That was me in the '80s, that's for sure.

[00:04:22] **Jessie:** Is that what you thought?

[00:04:24] **Dave:** Everyone thought that. So before doing a 100-mile bike ride, you would literally go to Dunkin Donuts and get the low-fat muffins, because they had more carbs.

[00:04:32] **Jessie:** Wild.

[00:04:33] **Dave:** And I wonder why I was fat as a kid. But that's what we believed, because we believed all these nutrition researchers and scientists, the American Dietetic Association. The people that make hospital meals today, you did that to me, and I've got your number.

[00:04:45] **Jessie:** Mm. I grew up on orange juice and Nutella crepes every morning.

[00:04:49] **Dave:** Where did you grow up?

[00:04:50] **Jessie:** In France.

[00:04:51] **Dave:** I was going to say. But was it really Nutella or was it like homemade--

[00:04:54] **Jessie:** Oh, no, no, no, real Nutella. Oh, yeah, yeah, yeah, the 70% palm oils kind.

[00:04:59] **Dave:** Palm oil is not that bad for you, is it? I don't think.

[00:05:02] **Jessie:** No, it's really good.

[00:05:02] **Dave:** Was it hydrogenated?

[00:05:04] **Jessie:** No, but it's really, really good for you, of course. No, guys, it's not good for you.

[00:05:07] **Dave:** Hold on.

[00:05:07] **Jessie:** Nutella is not good for you.

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[00:05:09] **Dave:** No, Nutella is bad for you, but palm oil is not bad for you.

[00:05:11] **Jessie:** Palm oil is bad for you.

[00:05:12] **Dave:** We have to talk about this.

[00:05:13] **Jessie:** Really?

[00:05:14] **Dave:** Why does your body make palmitic acid? It's the only saturated fat you manufacture.

[00:05:18] **Jessie:** Okay, but not in the same quantities as you would find in a jar of Nutella.

[00:05:22] **Dave:** I will eat palmitic acid all day long--

[00:05:25] **Jessie:** Are you serious?

[00:05:25] **Dave:** Before I eat canola oil.

[00:05:27] **Jessie:** Sure, okay, but you're not going to recommend that people start drinking a bunch of palm oil, add it to their diet.

[00:05:32] **Dave:** I wouldn't supplement it. I would do butter instead.

[00:05:34] **Jessie:** Okay, but if you say that people might think, okay, Nutella is actually not too bad for me.

[00:05:39] **Dave:** Not my people. My people are smarter than your people.

[00:05:42] **Jessie:** Okay, good. So I grew up with Nutella crepe every morning, and orange juice.

[00:05:45] **Dave:** I'm channeling Bobbi-- what's her name? Bobbi Althoff?

[00:05:48] **Jessie:** Yeah, she's amazing.

[00:05:49] **Dave:** Yeah. For some reasons I just feel like I'm channeling her right now, and I'm just making all these comments to see if you just get uncomfortable because it's making me laugh.

[00:05:56] **Jessie:** I'm super uncomfortable right now.

[00:05:57] **Dave:** You don't act like it.

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[00:05:59] **Jessie:** I'm really uncomfortable. Can I leave?

[00:06:01] **Dave:** That was our Bobby skit.

[00:06:02] **Jessie:** Can I leave? I'd like to leave, please. Yeah. So carbs are not actually a good way to give your body energy because it's like a plant. Some water good for the plant. Too much water, plant dies. Human body, some glucose is fine. Too much glucose, lots of problems start happening. So giving your body a little bit is fine, but too much is not going to be better.

[00:06:23] **Dave:** Would fit a zero sugar Nutella. Would you eat that?

[00:06:28] **Jessie:** Honestly, I'm so over all of these processed foods that call themselves no added sugar, vegan, gluten-free, just to look healthy. If I'm going to eat Nutella, I want the real Nutella. I don't want keto ice cream. I want the triple chocolate fudge brownie ice cream. If I'm eating something sweet, I want to eat the real deal.

[00:06:45] **Dave:** So you like glucose?

[00:06:47] **Jessie:** I do. I love glucose.

[00:06:48] **Dave:** Okay. And so you like sugar.

[00:06:49] **Jessie:** Yeah, I love sugar.

[00:06:51] **Dave:** Just because you're French. You like baguettes and all that stuff?

[00:06:53] **Jessie:** Yeah, but also I think this is what got me into this, because I didn't want to have glucose spikes, but I still wanted to eat the carbs. That's the real question.

[00:06:59] **Dave:** We're going to have so much fun talking about this because it sounds like you're hacking a problem here.

[00:07:05] **Jessie:** Yeah, how do you eat the stuff you love and get all that dopamine from the sweetness with less impact on your body? That's the whole gist. Do you like sugar?

[00:07:14] **Dave:** People are going to be shocked, yes.

[00:07:15] **Jessie:** Do you eat sugar every day?

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[00:07:17] **Dave:** I don't eat processed sugar every day, but I eat sugar most days that comes from fruit or honey.

[00:07:24] **Jessie:** If I was going to buy you a cake for your million followers when you hit it, what kind of cake would you like?

[00:07:31] **Dave:** I found this thing at Erewhon here in town called Karma Cakes. They look like-- are they Ding Dongs? No, Ho Hos. No, Hostess cupcakes. You wouldn't know this because you didn't grow up here.

[00:07:45] **Jessie:** No.

[00:07:45] **Dave:** So it's like the 1990s processed little chocolate cupcakes that would come at a 7-Eleven that you would never eat, but they're made out of this sorghum. And there's grains I don't normally eat. And there's definitely sugar in them. And there's probably some palm oil in the whipped filling.

[00:08:01] **Jessie:** Ooh, your favorites.

[00:08:02] **Dave:** I have one in the fridge over there. You want one?

[00:08:05] **Jessie:** Kind of. We'll try them out.

[00:08:06] **Dave:** Okay. At the end of the show, we're going to have a Karma Cake together.

[00:08:09] **Jessie:** Okay, cool. But I prefer proper, really unhealthy sugar.

[00:08:12] **Dave:** Oh, this is made by some hippie vegan person. It'll be unhealthy.

[00:08:16] **Jessie:** Well, come on. It'll pretend to be healthy.

[00:08:19] **Dave:** It's from Erewhon.

[00:08:19] **Jessie:** I like stuff. Yeah, but so what?

[00:08:20] **Dave:** Everything in Erewhon is healthy. Everyone knows that.

[00:08:22] **Jessie:** Everyone loves sugar. No, that's bullshit. When I eat sugar, I want to eat the real stuff. I'm a chocolate person. Chocolate fudge with chocolate sprinkles and chocolate sauce and a brownie on the side.

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[00:08:35] **Dave:** I want everyone listening to hear this. The sprinkles, I would ditch because they're gross. If you're going to eat what we used to call a cheat meal, which is a dumb idea, don't make it out of industrial process crap. Eat the sugar. It's better for you than the sucralose and all the other crap, but don't do it all the time, and use what you're going to learn here to keep your blood sugar from going crazy.

[00:08:57] **Jessie:** Can I ask a question?

[00:08:58] **Dave:** What?

[00:08:59] **Jessie:** What's that molecule tattooed on your arm?

[00:09:02] **Dave:** You studied all this stuff. Do you know what that is?

[00:09:03] **Jessie:** No.

[00:09:04] **Dave:** It's trimethylxanthine.

[00:09:05] **Jessie:** What's that?

[00:09:06] **Dave:** Caffeine.

[00:09:07] **Jessie:** Do you like caffeine?

[00:09:08] **Dave:** I like caffeine.

[00:09:09] **Jessie:** Nice.

[00:09:09] **Dave:** You know why? It lowers my blood sugar.

[00:09:11] **Jessie:** Oh, really? Interesting. In some people, it spikes their blood sugar.

[00:09:16] **Dave:** Depends on how long you wait.

[00:09:19] **Jessie:** Really?

[00:09:19] **Dave:** If your adrenals are tweaked, and it raises your cortisol, and cortisol breaks down muscle and raises blood sugar--

[00:09:24] **Jessie:** Blah, blah, blah, blah.

[00:09:24] **Dave:** Yeah. But so does an infrared sauna spike your blood sugar, right?



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[00:09:27] **Jessie:** Yeah, but I still haven't figured out if that's from the heat actually causing the glucose monitor to slightly malfunction, or from the dehydration in your body. What's going on there?

[00:09:37] **Dave:** Oh, it actually is releasing cortisol.

[00:09:42] **Jessie:** Really? You think that's why?

[00:09:44] **Dave:** It's the equivalent of a workout. It raises your heart rate, raises your blood pressure.

[00:09:48] **Jessie:** What about dehydration? Is that a thing, you think?

[00:09:50] **Dave:** I don't think so. You couldn't raise it that much. Imagine how much blood you'd have to draw. If you're going to raise your-- it'll go up by 20 points.

[00:09:57] **Jessie:** Yeah, yeah, yeah.

[00:09:57] **Dave:** Like from 80 to 100, or something. So that would be a 25% dehydration. If you're 20--

[00:10:04] **Jessie:** That'd be a lot.

[00:10:05] **Dave:** Yeah.

[00:10:05] **Jessie:** You'd be probably not okay. I've been practicing my cold plunging and sauna, and I can do three and a half minutes now in the cold plunge. Are you impressed? Do you think I'm cool?

[00:10:13] **Dave:** I'm very impressed.

[00:10:15] **Jessie:** Yes.

[00:10:15] **Dave:** I think you're cool, mostly just because you have 3 million followers. Everything else, whatever.

[00:10:21] **Jessie:** Makes sense. That's why I also think about people, coolness and number of followers.

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[00:10:27] **Dave:** Do you to walk into a bar and just be like, I'm the Glucose Goddess? I have 3 million followers. And they give you free drinks?

[00:10:32] **Jessie:** All the time.

[00:10:32] **Dave:** Yeah.

[00:10:33] **Jessie:** I don't pay for anything.

[00:10:37] **Dave:** Man, you're giving it back to me. I don't know what do with this. When we're talking about the infrared sauna thing, I've seen mine hundreds of times in the sauna, and the length of the sauna does affect it. I just think it's elevated heart rate and cortisol. I'd bet money on that. And it always goes back down pretty quickly afterwards.

[00:10:57] **Jessie:** Yeah, it does.

[00:10:58] **Dave:** But what does the cold plunge do to your blood sugar?

[00:11:02] **Jessie:** I don't know, actually. I haven't tested it with a glucose monitor.

[00:11:04] **Dave:** Interesting.

[00:11:05] **Jessie:** Do you think they're really a similar thing?

[00:11:08] **Dave:** No, I don't think so. You get the endorphins. I've never seen a spike from it, but it doesn't seem to bring it down either. How long of a cold plunge do you want to be able to do?

[00:11:21] **Jessie:** 20 minutes.

[00:11:22] **Dave:** Why?

[00:11:23] **Jessie:** Because I want to be badass.

[00:11:27] **Dave:** The benefit's really after six minutes

[00:11:30] **Jessie:** Oh, I thought it was two minutes. No, I don't want to go much longer because then I'm like, I don't feel my body anymore. And I could stay longer, but it doesn't feel very healthy.

[00:11:38] **Dave:** It's not.

[00:11:38] **Jessie:** Yeah.

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[00:11:39] **Dave:** I was at an event, and they had the ice cubes in the water.

[00:11:44] **Jessie:** It's really cold.

[00:11:44] **Dave:** It's your one degree centigrade or whatever. And I was in--

[00:11:47] **Jessie:** Celsius.

[00:11:50] **Dave:** Centigrade and Celsius, what's the difference?

