## Sawbones 63: Influenza

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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:

Boy, Sydnee, after the, uh, a little bit of a dark episode last week about Ebola, I sure am happy to get back to something a little, a little more chill.

#### Sydnee:

Well, I was hoping that that episode about Ebola would calm people down.

## Justin:

Mm-hmm.

## Sydnee:

You know? I mean, because, uh, at least in the United States, you know, the point is that Ebola really isn't that big a deal here.

## Justin:

Right, yeah.

#### Sydnee:

So.

## Justin:

So, it's nice. Yeah.

So, that... I mean, and, and I've been saying that for a while now, is that, you know, Ebola sounds so scary and it's so dramatic but, um, but, you know, as far as in the United States, we really shouldn't be worrying about it.

## Justin:

Mm-hmm.

## Sydnee:

Um, the, the virus that's, you know, gonna end the world is probably the flu, so I don't know why we're all worked up about Ebola.

## Justin:

The flu?

## Sydnee:

Well, yeah. I mean, influenza for me is much more concerning than... for me personally—

## Justin:

This is good.

## Sydnee:

... in this country.

## Justin:

It's great. I was just trying to get calmed down about Ebola and now you're telling me that the flu is going to end humanity.

## Sydnee:

Well, if you look from a historical perspective, I mean, the, these flu pandemics come up every, you know, 10 to 50 years, and—

## Justin:

Cool.

## Sydnee:

... I mean, sooner or later, it's just going to be the big one, so.

The big one.

## Sydnee:

You know, the big, the big flu. Um, so.

## Justin:

Uh, a true story about, uh, my wife and I. We went and saw the movie, uh, Contagion, and she leans... And I'm having like a full-blown panic attack, and she leans over just as the credits begin to roll and whispers in my ear, "That's how it will happen."

## Sydnee:

[laughs]

## Justin:

Cool. Cool. Okay. All right. Well, let's talk about the flu then, Sydnee.

## Sydnee:

Let's talk about the flu.

## Justin:

Not... Let's talk about the flu. What's the flu?

## Sydnee:

Okay. May... And, and let me just say maybe I can calm people down about the flu a little, too.

## Justin:

Uh—

# Sydnee:

Now that I've worked you up-

# Justin:

Yeah.

## Sydnee:

 $\ldots$  I'm going to take you on an exhausting ride where you end up calm at the end.

## Justin:

I just barely got calm about Ebola, but, okay. Tell me about the flu.

Okay. So, influenza. First of all, it's a virus. You probably know that.

## Justin:

Right. I do know that much.

#### Sydnee:

It's part of the Orthomyxoviridae family. You probably don't know that.

#### Justin:

Fancier name. I could see why we stick with the flu.

#### Sydnee:

Um, there are... Now, let me just say, there are three different genus of the three different genuses, gene—

#### Justin:

Geni?

## Sydnee:

Geni? Gene-

## Justin:

Geni? Probably geni.

## Sydnee:

Yeah. That, we'll go with that. Uh, flu A-

## Justin:

Kinds.

## Sydnee:

[laughs]

## Justin:

Sorts, types.

## Sydnee:

There are five—

Flavors.

## Sydnee:

... genus, geni-

## Justin:

Okay.

## Sydnee:

Genuses, in the, in the Orthomyxoviridae family, but the three of them are flu, and what we're gonna focus on is Flu A.

#### Justin:

Okay.

## Sydnee:

There is Flu B and Flu C. Flu C is not important. Flu B is sort of important, we'll touch on it, but Flu A is what most people are thinking of each year when they talk about the flu, and especially when you hear us start using Hs and Ns.

#### Justin:

Mm-hmm.

## Sydnee:

We're talking about different strains of type A flu, okay?

#### Justin:

Mm-hmm.

#### Sydnee:

The way we come up with that is that there are a lot of different antigens, which are just kind of proteins on the surface of the flu virus—

## Justin:

Mm-hmm.

#### Sydnee:

 $\ldots$  and two of them in particular are called hemagglutinin and neuraminidase, which you will notice start with an H–

And an N. Okay.

## Sydnee:

So, when we talk about, for instance, H1N1 is the one I think most people are familiar with, uh, especially recently, we're talking about a certain, uh, type of the H antigen and a certain type of the N antigen, and that helps us, uh, figure out which strain of flu it is.

## Justin:

Got it.

## Sydnee:

Does that make sense?

## Justin:

Absolutely.

## Sydnee:

Okay. So, these viruses, the flu viruses, can infect humans, of course, we know that, but they can also infect, as you may have learned, birds and pigs.

## Justin:

Swine flu, avian flu, right. I remember that.

# Sydnee:

Exactly. In a sense, when we talk about avian flu and swine flu, it's interesting. All flues are kind of avian flues and swine flues.

## Justin:

How so?

## Sydnee:

Well, most of the time flu viruses start off probably in birds, that's probably where they're, they live before they get to humans. Um, and then they change and mutate in a way that they can be communicable to humans. A lot of the time it's actually happening in pigs. You can kind of think of them as the mixing vessel. Birds get, give flues to pigs, um, humans and pigs can exchange flues, and all of these viruses are mixing and matching, and that's why you get all these different strains.

