## Sawbones 465: Borax

Published July 26th, 2023 Listen here on themcelroy.family

**Intro (Clint McElroy):** 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 I'm wearing a ball cap today. That's a new energy for me and I feel like, as I heard my intro in the sort of, folksy ease with which I was delivering it, I feel like the hat is... I don't know, it's giving me a different sort of vibe.

**Sydnee:** Well, I mean... It is a King's Island hat, you know?

**Justin:** I worry it might be disconcerting to the listener, or not disconcerting, but, you know. I want them to know what's happening, I don't want to get a bunch of emails like, "Justin, we're worried about you, you sound like you're wearing a hat." I am, I am.

**Sydnee:** Yeah. I think it's too hat for hats. It's really hot today.

**Justin:** Too hot for hats?

**Sydnee:** Yeah. Like, now the top of your head is hot, isn't it? As I say that, are you imagining how hot the top of your head is and sweaty it's getting under there?

**Justin:** No, no it's perfectly comfortable.

**Sydnee:** I'm... See, the top of my head is hot and sweaty just thinking about it.

**Justin:** I didn't realize— I actually didn't realize you could physically get hot. I didn't realize that was a tool you had, I thought— I feel like cold is the only sort of thing that I hear from you in terms of your current temperature.

**Sydnee:** When we get in bed at night and I press my ice-cold hands against you. [laughs]

Justin: God.

**Sydnee:** Sometimes my nose is that cold. Charlie hugged me yesterday and then she went, "What is wrong with your nose!?"

Justin: [laughs]

**Sydnee:** I said, "It's cold!"

Justin: It's fine.

**Sydnee:** "I'm always cold!" Um, I'm fine. I'm really fine. I just tend to run

cold, you run hot.

Justin: That's it.

**Sydnee:** That's it. Opposites attract.

Justin: Don't get weirded away.

**Sydnee:** [singing] "And you know, it ain't fiction!"

**Justin:** [humming] Alright.

**Sydnee:** Do you wanna be MC Skat Kat?

**Justin:** Yes, if that is what it takes to get you to begin the episode, I will be your MC Skat Kat.

**Sydnee:** Justin, you won't believe what they're doing on TikTok now!

Justin: Um, I...

**Sydnee:** This is always a little depressing. I mean, it's fun, it's funny, but not really funny? It's depressing. It's a little sad.

**Justin:** Yeah, it's more depressing. More depressing for sure.

Sydnee: Um...

**Justin:** But also I'm not depressed by it because I'm not doing it and you have to assume... This is what I try to remind myself, okay? My ignorance of something did not impact me the moment before I learned about it. So this was happening just fine without me doing anything, the universe did not ask for me to consult on this. It's just happening. But I was fine before it, so I try to be just fine after I learn about it.

**Sydnee:** I try to remember, this is the context in which I try to present this information. Um, because if... I should be able— Even, though I would never do this thing, I should be able to learn something from this, I feel. I feel— And I feel like many of our listeners would probably never do this. But...

**Justin:** Many of our listeners would never do this.

**Sydnee:** Yes.

Justin: Many?

Sydnee: Most. I mean, I think... I don't know. Some of?

**Justin:** Some of y'all might still be... [crosstalk]

**Sydnee:** Some of y'all are wild out there.

**Justin:** I feel, I worry that there might be some people who are just dirty dogs that use this as, like, a discovery engine, like, just to get the weirdest stuff surfaced to them so they can give it a whirl.

**Sydnee:** Every once in a while, you know, I get some sort of social media interaction or email that is surprisingly, um... vitriolic. And I'm, like, "You're still here?" [laughs]

Justin: [laughs]

**Sydnee:** Have we not run you off with our thoughts and feelings yet? No? Okay.

**Justin:** Nope, alright. Cool.

**Sydnee:** Wow. Wow, yeah. Maybe this was the one. Um, no. I tried to remember that when I see people on Tiktok or whatever, whatever social media. Somewhere on the internet or in the real world, doing things that are not helpful for their health, that are misguided, and that are possibly harmful that, while part of that is that, you know, in medicine we're not always the best sales people and there are actual sales people who are much better at it.

That part of it is that we have not, in our for-profit capitalist medical system, done a very good job of reassuring patients that we are here for them.

