

Sawbones 383: Black Oxygen Organics

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Clint: *Sawbones* is a show about medical history, and nothing the hosts say should be taken as medical advice or opinion. It's for fun. Can't you just have fun for an hour and not try to diagnose your mystery boil? We think you've earned it. Just sit back, relax, and enjoy a moment of distraction from that weird growth. You're worth it.

[theme music plays]

Justin: Hello everybody, and welcome to *Sawbones*: a marital tour of misguided medicine. I'm your cohost, Justin McElroy.

Sydnee: And I'm Sydnee McElroy.

Justin: And Sydnee, the world has opened up before me, and I see nothing but infinite possibility. Do you know why?

Sydnee: Why?

Justin: 'Cause I don't know what we are talking about today.

Sydnee: Really?

Justin: I— I don't know. You didn't send me the notes like you normally do, and—

Sydnee: I just did, like, 30 seconds ago, so.

Justin: Really? Okay. Well, you— well, we haven't talked about it. We've been so— so busy this week that I haven't gotten an update from you on what we're talking about, so I'm so excited. It could be anything! Is it gonna be a bummer? Is it gonna be...

Sydnee: No.

Justin: ... a feel-good?

Sydnee: Uh... what's in between that? [beat] Our show. Our show is in between— that's where our show lies. [laughs]

Justin: Our show. Our show, yeah.

Sydnee: Um, can I ask you a question before we get into the episode?

Justin: I love talking about myself. This is— I'm right in my sweet spot with this.

Sydnee: You know how there's dirt that, uh... I don't know if it's pronounced hummus, but it might be pronounced hummus, but it's not the hummus you eat. You know what I'm talking about?

Justin: Yeah. Yeah, yeah, yeah.

Sydnee: It's H-U-M-U-S.

Justin: Very confused.

Sydnee: Is that hummus or humus?

Justin: You're asking me?

Sydnee: Yeah. I'm realizing as we start to record that I don't actually know if it's pronounced— we watched that great master class about soil.

Justin: Yeah.

Sydnee: And I feel like I was probably told if it's hummus or humus.

Justin: Um, yeah, but maybe our friends over at Wikipedia— let's see what they say. Um, no, no pronunciations there. Maybe at dictionary dot— dot—

Sydnee: [sighs] This is the problem. I feel like—

Justin: Britannica.com.

Sydnee: I feel like a lot of our listeners with empathize with me as someone who read a lot as a child but didn't necessarily talk a lot as a child. There are lots of words that I know what they mean, and I definitely mispronounce. Definitely. But this is not the hummus that you eat that tastes great with, like—

Justin: Humus.

Sydnee: Humus. Good! Then I— then that way there is no confu— it looks like— like, the— with just the one "M" I would've assumed humus, but I didn't wanna...

Justin: Here we go. That's the truth. Now you know it. Humus.

Sydnee: Well... to understand this topic, we're gonna be talking a lot about dirt, and this has probably already given away to many of our

listeners who have emailed me about this what our topic is. Justin, have you heard of BOO?

Justin: Boo?

Sydnee: Boo!

Justin: Oh, uh, Boo Radley from *To Kill a Mockingbird*, yes.

Sydnee: No.

Justin: I don't— cannot imagine how on Earth we would be... overlapping here.

Sydnee: And there are so many people— I— I had gotten so many emails about this, and I didn't list them all. But thank you to Chris, and Charlie, and Abigail, and Lucia, and Morgan, and Jacqueline, and Amy, and Sarah, and Debbie, and Caitlin, and Janaya, and Emma, and— uh, there are so many people who have emailed me about this. I've probably missed some of you. Um, but a lot of people have wanted us, especially since we talked about a multi-level marketing corporation last week, to talk about BOO, B-O-O, which stands for Black Oxygen Organics.

Justin: Black Oxygen Organics. Okay, tell me all about it, Syd.

Sydnee: So, this is a multi-level marketing company that sells you dirt.

Justin: Oh! Well— but wait, I have dirt.

Sydnee: That's oversimplified. It's not dirt. It comes from dirt. It's sort of dirt. We're gonna get into it. Let's start talking about dirt.

In the Himalayan mountains, between India and Nepal, there is a substance that has been used as a dietary supplement and treatment and— and sort of, um, therapeutic, since ancient times.

Justin: Mm-hmm.

Sydnee: Okay? So this— the roots, as is true with many of the products we discuss on the show that are sold today that are sort of based in pseudoscience, uh, this traces back to cultures using something similar for a very long time. Okay?

Justin: Okay.

Sydnee: That is— that is, of course, part of the story, part of the narrative of this product. Um, it is this, uh, supplement that they find in the mountains, is this sort of exudate that can collect on the rocks.

Justin: Exudate?

Sydnee: Um, like... something that is released and created from the... like a substance that is...

Justin: Okay.

Sydnee: ... released and created from the material around it, and then, like, collects on the rocks.

Justin: Okay.

Sydnee: Okay?

Justin: Got it.

Sydnee: Uh, and it is called shilajit. And—

Justin: Shilajit.

Sydnee: Yes. And this is usually—

Justin: It's nice to say.

Sydnee: —a, uh, black, brown kind of material. Um, it can be turned into a powder. It was often, in, you know, in ancient times it could be not just, like, used as, like, a gooey thing, but turned into a powder.

Justin: [sighs]

Sydnee: Are you looking at pictures?

