

## Sawbones 114: Scarlet Fever

Published December 4th, 2015

[Listen here on mcelroy.family](#)

**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 cohost, Justin McElroy.

**Sydnee:** And I'm Sydnee McElroy.

**Justin:** [sighs heavily] It used to be when you would decorate your house for the holidays it would be like an afternoon. And when you have a baby, it's sort of like a- I don't-

**Sydnee:** An ongoing-

**Justin:** It's sort of like-

**Sydnee:** Like, process where you sort of like, venture through the land of decorating your house, like one stop at a time over the course of several weeks.

**Justin:** Turns it into like, a 401K sort of thing, where it's like "Well, I'm gonna put this one ornament up in the hopes that here in the future, few months from now, this is gonna look real nice."

[Sydnee laughs]

**Justin:** But putting up Christmas decorations now is kinda like putting up baby traps when you got a baby as mobile and curious as ours.

**Sydnee:** That's true. It– it almost makes you wonder why you do it 'cause there are so many things that we have put up in our house, and as I'm putting them up, I think, "Gosh, I hope Charlie stays away from this 'cause it could like, fall on her and smooch her."

**Justin:** Yeah, but we put it up, yeah.

**Sydnee:** But then I think, like, why did we put it up?

**Justin:** Yeah. Why did we just put it up?

**Sydnee:** Why did we get a giant, live tree, and then put it in the corner and hang a bunch of like, fragile like, glass and stuff on it, and then feel like–

**Justin:** Like, we made it harder for ourselves, like we upped the modifier. To use *Halo* terms we put skulls on our baby run and to try to make it more difficult.

**Sydnee:** Obviously, I understand that perfectly, too.

**Justin:** Oh I know you didn't dear, I'm trying to make the show as broadly appealing as possible.

**Sydnee:** But we have a tree that is– By the way it's also pretty, so it's of course something she'd want to, she'd want to–

**Justin:** Oh yeah, very attractive to babies.

**Sydnee:** Touch. We have all kinds of little like–

[mail notification plays in the background]

**Sydnee:** Tchochkes and figurines, like glass things, and porcelain things that she shouldn't touch.

**Justin:** Yep.

**Sydnee:** But she's gonna wanna like pick up and put in her mouth, and then like throw on the ground.

**Justin:** Yeah, there's a lot that– we are creating a lot of additional worries for ourself with Christmas for no reason.

**Sydnee:** I've never put all the inflatables inside like we have this year.

**Justin:** Yeah, oh–

**Sydnee:** Because she likes to hug them and kiss them.

**Justin:** I love that game.

**Sydnee:** And love them and then she wants me to love them. And the problem is that it's cold outside so I don't want to put them outside.

**Justin:** So we leave them inside so she can play with them–

**Sydnee:** 'Cause then we have to go outside and hug them.

**Justin:** Yeah. It's not a great solution, but–

**Sydnee:** It's– Do you think maybe we're setting up all these traps because like, we've gotten lax because we don't have to worry about, with kids, so many of the like old childhood diseases that we used to worry about back in olden times.

**Justin:** Yeah, it all seems too easy you know, so we're like, creating challenge for ourselves.

**Sydnee:** Yeah, this is a way to make parenting more exciting. [laughs]

**Justin:** Well, what, what–

**Sydnee:** And terrifying.

**Justin:** Like what kind of thing is–

**Sydnee:** Than it already is.

**Justin:** Yeah, what kind of thing is like, not there, because it, for me, is pretty much full blown terror from, from dusk til dawn. Or, and dawn til dusk and basically all the time.

**Sydnee:** Lots of things. But for instance, you don't as much have to worry about like scarlet fever these days.

**Justin:** Okay, I don't know that much about scarlet fever. Half the time—

**Sydnee:** I was betting on that, Justin.

**Justin:** Half the time when I hear it I think about the *Scarlet Letter*, which is different, but it's one of the two times people use the word scarlet.

**Sydnee:** I would say there's three, I would say in reference to—

**Justin:** *Gone With the Wind*.

**Sydnee:** O'Hara.

**Justin:** Yeah, *Gone with the Wind*. Yeah. And Miss Scarlet, I guess, from *Clue*. Hey, [laughs]

[Sydnee laughs]

**Justin:** This is our show about how we talk about the times that the word scarlet is used. Check next week, violet! Catch it. Should be a good episode.

**Sydnee:** Let's talk about the fever, 'cause that actually has to do with medicine.

**Justin:** Yeah.

**Sydnee:** I want to thank—

**Justin:** I got fever in the only— the only prescription is more talk about scarlet fever.

[Sydnee laughs]

**Justin:** SNL.

**Sydnee:** Great, Justin. Everybody loves that bit. So I want to thank a couple people, Emily and Dave and Eva, who recommended this topic. And Eva by the way, wanted us to know that she was 11.

**Justin:** Aw.

**Sydnee:** Which is super cool.

**Justin:** Hi, Eva.

**Sydnee:** I love– hi, Eva. Thank you for–

**Justin:** Thanks for listening.

**Sydnee:** Yes, thank you. I love– I love to hear that kids like this show, too.

**Justin:** Here in about seven years when you have all the buying power, make sure you've gotten a lot of friends enlisted into the show too. We need a wave of new merchandise purchasers.

**Sydnee:** [laughs] Our advertisers would rather you be 18.

**Justin:** Yeah, if you could just be 18. Like we love you, we love–

**Sydnee:** Or at least have money. [laughs]

**Justin:** We love the whole 11-year-old thing that you're doing right now. But just for our demo [chuckles], it would be best if you were 18 to 24, if you could do that.