**Justin:** Mm-hmm.

**Sydnee:** And there's a lot of mistrust in the system which manifests in mistrust in us, the healthcare providers. Uh, and whether that's fair or not in the individual provider, that's not— I'm not making that case. I'm not saying, like, you shouldn't trust me. I hope you do, you should.

But if you don't trust me because I'm part of this system, I have to have understanding for that. And so then when people seek alternative methods that may be dangerous because they don't trust this system, I can't criticize them too much, right?

Justin: Oh, I can.

[pause]

Justin: So I will.

**Sydnee:** Okay. Well, I'm gonna talk about Borax. Are you familiar with

Borax?

**Justin:** [Borat voice] My wife! Love it, love it.

Sydnee: No.

**Justin:** Finally, Finally, the giant pendulum swings back into areas of my

expertise.

**Sydnee:** I know a lot of Borax and boric acid, borate, boron...

**Justin:** Okay, borate— Now you're just messing with me. You mean—

**Sydnee:** No, these are just different forms of, different chemical compounds of boron that I'm referencing. The reason I know a lot about it is because it

is the component in contact solution.

**Justin:** That makes slime!

**Sydnee:** That makes slime.

Justin: Mm.

**Sydnee:** Uh, so, I have to be very familiar, not only with, uh, with the fact that it is in contact solution and that is the part that makes the glue become slime when my daughters want to make slime over and over and over.

Justin: Mm-hmm.

**Sydnee:** That there are certain formulations of all-purpose solution that don't have the appropriate, like, compound in them? They have a different boron thing that doesn't make the cross polymer to make the slime and if you get the wrong one, you never make slime and then you just have a big wet bowl of glue and baking soda.

**Justin:** And that's... Oh, yes, I'm seeing here, "Just as bad as slime. They're both equally bad," it says here.

**Sydnee:** Uh, so anyway, if you're curious, if you ever got— Hey, there's my tip for you parents out there who make slime with your kids and if you're buying those fancy activators that they sell? A slime activator? [whispers] It's just contact solution. Psst. Or you can get Borax, actually. You can add Borax and water and you got it, too. Um... that's what the fancy activators are. Uh, anyway. Borax you may use in your house for cleaning, like, clothes.

Justin: Mm. Okay.

**Sydnee:** As a laundry detergent aid. Uh, it is used as a pesticide. It's used as a flux in soldering metals. [laughs] Um, it's in pottery glazes, it's a, uh, pharmaceutical alkalizer. We use it as a buffer in various chemistry lab experiment type things.

**Justin:** This stuff is great!

**Sydnee:** Yes. So Borax has lots of, lots— It's a salt, by the way. Not salt-salt. It's a salt, you know? Not salt. Not NaCl. Not N-A-C-L.

Justin: We gotcha, not NaCl.

**Sydnee:** Not NaCl, a different one. Um, and it dissolves in water, and it's basic when it dissolves in water. So that's Borax. You might have some in your home, um, and it has many uses.

**Justin:** It feels, like, old timey. You know what I mean? It feels like when you see, um, I don't know. I'm trying to think of a good parallel, but it's like you're just something— Like, mothballs or something.

Sydnee: Right.

**Justin:** You know what I mean? Like, oh, that's weird. They still do that, huh? Alright.

**Sydnee:** Yeah. I think Borax does have that vibe, and it is old timey. Like, in its most current evolution, it's been around since, like, the late 1800s. Um, but even before that, like, we knew of the existence of Borax. We found it, like, in lakebeds in Tibet.

Justin: Huh.

**Sydnee:** Long, long time ago. And, like, its main application for a long time was in, like, the mining industry. That was really where you'd use a lot of Borax. So this is an old substance. It is, if you, like, use it in your house, it does have that vibe. Um, but recently, people on TikTok have started eating it.

Justin: Oh, no!

**Sydnee:** Yes.

**Justin:** It doesn't sound, like, good to eat. But these are just Hydrox and here we are, you know?

Sydnee: No, uh, well. Yeah, but you're talking about the cookie?

Justin: Mm-hmm.

**Sydnee:** I understand that Hydrox and Borax— You know what? That's a good comparison. They both similarly are off-putting, name wise.

Justin: Mm-hmm.

**Sydnee:** But then—

**Justin:** ...from combining the, uh, two pure sounding chemicals, uh, hydrogen and oxygen. That's where the name Hydrox came from, 'cause it sounded, uh, pure.

