Sawbones 308: Coronavirus

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

[theme music plays]

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

Sydnee: And I'm Sydnee McElroy.

Justin: Sometimes an episode comes along, and it takes us a long time to figure out what it's gonna be, and there's a lot of different angles we look at, and we question whether or not we should do it. And then, sometimes, an episode just kind of falls in your lap. Every single day. Every hour of the day. On every channel. Constantly.

Sydnee: That's true. As we mentioned last week, we are gonna discuss coronavirus. Not because it has a huge medical history – this is supposed to be a medical history show. Sometimes I forget that.

Justin: But it's your show.

Sydnee: Because there's current things that are important to talk about. But there is a history I'll get into, but also, because… as with anything that is new and somewhat scary, you will get a lot of misinformation inside that fear, and people with, uh, responses that aren't necessarily helpful or productive for anyone.

Justin: Right. Fear breeds a lot of misinformation.

Sydnee: Yes. And I—we've gotten—I can't thank everyone who recommended this topic, 'cause we've gotten dozens of emails, tweets, Facebook posts… and a lot of people are kind of echoing the same thing. Could you please explain what the heck this is, and how scared I should be? Those seem to be the big questions. Um, and what can I do?

Uh, and I wanted to address it for that reason, because if you… if you like our show, and you think that the things that I have to say are trustworthy – I hope you do – then maybe this will help calm you down. Dispel some misinformation, calm some fears, empower you.

Justin: I will address the "how scared should I be" part.

Sydnee: Okay.

Justin: I would say, not scared at all. Because… either you can impact the situation, or you can't.

Sydnee: Hmm. This is philosophical. This is not medical.

Justin: If you can impact the situation, then take that action, and then don't worry about it. If you can't impact the situation, there's no point in worrying about it. Either way, there's no need to be scared.

Sydnee: Well, that's very stoic. Uh… however, I will say this – I will start with this premise, and I will circle back to it by the end of the show, so you understand what I'm saying. Do not take it at face value, but just heed these words.

If you are worried about coronavirus, go get your flu shot.

Justin: Okay. Okay.

Sydnee: Again…

Justin: Let me do one. If you're worried about coronavirus, go buy the Sawbones book.

Sydnee: [laughs]

Justin: Available in fine bookstores everywhere. I thought we were just serving our own end. No, do you have an actual…

Sydnee: There is a reason that I am recommending that. It is not, obviously… uh, I should say at the top of the show, in case you don't listen to the end – the flu vaccine does not prevent coronavirus, 'cause that is a myth that's been out there, and so I do not want to mislead you into that idea. But, it is a very reasonable action to take in response to your fears.

Justin: Okay.

Sydnee: And I'll get to why. But let's start with where—what is coronavirus? Where did this thing come from? So, back in 1965, there were two researchers named, uh, Tyrrell and Bynoe, who discovered a new virus. And this was kind of at a time where we were looking for viruses. We knew there were lots of them out there. They caused a lot of different things, some of them severe, some of them not severe. We didn't—we had just kind of—the technology had evolved to a point where we could look at these things. Y'know, viruses are quite small.

Justin: Hmm, that's true. Way smaller—think of a small thing, like a gummy bear or a bug. They're like, even smaller than that.

Sydnee: Well, we were able to look at bacteria before we could look at a virus, because they're so much smaller. But we knew there was something else that caused disease. We figured out they were viruses. We found ways like electron microscopy to look at them. And then we started the great hunt, right? Like, let's find them all. Gotta catch 'em all. You can't—uh, you can't catch 'em all. There's so many.

Justin: There's a lot.

Sydnee: There's a lot. But these two researchers, uh, were looking at some respiratory secretions from a patient who had a cold. So like, suctioned out some mucus from the respiratory tract.

Justin: That's a cool Saturday.

Sydnee: Yeah. Of a patient, and started looking through it. Basically, at this point, you gotta imagine… You know this person is sick, you know a germ of some sort, likely virus, caused it. So you get those secretions, and you just start making preparations and looking through for something that looks like it shouldn't be there.

Justin: Mm-hmm.

Sydnee: And that's what you hope is the right thing. Now, they find a virus that they hadn't seen before. Now, if you think this virus causes colds, because you found it in a person with a cold, how do you confirm that this virus causes a cold?

Justin: Um… you have to give it to someone and see if they get a cold?