Justin: Looks kind of like Vegemite? Is that a reference for you, friend? It looks kind of like Vegemite.

Sydnee: I think— I think it does. I saw some pictures. I would agree. Um, this substance, like I said, which has been used in various preparations that you could, um, either put on your body or eat, has been used—

Justin: Mm, not eat. [wheezes]

Sydnee: Yeah.

Justin: I don't think I would eat this.

Sydnee: Uh, but it was thought to be energizing, kind of like— that general sort of idea of health-giving. Like, this is something that will give you energy and make you healthy, without, like, too many specifics.

The topical applications, like putting-it-on-your-skin applications, were usually for a variety of different rashes. It was thought to have a lot of different health benefits. Um, and it was part— it is still, I believe, part of Ayurvedic medicine, which is a different, you know, medical tradition, specific to India and that part of the world. And it could be consumed for strength, for longevity, um, to help with, like, cognition, thinking, processing information, that kind of thing. Right? Even, uh, added to milk for children. So...

Justin: Kind of like... like we would do Nestle Quick or Carnation Instant Breakfast. They would add some shilajit.

Sydnee: Well, when you add Nestle Quick to our kids' milk, which we don't do that frequently 'cause—

Justin: No. I don't even know if we have any.

Sydnee: Charlie doesn't like Chocolate, and Cooper's not huge on it.

Justin: Carnation Instant Breakfast— Carnation Instant Breakfast, that is actually— that's more like kind of nutrients.

Sydnee: Okay. I was gonna say, do you think that you're giving them nutrients when you add Quick to their milk?

Justin: No, but Carnation Instant Breakfast— I mean, that's basically a meal. It's, like, so full of nutrients. [singing] Carnation Instant Breakfast! You're gonna love it in an instant. [spoken] Remember that?

Sydnee: Quick— Nestle Quick actually isn't as far from that as you can get. I was thinking that the worst thing is that thing we do have a bottle of in the fridge, which is that strawberry syrup.

Justin: Yeah, right, yeah. Yeah.

Sydnee: That— that's as far from nutrients as you can get, I think.

Justin: That's just— that's just chemicals and sugar.

Sydnee: Mm-hmm. But it turns your milk pink, and the kids love it. Um, so this substance is composed of decaying organic material. That's how it gets to the rocks, right? Like, leaves and stuff, they break down. Bacteria breaks them down.

Justin: Okay.

Sydnee: They become this gooey stuff.

Justin: Great!

Sydnee: That's what it is.

Justin: Yeah.

Sydnee: Okay? Um, and what breaks it down? A bunch of different bacteria. A bunch of different germs and organisms, microorganisms, fungus, whatever, from the soil, eat all of this organic material, and you get this stuff.

Justin: Great.

Sydnee: Okay?

Justin: S'good!

Sydnee: The components of it are mainly what we would call humic substances, introducing humus to the conversation.

Justin: Okay.

Sydnee: Like, stuff that is made from decaying organic material. This is very similar to if you compost.

Justin: Right.

Sydnee: The difference being, like, when you compost, you're intentionally taking, like, leftover stuff from your kitchen, like food or whatever, whatever you're composting, and throwing it in together to try to make it break down, right?

Justin: Right, right.

Sydnee: This is like— that's, like, an intentional process, whereas humus just naturally develops from the earth.

Justin: So, it's like nature's compost. [wheezes]

Sydnee: Yeah, flipping it around. [laughs quietly]

Justin: Yeah, right.

Sydnee: That's so human-centric.

Justin: Nature learned composting from us.

Sydnee: Uh, so, um, it's rich, dork— decayed— dorkayed— not dorkayed, decayed organic— decayed organic stuff. It helps stuff grow. We know that, right?

Justin: Yes.

Sydnee: We know that about compost, we know that about humus.

Justin: Layer of that in there with the peat moss and what-have-you.

Sydnee: Mm-hmm, mm-hmm.

Justin: Giving the plants a boost.

Sydnee: 'Cause it's got a variety of nutrients and trace elements. It's got lots of good stuff in it. Plus it makes soil— if you add compost or humus to your soil, it makes it crumbly.

Justin: Ooh, yeah.

Sydnee: Um, like, it— you know, it's lighter, crumblier, fluffier. And when you—

Justin: Yeah. Aeration, I bet.

Sydnee: Exactly. Allows oxygen to get down to the roots and everything. So, it's good for growing. It was part of why, other than that Charlie guilted us into it, but part of why we started composting was for our garden. When Charlie... you know, became an eco-warrior.

Justin: Right.

Sydnee: But anyway, so, you know what this stuff does. You know it's good for your plants, right? It's good for the Earth.

Justin: Yeah!

Sydnee: Important stuff.

Justin: Good for us!

Sydnee: Okay.

Justin: Good for our bodies, to eat it. Is that what you're saying?

Sydnee: No, I didn't say that, but we're getting there.

Justin: Okay. [laughs quietly]

Sydnee: The substances that make this stuff up include something called fulvic acid, and that's really what... what we're going to be selling to people.

Justin: Oh, man. I gotta tell you, Syd. The— I did the— for the image search that I did, uh, I also got some shopping results, as Google is wont to do. And I tell ya, for dirt goo, [through laughter] this is pricey!

Sydnee: Pricey dirt goo.

Justin: [through laughter] These are some expensive products, here!