**Sydnee:** It's interesting, though, because nobody thinks of eating hydrogen or oxygen.

**Justin:** No, you just breathe it, right?

Sydnee: Yeah, but when you hear it, you don't think, "Mm, hunger."

**Justin:** Gimme a couple hydrogens, though. Mix it up with that oxygen. Then you got some water going, that's nice.

**Sydnee:** You still don't think, "hungry," when you...

Justin: You don't think that. Do you know where the name Oreo came from?

**Sydnee:** I thought no one did.

**Justin:** That's right, no one did. But it would have worked better if you'd have been, like, "No." And then I would have been like, "Neither does Oreo." Or, I guess, the National Biscuit Company.

**Sydnee:** I'm sorry that I ruined that for you.

**Justin:** It's alright. It's my one thing.

**Sydnee:** So, okay, people on TikTok and in— Again, I don't wanna blame just TikTok for this. I'm sure there's— Actually, I know there are, 'cause I read them. There are blogs, um...

**Justin:** There are probably xeets. [laughs]

**Sydnee:** I don't— Yeah. I don't look at— Oh, is that what they're called now?

**Justin:** They're called—

**Sydnee:** They're called xeets?

Justin: Oh, xeet-xeet-xeet...

**Sydnee:** I am finding this out in this moment.

**Justin:** Oh, xeet-xeet-xeet!

Sydnee: Oh, God.

Justin: [giggling]

Sydnee: So gross. Um...

**Justin:** I'm in to welcome everybody to Xawbones. [laughs] Xawbones.

**Sydnee:** Wait, is this— So they're called xeets instead of tweets?

**Justin:** Mm-hmm. I don't know what a tweet is. That— Oh, from that app

that used to exist, Twitter.

Sydnee: Yeah.

Justin: No, no, no.

**Sydnee:** That's gone now, basically.

**Justin:** Yeah, I'm X only... [crosstalk] xeets.

**Sydnee:** Okay, so probably there too. And probably if you've got the right milieux of friends on Facebook, I bet there's one of your Facebook friends who's talking about this too.

Justin: Mm...

**Sydnee:** I betcha they're out there. I betcha somebody's in an MLM and they're also talking about Borax. That's— There's— You know those Venn

diagrams overlap quite a bit. Anyway, the— What a lot of, um, people and then, like, wellness influencers are getting into this. And then just, like, random people who are trying it.

And I think that's always, like, the breakdown, right? So you have people who use various social media platforms as a way to push their personal brand of them, themself, as a well person. As a health paradigm that you want to be like and they talk about all the stuff they do to maintain their health and wellness and then they're trying to get you to follow them and do the things they do, mainly because... I mean, I don't know.

Maybe they're true believers, they want to help you, but also just because they want you to do the thing and then they're gonna sell you some stuff and they want the watch, the clicks, and whatever. But then there are also people who fall into this category of doing some of this weird stuff on social media who, I think it's remembered—

We have to remember to have a heart for, which are people who are unwell. They are sick in some way and they haven't gotten the answers that they—Like, they have not gotten the answers they feel that address all their issues from traditional medicine and so they have turned to these other things for hope when they felt they had none.

**Justin:** I understand.

**Sydnee:** And they are falling victim to scams. I am not justifying that this is what should be happening, but that is why, that is the motivation. So you'll find both of these kind of groups of people on TikTok and what they— I watched a bunch of these, so... There goes my algorithm forever.

**Justin:** I've been talking. I need to set Syd up with another account, like a nasty research account.

**Sydnee:** All I was watching were gardening and permaculture and food forests and people harvesting and now...

**Justin:** Both those just make you feel bad about yourself. You shouldn't be watching the food forest stuff that just bums you out about your garden. I don't want—

**Sydnee:** I know. But it was so inspiring to watch everybody's harvests. Anyway, now I'm just gonna see people drinking Borax. So what they—

Justin: [snorts]

**Sydnee:** As far as I can tell, and there are different... Since this isn't real, everybody's doing it a different way. So, you take some Borax and, it looks like most people are using 20 Mule Team Borax?

Justin: Oh, yeah.

**Sydnee:** Which is a specific brand of Borax, which I have the history of, I'm gonna share with you.

**Justin:** I think that's the one that is, like, in grocery stores.

**Sydnee:** Yeah. Yeah, this isn't, like, it's not, like, a specialty brand. It's just the brand that people are using. Um, but so they're taking some of this Borax and they're dissolving it in some water and then drinking it. And there are different amounts, like, I watched some people who were taking, like, I mean, like a tiny pinch of Borax and putting it in water and drinking it.