Sydnee: [laughs] That's right.

Justin: Wow! Alright. I'm slightly unnerved that I'm starting to think like virologists.

Sydnee: This is one of the principles of proving that this is the etiology—this is the causative agent of a disease. This is one of the main principles in doing that. So, you take… so they take these viruses that they have found, and they transfer them to the noses of volunteers. I don't know what the volunteers were promised in return for this. I don't know if they were paid, given free lunch…

Justin: Let's hope somethin'.

Sydnee: I don't know. [laughs] Uh, but one way or another, they all got colds. Ta-da. You did it.

Justin: Amazing.

Sydnee: You got colds. We gave you a cold. And with—as with many scientific discoveries, you kind of see these things happen in multiple places at the same time. So at the same time that these researchers are finding this little virus that seems to cause colds, there were other researchers, uh, Hamre and Prochnow, who grew a similar virus from a bunch of medical students that they were testing for colds.

There were a bunch of medical students. I don't think they gave them to them, but I don't know. When I was in medical school, the right teacher that I wanted an A from and said, "I need to give you a cold. I need to test you with this cold virus. Will you volunteer?" I probably would've said I volunteer as tribute.

Justin: If you can get extra credit.

Sydnee: If I get extra credit, if I can get an A, I offer myself. But anyway, they grew a similar virus from a bunch of medical students. They named their viruses, uh, B814 and 229E.

Justin: Gotta love it. Punchy.

Sydnee: Scientists are great at that. [laughs]

Justin: Yeah.

Sydnee: Uh, over the next few years, there were some other viruses that were similar to these that were found. Similar in like, appearance. So, all these little viruses. They look sort of—you'll see them pictured as kind of like, spherical, circular little things. They're not exactly… there's different shapes. They're not perfect little round things. But you'll see them often drawn, or y'know, they're sort of round-ish.

And they have all these little projections sticking off of all the sides. Like these little balls with all these little… I don't want to say spiky things, 'cause

they're like, blunt, club-like things sticking off all the sides of them. You can look up a picture of a coronavirus, if you're really curious.

But because of all these little lumps sticking off of them, and the way that they're shaped, a lot of people thought it looked like the things on the top of a crown.

Justin: Oh, okay. Corona. Got it.

Sydnee: Coronavirus. So the name, coronavirus, was eventually given to this new genus of viruses that had this similar appearance with all these little projections. It also sort of looks like a solar corona. Like, that… y'know.

Justin: Yeah, yeah yeah.

Sydnee: It also kind of looks like that. But crown is where it came from. And our initial understanding of them was really that they were kind of benign. They cause colds. That was really the thought. Now, we knew they also existed in other animals. The thing that we saw in humans was mainly just what we would kind of call the common cold.

Which, on a side note, I may have said this on the show before, but… When we say, you have a cold, have I said this? We don't know what virus we're talking about, necessarily.

Justin: That makes sense.

Sydnee: The syndrome that we say is 'the common cold.' The constellation of symptoms that we will refer to as 'the common cold,' could be any number of viruses that cause upper respiratory symptoms.

Justin: Well, and they're all different, too, right? Like, that's why, y'know… I don't know, I got some head junk, and then some of the nose junk.

Sydnee: Got some cough, runny nose, sore throat…

Justin: Sore throat.

Sydnee: Whatever. Some sinus pain or pressure. Headache. Maybe some fevers or chills. Some aches and pains. All these things, um, can be caused by a variety of viruses. Most of the time, you don't know, 'cause you don't get tested, 'cause you probably don't go to the doctor. You got a cold.

If you get really sick, you might go to the doctor, and sometimes, we might test you and come back and say, "You have a rhinovirus. You have an enterovirus. You have a coronavirus." I've diagnosed coronavirus many times. But it's usually just a cold. That's what we're saying. It might be a little more severe, especially if you're otherwise—you have otherwise some sort of respiratory illness. COPD, asthma, something like that.

But most of the time, we just call it a cold. So, you—I say this, because you may have had a coronavirus in your life. You actually probably have, if you're an adult.

Justin: So why is it a thing now?

Sydnee: I'm not there yet. We're gonna get there. Very rarely, these coronaviruses, we discovered, were known to cause things like pneumonia, or like, to flare up your chronic bronchitis or your pneumonia. Every once in a while, like I said, in patients with underlying lung disease, but most of the time, just a cold.