Gives Charlotte's Web a much darker undercurrent.

#### Sydnee:

Yeah.

## Justin:

Right?

## Sydnee:

Was there like a... Wasn't there like a duck or a goose or something in-

## Justin:

They're all there, all the, all the ingredients.

## Sydnee:

That's all you need. I mean, and that's really, that's really true, actually, that... We're joking about it, but places where people live in close quarters with animals, especially when we're talking about like chickens and pigs, you know, fowl and, and swine. Um, that tends to be where these flu viruses originate, and especially in densely populated areas. That's why we think a lot of the viruses start off in China is because you have... It's very densely populated. I think like a quarter of the world's population lives there.

## Justin:

Yeah.

## Sydnee:

Something. I think that's the figure. So, if you think about a really densely populated area where some people live in close quarters with animals, that's a perfect situation for an new, unique flu virus to arise.

## Justin:

Right.

## Sydnee:

Um, like I said, pandemics, meaning, you know, cross, cross national borders, worldwide, epidemics of the flu happen about every 10 to 50 years. The most recent you probably know.

## Justin:

Sw-was it swine flu?

The H1N1.

## Justin:

H1N1, right.

## Sydnee:

Yeah. 2009. That was the most-

**Justin:** That was a pandemic?

**Sydnee:** That was a pandemic.

**Justin:** So, I can just like, chill.

**Sydnee:** So, you're good for a little while.

**Justin:** For a little bit, I can like, chill.

# Sydnee:

Does that make you feel better?

# Justin:

Well, I mean, sort of, except next time, I'll be an old, old man and superduper susceptible, so that's not great.

## Sydnee:

It's actually interesting. I was reading kind of an older article about the flu, and they were talking about how we can predict these, the, when about these pandemics should happen based on past, uh, pandemics, and they say in the article that depending on what you could as our last pandemic, the next one is probably due around 2008 or so. This was in an older article.

# Justin:

Right.

So, so they kind of predict. And, and that's pretty certain. So, I don't know. We may be, you know, a few years out from our next one, or maybe it'll be another 50 years before the next one. Who knows?

#### Justin:

Who knows?

#### Sydnee:

Uh, this has probably been happening since, um, the time of the ancient Greeks. There are accounts of illnesses that sound like flu epidemics written, you know, by Hippocrates and such.

## Justin:

And so, I mean, it's hard to pin down without some of our modern testing and what have you.

#### Sydnee:

Exactly. I mean, because, you know, the symptoms of the flu can be so nonspecific, the description of it would not, would not be very helpful if we're talking about ancient text. So, it's probably gone back that far. We know for sure the first absolute agreed-upon pandemic that we are aware of was in 1580. Um, and they've kind of been happening with this same frequency ever since.

## Justin:

So, what is it, what is it, uh, how, how does the flu feel? I mean, I've had it before, but what's it, what's it feel like?

## Sydnee:

So, the, like I said, the symptoms of the flu can be pretty nonspecific, you know? It can be similar to the common cold. You get fever. You can get what we would consider upper respiratory symptoms, cough, runny nose, sore throat, but you also get these body aches, and that's pretty, um, I don't want to say it's specific for the flu, there's certainly lots of viruses that cause that, but if you, if you're not sure if it's a cold or the flu, if you are just hurting all over and exhausted, I'd lean a little more towards the flu. And then if you throw in some nausea and vomiting, that's definitely a flu picture.

## Justin:

Perfect. Perfect recipe for flu.

[laughs] Uh, it can, uh, it can leave you vulnerable for pneumonia. That's a big complication of the flu, and so that's when the respiratory symptoms seem to be getting worse instead of better. Because most viruses have a pretty, pretty predictable peak, you know, seven to 10 days. The flu may be up to 14 days where it gets worse, worse, worse, and then better, better, better, and you're fine.

#### Justin:

Mm-hmm.

## Sydnee:

Uh, if you're getting worse, worse, worse, and then worse, worse, worse, we start to wonder if maybe you, you got pneumonia on top of the flu. Um, and it's spread by respiratory droplets, meaning when somebody coughs or sneezes really close to you and—

## Justin:

Right.

## Sydnee:

... all those nasty little snot drops fly in your face and --

## Justin:

Ick.

## Sydnee:

... then you breathe them in or, you know, they're on your mouth-

## Justin:

I love it.

## Sydnee:

... and like get liquid and then it gets in, you know?

## Justin:

Yeah, yeah. I get it.

## Sydnee:

And your snot, like kinda gets-

#### Justin:

No, like I get the idea.

## Sydnee:

... gets in, like your mucus membranes-

# Justin:

Yeah, you don't have to-

## Sydnee:

... like on your, you know, like your tongue-

## Justin:

I completely understand it so-

## Sydnee:

... and inside your mouth, and-

#### Justin:

Uh, 1918 is written on this sheet. What's that mean?

