

Sawbones 448: Head Lice

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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 cohost, Justin McElroy.

Sydnee: And I'm Sydnee McElroy.

Justin: Sydnee, I'm so happy to be here with you again. Always a delight. Always a treat. Um...

Sydnee: Well, thank you, honey.

Justin: This is collectively our third podcast of the day. Friday's a big podcasting day for us.

Sydnee: Mm-hmm.

Justin: We did a lot of 'casting. And normally I don't do TAZ today, but Travis is going on the JoCo Cruise, so we had to double up.

Sydnee: Yeah, no.

Justin: Lot of podcasting.

Sydnee: I do. That's what I tell people at Harmony House because I'm there Monday through Thursday pretty much regularly, as long as the kids are in school or not sick or whatever, which we have been dealing with. But

they're like, "But you don't come on Fridays, right? Is that when you go do... real work?"

And I'm like, "I don't know. It's the day I podcast."

Justin: That's real—

Sydnee: Is that my real work? [laughs]

Justin: Honey—honey, if podcasting isn't real work, this whole thing that I got going on that I call my life is about to crumble in within itself, so let's say podcasting is work. [singing] And let's talk about lice, baby. Let's talk about the larvae. Let's talk about all the good things and the bad things and the mostly bad things I'd assume about lice, baby.

Sydnee: I—that—that was great.

Justin: [singing] Let's talk about lice!

Sydnee: Okay. That is—that is an—

Justin: [singing] Let's talk about lice! [speaking] I'm done.

Sydnee: You wanna call Weird Al and tell him about your parody? "Let's talk about sex, let's talk about lice?"

Justin: I think Weird—I think my close personal friend, Weird, as he insisted I call him, would be totally bowled over by that.

Sydnee: Uh, I just want to warn you at the beginning of this episode that you're probably gonna get itchy. If you're like me, whenever you start talking about lice for a while, you start scratching your head.

Justin: Mm-hmm.

Sydnee: At least—I mean, don't you think so?

Justin: Yeah.

Sydnee: Like, eventually you start...

Justin: Yeah. Mm-mm.

Sydnee: I know. Okay. So, there it is. You've been warned. You're probably gonna get itchy.

Justin: It seems like lice to me, Sydnee, are a recent thing. Probably in the last, like, 20, 30 years people have been, like, really getting into lice.

Sydnee: You must've seen the first, like, line of my notes.

Justin: [simultaneously] I did, I accidentally looked at the first line.

Sydnee: Like—

Justin: So I was trying to set you up beautifully before I locked into your gorgeous face and just listened, let you carry me away without peeking at your notes again.

Sydnee: You may think that, Justin... but in fact... [chuckles] the—

Justin: You're telling me they're older than 30 years?! Okay.

Sydnee: Lice are older—

Justin: Maybe 50. Maybe 50 years... tops. Tell me if I'm getting close. [pause] 100?

Sydnee: Lice are older than humanity.

Justin: So, like, 200?

Sydnee: [laughs] Well, I mean... I guess that depends on your belief system there, bud. Yes, is what I would say, a scientist.

Justin: So you're telling me they're 6,000 years old?!

Sydnee: [laughs] Lice are very old. Now, the lice that we know today, the lice that love humans... that we humans don't love back—ugh. That's an unrequited love story. They have evolved—they basically just sort of evolved alongside us.

So there have been the specific kinds of lice that in ability our bodies have probably been around since the first... creature we would call humans existed. So lice are super old. You know what's really old, too? The Appalachian mountains. On a side not there, if you're ever really interested in something, um, cool—

Justin: That is one of your wilder non sequiturs, I will say.

Sydnee: Sorry. Read about how old the Appalachian mountains are. Blow your mind.

Justin: I kind of have always thought that most... mountains are old.

Sydnee: No. Not all mountains are—the Appalachian mountains are, like, older than the oceans. They're, like, older than dinosaurs. They're so old.

Justin: They're 6,000 years old?!

Sydnee: [laughs] They're so old! Anyway. So let's talk about—and by the way, I should clarify. I am going to focus in this episode on head lice. Um, there are lots of—

Justin: That's my first head touch of the episode. Go on. [laughs quietly]

Sydnee: There are lots of lice that we could talk about, and certainly we've talked about diseases that can be spread by different types of louse. But this time we're just talking about head lice.

