## **Sawbones 181: Pica and Eating Dirt**

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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. Hey, Justin?

**Justin:** Yes, Sydster?

**Sydnee:** How's the uh... how's the diet going?

**Justin:** Uh, slow carb life is... a little repetitive.

Sydnee: Yeah.

Justin: Um...

**Sydnee:** You eat a lot of beans.

**Justin:** I eat a lot of beans.

**Sydnee:** There's nothing good at—like, there are no good snacks in our house anymore. I didn't realize that you were the main provider of snacks until you stopped providing them.

**Justin:** As the man of the house, Sydnee...

**Sydnee:** [sarcastically] Uh-huh.

**Justin:** ...it is my duty... to provide you with snacks. Um, no— yeah.

**Sydnee:** You've been eating kinda— I mean, I don't wanna say strange, just different.

Justin: It's fine.

**Sydnee:** No, it's fine. The way you're eating is just different than the way you used to eat, but I would think you'd be, like missing some things.

**Justin:** Yeah, I— you know what my biggest craving is? And this is...

**Sydnee:** What?

**Justin:** It's not for a specific food, it's for the texture of crunchy.

**Sydnee:** The texture of crunchy.

**Justin:** And not vegetables. Nice try, everybody.

**Sydnee:** It should—

**Justin:** You know when you have crunched a vegetable, and it's not the same thing.

**Sydnee:** [laughs] It should be noted that Justin started—like, his mouth started watering as he started talking about crun— I'm watching him, his mouth water as he talks about crunchy. [laughs]

**Justin:** Maybe it's technically—maybe it's technically crispy? That may be more accurate, to say crispy?

**Sydnee:** Those are adjectives you enjoy.

**Justin:** Yeah, I do. I like both of those. But yeah, uh, I miss crunchy and crispy.

**Sydnee:** Do you think anything crunchy or crispy would satisfy that

craving?

Justin: As long as it's not a vegetable, Sydnee. We've covered that, yes.

**Sydnee:** So, like... I don't know, woodchips.

**Justin:** Mm, no, that's wood.

**Sydnee:** No. Or—

Justin: That's wood.

**Sydnee:** Maybe some chalk.

**Justin:** Um, no. I did bite chalk that one time in elementary school.

**Sydnee:** Mm-hmm.

**Justin:** But I don't eat chalk, as a rule. That wouldn't satisfy my craving.

**Sydnee:** I just need to know if *any* crunchy thing might satisfy it. 'Cause you know, if you did turn to eating non-food items, you wouldn't be alone.

**Justin:** I've heard of this, right? It's a medical thing. Not just a preference.

**Sydnee:** Not just a preference. [laughs]

**Justin:** Not just a preference anymore.

**Sydnee:** That's the slogan. Pica: Not just a preference.

**Justin:** Yeah. Nobody prefers to eat woodchips and chalk.

**Sydnee:** No. No. But it is a condition, and it's a little— a lot of people misunderstand pica, and there are a lot of um, kind of theories and ideas about it that are sort of true, but don't explain it entirely, so...

Justin: Mm-hmm.

**Sydnee:** ...I thought we should talk about it.

**Justin:** Okay. Well, let's—

**Sydnee:** And a lot of our listeners did, too.

**Justin:** Well, let's go. I'm ready to learn about this. This is something I've been kind of— it's one of those things like, I'm interested in, but not so much so that I would learn about it, you know what I mean?

**Sydnee:** Right. Well—

**Justin:** Like, not take the time.

**Sydnee:** Hopefully, everybody who is currently listening to the show feels differently and will continue. [laughs]

**Justin:** Yes, right. Well, no, like, you're gonna deliv— you're gonna hand-deliver the information to me.

Sydnee: Right.

Justin: So that's a lot different.

**Sydnee:** So you didn't have to find it on your own.

Justin: No, no, no.

**Sydnee:** That's good. Yeah. Well, thank you to Sarah and Jenny and Lindsey and Liz for suggesting this topic. Pica is very interesting, as anybody who's ever watched *My Strange Addiction* can attest.

**Justin:** Yeah, that borders on sort of, like, voyeurism, I think.

Sydnee: Yeah.

**Justin:** You feel a little yucky, but yeah.

**Sydnee:** Uh, so pica comes from the Latin for magpie.

Justin: Okay.

**Sydnee:** You know, the bird.

Justin: Mm-hmm.

**Sydnee:** You know why?

**Justin:** Um, is it because the magpie just goes around, picking up whatever

trash it finds?