## Sydnee:

[laughs] So, I think if we're gonna talk about former flu pandemics, I think the best one to talk about would be 1918. Uh, there are certainly ones that were, came before, and there have been pandemics since, but I think it's the most interesting, because it has been called the greatest medical holocaust in history.

## Justin:

Wow.

# Sydnee:

Yes. So-

## Justin:

That's pretty, pretty firm.

## Sydnee:

Yeah. So, when, when people... Hey, when you're deciding that you don't need your flu shot because flu's not that big a deal, remember what I'm about to say.

## Justin:

The greatest medical holocaust in history.

## Sydnee:

It—

## Justin:

No, but, like, by all means, don't go to the, the CVS and take 10 minutes to get your shot.

## Sydnee:

[laughs]

## Justin:

Sorry, Syd.

## Sydnee:

It's considered one of the three worst plagues in history with the Justinian plague and then, of course, the Black Death. We've got the, what we call the Spanish Flu, the influenza epidemic of 1918. Pandemic, excuse me.

## Justin:

Where's it from?

## Sydnee:

So, this is, this is a little harder to answer. Not from Spain.

## Justin:

Okay. Got it.

## Sydnee:

As you may, as you may think.

## Justin:

Right.

Sydnee: It is... It does not—

# Justin:

That would be my first thought, yes.

It was not thought to originate in Spain. We had this theory that it originated in China, but that's just a theory, uh, that wasn't actually traced there. It may have originated in the US.

#### Justin:

Oh, wow. Sorry.

#### Sydnee:

The first kind of documented cases were simultaneous, and this is the weird thing about it. People started getting sick in disparate parts of the country at about the same time. There were cases popping up in San Quentin, in Detroit, in North Carolina, all around the same time.

## Justin:

How odd.

## Sydnee:

Which is very weird. Uh, and, you know, like I said, they still were trying to trace back what did it. Did it show up in the US from China? We don't know. But it proceeds from the US to devastate Europe, India, China, Australia, um, Africa, and, of course, this was all exacerbated by what was going on in 1918.

## Justin:

World War I.

## Sydnee:

Exactly. So, the American Expeditionary Force probably carried it overseas by boat, um, which was a big problem because the, the war effort not only spread the virus outside of national borders, you know, because people were going—

## Justin:

Right.

## Sydnee:

... all over the world, it also helped to spread it within the US where you have, you know, different people being called up for military service and going to different bases around the US.

#### Justin:

Bob Hope doing his USO Tours, just spreading it.

## Sydnee:

Bob Hope and all those dancing girls just took it all over.

## Justin:

Thanks, guys.

## Sydnee:

[laughs] Spread it everywhere. Um, but-

## Justin:

Song... I'll dance a little, uh, flu, filled with-

# Sydnee:

[laughs]

## Justin:

... debilitating fatal flu.

# Sydnee:

And then some jokes about golf or something?

## Justin:

Yeah, I think jokes about golf. And also he was, he was probably not doing a lot of shows in 1918, but, but still.

# Sydnee:

[laughs]

# Justin:

Still. You get the idea.

# Sydnee:

Um—

## Justin:

Probably somebody with a puppet. Things sucked back then. Sorry.

## Sydnee:

Especially if you had the flu.

#### Justin:

Yeah. For... Well, yes.

#### Sydnee:

And if you think about it, it was also the perfect... Not only did we have a lot of people moving around, which is always a risk factor for spreading disease when you've got people breaking national borders in great masses for some reason, but then you think about the way that our soldiers were living, whether it be in military bases in the US or in trenches overseas. People were living in close quarters. And then when we moved into actually the, you know, the war front and unsanitary conditions.

#### Justin:

Mm-hmm.

#### Sydnee:

So, it was very easy for one sick person to quickly infect a lot of other people, especially if their immune system was depressed by, you know, being malnourished and cold and fatigued, and then probably fighting off illnesses, and then bam.

#### Justin:

They had bullets in them.

#### Sydnee:

Yeah. Exactly. Well, under the stress of, you know, warfare.

#### Justin:

Sure.

#### Sydnee:

Uh, so it spread through Germany, Italy, France, Sprain, uh, you know, all the countries that were involved in the war were certainly affected through the UK, through Russia. And at one point it started to mutate.

#### Justin:

Ew.

## Sydnee:

And we see this because-

## Justin:

That's never good. [laughs]

#### Sydnee:

... it begins to pass back through countries that had already kind of... We had already seen the peak, and it had started to ebb. So, w- we saw this huge flu, this rise in cases, people started getting better, and then all of a sudden this second wave of infection started to appear.

#### Justin:

A revival.

## Sydnee:

It was. A revival of the flu started happening.

#### Justin:

It's revamped. It was the Batman Begins of the flu.

#### Sydnee:

And, unfortunately—

#### Justin:

Fresh start.

## Sydnee:

... this mutation, this, this n— new wave of the flu appeared to be worse than the first. Similar to when we think about, you know, the thing that was so interes—well, the thing that was so sad, I should say, about the H1N1 epidemic, is that it, it was actually killing a different segment of the population than we're used to, a more, um, a younger, healthier segment—

#### Justin:

Mm-hmm.

