Sawbones 557: Do You Know About the Penis Fish?

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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!

["Medicines" by The Taxpayers plays]

Justin: Hello, everybody! And welcome to Sawbones, a marital tour of misguided medicine. I'm your co-host, [sings] Justin McElroy!

Sydnee: And I'm Sydnee McElroy. I'm not gonna do that.

Justin: Sometimes I pretend Oprah's introducing me.

Sydnee: Oh?

Justin: Because I think that would be really exciting, for her to be like—because I didn't really overlap my—when my star was at its zenith, Oprah's star was at its zenith—it was a very different time. So, I never got my chance on Oprah.

Sydnee: I reject this idea that your star is at—has reached its zenith at some point in the past.

Justin: Well, that was when I married you.

Sydnee: Aw. I don't think you get to go on Oprah because you married the love of your life.

Justin: Sometimes you do. [chuckles]

Sydnee: [titters]

Justin: If you write a very good book about it, and Oprah loves it, and puts it on her… her must list.

Sydnee: Well, I think all this talk of Oprah is very appropriate, because Justin, look under your seat!

Justin: [gasps] Hah?

Sydnee: It's a brand-new car!

Justin: It's not… what?

Sydnee: There's a car under your seat. I can't believe you looked. There's clearly not a car under your seat. [titters]

Justin: I don't see the car. [titters] What did you say that for?

Sydnee: Well, it's just a joke.

Justin: What's the payoff, that there's not? [chuckles] Is that the punch line, that you lied?!

Sydnee: It was a trick. [titters]

Justin: It's, okay, babe, you gotta help me—

Sydnee: It's a trick—it's a joke trick! [titters]

Justin: Listen, we're—I'm working so hard to teach the girls what jokes are. You cannot record stuff like this in the podcast, and then have them point to it like, "I don't know, Mom said that was a joke? I—"

Sydnee: They don't listen to our podcast, it's okay.

Justin: Fair enough. Fair enough. You know who does listen to our podcast? People who have questions about their own bodies.

Sydnee: That's right, Justin, we're gonna do some weird medical questions.

Justin: That's right.

Sydnee: I like, by the way, the subject heading that we always ask you use. If you want to send us a weird medical question, just put "weird medical question" in the subject, because that's how I—when I do these episodes, that's what I search for in our email, and then I piece together from whatever we have. But I—it has now spawned another genre of questions that are specifically called "not weird medical questions" that I get emails about. [chuckles] I'm not sure what… I don't know if that's another episode?

Justin: Yeah.

Sydnee: But I don't know what those are then.

Justin: So, yeah, unweird, normal, everyday—

Sydnee: [titters] Very normal medical questions. But these are weird ones.

Justin: All right, you ready for a weird one?

Sydnee: I'm ready.

Justin: "I've recently been dealing with athlete's foot and have tried multiple products with not much luck. I recently brought up my issue with a family member, and they told me the best way to cure athlete's foot was to pee on it, and suggested I pee on my foot during my shower to clear it up. Is this real, or am I gonna end up peeing on my foot for no reason? Thank you, Michael."

Sydnee: Justin, this is kind of like when we do like the quiz episodes. Do you—we've talked about pee—well, we talk about pee a lot on this show, right? Like all bodily fluids, we talk about a lot. But we've done a whole episode on pee, and all of its supposed uses, and why we may think that. Do you have a guess as to what—this is… See, this family member is not the only person who would suggest this. This is a common sort of… folk medicine thing. People will tell you to pee on athlete's foot. Do you have any guess as to why that might be a thing?

Justin: Well…

Sydnee: We talked about it on the show.

Justin: It's all about pH.

Sydnee: Well, it's about a specific substance that's in urine…

Justin: Blood.

Sydnee: Urea.

Justin: Urea—

Sydnee: Not blood

Justin: I was saying that!

Sydnee: Why do you think there's—

Justin: I said—I was saying urea.

Sydnee: Is there blood in your urine? [chuckles]

Justin: No, it was just something I said…

Sydnee: Because we need to talk about this off the show.

Justin: It wasn't—it wasn't—urea, that's what I was trying to say.

Sydnee: Yes.

Justin: I said "eureka." I was… eureka!

Sydnee: Oh?

Justin: Yeah, so that's what—

Sydnee: Eureka, urea.

Justin: Urea, eureka.

Sydnee: The reason that people believe this is probably urea, so, we've talked about this before, urea is an ingredient in a lot of actual skin creams, emollients, things to put on your skin intentionally. And this will be recommended to you sometimes my dermatologists, "Use this cream that contains urea for these skin conditions." So, that is a real thing. That urea is not derived from human urine. [chuckles]

Justin: Okay?