**Justin:** And a homeo— A homeopathic...

**Sydnee:** Yes, a homeopathic Borax use. And then other people who were using more, some people were saying you do this once a day, other people were saying do this with every meal, three times a day...

**Justin:** It's weird that there's not more consensus on this.

**Sydnee:** Like, I found so many different recommendations as to how to take it, um, and then in terms of why— Okay, so then the next question is, if everybody's drinking Borax, why are they doing it?

Justin: Mm.

**Sydnee:** The reasons are varied. Um, there's a whole group of influencers who are touting this as the natural Ozempic. Ozempic is a diabetes drug that also causes weight loss and so the, uh, there are lots of people out there who are saying this is how you can lose weight naturally.

Justin: Mm.

**Sydnee:** By drinking Borax. [laughs]

Justin: Natural?

**Sydnee:** There are some people who are touting it for, like, more chronic issues like arthritis. I saw several people who were taking it in hopes that it would alleviate their arthritis pain. So for chronic pain, um... I saw a lot of people who were taking it for "inflammation," which, you know... Inflammation is a real thing, of course, that does happen in the body—

**Justin:** Yes, but is also a catch-all boogie man.

**Sydnee:** Yes. So there are a lot of wellness people who will just sort of tell you that your body is constantly inflamed and you're full of inflammation and you need to treat the inflammation in various ways. So some people are taking it for these nonspecific kind of complaints, like inflammation.

Justin: Yes.

**Sydnee:** And then of course there are people who are saying it will detox you. Detox is— I keep waiting for the detox thing to finally fade because a lot of these, like, faux wellness trend things have a half-life.

**Justin:** Yeah, they've been using it for so long and no one's, like, saying, like, "Hey, I'm worried that toxins may not be a thing."

**Sydnee:** Yes. And it's very— You see people also, like, have expanded what detoxifying means to, like, "I'm freeing my body of toxins," or they think it's just, like, if you poop a lot you've detoxified yourself? I see a lot of people

who are, like, they'll use some substance they say is detoxifying and really it just gives you terrible diarrhea and they're, like, "Awesome, detoxified."

Justin: "Toxins—" Yeah. "Toxins are out."

**Sydnee:** Which is, again, we talk about on the show all the time, medicines that make you poop have been popular for a very long time. [laughs] Um, some people think it cleanses them of parasites. I've seen a lot of people say that they feel they're filled with some parasite that people can't diagnose or see.

Um, which probably they've been told by medical professionals they don't actually have a parasitic infection, but they still remain convinced and so they'll do this for parasites.

Um, for the detoxifying thing, I will remind you, you have things in your body that detoxify you. They're called your liver and kidneys and they are excellent at it. I mean, hopefully...

**Justin:** They're doing just fine.

**Sydnee:** Generally speaking, generally speaking, of course you can get illness, but generally speaking, they do a great job and you do not need to add Borax to them to help them function.

So these various influencers are doing this, or people, desperate, looking for hope, are using these substances. And, like, there are some on there that will tell you, like, it's your standard sort of testimonial from any snake oil. "I feel great! It totally detoxified me!"

Justin: Yes.

**Sydnee:** "All my inflammation is gone!"

Justin: "This diarrhea's crazy!"

**Sydnee:** Um, and with some of them, it's not even, like, an effect. Like, they won't— It's just, like, "I feel so much more energy, my brain feels clearer." Just very subjective—

**Justin:** But why would any— I mean, I don't know why we would naturally...

**Sydnee:** And then there are some people who are, like— Now, I saw some TikToks where people were, like, "I poisoned myself! Don't do this! Like, learn from me! I poisoned myself!"

**Justin:** [laughs]

**Sydnee:** And I— Can I say, by the way, thank you, for people who are willing to be that honest? "Yes, I did get scammed and yes, I did suffer for it, but I want to tell you about it anyway so that you will not repeat my mistake." That takes a lot of bravery.

Justin: Yeah.

**Sydnee:** Um... And, generally speaking, nobody can point to any, like, here's what it did or here's how it fixed me, and there's a good reason for that.

Justin: Because...