#### Sydnee:

... which the, the problem with that is that at the time we were only targeting the very young and the very old for flu vaccine. So, the exact population that we weren't targeting for flu vaccination was getting affected by the flu.

Mm-hmm.

## Sydnee:

Which we've learned our lesson since then.

## Justin:

Good.

## Sydnee:

Uh, but at the time, you know, before the flu vaccine, all of a sudden we have all these young, healthy people getting the flu with the second wave. So, the first wave hurt the very young, the very old. The second wave started taking out everybody in between.

## Justin:

Ugh.

## Sydnee:

And it was pretty devastating. All told, in this pandemic about half of the world's population probably got infected with the flu.

## Justin:

Half?

## Sydnee:

Half. Now, let me clarify, though. About a quarter developed symptoms.

## Justin:

A quarter?

## Sydnee:

Yeah [laughs]

## Justin:

That's still like a bazillion people.

## Sydnee:

Yes. Lots and lots of people got [laughs] the flu. The death rate from the flu is usually pretty low, maybe like .1%. Uh, with this particular pandemic, it was more like 2%, which sounds low, right? Like that doesn't sound big.

Well, it sounds low until you realize, uh, uh, half the people had it.

## Sydnee:

So, when you look at sheer numbers, we're really talking about probably 40 or 50 million people who died of the flu between about 1918 and 1920.

#### Justin:

Whew. You know, it's so interesting, though, that, like, uh, to use Ebola as an example, I think what makes it so scary is because that death rate is so much higher, and it's like, but, but it doesn't... But the flu is actually like sneakier. The flu is like an underground sleeper success. It's like an underground hit that everybody sees like after it's out of theaters.

#### Sydnee:

[laughs]

## Justin:

And the, the, the, uh, uh, the, the Ebola is sort of like a smash. It's like the Transformers.

## Sydnee:

Exactly.

## Justin:

Right.

## Sydnee:

Exactly.

## Justin:

Like a smash release that everybody, like, like could really devastates people.

#### Sydnee:

It's kinda like Ebola is kinda like, um, the Blue Album in the Weezer Collection.

## Justin:

Mm-hmm. Mm-hmm. Mm-hmm.

## Sydnee:

And, and the flu is more like Pinkerton.

## Justin:

Kind of a grower.

## Sydnee:

Yeah.

## Justin:

Yeah.

## Sydnee:

Exactly.

# Justin:

Gotcha.

## Sydnee:

But if you're, if you're a true fan, you like the flu better. I mean, you don't like the flu better.

## Justin:

I don't like the flu better.

## Sydnee:

You respect it.

## Justin:

We respect it, right?

## Sydnee:

You gotta have respect for the flu.

## Justin:

Gotcha.

## Sydnee:

So, the, the interesting thing about this is that when we look at mortality during World War I, we're probably looking at as many deaths from influenza as we are from the war itself.

## Justin:

Wow.

Um, it's estimated that maybe half of American soldiers who died in World War 1 died from influenza.

## Justin:

Hmm.

#### Sydnee:

And I don't know... I can't tell you all the specifics in terms of how that impacted the war itself, but if you consider that a lot of the soldiers who were sent overseas were probably too sick to fight, and, um, a lot of the soldiers who, you know, were already there on the other side were probably too sick to fight. Um, this probably had a major impact on many battles, and maybe helped play some part in ending the war when it did, uh—

#### Justin:

Hmm.

#### Sydnee:

... because so many people were sick. [laughs]

#### Justin:

I'm just not in the mood anymore. I can't. I can't do it.

## Sydnee:

Well, it... I mean, if you think about it, if you look around and you've got nobody left to fight because everybody's in bed with the flu. Um, and, and when you look at—

## Justin:

What if they threw a war and everybody had diarrhea.

## Sydnee:

I think that's what the hippies really had in mind.

## Justin:

Right.

## Sydnee:

[laughs] With all that lack of bathing, that was probably the goal. So, uh, at the Treaty of Versailles, do you know that several of the participants actually had the flu?

#### Justin:

I did not know that.

#### Sydnee:

Yeah, Woodrow Wilson, for instance.

## Justin:

Mm-hmm.

## Sydnee:

Uh, the Prime Minister of the UK, David Lloyd George, and the Premier of France—

## Justin:

[laughs]

## Sydnee:

... all had [laughs] the flu during the Treaty of Versailles.

## Justin:

Excellent.

## Sydnee:

I mean, uh, that still went okay, I think.

## Justin:

So, why was it the Spanish Flu?

## Sydnee:

The only reason it was called the Spanish Flu is because early on in the course of the flu, as they were figuring out that this was a pandemic, that it was happening everywhere and as they were kind of, um, sketching it out as an entity, there was a huge outbreak in Spain and a lot of people died, and it got... it was... It got a lot of attention on the world stage, and so it was dubbed the Spanish Flu because of that.

## Justin:

Hmm.