Sydnee: We don't have to do that. We can do it without getting nasty.

Justin: Oh, nice.

Sydnee: But that's probably why that belief exists. Now, I will tell you, urea will not fix athlete's foot, which is a—

Justin: *Ah*…

Sydnee: Yeah, it's a fungal infection of the skin, usually between the toes… athlete. And we say—it doesn't—you don't have to be an athlete to get athlete's foot. Like, anybody can get athlete's foot. But I think like if we're thinking of people who wear socks and shoes, and their feet are sweaty and they're wearing them for long periods of time, like you think of an athlete, I don't know—

Justin: Mm-hm.

Sydnee: Because they're doing that. But anybody can get athlete's foot. I take care of it an awful lot in my practice. And you need some sort of anti-fungal medication to treat it, so a cream or powder that contains terbinafine or miconazole, there's a whole bunch of 'em. And there's lots of over-the-counter treatments for athlete's foot. If it's continuing to not improve, it may be something to talk to your health care provider about. Double check, make

sure it is indeed athlete's foot. And are you using the right strength and duration, and are you cleaning your socks and your shoes, and all that kind of stuff. But anyway, don't—I would not suggest peeing on your feet. It will not help. And then you'll have pee on your feet.

Justin: Well like, so what?

Sydnee: Well, I'm not saying that's the end of the world, but like, if I'm gonna pee on my feet, I want to have… purpose. [titters]

Justin: Okay, good, I just want to—I didn't want to talk until we had isolated the audio clip, because I'm assuming people will want to use that as their text message tone, or something like that, is you saying, "I don't want to pee on my feet without purpose."

Sydnee: [chuckles]

Justin: Actually, I see a T-shirt in our future, a little bit.

Sydnee: Pee on your feet with purpose.

Justin: Ah, yeah. I think what it'll say actually is, "I don't want to pee on my feet without purpose," - Dr. Sydnee McElroy.

Sydnee: [laughs]

Justin: [titters] October 13th. Okay—[laughs] "Hi, Justin and Sydnee. Do you know about the penis fish?" [sings] Do you know about the penis fish? It's technically called cunderoo fish." Candeeroo fish? Candiru fish?

Sydnee: Mm-hm.

Justin: "I was wondering what would happen if the fish, instead of swimming into someone's… penis—"

Sydnee: Mm-hm.

Justin: "Swam into someone's vagina. Would the issue be the same, or maybe have a better outcome?" And that says, "Thanks, Max."

Sydnee: Have you heard of the penis fish?

Justin: I have not.

Sydnee: You've never heard this?

Justin: No.

Sydnee: This is a… this is a commonly—I don't—commonly held fear? This definitely is a story that is oft repeated, that there is a specific fish that is attracted to the smell of human urine. And so, if you're swimming in waters where this fish would live, it could be attracted to the scent of urine and swim up your urethra, because it's a small fish, and get stuck there. The idea is that it has some sort of spines on it that will keep it lodged in place. So if you try to pull it back out, it'll be kind of stuck there.

Justin: Sure, I understand.

Sydnee: Sorry, I can see you becoming… upset, as I'm describing this.

Justin: Oh, it's just the imagining of it is a hell to me. That's the only… that's the only thing.

Sydnee: [titters] So, there is a fish, the candiru fish. This is a real fish. Okay, so that part of it we know is true. This is a real fish. We do not have any confirmed cases of this ever happening, that we know of in medical literature. I'm not saying I 100% know everything that's ever happened on planet Earth. Obviously, I do not. But at this moment, I do not have credible evidence that candiru fish has ever swam up anyone's urethra.

Justin: At this moment. [titters] That's why we're launching a nationwide search! If you can demonstrate or train a candiru fish to swim up your urethra—[chuckles]

Sydnee: A lot of people point to a case in Brazil, in 1997. Actually, in Portugal, it was a Brazilian urologist in Portugal, who reported a case of removing one of these fish from a person's urethra. But there has been dispute since then of like the account. There are inconsistencies. We're not really sure that it was real. And then somebody actually did a study in 2001 to see, well, okay, the thing that has to be true here is that this fish is attracted to human urine, right? Otherwise, why is it trying to get in your urethra to begin with. And so, they added human urine to a tank of candiru fish to see if they would respond to it, and they didn't. So, they peed—they peed in a fish tank. [chuckles] And nothing happened.

So, as far as we know, I don't—I don't think this has ever actually happened. So, to answer the question, what would happen if it swam into a vagina, I don't know that I could really answer that, because… I don't think it's ever—I don't have any evidence to believe it's ever swum into a penis. So, there—

Justin: There you go.