Justin: Can you help me? Louse versus lice?

Sydnee: Plural versus singular.

Justin: Louse—it's not lices. Lice and louse.

Sydnee: Right. One louse.

Justin: Lice—one louse. Lice.

Sydnee: Lots of lice.

Justin: Got it, okay.

Sydnee: Okay. Um, so there are different kinds of lice, of course, and it's mainly because there are different lice for different animals. Almost every species of bird and mammal has its own... louse friend. [laughs quietly]

Justin: How nice!

Sydnee: Yeah, I know! All except for monotremes, pangolins, and bats.

Justin: Um, what's a monotreme?

Sydnee: That's a great question, Justin. What is a monotreme?

Justin: Uhh...

Sydnee: Would you like to know? [laughs quietly]

Justin: Yeah, I'd love to know.

Sydnee: They are, uh... uhhh, they look like—it looks like...

Justin: Here's what I—here's what I know about monotreme in that one They Might Be Giants song. [singing]

Sydnee: A monotreme are prototherian mammals of the order Monotremata.

Justin: Hmm! Fascinating.

Sydnee: So it's like a classification of mammals. Let me get to some examples. A platypus is a monotreme. Short-beaked echidna. Is that enough? Do you need to know more monotremes?

Justin: No, that's a good number of 'em.

Sydnee: Yeah. Platypus. Think about what those look like.

Justin: Platypu—platypi?

Sydnee: Platy—platypi. Pla—mm-hmm.

Justin: Mm-hmm!

Sydnee: Anyway.

Justin: This is not an animal show!

Sydnee: This is not an animal show! I take care of humans. [laughs]

Justin: Go listen to Just the Zoo of Us if you want an animals show elsewhere on the Maximum Fun Network. We are not an animal show.

Sydnee: No. Lice are obligate parasites. That means they've gotta live on something else to survive. Okay? They're ectoparasites as opposed to endoparasites. Ecto, meaning outside. They live on the outside of us. As opposed to, like, various worms and such that might live inside of us.

Justin: And we're loaded with—[wheezes]—we're loaded down with those.

Sydnee: And, you know, it's not always bad. That's—sometimes. Often, maybe. But not always bad!

Justin: Yeah.

Sydnee: Anyway. They either suck our blood or they just sort of eat, like, dead skin and debris and stuff that's on us. So the ones that are living in your scalp for instance are sucking blood. Or—I mean, if they are.

Justin: Can you do this one on your own? [wheezes] What if I just... said Justin-type things from the other room every few minutes?

Sydnee: [laughs] Now, body lice can transmit disease. Typhus is the big worry there. And I think—I believe we've done an episode on that and we've talked about the lice. Those live on clothing.

Justin: [through a yawn] I think we had a Typhoid Mary episode?
[unintelligible]

Sydnee: Well, that's different. Typhoid and typhus are different.

Justin: Oh my god.

Sydnee: Yes. But those live on clothes, and they can transmit disease, so they're a bigger concern. Head lice don't transmit disease. So in the realm of dangerous things, head lice aren't particularly dangerous. Because they're not gonna give you typhus. That's a big advantage of a head li—of a head louse.

Justin: That's contrasted with things like the mosquito, which is the most dangerous animal on Earth.

Sydnee: Yes, exactly. The mosquito, much more dangerous. The body louse is much more dangerous. The head louse is not... dangerous. We just don't like having them, I think. And that's why I want to focus on it, because even though it doesn't make us sick, it is something that we as a species have decided to devote a lot of time and energy to ridding ourselves of at various points.

It's—and I want to preface with this. Head lice is extremely common. And it can infest anyone. So I think that there's still a lot of social stigma around head lice that in some way it indicates you are not clean or hygienic, and that is not the case at all. Head lice just live on heads, and when they can get to new heads—which they don't jump. But they can crawl. When they get to new heads they just infest a new head, and they don't care about the social strata of this head.

Justin: They're very democratic.

Sydnee: [laughs] You are just a scalp to them. [chuckles]

Justin: [chuckles]

Sydnee: Just a warm, blood-filled scalp.