**Sydnee:** We're kidding. We don't care. We love it. We love that you're a kid.

**Justin:** Thank you for clarifying that, Sydnee, 'cause they have not listened to our show for 114 episodes. They might think we're monsters.

**Sydnee:** I don't know– I don't know at what age sarcasm becomes apparent.

**Justin:** Fair enough. Fair enough.

**Sydnee:** I think it depends on how sarcastic your parents are. Charlie's sarcastic already.

**Justin:** So, sarcasm becomes apparent depending on when your parents became sarcastic.

**Sydnee:** [forced] Ha ha. Good one.

**Justin:** That was a good–

**Sydnee:** Good one Justin.

**Justin:** Please, just talk about scarlet fever, I'll do anything.

**Sydnee:** Okay. It's an old disease.

**Justin:** This has been the longest intro of my life.

**Sydnee:** I'm gonna terrify you now. It's an old disease, but it's a very familiar bug that causes scarlet fever.

**Justin:** Mm-hmm.

**Sydnee:** It is caused by group A strep, or streptococcus pyogenes, which is the same streptococcus that causes strep throat.

**Justin:** Not even worried about it. I get strep throat all the time. I used to. I beat it.

**Sydnee:** It's interesting because–

**Justin:** I think I might have it right now, 'cause I am like, sucking down the chloroceptic.

**Sydnee:** You don't have strep throat.

**Justin:** Okay.

**Sydnee:** Everybody who has a sore throat, always thinks they have strep throat. Chances are you don't– you might, I mean, by all means get it checked out. But you probably don't.

**Justin:** I used to have it a lot. That's what I'm saying.

**Sydnee:** Now we've known about strep infections clinically for a long time, as in like Hippocrates described a lot of different infections by– And when I

say "strep infections" I'm talking about infections caused by streptococcal bacteria, a kind of bacteria in the streptococcus family. Right?

**Justin:** Mm-hmm.

**Sydnee:** And basically the streptococcus family are– they're named that because they look like little chains for berries. It's "coccus" means berry, and "strepto" is chain of. And so, it's a little– they look like little chains of berries.

**Justin:** I did not know that.

**Sydnee:** As opposed to "staph", or staphylococcus–

**Justin:** Look like staffs.

**Sydnee:** No. That's from "staphylo" for bunch of grapes, they look like little clusters.

**Justin:** Okay.

**Sydnee:** So, there you go. That's your–

**Justin:** But you can understand my confusion.

**Sydnee:** I can understand that. That's fair.

**Justin:** Okay.

**Sydnee:** So we– we know– we didn't find out about the actual bacteria until the 1870s when Theodore Billroth actually saw it under a microscope. But we knew that there was something that sorta looked like scarlet fever clinically. We knew about like, flesh eating disease. That's strep thro– that's strep.

**Justin:** Mm-hmm.

**Sydnee:** We knew about strep throat in the sense that we understood that there was this syndrome that looked like that. But it took us a long time before we knew about the bacteria. And now, when we talk about scarlet fever, let me tell you what it is. 'Cause I'm guessing you don't even know what– like, if somebody said I had scarlet fever, like what that would mean.

**Justin:** I always assumed that like it made the person really red. That's the only thing I've got.

**Sydnee:** Sorta. I mean, that's fair. Like, you do get a rash that is red.

**Justin:** Perfect.

**Sydnee:** So that– that's a fair guess. At first, it's like strep throat basically. You get a sore throat. You get a fever. You might get like a headache. Body aches. You just feel lousy, right?

**Justin:** Right.

**Sydnee:** You get like swollen lymph nodes. Your tonsils can look like big and red, and have like white nasty stuff on them. All that kinda stuff that you get when you get strep throat. Your tongue actually will get a very particular appearance, we call it “strawberry tongue”. Where it can look like kind of white-ish, with like red bumps all over it.

**Justin:** Mm-hmm.

**Sydnee:** And then actually the white part will kinda slough off, and then you'll just have like, a big, red bumpy tongue.

**Justin:** Great.

**Sydnee:** So look like a strawberry.

**Justin:** Sounds great.

**Sydnee:** And then the, the bad thing is when this–

**Justin:** The bad thing.

**Sydnee:** The bad thing–

**Justin:** So those were the good– those were the okay things.

**Sydnee:** Well that's just like, that– that's– I mean, like, a lot of that you just get with strep throat. And then, nowadays you get some antibiotics you get

better, it's over. Hopefully it doesn't progress to scarlet fever, which is when the characteristic part is that you see the rash.

So you get this, these red bumps all over your body, they usually start on the neck, and then move to the trunk, and then all of your extremities. They start like, anywhere between 12 and 48 hours after the fever and then it— it can be a really impressive looking rash. And it actually stays there for a week, two weeks, and then starts to kind of, what we would call “desquamate” or like, peel off.

**Justin:** Mm-hmm.

**Sydnee:** So it's a really impressive looking kind of rash. Now, the rash itself isn't dangerous. It just means that the strep has become invasive and it can do all kinds of bad things.

**Justin:** Okay.

**Sydnee:** So it can cause big abscesses or like pockets of infection on your tonsils. It can go anywhere. It can go to your heart. If you've heard of rheumatic fever.

**Justin:** Mm-hmm.

**Sydnee:** It can infect your— it can effect your heart. It can effect your joints. It can effect your kidneys. You can get this, what we call “glomerulonephritis”, which the important thing to know is it damaged your kidneys. It can go to your brain. It can go to like cause like meningitis. It can go to your bones. It can go to your blood. It can go anywhere. And that's when it's scarlet fever. That is bad.

