

Sawbones 302: Elderberry and Other Things That Don't Prevent the Flu

Published on December 13th, 2019

[Listen on TheMcElroy.family](https://www.themcelroyfamily.com/episode/sawbones-302-elderberry-and-other-things-that-dont-prevent-the-flu)

Clint: Sawbones is a show about medical history, and nothing the hosts say should be taken as medical advice or opinion. It's for fun. Can't you just have fun for an hour and not try to diagnose your mystery boil? We think you've earned it. Just sit back, relax, and enjoy a moment of distraction from that weird growth. You're worth it.

[theme music plays]

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

Sydnee: And I'm Sydnee McElroy.

Justin: And I'm Justin McElroy. I don't see why we're bragging.

Sydnee: Justin, it is... it is cold and flu season, as you know.

Justin: That is so true, Syd, and that can only mean one thing – it's time for... [air horns] *Taint tanning!*

Sydnee: No! No. No.

Justin: I already made the button, though.

Sydnee: I know, but it's—

Justin: Are you telling me I'm never gonna be able to use the button again?

Sydnee: No, never again. It was... it was only applicable to that one episode, and even its usage then, I find distressing.

Justin: Challenging. Yeah. It was questionable.

Sydnee: Justin, everybody's coughing and sneezing.

Justin: It's so annoying.

Sydnee: They're aching and chilling. And it is—it is the season when I begin to see a very, for me, upsetting Facebook meme circulate. God, there are so many upsetting Facebook memes, I could really mean anything with that. But this one is particularly offensive to my sensibilities, and I see it throughout the year, but it is now that I'm seeing it more than ever.

Justin: And what is that?

Sydnee: It's... so, this meme has a picture of two things, typically. And it is a bottle of a dark liquid, uh, of a syrup, and a box that looks like a medicine. Looks like a box that you would buy at the pharmacy, of some sort of over-the-counter medicine. And the meme says, "This flu season..." Uh, and sometimes it'll say, like, "What doctors don't want you to know. They won't tell you. Here's what doctors won't tell you. Take these two medicines every day, and you don't need a flu shot, 'cause they're just as effective, or more effective," or whatever whoever made it decides to say this week. Than the flu shot.

Justin: Well, Syd, why you all been sittin' on this? This sounds huge! I'm so stoked!

Sydnee: Well, it's fake, Justin. This is Sawbones. You knew that. But I wanted to talk about, mainly, the first ingredient that people love to use as a cure-all, elderberry. And then, a little bit about its—what I think, this time of year, its companion medication. Although, I don't think this is all year long. But this time of year, the two seem to like, fly in tandem. Oscilloccinum.

Justin: Oscilloccinum.

Sydnee: Yes. I guess that must be how it's pronounced. It's fake, so I don't feel bad if I'm saying it wrong, y'know? I think that's fair. 'Cause it's a fake thing.

Justin: Y'know, if she really understood it, she would pronounce it correctly. How can I trust her evaluation of this great, great medicine?

Sydnee: I want to focus on elderberry first, though, because elderberry, especially in various Facebook groups, seems to be used as kind of a cure-all for everything. Especially like, if your kid is sick, here's a great thing you can use for... whatever. It's made of elderberries, so it's fine. So I thought, let's spend a little bit of time on that, and then we'll cover the other briefly.

Justin: I'm ready.

Sydnee: So, thank you to everybody who suggested this throughout the years. This one has been a long time comin'. Thank you Sarah and Sabrina and Ian and Caroline and Anna and Megan and Carrie—

Justin: [begins singing a quiet tune]

Sydnee: --and Eleanor and Ellie and Rachel and Em and June and Taren and Darby and Lauren and Abby and Martha and Alexis and Katie and Grace and Allison and Nick and Aaron and Catherine. It reminds me of Joseph and the Amazing Technicolor Dreamcoat.

Justin: [laughs] [sings] It was Sarah and Sabrina and Ian... I was thinking the um, y'know the Animaniacs one where they name all the countries?

Sydnee: Ahh, yeah.

Justin: Uh, so thanks to all of you for uh, ruining elderberry for all of us.

Sydnee: [laughs] And for those of you who asked me in your email if you should be using this instead of the flu shot...

Justin: Shame! Shame on you!

Sydnee: No. I just want you to know now, no.

Justin: Shaaame!

Sydnee: Just in case you don't listen to the end. [laughs] I want to get that up front. The answer is no.

Justin: You have listened to this show before. Shame.

Sydnee: [laughs] So what, uh, what is elderberry? Well, you could probably guess. It's the berry from the elder tree.

Justin: Old berries.

Sydnee: No. No. And you can trace the use of elderberry back to antiquity. It's interesting, 'cause as I was trying to read about which ancient medical traditions tended to use elder, I definitely know that you can look back into like, European traditions. Like, go back to like, Greek and Roman uses throughout the Medieval period. You find it throughout the Native American various populations, and through colonial America.

I see references to its use in Ayurvedic medicine, or in traditional Chinese medicine, but I don't actually find them from like... it almost seems like something that was applied later. And a lot of the articles I found did not seem to originate from anyone who actually practiced Ayurveda or traditional Chinese medicine.

So I think it was probably because the tree is just more prevalent throughout North America and Europe. That's really where the medical traditions of it lie, as far as I can tell. And there are two, specifically, the European elder, which is *Sambucus nigra*, and the dwarf elder, which is *Sambucus ebulus*. So, Sambuca? You've probably heard—

Justin: I've seen that, yeah.