[00:11:51] **Jessie:** Don't know.

[00:11:52] **Dave:** That's the same word in different countries in Europe. Yeah, you should try traveling around Europe. You'll learn a lot.

[00:11:57] **Jessie:** I'm going to try.

[00:12:02] **Dave:** I'm in this thing for 15 minutes because I'm doing an IG live and I got an exciting question. I started talking. And I got out. I feel so freaking good. I'm like, yes, yes. And I'm starting to walk back to my room and I'm giving a talk at this investment conference, I'm walking, and I start shaking. I'm like, I have hypothermia. This sucks. And I'm trying to drink warm coffee, but I can't because I'm spilling it on myself. I'm like, I got in the shower and turned on hot water and [Inaudible] twitch. Because you're not really supposed to be on hot water either to warm up.

[00:12:32] **Jessie:** Yeah, you're supposed to let your body warm up.

[00:12:33] **Dave:** Yeah. But I figured even if the blood left my organs to the skin because it was hot, eventually it would make its way back. So I didn't pass out, but I was miserable. So guys, cold plunging, maybe too excess is not good for you. And it's not, especially for women, especially for women in their fertile years.

[00:12:51] **Jessie:** It's a stressor. Let me give you an example. Yesterday, I went to the place that does the sauna and cold plunge. And after my first minute, I was like, today, my body just can't deal with it. It's too much stress. I just got out, didn't do any more rounds. You have to also be conscious that it is a stressor, like fasting for women, like caffeine, like a stressful job, kids, HIIT workouts, all this stuff.

[00:13:12] **Dave:** Yeah.

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[00:13:13] **Jessie:** You have to be conscious. It's a stressor.

[00:13:15] **Dave:** Turns out you should be kind to yourself, whether you're a man or a woman, and that the stress tolerance levels for women and men are not the same on average, and they're not the same at different times of the month.

[00:13:26] **Jessie:** Yeah. Or of your life.

[00:13:26] **Dave:** So being aware of that. Or of your life. That's true.

[00:13:29] **Jessie:** Like the menopause.

[00:13:29] **Dave:** But we get andropause too.

[00:13:31] **Jessie:** Really?

[00:13:32] **Dave:** You ever see that movie Grumpy Old Men?

[00:13:34] **Jessie:** No.

[00:13:36] **Dave:** It's a comedy about the two old guys, but it's a documentary on testosterone deprivation.

[00:13:42] **Jessie:** Interesting.

[00:13:43] **Dave:** So yeah, low testosterone guys are cranky, and bitchy, and all. So the typical old men stereotype, that's a testosterone thing. So we go through endropause. We just don't--

[00:13:53] **Jessie:** So you have to supplement with testosterone?

[00:13:55] **Dave:** Yeah, or you just have to start hating your life.

[00:13:57] **Jessie:** Not fun.

[00:13:59] **Dave:** Yeah, but same thing. A lot of women in menopause, it's like, look what happens when you do bio-identical hormone replacement. It also helps them regulate your blood sugar, whether it's testosterone or the other ones.

[00:14:08] **Jessie:** Absolutely. Absolutely.

[00:14:12] **Dave:** It's giving me interesting questions. How much of aging is caused by blood sugar spikes?

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[00:14:19] **Jessie:** I don't have an exact number, but glycation, which is the process that your body goes through, like the chicken in the oven going from pink to brown when it cooks, it glycates, the human body also cooks and glycates from the moment it's born. And then when you're fully cooked, you die, essentially. And if you look at the cartilage of babies, it's white. If you look at the cartilage of 100-year-old person, it's brown. That cartilage has glycated over time.

[00:14:43] And glycation is quite similar to aging. And the more your body has glycates, the more you'll see signs of aging on your skin, with wrinkles, cataracts, etc. And then on the inside, your organs also slowly deteriorate. And glycation and glucose, they sound quite similar. It's because it is the glucose that is doing the glycation.

[00:15:03] So when free glucose molecules bump into other molecules in your body, they damage them, and those molecules become glycated forever. Collagen is a really good example. Glycated collagen, it's going to impact your skin your hair, etc. So I don't know what percentage, but glycation is a big, big driver.

[00:15:20] **Dave:** I don't have a percentage either. It was one of the seven pillars of aging in my longevity book, where you have to control this. And this is why that postprandial spike in blood sugar is such a thing. And postprandial, if you're new to the show, it means after eating. So let's say that we're going to celebrate me getting to just a million followers and we're going to eat this triple chocolate fudge. We're going to go to a French bakery with real butter because none of this fake oils. And they're going to bake this big old, for me, gluten-free cake. I know that you're French, so gluten-free is wrong for you.

[00:15:52] **Jessie:** I love gluten.

[00:15:53] **Dave:** Yeah, I knew you'd say that. Because you ate real gluten growing up. So anyway, we're going to have this giant cake.

[00:15:59] **Jessie:** Really, really giant.

[00:16:00] **Dave:** Yeah. And we're just going to eat it until our chipmunk teeth.

[00:16:03] **Jessie:** Just the two of us.

[00:16:04] **Dave:** Yeah.

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[00:16:04] **Jessie:** With fucking spoons.

[00:16:05] **Dave:** It's going to be in my hair and everything.

[00:16:06] **Jessie:** Yeah. And then we're going to feel really sick.

[00:16:08] **Dave:** Yeah. So what do I do to not get old from doing that?

[00:16:10] **Jessie:** A few things you can do. Number one, don't eat the cake on an empty stomach. Have it after a meal.

[00:16:16] **Dave:** After bacon.

[00:16:16] **Jessie:** After what?

[00:16:17] **Dave:** Bacon.

[00:16:18] **Jessie:** After bacon, if you want. Or after a full meal would be better with some proteins and some fats and some fiber. I would go for some chicken and broccoli, your favorite, and some bacon.

[00:16:26] **Dave:** You eat chicken?

[00:16:27] **Jessie:** Yeah.

[00:16:28] **Dave:** Gross.

[00:16:28] **Jessie:** What?

[00:16:29] **Dave:** Compared to steak? Why would you do that? Are you poor?

[00:16:32] **Jessie:** I'm very poor. Yeah.

[00:16:35] **Dave:** I could not laugh at my own joke.

[00:16:37] **Jessie:** I don't know. I eat stuff once in a while.

[00:16:40] **Dave:** Yeah, yeah. Okay.

[00:16:41] **Jessie:** But I don't know, man. It's just personal preference.

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[00:16:43] **Dave:** Okay. By the way, guys, the are you poor comment, that's a reference to this idea that in ancient France and every place we've raised animals, the peasants, when they're allowed to have anything, the first animal they get is a chicken because it gives them eggs.

[00:16:59] **Jessie:** Yeah.

[00:16:59] **Dave:** And chicken meat.

[00:17:00] **Jessie:** I love eggs.

[00:17:01] **Dave:** Yeah. And eggs, if you're not allergic, are so good for you.

[00:17:03] **Jessie:** So good for you.

[00:17:04] **Dave:** And then if you get a little bit more peasant dollars, then like, oh, you're allowed to have a pig because they can eat everything, and then a goat, and then a sheep, and then a cow. And as you go up, each of them is more nutrient dense and more nutritious, but requires more land in order to do it. And I promise you that if chickens were the healthiest food, then we'd all be eating chicken at the highest ranks, but chicken has that reputation. And it has to do with the type of fat and type of amino acid availability.

[00:17:30] **Jessie:** Interesting.

[00:17:31] **Dave:** So that was my joke about being poor. And yes, chicken's more affordable. And guys, I worked in an auto parts warehouse for a long time. So this isn't like one of those things, but I'm just saying if you can afford beef protein, it's a superior source than chicken protein. It shows in the amino acid scores.

[00:17:46] **Jessie:** It's just personal taste and preference. I love fish, and eggs, and cheese, and chicken, and I'll have a steak once in a while, but for my palates, it's not my favorite.

[00:18:00] **Dave:** Okay. Have you ever been fat?

[00:18:02] **Jessie:** No.

[00:18:03] **Dave:** You're French, none of you guys are fat. It's not fair.

[00:18:05] **Jessie:** No, I've never been fat. I've been really unwell physically and mentally, but--

[00:18:09] **Dave:** Tell me what happened.

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[00:18:10] **Jessie:** I broke my back when I was 19.

[00:18:11] **Dave:** Oh my God. How'd you do that?

[00:18:13] **Jessie:** Jumped off a waterfall.

[00:18:15] **Dave:** They always tell you not to do that, and then we always do it, and then sometimes they're right.

[00:18:18] **Jessie:** I know, go figure. Yeah, so broke my back. One of my vertebrae exploded.

[00:18:22] **Dave:** Ow.

[00:18:23] **Jessie:** Yeah, ow. So intense surgery, I got a lot of metal in my back. But I was young, so your physical health, you heal fast. After two months, I was walking again, but my mental health went crazy. Depression, anxiety, depersonalization, which is this feeling of being a stranger in your own body. It's terrifying.

[00:18:43] **Dave:** Oh my gosh.

[00:18:44] **Jessie:** So I had that for 10 years.

[00:18:46] **Dave:** For 10 years?

[00:18:47] **Jessie:** Yeah.

[00:18:49] **Dave:** Wow.

[00:18:50] **Jessie:** And that's what led me to study biochemistry, because I want-- I was doing math. I was studying math at the time, and I just wanted to understand what the heck was going on with my brain.

[00:18:57] **Dave:** Can I just high five you?

[00:18:58] **Jessie:** Yeah, baby.

[00:18:58] **Dave:** You did something about it.

[00:19:00] **Jessie:** I did. Yeah.

[00:19:01] **Dave:** I was in the same boat. I'm like, I'm fat. I'm tired. Nothing works. I'm just going to have to go do it.



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[00:19:06] **Jessie:** Yeah.

[00:19:06] **Dave:** Oh my God. I did not know that part of your story. I'm sure you posted about it, but I just started following you yesterday, so--

[00:19:13] **Jessie:** No, that's okay. If you had read my book, you would know.

[00:19:15] **Dave:** I have people do that for me.

[00:19:18] **Jessie:** So yeah, I broke my back. Mental health was terrible. That's why I went to biochemistry. And then I worked in genetics, blah, blah, blah. And then I had this realization about five years ago that the days where my blood sugar was unsteady, my mental health was worse.

[00:19:32] **Dave:** Respect for figuring that out.

[00:19:33] **Jessie:** And that opened the door for me to finally understanding how my lifestyle was impacting my mental health. And that's the reason I got into this space, because I needed to heal myself first, and then what I had learned, these hacks that I will talk about, I found that they were just too powerful to not tell people about them. So there's the eating the cake not on an empty stomach, but after a meal.

[00:19:57] **Dave:** Okay. And you're saying some fat. Isn't the cake full fat anyway?

[00:20:00] **Jessie:** Protein.

[00:20:00] **Dave:** Shouldn't I just be eating protein and a bunch of fiber?

[00:20:02] **Jessie:** Yeah, you could. Fiber is going to be the most powerful thing to eat.

[00:20:05] **Dave:** So have some psyllium and some protein.

[00:20:08] **Jessie:** Yeah. Maybe some real vegetables.

[00:20:10] **Dave:** Gross. Okay. How about kale? Should I eat kale?

[00:20:13] **Jessie:** I know you love kale.

[00:20:15] **Dave:** I love kale.

[00:20:16] **Jessie:** I actually brought you a bunch of kale as a--

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[00:20:17] **Dave:** I actually had a kale facial this morning. Yeah. That's why I have a pimple.