In animals, they did a lot of stuff. Right? In animals, they could do things… 'cause there are lots of coronaviruses, and some of them infect humans, and some of them infect animals. And as we're gonna get to, some of them can like… swing.

Justin: [laughs] Some of them party.

Sydnee: Some of them party. So, in animals, they can cause hepatitis, they can cause encephalitis, gastroenteritis, peritonitis in cats. They can infect chickens, turkeys, calves, dogs, rabbits, pigs, camels, bats, snakes…

Justin: Animals. You could've said 'all animals.'

Sydnee: There's lots of coronaviruses.

Justin: And I would've—I couldn't have come up with that many. Just all animals would be fine.

Sydnee: They infect and do different things to lots of animals. But in humans, it seems like, well, great. Great work, everybody. The '60s are over, and we found some cold viruses.

Justin: Good. What's the cure? We don't know.

Sydnee: We have no idea. It's just a cold, though. No big deal. Next. Except… 2002. Justin, do you remember 2002?

Justin: Oh, fondly, Syd. I was a young buck of 22 years old. I was in my swinging college years. Living life. Driving around a beautiful blue Cutlass Sierra, and just lapping it up. Lot of livin' to do, back in the day.

Sydnee: Yeah. Mm-hmm. Very Conrad Birdie.

Justin: Yeah.

Sydnee: So, 2002. I don't know, then, since you were, y'know, livin' it up…

Justin: Drinkin' Moonbeams.

Sydnee: Uh, you may not remember that a new respiratory illness started to appear in China.

Justin: A mi—Sydnee, if I was in college when it happened, I can rate the likelihood of me encountering any hard news at zero percent.

Sydnee: I remember this. How do you not know these things?

Justin: Because I was a doofus!

Sydnee: Ah. So, there was a new respiratory illness in China. It would eventually spread from China to 29 countries throughout North America, South America, Europe, and Asia. Uh, it was originally thought to have emerged from the Himalayan palm civet. Do you know what a civet is?

Justin: I don't.

Sydnee: I had to look up a picture of a civet. It looks like they're like, loosely re—they look sort of cat-like, to me. Sort of like, rodent slash cat-like. But they're big. I mean, they're big like—well, not big, but y'know, like, cat sized. They're not like teeny, teeny things. One of them was in a tree, so I think they weren't—

Justin: Oh, I don't like it!

Sydnee: You don't like 'em? Well, how would you describe it?

Justin: Uh, how would I describe it? Like a—

Sydnee: Like, they're cat-esque.

Justin: I would describe it as a long, spotted raccoon.

Sydnee: Or raccoon-esque. Okay.

Justin: I would say a long, spotted raccoon.

Sydnee: So, that's a—you can look up a picture of a civet, if you like.

Justin: No need. It's a long, spotted raccoon.

Sydnee: They are apparently hunted and eaten in some parts of China. Um, we're only fairly certain that this is where—by the way, I'm saying this, and for most people, whether or not this is 100% accurate, they're not gonna get too bothered by it. We got it from an animal, is the point. But I

know there's some scientists out there who might go, "Well, technically, we're not certain…"

We're not 100% certain that it jumped from the civet to the human. That is the best operating theory we have. Um, as we've done more research, we've figured out that bats are probably where the coronavirus continues to evolve. There's always like a species where it like, these viruses can really flourish and grow. We talk a lot about with flu, pigs and birds.

Justin: Oh, right. Right.

Sydnee: Swine, avian. Pigs and birds. Uh, with coronavirus, you really talk a lot about bats. So it may have been that like, at some point, bats, uh, gave humans coronavirus, and then humans gave coronavirus back to civets. And then, later, the civets handed it back off, only different, and worse.

Justin: Okay.

Sydnee: One way or another. Civets may or may not have been involved, and now you know what a civet is, if you didn't, like me.

Justin: Although 'civets may or may not be involved' is a statement you could make about literally any event in all of human history.

Sydnee: [laughs]

Justin: So you've made us neither smarter nor dumber, Syd. It's just, by—

Sydnee: Well, it's one of those things—

Justin: As in all things, there is a chance that either—

Sydnee: That civets were involved.

Justin: That either civets were or were not involved.

