

Sawbones 570: Sauna

Published February 10th, 2026

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["Medicines" by The Taxpayers plays]

Justin: Hello, everybody, and welcome to Sawbones! A marital tour of misguided medicine. Around these parts, they call my Justin Tyler McElroy!

Sydnee: And I—

Justin: *Pitchew!*

Sydnee: Oh?

Justin: That was a spittoon, I think, or a bullet.

Sydnee: Oh, ew?

Justin: I'm not sure.

Sydnee: I'm Sydnee Anne Smirl McElroy.

Justin: That was—that was actually me shooting a bullet into a spittoon. That's what that sound was. There's a huge mess. Everyone's furious!

Sydnee: You don't even know how to—[chuckles]

Justin: Everyone in the bar, everyone in the salon—

Sydnee: Who let him in?

Justin: Is furious! Ah, dumping their sarsaparilla on my head! Dag nabbit.
[chuckles]

Sydnee: I wouldn't let you have either a gun or a spittoon.

Justin: You probably wouldn't even let me have a sarsaparilla after 6PM.

[both chuckle]

Sydnee: Justin, it's cold.

Justin: *Ugh!*

Sydnee: It's so cold out there.

Justin: It's always cold, Sydnee!

Sydnee: That's true.

Justin: Warmth is something we dreamed. It's always been frozen.

Sydnee: Yeah, it's always been cold. We've always been frozen on our hill, stuck here.

Justin: Yeah.

Sydnee: Except we can't be stuck here, we do have to go.

Justin: Look. Look at my toe. My toe has come off in the boot, Sydnee.
[titters] Lord...

Sydnee: That's what—the question is no longer, are the roads too bad to drive? It's yes, and will you be driving? Yes. Anyway, that's the—there's no—

Justin: How badly do you need eggs?

Sydnee: Well, we've got to work. Justin, it's been making me crave a warm place. Heat. I need a warm place to be.

Justin: Mm-hm.

Sydnee: That inspired—that and Hannah, with your email. thank you, Hannah, inspired this episode about saunas.

Justin: Oh, doesn't that sound nice? You know, it's funny, we sort of in— here in the McElroy studios, here at the ranch, we certainly simulate a sauna here with our tiny trapezoidal room that we lock our—hot box ourselves in with our powerful studio lights. By the end of a recording, it's usually getting pretty ripe in here.

Sydnee: This would make a good sauna.

Justin: Were we short sighted?

Sydnee: In not making this a sauna.

Justin: Not making this tiny trapezoidal closet into a sauna. [chuckles]

Sydnee: We should have.

Justin: I know, but we do the thing with the—

Sydnee: Your office closet could be a sauna if you—

Justin: But it's a job.

Sydnee: If we get all that stuff out.

Justin: But this is my job, I mean, I—

Sydnee: No, your—the closet, your office closet.

Justin: That's where I store all my video games.

Sydnee: I know.

Justin: Okay. Well, we can talk about it off air.

Sydnee: We could—we can debate the necessity of physical media later.

Justin: There's also some drainage issues that I'm not excited to address, Sydnee. [chuckles] I'm not sure about the plumbing requirements of an indoor sauna.

Sydnee: Well, it—I mean, it really depends on what kind of sauna you want, Justin. And we're gonna talk—we're gonna talk all about the different—

Justin: Oh, I didn't even know there are different varieties.

Sydnee: Different versions. I think most of us associate sauna with like Nordic countries, right? Like, is that—when you think of like, who saunas? I don't know if this is because we've seen Frozen, the musical.

Justin: Yeah, maybe. Sort of the—I haven't seen Frozen, the musical. You saw that without me, but I'll have to take your word for it.

Sydnee: You haven't watched Frozen the musical?

Justin: No, not really. I'm kind of a cool—I like Anything Goes or, you know.

Sydnee: There's a whole—there's a whole song—

Justin: Porgy and Bess, like the classics.

Sydnee: Okay, well, in Frozen the musical, there's a whole song about hygge.

Justin: Yeah, I know that—I've seen that one—the kids sing it around the house.

Sydnee: And yeah, and in it, like a bunch of people come running out of a sauna. It's sort of like a clown car effect, because the sauna looks very small, but then lots of people with like the branches, they come running out.

Justin: Oh, I love that! I love the branches, yeah.

Sydnee: Yeah, and it's a sauna. But that being said, sauna is not really specific—the concept of sauna is not specific to any one culture. As far as I can tell from researching this, people have been trying to find ways to get into a hot room and sweat together for like 10,000 years. [chuckles]

Justin: Well, honey, not to be a pedant, but I would argue that human beings have been trying to get together and get sweaty in groups together for as long as there have been human beings, I mean—

Sydnee: [titters] Uh-huh, uh-huh. I mean—I mean in a communal sense like, "Let's all get in this hot room and sweat together."

Justin: Yeah, I guess. I'm just, it's hard for me to believe that the research on these two ideas is completely disparate, but okay. [chuckles]

Sydnee: I like—I like when you find things that connect—okay. So, the first—the first sauna was probably like what we would call a pit sauna. You dig a hole in the ground, you put stones, you heat them up, and then you cover 'em with some sort of like thatch or peat or something like that. And you pour water on it, because water on the hot stones makes...