[00:20:22] **Jessie:** Yeah. I know you love kale, but you got to stop talking about kale. We get it. It's your favorite food. We get it. Relax.

[00:20:28] **Dave:** It's an inappropriate relationship with kale.

[00:20:31] **Jessie:** Okay, but wait, I'm going to tell you these hacks because they're actually important.

[00:20:33] **Dave:** No, I want to know what vegetables. That's a real question.

[00:20:35] **Jessie:** Oh, any vegetables, any vegetables.

[00:20:35] **Dave:** I was just teasing you about kale.

[00:20:37] **Jessie:** Okay, okay, any vegetables are fine.

[00:20:38] **Dave:** Okay, it doesn't matter.

[00:20:39] **Jessie:** Any vegetables and some protein will be great because that way the sugar from the cake is not going to go so quickly into your bloodstream.

[00:20:45] **Dave:** Okay. So you're going to slow the rate of release.

[00:20:47] **Jessie:** The whole point is eat the same amount of cake as you normally would, but slow the release of the glucose and fructose in your body.

[00:20:53] **Dave:** Okay. Makes sense.

[00:20:54] **Jessie:** That's one. Second one is after we have the cake, we want to go for a little walk or do some exercise. So maybe we'll go for a run after eating that cake. Or we'll do some squats.

[00:21:03] **Dave:** A run? We're talking about eating cake with my hair. I'm not going to run. I'll get cramps.

[00:21:07] **Jessie:** Really?

[00:21:08] **Dave:** Well, if you eat as much cake as I'm envisioning. You always say don't swim after you eat because you get a cramp and drown. Your mom didn't tell you that?

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[00:21:15] **Jessie:** I think that's BS.

[00:21:16] **Dave:** Yeah, that's what you said before you jumped off the waterfall.

[00:21:18] **Jessie:** Good points, good points. Okay, fine. We'll do some squats. We'll go for a walk.

[00:21:22] **Dave:** Okay, I like that, squats and a walk.

[00:21:23] **Jessie:** Another thing you can do before eating the cake is having some vinegar and water.

[00:21:27] **Dave:** Apple cider?

[00:21:28] **Jessie:** Any type of vinegar.

[00:21:29] **Dave:** Oh, interesting. It all works. So acetic acid is the trick?

[00:21:31] **Jessie:** Exactly, exactly. Acetic acid, it just slows down your alpha amylase enzymes. Again, just slowing down digestion. That's the whole point.

[00:21:39] **Dave:** So there were five apple cider vinegar pills in that handful I took this morning for a reason.

[00:21:43] **Jessie:** Really?

[00:21:43] **Dave:** Yeah. Do the pills work?

[00:21:48] **Jessie:** There's no studies supporting the pills work.

[00:21:49] **Dave:** Don't they contain acetic acid?

[00:21:52] **Jessie:** They do, but we don't know if in that form, that dehydrated form, they actually work. We just don't know.

[00:21:55] **Dave:** Okay, so you're a biochemist. You add water to acetic acid, what do you get?

[00:21:59] **Jessie:** Yeah, but we just don't know. And you have to take three. And I'm actually making a pill that does work.

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[00:22:04] **Dave:** Interesting. So when you say we have no evidence they work, we also have no evidence that if you jump out of an airplane without a parachute, because there's no double-blind studies.

[00:22:12] **Jessie:** Totally.

[00:22:12] **Dave:** So how could it not work?

[00:22:15] **Jessie:** Because perhaps when you dehydrate it, or you do something to it, or you process it, we just don't know. Personally, when I've tried the acetic acid pills instead of the regular vinegar, it hasn't worked on my blood sugar.

[00:22:24] **Dave:** That's so interesting. I believe you. I'm just like, why?

[00:22:28] **Jessie:** I don't know why. I don't know why. And you also have to take three to get 800 milligrams, which is about what you would get in a tablespoon of vinegar. So that's a lot of pills. I have a pill that I'm just launching tomorrow, actually.

[00:22:38] **Dave:** Oh, cool.

[00:22:38] **Jessie:** It's called Anti-Spike. And it actually has clinical trials showing that it reduces the glucose spike by 40% of food.

[00:22:44] **Dave:** Have you seen the studies showing that the other spike protein increases glycation meaningfully?

[00:22:51] **Jessie:** No.

[00:22:51] **Dave:** There are studies.

[00:22:53] **Jessie:** Interesting.

[00:22:54] **Dave:** Mm-hmm. That's actually probably one of the many things it does. So your Anti-Spike pill, great name.

[00:23:02] **Jessie:** Thanks, baby.

[00:23:02] **Dave:** We're talking about blood sugar spikes, only regulators, just to be really clear. Only blood sugar. There is no other kind of spike that even matters.

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[00:23:08] **Jessie:** It's the only spike, blood sugar spikes. And insulin spikes are interesting too.

[00:23:12] **Dave:** Okay, let's talk about this. You're one of the people who really would understand this. So insulin is not blood sugar, and in common health discussions, people oftentimes confuse the two. Walk our listeners through what is insulin, what is glucose, and then talk about high and low insulin versus high and low glucose and how you would feel those.

[00:23:33] **Jessie:** Okay, so when you eat a bunch of carbs, like that cake, the glucose molecules arrive into your bloodstream and they make a spike. This glucose spike has consequences, glycation, inflammation, mitochondrial stress, etc. Your body knows this glucose spike is not good for you.

[00:23:48] So it calls up your pancreas, and it's like, yo, we need to send out insulin to get that glucose spike down. So your pancreas releases insulin, which is an amazing hormone, and she grabs the excess glucose and stores it away in your liver cells, in your muscle cells, and in your fat cells.

[00:24:05] So your glucose levels come down thanks to insulin being released. Now, what's important is to understand that. The first time I drank coffee, it kept me up for two days. Two months later, three cups of coffee could not even keep me awake anymore. I had become resistant to caffeine. You become habituated to something, and you need more and more of it to get the same effect. Your body can also become resistant to insulin. So over time--

[00:24:33] **Dave:** But not in the same way as coffee, though.

[00:24:35] **Jessie:** Not in the same way, but I think it's a very important image.

[00:24:38] **Dave:** As an image. Okay. I got you.

[00:24:39] **Jessie:** Yeah, as an image. So over time, your body's going to have to pump out more and more insulin to get that same amount of glucose into the storage units in your body. You will become slowly resistant to insulin. And then, as this resistance gets worse, you get what's called prediabetes and type 2 diabetes as your fasting glucose levels increase.

[00:24:59] So one thing that happens if you have high glucose levels is that your doctor might tell you just inject insulin to get those levels down. That might work short term, but actually it is

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the excess of insulin that's causing the issues. So it would be so much better to be able to measure insulin levels.

[00:25:17] **Dave:** You're saying it's an excess of insulin causing the problem?

[00:25:20] **Jessie:** Yeah.

[00:25:20] **Dave:** But isn't it the lack of ability to use insulin causing the problem, not the existing excess?

[00:25:25] **Jessie:** Well, the excess of insulin creates the resistance, and then you can no longer use it properly. So they go hand in hand.

[00:25:31] **Dave:** So you think insulin causes insulin resistance?

[00:25:34] **Jessie:** Yeah, excess amounts of insulin over time in your body, that's what creates insulin resistance.

[00:25:38] **Dave:** We'll have to talk about that. Okay.

[00:25:39] **Jessie:** There's other things that can create it, like specific stuff going on in your body, but generally this is one of the main pathways. More and more insulin creates more and more insulin resistance. And so when you talk about reversing type 2 diabetes, for example, people focus on getting your glucose levels down, but actually you want to get those insulin levels down.

[00:25:56] **Dave:** That's correct.

[00:25:57] **Jessie:** That's the key. So glucose is actually a proxy for insulin, if you will. It would be so much better to have an insulin monitor than a glucose monitor.

[00:26:07] **Dave:** Wouldn't that be crazy?

[00:26:09] **Jessie:** It'd be cool, no?

[00:26:11] **Dave:** Now, Gary Taubes in Good Calories, Bad Calories wrote a lot about what insulin's doing to us that's a problem. And shout out, Gary. When I interviewed him very, very early on in my show, he introduced me to the person who was my agent for the Better Baby book, my very first book.

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[00:26:30] **Jessie:** Nice.

[00:26:30] **Dave:** So, Gary, thanks. And I got really into this insulin versus glucose thing, because I was trying to figure it out myself. At the time, I'd already solved my high blood sugar issues.

[00:26:40] **Jessie:** Because you were prediabetic.

[00:26:42] **Dave:** Yeah, I was prediabetic. Yeah. I think that's just another American word for diabetic, here. You're in the sales pipeline.

[00:26:48] **Jessie:** Well, 100 to 126 is technically prediabetes, right?

[00:26:50] **Dave:** Yes.

[00:26:50] **Jessie:** And you were at 117, you said?

[00:26:51] **Dave:** Yeah, 117. And this is when I'm 26 or something.

[00:26:55] **Jessie:** Yeah, it's wild.

[00:26:56] **Dave:** And I don't believe that having high amounts of sugar causes or even is related to diabetes.

[00:27:06] **Jessie:** How so?

[00:27:07] **Dave:** I think that it's bad fats. Because bad fats break cell membranes. You can't express insulin receptors through them. So blood glucose builds up, the body makes more insulin, so you have high insulin.

[00:27:17] **Jessie:** The muscles become fatty, they can't uptake glucose anymore. Absolutely, yeah.

[00:27:20] **Dave:** And you get broken cells. And broken cells are going to cause all sorts of problems that way. And based on those ideas, I can have carbs. In fact, I have two to 400 grams of carbs a day and probably more rice than I do sugar. And I don't eat white sugar, but I will have some honey, or some fruit, or whatever.

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[00:27:42] And I'm six and a half percent body fat. My visceral fat is at the very low end for an 18-year-old, and it gets higher as you go. My liver fat is 0.8%. And I'm not on a low-carb diet, and I don't eat bad fats ever. I haven't for 15 years.

[00:28:02] **Jessie:** Yeah. But Dave, eating rice and eating fruit, that's not the problem. The real issue doesn't come so much from the starches, especially if they're not refined and processed. The real issue comes from the sweet foods that not only have a lot of sugar in it, but also have bad fats in them. So all of the processed junk. You could eat rice every day of your life and never get diabetes because that's just pure glucose.

[00:28:22] **Dave:** Even if you ate three pounds, right?

[00:28:25] **Jessie:** Yeah.

[00:28:25] **Dave:** Should I choose kilos for you, or are you okay?

[00:28:28] **Jessie:** Yes, please, convert everything. Listen, I don't know exactly how many pounds you'd have to eat, and I think that's a bit besides the point, but it's not so much about the rice, it's more about the donuts, the orange juice, the breakfast cereal, the smoothies, the dessert, the cookies. That's the issue.

[00:28:44] **Dave:** Is it because of the sugar in them, or because of the trans fats and canola?

[00:28:47] **Jessie:** I think it's both, honestly. It's the sugar that's spiking your glucose, spiking your insulin, but it's also the fructose that's in the sucrose that's causing the LDLs to be created in your liver. And also the bad fats, which are causing all sorts of insulin resistance because they're making all your muscles and your cells fatty.

[00:29:02] So it's important to understand that I look at glucose as a really interesting window through which to enter better health, but it's not the only thing. It's not all about glucose. For example, you could add 15 pounds of butter to a meal and that would lower the glucose spike of the meal, but that doesn't mean that meal is better for you.

[00:29:24] **Dave:** Sure, it does. Butter is great to you French. Come on, you're violating your country ethos.