Justin: [laughs]

Sydnee: Um... so the name for the head louse is *pediculis humanus capitus*. *Pediculosis* means you're infested, you have *pediculosis*. So, as opposed to *pediculis humanus humanus*, which is just the body louse. Okay? *Capitus* refers to the head, in case you were curious. It is similar to the lice that chimpanzees and bonobos get. That makes sense, you know? Um, and like I said, it feasts on our blood. It tends to live its entire life on one host, unless you take pains to rid yourself of it. Most of them aren't gonna crawl around from person to person.

Obviously that does happen. But most of the time they just sort of chill. If you're not messing with them... I mean, I don't want to say they're not messing with you, but... [laughs] they don't want to leave. So they obviously lay eggs daily, several eggs daily. And what can be tricky, especially if you've ever tried to remove head lice from someone, is that they actually attach the eggs to the hair shaft. And it's usually pretty close to the scalp.

Now, it's interesting. You'll find that in some warmer climates, the eggs can actually be attached further down the hair shaft, because it's still warm enough that they're fine. In other parts of the world, like here, you would expect it to be pretty close to the scalp, because it's gotta stay warm. But they cement it to the hair shaft with this sort of, like, keratin protein complex, and it's really on there.

Justin: Keratin is stuff like—it's your nail—are your nails?

Sydnee: Like hair. Yeah.

Justin: Nails and hair?

Sydnee: Exactly, mm-hmm. Yeah, we used to think it was like a chitin thing, which is more of an insect-type product, but no, it's a keratin-like thing. And that's why they're so hard to get out, because they're—and if you look at, like, microscopic photos of what is happening with the egg, it's completely, like, wrapped around the hair shaft at the base, and then the egg is stuck there. Um, so you've gotta comb those out individually and it takes a really long time. So they hatch in six to nine days. So the egg is laid, stuck to the hair shaft. Six to nine days later, it hatches.

And then they molt, like, four times before they become a grown-up lice over the course of, um, like, four weeks or so. And as they grow, they are more visible, and move around on your head. Which is part of the itching, the movement, and then the other thing that makes you feel itchy is the... the sucking of your... blood.

Justin: An itchy experience.

Sydnee: That is an itchy experience. Generally not painful. Usually itchy. Obviously if the infestation was severe enough it could become painful, I think. I think that is reasonable to say. But that is generally not what we see, right? Like, even in pretty severe infestations, most people just feel itchy. We first probably noticed head lice—I mean, early humans almost certainly did. We found evidence—like, they found the remains of a body in Brazil from 10,000 years ago that had nits, eggs—

Justin: That can't be right. Check your notes. It can't be 10,000.

Sydnee: [laughs]

Justin: It can't be that. Try again.

Sydnee: Eggs, or nits, as they are also called, were on the hair shafts. So we know that we've been aware of them for that long. Now, how would ancient people have addressed them? Probably mechanical removal would've

been most popular, you know? Picking them out. This is... have you heard the phrase nitpicking?

Justin: Ohhh! Gotcha.

Sydnee: This is where the phrase nitpicking comes from.

Justin: Look at that.

Sydnee: This is how deeply entwined. It's interesting if you think about the history of lice and humanity. They're so deeply entwined. with our species that we have words like that. And this is part of, like, the—when you talk about the stigma and the social connotation, what—if you call a human a louse...

Justin: Hmm. Like a bloodsucker? Like they're...

Sydnee: Yeah. Or like generally it's a negative thing, right? Like, it's a bad person, a lazy person, somebody who doesn't care or doesn't do much, apathetic, whatever.

Justin: Right.

Sydnee: Like, it's a bad connotation. So we have sort of used the words that we used to describe lice to, like, negatively describe things in humanity. It's very interesting. But that's because we've had 'em around so long.

Justin: The two have grown up together.

Sydnee: Yeah, exactly. So, like, probably through just removing, physically removing, or combing would've been the early methods. And you can find paintings, too, of people with their kid between their legs, like, picking lice out of their hair and stuff.

Justin: [laughs]

Sydnee: Not from ancient times.

Justin: I bet that—I mean, there was so little to do back then, it was probably nice to have a change of pace. Like, at least then you got an activity. Like, you have a hobby. You know, for a little bit.

Sydnee: And I mean, I'm sure—it's not the least satisfying thing in the world, I'm sure. Just... you know, removing a bunch of nits from hair. And it would take a while, because again, they're cemented to the hair shaft. It is said that among Cleopatra's belongings in her tomb were golden combs, golden fine-toothed combs.