Justin: Sauna.

Sydnee: Steam.

Justin: Steam.

Sydnee: Yeah. And so now, you're in an enclosed space, it's steamy, and you sit in it and sweat.

Justin: Here is the sauna story that I can provide you—this is literally the only context I have for a sauna, the only time I've been in a sauna in my entire life. So I can get all my expertise out of the way up front, and then we'll dive into the medical aspects. I was at a sauna in, I believe, in Shawnee State Park, at the—at the—or at the university up in that area—

Sydnee: Yeah.

Justin: I believe. Or it was for a church retreat. And they had a sauna there, and one of the kids on the very first day of this three-day retreat peed on the rocks of the sauna. And then that was it for the sauna for the weekend. And none of us got to get back in the sauna. But that was it.

Sydnee: Yeah, because then it's—then it's urine steam.

Justin: Yes, it is urine steam. And the verdict was fast and authoritative, we all hated that, so we left immediately.

Sydnee: You know what though? You know what though? I guarantee you, there's some nasty wellness blogger out there.

Justin: Not that you're judging. [chuckles]

Sydnee: I'm judging urine steam. I am gonna judge that, I'm gonna judge. If you want to bathe yourself in urine steam, I am gonna say, don't. I'm gonna say no. I'm gonna don't, and don't encourage others.

Justin: Urine steam sounds like it could be the name of a sequel to Urine Town. [chuckles]

Sydnee: I mean, there's a whole—we've done a whole episode on people who like drink urine and put urine on their skin for like wellness reasons, right? Like they think that it is doing something good for them. And we've talked about why that isn't really so, and why you probably shouldn't do that, and we've done all that. But you know there's somebody out there who thought, "Ooh, but what if I steamed it and then just like sat in the pee steam?"

Justin: "See, steaming it removes the toxins, so you just have the healthy ammonianites." [chuckles]

Sydnee: There's gonna be somebody. If it's not already out there, I guarantee you we're gonna—we have now incepted it into some wellness person's mind.

Justin: Yeah.

Sydnee: Right now.

Justin: Sorry.

Sydnee: Sorry.

Justin: Sorry, the universe.

Sydnee: Sorry. But we have found like sweat houses going back to the Bronze Age, and again, across cultures, like I—this is not specific to Finland or to Nordic countries. You know, the UK, Ireland, Mexico, all over North America, obviously it's a Native American tradition as well, like the sweat lodges. In Japan, there were caves, natural caves, that were used to, you know—as like sweat—like bath houses type things.

Justin: Mm-hm.

Sydnee: And a lot of it, if you look through different cultures, a lot of it is tied, not just to it feels good, like it's nice to go in there and get—I don't know, I think there is this sense, because I hear it from people a lot when they're sick. This is a common thing that a patient will say to me, "I just, I got—I had a fever and I was so sick, and then my fever broke, and I got so sweaty. And I just like sweat it all out."

Justin: Mm-hm.

Sydnee: "Like I—" People would even say like they put on extra layers of clothes so that they can just really sweat it out.

Justin: To sweat it out, yeah.

Sydnee: People do that I think when they're running, right? Like to make themselves sweatier, aren't there like outfits you can wear?

Justin: Yeah, trash bags, I think.

Sydnee: Yeah, to make yourself sweat more. And I think there is this concept like, "I'm gonna sweat stuff out of me and be healthier after it's over."

Justin: Yes.

Sydnee: Right?

Justin: Yes. I think probably having colds and fevers breaking at some point has given us the connection between those two, right? That moment of like, "Oh my gosh, I'm feeling so much better than I was before. It has to be connected to that fever I had."

Sydnee: Yeah, no, and I think—I think if you look—and I don't know—it's a chicken or the egg thing. Is there something innate where when we get really sweaty, we just feel better, because we associate it with fevers breaking? Is that—was that just like, that link was made in our brains, you know, at some point evolutionarily and now it's stuck?

Or is it because bath houses and sweat lodges and saunas are such an old concept, they have been used by humans for so long, that they are ingrained in us? Even though I have never been—I don't think I've ever been in a sauna. I've never been in a sauna. Even though I've never been in one, I have that programmed in me to think sweating is healthy. Because for you know, thousands of years, humans have been going places to sweat for health.

Justin: Do you think there could be a connection too between in typically like endorphins being triggered by activities that cause us to sweat? So like—

Sydnee: Sure, yeah.

Justin: Things like exercise and...

Sydnee: Amorous activities.

Justin: Hanky panky.

Sydnee: [titters] f you—and if you look at like not just, again, feeling good, the other part of it is really a spiritual connection. So like Roman and Greek bath houses, which you know, were not just a place where you would go to get sweaty, but like you would go to commune with others. Like it was a—it was part of socialization. You would go to the bath houses to be around other people.

Justin: Harder to hide weapons too.

Sydnee: That's true, yeah.