Sydnee: It's just funny to read about these things. Within the scientific community, there's so much. People get really upset. There's a lot of ire over this. Like, "But it was not civets," or, "We never proved it!" Or, "Nah, I think we're pretty sure it was civets."

Justin: Most of those are just civets that learn how to type.

Sydnee: Either way, it seemed to be like, if you didn't completely cook the civet meat. It wasn't just like, hangin' out with a civet.

Justin: Well that's—it's gonna be stringy.

Sydnee: It was like, you—

Justin: It's also gonna be stringy, which, I hate that.

Sydnee: So like, if you're—if you are someone who chooses to eat meat, cook it. Would be a good… but anyway. Uh, the—so the virus, which we would eventually come to know and fear, was called severe acute respiratory syndrome, also known as SARS. You remember SARS now? 'Cause it's clicking?

Justin: I do remember SARS, because there was a… the Sears at the Huntington Mall, when all that was happening, the Sears at the Huntington Mall, the E on their sign burnt out.

Sydnee: Oh nooo!

Justin: And it became a meme on the internet, a picture of this… I didn't start it. But a picture of this specific sign from the Huntington Mall, my home away from home, uh, became a meme. Y'know, come see the softer side of… SARS.

Sydnee: SARS. That was early internet, too. 2002. Early internet days.

Justin: Yeah, that was early internet. Early days.

Sydnee: So anyway—

Justin: I think I saw it on Penny Arcade, maybe.

Sydnee: [laughs] So anyway, SARS is a human coronavirus. It is. It's a coronavirus we maybe got from civets, probably from bats. Somewhere in there. Who knows. Uh, but obviously, we began to see that our concept of, coronavirus is only causing these mostly harmless colds, was not completely accurate.

Because, in case you don't remember, SARS was a coronavirus that caused, again, respiratory symptoms. However, some people got really sick. Some people got put in the hospital. And some of those people did die.

Justin: How many?

Sydnee: Uh, so, the—there were about—there were over eight thousand cases. This is total, by the way. Like, even up to now. Because occasionally, it's still seen. But up to now, there have been over eight thousand cases, and about ten—about 10% were fatal.

Justin: That's legit.

Sydnee: That's a big deal.

Justin: That's a big percentage.

Sydnee: Yes. That's a huge percentage. Uh, so SARS scared everybody into studying coronaviruses more. And that led to a lot more understanding of exactly, like… like I said, all this stuff about bats and civets and animals and where this all came from, how it's transmitted, which cells it infects preferentially and how it infects them, and the various presentations. Oh, we just thought it was a cold, but obviously, it could do much worse things.

And this better understanding was good, because then, in 2012, a new coronavirus popped up which you may not have heard quite as much about.

It was mainly in Saudi Arabia, and then, parts of the middle east, and it actually became known as middle east respiratory syndrome, MERS. And it may have, again, we're guessing a little bit, but it may have made the leap to humans from camels. Although, again, the bat… it's probably originally from bats somewhere.

Um, it could also cause severe disease like SARS. Certainly was very dangerous, but it seemed to be less communicable. So that's probably why you didn't hear quite the panic around it that you did with SARS, is because it did not seem to pass as easily from human to human as it did, uh, from animal to human.

So, people were having direct contact with, we guess, we think maybe camels, and getting sick. But as far as them being able to take it out into the world and give it to a bunch of other people, the way that we fear a pandemic is gonna start, it didn't—it just didn't do that.

Y'know, every virus works a little differently, and if you only infect certain cells in the lower respiratory tract, it's a lot harder to get enough of the virus into you to get sick. You really had to get a big dose of virus, so to speak. So it wasn't like something that casual contact would necessarily have spread very easily.

So, uh, since then, total, there have been about 2,468 cases. There have been 851 deaths.

Justin: That's… very bad.

Sydnee: So, it's a big proportion. It's very bad if you get it. Again, same kind of thing with like, severe respiratory symptoms, respiratory failure.

Justin: That's like, what, 30%? Somewhere around there.

Sydnee: 34, I think. Somewhere around that. But does not seem to spread quite as easily as SARS did. But either way… so, these are the two coronaviruses that we know can be big, bad actors. So far, up until now.

Justin: So what's the—what's the one that's happening at this moment?

Sydnee: Justin, I'm gonna tell you about it… right after we head to the billing department.

Justin: Let's go.