But depending on where you war, were, you called it something different. For instance, if you were in Germany, you may have called it the French Flu, and if you were in France, you may have called it the German Flu. [laughs]

#### Justin:

[laughs] Uh, so how do, uh, we, we've talked a whole lot about, you know, how the, you know, what this thing is, but how do we, how do we fight back? That's what this show is supposed to be about, how we treat it.

## Sydnee:

And there are lots of treatments, and I am thrilled to tell you about them, but before we do that, you're gonna need to hop on over to the billing department.

## Justin:

Let's go.

[theme music plays]

[ad break]

## Justin:

Sydnee, let's fix the flu. Let's cure the flu.

#### Sydnee:

All right. So, when we're talking about treatments for the flu, a lot of these came out of that big pandemic of 1918, because, uh, this was before the age of antibiotics, which wouldn't have helped us, by the way, anyway, because the flu is a virus and not a bacteria. But we really didn't know how we could treat it, um, and by the way, I should just say this, these treatments, these hospitals that were set up at the time, it was crazy. Like, uh, churches and, uh, schools were turned into hospitals. There were makeshift hospitals all over the country. Um, med students were running these hospitals.

#### Justin:

Oh, gosh.

## Sydnee:

Yeah. I mean, the, because they didn't have enough healthcare professionals, so—

#### Justin:

Sounds like when you were in, uh, Honduras the first time.

#### Sydnee:

That's true. That's true, because a lack of medical professionals. It was just, it was whoever was there. And this was really the kind of situation that we were looking at in the US at the time. So, any treatment that worked for anything was being tried. Um, and so you had some really practical things, like aspirin was around.

#### Justin:

Sure.

## Sydnee:

So, give them some aspirin. Uh, they gave people oxygen if they needed it, which we had the capacity to do, although we also did it by injecting it under the skin, which is not, not a treatment that I'm familiar with.

#### Justin:

Hmm.

## Sydnee:

Not quite sure how that would help very much.

## Justin:

Nope.

## Sydnee:

Um, for pneumonia, they gave a lot of epinephrine, which, again, would not be something that—

## Justin:

I, I, I don't know, even know what that is. Like, uh, an Epi-Pen, is that what—

## Sydnee:

Yeah.

## Justin:

Is that what epinephrine is?

Yeah.

# Justin:

Like for if we get an allergy?

# Sydnee:

So, yeah. So, I guess they were trying to open airways quickly.

# Justin:

Okay. Sure.

# Sydnee:

Which would open your airways. Ultimately, it wouldn't fix pneumonia.

# Justin:

Yeah, right.

# Sydnee:

But if you were also in anaphylactic shock...

# Justin:

Sure. Or if a bee was nearby at the time that you got pneumonia.

# Sydnee:

You were covered.

# Justin:

You're covered.

## Sydnee: Um, cinnamon and milk—

#### Justin: Yes.

Sydnee: ... was a very popular—

# Justin:

That's nice.

Which, I mean, that would be pleasant.

## Justin:

Pleasant.

#### Sydnee:

Yeah.

#### Justin:

I mean, yeah.

## Sydnee:

That'd be nice.

#### Justin:

Flu or no flu, I mean, give me some of that. I'll fake a flu if they'll give me some cinnamon and milk, come on.

#### Sydnee:

And let me say, there were some really practical things that people did. Bed rest.

## Justin:

Yeah.

#### Sydnee:

You know, try to feed people, give them lots of fluids.

#### Justin:

Mm-hmm.

## Sydnee:

That's okay. I mean, and those were probably the mainstay, as is true now of treatment of the flu.

#### Justin:

Right.

## Sydnee:

Um, they had... They were really, uh, enjoying doing this cold pack on head treatment. That was something that was used for many different illnesses at the time.

#### Justin:

It's very unpleasant.

#### Sydnee:

Yeah, just put a big ice pack right on your head.

#### Justin:

I'll keep my cinnamon and milk, thank you.

#### Sydnee:

Yeah. I don't know that I would enjoy that. And then you're supposed to drink warm drinks while you're doing it.

#### Justin:

Just to kinda, uh, it's like muscle confusion, right?

#### Sydnee:

Um... [laughs]

## Justin:

Like, you know, the ex.

## Sydnee:

[laughs]

## Justin:

Okay.

#### Sydnee:

So, put an icepack on your head and drink some tea. And then, of course, hydrotherapy was still popular at the time. So, just stick 'em in a warm bath.

#### Justin:

Right.

## Sydnee:

Which wouldn't help, but, again, probably-

#### Justin:

Couldn't hurt.

#### Sydnee:

... didn't hurt anybody. The, the one interesting thing if you look at the pandemic in 1918, people were trying something that made a lot of sense, which was to take blood from people who had the flu and got better and give it to other people.

#### Justin:

They did that with Ebola.

#### Sydnee:

Yes.

#### Justin:

Yeah.

#### Sydnee:

And that makes a lot of sense, because you've formed antibodies, so you're giving somebody passive immunity. You're trying to take the antibodies that are protecting somebody who's already gotten the flu and give them to someone who's never been exposed.