Sydnee: Hey, fear dismantled.

Justin: Hey, not much of an answer, friend, but it's, you know, could do a lot worse.

Sydnee: I thought this was a thing that happened. So, I learned that this is maybe not a thing that's ever happened. But I can understand why it would be a myth that would catch on. It's… it would large… it would loom large in your fears if you thought this was true.

Justin: "Hi, Doctor and Notary Public McElroy—" Is it—is Justin still a notary public? Does that expire? "I work in a factory setting, and I frequently have to use little foam ear plugs that I compress, that expand in my ears. Nine times out of ten, I end up coughing when I put them in, because I feel a little tickle in my throat. As far as I'm aware, ear hole and mouth hole aren't connected. Is there an explanation for this phenomenon? Second to this, you frequently say not to put anything bigger than your elbow in your ear. Are these ear plugs even safe? They're called spark plug ear plugs, if you want to look them up. Thanks for all your hard work, Gregory."

Sydnee: Justin, would you like to address whether or not you're still a notary public first? Before—

Justin: Yeah, my commission does expire, but it has not expired yet.

Sydnee: So, there you go. Are you gonna renew it when it expires?

Justin: Oh, you and the other criminals of Huntington would love it if I let my badge expire, wouldn't you? But no, I'll be out there in the streets, watching people sign things… And then signing it to say they signed it. Just like for… always. Since 2022.

Sydnee: [chuckles] This phenomenon has a name. You are not alone in experiencing what we could just call the ear cough reflex, which, that pretty much…

Justin: That's it.

Sydnee: Explains it. Or the Arnold nerve reflex, is the eponym for it. But one way or another, there is—so, there is a branch of the vagus nerve called the auricular branch, auricular in reference to the ear, the ear branch, which innervates part of the external auditory canal. So, the ear canal, the external part, the part on the outside. And sometimes some sort of stimuli, so like a bunch of earwax in your ear, perhaps, or hair or something getting in your ear, like putting an ear plug in your ear, so a foreign body in your ear, can stimulate this nerve, and you will cough. This is not a common reflex. Only about two percent of healthy adults in one study were shown to have this reflex.

Justin: Oh?

Sydnee: So, not everybody, if you stimulate this branch of the vagus nerve, will cough.

Justin: So but why—

Sydnee: But about two percent of healthy adults have this. It's just a nerve connection, it's just a little branch of a nerve that…

Justin: Just did it.

Sydnee: Yeah. And now, they will—this is interesting. So certainly, if you have a chronic cough, your first thought should not be this. However, they did find in one study that twenty-five percent of adults with a chronic cough have this ear cough reflex.

Justin: It's possible.

Sydnee: So—

Justin: Something to look into.

Sydnee: So, it's possible, but yes, that is what's happening. It is a known thing. It's not—I mean, it's benign. It's nothing to be worried about, it's just sort of an interesting thing that some people have. I will say that as long as the earplugs are easily removable, that's not a concern. When we talk about don't stick things in your ear, it's mainly that if you are blindly probing your ear with a small object, whether it be a Q-tip, or should I say cotton swab? I don't know if I should malign the brand. [titters]

Justin: No, I think it is one of America's great success stories, is a product that is sold for a purpose that is explicitly now saying do not use it for.

Sydnee: Do not use it for.

Justin: But it continues to sell for that exact purpose. It's awesome! It would be like… it would be like if cigarettes helped you apply wallpaper. And it would be—everybody's like, "Man, these are so good for wallpaper. I'm so glad they still have these things." And the cigarette—

Sydnee: But don't smoke 'em.

Justin: Don't smoke 'em, but like… if you have a pack of 'em and you have a few extra, like who knows? [chuckles] I'm not gonna say your business. But like it says on the package, for wallpaper application only.

Sydnee: Our concern is much more… it's not just Q-tips even. People stick, and Justin, you can probably share the variety of objects you stick in your ear—

Justin: I'm not gonna—I'm not gonna friggin' do this with you, okay? I'm not—

Sydnee: Pen caps, paper clips…

Justin: This is not called the people versus Justin McElroy, okay?

Sydnee: Bobby pins… [titters] Those are all the things that concern me. Because you can shove wax deeper—

Justin: I'll—I got—

Sydnee: You can also puncture your own—

Justin: There's only one thing that concerns me.

Sydnee: Tympanic membrane.

Justin: Is getting doxed on my own podcast, is what concerns me…

Sydnee: Do you want to ask me another question now, or do you want to complain some more?

Justin: I don't know.

Sydnee: [gasps] Hah!