**Sydnee:** And eats it, yeah.

**Justin:** And eats it? Okay, yeah.

**Sydnee:** Magpies basically will eat anything. And I even read that they don't necessarily seem to prefer food to non-food items, so really, they will eat anything. And so that's where "pica" comes from. And it's basically just the compulsive eating of stuff that isn't food. Something that will not, as far as we can tell, traditionally give you nutrition.

Justin: Okay.

**Sydnee:** And it has to be for at least a month to meet the definition of pica, which I think is interesting, because that means that if, for like, two weeks, you've been eating dirt every day...

Justin: That's...

**Sydnee:** ...you still don't have pica.

Justin: You still don't have it. That's just like, you're doing that for...

**Sydnee:** [laughs]

**Justin:** ...your own edification at that point.

**Sydnee:** I don't know. Maybe you're on a reality TV show.

**Justin:** Right.

**Sydnee:** It's a challenge.

**Justin:** Where it's like, "You have to eat this woo—" I've never seen, like, "Good job, survivors. Welcome to the island. Now eat your boat." That's never been one of the ones.

**Sydnee:** [laughs] I would watch that show.

**Justin:** I would watch that if they had to eat the boat, for sure.

**Sydnee:** Uh, pica is often tied to iron deficiency. That's what most people— and that honestly, to be fair, that was kind of the main thing that I learned about it in my medical education, is that pica is a syndrome that is connected to iron deficiency. For some reason, people who don't have enough iron, and so therefore are probably anemic, um, crave things that aren't food. And usually ice is the example.

Justin: Mm.

**Sydnee:** So, the classic example is a pregnant person eating a bunch of ice chips, and can't stop eating the ice, and it's pica, and it's because they're iron deficient, and there you go.

**Justin:** I know lots of people that like— your whole family likes eating ice. I don't think they're pica— they have pica, do they?

Sydnee: Actually, Mom did have pica while she was pregnant with Rileigh.

Justin: Wow.

**Sydnee:** She ate— she used to eat ice by the buckets.

Justin: Wow.

**Sydnee:** Just ate ice constantly. Every time you talked to her she was, I

mean, huge, like, jumbo cups of ice. Constantly.

Justin: Wow.

**Sydnee:** Yeah. So uh— but this is only one manifestation of pica. And by

the way, pagophagia is the word for eating ice.

Justin: Pagophagia?

**Sydnee:** There's words for every different thing you...

Justin: Could eat?

Sydnee: Eat, yes.

Justin: Okay.

**Sydnee:** Now, there are other forms of pica, and they're not necessarily connected to iron deficiency. And we know this because if it is connected to iron deficiency, typically we give you iron, and you get better, and you stop eating whatever the thing is that you've been eating. But there are other forms that don't respond to treatment with iron, or maybe the patient was never iron deficient to begin with.

**Justin:** So, it's more of an umbrella term, than anything else.

**Sydnee:** Exactly. And pica is still not completely understood. So I'm gonna preface with that, as I kind of get into the history of it. There's still—we still have questions about this.

So here's some examples throughout the ages of stuff we have documented cases of people eating who have pica: ashes, balloons, burnt matches, chalk, cigarette butts, cloth, crayons, detergent, feces, fuzz, grass, insects,

urinal cakes, metal, newspaper, paint chips, plant leaves, pencil erasers, plastics, baby powder, powder puffs, sand soap, starch, string, toilet paper, twigs, coffee grounds, oyster shells, and tomato seeds.

**Justin:** Now, I notice you, um, dropped "plant leaves" in there, and I just wanna thank you for finally backing up my firmly-held belief that eating [laughs] the leaves of a plant is an aberration, and one that should be avoided at all costs.

**Sydnee:** [laughs] I— well, I mean, like, not traditionally eaten plant leaves, I quess.

Justin: Okay.

**Sydnee:** We have evidence of the condition back to Greek times. People were noted to eat clay and dirt, primarily. That was the main that was written about and observed. Hippocrates wrote of the connection to pregnancy, and this is from his writing, "The pregnant woman feels the desire to eat earth or charcoal, and then eats them, the child will show signs of these things." I don't know how the child is gonna show signs of... eating earth or charcoal.

Justin: Right.

**Sydnee:** But one way or another, they were connecting pregnancy with strange cravings for non-food items.

And there's also an account from the Romans that notes the connection between people who like to eat clay and their skin being somewhat pale, kind of hinting at this anemia idea, the iron deficiency idea.

**Justin:** So, they had—they had some— I always heard that if you had an iron deficiency, and you rub, like, gold on your skin, it would make lines. Have you ever heard that?

**Sydnee:** Yeah, that has more to do with whatever the substance you're actually rubbing on your skin is.

**Justin:** I feel like I might've asked you about that before, so apologies.

Sydnee: Yeah. That's okay. Pliny, of course, had something to say about

it.