**Justin:** 'Cause it's running wild like Hulkamania throughout your body.

**Sydnee:** Yes, exactly. And the question is, it's the same bacteria. So why sometimes do you just get strep throat? I mean, 'cause this is not— it's not like if you had strep throat and we didn't treat you, everybody this would happen to. Like, I don't want to insinuate that. But some people who get strep throat, this could happen to. So, why? There's some theories that—

**Justin:** Is this a quiz, or are you asking rhetorically? 'Cause I'm, if one of those is true, I'm terrified.

**Sydnee:** There– there's some theories that it has to do with a certain toxin that's produced by some strains of that strep bacteria that can cause it to be more likely to do this. Which is– it's kind of interesting the reason some strep can cau– can do that is because they've been infected by a bacteriophage, which is a virus that infects bacteria. Did I just blow your mind?

**Justin:** Whoa. So, the bacteria can do it 'cause the bacteria's sick?

**Sydnee:** 'Cause the bacteria's sick with a virus that makes it produce a toxin that makes you sicker.

**Justin:** Whoa.

**Sydnee:** Crazy. But–

**Justin:** That's crazy.

**Sydnee:** But it's not always consistent, because there are some people who get the bacteria that are infected and get the toxin, blah, blah, blah. Don't get scarlet fever. So it also has to do with the person and their immune system. It's really complex.

The point is, we used to see it a lot, nowadays we almost never see it. Antibiotics certainly have something to do with that, but there's probably other factors involved. So, that's scarlet fever, so that you kinda know what we're talking about.

**Justin:** Got it.

**Sydnee:** And as I said, Hippocrates may have been the first to write about it like, 2500 years ago. It may go back to Roseus wrote about it in the 10th century. But we know for sure, that it was described by an Italian doctor Giovanni Ingrassia as "Rosalia", as its own distinct rash causing, you know, entity.

**Justin:** Mm-hmm.

**Sydnee:** In 1553. And it was known as “febbre scarlattino”. Or scarlet–

**Justin:** Scarlet fever, tran–

**Sydnee:** Good job.

**Justin:** Loosely translated.

**Sydnee:** Good job, Justin. By Sydenham in 1676. They also used to refer to it as “Scarlatina” for short, which is kind of a–

**Justin:** [in a dramatic Italian accent] I once knew a Scarlatina. The love of my life.

**Sydnee:** It's an adorable name.

**Justin:** [in a dramatic Italian accent] A beautiful dancer.

**Sydnee:** “Aw, you've got scarlatina.” That's not, I mean, it's not like a cute thing to have, but it sounds cute.

**Justin:** No, it's scarlet fever still. By– scarlet fever, by any other name, et cetera, et cetera.

**Sydnee:** There were a lot of early writings that probably are describing scarlet fever, but the– You know, there were a lot of things that caused red rashes. So, it gets really tricky, like, are they writing about measles? Are they writing about rubella? What are they writing about?

For a while there was a distinct clinical entity that was described called “Dukes disease” because Clement Dukes knew that there was something that wasn't rubella that caused a rash and they called it Dukes Disease. But then we figured out that that was scarlet fever, actually. Which the only important part about this is, have you ever heard of fis–

**Justin:** Poor Duke. I bet he was so bummed. You know he had that whole disease named after him and then all the sudden. Pfft.

**Sydnee:** They're like, nope sorry that was scarlet fever all along.

**Justin:** Scarlet fever all along. Well, he said, "Well what if maybe we just change scarlet fever and start calling that Dukes disease. Maybe. I named it too."

**Sydnee:** And–

**Justin:** Just didn't catch on.

**Sydnee:** And it just didn't catch on. You know, it is kinda weird though, 'cause have you ever heard of the term "fifth's disease"? Have you ever heard of that, fifth's disease?

**Justin:** No.

**Sydnee:** Okay, well a lot of people have. [laughs]

**Justin:** This probably be better if I– Let me try again. Oh yeah.

**Sydnee:** [laughs] It's a– it's a different virus. The only reason that matters is people have asked me before like, why is it called fifth, as in like the number five, like fifth's disease? Because we used to have like a list of the common childhood like what we call "viral exanthems", meaning viruses that cause rashes. And the– Although they weren't all viral. They're just exanthems.

The list went in order of when you were likely to get them. So it was like, measles, and then scarlet fever, and then rubella, the fourth one, so for a while scarlet fever was called fourth disease, was Dukes disease.

**Justin:** Okay.

**Sydnee:** So scarlet fever was on this list twice. So it threw off the whole list.

[Justin laughs]

**Sydnee:** Because then fifth is "erythema infectiosum", which we call fifth disease, 'cause that sounds a lot easier. And then roseola is sixth. But there's– the list is off. Fifth disease should be fourth disease.

**Justin:** Oh man.

**Sydnee:** Isn't that crazy?

**Justin:** I bet you guys have a good laugh about this at the office Christmas party, huh?

**Sydnee:** Anyway. [chucklees] Up until the 1800s, scarlet fever was endemic in certain areas, meaning that you would always see a couple cases, but would periodically cause big outbreaks, like every you know, decade or so. But not commonly. You know, it wasn't something that you saw in large numbers.

**Justin:** That's in- See, that's interesting to me because if you, if what you're talking to me about, like... the bacteria having to be a precursor to that, like a certain kind of bacteria being s- like, that would be what was spreading, right? Like, when it would come in waves. That- that is actually what was happening if that, if that theory holds water, right?