Justin: [titters] "Dear Sawbones, my friend group consists of mostly trans folks, and as such, we often talk about our transition experience. One such friend told me he experienced the make too much blood side effect of

testosterone, and was recommended to donate blood more often. We make jokes about it being modern day bloodletting, but it kind of got us wondering. Rather than donating blood, could someone be prescribed leeches instead? I know maggots have uses in modern medicine, but what about the humble leech? Would love a doctor's perspective on this. By the way, love the show. Thank you so much for all your hard work!" That's from Moss in D.C.

Sydnee: So, it's interesting, because I suppose if—as an academic, as a thought exercise, could you use leeches to just remove blood volume? Because there are conditions, like yes, some people, as a side effect of testosterone, can have an increase in their hematocrit that could be considered… dangerous. Which is why we need to monitor that, right? That's why it's important, as with any medication, when you're taking a medication that has a side effect, you have appropriate monitoring at whatever the recommended, you know, intermittent frequencies are, right?

Justin: Right.

Sydnee: And there are other conditions that also require intermittent bloodletting. So, hemochromatosis, for instance, has to do with an accumulation of iron.

Justin: Mm-hm.

Sydnee: And we may have you go donate blood, or have blood drawn, more frequently, to reduce your blood volume.

Justin: Okay.

Sydnee: So, that is—that is a valid treatment method. Now, would leeches replace that? Well, my concern would be, one, ew, I don't want to put a leech on me. And you probably don't either. So, that's probably part of it. Like part of it is just like the… the squeamish factor.

Justin: Sure.

Sydnee: They do remove blood. Now, they are not nearly as efficient as we could perform phlebotomy and remove your blood, right?

Justin: Right.

Sydnee: Like, we wouldn't know how much blood the leech was taking, how many leeches would be necessary. I'm certain you could design a study for like number of leeches removes X amount of blood volume per minute—

Justin: Sure, yeah, yeah, yeah.

Sydnee: Blah-blah-blah.

Justin: If you want to get a graphing calculator and everything, sure.

Sydnee: But then also like, is the leech like a sterile leech that has been—

Justin: We do this—we're talking—this is—you're talking about a use separate from—they do use leeches for like clotting and stuff, right?

Sydnee: That was a—yeah—

Justin: As covered in episode three of Sawbones. [titters]

Sydnee: We do use leeches in modern medicine—well, not for this purpose. Because purely, one, efficiency, and two, if you do need to have blood volume removed periodically, and you can donate blood, that's a really nice thing, right? And it isn't a nice… and the leeches are not benefiting from it as much as the humans would.

Justin: Right.

Sydnee: In that case. But we do use leeches in some ways, in modern medicine. A great example is, let's say we have to reattach a digit. Like, your finger was traumatically amputated, and we put it back on.

Justin: Okay?

Sydnee: There can be an accumulation of blood volume in that new digit that causes swelling, and can actually damage structures in it. And so sometimes in those sort of microsurgeries, we can use leeches, targeted leech therapy, on the digit, to help keep too much blood volume from accumulating.

Justin: I wonder if that's what happened to this finger.

Sydnee: Do you think?

Justin: Do you know what I—do you know what I mean? The structures are all messed up. If I had only had leeches.

Sydnee: But same as maggots, because maggots are also used in modern medicine to help debride or clean dead tissue off of a wound, you need the right kinds, and you need to make sure that they were kept in sterile conditions, in a laboratory setting, to be used. Because other—I mean, if you're just digging leeches out of the swamp or going and getting maggots out of a trash can, obviously, there's a lot of other pathogens that you could introduce in that process. So, you'd never want to go out in nature and try to do it yourself.

Justin: Okay. Fair enough. Then I won't. "What is the point of those white crescents on our nails? And is it bad if/when they are covered by skin? Thanks, and keep up the great work. Best, Claire."

Sydnee: Do you want that little thing is called? The little white circle at the base of your nail?

Justin: At the bottom?

Sydnee: Or half circle. The little white—

Justin: The cuticle?

Sydnee: Halfmoon.

Justin: The cuticle?

Sydnee: No, the part on the nail.

Justin: Oh, right! The like—

Sydnee: There's a name for that, that little half-moon.

Justin: No, what is it?

Sydnee: The lunula.

Justin: The lunula.

Sydnee: That little crescent shape at the base of your nail. It's part of your nail matrix. The nail matrix is what generates fingernails and toenails. Oh, what are you gonna tell me about the nail matrix? You got really excited when I said the nail matrix.

Justin: [titters] Well, yeah, I don't know. I don't have anything to say about it. That, again, the face is not for them. Like, the face is just for you. But you gotta let it—you gotta let it cook a little bit. Because that, I… you can't put me on the spot like that. I don't have anything about the nail matrix yet.