Justin: Yeah.

**Sydnee:** Pliny the Elder, family friend.

**Justin:** [laughs]

**Sydnee:** Uh, he talked about a particular delicacy that was popular at the time, alica, which was a porridge that had some red clay in it. And he wrote, "Used as a drug, it has a soothing effect as a remedy for ulcers in the humid part of the body, such as the mouth or anus. Used in an enema, it arrests diarrhea, and taken through the mouth, it checks menstruation.

**Justin:** "Hold on, there, diarrhea. You're coming with me. Get in the paddy wagon."

**Sydnee:** [laughs] So of course—

Justin: "These charges will never stick!"

**Sydnee:** Pliny— you could not confront Pliny with an item that people were putting in their bodies, and challenge him, "Is there something this would cure?" And he wouldn't come up with at least three things.

**Justin:** Yeah, it'll be something.

**Sydnee:** "No, it will, and here are the various orifices in which you could insert it to fix..."

Justin: [laughs]

**Sydnee:** "...different problems."

Uh, the Egyptians were fans of topical applications of mud, but they also did eat dirt and clay for stomach troubles.

Justin: Okay.

**Sydnee:** That was a— that was a remedy if you were having GI disturbances, you could eat some clay. And we find an obstetric text from the 6th century from Aetius in what is now Turkey that calls it pica, and then again draws the association between that and pregnancy. So we've seen that connection for a long time. Avicenna wrote about it. He advised that if a young boy had pica, you should imprison them to stop it.

Justin: Okay.

**Sydnee:** It—

**Justin:** They'll just eat their way out.

**Sydnee:** [laughs] Sounds more like a behavior modification. Like, "I'm gonna put you in jail until you promise not to..."

Justin: [laughs]

**Sydnee:** "Not to have pica anymore."

Justin: Right.

**Sydnee:** Um, although he was— he did say, like, "You don't have to do that to somebody who's pregnant." You don't have to put them in prison.

**Justin:** Oh, that's a relief.

**Sydnee:** Yeah, that's god.

**Justin:** Of course, ice was probably a very valuable resource at that point, so it was better if they weren't eating all your ice.

**Sydnee:** [laughs] "Please don't eat the ice."

Justin: "Please, that has to last us 'til December."

**Sydnee:** "We just figured out how to make that." [laughs]

Uh, Trotula of Salerno, who was a midwife, wrote that uh, if you had a pregnant patient who was craving something like dirt or clay or, you know, something non-nutritive, you could mix beans with sugar, and just give 'em that, and they'll be happy. With all the beans you've eaten lately, has it killed all your cravings, would you say?

**Justin:** Um... I— for what, specifically?

Sydnee: Well, dirt?

**Justin:** Dirt, yeah. I used to be crazy about the stuff.

**Sydnee:** [laughs]

**Justin:** And now I just can't get into it the same way.

**Sydnee:** And you know, what's interesting is that dirt has actually been used— I mean, we're talking about a lot of medicinal reasons people have eaten dirt and clay, but they were also just for seasoning. In some Native American tribes, it was used as, like, a spice.

Justin: Hmm.

**Sydnee:** Dirt was used as a spice in your food, and clay was mixed with some bitter foods to counteract the bitter taste.

**Justin:** I mean, you gotta start somewhere [laughs] I guess, and that—with culinary growth. That seems like a fine place to get started.

**Sydnee:** So— and what I'm building, I hope you're seeing as I'm talking about all this, is this phenomenon of eating things that we don't think of as food, it crosses cultural bounds, time, space, different origins, where

different, you know, groups arose and what eating habits they developed. And it crosses species.

Eating dirt and clay is a universal animal, animals on Earth experience. It's— and we'll get into, a little bit, of what people think about that, but just as I'm talking about all these different cultures that do it, think about that. Eating dirt is way more common than you think.

**Justin:** Maybe we shouldn't get so tripped out about it, then.

Sydnee: Well...

**Justin:** It can't hurt you. It's just dirt.

**Sydnee:** Well, we'll get there.

Justin: Alright.

**Sydnee:** In 1563, a medical text coins geophagia, which is the idea of

eating dirt.

Justin: Okay.

**Sydnee:** Eating clay.

**Justin:** Phagia meaning eating...

**Sydnee:** Phagia meaning eating.

Justin: Geo meaning earth.

**Sydnee:** Yep.

**Justin:** Or rocks? It's geology. Earth, right?

**Sydnee:** Earth.

Justin: Stuff on Earth.