Sydnee: Well, and let me tell you. I'm focusing on Black Oxygen Organics because one, it's what I got a lot of emails about; two, it's all over TikTok, as we'll get into. Um, but this is a product sold by many other— like, they are not the only ones pushin' dirt as a treatment for things, or a wellness additive.

Justin: There's a little container that has a quarter pound of this stuff, and it's \$333. Are you kidding me with this?

Sydnee: I wonder if they're saying it's sourced from somewhere, 'cause that's part of where we're going with this story is, where do you get your dirt?

Justin: "Helen Mirren's house," it says.

Sydnee: No it doesn't.

Justin: [laughs quietly] It doesn't.

Sydnee: [laughs] So fulvic acid is the acid that really— like, that is the part of it that has caught on, I think. Like, that's what they push the most if you read the different websites about, like, why this is so important. Why does this work? Why does this do this, all this stuff we claim it does?

Um, fulvic acid is the component is supposedly the— it's the best of all acids. [laughs quietly] It has, like, they claim, like, the best electrolyte, which... specious, but... um, I don't know. What do you really mean by "best"?

Justin: The best.

Sydnee: Who's voting?

Justin: I mean, how do you pick the best acid, you know?

Sydnee: Um, the best of all the supplements. Uh, and it just so happens that in the Ottawa Valley in an area called Moose Creek of Ontario, Canada, there lies a fulvic acid rich peat bog. You'll find a lot of this stuff in peat bogs, right? 'Cause a bunch of organic material is decaying in a— in a peat bog.

Justin: I mean, it's— the— it's right there in the— a bog? Yeah. You're gonna get some breakdown of organic material in a bog.

Sydnee: So you go to a bog and you collect some dirt, and it's just full of... I was thinking we could call it fulv?

Justin: Fulv?

Sydnee: You think that'd be a good short— I didn't find that anywhere.

Justin: What is that—

Sydnee: But instead of saying fulvic acid, like, "You got your fulv?"

Justin: Fulv...

Sydnee: Takin' your fulv— your fulvie!

Justin: I will say, fulv does not trip off the tongue.

Sydnee: Got your fulva?

Justin: Just come up with a—

Sydnee: Oh. That sounds like vulva.

Justin: Hmm... [sing-song] ful-full-ful... [spoken] flaccid. Nope!

Sydnee: No. Nope! That's not it. [sighs] uh, it was— so this specific fulvic acid from this specific peat bog... in this specific Canada... [laughs quietly]

Justin: [giggles] One of the top Canadas. Top acids from the top Canadas.

Sydnee: Was discovered by this specific, uh, Marc Saint-Onge.

Justin: One of the top Marcs.

Sydnee: Who— well, okay. Can I... and maybe our Canadian listeners can email me and let me know if this is true. Uh, I... found that this is the guy who is gonna found this company, Black Oxygen Organics, that we're gonna talk about. And you can watch his YouTube videos where he explains all this to you. When I was trying to google just him so that I could learn more about him, like, his story, like I like to do on the show, give you a little bit of background on these people, I found *so many* Marc Saint-Onge.

Justin: Mm-hmm. [laughs]

Sydnee: Um, is that like the John Smith of Canada?

Justin: Marc Saint-Onge is like a—

Sydnee: Well, I'm serious!

Justin: Oh yeah, I went to school with three Marc Saint-Onge!

Sydnee: Well, I stumbled on another guy who was selling some, like, sort of, um, natural skincare products. And so I thought— like, I immediately was like, "Well, this must be the same person," right? 'Cause they're both selling these, sort of, like, natural... you know... herbal kind of product-y things.

But, like, they were totally different people. 'Cause I was looking. I was like, "These guys look different. [gasps] What's he doing? What's he up—" no. They're just different people selling different products. [laughs quietly]

Justin: [laughs]

Sydnee: But it's just a— I guess a really common name? There were a lot of 'em that I had to sort through to find this guy.

Justin: Yeah.

Sydnee: Anyway. So, uh, Marc, his story is that he initially found this mud, um, this black mud in Germany that a lot of people were using in, um, like, medical— like, they were using it for medical applications.

Justin: Mm-hmm.

Sydnee: And he started using it in his orthotherapy practice. Like, at the time he was doing this, like, orthopedic therapy-type stuff, and, like, it was from his— like, his mom did it, and then he kind of followed in her footsteps and, like, they both were into the same stuff. They traveled a

lot, and he saw these people in Germany using this black mud, and he was like, "Well, I'm gonna use this black mud too."

Um, and it was so effective on people, this black mud, on their various issues, that he started thinking, like, "Where can I get more of the best black mud?"

And he started thinking about his old bullfrogging days in Ontario. Where I guess you go get bullfrogs?

Justin: Mm-hmm.

Sydnee: Is that what bullfrogging is?

Justin: Yeah. I would ho— oh, *God*, I hope so. 'Cause if not, it's dirty.

Sydnee: [laughs quietly]

Justin: If it's not that, it's pretty bad, I think.

Sydnee: So he went back to, uh, Ontario, and he started checking bogs, 'cause I guess there are a lot of bogs there.

Justin: If you wanna get the best frogs, you gotta go to... a lot of bogs.

Sydnee: So he went to all the bogs.

Justin: For the best frogs.

Sydnee: For the best frogs, and checked all the muds. He checked 63 different peat bogs.

Justin: Which sounds like a lot, but I don't know how many you could sort of assess in a given day.