Sydnee: [chuckles]

Justin: I'm just excited when I hear the word matrix, because like I'll start… I'll say—I'll send Bing Bong out. [titters] I'll send Bing Bong out to the matrix thing, and see what he can come up with. [chuckles]

Sydnee: And see if you got anything back there that you could use?

Justin: [chuckles] He's got anything back there he can…

Sydnee: I have a—

Justin: [chuckles] See if he's got anything back there he can use.

Sydnee: Teylor just called me out on this today. I have a really bad habit of breaking the number one rule you told me about podcasting, is don't reference visual things that your audience can't see. I feel like I do that a lot, and I'm sorry.

Justin: Do you think I think that's the number one rule of podcasting?

Sydnee: You told Teylor and I that, early days. [chuckles]

Justin: That the number one rule is like don't talk about things the audience can't see? Yeah.

Sydnee: It's not a visual medium, they can't see you.

Justin: I mean, that's—hey, it's not a visual medium is not the worst first rule of podcasting.

[both chuckle]

Sydnee: Well—

Justin: But now everybody films it anyway, so that is actually not that accurate anymore. I don't know what the point is.

Sydnee: I wanted to talk about my Saw socks, but nobody can see my saw socks, so…

Justin: Saw—they can't saw your saw saw—so, nobody saw your Saw socks?!

Sydnee: Nobody saw my Saw socks! [chuckles] They're for the movie, Saw. Anyway, it's called the unula, it's part loom—*lunula*. It's part of the nail matrix, it's just a part that you can see, but that's what makes your nails. And it's fine if you can see it or you can't see it, there's no danger. If you look at the base of your nails, and some of 'em, you see the little white crescent, and others you don't, or you don't see any at all, that's all okay. You don't need to…

Justin: So you should not be worried if you look and there is no lunula?

Sydnee: No. If you have nails, you have a nail matrix. [chuckles] Because… there's the nails.

Justin: So, it's not a problem within the nail matrix if there is no lunula?

Sydnee: [chuckles]

Justin: [titters]

Sydnee: Is this a spoon joke?

Justin: It's as close as I—[chuckles] it's as good as I got, okay? Because I felt—I felt the door closing, and that's what he came back with. [titters]

Sydnee: I think we need to take a break! [titters]

Justin: All right, listen… the evidence would suggest. [chuckles]

Sydnee: Let's go—let's go to the billing department! [titters]

Justin: Let's go.

[theme music plays]

[ad read]

Justin: "Hello! A hotel we're staying at in Breckenridge, Colorado, about a nine-thousand-six-hundred-foot elevation, has…"

Sydnee: I think it's ChlorOxygen.

Justin: "ChlorOxygen water in the lobby. I've attached a bad picture of the sign with the health benefits being made, including increasing red blood cell count and improving lung function. I'm wondering if there would be any potential data to support these claims, or if it's the gimmick we presumed it to be? No, we did not elect to try it. Thanks, Jennifer."

Sydnee: So, I had to look up ChlorOxygen to figure out what this is, and I believe, because there's a whole bunch of ChlorOxygen-like products, like waters and tinctures, and this is a whole thing, and there's multiple manufacturers of things that are ChlorOxygen. And they seem to all contain chlorophyll.

Justin: Oh… okay.

Sydnee: That's the chlor, chlorophyll. Do you remember what chlorophyll does?

Justin: Yeah, it is a substance that allows plants to turn the sun's energy into energy that it can use.

Sydnee: Mm-hm. There you go.

Justin: So is the assumption here that if we get this stuff in us, that we can take the sun's power and harness it for ourselves?

Sydnee: I think in this specific case—

Justin: God, I hope so.

Sydnee: It's being tied to, you're at a higher elevation, and so it's like the idea is, we'll increase your blood oxygen volume faster, taking—you know, so that you can adjust, your body can equilibrate to the elevation. But generally, chlorophyll, there's a lot of stuff about it in the wellness world. I didn't know this was a popular supplement. So, you're not taking chlorophyll. In most of these supplements, it's a semi-synthetic mixture of sodium copper salts that are derived from chlorophyll.

Justin: Oh, okay.

Sydnee: It's called chlorophyllin. It comes in water tinctures—

Justin: It sounds more like chlorophyll—it sounds more like a cholorofiller to me.

Sydnee: [titters] There's pills, there's gummies, there's powders, there's creams. The idea is that it is an antioxidant and it's anti-inflammatory. I feel like that's what they say about all supplements, right?

Justin: Yeah, yeah, yeah.