**Sydnee:** Stuff on Earth. Eat— I mean, it could mean dirt or clay or earth—something like that.

Among pregnant people and children, there was a huge interest in this topic in this point in history. For some reason, a lot of doctors got really fascinated with pica, and specifically with eating dirt or clay. And so, we have tons— there's like, a— there's hundreds of case reports and papers written in this point in human history about it, to try to figure out, is it connected? You know, what are the characteristics of people who do it? They tied it a lot to anemia, which was called "the green disease" at the time.

And so they thought it had something to do with anemia, and so that was—and that was also very widely studied at the time, anemia was a big, popular medical topic, so that you found more pica patients the more anemic people you studied.

Justin: Mm-hmm.

**Sydnee:** Writings of the time detail various cases, and then try to make guesses as to what could be the cause. So like, one theory was that maybe it's that you have rotting food in your stomach, and it throws off your taste for stuff, so you start craving other stuff.

Justin: Okay.

Sydnee: Like, maybe dirt.

**Justin:** Dirt. [laughs]

**Sydnee:** Maybe.

Justin: Fine.

**Sydnee:** Uh, you see in this time period iron recommended as a treatment for the first time.

Justin: Um— just—

**Sydnee:** Just— which is fascinating.

**Justin:** Pretty good called shot, honestly.

**Sydnee:** Exactly, exactly. It was also suggested at the time that maybe pica had something to do with a psychiatric condition as well. That was the first kind of guess that maybe there is more to this than just, you know, craving a mineral or something like that.

Justin: Mm-hmm.

**Sydnee:** And then they also made a connection that was observed more during times of famine, and this is a theme we'll keep seeing. At times where a certain population was at risk for starvation, and didn't have enough food, you see this practice a lot more commonly.

Throughout the 18th and 19th centuries, we find more writings about the practices of different people engaging in geophagia and pica in general, especially as European travelers are going further and further across the globe and encountering different cultures, and then comparing them to what they've already seen.

And so, we start to see descriptions of it, of geophagia used for religious ceremonies, tied to magical beliefs, and then different ways that it's used for medicinal purposes.

**Justin:** Right. And can you give me some hints?

**Sydnee:** Well, I'm gonna give you some examples, but first, why don't you come with me to the Billing Department?

Justin: Let's go!

[ad break]

**Sydnee:** So as I mentioned, as travelers are crossing the globe and encountering different populations, we start to see more records of people eating dirt and clay for different reasons. In South America, the Otomac tribe would store up red clay to eat in times of famine. They would have, like, stacks of red clay, and just keep it stored somewhere in case they encountered a famine.

In Guatemala, clay briquettes with various like, designs on them were sold for pregnant people. To eat, presumably.

Justin: Mm.

**Sydnee:** In Zanzibar, it was called safura, and would commonly lead to death, due to the amount of earth that some people were eating.

**Justin:** Now, of course, it's interesting, because we didn't know, like— we didn't understand the idea of nutrients, right? In some of these cultures, I would assume, like, it was just about having something to put in your belly.

**Sydnee:** Exactly. And that's— I think you start to see that arise too, is the idea that, "This will stave off hunger in some way. By filling me up, I'll feel full." And then, and I'll get into this a little more, there is stuff in dirt.

**Justin:** Right.

Sydnee: I mean, there are minerals in dirt.

**Justin:** There's bad things too, right? It's kind of a crapshoot, I would imagine.

Sydnee: Exactly. There's bad things too. There's bad things too.

The Tiv tribe of Nigeria still looks for eating dirt as an early sign of pregnancy.

Justin: Hmm!

**Sydnee:** So, if somebody starts eating dirt, you're like, "Oh, guess what!" You know.

Justin: You got a bun in the oven. And also, a little bit of dirt.

**Sydnee:** [laughs] In other parts of Africa, they found clay used for syphilis, for diarrhea. It was commonly eaten by girls starting puberty.

Justin: Hmm.

**Sydnee:** Which again, you could maybe assume was tied again to anemia, 'cause if you start menstruating and you're losing blood...

**Justin:** Mm. Replenishing that for the— yeah.

**Sydnee:** Yeah, then eating dirt for the anemia. But maybe not, you know, doing that without knowing the reason. It was thought that if you ate it while you were pregnant, it would guarantee a painless birth.

It was also used as punishment in some places. Earth was considered to be sacred, so if somebody was a criminal, you would force them to eat dirt, and if they were guilty, then they would die. 'Cause the dirt would kill them. [laughs]

**Justin:** Um, this is— I don't know if we're gonna talk about this, but like, does— is— like, the iron deficiency, right, triggers your body to want to eat something hard, right? Basically crunchy, or something.