[00:29:28] **Jessie:** Come on. Okay, fine, or canola oil.



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[00:29:29] **Dave:** Okay, canola. Now we're on--

[00:29:30] **Jessie:** Okay, canola oil, geez. So I think maybe also your audience is probably much more educated on this, but I try to teach people these very basic, important physiological principles that are going to allow them to reverse the diabetes and go from drinking orange juice and eating granola to having eggs in the morning. So I think we're operating maybe on a slightly different level of expertise.

[00:29:56] **Dave:** No, I don't think we are actually. I think that you're used to-- and I'm going to sound a little bit rude here, but you're used to dumbing down what you say.

[00:30:04] **Jessie:** Exactly.

[00:30:04] **Dave:** And that's a really valuable skill. In fact, that's why you have 3 million followers. And before I ended up on Dr. Oz, I went into his office, introduction from a friend, and he had two medical research people in there, and he's like, tell me about collagen. And it was like a PhD—the amount of diligence that goes on behind the scenes was crazy,

[00:30:26] But I know what I'm talking about, so I nerded out, and blah, blah, blah. And he goes, okay, fine, but can you tell that to normal people? And I go, oh, it's you don't want me to use doctor speak? So then I switched into it, and goes, okay, you can do both. Go on the show.

[00:30:39] You actually are plenty smart. I can I just tell from our conversations, you know how all this shit works, so I want you to flex your brain on the show. So you don't have to dumb it down here.

[00:30:49] **Jessie:** Okay, okay, okay.

[00:30:50] **Dave:** And some listeners of this, it goes over your head? There's hundreds of episodes. Listen to Gary Taubes. There's tons of info here for you. But let's get into it. Explain it to me.

[00:30:59] **Jessie:** Well, people, when they think about carbs, they think, okay, rice turns to sugar, or a donut turns to sugar. It's not at all the case. You have the starches, which only contain glucose, and that of course spikes your glucose and your insulin levels. But then the real issue comes from stuff that contains sucrose, which is table sugar, because that contains half glucose,

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half sucrose. And then on a glucose monitor, if you compare a donut and a bowl of rice, you would see the same glucose spike, but you're actually missing a whole other part of the story.

[00:31:27] **Dave:** This is the thing you guys need to know. Starch only makes glucose. Glucose, you need. Glucose doesn't glycate your tissues the same way fructose does.

[00:31:37] **Jessie:** Yeah, exactly. And then usually when you take a donut, there's also a bunch of your favorite bad fats in there.

[00:31:43] **Dave:** Of course.

[00:31:43] **Jessie:** So if you were just to compare a donut and a bowl of rice on just a glucose monitor, you would think, oh, they're the same. They're not at all the same, which is one of the main limitations of wearing a glucose monitor and optimizing your whole life around it. Because it's such a small fraction of what's truly happening.

[00:31:59] The fructose in that sugar, in that donut, it's causing much more damage to your body. It's glyating things much faster. It's making your liver produce bad fats. It's inflaming your tissue. It's not good for you. So that's a key, key piece of information.

[00:32:15] **Dave:** I have a little story for you.

[00:32:16] **Jessie:** Tell me.

[00:32:17] **Dave:** Late '90s, I'm probably 250 pounds. And I've lost some of the weight. I've learned I can't control my weight. And I've read all this stuff about whatever we knew back then. So I went out and I bought a bunch of fructose because the American Diabetes Association-- by the way, guys, thank you for perpetuating the illness that you say you're treating.

[00:32:41] **Jessie:** Told you it's low glycemic.

[00:32:43] **Dave:** Yeah, it's low glycemic.

[00:32:44] **Jessie:** Agave.

[00:32:45] **Dave:** Yeah. Well, agave is the modern version of that, but I literally put fructose in things because it wasn't going to raise my blood sugar.

[00:32:50] **Jessie:** Fructose powder?

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[00:32:51] **Dave:** Yeah. And it's the most harmful thing you could do because it raises triglycerides, and it causes this advanced tissue aging. And after a couple of months, I'm like, I don't feel good on this. It's gross. And I stopped it. Thank God.

[00:33:03] **Jessie:** I didn't even know you could buy powdered fructose. Wow.

[00:33:06] **Dave:** Yeah. And this is because, blindness to the fact that fructose does something and it's not what blood sugar does.

[00:33:14] **Jessie:** Yes.

[00:33:14] **Dave:** So then later when I got smarter about things, I said, well, if I'm going to work out, or I'm really wrecked, or if someone in the family is right on the edge of getting a migraine or something, I have a 20-pound thing of dextrose, which is straight up glucose. You can get glucose powder, right?

[00:33:31] **Jessie:** Yeah, yeah, yeah.

[00:33:32] **Dave:** And you take that stuff before, put that in your pre-workout. You're going to kill it. Your blood sugar will go up, but it won't be damaging.

[00:33:39] **Jessie:** But don't have the donuts. Don't eat the donut. You don't need the actual sweetness before a workout.

[00:33:43] **Dave:** Is there going to be a Glucose Goddess pre-workout donut you could make? That would be good.

[00:33:47] **Jessie:** How did you know? I'm actually launching it today, exclusively on your podcast.

[00:33:54] **Dave:** Little six pack of frosted doughnuts. Just eat them and go lift. You'd be the world's hero if you could do that.

[00:34:01] **Jessie:** You think? Okay, great. I'm just going to cancel all my other plans and work on that. I think it's genius.

[00:34:06] **Dave:** It would probably taste like dog biscuits, is the problem.

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[00:34:08] **Jessie:** Totally. Another interesting thing when you wear a glucose monitor, if you add alcohol to a meal, it's going to lower the glucose spike.

[00:34:13] **Dave:** Of course it will.

[00:34:14] **Jessie:** Of course it will, but it's quite shocking.

[00:34:16] **Dave:** Explain why. Go through the steps.

[00:34:20] **Jessie:** Okay. So your liver is the organ in your body that is responsible for making sure your glucose levels stay nice and steady. And when you drink alcohol, alcohol is a poison, and it's not good for you, newsflash. Your liver is going to be busy dealing with that toxin, and so it's no longer going to be able to push out extra glucose into your bloodstream to keep your glucose levels nice and level.

[00:34:39] And so on the glucose monitor, you might see, hey, if I add three glasses of wine or three shots of tequila to this bowl of pasta, the glucose spike is so much smaller. But that's not a good way to reduce your glucose spikes. That's a terrible way to reduce your glucose spikes.

[00:34:53] **Dave:** And you'll preferentially burn the alcohol calories before all the other ones, which is going to change the slope of the curve. But you then you have to pay for the alcohol. Okay. Do you drink?

[00:35:03] **Jessie:** No, I don't drink actually.

[00:35:05] **Dave:** Not even red wine?

[00:35:06] **Jessie:** No.

[00:35:06] **Dave:** What about baguettes, fresh cream, or butter?

[00:35:09] **Jessie:** My poison of choice is sugar. I don't care about alcohol. It doesn't make me feel too good, but I love sugar.

[00:35:14] **Dave:** I love this. One thing that I'm--

[00:35:17] **Jessie:** Do you drink?

[00:35:18] **Dave:** If it's older than me. They don't make--

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[00:35:22] **Jessie:** But you're very, very old.

[00:35:23] **Dave:** Yeah, they don't make alcohol that old, so that makes it really easy. Yeah. It's one of those things where maybe twice a year, I'll have something. It's not worth it. But what I'm finding that's actually really exciting is that all of my friends in their, I would say mid-30s-- I have a big group in Austin I hang out with-- either they drink a little bit or they don't drink at all. And for me, oh my God, we drink all the damn time. It's so stupid.

[00:35:52] **Jessie:** The alcohol industry is making so much money selling you this product that "is very important in your social life". It's BS. It's marketing. It's a poison. You have to be conscious about these things and not make it automatic.

[00:36:05] **Dave:** So psychedelic mushrooms or wine, which would you take?

[00:36:08] **Jessie:** Mushrooms.

[00:36:09] **Dave:** MDMA or wine, which would you take?

[00:36:10] **Jessie:** MDMA.

[00:36:13] **Dave:** It's definitely 31, that's what I'm saying. Me too, by the way.

[00:36:17] **Jessie:** You know what I mean?

[00:36:20] **Dave:** Yeah.

[00:36:20] **Jessie:** I'm not a big wine person, alcohol person. I used to drink a lot of alcohol. Margaritas all day. Not all day, but--

[00:36:27] **Dave:** Where do you live now?

[00:36:29] **Jessie:** I live in Paris and New York.

[00:36:30] **Dave:** Okay, I guess in New York you could get good margaritas. You're not going to find those in Paris.

[00:36:34] **Jessie:** No.

[00:36:34] **Dave:** Okay, cool. When you hear Americans talk about the French paradox, what does it make you think?

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[00:36:41] **Jessie:** It makes me think, one, they don't realize what's going on in France. More and more people are sick. People are getting sick. There's a lot of rates of infertility. Cardiovascular health is a nightmare in France. People are getting diabetes. It's not the paradise that maybe it was once seen as.

[00:36:58] And second, I do think it's quite obvious when you go to France, why we are marginally healthier than Americans, we have a much better culture around food. Every day you come back from work, you go to the grocery store and buy fresh produce. You go to the cheesemonger, you go to the butcher, you buy fresh food, you go home, and you cook it.

[00:37:17] And you spend time eating with your family. And it hasn't been replaced by junk food or frozen meals. There's still a strong culture around actually cooking. And all of those bad oils, we don't really use them. We use butter and olive oil.

[00:37:33] **Dave:** I just read there's 30,000 bakeries in Paris. So you're getting fresh bread made with real grains that mostly don't have glyphosate, but Monsanto/Bayer/IG Farben, if you go back to World War II, they're making inroads to getting glyphosate. And if you guys allow that in Europe, you'll look just like America in another 25 years, except your infertility rates will be higher because there's other chemicals involved too.

[00:38:02] **Jessie:** Let's hope that doesn't happen.

[00:38:04] **Dave:** So 30,000 of those things, of bakeries.

[00:38:07] **Jessie:** You can't get pastries from the previous day. So if it's 2:00 AM and you want a pastry, you have to wait until 7:00 AM for the pastries to open.

[00:38:13] **Dave:** What happens to the ones they don't sell?

[00:38:14] **Jessie:** I think they sell them all. No, I don't know actually. Good question.

[00:38:18] **Dave:** I know that the way it would have been is like it was on my farm. I'd feed them to the pigs or the chickens. They go back into the food supply. I don't know, maybe they give them to people who need food.

[00:38:28] **Jessie:** Maybe. Yeah. I'd hope so.

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[00:38:30] **Dave:** But it's one of those things where in a healthy functioning ecosystem, that's what you do. That's one of the reasons you have chickens. They'll eat everything. They're carnivores or omnivores. And then you also have a much higher intake of saturated fat. And in America, especially in the '90s and early 2000s, the French paradox was all over the news.

[00:38:53] Well, why don't French people get heart disease when they eat all that butter? It's because butter doesn't cause heart disease. But I always laughed, and in my head, after I learned how this stuff worked, I'm like, it's the American paradox. Why don't Americans just eat like French people?

[00:39:06] **Jessie:** Exactly.

[00:39:07] **Dave:** If that works.

[00:39:08] **Jessie:** Because it requires cooking time, and I think it's a culture shift that it really requires.

[00:39:16] **Dave:** Is it a culture shift, or is it an ingredient shift? We have so many weird chemicals that aren't allowed over there. I feel like they hijack our brains.

[00:39:23] **Jessie:** But also, people in France just don't eat in their cars.