Justin: You know? Hard—it's a vulner—it's a vuln—there's a vulnerability to it, I think. You're sitting around other folks. It's a very vulnerable place. [chuckles]

Sydnee: But it was also a place like, they were associated with purifying yourself. So there's, you start to see the sort of spiritual aspect to it as well. Like you're getting clean inside and out, like you—this is a way to like rid your body of toxins, both like from a physical sense, I think, we would think now, but also from a spiritual sense. And that's definitely, when we look at like the tradition of sweat lodges among the Native Americans, or if we look to like in New Zealand or the Aboriginal people of Australia, the sweat lodges are very much a spiritual experience, right? This is not just about, "I'm going to go in there and really sweat out all the toxins."

Justin: There's a connection—

Sydnee: Yes.

Justin: There's another layer to it.

Sydnee: Yes, this has to do with the spirit and the body. These are places, the sweat lodges are places where you're more connected to the spiritual. You're more connected to the afterlife, maybe.

Justin: Mm-hm.

Sydnee: Maybe the spirits of your ancestors are closer to you in a sweat lodge. And this is true in a lot of different sauna cultures, the idea of the sauna being a different sort of space. And I don't know if part of that—I mean, because some traditions, you wouldn't just be in a sweat lodge, you wouldn't just be in a building where you're getting really hot and sweaty. Because you could make the case that, well, are you just getting dehydrated and maybe a little delirious.

Justin: Mm-hm.

Sydnee: Which could be baked into this, right? Maybe that is part of why people felt they were having a spiritual experience—

Justin: Because they're—

Sydnee: Maybe it is a spiritual—I mean, I don't... there's much that I do not know. But also then, in some cultures, it would involve taking certain substances or, you know, like there'd be more to it. There would be sound or, you know, there could be musical things, there could be, again, things you ingest as part of the sweating experience.

Justin: Mm-hm.

Sydnee: One way or another though, you see very much that these are spiritual things. This is not just a purification of the body, this is a purification of the soul. And in Finland specifically, where a lot of this, as I talk about like sauna culture and then the research on saunas, I'm gonna—I'm gonna focus a lot on Finland. Because in the modern day, are saunas good for you is an interesting question, and it looks like the Finns are most dedicated to answering it. [titters]

Justin: Mm-hm.

Sydnee: Because it is so deeply embedded in their culture. If you're looking for like actual scientific research on, is the sauna healthy, is it more than just like a fun thing to do? Most of that research is coming out of Finland.

Justin: Yeah, makes sense.

Sydnee: In Finland, saunas have been tied to folk medicine for a very long time. So, they were very much, as all these other examples I've given, they were very much tied to not just like, "I'm going to go in there and sweat and it feels nice."

"I'm going to go in there, be part of the community, talk with my neighbors, become close to others." And it is also a spiritual experience. People slept in the sauna, it would be like a place you could meet up with somebody in secret like, "Meet me in the sauna next Friday," or whatever.

Justin: Yeah.

Sydnee: You would go cleanse before like church, to go—you would go to the sauna to cleanse yourself. People might choose to give birth in the sauna.

Justin: That's true. Yeah, that makes sense. That seems like a... at least more of a chill experience for the being born person.

Sydnee: Mm-hm.

Justin: It's a little bit more of a gradual—you know what I mean? Not this like cold hospital room with the fluorescence or what have you, but something—a lot more womb-like, presumably, the sauna.

Sydnee: Yeah, well, I mean, you—I mean, if you think about it, there are people who do like the water births. And we've talked about that on the show before, the—that is—there are risks to that, there are dangers to that. The sauna, if you're looking for a humid environment, definitely, I would say a sauna, at least nobody's underwater. [titters]

Justin: That's true.

Sydnee: So, that's going to limit your risk. But I can see a similar sort of thought.

Justin: Yeah.

Sydnee: And it's because the sauna in in Finnish folk medicine is very much a liminal space.

Justin: Mm-hm!

Sydnee: You are no longer wholly among the living, and you're not wholly among the dead, you're in another—you're in a third space.

Justin: I like that.

Sydnee: Yeah, no, I like it too, and that's very much like your—the souls of your ancestors are present with you in the sauna. Now, I'm not saying this is necessarily—a modern Finnish person would say this, but this was the folk medicine concept.

Justin: Because they're not peaking.

Sydnee: Well, I don't think—I did not read a lot about—

Justin: Ancestors peaking?

Sydnee: No. [chuckles] About the fact that you are nude in the sauna. My guess is that since it is so ingrained in their culture, there is no like, you know, it's not odd, it's not—you wouldn't be uncomfortable about it, because it is so much part of—right?

Justin: I don't know.

Sydnee: Like we Americans don't get naked in front of each other a lot, right? I mean, isn't that fair for me to say? Like—

Justin: I've been in some locker rooms where that is not accurate, but I know what you're saying.

Sydnee: Okay, locker rooms. But if you think about, okay, like bathing together.

Justin: Yeah.

Sydnee: We watched Terrace House.

Justin: Indeed.

Sydnee: And we saw people who had—who had just met.

Justin: Yes.

Sydnee: Bathing together, being nude together.

Justin: Mm-hm.

Sydnee: That is not something that typically would happen in our culture.

Justin: True.