**Sydnee:** We're not— I mean— I can't tell you exactly the pathophysiology of it.

**Justin:** Like, what— why would— what would your body be trying to do? Like, what's it trying to achieve?

**Sydnee:** There are two theories on that.

Justin: Okay.

Sydnee: And I'm not—

**Justin:** Are we get—

**Sydnee:** I'm gonna get to them!

**Justin:** Okay, I'm not trying—

**Sydnee:** I'm gonna get to them.

**Justin:** I'm just trying to make conversation here.

**Sydnee:** No, I'm gonna get there.

Justin: Okay.

**Sydnee:** I'm gonna get there.

Justin: Okay.

**Sydnee:** There are two theories on that, and we'll cover 'em, but again, I'm gonna— spoilers, I don't have all the answers, 'cause nobody does. It's still not completely understood.

It did— and this is interesting, this is something I did not know. It took root in the American South during the time before the Civil War, especially among enslaved populations. So, eating clay was incredibly common. This has persisted in the American South even somewhat today, but as— as recently as the 1950s, 1960s, it was so common that you could buy bags of clay, little bits of clay, at like, the bus stop.

**Justin:** To eat?

**Sydnee:** To eat. And people who would move North, sometimes, would like, write home to their families to say, "Can you send me my favorite clay? 'Cause my favorite clay comes from this area."

Justin: Flavored clay, maybe?

**Sydnee:** No, just clay.

Justin: Like, ranch clay? Like nacho cheese clay, or pizza-blasted clay, or

just...

**Sydnee:** Just clay. Clay. And you find, I mean, there are writings of, like, the earth eaters of North Carolina, and I mean, all over the South, people—eating dirt is not uncommon.

**Justin:** How strong of a tie did you see between this and um, like, poverty?

**Sydnee:** Very strong.

**Justin:** Very strong.

**Sydnee:** Very strong.

Justin: Yeah.

**Sydnee:** Yeah. This was— there were many times where doctors have written about it in various case reports and papers and connected it to that. Now, that's not 100 percent, though. But that's definitely— you see it predominantly in populations that are at risk, again, for starvation.

Justin: Right.

**Sydnee:** Or are living in poverty, you see that tie for sure. But that's—again, I can't tell you 100 percent of the time. There are exceptions to that.

**Justin:** The iron deficiency angle is kind of funny and weird, weird human thing. I just want to be clear that like, I am in no— we are in no way, like—we're having a little bit of fun, but it is in no way at the expense of people who have nothing else to eat, obviously.

**Sydnee:** No. No. That's not— and that's not really what we're talking about with pica. I mean, the idea is not "I don't have anything to eat; I

know that dirt is not something that I typically would eat, but I'm gonna eat it anyway, 'cause I don't—" That's not the same thing.

Justin: Right.

**Sydnee:** Pica is the compulsive eating of something, even though it's not... I mean...

Justin: Yeah.

**Sydnee:** Even— you might have other things available to you, or, I mean, it's— you're doing it without considering the other options. You know what I mean?

**Justin:** Right. That makes sense.

**Sydnee:** It's different.

Justin: Yeah.

**Sydnee:** It's different, yeah. And then geophagia, the practice of eating earth, isn't necessarily pica, either.

Justin: Okay.

**Sydnee:** You know? You can think of like, "pica" as an umbrella term for things like geophagia and pagophagia and all the other things I've mentioned.

Justin: Right.

**Sydnee:** But at the same time, the practice of eating earth, so we would use the same word, geophagia, exists outside. 'Cause if it's a religious ceremony or something like that, then you wouldn't call it pica. It's actually in the— the DSM definition of pica. If it is for some specific religious or something like that, then that doesn't qualify.

Justin: Right.

**Sydnee:** It's a compulsive eating. In Haiti, more recently, there were stories about people making, like, mud pancakes out of dirt and water and salt, and sometimes if you had some butter, like, baking them out in the sun and eating that.

Justin: Ugh.

**Sydnee:** Again, associated with lack of food supply. Um, kaopectate. Do you remember kaopectate?

Justin: Sure, yeah.

**Sydnee:** The GI drug? Used to treat diarrhea and indigestion before Pepto Bismol came along and kind of took over.

Justin: Yeah.

**Sydnee:** It's made from the clay mineral kaolin.

Justin: Oh! Okay.

**Sydnee:** There you go.

**Justin:** So there is a medicinal—

**Sydnee:** So if you've ever had kaopectate...

Justin: Yeah.

**Sydnee:** ...you've eaten clay.

**Justin:** You've eaten some clay. There, snooty with your— up on your high horse, judging everybody. You've had a little clay on your tongue, too!