Sydnee: Yeah, that's elder.

Justin: Oh, it's the same thing?

Sydnee: Mm-hmm. So, Sambucol. It's elderberry syrup.

Justin: Ah, I've taken Sambucol before. It did not... uh, I used to have the little pills. They don't, uh...

Sydnee: Do anything.

Justin: Do anything.

Sydnee: Yeah, that's true. They don't do anything. So, the—well, okay. I'll get into the evidence. I always hate to dismiss when there's any study that I can talk about, but... they didn't—they didn't cure anything, I'll tell you that.

So, the name Sambucus actually comes from a Greek word for an instrument, a Sambuca, which is because the—I guess the elder tree, the wood, has a very like, soft pith that is easily removed. So you can get these hollow rods from it pretty easily, and use it for a musical instrument.

Justin: Oh, beautiful. That is actually a use.

Sydnee: Yeah, no, for sure. And the elder tree, if you look back to ancient traditions, was very important in terms of like, spiritual meaning. There was a lot of like, folklore and mythology associated with the elder tree. I think Harry Potter comes to mind when I started—I was like, "Why do I have that association with elder? Oh, the elder wand."

Justin: Oh, right. The—

Sydnee: From Harry Potter.

Justin: Yeah, okay.

Sydnee: Uh, the elder, the word 'elder' is actually from the Anglo-Saxon word for fire, because you could hollow out the tube—

Justin: So it has nothing to do with being old?

Sydnee: No. You use it to blow on fire while you're making a fire. To stoke a fire.

Justin: Oh! Okay.

Sydnee: So uh—and like I said, you find all these kind of spiritual traditions, and it's not weird to think that something that had some sort of religious meaning to a group of people would begin to develop like, a medicinal association.

Justin: Of course, right.

Sydnee: You find this with a lot of various herbal things. And so, originally, you would want to plant an elder tree like, near your house or whatever, 'cause it was thought to be inhabited by spirits that prevented it from being like, struck by lightning or catching on fire, so it could be protective.

And the flip side of that is that you would never want to like, make furniture out of elder.

Justin: Huh.

Sydnee: Because then the spirit is in your home.

Justin: Oh, gosh, no! Get out of here!

Sydnee: Right, and it's mad at you, because like, you turned it into a chair or whatever.

Justin: Sure, and you're farting on it.

Sydnee: [laughs] It's very disrespectful. Uh, there was—there were a lot of illnesses that could be blamed on like, harming an elder tree. So if you cut one down or burned one, they would be like, "Well, you're gonna get sick," or, "Oh, do you have a toothache? Did you chop down an elder tree?"

Justin: Now, that's a new one on Sawbones, I think, is like an ingredient that is also a, uh, uh, agent of illness.

Sydnee: Well, it's potent. It's powerful, right? You get this—and I mean, you don't find this today with modern medicines, because they're made like, in labs. Y'know.

Justin: Boriing.

Sydnee: But if you're drawing from... especially if you go into like, herbal traditions with like, the doctrine of signatures, like, these things are made to mimic different parts of our body, and they have very potent life forces and spirits, and so, they can affect our human bodies in different ways. If you go—

Justin: Doctrine of signatures means, for people who don't remember...

Sydnee: Uh, the idea that like cures like. That you can find things out in the natural world that look like, resemble parts of the human body.

Justin: Cauliflower cures your brain. That idea.

Sydnee: Right. Or a walnut. That was always the—a walnut will cure your brain, 'cause it looks like a little brain, so it'll cure a headache.

Justin: [laughs]

Sydnee: That kind of thing. Which is very elegant and beautiful, but not scientifically... sound.

Justin: It would be nice, though.

Sydnee: It's cool.

Justin: It's a pretty thought.

Sydnee: I like to think about it. I can understand why it would've been attractive. So, uh, you could also, just like you could if you harmed the elder tree, it could hurt you medically. You could use it to... because it had this kind of potent, almost magical, really, is what we're talking about at this point. This is before we start using it, actually thinking it's doing something inside our body physically. This is more of a magical, spiritual connection.

Justin: Mm-hmm.

Sydnee: You could carry a stick of elder in your pocket for arthritis, or specifically, to prevent like, saddle soreness when you were riding a horse. So, I read one article that said that, in a traditional fox hunt, which I cannot speak to, having never been on a fox hunt, uh, that it was—up until even the 1950s, riders would carry, like, a piece of wood in their pocket, just 'cause that was like, the tradition. Carry a piece of elder with you.

Justin: But we're talking more like talismanic at this point. Like, putting a knife under the bed to cut the pain of childbirth.

Sydnee: Exactly. Exactly. Same thing. You could put a piece of elder in your bathwater, and it would absorb your fever. Transfer it to the tree. Um, you could carve a notch in it for every wart you have and bury it, and by the time the stick disintegrates, your warts will be gone. Which, again, wart cures are the best, because warts tend to just go away on their own most of the time. So like, it probably would've been gone by the time the stick disintegrated into the earth.

Justin: Yeah. That's... yeah.

Sydnee: Of course, if we go—if we go back to ancient Greek medical traditions, Pliny the Elder had lots to say.

Justin: Gotta get a hand on this ball.