Sydnee: Right?

Justin: Too true.

Sydnee: So, it is—so what I'm saying is, I think—

Justin: Different cultural standards.

Sydnee: Yeah, I think like the standard for like being nude in a place like a bath house or a—I mean, you see that in like hot springs.

Justin: Yeah.

Sydnee: There are definitely places where people go and they get naked in a public place like that, with not—I mean, there's no thought of this being—

Justin: I will also say, I was raised Baptist in West Virginia in the '80s. I should not be the bellwether for what is the appropriate amount of nudity in really any situation.

Sydnee: I think—I think that it is fair to say. And this is not unique to Americans, certainly, this is true to a lot of other cultures. I think we tend to be a little more prudish about nudity.

Justin: Mm-hm.

Sydnee: I think that that is—

Justin: That's, I mean, that's—that seems more than fair.

Sydnee: Yeah. And I have, I mean, as a physician, I have no discomfort about nudity in others, because like I need—sometimes I need you to get naked so I can look at—so I can examine you, right? So that I can do a proper examination and—

Justin: Sure, yeah.

Sydnee: Right? And there is nothing about me that feels weird or like uncomfortable with that. That being said, when I have to get naked, I do feel uncomfortable, so...

Justin: Well, there you go.

Sydnee: I don't know how we spare that. Anyway. So, the sauna is a place where you can go and be part of the community, where you can go and feel closer to those who we've already lost, as well as like the more vital part of like the cycle of life. It was—it's a very much, it's a spiritual experience in Finland, it's connected to a lot of folk medicine traditions. And we see this up until in 1890 when they actually banned folk medicine in Finland.

Justin: Oh?

Sydnee: And so the sauna had to become something different, right?

Justin: Oh, okay.

Sydnee: Because the sauna was this place where, if you were sick, if you needed healing, whatever, you would go there to be—as part of the healing.

Justin: Its identity had to evolve.

Sydnee: It had to evolve, it could no longer be this sort of spiritual folk thing. The sauna needed to be something else. And it could just be fun, it could just be... go sweat, because it's fun, it feels good.

Justin: Yeah, it's fun.

Sydnee: But why not investigate if maybe it is medicine? Is the sauna medicine? And we're going to talk about that, but first we have to go to the Billing Department.

Justin: Let's go!

[theme music plays]

Jordan: Hi! I am Jordan Crucchiola and I host Feeling Seen. I'm here with Maximum Fun Member of the Month, Khalil Goodman. Hi, Khalil!

Khalil: Hi, Jordan! Thank you for having me, it's so great to see you.

Jordan: I gotta know what's made you feel seen? If you—I figure you've thought about this, if you've listened to the show a bunch!

Khalil:, I read X-Men when I was six. When you're a kid who makes art, which I am, and you're a queer kid, like this feeling of like something is different, but you don't know what it is—

Jordan: Yeah.

Khalil: You can be different, but it can be a superpower.

Jordan: What would you say to others who might be considering supporting the show? What would be your sales pitch to them?

Khalil: If you love this thing, if you are getting all of this joy and comfort from this thing, make sure that this thing that you like will continue.

Jordan: Thank you so much, Khalil, for taking the time to talk to me today. And for listening to the show, my god! It means a lot to just know people are really listening and valuing what they're hearing.

Khalil: Thank you so much.

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[break]

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Kevin: But if you already are, that's also great. And hey, we see you.

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[break]

Justin: Sydnee, is the sauna medicine?

Sydnee: Justin, I'm gonna—I'm gonna tell you, there's a lot of research—

Justin: Classic Sydnee. Classic Sydnee. You just won't even—I'm just trying to buy a sauna. And if you'll just tell me if it's medicine, then I'll know if I should get the \$8,000 sauna or the \$20,000 sauna.

Sydnee: They're so—listen, they get so expensive.

Justin: Oh, I'm sure.

Sydnee: Can I tell you, I did forget to mention this, we were talking about how it's, like the sauna is so deeply embedded into Finnish culture. You talked about peaking, ancestors peaking on you.

Justin: Mm-hm.

Sydnee: There is a, in traditional Finnish folk medicine, there is a one-eyed elf, the sauna tonttu, who was said to watch people in the sauna, to make sure that they were being respectful—

Justin: That's nice.

Sydnee: And behaving themselves. So there is—

Justin: Good for them.

Sydnee: Like—

Justin: Yeah.

Sydnee: It isn't just that they might peak, there is actually somebody whose job is to peak on you. And it was to keep like kids in line. Like if the—

Justin: Now that's—

Sydnee: Kids are going to be in the sauna, you'd be like, "Now listen, there's an elf watching you."

Justin: That's the kind of elf on a shelf I can get into. That's a supernatural deity that I can absolutely support. Just a little elf, making sure you keep your hands to yourself, and your eyes up here.

[both chuckle]

Sydnee: That elf was created by a Baptist.

Justin: Yeah, good for that elf. Good for that elf. [sings] Our elf is an awesome elf, he reigns from up on the shelf, with wisdom, yes, he's an elf. Our elf is an awesome elf.

Sydnee: Thank you. Thank you.