Sydnee: Well, how many do you have in the Ottawa Va— I don't know. They have a lot of them. And he checked 63 of them. And six—

Justin: Which is either extremely thorough... or not that impressive. We don't know.

Sydnee: I don't know. Well, 62 of them were complete wastes of time. Other than the fro— I don't know. Maybe the frogs were great, but the peat bog— the mud was not great. So, uh, in the 63rd, he found the best of the best, with the most fulvic acid. That's what he was looking for, was the most fulvic acid he could find. Um, and there's humic acid in there too, by the way. Like, that's part of it. But, like, the fulvic acid is the big deal. So anyway, he had found the best of the best, and he was ready to

get to business. I'm gonna tell you about this business, but first, let's go to the billing department.

Justin: I really wish billing rhymed with bog. Oh well. Maybe next time.

[ad break]

Justin: When we last left our thrilling tale, one of Canada's top Marcs had just found the best, uh, frog in the bog, and it was some of the best mud he's ever seen, and he's gonna find some other marks. [beat] Get what I did there?

Sydnee: Ooh!

Justin: To sell it to!

Sydnee: Ooh! So he— so now he's got the best mud.

Justin: According to him. I mean, best mud is hard to...

Sydnee: He has this history of working with patients in, like, orthotherapy. He has this, um, history of his mom having what was actually technically an aesthetics business. So, like, he combines all of this together with his love of mud and bullfrogs.

Justin: [snorts]

Sydnee: And he—[laughs] I don't— actually, the frogs don't play a part in this. I should be very clear.

Justin: The frogs are done— we're done with the frogs in this story.

Sydnee: [laughs] The fro— the frogs are not part of it. Um, he created BOO, Black Oxygen Organics. Um, so—

Justin: [quiet, strained] Black Oxygen.

Sydnee: Black Oxygen Organics. If you'd like to, um—[laughs quietly] if you'd like to play along at home, you can go to their website and see their products, uh, what they are actually selling. Now, you know their story, you know the deal. It's over 6000 years in the making, of course.

Um, and the main things they sell, these products are— they've got Black Oxygen tabs. So, these are tablets of fulvic acid. Okay? And it's got a few other things in there. Um, they've got a little bit of vitamin C, a little bit of iodine, some potassium, and then a lot of other things that are sort of in trace amounts, right? Um, and then— like, there's stevia in there?

Justin: Mmm!

Sydnee: So I guess to make 'em taste better?

Justin: Yeah, sure.

Sydnee: So they're kind of sweet.

Justin: I mean, considering it's dirt.

Sydnee: [laughs quietly] So, there you go. Um, so you have the tablets. You can get a box of 40 tablets for \$110.

[beat]

Justin: Seems a little steep.

Sydnee: So that's, um...

Justin: For dirt pills. [snorts]

Sydnee: And it's— each tablet is a daily dose, so I guess, you know, it's a tablet a day. Um... is all you would need, so I don't know. Is that a deal? It's 40— it's 40 days.

Justin: [laughs quietly] That's...

Sydnee: All— more than a month.

Justin: More— that's way more than you'll need in a month. [wheezes] It's, like, such a val— it's such a bargain, when you think about it that way.

Sydnee: Um, there's also a powder. So, if you don't want the tablets you can get Black Oxygen powder, which is loose fulvic and humic acid powder. Again, there's some other stuff, like, traces—

Justin: Powdered dirt, which is so convenient, 'cause you can just instantly whip up a batch.

Sydnee: [laughs] And you can look up the, um— you can look up the ingredients on the website. Like, again, vitamin C, iodine, potassium, some selenium, and then some trace other things are in there. Um, and again, this is \$100 for a bag of 125 grams, um, and to sort of break down, like, what you'd be getting, the way you can use this is either you can use 2.5 grams in 500mls of water. Um, so you can put 25 grams of it in a bath.

Justin: Mmm! Nice.

Sydnee: And you'll see on TikTok people bathing in this. It turns the water completely black, so everything— it— if you're drinking it, it's black. If you're bathing in it, it's black. If you're doing the foot bath, it's black. You can do— you can add baking soda and water to 2.5 grams of this and make a mask.

Justin: Oh, nice, yeah.

Sydnee: So... so you can— these are the various uses for the powders and the, um... and the tablets. And then there is— and that's \$110, too. And then there is coffee.

Justin: Oh.

Sydnee: Yes. There is Black Oxygen coffee, which is a premium Italian roast with fulvic minerals.

Justin: Mmm!

Sydnee: Uh, you get 12... K-cups? [beat] Each is one serving. And, uh, it's 30 bucks for 12 K-cups, so...

Justin: [laughs quietly]

Sydnee: If you want... if you—[laughs quietly] if you were thinking, "I care about the environment and I like to use products that are naturally from the environment, but I don't care *that* much about the environment in retrospect..." [laughs]

Justin: Right. "Dear Earth, I appreciate the great dirt. So, here [through laughter] is a bunch of little plastic cups!"

Sydnee: [laughs] But I— you're not throwing them in— you're not throwing them on the ground, honey. They're gonna end up in the ocean. It's okay. [laughs quietly]

Justin: [sighs]

Sydnee: So, did you have something to comment before I carry on?

Justin: No, I don't have something to comment.

Sydnee: You keep sighing. These are heavy sighs.

