

Sawbones 174: Detox

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[theme music plays]

Justin:

Hello everybody and welcome to Sawbones, a martial tour of misguided medicine. I'm your co-host, Justin McElroy.

Sydnee:

And I'm Sydnee McElroy.

Justin:

[laughs] It always makes it sound like there's a party about to start when I do that.

Sydnee:

[laughs] I was shaking my head at you to try to stop you from doing that.

Justin:

Oh, and I'm just gonna have a Pepsi Zero-less—a zero, Pepsi Zero podcast? I think not.

Sydnee:

Hey, hey—

Justin:

It's still Pepsi Max by the way in my heart. Nice try Pepsi. Nice try.

Sydnee:

Before you take a sip of that, uh, there's no room for that in the new J-Man's life I don't think.

Justin:

Oh, that's true.

Sydnee:

No, Hollywood Jay.

Justin:

Hollywood Jay.

Sydnee:

For those of you who aren't aware, my husband's gone Hollywood.

Justin:

Yeah.

Sydnee:

He made a TV show. He's very important now. He's kind of a big deal. So—

Justin:

Yeah. SeeSo.com, S-E-E-S-O.com.

Sydnee:

[laughs] I'm just—

Justin:

We've advertised for it and boy howdy, there is some great programming on there. But, My Brother, My Brother and Me made a TV series, launched February 23rd, all six episodes available to watch right now.

Sydnee:

Right off the block.

Justin:

Free week trial.

Sydnee:

Right off the block.

Justin:

Give it a shot. Let me know what you think. Hollywood J.

Sydnee:

Hollywood J is now on the show. So, are you gonna get into the whole Hollywood lifestyle, like?

Justin:

Yes. I've got a lot planned. I'm gonna get a ghini, that's short for lambo—or lambo, a lambo or a ghini, whatever is short for Lamborghini.

Sydnee:

[laughs]

Justin:

Gonna get a sleek lambo, or ghini, and then I'm gonna, uh, do the—uh, do—next up, after that, gotta do the cleanse. Gotta cleanse it out.

Sydnee:

Oh.

Justin:

All the toxins.

Sydnee:

Yeah.

Justin:

Gonna do, um, you know, probably the lemon juice hot pepper one.

Sydnee:

Right.

Justin:

That I know about.

Sydnee:

Mm-hmm.

Justin:

Is good.

Sydnee:

Mm-hmm.

Justin:

This is the cleanse.

Sydnee:

Right. What are you gonna— when— now when— when you're cleansing, what are you getting rid of there?

Justin:

Toxins, Sydnee.

Sydnee:

Right.

Justin:

Like, look around you. Like, look—

Sydnee:

Toxins.

Justin:

Look in the air, okay? Look at the sky, right now. Blue, okay?

Sydnee:

Uh, yes.

Justin:

And then white clouds of something. Those are toxins too, okay? And you're just breathing that.

Sydnee:

They're not, um—

Justin:

Do you know what's on the ground? Do you know what's on the ground?
Dirt.

Sydnee:

Carpet?

Justin:

It's made of dirt. You breathe it.

Sydnee:

That's car—honey, that's carpet. That's our carpet.

Justin:

Outside Sydnee. In here, oh, and—and do you think the carpet is toxin free? It's full of dust. It's full of mites.

Sydnee:

So, Justin, when people do detoxes, do you have any idea what's actually happening or why they're doing it or where that came from?

Justin:

Uh, no. I don't know that much about it. I know it's been highly recommended to me. There's—

Sydnee:

By the internet?

Justin:

By the model of juice cleanse that I bought.

Sydnee:

[laughs]

Justin:

... at, uh, Ollie's Discount Market for \$3.99.

Sydnee:

I think it was the Grandview Weekend Outlet.

Justin:

It was. They did have those, didn't they?

Sydnee:

They did. They had like shelves and shelves of them.

Justin:

Shelves of it. [laughs]

Sydnee:

Let's talk about detoxification.

Justin:

Okay.

Sydnee:

Or detoxing.

Justin:

Now, we should make a—we should make a clear...

Sydnee:

A clar— clarification.

Justin:

A clear lineation here.

Sydnee:

Yes. I am not talking about the process of, uh, detoxification in a medical sense, what we usually mean is that there is something in your body that you are, um, slowly getting rid of through natural methods, you know? Peeing it out, and pooping it out, and all the ways our body's normally eliminate toxins. And, we are perhaps monitoring you and alleviating side effects of that symptoms of that—

Justin:

Mm-hmm.

Sydnee:

Providing supportive care while that's happening. Specifically, like, drug withdrawal. So, when we talk about opioid detoxification or alcohol detoxification, that is not what I'm talking about. That is—that has nothing to do with this kind of detoxification.

Justin:

The fact that we have to draw a parallel between real detoxification and what we are talking about, uh, should speak volumes.

Sydnee:

That already says something. Thank you to Jack for recommending this topic and Justin, yes, you did too. I will give you credit. You did.

Justin:

A lot of—there's a surprising number of Sawbones shows that start with, Sydnee, I read about this thing and I was thinking about trying it. Is that a thing?