**Sydnee:** Because it doesn't do— It's not doing anything.

**Justin:** It's not doing anything.

Sydnee: No. We know that— We know—

**Justin:** Nothing good, presumably.

**Sydnee:** Yes. We know that, um, we have tried this before. Nothing is new under the sun. We have tried this before, we know Borax doesn't have these kinds of effects. And we know, also, that Borax can be harmful and I want to tell you about that part, but first we got to go to the billing department.

**Justin:** Does that seem safe? You should just go ahead and say it, just, like, generally speaking.

Sydnee: Don't drink Borax.

Justin: Let's go to the billing department.

[theme music plays]

[ad break plays]

**Justin:** But why, Sydnee? I already have my Borax here and I want to drink it! Why can't I have Borax?

**Sydnee:** [laughs] I started digging into, like, "Has Borax been used as medicine before?" Do we already know if Borax is good or bad for you? Um, and I thought this was really interesting...

**Justin:** It's called Borax! It's got to be bad, right? Like, don't tell me we can have some.

**Sydnee:** No, I mean, you really just shouldn't. Like, there's— Okay. Some of these influencers will tell you that the problem is you have a boron deficiency and so you need boron and Borax contains boron. Now, one, we do need trace amounts, we believe, of boron in our bodies. There are a number of, like, trace elements that we need little bits of. But they're such small amounts that, generally speaking, you get them if you're just, like, from anything you're eating.

**Justin:** [laughing, overlapping] Just from life.

**Sydnee:** Yeah, it's not, like, make sure you're getting enough protein in your diet, right? Like, it's not something like that.

Justin: It's not one of your macros.

**Sydnee:** They're trace. The word trace means very small. Um, and...

**Justin:** That's so weird, though, because how do you get a trace naturally? You know what I mean? How do you get a trace—

**Sydnee:** From eating.

**Justin:** Yeah, but, like, I eat different stuff all the time. How am I just happening to get a little Borax?

**Sydnee:** Well, no, you need a little boron and it's out there in vegetables. There's plenty of vegetables that contain boron that you can get what you need. Um, and if, for some reason, you had a diagnosed boron deficiency, which I'm not saying is impossible, but it would be incredibly rare. But if you did get diagnosed with that, we would not feed you Borax. We'd give you a boron supplement.

Justin: Mm-hmm.

**Sydnee:** It's like saying, like, copper deficiency is a real thing.

Justin: Kay.

**Sydnee:** If somebody has copper deficiency, we give them a supplement that contains copper. We don't tell them to swallow pennies.

**Justin:** Right. Because those are mostly zinc.

Sydnee: Well, yes.

**Justin:** Won't do you much good.

**Sydnee:** But you get the analogy, right? Like... We can give you the actual thing you're deficient in. We don't have to give it to you in a substance that could be damaging to you in some way. Um, so, Borax— A lot of these people will cite that it has been used as a kind of cure all for a very, very long time...

Justin: Huh. Weird.

**Sydnee:** ...like, back to ancient times, Borax has been used as a cure all ever since it was first, like, discovered. I, actually, can't find a lot of evidence for it as a cure all. I'm wondering if that...

**Justin:** Even that is maybe not real.

**Sydnee:** ... is maybe a myth. Now I did find, like, specifically, I saw somebody say dandruff and I looked up and, like, yes. I have found in multiple, like, sort of, just, like, health hair blogs. Not really from, like, a doctor's perspective, but just, like, "Hey, here's a thing you could do! Wash your hair in Borax! It'll make your hair shiny and cure your dandruff!"

Um, so I did find that out there. It is used in a number of, like, exfoliants for your skin, so I don't know if maybe that's where that came in. Like, it was in there, too. Um, I also found some mentions of it for, like, different... Was it used for gastrointestinal stuff. And I can't find that, because if anything it would make that worse.

So I couldn't really find any evidence. I don't know. I'm wondering if it really was a cure all or if we just think that everything that people eat probably was a cure all at some point? I mean... It may have been.

Justin: Yeah, I dunno.

**Sydnee:** But I couldn't find a lot of evidence that Borax was. Now I did find, specifically, I thought this was really interesting. Somebody said it was even used for epilepsy. So I looked back through to see, was Borax used for epilepsy? That was true!

Justin: Oh.

**Sydnee:** We did and I think this probably says more about epilepsy than it does about Borax. So, epilepsy covers a number of different seizure disorders and there are different types of seizures and you can have different, um, presentations.

What that looks like looks different, you have different, um, medicines that you might need for those and they can affect your life in different ways

depending on how frequent you have them. So, epilepsy is a broad term that describes a number of different seizure disorders, right?