[theme music plays]

[ad break]

Justin: So here we are, Syd. It's 2020. Everyone's flipping out.

Sydnee: Yes. I have noticed this. Everyone seems to be very scared, and I hope, by now in the episode, you've at least realized that… this coronavirus is not… I don't want to say it's not new. It is a new strain of coronavirus, but we are very familiar with coronaviruses. We've known a lot about them, like I said, since the '60s. This is not like, uh, this mysterious, unknown thing that has caught the world by storm, okay?

It is currently being called the novel coronavirus.

Justin: Hm. Literally because it's new?

Sydnee: Yes.

Justin: Okay.

Sydnee: My guess is, it'll have a name eventually.

Justin: We could do better. 'Cause I think it's kind of mis—I think it's actually gonna create a lot of misinformation, 'cause I feel like the vast, vast, vast majority of the population, their first exposure to the word 'coronavirus' is going to be in this exact scenario. And I feel like it's gonna create a lot of like, fear about that label in the future.

Sydnee: I worry about that, too. It's really weird for me, because I'm so, like—coronavirus, I'm so familiar with it. It's easier, though, right? Like, for me. I'm not afraid of it, because I see it pop up positive on viral screens all the time. It's not novel coronavirus. It's, y'know, not a big deal strain. But we see it a lot.

But anyway, the novel coronavirus, as you probably know, originated in China in the Wuhan region this past December. It was probably there slightly before December, but that's when we became aware of it. Uh, there are some things we know, and there are a lot of things we don't know, and it's important that I say that, because all those gaps that we don't know yet, because this is still in the early stages, are being filled in by a lot of guesses, misinformation, and then, some straight up lies.

Justin: Okay.

Sydnee: Uh, so, if you're curious about which animal it came from, there are some people out there that are—some scientists that are theorizing snakes.

Justin: Everybody looks for somebody to blame.

Sydnee: I don't know that that's necessarily true. Again, it looks similar to all these bat coronaviruses that we've talked about before, but exactly what animal did a human come in contact with? Because that's what happening. There's a human somewhere who's coming in close enough contact with an animal somewhere that it's getting this animal coronavirus, and it… spreads among humans.

Justin: What can you say definitively? Civets were, or were not involved there? It's out there.

Sydnee: [laughs] We're not exactly sure, uh, what animal it came from. As of today… and there are – by the way, I've… hm. I don't know what this says about me. I check the status update from the World Health Organization every day on this, just for my own information.

Justin: And folks, she's all too happy to relay it out loud to anybody who happens to be in the room with her.

Sydnee: I think it comforts me to know that there are multiple, uh, global organizations, local and global organizations, monitoring the situation closely, and taking steps to prevent it from, y'know, getting any worse than it already is.

But as of today, there have been 14,557 cases worldwide. That's as of February 2nd. That is the current update. It's important to know that the vast majority, 14,441 of those cases, are in China so far. Now, obviously, this is very serious for people who live in that region. If you are someone, though, like many of our listeners who live in the US, there have only, so far, been eight cases in the US.

Only one of those cases, on the 31st, was shown to have been the result of human to human transmission. And that's important to—when we're talking about outbreaks like this, it's important to know the difference between, did someone—was there a person who was in China, exposed to the illness, got on a plane, flew to the US, and was then diagnosed, which were the other seven cases, as opposed to this one person who was around one of those seven people and got it.

Justin: Oh, okay.

Sydnee: Does that make sense? That distinction is really important, because when you start to see it spreading from person to person on large scale, that's when you start to need to take more action. But if all the cases in an area are just people who just came from the area where it's spreading, you're less concerned about the US, in this case.

Justin: Right.

Sydnee: So there's only been one case where it's actually been transmitted within the US, so far. Now, overall, almost all but one of these cases were in China, and one were in the Philippines. 305 people have died. So we know

that this particular coronavirus is… I mean, it's capable of causing severe illness.

Justin: And I think that's worth underlining that like, no matter what else we say about this, like… anything that claims people's lives is serious. So, this is in no way, like… y'know, it's not a… blow a raspberry and y'know, change the channel kind of thing. Like, it's serious. Like, people will die.

Sydnee: Exactly. And I mean, if you… it's a thing to always keep in mind, that I always remind myself and my students and residents in medicine. Uh, it—305 people sounds like a small number comparatively, but if you are the family or friends of one of those 305 people, then it's very meaningful and important, so. Never to undermine the seriousness of it, but those are the numbers. Those are the facts. That is what's happened so far.