Sydnee:

No, don't— don't do that. Uh, the detoxification is based on the idea that there are unspecified toxins out there, somewhere, and that we need to remove them. They get—they accumulate in our body and we have to remove them through some sort of method, that usually involves puking, or pooping, or peeing, or sweating, or there are a lot more creative ones than that, but something to that effect. Um, this—this concept, and this is something that people who are proponents of detoxes will tell you, is indicative of how it's real.

Justin:

Mm-hmm.

Sydnee:

This concept goes back to— really to the humoral system of medicine, you know? The idea that you have four humors in your body that need to be balanced, and when you have an excess of something, something can build up and you got to get rid of it. It's kind of the same concept because basically, what you will do then is take some sort of noxious substance that will make you dramatically expel stuff from your body through an orifice, and then you will be, you know, back in balance and detoxed, so to speak. Um, but this also involved, like, bloodletting, and enemas, and...

Justin:

But supporters like point to the fact that used to happen as proof of validity?

Sydnee:

Yes. The fact that the idea of detoxing is ancient, obviously means it must be real.

Justin:

Folks, if you gain nothing from listening to Sawbones...

Sydnee:

[laughing]

Justin:

Let it be this, uh, there's actually a name for this, the appeal to ancient wisdom, is a logical—

Sydnee:

Mm-hmm.

Justin:

... fallacy that because ideas are, um, uh, old, that they're...

Sydnee:

Good.

Justin:

... good.

Sydnee:

And right.

Justin:

Um, or, what is it Tim Mitchen says in White Wine in the Suns, just because ideas are persistent doesn't mean that they're worthy? Like, this idea that, uh, like, Sawbones is nothing if not, like, hundreds—

Sydnee:

... a testament to that.

Justin:

... plus hour long podcasts about how ancient people did not know what they were doing. [laughs]

Sydnee:

No, and just because something has stuck around and people continue to do it, doesn't always mean that it works. There are lots of reasons people continue to do things.

Justin:

People press elevator buttons multiple times.

Sydnee:

Over and over again, even when they're lit up. Um, Hippocrates, particularly, believed in fasting as a way of purifying the body. And various fasts are part of detox programs, but this was also, it wasn't just purifying your body, it was also a way of purifying, like, your mind, and your soul, and a way to, you know, kind of become one with yourself.

Justin:

Mm-hmm.

Sydnee:

So to speak. Um, in Ayurveda, uh, I think you see a more clear, um, corollary to what we think of as detoxing now in the Panchakarma, which is the idea that toxins need to be cleared out of your system first, like th—that's where they actually state, like, there are toxins in your system, you gotta get 'em out, the only way to get 'em out is to either puke. So, take this thing that'll make you throw up, or here, do a bunch of enemas with various things in them, or bleeding, you know, bloodletting.

And then, once you do that phase of it, once all the bad stuff is out, you have to do like a neutralization kind of phase to get over the trauma of expelling all this stuff from your body where you use, like, not so dramatic things like herbs, and heat, and sunbathing, and fresh air, and you eat a lot of warm foods, and this, like, balances you back out now that you've expelled all the toxins.

Justin:

Okay.

Sydnee:

Um, and this is also kind of similar in the idea of, like, Native American traditions where they use, like, fasting or sweat lodges, that idea. But again, that's more tied to, like, a spiritual detox, you know?

Justin:

Right.

Sydnee:

Like, all this isn't purely a physical idea. You're getting rid of physical and— and soul toxins.

Justin:

If it's spiritual, and by extension, mental, I can see some validity to that as long as it wasn't physically harmful because I think that those sorts of circumstances can provide a sense of clarity. Not endorsing sweat lodges, obviously, but...

Sydnee:

Well, and I—

Justin:

... I have never done one of those.

Sydnee:

I think the only danger, I understand what you're saying, and I think a lot of people say, like you sit in a sauna and you feel really great after sweating for a while. But the only problem is that for some detoxes, if they're really dramatic, I mean, there can be physical consequences to getting really dehydrated and sweating a whole bunch or puking a whole lot or using enemas certainly. So, I think, you know, there are medical consequences, and we'll get into some of those.

Um, in traditional Chinese medicine, this is addressed more through the removal of blockages that your body is going to allow toxins to flow through it normally, but they can be blocked, you know?

Justin:

Mm-hmm—

Sydnee:

By different energies and what not. And that has to do with like the theory behind acupuncture, you know, freeing these blockages and allowing things to flow through naturally. So, not so much that you need to do something—not that there are extra toxins in your body that your body can't get rid of, it's just every once in a while your body, like, gets backed up.

Justin:

Okay.

Sydnee:

And acupuncture usually can help that out. Um, and then this concept that—that from all these ancient traditions has gotten a lot more intense now, I think because of these, also true belief that our environment is getting more toxic.

Justin:

Okay.

Sydnee:

That we are being exposed to more chemicals and heavy metals and industrial waste products than we were in ancient times.

Justin:

Yes, almost assuredly true.