Um, and because epilepsy, before we understood that it was basically misfiring of the neurons, your brain cells, misfiring of all those electrical signals, before we knew that, we've talked about before on the show, epilepsy was very disturbing for people.

Justin: Right, yeah.

**Sydnee:** They didn't understand what it was. The people who were having seizures, generally afterwards didn't remember anything of what...

**Justin:** There was a lot of connection to, like, possession.

Sydnee: Exactly.

Justin: In early days.

**Sydnee:** Yes, it was tied to a lot of religious, spiritual, mystical types of happenings. And, uh, so people who had epilepsy throughout history were treated with a number of terrible things to try to fix, cure, suppress, whatever. We have a whole episode on that.

But I think the use of Borax as a treatment for epilepsy speaks more to the fact that epilepsy is one of those things that we have tried every wild thing in medical history for, at some point, right? Because it's been around as long as humans have been around. Um, that's not true for every disease.

There's some that we didn't do as much weird stuff with. Epilepsy is one where we did a lot of weird stuff. But Borax, it was a treatment that persisted, um... Like, it started in the early 1900s, probably not long after it started getting mined and regularly used in the US. Um, but it was used specifically, it was listed as one of the only treatments that was supposedly effective for epilepsy, in the early 1900s.

Um, but studies that tried to replicate that couldn't really find it. Not that it was making seizures worse, but that they actually didn't really...

Justin: [crosstalk] Yeah.

**Sydnee:** Yeah. Like, and so, what that says to me is they probably weren't, like, the numbers of people in the study probably weren't large enough.

Justin: Mm-hmm.

**Sydnee:** And so, and since seizures were poorly understood and unpredictable at the time, we gave this person Borax and we didn't give this person Borax, and that person didn't have a seizure this week and that person did. That could just be coincidence and it probably was.

Anyway, it was listed as a treatment for epilepsy for a while. It kind of fell out of favor and then there was this, like, renaissance that it got, briefly, in the 1930s when there was this specific asylum for people with epilepsy in Denmark, where a lot of people were given in and it was suggested that maybe it would work, but then the study said, nah, it didn't. It didn't work.

And if you go back in again and you look over all of these papers and studies and medical records, you can review, like, the charts from these people, um, because we were in the era of charting. Uh, what you start to find is, like, one, it probably didn't work and two, a lot of these people maybe didn't even have epilepsy.

Justin: Oh.

**Sydnee:** Because we weren't very good at diagnosing it yet. So it was used as a historical treatment for epilepsy. It does not work for epilepsy. It never did work for epilepsy. And I think it's important to know when people start calling on these, like, "This treatment is as old as whatever and it's been used for everything from dandruff to epilepsy." When you start hearing that, one, is it really? And two, but did it work?

Justin: Uh... No?

**Sydnee:** No! I mean, I think that just, you know, using it for that doesn't mean it did anything.

**Justin:** Right. We just try stuff, because we didn't know.

**Sydnee:** Yeah. [laughs] Um, so...

**Justin:** And look at— I mean, look at the exact— It's one to one. Look at the TikTok thing, right? Like... "I tried it." I mean, you convinced people to try it based on that, right? By whatever feelings that you think that you had as a result of it. That's, like, universal throughout time and space and history.

**Sydnee:** Right. And it was funny because I was trying to find one of the studies I was reading to try to figure out, like, they tried it for epilepsy, it didn't seem to work. And then it went away for a while and then it came back. And in the study I was reading, they specifically were trying to uncover the why, which I thought was a fascinating... I love that they were asking that question, the researchers.

**Justin:** Why'd it come back?

**Sydnee:** Why did it come back? And I can't find an answer. Other than, they couldn't find an answer, I can't find an answer now for, like, why all of a sudden, um, 20 Mule Team Borax, which is the kind of Borax that people are mainly using. I mean, I don't think they say you have to use that, but that's what I— A lot of the influencers, I watched their TikToks, they all had a box of 20 Mule Team Borax. I hope they're not being paid by them.

**Justin:** Yeah. I hope it's not product placement.

**Sydnee:** I certainly... No, I mean, 20 Mule Team Borax says on the box, "Don't ingest this."

Justin: Yeah.

Sydnee: Like, they say on their box, "Please don't eat this."

Justin: "Please don't."

**Sydnee:** "We don't want you to eat it."

Justin: "Things are hard enough for us over here at 20 Mule Team Borax."