#### Justin:

Mm-hmm.

## Sydnee:

That's, I mean, that's passive immunity. I mean, it was very, um, high tech at the time.

## Justin:

I'm assuming it didn't pan out.

## Sydnee:

It may have helped some. It's hard. I mean, it wasn't like people were doing real regimented studies to prove—

## Justin:

Right, right.

... that any of this was how—was helping. If the blood was a match, then it may have helped. But, uh, you know, that's a big question. Um, some less helpful treatments, salt up the nose.

#### Justin:

Ew.

## Sydnee:

Uh, you could try a goose grease poultice.

#### Justin:

It's a very like, it's kind of like a festive almost. It has like a holiday vibe to it, these flu treatments.

## Sydnee:

[laughs] Actually, it does, because you could top this off with a bag of garlic gum around your neck.

## Justin:

That's nice. You know, they were... You're ready to get roasted. Now, if you were a turkey... If you were trying to cure your turkey's influenza and you got a bunch of family coming over—

## Sydnee:

[laughs]

## Justin:

... and you want to make sure it's done just right and also cured of influenza, we've got a lot of treatments for you. You're gonna want to inject it with some cinnamon and milk, put some oxygen right under the skin, really delicious. And then, uh, get some garlic gum, rub that around the neck, uh, uh, salt up its nose. Chickens... Turkeys don't have noses, but... And then a goose grease poultice inside. It's really gonna be—

## Sydnee:

[laughs]

# Justin:

... just delicious.

This is the... This is the treatment that the witch from Hansel and Gre-Gretel told kids to do.

## Justin:

Right.

## Sydnee:

[laughs]

## Justin:

Oh, so, you know what'll fix that up, cumin. Put some cumin on there.

## Sydnee:

And just... You need a little more salt up your nose.

# Justin:

A little more salt up your nose.

## Sydnee:

Hop in this oven. Onions were a popular treatment.

## Justin:

Okay.

# Sydnee:

[laughs]

**Justin:** Sure. Stuffing?

# Sydnee:

They would, uh, they would-

## Justin:

Giblets?

## Sydnee:

... feed, uh, and a lot of these were used on kids, by the way, because kids were the ones getting... I mean, everybody was getting the flu, but

especially little kids. So, they would like take their kid, and after they've salted them and greased them and put garlic on them—

## Justin:

And preheated the oven.

## Sydnee:

... cover them in raw onions. [laughs]

## Justin:

Yeah.

## Sydnee:

I mean, you could eat the onions, but why not cover you in onions? It seems even better.

## Justin:

Mm-hmm.

# Sydnee:

If you couldn't handle onions, uh, one thing that they recommended as a second-line treatment, I suppose, is you could take some hot coals and sprinkle either sulfur or brown sugar, which seems like a big—

# Justin:

Yeah.

# Sydnee:

... a big gap there.

## Justin:

If... Can I vote? Are we voting? Because I'm gonna say brown sugar. Also, how, how is your, um, uh, efficacy with your onion thing if you think that like instead of eating onions you could sprinkle brown sugar on hot rocks. Maybe that would do something. I—

## Sydnee:

[laughs]

## Justin:

We don't know. We're making it up.

Well, no, you have to like burn the coals then and let the fumes... Like inhale them.

## Justin:

Right. I mean, I'm with you.

#### Sydnee:

[laughs]

#### Justin:

It's just like a pretty far cry from eating onions, Sydnee Smirl-McElroy.

#### Sydnee:

I think, uh, my theory is that we're still basing this on the idea that like disease doesn't like strong smells and things that make you sick and—

#### Justin:

It's a little antiquated, yeah.

#### Sydnee:

Yeah. It, it's kind of a, it, it's not that far off from things that would make you puke or poop a lot, um, which probably eating all these onions would.

## Justin:

Mm-hmm.

#### Sydnee:

So, a quarantine was popular, of course. If you didn't know how to treat the flu, at last try not to spread it.

## Justin:

Sure.

#### Sydnee:

So, uh, during the time a lot of theaters, stores, schools, churches, everything was closed. There were laws passed different places about wearing masks and about banning public spitting.

#### Justin:

That, yeah, it seems... I think we should keep those in place.

Well, that was done... I- if you remember we talked about it in the tuberculosis episode, too.

## Justin:

Sure.

## Sydnee:

So, so you could get... Actually, I think the Boy Scouts were big on that. They would come up if they saw you spitting and give you a little card to remind you that it was illegal to—

## Justin:

[laughs]

## Sydnee:

... to spit in public places. [laughs]

## Justin:

Excellent.

# Sydnee:

It was a great job for the Boy Scouts, I think. Thanks, guys.

## Justin:

This... Hey, Boy Scout, you smell like onions and brown sugar.

## Sydnee:

[laughs]

## Justin:

Where do you get off?

# Sydnee:

Um, I found this great, uh, website with a bunch of flu stories.

## Justin:

Mm-hmm.