Sydnee:

Surely we are. And I—now, that doesn't necessarily mean that our bodies aren't equipped to deal with it, as I'll get into. But, because we're being exposed to more, the idea that we need to do more dramatic things more often to free ourselves of these unspecified toxins has become more intense.

Justin:

Okay.

Sydnee:

And I would throw in there that's where a lot of people, um, get the GMO non—GMO foods, non-genetically modified foods.

Justin:

Please, let us not get started on that.

Sydnee:

I know. I know.

Justin:

Please.

Sydnee:

I'm okay with GMO foods.

Justin:

Obviously.

Sydnee:

I'm fine. I'm fine with them.

Justin:

They fed millions of hungry people.

Sydnee:

Yes.

Justin:

They're miraculous. Everyone stop it.

Sydnee:

So, let's go through some of the different ways that you can detox yourself. The classic example is a diet.

Justin:

Should I just do them as you mention it, just like do—

Sydnee:

Do you wanna just, yeah—

Justin:

I'll just do them as you go through.

Sydnee:

That's the risk of this. As I go through this, Justin is definitely gonna be taking notes to do these. I'm sorry, I love you, but you so easily fall victim to this stuff.

Justin:

Not anymore. I've found that, like, there's definitely an intersection between willpower and these things.

Sydnee:

Mm-hmm.

Justin:

Like, I did a juice fast. I probably told the story on this show—

Sydnee:

I think you did.

Justin:

I did a juice fast until lunch.

Sydnee:

A day.

Justin:

Well, it was Halloween, and then everybody starts busting out sick candy, like...

Sydnee:

[laughs]

Justin:

Well, no. I guess I'm done with this juice fast.

Sydnee:

One of the oldest ways of detoxing your body was just through dietary methods, mainly through not eating, but also ingesting substances that would help to flush your system, cleanse your system. So, like lemon and water is a popular thing, even today, that's supposed to, like stimulate your digestive enzymes, and it's a good antioxidant, and then, on top of that, you also fast, you eat very little.

If you do eat something, it's liquid. That's where you get, like, the juice cleanse and that kind of thing that comes in. And then, a lot of these detox diets will eventually let you eat food again, but you, like, introduce it step wise and you start with raw foods and you don't eat anything that has preservatives or artificial colors...

Justin:

Yeah.

Sydnee:

... and nothing that's processed.

Justin:

Ease back in.

Sydnee:

Yeah, exactly. And you stay away, and— and I mean, permanently in a lot of these detox diets.

Justin:

Which, you think, funny enough, like, that would probably, I feel like that would be primo time to eat garbage, right? Like, I've so much garbage room in there. Like, if I just got rid of all my toxins, like, let's have a little fun, right?

Sydnee:

I'm assuming if you really, like, buy in to these detox diets, you're going to try to incorporate some of these things into your, like, continued diet, though.

Justin:

Mm-hmm—

Sydnee:

Like, you're gonna continue to stay away from processed foods, and sugar, and that kind of stuff. That would be my guess. But, I mean, maybe people don't—

Justin:

I mean, there's worse things to do than that.

Sydnee:

Um, th—for sure. There's—this is also where, like, a lot of the fermented foods, and we've talked about this before on the Kombucha episode that if something's fermented, it's better for you.

Justin:

Right.

Sydnee:

Uh, the—it's—this belief of the detoxification that it provides. Um, the master cleanse was an early example of a detox.

Justin:

Very buzzy.

Sydnee:

Yeah.

Justin:

I feel like that one got very buzzy.

Sydnee:

Exactly. Water, lemon juice, cayenne pepper, maple syrup. There it is.

Justin:

The last one's fun. That seems like—that seems like somebody was making a cleanse and there four year old was like, "And now syrup." Like, no, I'd rather, "Syrup, put it in!"

Sydnee:

Maybe they just squirted it in there and they were like, meh, I don't wanna make another one.

Justin:

I don't wanna make another one, let me try this.

Sydnee:

Sure.

Justin:

Oh, you know what, actually, that does taste better because of the maple syrup.

Sydnee:

[laughs]

Justin:

Excellent.

Sydnee:

Uh, my sister used to make concoctions in the kitchen all the time and try to make us drink 'em.

Justin:

Sure.

Sydnee:

I feel like this is where that came from.

Justin:

[laughs]

Sydnee:

Uh, there are also a lot of supplements. Um, one great example of these that I've found were just non—specific detox capsules. So, capsules that will detox you, that I saw on Goop, which I don't talk about Goop enough.

Justin:

Yeah. We should—we should talk about Goop more.

Sydnee:

Goop, of course, is Gweneth Paltrow's, uh, lifestyle healthy living website.

Justin:

Mm-hmm. It's actually her initials.

Sydnee:

Is that where that comes from?

Justin:

Did you know that?

Sydnee:

No.

Justin:

Gweneth Octavian...

Sydnee:

No, it's not.

Justin:

... Otipus Paltrow.

Sydnee:

I believed that. [laughing]

Justin:

That's—it's her—it's her initials.