**Sydnee:** Do you— I thought this was an interesting history. Do you know where 20 Mule Team Borax comes from? Can you guess?

**Justin:** Can you rephrase that sentence in a way that is not absolutely unhinged? What— On what reality— What do you think, just because I know the etymological origins of Hydrox cookies and Oreos and I know every brand on the store shelves? No, Sydnee. I don't know why they call it Smucker's either.

**Sydnee:** [laughs] So Borax had this, like, moment when it was discovered in the US in Nevada in the late 1800s and then in, um, later after that in Death Valley. And there was all this Borax discovered and it was great because everybody wanted to use it for all these different—

I told you all the applications of Borax. They wanted to mine it for all these different applications and it was pretty easy to mine, except they're out in the middle of Death Valley.

Justin: Mm.

**Sydnee:** So now you have to transport it from there to wherever you're going to, you know, do whatever with it. And so it was, like, super-hot and it was long and there was no, um, railroad at the time there, so... What are you gonna do?

Justin: What are you gonna do?

**Sydnee:** So, uh, they... Famously, there was one guy who staked a claim. His name was William Coleman. And he found a way to transport this mineral in these giant wagons pulled by... It was actually— What I found was, like, um... two teams of 18 mules?

Justin: That's not very fun.

**Sydnee:** But 20 Mule Team is what it was called because it would take two teams, ten days, 165 miles... And I will say that there were two horses involved, too...

**Justin:** [groans]

**Sydnee:** So I don't know if we're counting the horses as mules and that's where that 20...

**Justin:** Don't count the horses— No, we're not counting the horses as mules!

**Sydnee:** [laughing] Anyway, eventually, like, there was a railroad and stuff so they didn't have to do that, but that's where the 20 Mule Team name came from. And it was, like, a huge deal, by the way. Like, there's a western from 1940 called the 20 Mule Team.

Justin: Yeah.

**Sydnee:** Yeah. You already knew that?

**Justin:** No, but it just sounds right.

**Sydnee:** Um, there— And uh... Anyway, so that is where that name comes from. 20 Mule Team, for what it's worth, I don't think has anything to do with this trend because, again, they put right there on their box, "Please don't eat this." Um... And I would bet—

**Justin:** But if you're buying the Borax, then they really care.

**Sydnee:** I didn't call them for comment. I'm gonna go ahead and assume that had I called them for comment, they would say, "Please don't eat the Borax."

Justin: Yeah.

Sydnee: "We never wanted you to eat it."

Justin: Please.

**Sydnee:** "It's— It does do other things. It does so many things. Make slime! Just make slime. Your kid just wants to make slime."

**Justin:** Have fun with it!

**Sydnee:** So, can it hurt you?

Justin: Yeah.

**Sydnee:** Right? That's the big question.

Justin: Yeah, I'm gonna guess yeah.

**Sydnee:** I will say, Borax was used for a while as a food preservative. And then it was banned in lots of countries, including ours. So we have decided this shouldn't be in food. Now, a lot of people argue that it's actually, you actually have to eat quite a bit to kill yourself with it.

Justin: [laughs]

**Sydnee:** Which is a wild argument to make about something that you are touting as medicine, right?

Justin: [overlapping] It's true. There are many things— Yeah.

Sydnee: Like, well, but I mean, you would have to eat a lot to kill yourself.

Justin: Yeah.

**Sydnee:** And that's true, but what we do know is that even though we think if you rub it on your skin it won't hurt you. We haven't been able to find a way to hurt yourself that way. If you inhale it, it seems to irritate airways. Wait a minute, I'm not gonna say it's gonna kill you, but it's not great to inhale it.

And what we have found is that people who eat it, and especially regular exposure to it, can cause nausea, vomiting, abdominal pain, diarrhea... It can cause, specifically, blue and green vomit? I found several people, um, mentioned.

Justin: Whoa.

Sydnee: Which, I kept trying to figure out, like, why is it just blue and

green?

**Justin:** That's not the vomit of a healthy person.

**Sydnee:** Yeah. It can cause— So, it can cause some horrible vomit, um, it can, over time, cause you to become anemic. So, have a decreased amount of hemoglobin which can cause a number of problems in your body.

Justin: Mm-hmm.

**Sydnee:** Um, uh... There were several indications that maybe if you ate enough of it, you could have seizures.

Justin: Oh.