[00:39:25] **Dave:** Hmm.

[00:39:28] **Jessie:** So it's both.

[00:39:28] **Dave:** Is that because the cars are so small they don't have room for their elbows?

[00:39:32] **Jessie:** No, it's because it's just not a thing. You don't go to drive-throughs. You see what I mean?

[00:39:36] **Dave:** Drive-throughs, I haven't been to the run in so long.

[00:39:38] **Jessie:** They're fun. I used to go to Krispy Kreme drive-throughs and get a big box of Krispy Kreme. That's so good.

[00:39:43] **Dave:** That's the worst oil. And I'm just going to say this for the entrepreneurs listening to the show. If there was a donut shop that would use beef tallow and you'd make

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donuts out of rice flour or something gluten free, I would actually eat them. I would come in and I would get a whole box, and I would just rub them on my face. So good. So seriously--

[00:40:05] **Jessie:** If somebody comes to you and is like, Dave, I'm doing that. I need investment. You're going to back them, right?

[00:40:09] **Dave:** We're going to have to talk about what grains you use. White rice flour, guys. You can do it. I know I make all kinds of stuff with it, but a lot of the gluten replacement flours, they spike your blood sugar just as much, and they contain a lot of toxins like oxalates.

[00:40:21] **Jessie:** People don't realize gluten is a protein.

[00:40:24] **Dave:** That's a fair point.

[00:40:25] **Jessie:** Not a starch. So actually, it does reduce the spike of starch.

[00:40:28] **Dave:** Well, you know what else is a protein?

[00:40:31] **Jessie:** What?

[00:40:32] **Dave:** Sarin nerve gas.

[00:40:34] **Jessie:** Sure.

[00:40:35] **Dave:** So maybe different proteins do different things, I'm just saying.

[00:40:37] **Jessie:** True, true, true. True, true, true.

[00:40:41] **Dave:** That's my anti-vegan. So plant-based protein was-- oh wait. Oh, but snake venom. So we just have to be conscious of which proteins.

[00:40:48] **Jessie:** Another thing I hate is when people say, oh, this is 100%, for example, vegan.

[00:40:52] **Dave:** Yeah.

[00:40:52] **Jessie:** It's bullshit. It's not because sugar comes from a plant that it is good for you. It's not because something comes from a plant that it is good for you.

[00:40:59] **Dave:** High fructose corn syrup is plant-based and vegan.

[00:41:01] **Jessie:** Tobacco.



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[00:41:02] **Dave:** Yeah. Wait a minute. You're telling me you've never smoked.

[00:41:05] **Jessie:** Of course I've smoked. But I'm just saying it's not good for you, and it comes from a plant.

[00:41:09] **Dave:** Are you sure it's not good for you?

[00:41:10] **Jessie:** Tobacco?

[00:41:11] **Dave:** Yeah.

[00:41:11] **Jessie:** I'm pretty sure it's not good for you.

[00:41:13] **Dave:** Now, I don't remember the episode number, but I interviewed--

[00:41:17] **Jessie:** Do you have somebody who promotes cigarettes on this show?

[00:41:19] **Dave:** I call him Dr. Nicotine. He's from Vanderbilt University.

[00:41:22] **Jessie:** Wait, nicotine is not the same.

[00:41:24] **Dave:** Oh my God, I'm talking to a qualified scientist. This isn't fair. Yes, you're correct. Tobacco is not good for you.

[00:41:29] **Jessie:** But nicotine is a neuro something.

[00:41:32] **Dave:** It's a nootropic, but more importantly, and we're talking 5% of what's in a cigarette, it stops Alzheimer's disease. People who smoke don't get Alzheimer's and Parkinson's. It's a massive reduction, but then they get lung cancer and cardiovascular disease. You're going to experience that.

[00:41:46] **Jessie:** So what would you rather die from?

[00:41:48] **Dave:** So what I do is I do one to three milligrams of nicotine on a regular basis.

[00:41:53] **Jessie:** And how do you ingest it?

[00:41:55] **Dave:** I spray it under my tongue.

[00:41:56] **Jessie:** No way.

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[00:41:57] **Dave:** Because if you go to France, or anywhere in Europe, or Mexico, or Canada, you can buy a spray that's one milligram. It goes under your tongue. Do you want to try it?

[00:42:03] **Jessie:** Yeah, kind of.

[00:42:04] **Dave:** Okay, I'm going to grab the thing. It'll be awesome. Okay. Give me one second. I'm going to get this. Okay, here's how it works.

[00:42:11] **Jessie:** I think I'm going to figure it out.

[00:42:13] **Dave:** Okay. Here, try it.

[00:42:15] **Jessie:** Okay.

[00:42:15] **Dave:** It's not as easy as you think. Everyone gets confused. You sure you don't want help?

[00:42:25] **Jessie:** Okay, show me.

[00:42:27] **Dave:** I've sprayed this in hundreds of people's mouths at Burning Man. So there's a lock thing. You click it up.

[00:42:31] **Jessie:** Oh, cute.

[00:42:32] **Dave:** And then you spray it like this.

[00:42:35] **Jessie:** Okay, just one.

[00:42:35] **Dave:** Keep it close. Don't breathe in.

[00:42:37] **Jessie:** Okay.

[00:42:40] **Dave:** There you go. Don't swallow. You can close your mouth and just let it under your tongue. It's minty.

[00:42:46] **Jessie:** That's very minty.

[00:42:48] **Dave:** Guys, you can't buy this in the US.

[00:42:49] **Jessie:** Oh. Interesting.

[00:42:50] **Dave:** Lucy Gum in the US is the cleanest source. One milligram.

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[00:42:54] **Jessie:** And how many milligrams are in a cigarette?

[00:42:57] **Dave:** 20.

[00:42:58] **Jessie:** Oh, wow.

[00:42:59] **Dave:** It can actually be between 12 and 20.

[00:43:03] **Jessie:** It doesn't taste so good. I feel amazing now.

[00:43:07] **Dave:** Does it hit you?

[00:43:11] **Jessie:** Whoa, bro. Can you feel it?

[00:43:14] **Dave:** Oh, when it hits you, I'm going to laugh because you'll be like-- I did this on the Almost 30 podcast.

[00:43:19] **Jessie:** Oh, I love them.

[00:43:20] **Dave:** They're so cool.

[00:43:21] **Jessie:** Yeah.

[00:43:21] **Dave:** And I sprayed them both. And one of them is like, I feel like I'm rolling now.

[00:43:25] **Jessie:** Really?

[00:43:26] **Dave:** Yeah. Because it's a pretty potent nootropic. And it stacks really well with psychedelics. But as a longevity compound, think about niacin or nicotinic acid. And then you look at niacinamide, which goes to nicotinamide riboside or NR, which goes to NMN, which goes to NAD. So this affects the nicotinic acid receptors in the brain.

[00:43:47] **Jessie:** Very cool. Do you become habituated to it? Do you need more and more?

[00:43:50] **Dave:** You don't need more and more, but if you use more and more because it's so damn good, then you can lose the effect?

[00:43:57] **Jessie:** Can I drink water with it?

[00:43:57] **Dave:** Yeah, you can. So I did one milligram a day for five years.

[00:44:02] **Jessie:** Wow.

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[00:44:03] **Dave:** So you just have to be disciplined, but--

[00:44:05] **Jessie:** That's why you're so smart.

[00:44:07] **Dave:** I take a lot of nootropics. But then I also maybe wasn't so smart. I'm like, I just love the stuff.

[00:44:12] **Jessie:** Can I ask you a question?

[00:44:13] **Dave:** Okay.

[00:44:14] **Jessie:** Okay, imagine you had this decision to make, either you keep taking your 200 pills a day or-- okay, so you have to choose between exercise and those pills for the rest of your life. Which one you choose?

[00:44:26] **Dave:** I think I would choose the pills.

[00:44:28] **Jessie:** Really?

[00:44:29] **Dave:** Exercise takes a lot of time. I'm busy.

[00:44:32] **Jessie:** But it's incredible for your health.

[00:44:35] **Dave:** You don't need to exercise to get the benefits of exercise. Now, people are going to be really pissed about that, especially all the weightlifter bros.

[00:44:44] **Jessie:** But it makes me feel so good to exercise. I love exercising.

[00:44:45] **Dave:** Yeah.

[00:44:46] **Jessie:** I've been working on this bicep for 18 months.

[00:44:48] **Dave:** Nice.

[00:44:48] **Jessie:** Pretty good, huh? Tricep?

[00:44:51] **Dave:** Can I throw some electrodes on there?

[00:44:53] **Jessie:** Oh, I don't like the electric stuff.

[00:44:54] **Dave:** Yeah, but we could add an inch to your bicep right now.

[00:44:56] **Jessie:** No, I don't want that. I don't need more bicep. I'm pretty happy with it.

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[00:44:59] **Dave:** Your biceps look great.

[00:44:59] **Jessie:** Well, look at the tricep.

[00:45:00] **Dave:** You do have a tricep.

[00:45:01] **Jessie:** See.

[00:45:02] **Dave:** Michelle Obama arms.

[00:45:04] **Jessie:** I've been working on these babies. It's not easy.

[00:45:05] **Dave:** Is it pure glucose that did that?

[00:45:07] **Jessie:** No, it's weightlifting.

[00:45:09] **Dave:** How much protein do you eat per day?

[00:45:11] **Jessie:** I try to get a lot. I try to do one gram a lot per pound of body weight.

[00:45:14] **Dave:** Really?

[00:45:14] **Jessie:** But I don't get that much.

[00:45:15] **Dave:** So how many grams is that?

[00:45:16] **Jessie:** I'm 70 kilos, so that's 150 pounds.

[00:45:19] **Dave:** See, I was trying to ask that question, because you're not supposed to ever ask a woman how much she weighs, and you're just like--

[00:45:24] **Jessie:** I have no problem with that.

[00:45:25] **Dave:** I appreciate that.

[00:45:26] **Jessie:** I have no problem with that because--

[00:45:28] **Dave:** People need to be open about it. I love it that you don't have a problem with that.

[00:45:30] **Jessie:** I have no problem with that. It's like asking how tall I am. I'm six feet. I'm taller than you.

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[00:45:35] **Dave:** Are you six feet?

[00:45:35] **Jessie:** Yeah.

[00:45:36] **Dave:** You're not taller than me. I'm 6'4. But this is going to sound really funny. I have no idea how to tell you, because when you're the tallest person almost always, everyone is down. If you were 5'4 or 6 feet, I wouldn't see the difference. It wouldn't register with me, unless you were wearing heels that put you as tall as me, and then I'd be like, oh my God, I love when--

[00:45:54] **Jessie:** I used to do that. I used to wear heels all the time.

[00:45:56] **Dave:** Good for you.

[00:45:57] **Jessie:** But I don't anymore. Yeah. When I first arrived in Silicon Valley, I was living the Silicon Valley dreams. I was on my bike, taking the Cal train, going to Mountain View, and I was wearing heels every day, and I just thought I was the coolest person in the world.

[00:46:08] **Dave:** Did you ever go to Red Rock Coffee in Mountain View?

[00:46:09] **Jessie:** Yeah, all the time.

[00:46:10] **Dave:** I used to test out the very early formulas for Bulletproof at Red Rock.

[00:46:14] **Jessie:** Amazing.

[00:46:14] **Dave:** Yeah. So what city did you live in the Bay Area?

[00:46:18] **Jessie:** I was in San Francisco.

[00:46:19] **Dave:** You were in San Francisco. Okay.

[00:46:20] **Jessie:** But I was working at 23andMe, when they were in Mountain View.