Sydnee: You know Pliny was gonna be up in elderberry. It has all these spiritual, important, like... it's so significant to so many different people. Of course he's gonna have something to say about it. So, in the natural history, uh, he lists in chapter 35 of book 24, 15 remedies in a chapter that is titled, 'The Elder: 15 Remedies.'

Justin: Wow.

Sydnee: I like—it's always very easily searchable in that sense.

Justin: Yeah.

Sydnee: And so, he talks about all the different things. Like, they can move your humors about in different ways. Uh, they can treat dog bites, if you mix them with polenta and make them into a poultice.

Justin: [laughs]

Sydnee: You can use elderberry juice to heal a brain abscess.

Justin: Wow!

Sydnee: According to Pliny.

Justin: That's a big—that's a called shot, Pliny!

Sydnee: [laughs] Also, there were recipes for various—

Justin: How would that fool even know you had a brain abscess?

Sydnee: That's a great question, Justin. He didn't.

Justin: He didn't.

Sydnee: He didn't. Uh, there were also recipes for various parts of the elder tree to be used—

Justin: He would wait until someone died that he had given elder and been like, "Look! Just cracked them open. No brain abscess. I bet they had one before, though."

Sydnee: [laughing] "I bet it was the elder." It's important to remember, Pliny just wrote about this stuff. He's like, "I don't know, I just write what I hear. I just write what I hear."

Justin: "Hey, listen. I'm just hearing—just what I heard. Just sayin'."

Sydnee: Uh, he said there were various parts of the tree that can be used as a diuretic. You could add some wine and use it for a snake bite. You could add some hegoat suet and use it for gout. Not shegoat, hegoat.

Justin: Hegoat.

Sydnee: Also, he includes, in this chapter, that it's good for dyeing your hair. And as I counted, this is included among the 15 remedies, and I think that's...

Justin: [laughs] Pliny! And that one is probably true, right? I mean, the idea that that would be incorrect is wild. 'Cause that's an easily checkable one.

Sydnee: Well, and there's a whole companion history to elderberry as medicine that you could go into. That's not my area of expertise, but obviously, elderberries were used for things like dyeing clothing and hair and fabrics. Painting. That kind of stuff.

Um, because it's a pretty color. Y'know, especially—there various colors of elderberry, depending on which tree you were talking about. They ranged from like, reds to blues and really dark purples, and black. Really beautiful, deep pigment. So y'know, it was obviously also being used for those kind of applications.

In addition, there's a whole culinary and...

Justin: Oh, sure, right.

Sydnee: What's the... drink word? Cocktail history. Maybe...

Justin: Li—libationary?

Sydnee: Yeah. [laughs]

Justin: I'm gonna go with that. Is that a word?

Sydnee: Libationary?

Justin: Libationary feels like a good word.

Sydnee: Maybe—maybe Neat can cover this.

Justin: Yeah, this would be more of a Neat thing.

Sydnee: Yeah. I'll tell—I'll tell my sister Teylor to cover this on Neat. The hist—because elderberry, obviously, has been used for um, elderflower drinks. Spirits and um, Sambuca. Y'know, I mean, like... so there's a whole other—and culinary history. It was used in sauces and stuff like that, too.

Um, but, in North America, along with all these—and this is fun to talk about. We don't often talk about like, the traditional, like... among Native Americans, what they were using with some of these substances. 'Cause it was very popular throughout.

Justin: Libationary does seem to be a word, by the way. Just sayin'.

Sydnee: Okay. Uh, but it was very popular throughout Europe. But then, also, you found in different parts of North America, uh, the Cherokee people used elderberry and flower, elderflower teas as well, for things like arthritis,

headaches, fevers, wounds, uh, dropsy. Y'know, all the—basically everything.

Justin: What is dropsy? I always forget.

Sydnee: Heart failure is probably what they're talking about when they use the word dropsy. Dropsy could be applied, though, to like, strokes, too. And brain hemorrhages, and all kinds of stuff. But I think that it most equates with heart failure.

Justin: Okay.

Sydnee: Um, also, uh, the Algonquin people used the bark. Depending on if you scraped up or down, it could be used as like, an emetic to make you throw up, or purgative to, y'know, make you poo.

Justin: Get that one right. [laughs] Don't get that confused. "Hey, how did you get this bark off the tree again?"

"I honestly don't remember. Best of luck."

Sydnee: Good luck with that one. Either way, I guess it's gonna do something.

Justin: Something's gonna happen!

Sydnee: The Lenape people used it for a variety of different cures; among them, colic, for infants. And uh, you could find it—its use throughout the Caribbean for various, um, like, compresses. Like, different Caribbean peoples used it for like, a chest compress for a chest cold, or a head, y'know, like, poultice thing for a headache, or around your eyes to reduce puffiness around your eyes. Different things like that.

Um, and it—it seems to have been, like I said, predominantly European and North American. And it rose to a point where it was, at least by the 1600s, considered kind of a cure-all. I found this quote from, uh, William Cole, who was a botanist and an herbalist and he was a proponent of the doctrine of

signatures and all that. And he wrote, "There is hardly a disease from the head to the foot but it cures, speaking of elderberry. It is profitable for the headache, for ravings and wakings, hypochondriac and melancholy, the falling sickness, catarrhes, deafness, faintness, and feacours." So, everything. Everything.