Sydnee:

So, these detox capsules have—so, these are the ingredients. They have probiotics, so those are, you know, good bacteria. They've got some random, like, organic psyllium, slippery elm, linseed, barley, clay, and those are like the initial capsules and you take that morning and night, and then it's part of a whole program because, like, you throw in there, they have some specific drops for your liver and kidneys that do something to them.

Justin:

Ju—just juice 'em.

Sydnee:

Uh, who knows.

Justin:

Get in more time.

Sydnee:

Just phytonutrients. So, like, plant stuff is in there too. There's another bottle of that, and then there's like an antioxidant supplement. So, like, it's a whole package by the way, of course, it's kind of expensive.

Justin:

And it's all free. No, oh, right. Sorry.

Sydnee:

No, no, no.

Justin:

I should've been quicker.

Sydnee:

And—and basically, this supplement detoxes, like, just take all this while you're doing your detox, whatever your detox is, this will support you through the detox process.

Justin:

Mm-hmm. Mm-hmm. If I'm gonna take something to supplement the fact that I'm just drinking lemon juice, like, if that's not enough for my body, I don't know what it needs. Like, please, I'm doing the hardest thing.

Sydnee:

Uh, well, uh and I don't, I don't know that, I mean, other than, like, the probiotics are like a good idea, I don't know that the rest, I mean, the rest of the stuff, I don't know if it will make anything happen even. I don't know if it will make you poop more, or pee more, or anything, or just be there.

Justin:

Just be in the moment.

Sydnee:

Just be in you.

Justin:

[laughs]

Sydnee:

That's it. I don't know. I mean, if there's—if somewhere in these non-specific drops, if there's vitamins or something, I guess that's kind of helpful.

Justin:

Sure, why not. You're not getting any from food.

Sydnee:

I don't know. Um, let's move onto the other end. Let's talk about enemas and colonic cleanses.

Justin:

Yes.

Sydnee:

We—we've talked a little bit about cleanses before on the show. So, I won't belabor some of these. But, I will mention, these do date back, again, to ancient times, ancient Egyptians practice colonic flushes. The idea behind it is that... and I would say this is probably because the stuff that comes out of you, typically doesn't smell good.

Justin:

Poopy.

Sydnee:

And the stuff that comes out of your butt doesn't smell good.

Justin:

There's a name for it.

Sydnee:

Right.

Justin:

There's a clinical name for it.

Sydnee:

Stool.

Justin:

Poopy.

Sydnee:

Feces.

Justin:

Feces.

Sydnee:

Yeah. The—so, they thought that stuff decomposed in your intestines and would make you sick, uh, especially, like, if it got stuck to the walls inside because you weren't going to the bathroom regularly, and you would start to reabsorb all this toxic stuff that was decomposing and you'd get really sick. And so, then you needed to flush it out. Um, and that's where the colonic flushes came from. And so, you could basically squirt water with various herbs or whatever up your butt.

Um, in Germany in the 1920s, we see like the coffee enema, which was a big buzzy thing to do, because then you get the, uh, you know, you get the impact of flushing out your colon, just like you do a regular enema, plus it was thought that the coffee stimulated the liver and opened up all your ducts in your liver so you could flush everything out of your liver as well.

Justin:

I just don't understand... I tend to look at these things through a lens of like biology, and I know, obviously, there are like things that we can take that are not already in our bodies or in nature that are useful to us, like for sure. But, I just don't understand. Like, if you believe in evolution, or God, I'm gonna use God as a stand in here. Uh, like, if you believe, and I'm—I'm saying throughout all of time and space, right? Like, if you believe that God made human beings, in what reality do you think God was done with people and he was like, "Well, the one thing that would be good is if I gave them somewhere a tube they could stick up their butt and blast it with coffee."

Sydnee:

[laughs]

Justin:

"Well, gosh, it's getting pretty late, and I just—the sixth day is almost over, so I do need to wrap this up. Um, I, you know what, I'm just gonna give them brains and creativity and hope they—"

Sydnee:

I hope they figure it out.

Justin:

"... figure it out someday that I did want them to do this. I did want that to happen as part of my miracle that I've made, but I just don't have the time right now."

Sydnee:

Uh, that's like the—is it like the watch maker theory, is that what that is?
[laughs]

Justin:

What?

Sydnee:

Just put all the gears in place and set it turning?

Justin:

Yeah. Just—

Sydnee:

Just wait for them to find the enema.

Justin:

Wait for them to find it. I'm gonna put coffee beans on Earth, and I do have plastic tubes on Earth. So, okay. You know what, I'll just do bamboo. Okay. I put bamboo, and I put coffee on there, and certainly they'll get it from that, right? They'll get it.

Sydnee:

Well, we did.

Justin:

We did.

Sydnee:

I mean, there you go. We did. And we—

Justin:

We did it. Thank you, we did it! Hey, good news, God!

Sydnee:

We got it.

Justin:

We got it.

Sydnee:

And—and I mean, and the similar practice, I mean, even today, the idea that you can just, like, flush your colon out with stuff to make you better. I mean, that's it's not that much more complicated—

Justin:

I get the impulse of—

Sydnee:

Like, it's—I mean, that's still—

Justin:

Yeah.