[00:46:23] **Dave:** Okay.

[00:46:24] **Jessie:** Five years.

[00:46:25] **Dave:** I was there yesterday on the Mind Pump podcast.

[00:46:28] **Jessie:** What's Mind Pump?

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[00:46:30] **Dave:** It's apparently a really big show. These are guys from the fitness industry. It was really fun, and they're OG Silicon Valley people. Let's see. I interviewed Sal, who's one of the big fitness leader guys You should be on the show. I'll introduce you to him.

[00:46:44] **Jessie:** Cool, thanks.

[00:46:45] **Dave:** And it was neat though, because I'm like, oh my God, I know the three companies that were in that building before it was whatever it is now, and I feel like I have roots there.

[00:46:52] **Jessie:** Nice.

[00:46:53] **Dave:** And it's funny, Red Rock. We were talking about that yesterday on the show too.

[00:46:56] **Jessie:** I remember the entrance, and then there's a side door to exit on the left. And I would sit in the little tables outside the side door.

[00:47:02] **Dave:** You go upstairs where all the nerds are working?

[00:47:04] **Jessie:** No, because the office was really close by, so I'd go get a coffee and go back to the office.

[00:47:07] **Dave:** Of course. Of course. Wow.

[00:47:08] **Jessie:** Good times.

[00:47:09] **Dave:** Totally good times. What did you learn in 23andMe?

[00:47:12] **Jessie:** I learned everything. I learned how you make a product, how you build software, how you AB test stuff, how you give your customers what they want. I learned everything.

[00:47:22] **Dave:** So guys, this is what I wanted you to see. She's freaking smart. Right?

[00:47:28] **Jessie:** I'm not just pretty. I can think.

[00:47:31] **Dave:** So what makes you a goddess?

[00:47:34] **Jessie:** Just my aura.

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[00:47:37] **Dave:** I'm trying to channel Bobby Althoff again because it's funny.

[00:47:40] **Jessie:** You can't do it. You have to be really dead talented.

[00:47:41] **Dave:** I'm trying, but you're funny.

[00:47:43] **Jessie:** I really want her to interview me. I want her to be like so--

[00:47:45] **Dave:** She'd be so fun, wouldn't she? I think I could give it back to her.

[00:47:48] **Jessie:** Yeah. She'd be like so, self-proclaimed Glucose Goddess. Explain.

[00:47:58] **Dave:** And whatever you say, it's going to be wrong. It's an art. Okay. I'm a fan, put it that way. All right.

[00:48:04] **Jessie:** Do you have any other serious questions for me, or are we just going to talk about random stuff?

[00:48:09] **Dave:** This is a podcast.

[00:48:11] **Jessie:** This is a very specific type of podcast.

[00:48:12] **Dave:** Did you think this was a news show or some kind of science education in a foreign company?

[00:48:16] **Jessie:** I thought it would be a serious podcast where we talk about serious stuff.

[00:48:19] **Dave:** This is The Human Upgrade. If you're serious about upgrading yourself, you have to laugh.

[00:48:23] **Jessie:** How many episodes have you done on this show?

[00:48:25] **Dave:** 1,200.

[00:48:25]

[00:48:26] **Jessie:** What was your favorite, apart from this one?

[00:48:29] **Dave:** Obviously. It's really hard. One of them that stood out was Daniel P. Brown from Harvard University. You heard of the guy?

[00:48:42] **Jessie:** No.



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[00:48:43] **Dave:** He's one of the fathers of attachment theory.

[00:48:45] **Jessie:** Ooh, amazing.

[00:48:47] **Dave:** He studied hypnotism clinically at Harvard for 40 years. And he's near the end of his career, I think almost 80, and has a neurodegenerative thing starting. So he translates 13th century Sanskrit meditation books into English for people. And I just asked him, hey, was this MK Ultra stuff real?

[00:49:13] And he goes, Dave, I spent 100 hours with Sirhan Sirhan. This is the guy who killed one of the Kennedys. And he said, as an expert in hypnotherapy, the most credentialed expert on the planet, with 100% certainty, he was programmed to kill.

[00:49:31] **Jessie:** Wow.

[00:49:33] **Dave:** And he said, we know how he was programmed. We know who programmed. We know when it was. We know where it was. And I'm like, on my little podcast-- it's not that little, but it's not that big-- this is proof from a direct witness of one of the biggest conspiracies ever talked about. And I go, they should do a documentary on you.

[00:49:52] He goes, oh, they did, and then they deleted my eight-minute segment and audited my taxes for seven years. Okay. That was an epic podcast, because, oh my God, this guy's just a modern master. But then you've got Robert Greene, Laws of Power. His work changed my life. And then Eric Kandel, Nobel Prize winner for discovering neuroplasticity, is 94 in New York City. You should meet him. And he's still got a lab doing genetics and running around like the happiness of a child.

[00:50:24] **Jessie:** I want to do that when I'm 80. 80 or 90, you said?

[00:50:26] **Dave:** I think it was about 90.

[00:50:27] **Jessie:** That's great.

[00:50:28] **Dave:** It was 94. And then Stan Grof, the guy who used LSD on his patients legally in the '50s. And created really transpersonal psychology. Sometimes I'm just, how do I get to be so lucky to talk to these smart people who are doing stuff, including you?

[00:50:47] **Jessie:** Thanks.

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[00:50:48] **Dave:** And I mean that, really, because talking about science in a way that people understand so that we understand what's being done to us-- I don't like the passive voice in that sense-- but what some bad people, and we all maybe know who they are, maybe we don't, but someone's doing bad things. And if people know what you're teaching them, I think you're making a really big difference.

[00:51:09] **Jessie:** Thank you. And that's what I care the most about, giving people their agency, their freedom, their education back. And that's the individual level work. We also obviously need way more regulation in the food industry. But both things.

[00:51:21] **Dave:** Do we need more regulation?

[00:51:23] **Jessie:** Yeah, we need to not be able to advertise junk food to kids on TV. We need to not put cartoons in cereal boxes. We need to not be able to put no added sugars on a product that has 50 grams of sugar per serving. Yeah, we do need more regulation.

[00:51:34] **Dave:** It feels like when you ask for regulation, you get what America has.

[00:51:38] **Jessie:** You think?

[00:51:39] **Dave:** Well, the regulators actually not only allowed this, they mandated it. Cheerios are heart healthy.

[00:51:46] **Jessie:** Yeah, that's crazy.

[00:51:48] **Dave:** It's crazy, but this is what happens if you give people the power of regulation. What I want is education and recommendations from my government that I'm free to ignore.

[00:51:55] **Jessie:** Sure.

[00:51:56] **Dave:** Like in France right now. Shout out to the French protesters and farmers. Whatever is in your DNA, you guys are the best protestors on the planet. I am so inspired when I see just full-on manure blowers just shooting out all over, hopefully the politicians themselves, but certainly over their residences and all. Keep burning tires and whatever you got to do, farmer rights, and all that. So I'm always inspired when I see French protestors.

[00:52:18] **Jessie:** Do you go to France a lot?

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[00:52:20] **Dave:** I can't say a lot, but I really enjoy going to France, mostly because, I'm going to say this, my kids speak French fluently. I don't. I can't hear the sounds of French. My auditory processing from being--

[00:52:35] **Jessie:** You need a supplement for that.

[00:52:35] **Dave:** I was autistic. I had Asperger's syndrome, so my auditory processing is a bit weird. French and Swedish just sound like--

[00:52:42] **Jessie:** I was in an Uber yesterday, and I was speaking French on the phone, and he's like, are you Swedish? I said, No, I'm French. He's like, what? Really? I thought you were Swedish.

[00:52:47] **Dave:** I could hear that. Your accent could be a little bit--

[00:52:49] **Jessie:** Maybe it's the accent.

[00:52:50] **Dave:** Yeah, it could be--

[00:52:51] **Jessie:** But in French, I don't have an accent.

[00:52:53] **Dave:** Of course, because it's your native language, right? So it's so interesting. So anytime I go there, I can eat a croissant or two, and I take gluten enzymes. And there's no glyphosate, and it's a different species of wheat. So I have a--

[00:53:08] **Jessie:** Because generally you can't grow it here in the US.

[00:53:10] **Dave:** I tried it. I'm going to talk about this. Maybe a month ago, I'm at beautiful restaurant in Austin. They have sourdough, and it's with mushrooms and stuff. So I'm like, I'll have two bites of sourdough. And the next day, pimples everywhere, gut's wrecked. This sucks. But last time I was in France--

[00:53:30] **Jessie:** You were fine.

[00:53:31] **Dave:** Yeah.

[00:53:32] **Jessie:** It's not the same.

[00:53:33] **Dave:** I'll eat three croissants. Don't even stop me. Yeah. But when I do it, I'm like, do you have more butter? And they're looking like, these Americans are gross. And I'm just putting--

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[00:53:42] **Jessie:** You want to open the croissant and put some ham inside.

[00:53:44] **Dave:** I just put butter, four big things of butter, and they're just-- because I know it's for my blood glucose. Is that a bad idea or a good idea?

[00:53:54] **Jessie:** It's a better idea than putting a bunch of Nutella in your croissant.

[00:53:57] **Dave:** Okay, fair point.

[00:53:58] **Jessie:** But it's all relative.

[00:54:007] **Dave:** It's all relative.

[00:54:00] **Jessie:** I don't think you need to put more butter in a croissant.

[00:54:02] **Dave:** I just like it.

[00:54:02] **Jessie:** I get it, I get it, I get it. Depends on the intention and what you would do otherwise, I'd say.

[00:54:07] **Dave:** I'd eat with butter anyway.

[00:54:08] **Jessie:** Okay, I have a question. Slab of butter, unsalted, on a plate, the big ones, not the thin ones. Would you be able to eat that with a fork and a knife?

[00:54:19] **Dave:** How much of it?

[00:54:20] **Jessie:** In one sitting, the whole thing.

[00:54:21] **Dave:** I can eat half. It would be hard to digest a whole stick of butter. Do you mean the Kerrygold double sticks?

[00:54:27] **Jessie:** Mm-hmm.

[00:54:27] **Dave:** I can do half of one of those. I remember I was at South by Southwest a while ago, and I was just getting the Bulletproof thing going, and I was starving, and there was no good food there. So I bought a stick of butter at a local store, and I was just eating it. someone was interviewing me, and I was just taking bites of it.

[00:54:46] And they were just horrified. I'm like, I'm in ketosis right now. I need food. But what I found is eating butter does something entirely different than blending butter into a sauce or

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blending it into a coffee, or tea, or whatever. And that's due with lipid and water chemistry. Why should coffee work if you blend it for 20 seconds, but you can't eat the butter and drink the coffee? And it turns out there's a whole reason. And in fact, it might be interesting for you and for listeners.

[00:55:16] **Jessie:** Something about, what's it called, not osmosis, but the thing that happens? Tell me.

[00:55:20] **Dave:** Have you heard of exclusions on water?

[00:55:24] **Jessie:** Probably. I have no recollection.

[00:55:26] **Dave:** Okay. So there's a guy from the University of Washington, a researcher, who's also been doing this for decades, Gerald Polack is his name. And he's doing research on water in cells. He has a well-known book called *The Fourth Phase of Water*, where when you put water up against the lipid membrane, it changes the viscosity of the water to make it more viscous, and it's not absorbing the fat. And you can see it on a microscope.