**Sydnee:** And speaking of snooty, anything like this that has persisted across cultures for hundreds and hundreds of years, sooner or later...

**Justin:** I knew. I just knew, when you started talking about how people used to do it... I knew there was gonna be a few people who were like, "Well, let's give it another whirl!"

**Sydnee:** Mm-hmm. 2014, clay cleanse diet becomes a popular thing.

**Justin:** People.

**Sydnee:** And the—basically, you could—it was bentonite clay, was the one that was the most popular, and I think still is. I mean, you can still buy this. Like, it's still all over Amazon. You can buy jars of bentonite clay. I am sure there are people who still do this. I don't hear about it a lot, but it's either powdered or in tablets. It's made from, like, volcanic ash from... I mean, who knows. Whatever they tell you. It's special.

Justin: [laughs]

**Sydnee:** I don't know the backstory that they're gonna make up for it, but it's special volcanic ash, and you take the clay tablets and swallow them, or you mix the powder in some water. And that's how most people talked about doing it, is you would mix it with some water and then drink it. And the idea was that it would swell up in your stomach and make you feel really full, and then you would lose a lot of weight. And if that's not enough, it also detoxifies you!

Justin: Oh, thank goodness!

**Sydnee:** So, it was promoted for wellness as well. So, you saw it tied with a lot of, like, wellness and detox programs. I didn't look to see if it's on Goop. I don't know that it is, but I wouldn't be shocked if it is.

Justin: Yeah.

**Sydnee:** And so, it was thought to remove heavy metals. And like, it was billed that like, "You'll do it— you'll lose 10 pounds in 10 days. 10 pounds, 10 days. And your poop's gonna smell like metal because of all the metals that are coming out of your body!"

Justin: [shudders]

**Sydnee:** You know.

**Justin:** You people.

**Sydnee:** [laughs]

**Justin:** I just knew it! I knew! As soon as I started saying, like, "Oh, this is really sad that people are so poor—" I *knew* somebody was gonna be like, "Well, let's go! Let's do it again! Let's take— let's give it another spin! Ugh.

**Sydnee:** Now— and it should be known that not just with the clay cleanse diet, there are, among certain populations, like, among some South African populations, people who are still eating clay today in order to like, improve the softness of their skin, and that kind of stuff. And again, in some tribal cultures, among pregnant people clay eating is still common. So, I'm talking about kind of the new-age diet fad stuff, but there are places where it's just commonly accepted.

**Justin:** If I were to ask those people— aside from like, tradition and superstition, if I were to ask those people, like, "Why are you eating clay?" Or anybody with pica, like, what would I— what would they say back to me?

**Sydnee:** Usually, they'd just say they enjoy it. They eat it `cause they like it.

Justin: They like it.

**Sydnee:** I mean, and if you— it's funny, 'cause I read that— like, "They like it," but that is exactly what if we— we have watched *My Strange Addiction*, and if you ever have, and they ask people, "Why do you eat..." couch cushions or whatever, you know, that's what they say. "'Cause I like it. I like the taste, I like the texture..."

**Justin:** It's really interesting to me, 'cause they—

Sydnee: "...I like the smell, I like it."

**Justin:** They try to summon up, um, culinary adjectives. Where there are none. Like, there aren't like... creamy, crunchy, zesty, none of them apply—

**Sydnee:** Salty, sweet, like, I don't know.

**Justin:** And so you'll see them, like, struggling for like, ways to describe the flavor in like...

**Sydnee:** In detergent.

**Justin:** ...in a culinary way.

**Sydnee:** Yeah. [laughs] Um, it's been theorized that it does help you lose

weight.

**Justin:** We still feel guilty about it, by the way. Super wanna make clear, we don't feel good about our choice of watching *My Strange Addiction*.

**Sydnee:** No, we don't do that anymore.

**Justin:** We've just been weak sometimes.

Sydnee: We've moved on.

Justin: Yeah.

**Sydnee:** We've moved on with our lives. We don't do that anymore.

**Justin:** We're better people now. [laughs]

**Sydnee:** We don't advise that.

**Justin:** Now it's just *My 600 Pound Life* or bust.

**Sydnee:** [laughs] It's— no, no, no.

Justin: Okay.

**Sydnee:** Just no. No. It's been theorized that it helps you lose weight by making you feel full. I don't know, I mean, certainly, you will find actresses and people who have said, "Yes, that's how I lost the weight."

**Justin:** "I ate clay."

**Sydnee:** And you also had, like, a personal trainer and a personal chef.

**Justin:** Right. And the clay of course, [mumbles].

**Sydnee:** Uh-huh. It was linked with celiac disease in one study, that maybe it was a symptom of celiac disease, and by fixing the celiac, you fix the pica, but at the same time, it still probably came back to iron deficiency in that particular case report, so that was a very weak link.