Sydnee: "I don't know, it's an antioxidant, it's anti-inflammatory."

Justin: "It's an antioxidant! Because by the time you find out we're wrong, it's—[chuckles] we're gone. We're not even around as a company anymore."

Sydnee: There's very little research to say that anything—that this does anything. So, the only things, they did a study in like ten people—[titters] for acne, to use it for acne and sun damage. And there were some—some—there was some effect, but it wasn't a big enough study to say. They've done studies on wound healing, on weight loss—they study everything for weight loss, on body odor, constipation… Just energy, something like this, where like, "Oh, it'll increase your, you know, blood oxygen volume faster, and you'll equilibrate to a higher altitude faster."

All this different stuff. They've done all of these things, and they're tiny, little studies. They're… a lot of them are not appropriately controlled, and blinded, and placebo'd. And you know, and they're not powered to show any difference, really.

Justin: Right.

Sydnee: So, right now, I don't have evidence to say that it would do any of these things.

Justin: Okay.

Sydnee: I don't have any solid evidence that would make me think it would. Obviously, they're checking it out for cancer, because all supplements get tested for cancer. There's no evidence at this point that it does anything. The side effects would probably just be like some stomach upset, perhaps. It

could change the color of your poop. Which, maybe, I mean, you might like that. That might be a desire.

Justin: I'm not that attached to my—[chuckles]

Sydnee: No, I wouldn't recommend—I don't know that the ChlorOxygen water would do anything for you. And I don't think chlorophyll supplements, in general, would do anything for you. There is chlorophyll in food.

Justin: Mm-hm.

Sydnee: Greens, kale… peas, spinach. So, you could just get chlorophyll from food too. And right now, we don't have like a recommended like, "You need more chlorophyll in your diet." That's not really a…

Justin: There's no recommendations being made on that front yet?

Sydnee: No… So, I would say it's probably a waste of money.

Justin: Aw, man…

Sydnee: Maybe more than likely harmless waste of money, but a—

Justin: Waste of money nevertheless.

Sydnee: A waste of money nevertheless.

Justin: All right. Heartbreaker… "Last year, I was diagnosed with cancer, my mix… myxoid lipo… sarcoma—"

Sydnee: Liposarcoma, mm-hm.

Justin: "And after a year of intense treatments, I am cancer-free!" Congratulations.

Sydnee: Yay!

Justin: "I'll be going to regular follow-ups with all of my many oncologists for about five years, and I'm already at the point where I have no problems to report, and the doctors have no pertinent information for me. I'm happy to go to these, but some people have told me that the doctors do these appointments to make money. I'm very hesitant to believe them, but I'm also curious why they do these appointments, instead of a phone call or telehealth appointment, or something else. Thanks, Luke, from Ohio."

Sydnee: Well, first of all, congratulations, Luke. That's incredible. You know, I think it's always important to kind of untangle these questions about the healthcare system, not just about like medicine itself. But our system in the United States is so… broken. Well, it's not broken, it works for who it's supposed to work for, and that's not you, the patient, or me, the physician, but for the insurance companies and the hospitals and the pharmaceutical companies. Insurance is a scam that has been perpetuated on us since the beginning.

Justin: Mm-hm.

Sydnee: We need a single-payer system. So, let me just get that out of the way. That being said, regular interval follow ups for, you know, cancer specifically, are important, because we want to make sure that you remain in remission. There are certain things we look for and questions we need to ask. And if—I mean, and this tends to be true for anything, not just somebody who has gone through cancer treatments. When you're feeling healthy, you tend to think about your health less. It's only when you're feeling bad that you tend to—and this is all of us, we—

Justin: Yeah.

Sydnee: That we prioritize it, right? And so, if you're feeling good, generally, and there's one tiny thing wrong, it may not occur to you to call your oncologist and tell them that. But maybe that is important for your oncologist to know. And so, those check ins are an opportunity to do that. As a primary care physician, I will tell you that's really the—that's the magic of primary care, is that there's a lot of evidence to say a yearly checkup doesn't really do much.

Justin: Mm-hm.

Sydnee: In isolation, there's not necessarily a lot we can glean from a yearly checkup. But it's that relationship that I build with my patients over time, I know them so well, I know what's new, what's different, they feel comfortable sharing that with me.

Justin: Mm-hm.

Sydnee: That relationship is what can lead to better health outcomes long-term, not necessarily the isolated appointment. And so, I think—I think that that is all important, and needs to be emphasized. And I would certainly encourage you to keep those appointments for that reason. As to the question of, why couldn't it be a phone call or telehealth? Part of that is just the way our system's set up. We are not made to like make that efficient or easy. We're just not.