Justin: It's—[sighs] well, you know what? It's tough, Syd, because... it's so dumb that it almost starts to make you wonder, like... maybe? Like,

it's so— because it is such a, like... you wouldn't think of that for plants, but we know it's good for plants. And I feel like there's part of me— and also if they're promising, like... it feels so— you know what it is? It's just playing into the fallacy in my own brain. It sounds so natural. And that feels like that makes sense.

Because I'm a big believer that, like, we live in an incredible, like, biological system that has evolved over millennia, more than eons, whatever, to, like, make this incredible environment, and that there is, like, a lot that is inbuilt here, if we know how to utilize it, to, like, help ourselves. But, like... d— I— so I can understand the temptation. But then you take one step back and then it's like, "That's \$100 for dirt!" I mean, what would Macklemore say if he saw that in a thrift shop, you know?

Sydnee: [laughs quietly] Let me—

Justin: I think he'd turn around and walk away, get the sheets that smell like pee-pee.

Sydnee: But let me—[laughs quietly] let me ask you a question, though. So... humans eat a— eat food, and the foods that we eat take, for the most part, some effort, right?

Justin: Yeah.

Sydnee: Like, we either— if you eat—

Justin: Like Babybels. Are you kidding me? You have to sit there for 15 minutes trying to get one of these guys open.

Sydnee: If you— if you eat animals, like our ancestors had to hunt them, kill them, eventually figure out to cook them, so on, so forth. If you eat plants, you gotta grow 'em, you gotta find 'em, you gotta make sure it's not the poisonous ones, but the not poisonous ones, and eat the right mix of 'em.

So... if it were as easy as just eating the dirt, don't you think somebody would've figured that out a long time ago, and we would just eat dirt?

Justin: Well, they're not saying that you should have this instead of food, right?

Sydnee: No, but I'm saying, like, if you really needed to eat dirt, dirt was already the—

Justin: Dirt would maybe—

Sydnee: Dirt was everywhere. Like, they—

Justin: Do you think maybe dirt would taste better?

Sydnee: Well, we could've been eating dirt all along! Like—[laughs]

Justin: [laughs] We missed out!

Sydnee: [emphatically] It took us all this effort to... get a cheeseburger, but we could've just eaten dirt!

Justin: You're saying— okay. If I can get what you're saying biologically, this is, like, I think, an evolutionary argument, that, like—

Sydnee: Yes.

Justin: —if, over the past million years, as humans were developing... *some* people—[wheezes] some people were like, "There's brown food all over, and I'm gonna eat as much of this good stuff as I can," and we probably would've evolved, like, a taste for dirt.

Sydnee: Mm-hmm.

Justin: If it was, like, the good stuff. Kids go—

Sydnee: And certainly—

Justin: [holding back laughter] the good stuff kids go for.

Sydnee: We've talked about this on the show before, with people who eat clay. Like, we've talked about the concept of eating different kinds of dirt, um, and that there are, like, cultural traditions in some societies that have ingested various forms of... dirt, at times. But it is not the cornerstone of anyone's diet, and it is not included in our essential, like, "This is what you have to eat to survive as a human on Earth," because it's not.

Justin: Right.

Sydnee: Um, what they claim it will do, though— this isn't just about, like, you know, you'll see a lot of, "It's a food supplement," and that's probably more for, like, legal reasons. Because what they say is that it's gonna fight inflammation. Again, it's that non— there's so much stuff in the wellness industry that's sold under this, like, the specter of inflammation.

Justin: Oh yeah. Our natural enemy, inflammation.

Sydnee: Yes. And, like, yes, inflammation is a thing, and yes, there are many reasons you can experience it. But the idea that everyone's just walking around inflamed all the time is... is false. Um, that it regenerates cell tissue, that it delivers— it delivers oxygen to your cells, but it is also an antioxidant. So it both gives and stops... oxidation. It oxidizes and antioxidantizes, which is really impressive.

Justin: It's a heck of a thing.

Sydnee: Um, it stops aging. It improves metabolism. It... improves circulation, memory, mood, um, your immune system, it's a good boost— uh, boost. It will improve your heart health. Um, it will remove— it will detox you. The detox is a big part of it. A lot of the TikTokers are using it as a detox, so they have to remove all the heavy metals in their body. They have to remove all the toxins in their body, and so this is how they're trying to do it. They say it's good for rebalancing your gut flora, the idea being that, like, it naturally contains organisms that are good for your gut, and you need those, um, so we're gonna put 'em back in. Uh, it balances your hormones. That's a big selling point.

Justin: Okay.

Sydnee: Um, they... again, I don't— I don't know. And in terms of, like... uh, who is, you know— in terms of, like, where they get these claims, uh, you can link to some of their... studies, per se, on the website, to find, like, where did this idea come from? And some of it is just based on, like, ancient use. Like, "Well, people have been using it for that for centuries, so it must work," which we know is not necessarily true.

Um— but, uh, there are some studies that were done, like, in animals. Largely in, like, rats and carp.

Justin: Hmm.

Sydnee: That looked at, like, the effect of fulvic acid on certain tissues and things. And so, like, when you get, like, this idea that it decreases nonspecific inflammation, that was based on, like, a study in some fish or some rats. And what's hard is that if you drill down on all the science... well, first of all, they're all very small. Secondly, a lot of them don't actually conclude that it helps. Some of them conclude that it doesn't— that we don't really know. They don't conclude. And then some of them say, like, "Actually, we think it might've made inflammation worse? We're not really sure."

Um, so even in rats and carp, it's not routinely helpful. Um, same thing with inflammation and immune function. Both of those have equivocal—

some studies say one thing, some studies the other. None of these are in humans, again.