Pregnant patients will sometimes say that it helped with stress to eat ice.

Justin: Mm.

**Sydnee:** I don't know, so they'll say, "I did it in part 'cause it helped me with stress."

Justin: Hmm!

**Sydnee:** There are also, of course, cases linked to obsessive compulsive disorder, or other psychiatric disorders where it was just one facet of that.

**Justin:** Right.

**Sydnee:** You know, not an independent thing. And then it also can be associated with some parasitic infections.

**Justin:** Oh, right, 'cause the bug's like... "Gimme... dirt"?

**Sydnee:** That's exactly it. The worm— the worm is whispering inside you...

Justin: [close to microphone] "I want dirt."

**Sydnee:** [whispering] "Give me dirt."

Justin: "Peter Michael, it's me. The worm inside you. I require dirt."

**Sydnee:** [laughs] Again, this could be due to the lack of certain minerals and nutrients that— because the parasite's taking it from you. But it is thought to be— in some places, you would see somebody eating dirt or whatever, and think, "Oh, my gosh, they need medicine for a parasitic infection."

Justin: Mm-hmm.

**Sydnee:** Speaking from an evolutionary perspective, this happens in over 200 species of animals.

Justin: Huh.

**Sydnee:** It crosses cultures and continents, just like I said. When you see something that pervasive, you gotta start to wonder if there's a reason.

**Justin:** Right.

**Sydnee:** Because this isn't just— this isn't just— I mean, that sounds contrary to what we say on the show a lot, like, "Just because some people have been doing this crazy thing for hundreds of years doesn't necessarily mean it does anything." But this is a little different, because this crosses cultural and species lines.

Justin: Right.

**Sydnee:** Isolated groups who would have no way of knowing about each other were doing these similar things. So, this kind of behavior, you start to wonder, is there some...

**Justin:** Right.

**Sydnee:** ...reason we would do this? Well, dirt does contain minerals, like calcium and sodium and iron. So there was a theory, do you think maybe in times of famine or, you know, you're worried about— or maybe you're not getting enough of a certain thing, so you start to crave dirt, because it's gonna fulfill that need. That's one theory. And then we've observed animals eating specific kinds of rocks and things that would satisfy different nutrient requirements, and that kind of supported it.

But the problem is that you actually absorb very little of the minerals from dirt when you eat it, from dirt and clay. Um, so that theory kind of falls apart because, you know, even if that's— even if that's what you were seeking to do, you know, subconsciously you're not really satisfying that.

Justin: Yeah.

**Sydnee:** The other idea is that maybe it's... it is somewhat detoxifying.

**Justin:** Okay, what?

**Sydnee:** That is the other— that is the other theory, in that negatively-charged clay ions combine positively-charged toxins and expel them. Now, as soon as I read that, I thought, well, that doesn't make— that sounds like the usual detox kind of nonsense, and I wouldn't buy that theory, because your liver and kidneys do that just fine.

However, there is some thought that maybe it can—that clay has action again bacteria and viruses. And so maybe animals do that... for some reason, for certain infections. Livestock feed is prepared in clay for this reason.

Justin: Hmm.

**Sydnee:** So, not so much detoxifying, even though that's the word you find commonly used, but maybe to help... fight off some sort of infection?

**Justin:** Something. Yeah.

**Sydnee:** I don't know. These are the two theories that have been put out there. Neither one really satisfies me or makes much sense, and any time I hear "detoxification", I start to get...

Justin: Right.

**Sydnee:** I immediately assume this is nothing. But again, people across species and cultures do it, so... so who knows. What can happen if you do this, though?

**Justin:** That was my next question.

**Sydnee:** Yeah. Why is it bad? Well, if the thing that you're eating is toxic to your body, that's bad. So, if you're eating...

Justin: Yeah.

**Sydnee:** You know, if the thing that you crave and you're eating can give you metabolic issues or throw your electrolytes out of whack, your sodium, your potassium...

**Justin:** I would say, broadly speaking, anything that is not food... if you eat enough of it, will not be great.

Sydnee: Yes.

**Justin:** And that is the other thing about *My Strange Addiction*, which we felt super guilty about watching, but it is really interesting to see the doctors on there try to make a buck wild called shot about what happens to you if you eat your whole mattress.