And this was—throughout Colonial America in the Civil War period, you still continue to find elderberry cited as useful for everything, from, put it around your head—put it around the head of a wounded soldier to keep flies away from them. Um... [laughs] You could use it to treat a cough, you could use it to stop bleeding...

Uh, there was one traditional use I forgot to mention that I really enjoyed. You could put elderberries in your windowsill to repel vampires, because vampires have to compulsively count things. I didn't know that.

Justin: This is new to me.

Sydnee: In vampire lore, some vampire lore, they have to compulsively count things. So if you put a bunch of elderberries in your windowsill, they'll never make it inside, because they have to count them all.

Justin: Yeah, but then you are also risking waking up in the morning—like, in the late evening hours, and coming outside and seeing a vampire count the berries on your windowsill. That would be extremely upsetting.

Sydnee: I wouldn't do your bedroom window sill.

Justin: No.

Sydnee: That seems scary. Uh, over time, though, it started to become more closely associated specifically with fevers and upper respiratory infections. Okay? And again, all along, it's still being used in drinks and foods and dyes and sauces and whatever. But the medicinal point is really associated with flu-like illness. Cough, congestion, fever, runny nose, that kind of stuff. So, you really start to see studies on it in just the last few decades...

Justin: Hmm.

Sydnee: ... is when people said, "Well, we've used..." And there's always that question. "If we've used something for thousands of years, are we using it because it does something, or are we just using it because we've used it for thousands of years?"

Justin: Right.

Sydnee: Right?

Justin: That—yeah. To assume that it works because of that would be a fallacy. The appeal to ancient wisdom. But, it makes sense to test it out and see how it does.

Sydnee: So we've done some studies. One that specifically has been mentioned a lot is that we did one in... in a lab, where we infected cells with influenza. Human cells with influenza in a lab. And then, exposed them to elderberry juice.

Justin: Okay.

Sydnee: And what they found is that it seemed like there were certain, like, phytochemicals within the elderberry juice that could prevent the virus... not completely, but make it more difficult for the virus to enter the cells, and even once it got in there, make it more difficult for the virus to replicate. And in addition, they seemed to send some signals off to the rest of the body that would stimulate your immune system to respond.

So they did this in a lab with elderberry juice, and they found these very positive results.

Justin: So, that doesn't look great for you, Syd. I will just say that, as an outside observer.

Sydnee: It is important to remember, though...

Justin: I'm already buying it. I'm buying it in bulk on Amazon.

Sydnee: I know. I know, you're ordering it off Amazon right now. It is important to remember that just because something works a certain way in a petri dish in a lab, does not necessarily indicate that it will work the same way in a human body out in the world. Which is why any medications are first created in a lab and tested in a lab, and then, if they do show promising results, they are put into clinical trials so that we can actually see what they do in people.

Because part of that is for safety, right? To make sure that they're not gonna hurt people. The other part is to make sure they work.

Justin: Right.

Sydnee: 'Cause they might not work, just because they work in a lab. Those two don't always correlate.

Justin: So did we—I mean, there's gotta be other trials we can do, right?

Sydnee: Yes. There are some clinical trials that have been done, and I want to talk about that data... after we go to the billing department.

Justin: Let's go!

[theme music plays]

Justin: Our first sponsor this week on Sawbones is Casper. Y'know, when we sleep... and it's not a lot. [laughs] It's not as often as I wish it was. But when we do sleep, uh, it is always in, uh, perfect comfort, I would say. And it is—we've been sleeping on a Casper. We always had one in the guest bedroom, but then we got one for our own bedroom. Tired of letting all our guests have all the fun.

Sydnee: Yeah, I don't know why we were treating our guests and not us.

Justin: It was wild. Casper products are cleverly designed to mimic human curves, providing supportive comfort for all kinds of bodies. This is a mattress that everybody can agree on. And uh, if you don't—if you don't believe it, that's fine.

Sydnee: Ask our kids. They want to be on our mattress and our bed all the time.

Justin: All the time!

Sydnee: [laughs]

Justin: I have a saying that I always say, and it's, "Sleeping is believing." And you can do that right now with Casper's 100-night risk-free sleep on it trial. Just give it a whirl. See how it goes. And you can get \$100 towards select mattresses by visiting Casper.com/Sawbones, and using 'Sawbones' at check out. That's Casper.com/Sawbones, and then use the code 'Sawbones' at check out, and get \$100 towards select mattresses. Terms and conditions apply.

Our other sponsor this week is uhh... Quip!

Sydnee: That's right.

Justin: Which is kind of like Casper, in that one is a mattress, and Quip is a toothbrush. But they're both in your home.

Sydnee: And I would say essential.

Justin: And essential. Yes. And delivered to you in a small box. Now, the Quip box is, of course, much smaller, because it is indeed a toothbrush.

Sydnee: One would hope, or that would be a massive waste of cardboard.

Justin: Uh, I love the Quip. It feels great. It gives these little pulses every 30 seconds, uh, for the two minute, y'know, brushing span of time, so you know how long to brush and when to switch quadrants of your mouth, as

weird as that is to think about. But y'know what? Don't keep Quip just for yourself, Sydnee. Quip can be a gift. A gift Quip.

Sydnee: Not your Quip, though. Get another Quip.

Justin: Get another—folks, we can't emphasize this enough. Do not regift Quip. Quip is thoughtful. It's practical. Uh, it makes good habits simple. You're not merely giving a toothbrush, you're giving the gift of oral hygiene.

Sydnee: Mmm.