[00:55:50] This is not fanciful quantum water, although that might work also. Okay, it's real. And he says for you to make heat, for you make electricity, or for you to fold a protein in a cell, you have to have this kind of water inside the cell. So what our bodies do is we drink water, and then we hold the water up against our cell membranes. We make 1,200 nanometer light body heat. And then that transforms the water from bulk water into exclusion zone water. And then we can use it to make energy.

[00:56:23] **Jessie:** What do you think of the hydrogen rich water? All the rage you see. Is that a legit thing?

[00:56:27] **Dave:** It's legit. I interviewed Tyler Baron, I believe is his last name, on the show, probably six years ago about that, and I've had hydrogen makers. My buddy, TK, makes Lifeforce water now, which is prepackaged. It's actually what I'm using in Upgrade Labs. The reason hydrogen matters, though, is, turns off peroxynitrite in cells, but leaves the other oxidants that are stimulants for mitochondrial growth. So if you were to eat that crazy cake, you should have some hydrogen water with it.

[00:56:56] **Jessie:** We have to eat that cake, by the way.

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[00:56:58] **Dave:** I'm super up for that cake. All right, we just have to find someone to make it.

[00:57:01] **Jessie:** Gluten-free cake.

[00:57:01] **Dave:** Yeah, right. And no almonds either. Stupid oxalates.

[00:57:05] **Jessie:** And no kale.

[00:57:07] **Dave:** We'd have one piece of kale on top. Throw away the little decoration on the top and just throw the kale against the wall.

[00:57:13] **Jessie:** Nice. Love it. I really want cake now.

[00:57:16] **Dave:** You can eat the kale, just for the fiber.

[00:57:18] **Jessie:** Okay, thanks.

[00:57:19] **Dave:** I'll save it for you. So this water thing, it really affects our metabolism, and the reason that the Tibetans make yak butter tea. I was so tortured when I went to remote parts of Tibet, and I went to Mount Kailash.

[00:57:36] **Jessie:** Yeah.

[00:57:37] **Dave:** And I was feeling really bad because I hadn't fixed my metabolism all the way and lost a lot of the weight. And I drank yak butter tea at high elevation, felt really good. And I watched this little Tibetan woman. They walk like a quarter mile, break ice on a river, get water, bring it back, heat it up over yak dung to make tea.

[00:57:56] And instead of just drinking the damn tea and eating some butter like sane people, they put the butter in the butter churn, pour the boiling water in, and this lady sits there for 10 minutes, mixing it by hand, cha chunk, cha chunk, cha chunk. And I'm like, why are they doing that? And then you drink it. Because it works. They're making the tea into exclusions on water like fruit juice would be.

[00:58:14] **Jessie:** That's incredible.

[00:58:15] **Dave:** And when they drink it, they can make body heat right away because they don't have enough food.

[00:58:18] **Jessie:** Wow.

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[00:58:19] **Dave:** And you see these little guys half my size carry three times as much as me wearing t-shirts and it's 10 degrees below zero. And all they eat is a little bowl of barley and yak butter tea.

[00:58:30] **Jessie:** It's amazing when science starts to uncover some cultural traditions and why they actually work. Humans created boats before they understood how boats even work. We've done so much stuff before understanding how it works.

[00:58:43] **Dave:** Even fire.

[00:58:44] **Jessie:** For sure. For sure. Everything, really.

[00:58:46] **Dave:** Do you think we know how fire works?

[00:58:52] **Jessie:** Fire is actually a conspiracy.

[00:58:54] **Dave:** Like birds, they're not real?

[00:58:56] **Jessie:** Yeah, fire is not real. Don't know if you knew that.

[00:58:59] **Dave:** Fire is just a lack of cold, right?

[00:59:00] **Jessie:** Yeah.

[00:59:01] **Dave:** Yeah, very scientific. The whole universe is actually on fire, and it's coldness that allows life.

[00:59:06] **Jessie:** Exactly.

[00:59:07] **Dave:** There.

[00:59:07] **Jessie:** Exactly. You got it.

[00:59:08] **Dave:** You went to the same conspiracy school I did.

[00:59:10] **Jessie:** Same school, yeah.

[00:59:12] **Dave:** Tell me about your 2,700-person experiment. It's actually really cool.

[00:59:16] **Jessie:** Thank you. My second book. So first book, 10 hacks. That's the one that was not in your 10 bestseller [Inaudible]. I know it's really embarrassing. But the second book was.

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[00:59:23] **Dave:** You still have time.

[00:59:25] **Jessie:** So second book, four core hacks. Savory breakfast, vinegar, veggie starter, and movement after eating. And all of these are based on lots of studies that have been done across the world.

[00:59:34] **Dave:** They totally work. These are great recommendations.

[00:59:36] **Jessie:** Of course. They're amazing hacks. They really, really work. But I also wanted to run my own little experiment. So it's not a placebo-controlled, double-blind, randomized control trial. We're just talking about self-reported data from these 3,000 people that I recruited off Instagram to go through the four-week method and tell me how they were doing. So you add these four hacks and you don't change anything else about your life. You eat all the stuff you usually eat, you drink all the stuff you usually drink.

[00:59:58] You just add the four hacks, savory breakfast, vinegar, veggies, and walking. And after the four weeks, the results were incredible. We see 90% of people have more energy and have fewer cravings. 67% of people sleep better. 40% of people with diabetes start putting the diabetes into remission. Stats that are pharma level stats, just by adding these four hacks in and doing nothing else.

[01:00:21] **Dave:** I would like to believe you, but did you do a double-blind placebo-controlled study?

[01:00:25] **Jessie:** No.

[01:00:26] **Dave:** Why not? Are you not a real scientist?

[01:00:28] **Jessie:** I didn't have \$10 million dollars.

[01:00:31] **Dave:** I'm so teasing you, because even if you had \$10 million, how would you double-blind placebo-control for stuff people know?

[01:00:37] **Jessie:** You could do vinegar placebo-controlled.

[01:00:38] **Dave:** You could do fake vinegar, yeah.



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[01:00:40] **Jessie:** It would be hard to do a savory breakfast placebo-controlled. But what we could have done was tested that versus four weeks of government recommendation for lowering glucose levels, for example, that would have been really, really cool.

[01:00:52] **Dave:** That would have been super cool.

[01:00:53] **Jessie:** That's the second book. That's the Glucose Goddess Method.

[01:00:57] **Dave:** I like that.

[01:00:57] **Jessie:** And that's a relatively large sample size.

[01:00:59] **Dave:** Yeah.

[01:01:00] **Jessie:** But again, it's just an experiment.

[01:01:02] **Dave:** Right.

[01:01:02] **Jessie:** It was not a study per se, for all the scientists listening.

[01:01:07] **Dave:** Right. I did something similar to test butter in green logo coffee that's not mold-tested versus mold-tested coffee with or without butter. And six of seven university validated cognitive performance, saying, butter and coffee, moldy or not, improves cognition.

[01:01:24] **Jessie:** Nice.

[01:01:25] **Dave:** And if it's mold-free coffee, it worked even better. So again, not double-blind because you can taste bad coffee versus good coffee. And you can't have butter and coffee. And if you put--

[01:01:34] **Jessie:** Canola oil.

[01:01:35] **Dave:** Yeah, margarine and coffee, it's not a good one.

[01:01:37] **Jessie:** I used to do the butter and coffee thing back in the day.

[01:01:40] **Dave:** Did you really?

[01:01:41] **Jessie:** Yeah, absolutely. Absolutely.

[01:01:42] **Dave:** I'm honored.

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[01:01:43] **Jessie:** I was a big follower.

[01:01:45] **Dave:** So I created Glucose Goddess.

[01:01:46] **Jessie:** You created the Glucose Goddess. I would be nothing without you. I would be nothing without you. You invented me.

[01:01:52] **Dave:** I actually think I invented this entire universe.

[01:01:54] **Jessie:** That makes sense. You're kind of God, actually.

[01:01:56] **Dave:** Well, of my own universe, but wouldn't that also make you got to be a goddess of your own universe? So is your universe made with candy canes and stuff?

[01:02:04] **Jessie:** And cats. I love cats.

[01:02:06] **Dave:** Cats? You love cats?

[01:02:07] **Jessie:** I love cats.

[01:02:08] **Dave:** Do you know about toxoplasmosis?

[01:02:10] **Jessie:** Of course I do.

[01:02:11] **Dave:** So do you have it?

[01:02:12] **Jessie:** I don't know, actually. I want to test.

[01:02:14] **Dave:** You should test it because it increases risk taking in people.

[01:02:16] **Jessie:** Oh, nice. I'm pretty crazy.

[01:02:19] **Dave:** The crazy cat lady thing is real.

[01:02:22] **Jessie:** I think when I'm 90, I'll end up with 25 cats. I'll be so happy.

[01:02:26] **Dave:** Well, they programmed me to do that.

[01:02:28] **Jessie:** Totally. They take over your brain.

[01:02:30] **Dave:** So do you know many times when I make fun of cats-- and guys, I like cats too, but just out of a sense of humor. People who--

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[01:02:37] **Jessie:** Love cats.

[01:02:38] **Dave:** See, see.

[01:02:38] **Jessie:** Love cats.

[01:02:40] **Dave:** [Inaudible] my ringtone. I'm going to put you in there. Love cats. But people get really mad about this. And by the way, if I say that I don't like cats, and I actually do like cats, but I wouldn't want to live with one because of toxoplasmosis and stuff--

[01:02:54] **Jessie:** People shouldn't get mad. You're the one that does not like cats?

[01:02:57] **Dave:** No.

[01:02:57] **Jessie:** For example, I don't like you. You don't get mad.

[01:03:00] **Dave:** I'm a hip cat. Was that in the '50s they used that language?

[01:03:05] **Jessie:** Yeah.

[01:03:06] **Dave:** But some people will unfollow you if you say anything bad about cats. Those are the people with toxoplasmosis. I'm not even kidding. I'm sorry, guys. You need to get treated.

[01:03:15] **Jessie:** Oh my God, I'm dead. People will unfollow you if you say something bad about cats?

[01:03:18] **Dave:** Oh, absolutely.

[01:03:19] **Jessie:** I'm not surprised.

[01:03:19] **Dave:** Yeah, and it's not like I'm saying mean stuff about cats.

[01:03:21] **Jessie:** You're just saying, I don't like cats.

[01:03:22] **Dave:** Yeah, but I do like cats. I just don't want them in my house.

[01:03:25] **Jessie:** Yeah. You're not obsessed with cats.

[01:03:27] **Dave:** Yeah.

[01:03:28] **Jessie:** Yeah. That's so funny.

[01:03:29] **Dave:** You know the difference between a cat and a dog?

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[01:03:31] **Jessie:** No.

[01:03:32] **Dave:** If you die in your home, the dog will sit next to your body and starve to death protecting you.

[01:03:37] **Jessie:** The cat will eat you.

[01:03:37] **Dave:** It'll eat your eyeballs.

[01:03:39] **Jessie:** Really?

[01:03:39] **Dave:** Yeah, they do that. Yeah.

[01:03:41] **Jessie:** So smart.

[01:03:41] **Dave:** Do you still like cats?

[01:03:42] **Jessie:** I love cats. That's so smart.

[01:03:44] **Dave:** Eyes are nutritious?

[01:03:45] **Jessie:** I don't know, actually.

[01:03:46] **Dave:** Have you ever eaten an eyeball?

[01:03:47] **Jessie:** No. Have you?

[01:03:48] **Dave:** Yeah. You ever go to a sushi restaurant?

[01:03:51] **Jessie:** I eat the eggs.

[01:03:53] **Dave:** You can get fish eyes.

[01:03:54] **Jessie:** No, I'm not interested.