Justin: Gold is—

Sydnee: For removing lice.

Justin: That's weird, 'cause gold is very flexible. I feel like a gold comb would not be the best... uh—maybe it was gold plated.

Sydnee: Maybe gold plated.

Justin: Maybe gold plated.

Sydnee: Yeah. I don't know. I don't know that part. The idea is just that combing out lice goes back to the beginning. And really if you didn't want to comb or pick out all of the nits and lice, the other thing you could do is remove the hair. So you could just shave your head, or your body, whatever was infested. And "infested" is our word here, because it's not infected. These have different relationships with organisms.

Justin: Okay.

Sydnee: And ectoparasite, a parasite that lives outside your body that's an insect is going to infest you. It's not going to infect you. Does that—

Justin: Mm-hmm, yeah.

Sydnee: —does that make sense? Okay. The first recorded treatment that we have of head lice—we've talked before about the Ebers Papyrus.

Justin: Yes, I remember that, yeah. It's popped up a few times.

Sydnee: Yeah, a very ancient document, 1550 BCE. And what they say you're supposed to do is take date meal and water, and basically warm it all up in your mouth, and then spit it on your skin. And then all the... lice—and fleas, if you got those too—will leave.

Justin: Oh. Eugh.

Sydnee: [laughs quietly]

Justin: Yeah, sure. I guess, yeah.

Sydnee: No. I doubt that that would work.

Justin: Or be pleasant.

Sydnee: No. We also have ancient documents from China that indicate things like mercury or arsenic could be put on the head... too—

Justin: Phew. That's kind of a little bit, if you'll excuse the expression, overkill, I feel like.

Sydnee: Yes. To rid yourself of lice. And you know, when you start thinking about caustic substances like that, I mean, certainly there a degree to which some substances are gonna kill insects, right? Like, you could—[laughs] spray really intense pesticides on somebody's head. But you also have to balance that with the damage you would do to the person's head.

And then there's the eggs, which are interesting in that they're not as easy to destroy. And we'll move into this as we get into, like, modern treatment methods. Just because we found a way to effectively kill lice without, you know, damaging your human head, we don't necessarily have great ways—and never really did—of killing the eggs. That's a little harder to do. The Egyptians just eventually recommended just shave yourself. Just shave your body, just shave everything.

Justin: A new look.

Sydnee: Yeah. Just start—[laughs quietly] start over. [laughs] Hit reboot. I like that idea. Like, with lice, like, oh, never mind. Just reboot everything. This is gonna be a total pain. You're not gonna have time for this. But through the years, we have come up with a variety of ways.

It's funny, because the mechanical removal of lice and the nits, or combing, or shaving, are tried and true methods, right? That would work. Any of these things, if done correctly, will work. So I think that's what's weird about lice is that we found methods early on that 100% would cure you, so to speak. Um, but we weren't satisfied. [laughs quietly]

Justin: [laughs] We don't wanna lose our beautiful hair! Who can blame us?

Sydnee: So we had to come up with a bunch of ways that didn't work. Which I'm gonna tell you about. But first, we gotta go to the billing department.

Justin: Let's go!

[ad break]

Justin: Alright. So I'm not gonna shave my head for a little bit. I'm gonna give you a chance to get rid of it with some of these other methods before I go hog wild.

Sydnee: What—so I'm gonna talk about Pliny the Elder, of course. Of course. Pliny had to—

Justin: Gotta—he's gotta—you know he's gotta get in there.

Sydnee: And I think it's interesting, 'cause not only did Pliny have a recommendation in Natural History, which is where we get most of our medical advice from Pliny the Elder, he also calls them nits. So I like that that term is that old. It's wild that we just—we called these eggs 'nit' and we always...

Justin: It just stuck.

Sydnee: Yeah. Um—

Justin: Well, we might not have even known they were—I was thinking, like, why don't they just call 'em eggs? We might not even have known they were eggs, right? Like, possibly. Like, it's not like they had a microscope to get in there and look at 'em hatching.

Sydnee: No, I don't think we would've had any way of knowing that they were eggs. Yeah, no. I mean, you would see—I guess you would have to know that they were related, I would think, to the infestation, because you would see the live lice, and you would see these, and you would connect the two ideas. So certainly I think somebody may have guessed that. But yeah, no, I don't think so. And by the way, I should say, I didn't really describe the condition; like what you see and experience with lice.