[both chuckle]

Sydnee: Okay, in Finland, in a country of 5.5 million people, there are about 3.3 million saunas. There are a lot of saunas there.

Justin: heck yeah.

Sydnee: Yeah. Like, I mean, some of those people are kids, so like as a kid, you probably don't have your own sauna yet. So like, but definitely a sauna per family, right? Like you—we have to assume, there's like probably about a sauna every family.

Justin: We should build a sauna, Syd! Let's build a sauna, you and I. I bet we could do it.

Sydnee: The—

Justin: Let's build a sauna. We can't leave our house anymore because we're snowbound forever and ever, we'll never be able to leave. I'll just go out to the woods with an axe and hue some tumber—some tumber. [chuckles] I'll just use some tumber from the woods, bring it up here, and we'll... we'll make a sauna!

Sydnee: We could build one of those like little triangle saunas. You know what I'm talking about? It looks like little triangle... house.

Justin: Yeah, but if we can't leave the house ever again, I might—we might as well spend our time on a really great one, you know?

Sydnee: Yeah.

Justin: If we're stuck here forever and ever.

Sydnee: I read—I read in one of the articles, and I hope this is true, that the unofficial motto of Finland is Sisu, Sauna and Sibelius, who's the composer of the Finnish National Anthem. Which I appreciated.

Justin: Yeah, we just watched Sisu: Road to Revenge last night. And listen, if you haven't watched Sisu and Sisu: Road to Revenge, I don't know what you're doing with your time.

Sydnee: They explain at the top of the movie what sisu is, like the concept of sisu. Would you like to—

Justin: Yeah, kind of an unwillingness to die. Sisu is what you have when all hope is lost.

Sydnee: It's that determination.

Justin: Determination.

Sydnee: That tenacity.

Justin: Yeah. Sisu, if you haven't seen it, is an amazing film about a mean old man that finds a bunch of gold and is just trying to go home, and get hassled by a bunch of Nazis that he has to kill a lot of. And then Sisu: Road to Revenge is a beautiful story about healing. [chuckles] No, but some of the other—

Sydnee: But it's great. It's great. Anyway, so, because, as I said, the sauna couldn't be associated with like spiritual folk medicine, the question is, well, is it doing something for us that we can measure in an objective way and scientifically claim it's helping? So, if you look at like what proponents of sauna, especially people who are going to try to sell you a sauna—

Which we're going to get into, the saunas that you can buy for your own home. But if you—if you look at what they say, it's a wide variety of medical claims. And I will say, research has been done into most of the things that they're claiming. Now, whether or not the research is as conclusive as they would tell you, that's something else.

Justin: You know, we talk a lot on the show about the things that are hard to research, because no one wants to like put their kid up for like, you know, "You can test my baby on this crazy new pregnancy medication." Like, is it like—if that was my baby, I'd rather not. I bet sauna research is not too hard to find willing participants. [chuckles]

Sydnee: "Sit in the sauna!"

Justin: Be like, "Yeah, you know what? I'll—I can—I can get into that."

Sydnee: It's hard because a lot of it is like cohort studies. And what that means is like we're asking people like, "you all sauna, you all don't sauna," and then we're trying to find differences between them. And that's a little more difficult because, one, it's harder to control for a lot of variables.

Justin: A lot of confounders.

Sydnee: Yes, a lot of confounders. And then two, like if it's already people who are saunaing, what—

Justin: There's got—is that the—is that the gerund? Is that right? It sounds wrong, doesn't it? But I think you're right.

Sydnee: I would think? Saunaing. But I mean like, is there something different about people who have chosen to build or buy or whatever a sauna, and use it regularly? You know what I mean? Like—

Justin: Yeah, there's a lot of—yeah, that's hard to control for.

Sydnee: Well, and because especially nowadays that it is connected I think with a lot of like wellness culture, you have people who may be seeking out a lot of different health practices for themselves, and sauna is part of it. And so, is that a different person than somebody who's like, "Listen, I'm just trying to get by. I don't have time for this sauna stuff." Are there intrinsic differences? You know, so, it's hard.

And some of the studies have teased that stuff out, and some haven't. Well, what they—what the evidence generally is looking at is, one, blood pressure. So, there have been a lot of studies into the idea that, and I think this kind of makes sense, if you sit in a hot room and it's steamy, will it cause your blood vessels to dilate and then your blood pressure will get lower? And if you do this regularly, is your blood pressure always lower?

Justin: Mm-hm.

Sydnee: That seems like a really, okay, that's a fair question to ask. Is it having some sort of lasting effect, or is it transient? So, there's a lot of research being done on hypertension in general, then that led to a lot of research on heart disease.

Because you know, the vasculature, like veins being too tight, that gets tied to blood flow and the process of having a heart attack or having a stroke. And so there's a lot of evidence that—or a lot of research then that was done on like, if you sauna regularly, will you have fewer heart attacks? If you

sauna regularly, would you be less likely to have a stroke? So, you see some studies that have started to look into that.