Sydnee:

... kind of the same idea. You can use different substances, but at the end of the day, there you go.

Justin:

I get the idea. Like, it seems dirty in there, I get it. But, like, your body's getting it out.

Sydnee:

Right.

Justin:

For you.

Sydnee:

Exactly. Like, I know it seems dirty in there, but like, we're good. It's made to—it's where the dirty goes. You have to have a place for the dirty!

Justin:

It's where the—the bathroom. It's where the dirty goes.

Sydnee:

[laughs] Another—another popular detox program, device, I don't know, you know those foot pads?

Justin:

Mm-hmm.

Sydnee:

So, there—there are these little sticky pads that you can put on your feet, and what they're supposed to do is draw out toxins and balance you and give you energy by removing all these toxins from your body.

Justin:

Mm-hmm—

Sydnee:

And, the way you can tell that they work is that they turn brown after you do that.

Justin:

Right, Mm-hmm—

Sydnee:

Like, you stick 'em to your foot and then you take 'em off and they're brown. Um, they, the problem with them is that they don't work. Because—

Justin:

[laughs] The only hang up.

Sydnee:

The problem is they don't work because, uh, first of all, very simply, they've been tested and reviewed by just taking them off of your foot and they're all brown and nasty and you're supposed to have heavy metals in them, and so, they tested them for heavy metals and there weren't any heavy metals in them. So...

Justin:

Mm-hmm.

Sydnee:

There you go. Also, they turn brown if you get them wet, at all.

Justin:

So, I guess, there—no one will ever buy them again, right?

Sydnee:

Oh, well.

Justin:

It's kind of like ear candling, right? Where, when you burn the candle, and you open it, you're like, whoa, look at all the junk that was in my ear. But, no, there was wax—

Sydnee:

There was wax in the candle. Exactly. It's the same idea. Um, a lot of proponents of this practice will argue that the reason that the—some of the ones you buy don't work is that you're only supposed to use ones that have been, like, treated with vinegar that's been fermented for nine years. And if they're—your pads have not been treated with that special vinegar then they don't work. So...

Justin:

Yeah, okay.

Sydnee:

Obviously that's the reason.

Justin:

Yeah.

Sydnee:

Um, one strange note I found in my detoxing research is that, uh, there are some people who, uh, and I mean, a lot of the people who recommend this other than, I guess, some celebrities are, um, practitioners of maybe like naturopathic medicine, probably some homeopathic...

Justin:

Mm-hmm.

Sydnee:

... Practitioners.

Justin:

Fake. Fake.

Sydnee:

Yeah. So—so, people who, well I'm not saying, not— not, I'm not lumping naturopathic and homeopathic in the same, I don't want to put them together.

Justin:

Okay.

Sydnee:

Homeopathy is fake.

Justin:

Yeah.

Sydnee:

Let me say that, straight up.

Justin:

Yes.

Sydnee:

But, just who might be recommending these things to you.

Justin:

Got it.

Sydnee:

Um, one suggestion is to remove all your dental fillings because they're metal. [laughs]

Justin:

Hmm! And why did you need them in the first place?

Sydnee:

This is not good. I would say that, uh, my dentist friends would say don't do that, that they're in there for a reason and also, I think it, like, aren't they like structural at that point? And if you just, like your teeth will...

Justin:

You're avoidance of dentists is showing. You're taking wild shots here.

Sydnee:

I don't know.

Justin:

People who go to the dentist, uh, give Sydnee a shout out and just let her know.

Sydnee:

Doctors don't know anything about teeth anyway. Anyway, don't— don't remove your dental fillings please, especially on your own, please.

Justin:

Okay. I gotta have more Sydnee, I'm— I'm crazy about this stuff.

Sydnee:

I'm gonna tell you Justin, but first, why don't we go to the billing department?

Justin:

Let's go.

[theme music plays]

[ad break]

Justin:

All right Syd, you had another one for me you were gonna tell me about.

Sydnee:

That's right. I want to spend a little bit more time on this, it's called chelation. You heard of chelation Justin?

Justin:

It sounds familiar.

Sydnee:

So, the concept of chelation or chelation therapy dates back to Alfred Warner who discovered the process of, um, binding metals with other substances.

Justin:

Mm-hmm.

Sydnee:

That—that's basically like chem—from a chemistry standpoint, that's what you're doing.

Justin:

Okay.

Sydnee:

You're binding metals, and that's chelation. And this is back in 1893. It was initially used in some, like, industrial purposes, like in textile processing, and places like that. But, it was eventually found to have some medical applications as well. Initially, it was actually used just in like test tubes, um, specifically one chelating agent, which is what I'm going to focus on quite a lot called EDTA. Um, it was used in test tubes, the purple top tubes, to help collect blood and keep it from, um, clotting and to stabilize it, and that kind of thing.

So, that was its initial medical application, was just this kind of not preservative, but think about it similarly. Something you would have in a test tube before you collected blood. Uh, but dating back to the 1930s, we also discovered that chelation could be used in humans if they were exposed to metals, heavy metals, toxic levels in their bloodstream, that you could use certain agents, initially EDTA, to clean, kind of cleanse that out of the bloodstream.