Justin: And while it may not be the most glamorous, that million-watt smile that they get as a result is gonna turn a lot of heads. Quip delivers... speaking of heads, Quip delivers brush heads, floss, and toothpaste refills every three months. You don't have to worry about, "Oh, how long do I need 'til I replace my too—" Quip's got you. Stop worrying.

Just go to GetQuip.com/Sawbones, save on gift sets, and get your first refill free with a refill plan. Get your first refill for free at GetQuip.com/Sawbones. GetQuip.com/Sawbones.

So, Syd, um, you ended the first half of the show in, dare I say it, disgrace. [laughs] Um, your precious science abandoned you when it was proven that, in a lab, elderberry juice can stop the flu—deter the flu from getting into human cells.

Sydnee: So, in a lab, we found these results. The next question is, well, what does it do in a human body? Uh, and any researcher would tell you that. I'm certain the researchers who did that study said, "These are exciting results. Now, let's see what happens in humans."

Justin: Mm-hmm.

Sydnee: Uh, and if we look into clinical trials using elderberry, as you may guess, they're sparse.

Justin: 'Cause it's cheap, and there's not a huge profit to be made from it.

Sydnee: You can technically – although, I'm gonna get into why I don't advise this – you can technically make your own elderberry syrup.

Justin: Hmm.

Sydnee: Again, I do not advise it. We'll get into it, but uh, it's very cheap. It's easily accessible. No giant drug company is gonna do a big, y'know, controlled trial. Double blinded. It's just not gonna happen. But there was a recent meta-analysis of 137 articles that have been published about elderberry's effect, specifically on cold and flu symptoms.

And uh, from that... what they do with the meta-analysis is, they decide ahead of time, "We want to see if we can take all the studies that have ever been done about this one question, and pool them together and come up with an answer by pooling all of these studies together."

But before you do that, you decide on what criteria you're gonna use. If I'm gonna include a study in my meta-analysis, it has to meet, and so you sit down, and you come up with a list of rules. It has to meet these rules. So, from these 137 articles that potentially could be included in the meta-analysis, only four actually met the rules, meaning we consider these somewhat meaningful. Y'know?

Justin: Okay.

Sydnee: And from those four studies, that only means that 180 people were included. So, total. So out of 137 elderberry studies, only four were considered somewhat meaningful, and that totaled 180 humans. And the results of those were that, it seemed taking elderberry, when you had, again, cold or flu symptoms is what we're—so we're not saying influenza, necessarily. We're talking about symptoms that could be considered cold and flu symptoms.

Which, the cold—the common cold and influenza are extremely different. But this time of year, they get lumped in together, because both can make you like, have a cough and congestion and a fever.

Justin: And they're mainly lumped together by drug companies that are selling you treatment for the symptoms.

Sydnee: When in reality, for the vast majority of us, a common cold is absolutely no big deal. Not everybody. But for the majority of us, it's no big deal. You're going to feel bad, and then get better, and that's fine. We'll all get them.

The flu, influenza, is a much bigger deal. And it's always unfortunate, I think, that they're lumped in together, as if it's like, all the same. No. They're all viruses.

Justin: Sure the cold didn't appreciate it. "I was just tryin' to have some fun. That guy's mean."

Sydnee: I was just—the cold is like, "I got to stay home from school a day and eat some soup and play video games and my mom was really sweet to me." The flu is like, "Oh my gosh, I can't get out of bed, my whole body hurts, I hate this."

Justin: Right. Cold is the fun kind of sick where you're like, "I could use a break." The flu is like, "I kind of want to die. I kind of want to live in a toilet." [laughs]

Sydnee: So they use elderberry in these four studies among these 180 people, and they found that it seemed taking elderberry could reduce the duration and severity of the symptoms. Compared to placebo.

Justin: Okay.

Sydnee: But this is in 180 people.

Justin: Right.

Sydnee: That's it. That's not a lot. That's not a sample size that's big enough to reflect the entire population. So from this meta-analysis, they

said, "It's really interesting." And that's all you can say until you do bigger studies to say like, okay, but what could—what is the real potential of elderberry here, if applied to the population at large?

And again, they in no way showed that it could prevent a cold or flu.

Justin: So it doesn't make sense to take them before, but it sounds like, if I'm hearing you correctly, it maybe doesn't hurt.

Sydnee: What they found is that—

Justin: And it might help.

Sydnee: —it may reduce the duration and severity of some of these symptoms in some people. That's it.

Justin: But it doesn't replace a flu shot.

Sydnee: Well, there was no data whatsoever that it could prevent it. So, no, it doesn't do the—it's comparing apples and oranges. The flu shot can prevent the flu. Elderberry cannot.

Justin: Okay. Got it.

Sydnee: So it in no way should be used to prevent anything. It—what they said was, if you get a cold, and you want to take some elderberry syrup, maybe you'll be sick a little less long. Like, y'know, that's it. That was what they said.

So, of course, what has come from data like this is an entire industry around selling people elderberry. Right? Because we have—

Justin: Let's profit off of it. [laughs]

Sydnee: Let's profit off of it. We can't prove that it works, so let's sell it to people instead. So you can find elderberry syrups, and lozenges, and like, supplements, pills... they're widely available. If you go—I was just at the

pharmacy the other day, and I went, out of curiosity, to the cold and flu aisle. Again, it's all lumped together. Cold and flu aisle. And right across the top shelf, top billing, top shelf, was an entire line of elderberry products. Right there. Next to—now, to be fair, next to other cold medicines that don't work, too. But still.