Um, the only, like, human studies aren't studies, per se. They're case reports. So, like, you can—

Justin: What's the difference?

Sydnee: Um, this isn't something where you set up, like, a control group and an experimental group and you did something different to each group and then looked for the outcome. These are like, uh, okay—

Justin: "These people were already eating dirt and we talked to a bunch of 'em and this is what they had to say."

Sydnee: "I have ten patients in my naturopathic practice, and I interviewed the ten of them and talked about how much their lives improved while they were eating dirt, and then I wrote about it."

Justin: [wheeze-laugh]

Sydnee: And there is a place— and, like, the thing is, there is a place in science for a case report. It can illustrate a diagnosis, a treatment, an illness course, something, very well. And so, like, case reports are important. But this is not how you prove something works. That's— a case report does not prove to you that a treatment is effective or ineffective. You need a big, you know, double blind, randomized, controlled study to prove that. Um, and that has obviously not been done. Uh, for any of these things.

So, when you see something where it's like, "It's gonna cure Alzheimer's!" That is— that is not based on any real science. Like, there's no proof that any of that would happen. Um, there also are some studies that have looked at, like, I guess there's a specific chemical reaction that can take place when these humic acids, fulvic acid and humic acid, are, um, mixed with chlorine.

And so, one of the things they'll say is, like, when you ingest this stuff at home, be careful about how much chlorine is in your water. Like, you wouldn't want to use any chlorinated water. And, like, yes, obviously there's chlorine in water, right? Small amounts. It's not something you need to worry about. But, like, I guess if there's too much chlorine in there there'll be a reaction with the humic acids, and then it can make you really sick. [laughs quietly].

So it's important that you don't, like, use— or I guess the same could happen if you got in a bath of chlorinated water. Or, I don't know, you decided to buy enough of this to fill your pool.

Justin: [snorts quietly]

Sydnee: With...

Justin: With dirt.

Sydnee: ... fulvic acid. With dirt.

Justin: Yeah.

Sydnee: If you wanted to fill— you know how sometimes you wanna fill your pool with dirt?

Justin: [simultaneously] It's good for the— good for the filter.

Sydnee: [laughs quietly]

Justin: Sure.

Sydnee: Um, but anyway, so that's a little concerning, too. And— [laughs] uh, and then there—

Justin: A little, yeah.

Sydnee: —and because of these, sort of, like... very, like, inconclusive, very small, largely in animals studies, that have really not proven anything— they just haven't. They have not done the work. They haven't done the science. They haven't proven that any of this is true. Based on that, they have created this multi-level marketing company, Black Oxygen Organics...

Justin: Imagine, yeah.

Sydnee: ... where you can—

Justin: Shocking.

Sydnee: —either buy these products or you can become a distributor, and you can buy these big, um— if you look, uh, under "Opportunity," um, they have all of the different ways that you can get paid, and how you can, you know, be your own boss, or whatever the rhetoric usually is.

Um, and then, like, here are the different packs to get you started so you can get, like, a \$580 business pack that's got some tablets and powder. You can get the director pack for \$995. Nine hundred and ninety-five. With five of the tablets, five of the powder, and five of the coffee. And

then for \$1845... you can get the professional pack. Then you're really ready, with your 12 packages of tablets and your 12 packages of powder.

But anyway, you can— you can become a distributor, and I think that's what a lot of people are coming across on TikTok, are people who have bought into that.

Justin: Yeah.

Sydnee: And are selling this stuff, um, as part of the multi-level marketing model. Um, and the— what really is the problem with this, I think, is because this is the way they're distributing it. If you just have a website and a product, that's so carefully regulated when it's something like this, when it's a supplement that really doesn't have proven scientific benefit. They have to be super careful about what they say, right?

Justin: Mm-hmm.

Sydnee: Like, they can't claim treatment. They can't claim cure. They have to say, "These statements haven't been, you know, evaluated by the FDA." They have to put all that language on there. And so, in terms of monitoring, by the FDA, by the FTC, whoever's gonna monitor this stuff, it's really easy to monitor. Now, when you have tons of distributors who are out there telling people face to face or TikTok to TikTok what it does and what it can do, it's a lot harder to regulate what they're saying, right? And what claims are being made. And so, I have to imagine that's part of what has happened with this specific product, is that depending on who's selling it to you, there are lots of other claims being made about what this stuff is supposed to do.

So instead of becoming this sort of run of the mill, like, buzzy wellness product, like, "Oh, I felt so detoxified and energized, and—" I mean, the normal stuff they say. "I had more energy and I slept better." That's what all of them supposedly do, right? Well, now you have people who are saying, "It will also help you with things like toxic stress and healing your psychological trauma."

Justin: Yeah...

Sydnee: Which is a super dangerous claim to tell someone, that if you bathe in this dirt water... you don't need to see— I mean, basically, like, you can do this and you won't need to see a therapist. You won't need to seek professional help if you bathe— and of course they're never gonna say that, right? Except sometimes they might! Because when you get into these social media sites, people say all kinds of— I mean, we know, right? People say all kinds of wild stuff.