**Sydnee:** Exactly.

**Justin:** Like you wouldn't expect a- an outbreak of something that would or wouldn't evolve into scarlet fever, right?

**Sydnee:** Exac- it was either, it was either that that strain started to predominate, you know, the one that produced the toxin, and then you see an outbreak. Or you could also theorize that it was, and this can happen with outbreaks, it's spreading to populations that- that aren't already effected by it. So, like a-

**Justin:** Mm-hmm.

**Sydnee:** Like a virgin population. Somebody who doesn't-

**Justin:** Okay.

**Sydnee:** Have any innate immunity. So when it spreads beyond kind of the community that's already been dealing with it, you might see an outbreak too.

**Justin:** All right.

**Sydnee:** But yeah, that's a good point. Good job, Justin. Sciencing.

**Justin:** Hey, no problem.

**Sydnee:** You scienced the heck out of that one.

**Justin:** No big deal.

**Sydnee:** In the 1800s we start to see some cyclical outbreaks with very high mortality in urban centers. So, like, places of dense population.

**Justin:** Right.

**Sydnee:** You see a lot of— a lot of people actually dying of scarlet fever. But there's still just these kind of like, they crop up, there's a big outbreak, and then it goes away. This is— And this happens up until the 1880s when the outbreaks start to lessen in frequency and severity and mortality, and then finally they— the mortality drops to like, one percent.

Then in the 1900s it's not quite as big a deal and it starts to be less terrifying and then finally, we move to now where like we never see it. So, when we think about like the period of time when scarlet fever was a really scary thing, 'cause there was. There was this time in history where scarlet fever was terrifying we're really talking about between like 1825 and 1880s. That was the— that was the time period where for whatever reason—

**Justin:** The good old days. In ter— in terms of scarlet fever's timeline.

**Sydnee:** For scarlet fever it was the good old days.

**Justin:** For scarlet fever it was the good old days.

**Sydnee:** For humanity it was not. But that's when we see that scarlet fever is actually a fairly large contributor to like childhood mortality. I mean, it's a ba— it's common and it is much more severe than it— than it would be now.

**Justin:** Mm-hmm.

**Sydnee:** So, the treatments that I want to talk about for scarlet fever mainly come from this time period. Okay?

**Justin:** Right, because after that it was like, not such a big deal.

**Sydnee:** Well, once we get to the 1940s and we get antibiotics– it– I think it's less exciting.

**Justin:** Yeah.

**Sydnee:** In terms of the infectious disease.

**Justin:** In terms– Again, right. Yeah.

**Sydnee:** From the– From the perspective of bacteria and viruses. So. Well really just bacteria.

**Justin:** Right.

**Sydnee:** So treatments. So if you got scarlet fever in the 1800s, the first thing they would do is load you up in a fever cab.

**Justin:** Mm-hmm.

**Sydnee:** Like an ambulance kinda thing.

**Justin:** Like a cash cab.

**Sydnee:** Like a cash cab, exactly. [chuckles]

**Justin:** Just like a cash cab.

**Sydnee:** They'll ask you questions on the way–

**Justin:** But for fevers.

**Sydnee:** To the hospital, you won't be able to answer them, 'cause you got scarlet fever.

**Justin:** Right.

**Sydnee:** And they would take you to the hospital where you would stay in isolation for weeks. This was very common at the time, like just lock them away at the hospital, keep them away from everybody else because you

didn't want anybody else to get scarlet fever. All of your belongings would be burned.

**Justin:** Which sounds bad, but you know, it was the mid 1800s. There– you didn't have a lot of things.

[Sydnee chuckles]

**Justin:** You probably had like, one dress and like a baking pan, and like a wash bin. They were probably like the only things you had.

**Sydnee:** Is that what you think everybody had in the 1800s?

**Justin:** Probably a bible. Probably a bible, too.

**Sydnee:** No, you know what this reminds me of though, did you ever read the *Velveteen Rabbit*?

**Justin:** Uh, no.

**Sydnee:** Are– do you know that book at all?

**Justin:** Yeah, it's about scarlet fever. [laughs]

**Sydnee:** It is.

**Justin:** Took a shot in the dark, nailed it in one.

**Sydnee:** I mean, it's about a little boy and his stuffed bunny, but like he– like he gets scarlet fever and so they have to burn the velveteen rabbit.

**Justin:** Sounds like a really killer book. Can't wait to crack that one open.

**Sydnee:** It's okay, though because the velveteen rabbit gets turned into a real bunny... I guess before it gets burned, or maybe that's like, heaven for the stuffed animal, I don't know.

**Justin:** Can you please move on? This is like a mega bummer to me now.

**Sydnee:** There's also a character in it called the skin horse, I think.

**Justin:** Co– uh, family show. Moving on.

**Sydnee:** We should read that to Charlie later. [chuckles]

**Justin:** Yeah, maybe we can just recount it to her, 'cause your way of telling it to so beautiful.

[Sydnee laughs]

**Justin:** I really feel like I'm getting all the nuance.

**Sydnee:** If you had something you really didn't want to burn–

**Justin:** [in a dramatic voice] “And then skin horse clomped out from the darkness, and the velveteen rabbit burned alive 'cause scarlet fever!” It’s a children's story, eh?

**Sydnee:** The velvet– he became real because he was loved.

**Justin:** Or maybe he was in heaven. Like, get your facts straight, Smirl!

[Sydnee laughs]

**Justin:** Okay, so may– if you didn't want to burn all your things, which I can't imagine– Like, I know your things kinda sucked 'cause it was the 1800s, but like who wants to burn all their things?