In a doctor's office, we are seeing patients, usually, back-to-back to back-to-back. And the time for like a phone call check in is not… it's just not carved out. And so, part of this is just like a system process kind of thing. In terms of the financial benefit, most physicians receive no more money for seeing patients, more or less, if that makes sense.

Justin: Yes.

Sydnee: Most of us are salaried. Yes, of course, in like private practice settings, and there are places where there's incentive, like you—if you see more patients, you know, you could get bonuses and things like that. There are systems like that, I'm not saying they don't exist. But generally speaking, for most physicians, you've got a really packed schedule every day. It's always going to be really packed, because that's how the system that we work in makes money off of us. They need to fill every minute with billable encounters to make money off of us.

And so, my paycheck has never changed in the systems I've worked in. I have never made a dime more for seeing more patients. It just isn't the way that most of the systems work. Now, I'm not saying there aren't exceptions.

Justin: Of course.

Sydnee: I think the majority of people practicing medicine—the majority of people who work in healthcare, not just physicians, genuinely are trying to use their skills and their knowledge to help you. I am not saying there aren't crooked doctors. Obviously, there are. There are bad people in every profession. The majority of the time, though, if we're asking you to come back and see us, it's just because we want to meet a standard of care and take the best care of you we can.

Justin: Yeah.

Sydnee: But I understand why you distrust the system and why your friends do, because the system was not made to help you. The system was made to make money for other people. It's just, sometimes we do help people within it. [titters] And that's a really hard thing to untangle.

Justin: Here's another question, Syd, I have a question about the flu vaccine. We all got ours over here, by the way. Have you had yours yet?

Sydnee: You watched me get it?

Justin: Oh, no, honey.

Sydnee: Oh. [chuckles]

Justin: We've all—that was like—sorry. I should mention when I'm looking off camera. [titters]

Sydnee: [titters]

Justin: I was looking off camera. You understand.

Sydnee: Yeah. I'm sitting here thinking you watched me! You watched me receive it?

Justin: Yes, that was to camera.

Sydnee: Yeah, get your flu vaccines! Anyway, this is a question specifically about the nasal flu vaccine, Justin.

Justin: "My son is now old enough that he's eligible for the flu vaccine on the NHS, so we'll be getting him vaccinated. We've been told that this vaccine will come in the form of a nasal spray. How does that work, exactly? The intramuscular vaccines make sense to me, since the muscle would immediately absorb the vaccine, and the body would start the immune response right away. But for some reason, I can't picture how the nasal spray mechanism works.

What if he sneezes right after the vaccine is given? If he's congested—to have vaccination. Would this affect how much of the vaccine he gets? Thank you." That's from Jenny. You know, I've always wondered this too, because it feels so… like nasal dosage feels so imprecise. It feels like I get a random amount of stuff up there, and I don't know how much of it should stay up there. And I don't know, it's always felt—you're smiling, but as a—for a layperson, that's how it feels.

Sydnee: I get it feels. No, I get it. I mean, well, and I think—I think part of what you're referencing too is, if you've ever—it's helpful, look at—look up a picture of the nasal flu vaccine, and I think that helps. It is designed, the applicator, is designed differently than if you think about like your over-the-counter allergy nasal sprays, right? Like, it's a syringe. It's a precise dose amount that is being delivered in each nostril. And that is—so that—that does make it more consistently predictably effective, right? Because we know exactly the dosage that we are delivering.

Justin: Right.

Sydnee: You also have it—although, I will say they're moving towards self-administration. I found a lot, as I was reading about this method of vaccine delivery, there are places where you can actually like get it sent to you and give it to your kid or yourself at home.

Justin: Hm.

Sydnee: Which is kind of cool.

Justin: Yeah.

Sydnee: Currently, in our area, you have to have it administered by a healthcare provider, and so, you know… The nurse who vaccinated our children and myself was very good at it. She did a great job. I know her personally, she's wonderful, and I know she knows what she's doing. All that being said, the nose is actually a really good place to deliver a vaccine, if you think about what vaccines they're trying to do. So, they're trying to get your body to generate an immune response to an illness, without you actually having to have the illness.

Justin: Okay.

Sydnee: So that if you then encounter the illness, your body's already ready to fight it off.

Justin: Right.

Sydnee: Well, a lot of pathogens enter our bodies through our noses, through those mucosal membranes. We have a lot of immune tissue and cells, specifically in our nasal passages, that are—their job is to take in intruders, as soon as they get in there. So, if you deliver pieces, inactivated, because it's—remember, we're not giving you the flu. [chuckles] You can't get the flu from any of these flu vaccines. We're giving you inactivated viral particles of the flu, antigens. As soon as the—you've got tons of tissue inside the nose that is specifically made to grab onto those antigens and bring them into lymph tissue, and start creating antibodies to the flu.