And again, most of the studies we're talking about, one, are more cohort studies, meaning we didn't randomize people, we just asked them if they saunaeed or not. Two, they're mostly done in Finland, and that's fine, because there's a lot of people who sauna, so it makes sense, except can you extrapolate data that is only done on people who live in a certain place to people who live everywhere else in the world?

Justin: Mm-hm.

Sydnee: There's some issues with that. And then three, there are a lot of studies that are only done on Finnish men. And so then it's hard because now you've got both a gender and, you know, like an ethnic bias to the data. So, can I—does that data apply to me, a woman born in West Virginia? I don't know.

Justin: Yeah.

Sydnee: Right? I mean like it's—so, there's some limitations to it.

Justin: Yeah.

Sydnee: But also, again, it makes sense that they're the ones doing the studies, because they're the ones doing a lot of the saunaing. There have been studies done on dementia—I think a lot of this sort of makes sense. Because we know that a lot of dementia has to do with disease in the vessels in the brain, and we're thinking about the effect of a sauna on your blood vessels, it makes sense that we would then study dementia.

Pulmonary disease has been studied, lung disease, and then a lot of other sort of random conditions. What we know at this point, so there was a great meta-analysis that looked through—basically, a meta-analysis takes a bunch of studies and kind of compiles them to look at like aggregate.

All these studies on sauna and blood pressure, what's the headline? We put them all together and we looked at what conclusions came from them, and

how—what the strength of the studies were, and can we say that there's good quality evidence for this or not, right?

Justin: Right.

Sydnee: So, what they found about high blood pressure, first of all, is that there's definitely a reduction in your blood pressure immediately after a sauna. But that kind of makes sense, right?

Justin: Yeah.

Sydnee: You know, that your blood vessels have dilated, and we would check your blood pressure, and it would be lower than when you—before you went in the sauna. There was one cohort study, again, where we're just taking people who do sauna, and then some who don't, so we did randomize them, that said there was a 47% risk reduction of getting high blood pressure over 25 years.

So, it was a long study, that's good. But it hasn't been replicated, there has been no randomized control trial. And again, most of the studies that they were looking at in this meta-analysis were only done in men in Finland. Some included women, but most were just men. So, I don't know—does it lower blood pressure? Maybe? Maybe.

Justin: Maybe.

Sydnee: Similarly, when you look at like the aggregate of all the data on heart disease and stroke, there was an inverse relationship in two studies where they said, look, the more you sauna, the less likely you are to have a heart attack or stroke.

Justin: Mm-hm.

Sydnee: They showed that in two studies. However, they said very clearly, we cannot establish that it was causal. We saw a correlation. There's definitely a connection between—

Justin: You know, it's—*eh*. It's tough too because... I wonder if it's also complicated by the fact that when you're in the sauna, it's not just like one factor, like there's a bunch of different things that that is, right? Like for example, I know there's been a lot of research about meditation and the impact that can have on your overall physical health.

And it's like, in a sense, even if you're not actually meditating or following a practice, like the idea of sitting in a place and being still and that being all you're really doing is like just being present in that moment, like that could have an effect too. If you're the sort of person that sits for 20 minutes in silence in a sauna every day, you know, you may be having some of those benefits.

Sydnee: Well, and that's what, if you look through like the sort of technical why do we think any of this might be true, what you're talking about for meditation, or for other similar activities, I think we're looking at the same things. We're trying to reduce like the—the tone of your vessels is not just tied to one thing.

It's tied to, I mean, I think in a colloquial way, we'd say like your stress level, but like what hormones are being released, what factors are circulating in your body that are being released by your brain, by your gut, by your vessels, by your, you know, by all of your... your adrenal glands, everything. What is being released by all of these things that is affecting those blood vessels? And how can we modulate all of that?

Justin: Mm-hm.

Sydnee: And the answer is so varied, right? Like, there are so many answers to that question. And all of them together probably are the right—you know.

Justin: Mm-hm.

Sydnee: But that's a—it's bigger than one thing. With dementia, again, suggested a reduction in risk, causal link not established. Lung disease, they did see some improvement in like if you have some sort of obstructive lung disease, like asthma or COPD, after you get out of the sauna, there was a

suggestion that like you had some improvement in your symptoms, but it seemed like it was short-lived.

Justin: Mm-hm.

Sydnee: Like it was a transient thing.

Justin: Mm-hm.

Sydnee: Which kind of makes sense, it's almost like sitting over a humidifier for a while, or like if you were ever sick and you like intentionally were breathing in—did you ever do that? Like warm up hot water, create steam, put a towel over your head—

Justin: Oh, yeah, yeah.

Sydnee: And like breathe it in? Like, I used to do that to try to maintain my voice.

Justin: Yeah.

Sydnee: Similar idea. But again, right now we don't know that it fixes anything. And then it's been studied in smaller studies for things like chronic pain like arthritis, fibromyalgia, chronic headaches. There was a Japanese study on depression. There have been several like hypothetical sort of we think it would be good for your skin for these reasons, but no like concrete—

Like we put people with eczema in a sauna, and then we—you know what I mean? We haven't done that. People with eczema have said it improved their eczema, but I don't have a big study to tell you that it does anything for skin condition. And then there's a lot of quality-of-life stuff, like they see a positive association with like social functioning, physical functioning, vitality, but it's all association.