And so you see claims that, um, everyone is full of parasites. This is a common wellness myth. Everyone's full of parasites, and everyone needs to deworm themselves. And I guess if you're not worried about COVID and you're not taking horse dewormer, instead you could use this product, and it will cleanse your body of all parasites. And also, parasites are covered in heavy metals, so when you take this product, all these heavy metals will be released, so it will also detox you from all these heavy metals. So you gotta get all of that out. And then also, after that, you can't stop using the product, because once all the heavy metals and parasites are out of your body, it's not common for candida— or candida, depending on how you like to pronounce it— to overgrow in your body, and then you get into that whole, um, sort of false concept that all of us are overgrown with yeast all the time, which is also not true, but a common wellness myth. Um, and so you need to take it for the yeast that has filled your body.

[sighs] So they always have a reason. Um, it is being promoted... for parents to give to children who are autistic.

Justin: Mm-hmm.

Sydnee: Uh, I have seen it for a variety of reasons. Things like, "I was able to potty train my autistic child after I gave them this." Some of it is like, put it on them for a rash, give it to them for... anything, again. Um, so it's being promoted to give to children, and specifically targeting autistic children.

Justin: Mm-hmm.

Sydnee: Uh, and... none of this is based on anything.

Justin: I was looking at their— it's funny you say that. I was looking at their— they have a scientific research section on their website. So I click through and I'm like, "Well, gosh, you know? There's—" I look at it, and there's, I mean, 40... 40-some-odd pages of information. It's, like, dang, guys.

Sydnee: Mm-hmm.

Justin: That's so much. And then I started thinking, like, how on Earth do you, as a human being, like— how are you supposed to, like... ferret out when someone is, like, lying to you?

Sydnee: Sure. I can understand that.

Justin: And— when they have this much to back it up. And then I started looking at this, like, documentation that they have provided here, these, uh, many pages. And on the second pa— er, let's see. The— the

seventh page, here, there's a section called "Science and medicine." When they're talking about— this is from the fulvic acid research document.

Sydnee: Mm-hmm.

Justin: "Fulvic acid is still not well known or understood by most of the scientific or medical community." I mean, right there you can pretty much be like, "Check, please! [through laughter] I'll go ahead and see myself out. You actually don't— oh, you're gonna keep going?"

"Fulvic acids have not been able to be synthesized by chemists, and are unable to be clearly defined because of their extremely complex nature. This perplexity warrants little opportunity for science or medicine to exploit fulvic acid or profit from new patents. Accumulating claims of encouraging health benefits by the public have been simply remarkable."

So it's like— what you've just said is, "Listen. Science doesn't actually understand any of this, *but...* it anecdotally—[wheezes] it's very helpful."

Like, you don't— if you look into this, if you poke it even a little bit, like, I feel like we at this point have, um, hopefully, you know, hopefully equipped you with the tools to— like, if a dumb-dumb like me can look at that and be like, "Uhh, okay, you actually don't have any idea what you're talking about."

Sydnee: Well, it's just— I mean, like, if you look through that big giant document... I mean, first of all, I would say that, like... [sighs] if something works and you do a proper study, you do a large enough study with enough, you know— you do all the proper things. I'm not gonna go through every step. But you follow all the right steps. And you do the science about a new medicine, or treatment, or whatever.

That one study can show you if something likely works or not. Now, I'm not saying one study is ever enough, right? We reproduce things to make sure— that's part of it, reproducibility. So, you gotta make sure you can reproduce it. But it does not take you 40 pages of different studies, many of them done in carp, to tell you if a treatment works or not. Generally, if it's good, we can tell after just a few correctly-done studies, right?

Justin: Yeah.

Sydnee: And I'm not saying every time. Sometimes it does take a lot more trial and error, but once something is working, it shows in the data, if you do it right. Now, if you do it wrong... it does take this long, and also it never proves anything, which is exactly what you have here. Like, none of this really tells us anything. None of these 40 pages tell us for sure that anything is doing anything, and testimonies mean nothing. Testimonials

from people who used it and felt better mean nothing to science. It's nice, it's interesting, it makes for some wild TikToks, but it doesn't actually tell us how to take care of ourselves.

Um, and they have an answer for everything, 'cause that was the other thing I kept thinking. Like, well, if we need all this stuff, we grow our plants in dirt. Like, why do I need to eat the dirt? We grow our plants in the dirt.

Justin: Oh, it's bad dirt.

Sydnee: Well, it's bad dirt.

Justin: It's bad dirt.

Sydnee: Because of our terrible farming methods, and...

Justin: "These deficient pesticide-laden products are turned into, quote, 'cash,' which the farmer thinks is the bottom line. Lacking in organic trace elements and other nutritional factors, but long on chemical residues from pesticides, insecticides, herbicides, these nutritionally hollow products end up on the tables of America without taste, and deficient in organic materials and nutrients. We pee, boil, and overcook what remains, and asks— and ask, 'Why do I hurt?'"

Like, that's in your scientific document, dog! Are you sure?! You sound like a— like a— a— a— a slam poet! Like, this is not your scientific document!

Sydnee: It's— I mean, here's the thing. Like, what— the trap that this has fallen into... like, real scientists doing real science fall into this trap. Sometimes you feel so strongly that this is the answer, that this is gonna work, that it can be really hard to not wanna start from there. "I know this works, I just have to prove it."

But that's not how good science works. "I think this might work. Let me prove it doesn't, and if I can't prove it doesn't, then it must. Let me prove this is just coincidence, and if the numbers show that it's not coincidence, then I've found something."

You always have to start from the— from— you can't fall in love with whatever your variable is. You can't decide it works before you test it. You have to go through the process and find out that maybe the thing you spent a lot of time and energy into investigating... isn't helpful.