Justin: So, it's actually what—where we are imagining muscles as like being a direct injection into the body, and the nasal—the nose being less… This is like a sophisticated… germ… detection system we have up there. They're absolutely ready and—to sort through these things.

Sydnee: Yeah, that's, I mean—

Justin: They're on high-alert for all kinds of weird stuff.

Sydnee: It's actually, I mean, there are a lot of reasons why, when it comes to a shot, it's quicker and easier. Now, there's a lot of fear around needles, and so, there's that. There is some thought that this could even be, I mean, cheaper, long-term, if we focused on the nasal administration route. That being said, I think shots are just a quick, easy way we knew how to make vaccines early, using injections, intramuscular, in the muscle, injections. But the nose route makes more sense with you—when you think about how the flu works, when you think about a lot of respiratory pathogens, right?

They enter through the nose. Why aren't we using the nose to fight them? It makes—it makes a ton of sense. But they are, obviously, you always want to make sure—they have checklists to make sure that you're appropriate for them. It can—some mild congestion shouldn't matter. If you're so sick that you're running a fever, we generally don't recommend go get your vaccine at the moment that you're so sick that you're running a fever. But a little bit of nasal congestion should not harm the effectiveness of the nasal flu vaccine. And for our kids, it made it *so much easier* to go get it.

Justin: Oh my god, yeah, that was a real… a lot of tears were saved. And not just our kids—[chuckles] when we get 'em. They had the nasal. It was very exciting. Our last question, Sydnee, is kind of a simple one, "Should I wash my hands before I wash my face?" [chuckles]

Sydnee: That's from Anthony.

Justin: From Anthony! I mean… sheesh! Okay, can I tell you my thought is that it would kind of… the expression "all come out in the wash" is for this exact scenario.

Sydnee: [chuckles]

Justin: The hands are up there, they're part of the scrub. They're getting involved. They're getting—they're getting their hands—I was gonna say they're getting their hands dirty, but that's like exactly not it. The metaphors are failing me, Sydnee.

Sydnee: You should. You should wash your hands before you wash your face. I… I had this moment as I read this, and I thought, well, yeah. Yeah,

because, you know, our hands harbor a lot of bacteria. We just do, they all do. And that's not a—that's not an insult on you, Anthony, or you, Justin, or me. We just—our hands have bacteria on them. So it would be a good idea! Especially if we're worried about like, if you've got a cut or a sore, or an acne spot, or something, like yes, you could put bacteria onto your face. It would be a good idea to wash your hands before you wash your face. I don't know that all of us always think about that, so it's a good reminder. And it's especially timely, because October 15th is global hand hygiene day. Washing your hands is the most effective thing you can do to avoid spreading germs, so—

Justin: Yeah, but you should—you should wash your face.

Sydnee: Yes, after you wash your hands.

Justin: Yeah, but I'm just saying like, if you have to choose.

Sydnee: See, I didn't think about this, because I always used to use a washcloth, until Riley made fun of me, because I'm old and I use a washcloth. Apparently, that is not what you're supposed to do anymore. It's not cool. No.

Justin: No. [titters]

Sydnee: Wash your hands… how long should you wash your hands, Justin?

Justin: Twenty seconds.

Sydnee: Twenty seconds! Very good.

Justin: Yeah. I remember that, when we used to wash our hands during Covid.

Sydnee: Mm-hm.

Justin: I still remember how long I was supposed to do it back then.

Sydnee: Wash your hands with soap and water for twenty seconds, and then you can wash your face. And then you'll be clean, and avoid the spread of germs. So remember to wash your hands. Thank you, Semmelweis!

Justin: Thank you, Semmelweis. That's gonna do it for us this week on Sawbones. Be sure to join us again next week! Oh, and thanks to The Taxpayers for the use of their song Medicines as the intro and outro of our program. Be sure to join us again next week for Sawbones. Until then… I've fallen off the—I've fallen off the track! I gotta start back at the beginning! 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, so much, until next time. My name is Justin McElroy.

Sydnee: And I'm Sydnee McElroy.

Justin: [chuckles]

Sydnee: You almost got there.

Justin: I almost got it! [laughs] What do I say?!

Sydnee: You almost nailed it. [pause] Don't drill a hole—

Justin: No, I know that part, obviously! My name is Justin McElroy.

Sydnee: And I'm Sydnee McElroy.

Justin: Don't drill a hole in your head.

["Medicines" by The Taxpayers plays]