Justin: Mm-hm.

Sydnee: The headline is, a lot of it seems to be similar to what physical activity would do.

Justin: Oh, yeah.

Sydnee: And that's what a lot of proponents of sauna who I think are coming from a really scientific background would tell you is, if you think like going for a run is good for you, this mimics some of the effects of going for a run.

Justin: No, now listen, don't try to bury that like that's a shrug. If we can get the power of exercise without exerting the energy? Folks, this is a huge, huge leap forward!

Sydnee: But these-I would say that people who sauna on average are healthier than you and me. And would probably say, "Well, no, what would be best is if you went for a run and then sauna."

Justin: You exercise first and then sauna—okay, pal!

Sydnee: And then they're gonna—

Justin: Okay.

Sydnee: Then they're gonna—

Justin: Can I catch up with you after?

Sydnee: [titters] I should note, is it dangerous? This is a big question. A lot of people are like, "Well, but if you have heart disease, is it safe to sit in a sauna?" Generally speaking, for a healthy individual, or for somebody with a stable chronic condition, like stable heart disease, we don't have any evidence of harm that sitting in a sauna is more—like it's strain on your heart.

Now, if you are somebody with unstable heart disease, like if you recently had a heart attack, or if you have decompensated heart failure, obviously an environment like that where it's very hot and there's a lot of humidity, that might be—that could create strain on your heart in that situation. So, if you

are—if you have unstable disease, possibly. And they have had cases of like sudden death, usually linked to something like that, right?

Justin: Yeah.

Sydnee: But if you are stable or a healthy individual, we don't have a lot of evidence to say sauna is dangerous. There are—there are burns as a common problem in saunas, because people touched hot things. But they did a seven-year retrospective analysis of 598 patients with burns treated in a major Finnish hospital. 26% of the cases were from saunas. That's a lot of sauna burns!

Justin: Wow.

Sydnee: But 40% of those were under the influence of alcohol. So there's a big headline—

Justin: [laughs]

Sydnee: Yeah.

Justin: Don't sauna and drink.

Sydnee: Don't sauna and drink is a big headline. They've also, that's usually, when they found cases of sudden death in sauna, a lot of them were related to alcohol. There's a lot of do not drink alcohol when saunaing.

Justin: Makes sense.

Sydnee: That's a headline.

Justin: I bet just physically too, that's not great for you.

Sydnee: It's not.

Justin: The combination of those two doesn't seem smart.

Sydnee: No, because you could get dehydrated, you could sweat a lot, you could become—you know, and then obviously the alcohol is diuretic and yeah.

Justin: Yeah.

Sydnee: So, don't sauna and drink. And then, you know, the other thing is, a lot of people combine sauna with cold plunge, so you go from a really hot environment to a really cold environment, or vice versa. And there have been like not just anecdotal, there have been case reports of people who have had like a bad cardiovascular reaction to going from a really hot environment into a cold one, where it causes your blood vessels to constrict all at once.

There have been some sudden deaths from that. Now, again, the thought is that if you do not have underlying cardiac disease, it should be safe, and certainly most people who do this are fine. However, there have been some anecdotal reports that perhaps the hot to cold is not beneficial or is dangerous. And then also, we don't have any hard research that cold plunge is helping you. I know I'm just going to make a bunch of people mad, but like we do not at this point have a lot of scientific evidence that a cold plunge—

Justin: Cold plunge, catching stray.

Sydnee: Well, and especially the hot to cold. I will say, if you want to buy a sauna, you can buy infrared saunas. So, Justin, have you heard of infrared saunas?

Justin: I've seen them advertised in bougie hotels before.

Sydnee: So, the idea—

Justin: That I had been passing through my way to a worse hotel.
[chuckles]

Sydnee: The idea behind an infrared sauna, it makes sense why it was invented. Everybody likes saunas, but like traditionally, it involves rocks and

fire and steam. And you know, it's not something that's easy to have in your house. So, the idea with an infrared sauna is, you get all the benefits from a sauna, but it's just lights creating the heat. You know, infrared lights creating the heat, and so you don't need all of these other things.

Justin: Mm-hm.

Sydnee: Okay? That was the big idea. It actually dates back, do you know who first kind of led the way for the infrared sauna?

Justin: Who?

Sydnee: John Harvey Kellogg.

Justin: Wow, that guy's popping up so much in our show this—lately.

Sydnee: I know.

Justin: He's been very vibrant, very present.

Sydnee: The most notorious Sawbones figures.

Justin: One of, probably the most.

Sydnee: Yes. He invented, in 1893, the incandescent bath lights were shown at the World's Fair in Chicago. And that was probably like the first iteration of what would become the infrared sauna. We see the first one patented in '65 by a Japanese doctor. And then after the '70s, they really took off as like you can buy these to have in your home for wellness, holistic health.

You can combine them with like colors for like chromotherapy or like scents, you know, aromatherapy. They become part of that whole sort of like health, wellness, like get in this room and hear things and smell things and look at things that will make you better and live longer. And they very much become connected with longevity as well. Like the idea is if you sit in this infrared sauna for 20 minutes a day, you'll live longer. It's big in like the bio hacking longevity crowd.