**Sydnee:** Well, they, they make a point that there are some things, like wool for instance that you could just put in an oven for two hours, at 220 degrees Fahrenheit and that that would probably kill it. And that the– that the fabric would probably survive. [chuckles] So if you had the time.

**Justin:** And what else are you doing?

**Sydnee:** I know. [chuckles]

**Justin:** You have scarlet fever.

**Sydnee:** You have scarlet fever, you're just gonna lay in bed anyway. So you're gonna stay in bed, and that was very important because if you didn't

stay in bed for the first two weeks you would get what they call "dropsy", which- You could get dropsy with a lot of things.

**Justin:** I have dropsy, why- why is that- Did we talk about dropsy recently?

**Sydnee:** We've talked about dropsy on and off. In this sense they're meaning edema. They're meaning swelling. They're meaning fluid places.

**Justin:** Okay.

**Sydnee:** Dropsy was used to describe a lot of different ways that fluid could accumulate.

**Justin:** It's one of those imprecise things, right?

**Sydnee:** Yeah, so they would say like, you could get like, dropsy of the, of the lungs, or dropsy of the legs, or dropsy of whatever, of the heart and it was fluid. The main treatment while you were there would be bleeding. This was the time period we're in.

**Justin:** Great.

**Sydnee:** So, you would either cut the patient and bleed them until their lips and cheeks become pale and they pass out. And that'll work. Or blister them for the same effect, or you could apply two to six leaches behind or below the ears on each side.

**Justin:** Two to six, so-

**Sydnee:** Two to six.

**Justin:** Depending on how bad your scarlet fever was, I guess?

**Sydnee:** That's the- that's the art of medicine it's that you know-

**Justin:** Oh, right.

**Sydnee:** The science is you know it's between two and six leaches, the art is how many exactly for this patient. [laughs]

[Justin laughs]

**Sydnee:** Usually bleeding is the worst of the treatments, but things– things got a little rougher for our scarlet fever patients.

**Justin:** What happened?

**Sydnee:** Well, I'm gonna tell you about it, Justin, but first why don't you come with me to the billing department.

**Justin:** Let's go.

[ad break]

**Justin:** Okay, so Syd, you had just told me that the– the worst of it was not the bleeding. What was the worst of the treatments?

**Sydnee:** So, this was a time where, you know, we didn't really know what to do for a lot of different things. The humors kind of were still part of, you know, the idea that we have these four humors that we have to keep in balance, which is where the bleeding comes in. So, we would just, as we've discussed before, kinda try whatever seemed to cause a big response in the patient. Make them pee or poop, or puke, or something, or bleed.

And so, you know, we would also give people emetics, which means medicines that make you puke to purify your body. And then the diet that would follow, like kinda cleaning the person out so to speak. was pretty rough. So, at first you wanna avoid anything that would be hard on the stomach. So, obvious stuff, liquor, spices, anything that's animal based you pretty much stay away from at first. There was a concoction of podophyllum, which is like this alkali that's made by plants that the reason I know about it is that we can apply it to genital warts.

**Justin:** Oh, okay.

**Sydnee:** But in this case you would want to mix it with Epsom salts and like... eat it. Was like one of the treatments.

**Justin:** Delish.

**Sydnee:** And then you would also make a mixture of aloe and salt and treacle, a little tastier probably.

**Justin:** Yeah.

**Sydnee:** And eat that as well. Once you were tolerating that– [laughs] Once you were tolerating that well–

**Justin:** Yeah.

**Sydnee:** You can move on to toast, or barley or rice water. And you want to add some potassium nitrate in that, [chuckles] which by the way is saltpeter, which I think is like, used to make gunpowder.

**Justin:** Sure, right.

**Sydnee:** You want to throw that in there, and like also some ammonium acetate as well. Which is like used for like different chemical reactions and stuff, now.

**Justin:** Sure. Yeah, why not?

**Sydnee:** In addition, so as long as you're eating all this weird stuff that's gonna help clean out your body, you want to a– you want to do something to the tonsils themselves.

[Justin exhales heavily]

**Sydnee:** Because you know, you started with like a strep throat, kinda thing, right?

**Justin:** [uneasily] Yeah.

**Sydnee:** So you want to take some silver nitrate, which–

**Justin:** Aw...

**Sydnee:** We still use silver nitrate some today, I've used it before in the office to like stop bleeding, that's like on the end of these sticks. And it like, stops– it would kinda– it's caustic. It's not very comfortable. And you would apply it to–

**Justin:** Boy that is a generous– that is a generous way of putting it, huh?

**Sydnee:** Not very comfortable. You would apply it to the ulcerated tonsils.

**Justin:** Ah!

**Sydnee:** Morning– morning and night with a camel hair pencil is what was described? I...

**Justin:** A camel hair pencil?

**Sydnee:** Is that like a brush?

**Justin:** Maybe a brush.

**Sydnee:** I would have thought a brush. But they say pencil. Maybe that just a– maybe they're using a different word for brush.

**Justin:** Who knows.

**Sydnee:** Anyway, camel hair pencil, silver nitrate, to the ulcerated tonsils! Morning and night.

**Justin:** I just would rather not.

**Sydnee:** I think I'd rather be bled.

**Justin:** Yeah, I'd rather be bled. Go ahead– that doesn't do anything, but it's less ple– like, unpleasant I guess.

**Sydnee:** If you've got the big, swollen lymph nodes, like you can get in your no– in your neck, you know, when you have strep throat you might get, what people call swollen glands.