[01:03:55] **Dave:** They're like a white marble.

[01:03:56] **Jessie:** I'm not interested. Basically, eating with you is like 200 pills, butter, and fish eyeballs. That's dinner with Dave.

[01:04:06] **Dave:** I'll do fish eggs, but you have to cover it with a giant two-pound rib eye, and then I'm down.

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[01:04:10] **Jessie:** Okay.

[01:04:10] **Dave:** All right.

[01:04:11] **Jessie:** Fascinating.

[01:04:14] **Dave:** Back to your study.

[01:04:17] **Jessie:** But this just goes to show, this experiment, if you have any issues you want to fix, if you could feel better than you currently do, adding these four hacks cost nothing. It's completely free. It's super easy. Anybody can do it, and you can start feeling much better. This is the stuff that I started implementing in my own life that helped me so much.

[01:04:32] And I think this should be taught in schools. I think we're operating the same level as brush your teeth, wear sunscreen, drink water, don't eat sugar for breakfast. That's the level at which I hope that my work operates, and I hope I become completely useless and completely irrelevant because this stuff is so obvious. Imagine if I had started an Instagram account that was all about why you should brush your teeth. Nobody would care.

[01:04:57] **Dave:** Yeah.

[01:04:58] **Jessie:** And I want this information to become so obvious that people stop caring about me. I want to become irrelevant. That's the objective.

[01:05:06] **Dave:** The goal for everyone I know who genuinely is in the health influencing game because it matters, not because they're just trying to make a quick buck is that if we had the manual for how to run your body the right way, we don't need to be doing this. There's lots of other things I'd like to do. This just feels like the most important work I can be doing now, or at least some of it. And same for you. The benefits you get from these four steps are so dramatic, even in the world of longevity.

[01:05:34] **Jessie:** Absolutely.

[01:05:36] **Dave:** Let's talk fertility. What do you know about glucose and fertility?

[01:05:41] **Jessie:** Well, if you're on a glucose rollercoaster, spike, dip, spike, dip, your hormonal system cannot function properly. Excess insulin in the body causes ovaries in the female body to

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produce more testosterone. You can end up in a situation where you have too much testosterone in a female body.

[01:05:59] This is often called PCOS. You start getting symptoms like balding on the head, hair growth on the face, missed periods, cystic ovaries, etc. What's usually done when you have PCOS or these symptoms, you're given the birth control pill. Why? Because the pill contains freaking female hormones. Brings the balance back up.

[01:06:17] Now you're equal. Symptoms go away. You're not solving the underlying issue at all. I have so many women who get off the pill because they are trying to get pregnant and they're like, dude, I'm not ovulating. What's going on? Because you have PCOS underlying too much testosterone. You have to fix it. The first place to look is insulin resistance and food.

[01:06:35] It is not the only reason, but about 60 to 70% of PCOS cases go hand in hand with insulin resistance. So if you get that insulin resistance down, you're going to help your hormones function better. And it also goes for menopause symptoms. During the menopause, if you have super irregular blood sugar, we see in studies, higher rates of insomnia, hot flashes, etc. Glucose levels is the foundation of a healthy body. You cannot be healthy if you're going like this all day or if you're fasting glucose [Inaudible].

[01:07:07] **Dave:** The mother of my children had PCOS and was infertile. Caroline's a good trained medical doctor. And I ended up putting together the program for the Better Baby book with her, did all the shopping, all the cooking, all you would do in France. You went to the farmer's market all the time. And we had two kids. And to this day, she runs a fertility coaching practice with just a small number of clients. But getting rid of the insulin resistance was a major part of it.

[01:07:32] **Jessie:** For sure.

[01:07:33] **Dave:** And a lot of that was getting rid of the bad fats. And she was doing soy milk when I met her. And so we had to get rid of the soy milk, which has its own estrogens in it. And then it seems like there's also a fungal component. So much of the time there's candida or toxic mold that's behind PCOS, which also cause insulin resistance. So getting those things down for people who have PCOS. And it's all over the place.

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[01:07:56] **Jessie:** Their rates are going up like crazy. I think it's one in six females now.

[01:08:00] **Dave:** What do you think about the birth control pill?

[01:08:04] **Jessie:** I think it depends. If it's used like this to mask symptoms, I don't think it's a solution, because it's not doing anything to help the underlying issue. But I don't have any opinions or judgment on whether somebody takes it.

[01:08:16] **Dave:** I don't have any judgment. I think birth control is a basic human right. I will say though that the birth control pills that contain chemicals or hormones are a crime against women. They are so bad for your health, and they don't tell you when they give them to you. Oh, here, just have these. It'll solve your PMS or whatever.

[01:08:36] **Jessie:** Or even for acne, right?

[01:08:38] **Dave:** Yeah.

[01:08:38] **Jessie:** For everything. It's like, oh, you have a problem here. Take the pill. But I think that's changing now. People are realizing it's not at all a good move.

[01:08:46] **Dave:** Yeah. If you're 30 or something, the number of women who are on the pill at some time in their life in the US, in a way, is 85%. And I think it's--

[01:08:55] **Jessie:** And when you're 14, they give you the pill.

[01:08:56] **Dave:** Yeah.

[01:08:56] **Jessie:** Oh, you have pimples. Here.

[01:08:57] **Dave:** And it affects your ability to see the world. It affects everyone around you, too.

[01:09:02] **Jessie:** Immunes are so important to who you are.

[01:09:05] **Dave:** Even for blood sugar regulation.

[01:09:06] **Jessie:** Absolutely.

[01:09:07] **Dave:** Do you know anything about estrogen levels or testosterone levels and what they do to glucose?

[01:09:12] **Jessie:** No.

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[01:09:13] **Dave:** I don't either.

[01:09:16] **Jessie:** What I do know is that the week before your period, your fluctuating hormones will create a bigger glucose spike in your body for the same food. So the chocolate cake, week after period, spike, but week right before period, bigger spike. Same food. But the hormonal fluctuations just turn estrogen fluctuations will impact your glucose metabolism. And that's the problem because when you have a big spike before your period, you have a big crash in cravings.

[01:09:43] A crash in glucose levels activates the craving center in your brain. So all those cravings that you have before you're about to get your period, it's not the only cause, but one of the causes can be being on this glucose rollercoaster all day.

[01:09:53] **Dave:** Interesting.

[01:09:54] **Jessie:** So use the hacks even more if you're prone to PMS cravings.

[01:09:59] **Dave:** It's interesting. There's a couple of friends I wrote forewords for their books and things. Aggie and Melanie Avalon have written books on biohacking or intermittent fasting for women in particular. And I have a chapter of all the studies for women in Fast This Way I'd like to call out, but some of those just aren't studies.

[01:10:17] **Jessie:** Yeah. A lot of studies have been done on men.

[01:10:18] **Dave:** I think that you could really have a good leadership position. Might be a book about that, about literally just how to control your blood sugar at different parts of your cycle. It's a thing that's unique for biohacking in women versus men.

[01:10:35] **Jessie:** That's true. However, in my first book, Glucose Revolution, the 10 hacks, they apply across the board to everybody. So that's the place to start.

[01:10:42] **Dave:** I'm the same way. Biohacking is for everyone. But the nuances that are there that only apply to women, and there's different nuances for men too, like our stress levels, and sleep, and stuff, are different than women, but it feels like what you just said there, everyone talks about fasting, but they don't talk about how much sugar you can tolerate.



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[01:11:00] **Jessie:** Or how to break your fast. I've never been a big, big fasting person. If you want to fast and it feels good to you, that's great. But again, remember, it's a stressor to your body.

[01:11:08] **Dave:** Yeah.

[01:11:08] **Jessie:** So just fasting 14 hours overnight is plenty already. And what's even more important is, what are you actually eating the rest of the time?

[01:11:16] **Dave:** Oh, that matters.

[01:11:17] **Jessie:** That's so key.

[01:11:18] **Dave:** There was a study in Fast This Way. It was from Australia. Three 12-hour fasts per week started to show benefits in middle-aged women.

[01:11:27] **Jessie:** But that's just sleeping.

[01:11:28] **Dave:** Well, no, a lot of people eat right before they go to bed. They eat when they wake up. So it means stop eating after dinner, and then don't eat right away when you wake up. Just doing that three times a week, they saw a 0.1% ketone improvement, but metabolic improvement.

[01:11:41] **Jessie:** And then when you break your fast, have something savory, or start with veggies, have butter and fish eyes and Dave's 200 supplement pills. That's the best way to break your fast, everybody. No, seriously, the best way is something savory, protein, or some fiber. Avoid the orange juice, the fruit smoothie.

[01:11:57] **Dave:** That's something I love about your work. I've, for years, been like, don't eat fruit for breakfast. It's the dumbest thing you could do. It's going to set you up all day, but people do it all the time.

[01:12:07] **Jessie:** You know fruit that you see today in supermarkets and stuff? It's not natural at all. As you know, it's the outcome of thousands of years of crossbreeding. We created chihuahuas from gray wolves and from breeds of dogs. We created oranges and bananas and apples. They're not natural fruits.

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[01:12:23] They have been created to be super sweet, low in fiber, easy to eat. They're human inventions. So it's not because you buy a piece of whole fruit that it is natural and good for you. Yes, it's good because it has some fiber in it, but then when you denature it and juice it or you smoothie it, it becomes just sugar water.

[01:12:39] You have to be super cautious. And your body doesn't care whether sugar came from an orange and is now in an orange juice, or if the sugar came from a beetroot or a cane and is now in a can of Coca Cola. It's the same amount of sugar, 25 grams, 25 grams. To your body, it is the same. And people will say, yes, but the orange juice contains some vitamins. The thing is, if you put some vitamins in a can of Coke, you would still not think it's that healthy for you. Well, the orange juice is just a can of Coke with vitamins in it.

[01:13:11] **Dave:** Exactly.

[01:13:11] **Jessie:** Yeah. And people go crazy when I say I'd rather drink a can of diet Coke instead of a glass of orange juice. People go wild, but I stand by it. 25 grams of sugar in a can of orange juice is not something that's good for you.

[01:13:28] **Dave:** It's not good for you, even in the slightest.

[01:13:30] **Jessie:** It's dessert. It's for pleasure. It's for fun. It's for enjoyment. It's not for health.

[01:13:35] **Dave:** Jessie, this has been so much fun to connect and--

[01:13:39] **Jessie:** Thanks, Dave.

[01:13:40] **Dave:** Chat about--

[01:13:41] **Jessie:** And thanks for inviting me after ghosting me for five years and ignoring me. I'm finally cool enough for you, so I'm really happy about that.

[01:13:48] **Dave:** You know, it's still up for debate. Yeah.

[01:13:54] **Jessie:** We can talk about it.

[01:13:55] **Dave:** I think you might be cool enough when you have 4 million followers

[01:14:03] **Jessie:** That's funny. I'll do my best.

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[01:14:05] **Dave:** You're just doing such cool stuff, so true appreciation. Keep leading. Tell people the easy things, and thanks for being smart.

[01:14:14] **Jessie:** Thanks for being smart too.

[01:14:14] **Dave:** You got it.

[01:14:16] **Jessie:** Thanks for the nicotine thing.

[01:14:17] **Dave:** Did you feel it?

[01:14:18] **Jessie:** Yeah, that was fun.

[01:14:20] **Dave:** All right guys, if you like this episode, follow Glucose Goddess Do some squats after you eat. The kale thing, I don't know. And whenever we have our giant cake--

[01:14:29] **Jessie:** We'll take a video.

[01:14:30] **Dave:** Yeah, we'll video it.