# Sydnee:

Like accounts from people who were around during the flu pandemic, or either like kids or grandkids of these people. There was one account, and, and I was looking for cures for the flu from the time. One account was from someone named Sadie Afraid of His Horses Janis, which is a great name.

#### Justin:

Yes.

## Sydnee:

And she said that one of the, uh, one of the treatments they would use was kerosene and sugar.

#### Justin:

Hmm.

## Sydnee:

Uh—

## Justin:

Uh, to... In what form?

## Sydnee:

They would, they... I'm assuming it was like rubbing kerosene and sugar on people.

## Justin:

That's how—

## Sydnee:

I don't think they would be silly enough to drink kerosene.

## Justin:

Let's hope.

## Sydnee:

But like you rub yourself with kerosene and sugar. There was another account from a Bud Pancake, um, where he was talking about a local country doctor where, where he lived, and this doctor swore that the only thing that would cure the flu was bootleg whiskey. [laughs]

## Justin:

Sure. That makes perfect sense.

Uh, the problem is that he used up all of his supplies.

## Justin:

Mm-hmm.

## Sydnee:

You know, courageously saving the lives of the townsfolk. [laughs]

#### Justin:

Right.

## Sydnee:

And so, he, he started looking around, like where, where else is there some more bootleg whiskey? And he thought to go ask the sheriff, because part of the sheriff's job was to round up bootleg whiskey.

## Justin:

Mm-hmm.

## Sydnee:

So, he went and he talked to the sheriff, and he said, "Do you have any whiskey?" And he said, "Yeah, but we're keeping it for evidence. We're trying to put this guy behind bars." So, in the story that Bud tells, uh, his—[laughs] This doctor got together a vigilante committee.

## Justin:

[laughs] To go retrieve the whiskey.

## Sydnee:

To go round up the whiskey.

## Justin:

Sure.

#### Sydnee:

I like that it's a vigilante committee. It's very organized.

## Justin:

It is. There's, there, they follow Robert's Rules of Order, and they-

[laughs]

## Justin:

... very mannerly wear powdered wigs.

## Sydnee:

Uh, there was another survivor who said that the reason he made it is that he bathed in Listerine. So, there you go.

## Justin:

Sure.

## Sydnee:

You could try that today. And one, um, now this is a current home remedy I found. This was something that somebody recommended right now for the flu. Uh, so, she claims that she cured her children of the flu, and her husband—

## Justin:

Mm-hmm.

# Sydnee:

... when they got it with, uh, drinking a gallon of water a day, sure, warm liquids, okay, taking vitamin C tablets 500 mg at a time until you achieve bowel tolerance.

## Justin:

Okay.

# Sydnee:

Then you-

**Justin:** What does that mean?

## Sydnee:

Bowel tolerance is when you can't stop pooping.

# Justin:

Excellent. Okay.

And that's when you're taking enough vitamin C.

## Justin:

Perfect. Great. Okay. I'm no longer thinking about my flu.

#### Sydnee:

No, because you're pooping nonstop.

#### Justin:

Because I'm pooping all the time. Pooping back and forth forever.

#### Sydnee:

[laughs] Also, try some oil of oregano, elderberry syrup, and organic apple cider vinegar.

## Justin:

Okay.

## Sydnee:

Oh, and by the way, stop eating any carbs or sugars.

## Justin:

Okay. All right. All right, lady, you're off the show. Here's the door.

## Sydnee:

[laughs]

## Justin:

Okay. We know your kind on Sawbones.

#### Sydnee:

If—

## Justin:

Out of here.

## Sydnee:

If you remember from-

15th strike, you're out.

## Sydnee:

... uh, our previous [laughs], our previous episode, please do not take mega doses of vitamin C. We do not recommend it, and certainly not until you achieve bowel tolerance. [laughs]

## Justin:

Yes.

## Sydnee:

Um, in China, they just tried killing all the chickens.

## Justin:

There you go.

## Sydnee:

So, you could do that, too. So, anyway, we've had a flu vaccine since '44, 1944.

## Justin:

Okay.

## Sydnee:

Uh, the, like I said, the most recent pandemic was the H1N1 in 2009, and the reason I mention it again is I hope that that has made more people aware that the flu is a big deal and you should get vaccinated against it. Since 2010, we now recommend that everybody get a flu vaccine unless you have some reason you absolutely cannot. Um, there's a new virus every flu season. Well, there can be a new virus every flu season, I should say.

But periodically we get something called antigenic shift, which is when there's a giant change in the flu virus, and at that point we can get things like the H1N1 flu that can obviously be very deadly. So, this is why it's so important for you to try to get your flu vaccine every year. Um, this is what you need to know about the flu vaccine.

## Justin:

Okay.

# Sydnee:

The flu vaccine protects you usually against three, three different strains of the flu virus. Uh, they can be quadrivalent, which means there are four, but most of the flu vaccines you're getting at your local pharmacy or at your doctor's office are the trivalent, three. It contains two different Flu A strains, so an H1N1 and an H3N2, two of the more common flu strains, and it also protects you against the most common B strain of flu.

## Justin:

Okay.