**Justin:** Yeah.

**Sydnee:** Like lymphadenopathy is what I would say. You can–

**Justin:** Hm.

**Sydnee:** [chuckles] You can treat that by creating an ointment made from iodine and suet. Which Justin can tell you what suet is, if you don't know.

**Justin:** Yeah, it's like pig fat.

**Sydnee:** It's like the fat from around the kidneys of like, pigs and cows–

**Justin:** Yeah.

**Sydnee:** And stuff.

**Justin:** It's used in British baking a lot.

**Sydnee:** Yeah, we've–

**Justin:** Now they use, it's more common to have vegetable suit now, but anyway.

**Sydnee:** Yeah. But in– I'm assuming this would have been animal based suit back in the day. Mix it with iodine, make an ointment, put it on a piece of soft leather, and then just like wrap it around your neck, and like keep that on there.

**Justin:** Okay.

**Sydnee:** Eventually when you're starting to get better you could advance your diet, and diet was a big part of this, if you can't tell. The idea that “I don't know, we don't know what else to do to people, so like, maybe we'll just regulate what they eat really closely”.

**Justin:** 'Cause they had literally no other ideas.

**Sydnee:** 'Cause we, yeah, 'cause we're just, we're trying anything. We're definitely, yeah, we're into the like heroic era of medicine right now. So like, just whatever. Whatever.

**Justin:** Mm-hmm.

**Sydnee:** You would advance to broth and tea after two to four days, and you would feed them broth, or tea, or both every three hours. Which is like, really demanding on whoever, like your nursing staff, whoever's doing that.

**Justin:** Yeah, but for an era of medicine called the “heroic era of medicine” it's still kinda tame.

[Sydnee chuckles]

**Justin:** Like if you were keenly aware that the era– era you are practicing medicine in was called the “heroic era of medicine”, like I would think you would be a little bit intimidated to just announce like “And now I’m going to give the patient broth. Much more frequently than they would normally have broth.”

Like “That’s not very heroic, doctor. I mean, it’s okay, but it’s not like, you’re not gonna wow me. I’m not gonna like, adapt it into a three part series. It’s not gonna like, go be a crossover event”.

**Sydnee:** Can you imagine how ticked off the nurses would have been? Like “Seriously? Seriously, every three hours?”

**Justin:** ‘Every three hours. That’s good.”

**Sydnee:** “That’s you want me to do? That’s what you want me to do with my training? That’s it?” [chuckles]

**Justin:** “Do you have a pee pee solution, or– No, okay great.”

**Sydnee:** You– you could also give them, at this point something, I had to read about this, “Liebig’s essence of meat”.

[Justin laughs]

**Sydnee:** This is a pro– Liebig is a trade name, it’s a brand name.

**Justin:** Who has the time to eat meat? Not me, I just want the–

**Sydnee:** I just want the essence. And that was actually exactly the thought. Was that people need the nutrients from meat, but they can’t afford meat, or they don’t have the time, or whatever.

**Justin:** Yeah.

**Sydnee:** The means to eat meat itself.

**Justin:** So it’s that like robust, hearty meat flavor, and nutrients.

**Sydnee:** This was this like tinned meat product.

[Justin groans in anguish from a distance]

**Sydnee:** That you would make by like boiling down– It actually was like a 30 to one ratio, like by boiling down like 30 kilos of meat you get like, one kilo of, you know–

**Justin:** Sounds expensive to make.

**Sydnee:** Right. That's what I thought. Like, that's a lot of meat to go into–

**Justin:** Yeah. But there's probably not a lot of, how am I gonna put this, choice cuts.

[Sydnee laughs]

**Justin:** In there, I would think.

**Sydnee:** I wouldn't think.

**Justin:** Wouldn't think you got a lot of choice cuts.

**Sydnee:** You add a lot of salt to it, and I guess I heard it described as like a, almost like a black pa– like oily past kinda thing in like a bottle.

**Justin:** Ugh. I can't.

**Sydnee:** And you would eat some of that. You could, I guess spread it on bread or whatever you wanted to do.

**Justin:** Or just quit.

**Sydnee:** And it was– it was often thought of as something for like– to like help sick people heal or just to use for kids who were like, malnourished or didn't have access to all the foods they need. Like, just eat this bea– meat essence.

[Justin snorts]

**Sydnee:** And you'll get better. [chuckles] I think later they were making bouillon cubes.

**Justin:** I mean, that would be something.

**Sydnee:** Yeah. If the patient's head is hot and they start to get confused, so I'm assuming like what we would call now a fever and maybe some delirium, you should shave their head.

**Justin:** Okay.

**Sydnee:** It's very important. They'll die if you don't. That was, that was—

**Justin:** Wow.

**Sydnee:** An important point. So, shave their head.

**Justin:** Really?

**Sydnee:** Yeah. No, they're— No I mean, not really. But—

**Justin:** Oh okay.

**Sydnee:** No that was the thought. [chuckles] Then on their now bald head you want to put ice or cold rags on the head. Keep the head really cold. Your feet, you want to wrap in flannel and then stick them in like a warm water bath.

**Justin:** Mm-hmm.

**Sydnee:** And then sponge down the rest of them with like tepid like you know, room temperature kinda water.

**Justin:** Okay.

**Sydnee:** I don't know if we're like, confusing the bacteria at this point.

**Justin:** Yeah, right. What are you doing—

**Sydnee:** [in a distressed voice] “It's hot, it's cold, it's Luke warm. I don't know what's happening.”

**Justin:** What are you doing up there?

**Sydnee:** "I don't know where to go." You want to apply a solution, because you could get like some like drainage, from the mucus membranes.