Justin: [laughs]

Sydnee: But still, they're just lined up right there, along the top at the pharmacy, as if it's just like, "Well, y'know, this is a medicine that we all accept works." And we have not all accepted that it works. No. We don't have the data to say that this works. We have some studies that are interesting, but medicine shouldn't work this way. It shouldn't be that, I don't know, maybe, throw it up on the shelf and let's see what sticks.

So anyway, there was a—you'll see referenced a study that proved it was better than a medicine called Tamiflu. Have you heard of Tamiflu?

Justin: Yes.

Sydnee: It can be prescribed to people who have been diagnosed with influenza, and Tamiflu has been shown to, again, uh, reduce the duration and severity of the flu. Of influenza. We're talking about not cold and flu symptoms, the flu.

Uh, I am the first to say, Tamiflu is not a perfect medication. It—you have to take it within the first 48 hours for it to really have much of an effect, and that's difficult to get, y'know, get a medicine to somebody within 48 hours of them having symptoms. Like, prove they have the flu and get them on Tamiflu.

So, there are some limitations to it, but it's been studied, and we know it works. They've done real trials. And y'know, like any other medicine on earth, if it is prescribed to the right patient after using your criteria and discussing risks and benefits, it can be helpful.

Um, there is no study that compared the two. Basically, somebody said, "Well, in this one study about elderberry, it reduced the duration of the flu by like, four days. And in this study of Tamiflu, it was only like, two days. So, see, it's better than Tamiflu." But you can't do that.

You can't just grab two random studies from the air, and then say, "Look, I compared them!" I mean... I guess you could. But it doesn't mean anything. Like, it's not a scientifically robust statement. So if you see that out there, that doesn't—that's not true. There was no study that directly compared the two under the same conditions and showed that it was superior.

Justin: If you look at the Sambucol website, and this is one of the big producers of this elderberry stuff, it says on there, "Cold and flu relief. Fast, temporary relief from nasal and sinus congestion, runny nose, sore throat, coughing, sneezing, chills and fever."

And then, on the website, right here, it says, "Claims based on traditional homeopathic practice, not accepted medical evidence. Not FDA evaluated." Like, they're basically saying, like, "We're making this up, but we are still gonna claim that's what it does right there on the package."

Sydnee: They've gotten in trouble for it. There have been some lawsuits in the past, specifically aimed, I think, at Sambucol, for claims that they make. Because—because especially, it's not just like... we talked about cough drops. People are out there using cough drops when they get sick, and some of them are just candy. [laughs] And that's... the thing about it is that cough drops aren't out there saying, "Hey, take this instead of a flu shot."

Justin: Right.

Sydnee: But there are people out there—

Justin: They're saying, "You're sick, it sucks, have some candy."

Sydnee: Yes. And there are people out there who will tell you, elderberry works instead. Like, use it instead. And that's a dangerous, dangerous

statement to make. That's a life threatening claim, if you tell people that elderberry will replace their flu shot.

So, uh, the thing with making your own elderberry syrup – I wanted to mention this, too, because people will say that. Like, "Well, don't go buy it. Just make it yourself. If you have access to an elder tree, pick the berries and boil them down and make elderberry syrup."

Justin: Sounds... wild. [laughs]

Sydnee: The problem is that if you consume uncooked elderberries, specifically blue or black elderberries, there's a toxic substance in them in the seeds that can make you super sick. You can cause nausea and vomiting. You can get very sick. There's actually parts of the plant that contain cyanide. So if you cook other parts of the plant in with it, you can release cyanide.

Justin: Oh. Not great.

Sydnee: But the point is, if you don't know how to prepare it, you can get really, really sick from elderberry. So, don't eat the berries, ever. And certainly, I would not recommend making your own, 'cause what if you don't boil it thoroughly enough? You don't get rid of all the toxic substances.

Justin: So you're basically tacitly saying people should be buying Sambucol at the grocery store. You're saying—

Sydnee: No, I am saying that if you—

Justin: You're saying, "Don't make it your own. Buy these great products right now."

Sydnee: I'm saying if you insist on taking elderberry, uh, don't make it yourself.

Justin: Fair.

Sydnee: I—now, like I said, I see these Facebook memes that combine elderberry with this oscillococcinum. And so, I looked into this. I was like, “What is this stuff?” ‘Cause it says homeopathic right on the box, so for me, if it says homeopathic, just... look—look the other direction. Just forget it.

Justin: What does that mean in this sense?

Sydnee: Well, for the elderberry, I mean, homeopathic usually indicates that it’s been diluted to the point that there’s nothing there.

Justin: Diluted, right?

Sydnee: That is not my understanding from elderberry syrups.

Justin: Maybe it’s kind of a funny, like, kind of like a winky way of saying that it’s fake. [laughs] Like, they're basically like, if they put homeopathic on there, then...

Sydnee: Oscillococcinum is homeopathic, in the sense of the word ‘homeopathic,’ as in, there’s nothing there. It’s fake. Uh, it stems from a French physician named Joseph Roy, who was uh, helping take care of patients during the Spanish flu of 1917.

So, he was looking in the blood of victims of the flu, for like, what happened here, basically. And he saw something that he called an oscillococci, because he saw what he thought was a little bacteria that could change size. Could change shape and size very quickly. So it’s oscillating.