## Sydnee:

Okay? Um, even if we guess a little bit wrong, it can still help you. So, even if it's not the, the strain of flu that's popular this year, isn't that exact strain that we vaccinated you against, if they're close enough, it will still help to protect you. Those antibodies can still be protective. Uh, we pick based on sampling of, um, pigs and chickens and birds and that kind of thing to try to predict what flu virus is gonna be the big, the hot new virus this year.

## Justin:

Right.

## Sydnee:

Um, and we also follow trends worldwide. The injection you get cannot give you the flu. Would you say that for me, Justin?

# Justin:

You sure?

# Sydnee:

In your manly voice.

## Justin:

In... The injection you get cannot give you the flu.

# Sydnee:

That's right. The flu virus, uh, the flu shot is a killed virus. Uh, you cannot get the flu from it. So, no matter how many people tell you they got the flu from the flu shot, they didn't. They just, unfortunately, got sick.

# Justin:

All right.

Not from the flu shot. They just got sick. It's flu season, guys. There's lots of colds and flues out there. Um, everybody over six months sh—can get the injection, and then there's also a nasal spray that has the live virus that kids between two and eight can get, healthy kids between two and eight. You need it once every year because immunity wanes, and because sometimes we change the flu vaccine to adapt it to whatever the current virus is.

#### Justin:

What's the h—what, what, what time of year? Is there a certain time of year when like it changes over?

## Sydnee:

The new flu?

#### Justin:

Yeah, the new flu vaccine is out.

#### Sydnee:

You should be getting it in early fall. So, we started giving it to people in September.

#### Justin:

I got mine.

#### Sydnee:

Yes. I got mine, too. It takes about two weeks to work, um, while you're building up an immune response to it.

#### Justin:

Mm-hmm.

## Sydnee:

So, the earlier you get it, the better. As soon as it comes out, I'd, I'd advise you to get it, so that by the time flu season really hits, which is kind of now, now as we're moving into late November, into December, January, February, that's when we really start to see the peak flu, um, you're already protected.

Uh, and here's the thing. If we guess completely wrong with the flu strain, or if something like happened in 2009 happens, the flu vaccine may not protect you. But most of the time we don't pick wrong and the flu vaccine does

protect you. And if nothing else, even if, because it's not 100 percent, even if you get the flu, you'll get a milder version that lasts shor—a shorter time span, and your symptoms won't be as bad.

#### Justin:

And either way, it's better than doing nothing, you goofs. Come on, let's get some herd immunity going here.

#### Sydnee:

That's right, because there are people who can't get the flu vaccine. So, ask your doctor. Most of you should be able to get it if you're listening, but ask your doctor if you're concerned that there is a reason you can't get the flu vaccine, and then go ask your neighbor or your family member or your loved one to get the flu vaccine if you can't, because then they can protect you from the flu.

#### Justin:

Right. Our baby can't get the flu vaccine. So, go get, go get your flu shot today for Charlie. Say, "This one's for Charlie."

## Sydnee:

That's right.

#### Justin:

I'm getting my flu vaccine for Charlie. Uh, uh-

## Sydnee:

Also, if you get the flu, please stay away from my baby.

#### Justin:

Yeah, you don't need an appointment, by the way. Just go to the drugstore and say, "Hey, give me, give me that shot."

## Sydnee:

Yeah, go to the-

#### Justin:

It takes five minutes.

## Sydnee:

Go to the drugstore, go to your local health department. Um, I guarantee your doctor's office, if you have a primary care doctor, can provide it. We

don't even, we don't even need appointments for it. You just come to our office and say you need a flu shot and we will give you one, so.

#### Justin:

Uh, this has been our program, Sawbones. Thank you so much for listening to it. Uh, we hope you're driving to go get your flu shot right now. Uh, there is a lot of other shows on the Maximum Fun Network for you to enjoy. That's the network we're a part of.

We've got Judge John Hodgman. There's, uh, a culture show called Bullseye, which is a great culture interview program, always something interesting there. Uh, you've got Stop Podcasting Yourself, a couple of really funny cats who always have a great, uh, third guest. Um—

#### Sydnee:

My Brother, My Brother and Me-

## Justin:

Thank you. That's a-

#### Sydnee:

... which is a show with this one really cute guy.

## Justin:

Oh, my.

#### Sydnee:

And there's, there's these other two guys, too-

#### Justin:

Yeah.

## Sydnee:

... but there's one really cute guy.

#### Justin:

That's a comedy show I do with my brothers. Listen to that and so much more on the Maximum Fun Network.

Uh, I want to thank the Taxpayers for the use of their song, Medicines, as our intro and outro. I want to encourage you to follow us on Twitter if you don't already. It's @sawbones. Uh, we also have a Facebook page. Just search for Sawbones there. I think go to, uh, Facebook.com/sawbonesshow, I think will get you there, too. If you want to email us, Sawbonesmaximumfun.org, and I think that's gonna do it for us until next Tuesday. I'm Justin McElroy.

#### Sydnee:

I'm Sydnee McElroy.

#### Justin:

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

[theme music plays]

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