**Justin:** Right.

**Sydnee:** The crustiness and stuff, so you want to apply a solution to your eyes and your mouth, and with a dropper into your ears, of Borax.

**Justin:** Okay. I still am unclear what Borax is, but it sounds kinda chemically.

**Sydnee:** Yeah, like a chemical, like we used it to like, like we talked about it as like a food additive for a while, to like–

**Justin:** Right.

**Sydnee:** Keep food fresh longer, a preservative kinda thing.

**Justin:** Just sound–

**Sydnee:** To clean stuff.

**Justin:** Sounds like an alien weapon.

**Sydnee:** It's not a good idea to put it in your eyes, ears, mouth or anywhere else in your body.

**Justin:** Mm-hmm.

**Sydnee:** You have to make sure that the patient is peeing every six hours, and pooping daily. And give them whatever medicines are necessary to make that happen if they're not.

**Justin:** Got it.

**Sydnee:** As they get better, you want to advance to solid foods very slowly because that– that is the first thing they would say is if somebody dies of scarlet fever it's probably because you gave them solid food too quickly.

**Justin:** Okay.

**Sydnee:** That's probably not true.

**Justin:** No.

**Sydnee:** You can go outside as soon as you're able to go outside, that's great, 'cause fresh air was seen as like the— a kind of a cure—all.

**Justin:** A panacea.

**Sydnee:** Exactly. But don't walk.

**Justin:** Run.

**Sydnee:** No, don't— Just sit.

**Justin:** Okay, got it.

**Sydnee:** Have somebody just wheel you out and sit, in the beginning. And only if the weather is good, of course.

**Justin:** Of course, right.

**Sydnee:** If you can get to the seaside.

**Justin:** You don't want to get double scarlet fever.

**Sydnee:** No, which you could.

**Justin:** Which you could.

**Sydnee:** You want to go to the seaside if you can, because the air there is better for you, but—

**Justin:** Sure, better for you. Yeah.

**Sydnee:** Don't get in the water. For at least a month.

**Justin:** Mm-hmm.

**Sydnee:** That was actually in the *Velveteen Rabbit*, too. The kid had to go to the seaside. They always advise, like as you're getting better do like a tonic,

which there were tons of tonics at the time, which were just like syrups with like iron or some– something in them that was seen as like, boosting your health and making you more vibrant or something. You know, whatever.

**Justin:** Yeah.

**Sydnee:** At the time, that was– you know, this was– homeopathy was around. At this period in history, it still is now. But this is when it would have been popular.

**Justin:** It still is now, and by the way, quick homeopathy sidebar. I went to the drugstore 'cause Charlie had a cold, and I was looking for some medicine that– that we could give her.

**Sydnee:** By the way, he didn't ask me about this, 'cause if he had asked me, I would have said no. There's– there is no medicine that we can give her.

**Justin:** No, but I–

**Sydnee:** So don't bother.

**Justin:** I know, but what I wanted to say–

**Sydnee:** But he didn't ask, so.

**Justin:** What I wanted to say is, I was looking, 'cause I was there already. It wasn't a special trip. But anyway, there was some stuff that was for 12 months and younger. And it was labeled as homeopathic medicine. And it was on the same shelves as the other medicine. Like, that made me really angry 'cause that's fake.

**Sydnee:** Yeah.

**Justin:** Like, there should be another section with the fake medicine if you wanna go hog wild on it. But don't get it over there with the real medicine for people that don't know any better. That's crazy!

**Sydnee:** Well, that– that's the problem is that first of all, they can say that it's for 12 and under because it is fake. 12 months and under because it's not gonna do anything.

**Justin:** 'Cause–

**Sydnee:** You know, and it's not regulated by anybody. None of that stuff is, though anyway. Like–

**Justin:** We tried–

**Sydnee:** Most of it isn't regulated, like the supplements, and the homeopathic stuff.

**Justin:** We tried to be pretty nice in our homeopathic episode, but that was a– that was a while back in *Sawbones* history. We tend to go HAM on stuff a little bit more commonly now. I'm just gonna say, that's made up medicine, and it doesn't have any place next to the real medicine.

**Sydnee:** No.

**Justin:** In case you have– You can go back and edit that into your own personal copy of the homeopathy episode by the way.

**Sydnee:** No. Yes, absolutely, no homeopathy that's not– it doesn't do anything. And back then they told you to–

**Justin:** And it's for babies! That makes me so angry.

**Sydnee:** Yeah.

**Justin:** It's so freaking hard to have a baby who's sick, and you feel like completely power– powerless. There's nothing you can do. You're looking for anything that can help. And you find this fake medicine next to the real medicine.

It makes me want to freaking puke. It makes me sick that the stores would sell it next to the real medicine. It makes me sick that people would sell it to people knowing it doesn't do anything. And if I ever met– met the people

responsible, I would punch them in the mouth. There. That's what I think about homeopathy.

**Sydnee:** Wow.

**Justin:** Makes me mad!

**Sydnee:** You got really upset there.

**Justin:** I am genuinely upset about it.

**Sydnee:** Can I just make one– can I just make one corollary point, 'cause you're right–

**Justin:** If you're gonna defend homeopathy you better come hard.

**Sydnee:** No, no I'm not. I'm not defending homeo– not in any way.

**Justin:** Okay.

**Sydnee:** I am also gonna point out that the– what you are calling the real medicines, I would be really careful about ever giving your kids if they're sick. Don't if they're under two. But if they're over two I would really talk to your doctor because this is something I talk with parents a lot about that, a lot of those cough and cold medicines– I know we all take them as adults because like, our nose is running and we gotta go to work and it's embarrassing. And so, we deal with all of the not so great side effects.