Obviously, it is present in other countries outside of China and the US. You can find a whole list of them on either the CDC or the World Health Organization. But they're tracking them very closely everywhere that it is occurring right now.

The CDC has guidelines for people, and especially for healthcare professionals. There's been some concern that, uh, healthcare professionals in particular who, and so far, in China, who are taking care of these patients, may be at risk. But that's probably just because of the contact they're having.

Justin: Mm-hmm.

Sydnee: The way that this is spread is through what we call respiratory droplets.

Justin: Coughing and sneezing.

Sydnee: Coughing, sneezing, that kind of thing. Um, and y'know, the other thing about that is, not just somebody coughing and sneezing in your face. It's, did I cough or sneeze on this surface, and then you touched it. Or on this door handle. Did I cough into my hand or sneeze in my hand, and then

touch something that you touched. That kind of thing, too. This is part of why we're concerned, is it's not just… and that's probably why healthcare professionals in particular, y'know, are at risk.

Right now, if there's someone who has a fever and signs of what we would think of as a lower respiratory infection… so not so much the runny nose, sore throat kind of thing, but cough, shortness of breath. What you'd think, like, "Oh, am I getting pneumonia?" That kind of thing, who have had—who have traveled to that part of China, or really, at this point, anywhere in China.

Um, or have had direct contact with somebody who was known to have this, are the only ones that we're really concerned about. So, if you were at home, and you have a cough and shortness of breath, and you haven't been to China, and nobody around you has coronavirus, novel coronavirus… you don't need to go get checked for coronavirus.

Justin: Right.

Sydnee: Does that make sense?

Justin: Yes.

Sydnee: We're really only focused on those people. The other things we know… So far, as far as, when do you get symptoms after you're exposed? Two to 14 days. So there's a wide range.

Justin: Yeah, that's a wide range.

Sydnee: Some of this is still based on what we know about SARS. We're still, like, using that data, because this is very new. We don't have a lot of data yet. So if you start seeing people quote mortality rates, I would ignore that data right now, because you can't say what the mortality rate is at the beginning of an outbreak. Because who do we test? We test the people that get really sick and we didn't expect them to.

Justin: Mmm.

Sydnee: So you're gonna have a disproportionate number of severe illness and death among the early positive tests, because there were tons of people who were sitting at home with colds who never went to the hospital and got better and had coronavirus and nobody knew.

Justin: Right.

Sydnee: So the sheer number of people who got coronavirus and got better and never saw a doctor… we're missing a lot of those people still. Now, as it continues to spread, more people are gonna get scared and go to the doctor and get tested, right?

Justin: Right.

Sydnee: And we're gonna get a better idea of how dangerous it actually is. But in the beginning, to like, start quoting mortality rates… I mean, you're guessing at first. It's very vague.

Um, it, again, this seems to be a big issue in this region of China. The rest of the world, not so much. Things you can do – if you are sick, stay at home.

Justin: Sure.

Sydnee: This is true for anything. [laughs] Take a day off. Don't go to school. Don't go to work. Don't go give people whatever you've got. Because if you're coughing or sneezing, no matter how hard you try to cough and sneeze into your elbow, which, of course, you should do… you could spread it to other people.

Justin: Right.

Sydnee: I mean, it's hard. It's not your fault, it's just hard to do that. You can't prevent gettin' some snot and some mucus out there. Um, if you have traveled to one of these areas, or had contact with someone who's been diagnosed with novel coronavirus, please go see a doctor if you have

symptoms. Please, go see a doctor. And if somebody else is sick, y'know, maybe it’s not the best time to hang out with them.

Justin: Yes.

Sydnee: Especially if you have little kids or something, too. Like, don’t go… y'know, takin’ the kids over to hang out with sick people, and yourself. I mean, everybody. Hey, when you're sick, it’s good for some alone time. Y'know? You need people around to like, if you need something, they can run to the store for you, but like… take some alone time.

Justin: Finally watch The Wire. Do it.

Sydnee: Y'know, read some comic books.

Justin: Sure.