Justin: Okay. Got it.

Sydnee: So, he saw these oscillococci, and he got really excited. And so, he started looking in the blood of patients of a bunch of different things. Tuberculosis patients. Mumps patients. Measles patients. Chicken pox patients. Cancer patients. And he claimed to have seen this in the blood of all of these sick people.

Justin: Hmm.

Sydnee: Whatever this oscillococci was.

Justin: That's incredible.

Sydnee: Uh, no one knows, to this day, what the heck he saw.

Justin: [laughs]

Sydnee: Nobody knows, like, what he was calling this.

Justin: Maybe he had some of those floaters in his eye, y'know?

Sydnee: Maybe.

Justin: Maybe. [laughs]

Sydnee: But he saw something, and he thought it was—

Justin: He *said* he saw something.

Sydnee: Well, yes. He said he saw something. He called it the universal germ.

Justin: Hm!

Sydnee: And he thought, if there's a universal germ, we could make a cure for all of this. And sell it, and great, we've saved humanity, right? If there's one germ, I mean, that would be great. So anyway, he—because he was also a believer in homeopathy, which is the belief that uh, a very tiny amount of a substance, one might say no amount at all...

Justin: Basically.

Sydnee: The essence. The essence of the substance could cure an illness. Right? So like, if a bunch of substance of this substance makes you sick, a tiny amount of this substance will make you well.

Justin: Okay. Not real at all.

Sydnee: No, there's no—I mean, it's been disproven. Like, there's no truth to this. It's nothing.

Justin: It's nothing. Homeopathy is fake. Homeopathy is fake.

Sydnee: Yeah. It's nothing. So, but he believed in those principles, and so, that's—those were the principles he used to develop his cure for the universal germ. And basically, what he does... he needed a good source of oscillococcinum, right? 'Cause if it's like cures like, so a bunch of this universal germ will make you sick, then a teeny, teeny infinitesimally small amount of it will make you well. So he needed a good source of it. Uh, he decided that duck liver was a great source of it.

Justin: Sure.

Sydnee: So you have to take a duck, and um, get 35 grams of its liver and 15 grams of its heart, put that into a bottle, mix it with some like, pancreatic juice and some sugar, and let that turn into like, a goo. And then, once you have that goo... by the way, if you're wondering why he chose liver—

Justin: I was.

Sydnee: He said that uh, the ancients considered the liver as the seed of suffering. So that there was like, uh...

Justin: There's some mornings—

Sydnee: Some sort of energy.

Justin: There are some mornings I feel that way.

Sydnee: There's some energy... [laughs] To the liver that was special. This is random. Anyways, so you take this goo that you've now formed after 40 days, and uh, you're going to dilute it using a very specific homeopathic method. There are different ways. There are different homeopathic traditions of diluting things. The most obvious would be like, take a drop of goo and put it in 100mLs of water. Take a drop of that and put it in 100mLs of water. Take a drop of that. Y'know. Blah blah blah. Carry onto infinity. This is nothing.

Uh, there was another method that was like a shortcut called the Kasacov method, which was named for a guy, Simian Korsakov. Sorry. Korsakov method. And uh, he decided that a faster way to do homeopathy in the 1800s was to... [laughs] So you've got your bottle of goo.

Justin: Mm-hmm.

Sydnee: Dump it out. Then fill it with water.

Justin: Oh, excellent. Yeah.

Sydnee: That's your first dilution. [laughs]

Justin: That saved a lot of time. Thank you so much.

Sydnee: Right. Uh, and so, he used that. That way of diluting it. And this specific formulation, oscillococcinum, is diluted 200 times.

Justin: That... is a lot.

Sydnee: And if you look on the box, you will see that it has 200 CK on it.

Justin: Mm-hmm.

Sydnee: The oscillococcinum. And that stands for centesimal, which means a one to 100 dilution, and then the K is for Korsakovian. So 200 centesimal Korsakovian dilutions were done to prepare this medicine.

Justin: Which is a lot.

Sydnee: So, these pills have nothing in them.

Justin: Yes. They're fake.

Sydnee: They're fake. They have nothing. They have nothing. They do not, in any way, treat or cure or affect anything. Any illness, or wellness. They don't do anything. There's nothing in them. I mean, you could drink water and say you just drank—actually, no, because at least water would hydrate you. They're nothing.

You will find them. Again, when I was looking at the top shelf at all the elderberry, you look a couple shelves down. They're not as prominent as elderberry, but they're right there. These boxes of oscillococcinum. They all come from this same—apparently, this was hugely popular in France. It was listed as one of like, the top ten highest grossing medications in France.

That uh, it is all sold by this one French company, and people use it for cold and flu.

Justin: [laughs] It's all so wild!

Sydnee: And it does nothing! It's completely fake!

Justin: One, you can buy it at all the real drug stores. I'm looking at the website of the company.

Sydnee: Yes. I have seen it at CVS, Rite-Aid, Walmart, Walgreens, I am certain—and I'm not putting them on blast. I'm certain you will find it at any pharmacy.

Justin: What I love... okay, so here's the benefits of uh, oscillo, according to this one manufacturer. Non-drowsy. [laughs] True. It's nothing.

Sydnee: Sure.