As far as if you need them, you usually don't. Your kids often don't. I would talk to your doctor before just giving them any of the– what we would consider real medicines. Yes, they do things, but do you really need them to do those thing at the expense of the side effects? Just a note.

**Justin:** Just a note. Okay.

**Sydnee:** Just a note.

**Justin:** We're going way long. I'm sorry about this.

**Sydnee:** That's okay.

**Justin:** And I'm sorry about, it's my fault. Let's–

**Sydnee:** No, you're right. Homeopathy is crap. The– they used to tell you to take belladonna to prevent scarlet fever because belladonna caused a rash, and it was the whole like cures like thing. So if we cause a rash, then you won't get a rash from scarlet fever.

**Justin:** Mm-hmm.

**Sydnee:** That's obviously not true, don't take belladonna. A couple– a couple historical notes, one of which I already mentioned. Scarlet fever impacted a lot of people. Charles Darwin lost two of his children to scarlet fever.

**Justin:** Wow, yikes.

**Sydnee:** John D Rockefeller founded Rockefeller University to research the biomedical sciences, eventually, after losing his three-year-old grandson to scarlet fever. So that's probably why it exists. There has been some thought that maybe that was what Hellen Keller lost her hearing and vision to at 19 months.

**Justin:** Mm-hmm.

**Sydnee:** Was to scarlet fever. Although, it may have also been meningitis, so that's not–

**Justin:** I actually think I read scarl– like, I can remember reading like a kids' book about her and reading that it was scarlet fever.

**Sydnee:** It's hard because at the time a lot of people would have been diagnosed with scarlet fever and maybe because we didn't– we couldn't tell. Because we didn't know what they had. So, she may have, or maybe– Or it could have been meningitis. It's not entirely clear. And that is why like, for instance, we used to think Mary Ingalls, a lot of people who read that, had had scarlet fever.

**Justin:** Mm.

**Sydnee:** Because her doctor at the time did diagnose her with scarlet fever, but she probably actually did have meningitis, too. It is what Beth had in *Little Women*.

**Justin:** Oh, okay.

**Sydnee:** Yeah, she had scarlet fever.

**Justin:** I could never remember that or yellow.

**Sydnee:** Or yellow fever. [chuckles]

**Justin:** Yeah.

**Sydnee:** That was definitely scarlet fever.

**Justin:** Got it.

**Sydnee:** Big difference. Huge difference.

**Justin:** She didn't travel in sub-Saharan Africa. Is that where yellow fever is hot?

**Sydnee:** Yeah, you can get– Yeah. Lots of places, but yeah.

**Justin:** Oh. Explosion noise. Got it in one.

**Sydnee:** So the treatment in terms of like, what do we actually do now for scarlet fever, 'cause we don't do any of that stuff that I just– that I just named. Um, in 1924, you know that Gladys and George Dick actually did make a vaccine.

**Justin:** Oh.

**Sydnee:** Which is kinda interesting. They came up with a test for it. And then they came up with a vaccine. But it really was never that popular, and then in the 1940s we came out with antibiotics. Penicillin saves the day.

**Justin:** Mm-hmm.

**Sydnee:** And we really don't use the vaccine. It's certainly not around now. And nowadays, we don't really see that kind of virulence. There was— there are occasionally in the last couple decades we've seen some, some bigger outbreaks, like Hong Kong in 2011. But we typically don't see scarlet fever anymore. Most of the time it's just strep throat. We give you some antibiotics and you get better.

**Justin:** Interesting.

**Sydnee:** But it is interesting, and it's not impossible that it could— that it could happen.

**Justin:** Hm. Well, good to know, live in fear.

[Sydnee laughs]

**Justin:** [chuckles] I wanna say—

**Sydnee:** No, just go see your doctor when you're sick. That's the, that's always my message. When you're sick, go talk to your doctor.

**Justin:** And a big thanks to the Taxpayers for letting us use their song “Medicines” as the intro and outro of our program. Anything we're forgetting?

**Sydnee:** No. I think that's it. Thank you all for listening. Thank you all for your topic suggestions.

**Justin:** Mm-hmm.

**Sydnee:** Thank you for emailing us, and reviewing us on iTunes and tweeting about us.

**Justin:** Sawbones@MaximumFun.org is that email address. And if you want to follow us on Twitter, it's @sawbones. Pretty easy to remember.

**Sydnee:** Yeah, and I'm sorry Justin got so mad this episode.

**Justin:** Yeah, me too. And I'm sorry if you're, if you're homeopathy and you're listening. I'm sorry that it has to come to this.

**Sydnee:** Yeah.

**Justin:** If you're the concept of homeopathy and you somehow figured out a way to listen to podcasts, I'm sorry that I stepped on your toes. If you really are a true believer in hom- homeopathy, I think that's groovy. I just think you should buy it at a separate store or maybe separate shelves, at the very least!

[Sydnee laughs]

**Justin:** Anyway, that's gonna do it for us. Until next time we have a topic to discuss with you, I am Justin McElroy.

**Sydnee:** And I'm Sydnee McElroy.

**Justin:** As always, don't drill a hole in your head.

MaximumFun.org  
Comedy and culture  
Artist owned  
Listener supported