Sydnee: Uh, wash your hands. Please, wash your hands. Um, that’s vitally important. Wash your hands with soap and water after you have… especially if you're touching your face or your mouth. People—I mean, we do that a lot and don’t think about it. Rubbing, y'know, your nose or anything like that. Wash your hands before you eat. Wash your hands before you have contact with other people. Wash your hands.

Um, and then, again, get your flu shot.

Justin: Okay, why is that?

Sydnee: Because I gave you these numbers for coronavirus. And it’s very scary, because the news is talking about it nonstop. Those are the actual numbers, but I know that there’s a lot of fear out there. In comparison, this season, there have been 15 million cases of the flu, and about 8,200 deaths so far. So, that’s more.

Justin: That’s more. And that’s something you, again, can do. It’s a concrete action you could take.

Sydnee: It's—that's—I've seen—I've heard this among my colleagues a lot, is, why is everybody so worried about coronavirus, but these same patients, I'll say, "Hey, do you want to get a flu shot?" And they'll say, "Ah, nah, I don't want a flu shot. I don't worry about the flu." When the flu… has been a big threat for a long time, and we have a vaccine for it. Unfortunately, we do not for coronavirus, but we do for the flu.

So, if the—if coronavirus represents the kind of thing that scares and unsettles you… go ahead and put the flu right next to it. And then go get your flu shot, 'cause you can actually do something about that. You can take action to prevent the flu, and you cannot take that—that exact same action to prevent coronavirus. Does that—that is the corollary I'm trying to draw.

Justin: Classic Sawbones. Make something less scary, by making something else scarier.

Sydnee: No, I'm not trying to make the flu… [laughs] If—you should have a little bit of fear of the flu! That's useful for preservation of our species! Have enough fear to go get your flu vaccine. Not to keep you up at night. Not to prevent you from leaving your house. But to get your flu vaccine. Just enough fear to do that.

Um, there's—there's a lot of myths out there. Some of them, we've already kind of talked about. But um, it is—it is, so far, it seems like most of the people who have had fatal cases of novel coronavirus seemed to be, um, maybe older, and have had other chronic illnesses.

Justin: Immunocompromised or something.

Sydnee: Something to that effect. It is—it does not appear to only infect those people. Y'know, it does appear to be able to infect a wide range of ages, and y'know, health statuses.

There… apparently, some people on Reddit are spreading the idea that this can be treated or cured with MMS, miracle mineral solution, which we've talked about on the show before. It's bleach.

Justin: It’s bleach!

Sydnee: It’s just bleach. This is not true. This is a lie. It is not true. As we've said before, it doesn’t do anything good. Don’t use it. Don’t take it. Don’t drink it. Don’t anything. Those people should be put in jail. [laughs]

Justin: I have a pneumonic device that I—

Sydnee: For selling it.

Justin: I have a pneumonic device I use to help me remember that miracle…

Sydnee: Mineral.

Justin: … mineral solution won't help me fix anything. It goes like this. You ready? [inhales] Iiit’s bleach! It’s bleach. That’s the whole device. I just say, “It’s bleach,” and that actually helps me remember all the different things that it is not good for.

Sydnee: You reminded me of in That Thing You Do, where he goes… “Iii… quit!”

Justin: “Iii… quit!” [snapping] “I quit!”

Sydnee: “I quit!” Yeah.

Justin: [laughs]

Sydnee: Iiit’s bleach! It’s bleach. Uh, it is not spread from pets. There was a—I guess there was a fear that like, your cat or your dog was gonna give you coronavirus. Your cat or your dog is not gonna give you coronavirus. It’s fine. Don’t—please, please, take care of your pets. [laughs] Do not turn them out on the streets for fear of coronavirus.

Uh, there are no herbal meds or prescription meds or anything right now that anybody’s using to treat it that is secret that you don’t know about. Like

I said, there's no vaccine yet. Antibiotics will not help. Your doctor's not withholding out of meanness, they just don't help with coronavirus. That's just not how they work. They work for bacteria.

It has nothing to do… there are lots of weird conspiracy theories. One of these was said to me just this week. Somebody asked me this question. "Is it something that is intentionally being spread from someone in China?" And, no. No. It was not leaked from a lab. It was not smuggled to Canada, is one weird theory, because Canada is trying to develop some sort of weapon? No. No.

Justin: No.