So, these are in situations of toxic metal exposure is what I'm talking about. So, for instance, lead poisoning.

Justin:

Okay.

Sydnee:

We would use a substance to bind the lead in the blood and get rid of it.

Justin:

Okay.

Sydnee:

So, that was what it was initially, like, very specific toxic exposures.

Justin:

Like a chemical bouncer.

Sydnee:

Yeah.

Justin:

That enters the night club of your body and removes the unsavory elements.

Sydnee:

It binds with the unsavory elements and drags them out. Uh, during, like, another example during World War II... during World War II, there was another chelating agent, um, British anti-Lewisite, also capped dimercaprol, but anti-Lewisite probably tells you what it does, it binds leucocyte, which was this arsenic based chemical weapon.

Justin:

Mm-hmm.

Sydnee:

Um, and it could be used to remove this arsenic based toxin from your bloodstream. However, things get kind of confusing in the 1950s when we start to see that patients being treated with EDTA for lead poisoning, seem to have some improvement in their heart disease as well. This was kind of this just random finding after... after doing these, uh, doing these studies on lead poisoning.

This led to the theory that maybe chelation could, in some way, we'll say dissolve to kind of talk—just to talk about what we're—to visualize it, dissolve coronary artery disease, atherosclerosis, the stuff that builds up plaque in your arteries.

Uh, so because this kind of theory was out there, we have this hypothesis, throughout the 1960s, there are a lot of studies done on this treatment to try to figure out, is this true? Could we really use this as a therapy for people who have really advanced heart disease to lessen their chance of having heart attacks, right?

Justin:

Okay.

Sydnee:

Um, but it wasn't really conclusive. There was nothing that really showed that this actually, like, it wasn't well replicated. We couldn't explain why we saw it before and we weren't—we weren't having a lot of luck replicating it again. And, it was not accepted widely by doctors. But, despite that fact, there were practitioners using it. A lot of people jumped on this bandwagon pretty quickly, even though studies were not necessarily supporting its use.

Justin:

So, some of them definitely did happen.

Sydnee:

Yes.

Justin:

We just don't know why.

Sydnee:

Well, it could have been random. I mean, it—it, we have no idea.

Justin:

Yeah.

Sydnee:

If you can't replicate it, you have to wonder if it wasn't just a coincidence. Um, now, in the 1970s, it becomes popularized just for more than just heart disease. It becomes part of, um, alternative medicine as a way to, let's say, remove anything else that might be floating around in your bloodstream that you didn't know you were exposed to.

So, we start to see it, like, it's use even more broaden, especially throughout the 1980s, not just for coronary artery disease and any other kind of vascular disease, but the idea is that you're constantly being inundated with toxins and heavy metals that you don't know about, and so why don't we just kind of like give your blood a nice cleansing, you know, stick this EDTA in there.

Justin:

Right.

Sydnee:

Get all of the bad stuff out and then you'll be better afterwards.

Justin:

Okay.

Sydnee:

Um, it was thought that it reduced free radicals in the body by removing the heavy metals that formed them, and then, this was the argument for why it treated heart disease, but this was also an argument used to support its use to prevent cancer, to help with diabetes, arthritis, vision, immune system function, osteoporosis, mental function...

Justin:

Listing a lot of things Sydnee.

Sydnee:

It's starting to sound like a cure all.

Justin:

Little bit.

Sydnee:

Uh, proponents, 'cause this is still—this is still in practice today. We'll argue that it is not accreted in medical circles, um, because EDTA fell out of patent, and that was the big argument is that once drug companies couldn't make a lot of money off EDT— EDTA, nobody was interested in pursuing it anymore.

So, that was one of the biggest, that's where you see, like, that happens and that argument becomes the main stay of why we're still doing it. Um, along with the idea that once we invented coronary artery bypass grafting, so open heart surgery, that it was so much more expensive, that we would rather do that. It's, you know, it's us evil doctors, we'd rather open your chest and put you through a risky surgery than give you a chelating agent, even though we know, shh, we know secretly it works.

Justin:

Yeah.

Sydnee:

Um, so they thought it was so profitable that the medical industrial complex killed it and that, um, also, there was this one time when they were using chelation therapy on a kid and they had a terrible interaction and died. So, there was also that.

Justin:

That one did happen.

Sydnee:

That one did happen. Um, but mainly it's because we're trying to hide a secret treatment from you.

Justin:

Mm-hmm, okay. Now, that doesn't happen at all on Earth, right? That's not how doctors work.

Sydnee:

No.

Justin:

I hate to side with you for like 20 seconds. But, like, that's not how doctors work, right?

Sydnee:

No. No, not at all.

Justin:

Maybe hospitals and maybe in—almost surely insurance companies.

Sydnee:

Yeah.

Justin:

I'm would get— I would not put that past either of those entities, but individual doctors, if they know something works, and it's really cheap, they're gonna give it to their patients.