Justin: No known drug interactions. Absolutely. [laughing] 100%. It's nothing. Quick dissolving pellets. Excellent. No preservatives. No kidding. It's nothing. There's nothing in it. You're buying nothing.

Here's a review from Sheila, who says, "I've been using your product for years. Last Friday—" There's two reviews. Here's one from Sheila. "I've been using your product for years. Last Friday, my manager at Lowe's started having symptoms of the flu, so I told him about your product. I also have three tubes in my pocketbook." Wow, Sheila.

"So I gave him the package and told him how to take it. He took Saturday off, and came into work yesterday and was feeling better. He thanked me and said his wife picked up a package to have at home, and he returned a new package of three to me. I love your product."

Sheila! That—Sheila, what have you done! You've done nothing, Sheila, except found a friend, and that's excellent. It can bring people together and non-drowsy.

Sydnee: The idea of testimonials, when it comes to medications, are really—I mean, there's a reason it always calls to mind patent medicines, is because a testimonial is a great way of trying to sell something that doesn't work.

Justin: Yes.

Sydnee: Because you are not held... you're not bound by anything. It's just—I don't know, it's what Sheila said.

Justin: This is an old technique, folks.

Sydnee: Sheila said it, not us. Sheila.

Justin: Yes. Advil doesn't have quotes on the bottle from people that are like, "Here's—this was great for me! It worked great for me!"

Sydnee: 'Cause they don't need to, 'cause it works. And you can—and you can, at this point, if you're thinking, "Well, they have commercials for all these things." Yes, and they shouldn't.

Justin: Yeah.

Sydnee: Yeah. I mean, that's the whole thing, right? We shouldn't have commercials for any medications. We should prescribe the stuff that works, and stuff like this, which is not a medicine, which is a nothing that does nothing, should not be sold. And certainly not put in an aisle with cold medications. With flu medications!

So, this is nothing. If you hear about somebody taking it, if you see somebody taking it... I can't say it's going to hurt you, other than you wasted your money. You could've spent that money maybe on something else that would've helped you. [laughs] I don't know. Some kale or something.

Justin: [laughs]

Sydnee: [laughing] But this—this will do nothing for you. It's completely fake. It's homeopathic. Please advise people, don't take it. Uh, elderberry, at this point, we have no data to say that it really treats anything. It definitely does not cure or prevent the flu. Definitely does not.

Will we someday have a preparation of elderberry that you might be able to take as—the same way we take symptomatic things that like, maybe you feel a little better while you're sick. They're not really fixing the problem, but like, eh, I didn't cough quite as much. I don't feel quite so bad. Is there a route for elderberry there?

Justin: Possible.

Sydnee: Maybe. I wouldn't say we're there with science at all. The evidence isn't there for it at all. And if you make it at home, you could hurt yourself. So, my advice is, stay away from elderberry. Stay away from

oscillococcinum. If something says homeopathic, please don't buy it, and tell your friends the same.

And get your flu shot. If you don't want to get the flu, or if you're trying to shorten the duration and severity of flu symptoms, the best way to do that is not get the flu at all, and the best way to do that is get your flu shot. Please. Yes, wash your hands. Yes, cough and sneeze into your elbow. All those things are good.

Justin: Just... just go get the flu shot.

Sydnee: Stay home when you're sick. Don't expose other people. Be considerate. But get your flu shot. It is the—there is no—I don't know why people—we have something that works. We have studies that say it works. We have—we have so much testing. In vitro, meaning in the lab, and in vivo, meaning in humans, clinical trials that say, vaccines are safe and effective.

They prevent disease. They save lives. And the flu vaccine is no different. It's right there among them. I don't know why it gets separated out there as like, "Well, but the flu—" No! It's right there with the rest of the vaccines, doing great work, saving humanity, keeping us alive.

Before the flu vaccine, people didn't use elderberry because it worked. People used elderberry because they didn't have a flu vaccine. And you know what happened to them?

Justin: They died of the flu?

Sydnee: They died of the flu! Sheila! They died of the flu!

Justin: Thank you so much for listening to our totally nonconfrontational program, Sawbones. We hope you have enjoyed yourself. Uh, please, y'know, help us spread the word about this episode. But even if you don't nod this episode, just spread the word about elderberry and oscillococcinum. Like, it's just... it's fake. It's nothing.

Sydnee: It's nothing and it does not prevent the flu. At all. It does not. Please get your flu shot. Please get your flu shot.

Justin: Please get your flu shot.

Sydnee: It's never too late to get your flu shot. Please go get it.

Justin: Hey, if you, uh, have a few spare bucks this holiday season, I have a request. A group of fans of another podcast we do, My Brother, My Brother, and Me, called the MBMBaM Angels, they have a drive that they do to buy gifts for people in our area that aren't gonna have much for Christmas. Um, and if you want to volunteer to help one of these families in the region, it would sure mean a lot, and uh, if you're in a position to do that, it would really mean the world.

You can go to MBMBaMAngels.com and volunteer, or just kick in a few bucks, if you want to. And uh, it would really help out. It won't take very long, and you could really change somebody's life, so please go do that if you are so able.

Uh, thank you to the Taxpayers for the use of their song, Medicines, as the intro and outro of our program. And thank you to you for listening. We will be back with you again next week, but until then, my name is Justin McElroy.

Sydnee: I'm Sydnee McElroy.

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

[theme music plays]

MaximumFun.org.
Comedy and culture.
Artist owned.
Listener supported.