**Sydnee:** So...

Justin: That's unfortunate.

**Sydnee:** And then I thought this was really interesting. The, um, it can cause a specific rash on your body if you eat it for long enough. Again, I'm not saying, like, one ingestion does it, but, like, if you're gonna keep doing this fake medicine thing, it causes this really, like, bright red... The word that I kept finding was beefy rash.

Justin: Yikes!

**Sydnee:** All over you. Um, and your skin can even peel off over time from exposure to it.

Justin: Oh, gosh, that's rough.

**Sydnee:** Um, and this rash has occurred anywhere from the, uh, palm, soles, buttocks, and scrotum, as well as other places on your body. Um, and then it can cause headaches and lethargy as well, make you feel just tired. There is... Now, in Indonesia, they actually warn of a risk of liver cancer from consuming too much Borax.

Different countries have different restrictions on the amount of Borax in food. There are actually some countries where it's not restricted as a food additive, so that, like... I was reading about this, there are certain kinds of, like, caviar that, when they're imported to the US, they have to do things to them in order for us to be able to eat them because they don't meet our Borax standard.

Justin: Hmm.

**Sydnee:** So anyway, my point is...

Justin: Just don't eat Borax. I mean...

**Sydnee:** There is absolutely no evidence that eating Borax does anything positive. I have not a single study that I could find that showed that it would treat or cure literally anything. It doesn't decrease inflammation, whatever that means.

It doesn't "detoxify," whatever that means. Those two concepts, as wellness people often push them, are kind of fake. I'm not saying that toxins and inflammation are fake, but I'm saying that those wellness concepts are fake. So it doesn't do that.

It doesn't treat arthritis or chronic pain or any other sort of chronic medical condition that is being difficult to manage and therefore people are seeking alternative solutions. It doesn't do that. Um, it will not help you lose weight except in the sense that it could poison you, I guess, and then when you're poisoned, you don't feel like eating much. But that's bad and unhealthy, please don't do that.

Justin: Yes.

**Sydnee:** Um, and it could harm you. Even if tiny amounts of Borax are safe to ingest...

**Justin:** Like, why?

**Sydnee:** No, there's no— I mean, like, there's lots of poisons out there that if you just ate a little, you wouldn't die.

Justin: Are you saying...

**Sydnee:** But nobody is suggesting that you should eat a little! Just don't eat them!

**Justin:** Are you saying that the dose, in a sense, and I don't want to bloviate here, makes the poison?

**Sydnee:** No, I'm saying don't eat Borax.

Justin: Yeah, you're just saying don't eat Borax.

**Sydnee:** I'm just saying don't eat Borax. I hope this goes away quickly. I thought it was interesting. On a side note, I saw a lot of younger people TikToks who were making fun of, specifically, Gen X over this?

**Justin:** Mm-hmm.

**Sydnee:** This, apparently, is like our generation problem?

**Justin:** Is it a prank? Are the millennials doing a prank on us about Borax? Did they start it and we all did it and then...?

**Sydnee:** Well, I started wondering at first because you know how— Well, they're comparing it to the Tide Pods. You know how, like, there really weren't all these people eating Tide Pods?

Justin: Right.

**Sydnee:** You know how that was kind of fake?

Justin: Yeah.

**Sydnee:** I'm not saying no one ever ate a Tide Pod.

Justin: ... get it, yeah.

**Sydnee:** Yeah. And then I started worrying, like, is the Borax trend fake, too? And then I found people on TikTok eating— I, like, I watched them put Borax in their water and drink it. And I was, like, "Oh, no." But they are, like, honey, they're, like, people our age. Like, this is not— We can't blame the kids for this one.

Justin: Yeah.

**Sydnee:** This is...

Justin: This one's on us.

**Sydnee:** This... Yeah. This one's on us. But anyway, please don't eat Borax, please tell your friends don't eat Borax. Please—

**Justin:** Not unprompted, just, like, at random.

**Sydnee:** Listen, I just want to wear a shirt around now that says, "Don't Eat Borax."

**Justin:** Don't eat Borax. Uh, that's gonna do it for us for this episode. Thanks so much for listening. Um, thanks to the Taxpayers for the use of their song Medicines as the intro and outro of our program. And thanks to you for listening. We sure appreciate it. Until next time, my name's Justin McElroy.

**Sydnee:** I'm Sydnee McElroy.

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

[theme music plays]

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