Sydnee:

Oh, absolutely. My—my goal is to find the—especially the least harmful way of taking, I mean, that's part of my oath, and surgery, while absolutely it

can save lives, is still risky, and if you can do something that isn't surgery that is much safer, why wouldn't you?

Justin:

This is where these people lose me. This is where these people lose me, 'cause I— I try not to— to— to ... I don't wanna be down on anybody, especially people who are not hurting people, but these people were so anti-medicine, they're anti-science and anti-medicine. That kills me.

Sydnee:

Yes.

Justin:

That, and—and you know what? These days, I have increasingly little patience for people who are just making crap up. It—it drives me up a wall.

Sydnee:

And, the thing is, there was something that happened with these patients who were treated for lead poisoning where they're— they seem to improve in terms of their heart disease, but if we wanna know the answer, what we do is something like a big giant trial to assess chelation therapy. So, we did the trial to assess chelation therapy in 2012, right? And that's what it was called TACT.

Justin:

A great name. A fine name.

Sydnee:

We like—we like things that make words. So, it was called TACT. And, at the end of it, they really found no significant differences in chelation and non-chelation groups overall after analysis. There were some—there were some things that looked a little promising, but then once they looked at the study groups, there were some important differences in the study groups that probably explained them. So, at the end of the day, it was still not advised by any medical organization for anything other than, you know, actually toxic exposures like lead poisoning.

Um, a couple less, I think, uh, anger inducing things that I found.

Justin:

Please.

Sydnee:

Um, one is dry skin brushing, which is exactly like it sounds, you brush your skin with a dry brush. Uh, and the idea is that there's all this environmental goo out there that's clogging your pores, and then if your pores are clogged, you can't detoxify yourself through your pores, so you have to like, vigorously rub yourself with a brush and it will help your immune system, and boost your circulation, and sweep away all the dead skin cells, and stimulate your lymph nodes, and improve your digestion, and improve the appearance of cellulite, and help the cells in your body remove waste.

Justin:

Folks, folks, I love a nice loofah as much as anybody.

Sydnee:

[laughs]

Justin:

You can't just make it a medical treatment 'cause you want it to be, okay? Just enjoy your loofahing.

Sydnee:

It does remove dead skin cells.

Justin:

Yes, it does.

Sydnee:

I can vouch for that.

Justin:

Yes.

Sydnee:

Uh, and this is often advised, again, as part of detox programming, as well as, like, daily maintenance. Like, just give yourself a good dry rub.

Justin:

Al—also—

Sydnee:

You know, like a chicken wing.

Justin:

Also, cellulite is a marketing term. So, if people say cellulite, they mean, just like fat, just like, that is in your body, and cellulite isn't real either. It appeared in Vogue in 1968. It's not real. Okay?

Sydnee:

Thank you Justin.

Justin:

So, if you see someone talk about cellulite, they just mean fat. It's not gonna target it with brushing it. What are you talking about?

Sydnee:

This—this last one is a lot more fun. Have you heard of rebounding, Justin?

Justin:

No. Yes. After I try one of these crash diets, I rebound and eat a bunch of cereal.

Sydnee:

Rebounding is when you jump gently on small trampolines.

Justin:

Oh, okay.

Sydnee:

[laughs] This is my favorite.

Justin:

And this is a cleanse?

Sydnee:

I've never heard of this. This is, I think that this could be also just, like, trampoline exercise. But, I guess if you, I guess those tiny trampolines are supposed to be called rebounders, which I didn't realize that. I didn't know that was, like, a term for a small mini tramp.

Justin:

Okay.

Sydnee:

It's a rebounder. Uh, it became popular in the '80s because NASA did a study that real—that on trampoline exercise, and it showed that it was a good option for astronauts, you know, in space—

Justin:

Right.

Sydnee:

To maintain bone and muscle healthy, specifically because of the weight bounding, the weight, uh, um, bearing affect, that it was good to maintain bone health. We talked about this on the, um, medicine and space episode, that you can lose bone mass.

Justin:

Trampolines work in space?

Sydnee:

I, yeah.

Justin:

That seems unlikely.

Sydnee:

Well, I—I imagine you have to be, like—

Justin:

Weighted.

Sydnee:

I don't know, weighted in some way.

Justin:

Seems weird.

Sydnee:

Yeah.

Justin:

Seems weird to me.

Sydnee:

But anyway, they did this— they did this theoretical trial on like, what if we give— what if we give these little teeny trampolines to astronauts, and they found some evidence that maybe it's good for bone and muscle health. Um, and— and it helps to prevent you from putting undo stress on your body because of the bouncing affect, whatever. So, from this, came claims that also it improves your immune system, and it boosts your lymphatic drainage, and it's gonna detoxify all of your cells.

Justin:

Not from NASA.

Sydnee:

No, not from NASA. NASA just said, like this is good for your bones, you should jump on a small trampoline, that's all it is. It's like, you put it in your bedroom, and, like, every morning you get on your trampoline and, like, jump very gently on your tiny trampoline for, like, 15 minutes.

Justin:

Mm-hmm.

Sydnee:

Okay?

Justin:

Hey, Sydnee, at some point, can we talk about hanging upside down? 'Cause it seems like a lot of people in super hero movies do that, like, Bruce Wayne did it—

Sydnee:

Yeah.