Justin: Makes sense.

Sydnee: The thing I will say about infrared saunas, the benefit is supposed to be, one, just like the practicality of them. Two, they claim that the infrared lights can penetrate deep into your tissue and then can like detoxify you and fix your mitochondria and—

Justin: All true.

Sydnee: All of these things. Infrared lights, based on studies, can only penetrate one to two inches into your skin.

Justin: Mm-hm.

Sydnee: So they can't, you know, they're not going to detoxify your liver, which doesn't need to happen anyway, but they're certainly not going to do that, right?

Justin: Even if it could, it wouldn't.

Sydnee: Even if it could, it wouldn't!

[both chuckle]

Sydnee: But it's not.

Justin: Even if it could, it wouldn't, but it's not!

Sydnee: The other thing that they say is that they're not as hot, they don't get as hot as a traditional sauna would. And so if you can't tolerate the heat of a traditional sauna, the infrared sauna—

Justin: Then get out of the kitchen.

Sydnee: Is better. [titters] Any evidence that they claim that are specific to infrared saunas, they're just drawing off this stuff that I already told you about.

Justin: Oh.

Sydnee: They're pulling evidence that—research that's been done on sauna-saunas, and some of them have involved—have also included infrared saunas, but it's not unique. There's nothing unique about the infrared sauna that makes it superior to the sauna, except that it just doesn't get quite as hot.

Justin: Yeah.

Sydnee: And I guess you're not gonna get a sauna burn, because there's no hot rocks.

Justin: And peeing on the rocks, not a problem.

Sydnee: I think what's the problem—as I started researching infrared saunas, and you look at these medical saunas that you can buy, Justin—

Justin: They look great, look like tiny little houses.

Sydnee: Yeah.

Justin: Tiny little—tiny little modernist houses. [titters]

Sydnee: They will—they will sell you all of these beautiful, full-spectrum saunas. And they all have these like different—they will talk about their health benefits and all the things that they can do to make your life better and make you live longer, and all these things. There's something about it to me that feels—

Justin: Is there a cost, by the way? Does it say?

Sydnee: Do you want to know how expensive—

Justin: I would love to know what you're going to—click here to learn more. If there is a contact us form, you know you're in trouble. No, no, it's 10 Gs. That's what I would have—

Sydnee: That one is 10,000. That's a four person.

Justin: Yeah.

Sydnee: Yeah.

Justin: Yeah. That's a four person, \$10,000—

Sydnee: Let's see this big one.

Justin: I'm not saying it's reasonable, I'm saying that's what I expected it to say. [chuckles]

Sydnee: They also—

Justin: Now they full-spectrum sauna, that's a 404. I don't love that as someone I'm gonna buy a sauna from.

Sydnee: Ultra full-spectrum. That one says "medical" on it.

Justin: The medical seven—

Sydnee: Medical breakthrough—

Justin: Ultra—

Sydnee: The medical.

Justin: Full seven—

Sydnee: That's a 404—

Justin: 404!

Sydnee: Anyway, you can buy them. I mean, there's tons of companies selling these things. The thing that bothered me, as I was looking at these

infrared saunas, one, no evidence that they're any different than any other sauna.

Justin: One, you—two, you missed Christmas and can't ask for one.

Sydnee: [titters] I think that there's something about it that feels kind of gross and like... like we're colonizing saunas. It feels like, don't you want—don't you want the experience of a sauna without all the icky, like you're— with other people you don't know. And you're outside, and then it's like there's rocks and it's steaming, you're sweating around people, and isn't that all gross? Wouldn't it be nicer if it was in this like clean, sleek—

Justin: Yeah.

Sydnee: It's just lights.

Justin: Like this is also not the right term, but it's like a sauna gentrification.

Sydnee: Yeah!

Justin: If you—if you will. It feels like, yeah, I know what you mean.

Sydnee: You know what I mean? There's something about it that just, I don't know, I felt—it felt like, this is the cleaner sauna for you.

Justin: Yeah.

Sydnee: I would not invest in an infrared sauna myself, especially—they push it for things like weight loss and chronic pain. Like the stuff that people usually try to make a lot of money on, right? And then live longer. And I think that there's no evidence to suggest that it's going to do any of those things specifically, right?

Like I said, there's been some evidence in these other areas. And so, if you want a sauna, if you like want to engage in the practice of sauna, and you are a healthy individual, I think that there's—you know, I mean, I kind of want a sauna after doing this episode. Like, I wish I could go sauna. But if I

did, I'd want the whole steamy, sweaty experience. I don't want these glass—weird glass boxes in my bathroom. [titters]

Justin: We hope you've enjoyed the whole sweaty, steamy experience of Sawbones this week. Thank you so much for listening. Thanks to the Taxpayers for the use of their song "Medicines" as the intro and outro of our program. Thanks to you for listening. That's going to do it for us for this week, until next time. My name is Justin McElroy.

Sydney: And I'm Sydney McElroy.

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

["Medicines" by The Taxpayers plays]

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