**Sydnee:** Yeah. [laughs]

**Justin:** 'Cause it's like, "Um, this is gonna cause— you know what, actually? I have no idea." [laughs]

**Sydnee:** I don't know what happens if you spray air freshener on your tongue and swallow it over and over again.

**Justin:** I don't know. Nothing good?

**Sydnee:** It couldn't be good. And that's the thing. It can throw your electrolytes out of whack. Some things you eat might have heavy metals in them, so even though, in like the... you get this weird new-agey thing, like, "It detoxifies you from heavy metals," you may actually be ingesting heavy metals, if you're eating the wrong thing.

Justin: Mm-hmm.

**Sydnee:** It can damage your liver and kidneys. Obstruction can occur, so if you're eating something that's bulkier and isn't well digested or isn't digested at all, then it can just block your intestines.

Justin: Ugh.

**Sydnee:** Which has happened. And then if they puncture a hole in your intestines, I mean, that... that can lead to death. So that can be super serious.

**Justin:** Super—super not good.

**Sydnee:** You can hurt your teeth, if it's something that you shouldn't be chewing on. Also, you're probably not getting the nutrients you do need, because you're eating these non-nutritive things that I've already said you don't get a lot of minerals from, even if they're in there.

Also, sometimes there's stuff in dirt like lead and arsenic, and like, worms and germs. So... you're eating that, if you're just eating dirt. Um... so that's not a good—that's not a good idea, if you have other options.

**Justin:** What do you do for people?

**Sydnee:** Honestly, for pica, the first thing would be to rule out iron deficiency.

Justin: Mm-hmm.

**Sydnee:** 'Cause it's an easy thing to fix. You know, check for a mineral deficiency or iron and replace it, obviously, if you find it. And sometimes, it goes away. If it doesn't, you know, the other thing is, is there some sort of behavioral counseling? Is there some other component to this, like we talked about, some comorbidity, psychiatric condition, obsessive compulsive disorder, that kind of thing.

And let me clarify, this practice of eating earth, while it has persisted for a very long time – which was fascinating for me to learn – I think you can distinguish that pretty clearly from pica, where somebody, you know, has options to eat nutritive food...

**Justin:** Right.

**Sydnee:** Food.

Justin: They just decide...

Sydnee: Just say "food."

Justin: ...not to.

**Sydnee:** Well, they're not deciding, but they are compelled, I think is the word to use.

Justin: Okay.

**Sydnee:** They are compelled to eat something else that is not providing them nutrition.

**Justin:** Yeah.

**Sydnee:** And obviously, that needs to be addressed for all the reasons we just mentioned.

**Justin:** Syd, thank you so much for educating me about pica. I feel a lot smarter now.

**Sydnee:** You're welcome, Justin.

**Justin:** I hope that comes up at a dinner party soon.

**Sydnee:** [laughs]

**Justin:** I want to say thank you to people who sent us some stuff in our PO box, which is PO box 54 Huntington, West Virginia, 25706. Hedge for a Natural Alternative sent uh, lip balm. Hannah sent souvenirs. Madelyn sent feminist books. Emily and Russel sent a t-shirt and stamp, Danielle for the book. James, super big thanks for the John Allison uh, Buffet—Jimmy Buffet t-shirt. Nick sent Silly Putty. Ellie Butler sent a book. Sarah sent a stamp and chocolate. Christina sent a very kind letter. Casey, for your cross-stitch, that was beautiful, of our logo. It's radical. And Katrina sent some lovely letters and stickers. So, thank you to all of you all. We really appreciate you.

**Sydnee:** Yeah, thank you all. We love this stuff, it means so much to us...

Justin: You didn't have to do that, but it's very nice.

**Sydnee:** ...and for all your cards and letters and wedding invitations and everything, thank you.

**Justin:** Yeah. Um, and if you're giving invites to your wedding, please leave a phone number in there, so we can randomly call you as we very much enjoy doing to people.

**Sydnee:** We will try not to call you at...

**Justin:** 8:00 AM, like I did today to somebody.

**Sydnee:** ...8:00 AM, like we accidentally did.

**Justin:** Oops!

Sydnee: Sorry about that one.

**Justin:** Oopsie-daisy! Anyway, that's gonna do it for us, folks. Until... no, wait! The Taxpayers. They're a band in Portland, and they— probably in Portland, right? They're probably all over.

**Sydnee:** Yeah.

**Justin:** But I think they're based in Portland.

**Sydnee:** Yeah. I think that's true.

**Justin:** Anyway, they made our theme song, "Medicines," and you should go find their music. I think it's on Bandcamp.

Sydnee: Mm-hmm.

**Justin:** And you can get an alternate version of that song, I'm pretty sure. And a lot of other cool stuff, so go check them out. And that's gonna do it for us, folks, this week. Until next week, 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]

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