Justin:

In that one Batman movie.

Sydnee:

I'll look into the history of hanging upside down.

Justin:

Look into that for—look into that for me. See if there's any hot—hot stuff there 'cause I'm—I'll try that.

Sydnee:

I will. I—I hope rebounding's okay overall 'cause we let our daughter do it on her tiny trampoline.

Justin:

Yeah. That's true.

Sydnee:

She has a handlebar though, so it's quite safe.

Justin:

Yeah.

Sydnee:

I—do you, Justin, do you know how we really detox our bodies?

Justin:

Your liver.

Sydnee:

That's number one.

Justin:

Your colon.

Sydnee:

There you go. You're just reading.

Justin:

Your kidneys. I knew liver and kidneys.

Sydnee:

So, our bodies are really good at detoxifying. I know that— I know that in ancient times, we were not exposed to the amount of environmental toxins that we are now. I understand that. But, we've always been exposed to substances out there that we don't need and could harm us. And so, we've had to have systems in place to get rid of the bad stuff. We are—our bodies do that already.

So, first of all, our liver. Everything you ingest or inhale that enters your bloodstream, passes through your liver. And, it does lots of things for you, but part of it's function is to take toxic substances and transform them into harmless, water soluble, so they dissolve in water, compounds that can then

be excreted from your body, that's its job. It doesn't store toxins, so it doesn't need to be cleansed of toxins.

So, when people talk about detoxifying your liver, that doesn't make sense. It's not storing them. It's getting rid of them for you. Um, and even in cases when the liver isn't functioning properly, maybe because you have chronic liver disease, there's no evidence that any of these detox things help that. So, like, people have tried that. Well, like, what about when—in, what about somebody whose liver isn't working very well?

Well, none of this stuff that I mentioned is going to fix that problem for you.

Justin:

Right.

Sydnee:

Uh, your colon is part of your detox system as well. It disposes of waste products after the rest of your intestines have absorbed all the good stuff from it, your colon is in charge of getting rid of all the bad stuff. It doesn't need to be cleansed or washed out. In fact, it's full of good helper bacteria that you absolutely need.

All those probiotics that you wanna take in a pill? Well, you are chock full of them and you don't wanna wipe 'em out, and the last thing you wanna do is constantly irrigate your colon and disrupt that, especially because colonic irrigation, if done improperly, can cause pain, vomiting, diarrhea, electrolyte abnormalities, kidney failure, liver failure, perforation of the wall of your colon, and possibly death.

Justin:

But, what a way to go.

Sydnee:

[laughs] With a coffee enema?

Justin:

With a coffee enema.

Sydnee:

And then, finally, our kidneys, our beautiful kidneys. They filter our blood. They eliminate waste products. They save water and good stuff that we need. Their design is amazing. Our kidneys our beautiful. Do you know that

they're made to, if they take a really bad hit, they just, like, they completely stop functioning and then rebuild themselves better than before. Because if your kidneys just took a hit and like got scarred up and then kept on going, I mean, our kidneys would all fail pretty early in our lives because they take lots of hits, they don't. They just, like, if you—if you do enough damage, they'll just like, stop, take a breather, they'll go on a quick sabbatical, and then come back full force.

And modern medicine, we can help you through your kidney sabbatical these days.

Justin:

Mm-hmm—

Sydnee:

Kidneys are beautiful. Anyway—

Justin:

And you should give—you should give your kid—kidneys the week off every year, at least. I feel like it's only fair.

Sydnee:

A kidney sabbatical.

Justin:

The kidney sabbatical.

Sydnee:

No.

Justin:

Let them spoil themselves. They then fry themselves.

Sydnee:

No, take care of your body, of course. I'm not saying that because your liver, and your colon, and your kidneys are up to detoxifying you that you should be ingesting large amounts of harmful substances just to like put them through their paces. They're not gonna get bigger, or badder, or stronger. Of course you should exercise, and eat healthy, and drink plenty of water, and, I don't know, avoid drinking poison. That would be good.

Justin:

[laughs]

Sydnee:

You don't need to do anything else special to detoxify your body. Your body is very good at detoxifying itself.

Justin:

Thank you Sydnee, uh, for all of that information. It's going to take a while for me to— to process it. So, if I do accidentally do any detox diets, any interim as I'm sort of processing, I'm assuring—uh, I hope you'll let me know.

Sydnee:

Yes, I will berate you for it.

Justin:

Thanks. Um, that's gonna do it for us folks. Thank you so much for listening. Um, we—we hope you have enjoyed yourself. I wanna say thank you so much to the Taxpayers for letting us use your song Medicines as the intro and outro of our program.

Sydnee:

And, if you like all the detox talk, Justin, next week, you don't even know this, our episode will continue on this detox with a very specific detox that I am so excited to tell you about.

Justin:

Excellent. Well, Sydnee I look forward to that. Uh, but until then, uh, my name is Justin McElroy.

Sydnee:

And I'm Sydnee McElroy.

Justin:

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

[theme music plays]

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