Justin: Yeah.

Sydnee: You have to be ready to accept that. And if you start from the belief— 'cause that's what it is. It's not a— it's not something you know. It's something you believe, which isn't helpful in science. But if you start from the belief that something works, and work from there to prove it, oh, you'll find it. I mean, you'll— you'll find enough bias to create your narrative, which is what you have here. There's no proof that this does anything. I certainly would not promote it for any of the reasons they say to use it. I haven't found a lot of evidence that it necessarily is harming people. I imagine, like anything, if you ate enough dirt you could get sick, but they're not advocating that you eat dirt constantly. Um, they tell you the doses and stuff. It's more likely that you're just wasting \$110 on some dirt tabs that do nothing.

Justin: Yeah.

Sydnee: Um, but what's really harmful about this is that it leads people away from actual therapies and treatments that might help, towards this bogus stuff that won't. And that's really dangerous, um, because then people don't get the real help they need, for whatever the problem is. Um, if you want to watch some fun TikToks, there are ton— my— again, I've destroyed my algorithm for this stuff. Um, people, like, put their feet in, like, these black water foot baths, and then after a while there's stuff floating on the top, and they're convinced that it's all parasites.

Justin: Well, yeah, but don't watch them, because then more people will see them!

Sydnee: Well, that's true. [laughs quietly]

Justin: Like, you're just—

Sydnee: But they do, and they—

Justin: —perpetuating.

Sydnee: —like, there's a lot of that belief. There's a lot of, like, closeup pictures of what people think are worms in things. There is one where it's got something swimming in the foot bath. But again, like, it could've just been in the foot bath. And I've seen some people argue, like, do you think that these dirt powders and tabs have bugs in them, because they're dirt, and so people are ingesting bugs? I don't really find evidence of that. I'm not gonna stand here and say they're gonna give you parasites. I don't— I didn't see anything that made me think that's gonna happen. It just made me think it's not gonna do anything.

Justin: It reminds me of the ear candles, where it's like, "Look, I used this ear candle and there— look at all the wax—"

Sydnee: And the paper cone's filled with wax.

Justin: "—look at all the wax in here!" It's like, "Uh, it's a candle?"
[laughs] I mean... what do you want, it's got wax in it?

Sydnee: Yeah. I mean, it's dirt. And so, like, when you put it in water some stuff floats to the top.

Justin: Yeah, pretty weird.

Sydnee: There's different stu— like, some stuff floats, some stuff sinks. It's a density thing. Anyway— and there's also, like, just skin cells and stuff. I don't know. A lot of the times when people show you something they think is a worm, it's really just sort of, like, a scab or some skin cells.

Justin: Yeah.

Sydnee: Um, and that's what a lot of these pictures are. So I— I always feel bad for the people who are being taken in by this.

Justin: Yeah.

Sydnee: Um, because it will give you false hope. It will take you in the wrong direction. You'll waste your money. You'll waste your time. Um, it also makes you think you're sick all the time. Like, a lot of these wellness products are not necess— like, they claim treatment for actual conditions, and then they claim that nonspecific better. "I'll make you better. We'll make you better."

Which, maybe you're okay.

Justin: Yeah.

Sydnee: You know?

Justin: Are you getting enough sleep?

Sydnee: I— yeah!

Justin: Maybe get enough sleep? Cut back on the— the drinking? Have some more vegetables? You know, try that stuff.

Sydnee: And— and if you really are in need of— whether it's due to toxic stress, psychological trauma, or any of the medical— like, physical medical conditions that they mentioned, go seek professional help.

Justin: Yeah.

Sydnee: Don't buy this stuff, don't use this stuff, and don't try to convince other people to use this stuff.

Justin: Thank you so much for listening to our show. We hope you've enjoyed yourself. Thanks to The Taxpayers for the use of their song, "Medicines," as the intro and outro of our program. Thank you so much to, uh, you! For listening. We really appreciate it.

Hey, we're doing a live show September 24th. We're opening for *My Brother, My Brother, and Me*. Tickets for that are gonna be \$10. As you know, that's when we were originally supposed to start touring this [sighs] great nation of ours again, but those plans were delayed by, uh... the, uh... COVID— ongoing pandemic. I don't know if you've heard about that.

Sydnee: Um, but what you could do so that someday we can all be together in person again is get your vaccine, if you haven't. Encourage others to get vaccinated around you. If they're nervous, if they're worried, answer their questions, help them out.

Justin: Well— well yeah, Syd, but I didn't finish telling them about their opportunity to spend money on our live show.

Sydnee: Oh, I'm sorry.

Justin: [Bit.ly/mbmbamvirtual](https://bit.ly/mbmbamvirtual). That's the first thing to do. You know, the vaccine store may not even be open yet, but this ticket store is open all year long when there's a live show coming up. [Bit.ly/mbmbamvirtual](https://bit.ly/mbmbamvirtual). That's 9 PM Eastern at, uh, September 24th, and we hope to see you there... virtually speaking.

Sydnee: Also— also get vaccinated.

Justin: [quietly] Also get vaccinated. [unintelligible]

Sydnee: Please. Please. Please wear a mask. Get vaccinated.

Justin: That is gonna do it for us. Until next time, my name is Justin McElroy.

Sydnee: I'm Sydnee McElroy.

Justin: And, as always, don't drill a hole in your head!

[theme music plays]

[chord]

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