Sydnee: None of this is true. There's been lots of misinformation about how many people are actually sick. I guess a lot of this is being spread on like, YouTube and TikTok and things like that. Like, videos of people who supposedly are there at the site, like, in the midst of the outbreak, and are trying to tell you the truth. All of this is false.

Justin: No, wait a minute. Wait a minute. That seems like a very sweeping statement.

Sydnee: Well, no. What I mean is that there are lots of videos that are not, in any way, confirmed as being real or telling the truth.

Justin: 'Cause it's not wild to think that the Chinese government would be, uh, withholding with some of this data. That they would not be 100% accurate in their reporting worldwide.

Sydnee: That's true, but the World Health Organization is also a really responsible global organization, and they're reporting these numbers. And they're reporting their confirmed cases, and they're—y'know, there are feet on the ground, monitoring this situation.

Justin: Sure.

Sydnee: And it does not behoove them to spread misinformation or lie to the global health community. And if the World Health Organization feels confident so far in the numbers they're getting, I feel confident in the numbers they're getting.

You have to trust that there are organizations of good, hardworking, smart people who know what they're doing, and have seen outbreaks before, and know how to address them.

Justin: Mm-hmm.

Sydnee: And that—that is true. And don't—don't let fear undermine the ability to know truth. There is a way to know the truth here. We are finding the truth. We're figuring this out step by step. It's not unknowable. It's not this big mystery hole of scary pandemic stuff. It's a new virus, and it's always scary at first.

There was, I guess… [laughs] Some of the things that were a little more out there. There was this picture of a hospital that was supposedly built overnight in China in response.

Justin: Well, that, folks… that doesn't happen.

Sydnee: No. The hospital was not built in 16 hours, and it wasn't a hospital. It was an apartment building. There was also a TikTok from a teenager in Canada who claimed to be the first Canadian case. This was not true and was eventually removed from TikTok, because it was spreading fear and misinformation.

Justin: Very responsible, TikTok. Thank you.

Sydnee: So again, I… if I would not—if you are living in the United States…

Justin: I am.

Sydnee: And you have not traveled to that region of China…

Justin: I have not.

Sydnee: And you do not have close personal contact with someone who has been diagnosed with novel coronavirus… please take a deep breath. You're okay. I would not—this is not something that we all need to be afraid of. Panic and fear does not help us respond. Take responsible, reasonable actions with your fear.

Wash your hands. Stay home when you're sick. Cover your nose and mouth when you cough and sneeze. And get your flu shot. These are responsible, reasonable actions for us all to take, because there is a real—I mean, there is a real problem happening in China, and it's—and there are lots of good, smart people who are working on it to contain the outbreak, to help as many people as possible. And that certainly is, y'know, I mean… it's awful.

Justin: Let's just not make it about us. Like…

Sydnee: Yeah. But it's not about us and our fear. Here in this country, or in any other country, other than where this is actually happening. And a lot of—and again, a lot of this is also rooted in… if you see these myths, remember – some of this is rooted in racism.

Y'know, some of this is rooted in this idea that we don't know what's happening over there, and we don't really under—we don't have a lot of contact with people who live in this region of the world. We don't really know them or understand them, and so, when you see some of these myths spreading on the internet, you really—you need to reject that kind of… that kind of fear only leads to bad things. Panic, violence, dangerous responses… that does not help anyone.

Justin: Uh, folks, that is gonna do it for us for this week. We hope we've provided you some, uh, measure of calm in these trying times. At least about this. [laughs] This one specific thing.

Uh, thank you so much to the Taxpayers for the use of their song, Medicines, as the intro and outro of our program. Hey, we are gonna be in Cincinnati here in just like, a couple weeks. Go to bit.ly/TwentyFunny, and

you can find tickets to see us February 19th, opening for My Brother, My Brother, and Me, at the Taft Theater in Cincinnati, Ohio.

You can still get tickets, and we'll be at more places in America, uh, and the world at large. Who knows. I don't know. It would be cool, though. I would just like that to happen. But definitely America, uh, to be announced this year. So thank you for that.

We got a book. The Sawbones book. You can find it at bookstores. Try and get it from an independent bookstore. That's nice, isn't it?

Sydnee: Yeah. I like that.

Justin: That's nice. I think that's a nice thing to do. Anyway, that's gonna do it for us for this week, so…

Sydnee: Go get your flu shot.

Justin: Go get your flu shot. Until next time, 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]