Justin: Go ahead. I know you need to.

Sydnee: If you haven't...

Justin: If you must.

Sydnee: [laughs] So there the adult lice that look like little teeny bugs on your head. And they can be somewhat translucent in appearance, which can make them kind of hard to see until they move, then you see that. Or they can look darker. I would imagine this has to do with, like, the blood meal. [laughs quietly] That they've taken, or not.

Um, also there are, you know, are they able to lay eggs or not? And that will change their appearance on your head. So there are tiny little bugs. They move around. They are visible with the naked eye. You can see them. They're just incredibly small. You can see them crawling around. They're gonna mainly stay on the scalp, so it's not something you would just see probably looking at someone.

You would have to, like, use a comb or something and go through the hair, and look close to the scalp to find these things. They also—you're gonna see the eggs, which like I said are gonna be attached to the hair shaft, and

initially when there's something inside them they can look like tannish in color. And again, they're not gonna be easy to come off, so you can't just, like, brush them out. You're gonna have to take—

Justin: 'Cause it's made of the hair stuff.

Sydnee: Yeah. You're gonna have to take a very fine-tooth comb, which they make nowadays, lice combs, and comb over that piece of here, maybe even several times to make sure you've actually physically removed the egg from the shaft. And the tough thing about nits—and we'll get into how this has kind of impacted school attendance—the tough thing about nits is that after they've hatched, the egg remains attached to the hair shaft.

So you may have someone who has no active lice infestation left, like the lice have been killed, the live nits have been removed, have hatched, have died, have whatever. But you still might see these little—they're white-appearing, once they've hatched—white-appearing... it's like a piece of dandruff that is firmly attached to a hair shaft, basically. Might still be in there, and you would think "Uh-oh. There's still lice." And actually it's just the remnants, 'cause it's gonna take months for those to just dissolve on their own. The only way to get them out sooner would be to mechanically remove them, but that's not an infestation at that point. Does that make sense?

Justin: Yeah.

Sydnee: So Pliny recommended that nits specifically could be destroyed by dog's fat. So you would just take it and, like, apply it topically.

Justin: Not a thrill for the dog, I'm assuming.

Sydnee: [laughs] Or you could eat serpents that were cooked like eels. Which by all accounts, like, there was a way at this time in history that you knew to cook an eel, and then you just cook a snake that way. You know, like you cook the eel.

Justin: So it's like eel... eel—eel-fried serpent. [laughs quietly]

Sydnee: I assumed you have, to, like, skin it, and then eat the stuff inside?

Justin: You know what? We've had such a lovely, robust episode in terms of visual imagery. Let's just keep on truckin'. What do you say?

Sydnee: Or you take the skin from the snake and drink it. You prepare it in a beverage and drink it.

Justin: Oh... wow.

Sydnee: That—none of these things. Also, you could bathe in viper venom.

Justin: I do that, uh, any—every day already, just to intimidate my enemies. [wheezes]

Sydnee: [laughs quietly] You know you wouldn't actually have to do it if you just said you did.

Justin: That's my secret. I'll never tell. [laughs]

Sydnee: [laughs] "I bathe in viper venom."

Justin: "Where do you get so much viper venom?"

"I wait. I'm patient." [wheezes]

Sydnee: I feel like that's a line from one of the villains in a Fast and Furious movie says something like that.

Justin: Yeah.

Sydnee: "I bathe in viper venom."

Justin: [quietly] "Viper venom."

Sydnee: And then they, like, rev the engine of their car.

Justin: You just took your foot of the tiger's neck.

Sydnee: And Vin Diesel's like, "It's about family."

Justin: This is an odd—I feel like I'm watching the film right now.

Sydnee: [laughs]

Justin: I don't even need to go see Fast 10.

Sydnee: By the way, you could've—if you had—as I said, picking them off was a common—was always, all throughout history, has been a common way to get rid of them. Montezuma just employed people to do it.

Justin: Oh. That's nice. A job creator. [laughs]

Sydnee: [laughs] Um, there was an English herbalist, Nicholas Culpeper, who recommended that you dunk your kid's head in tobacco juice.

Justin: Um, I'm... yeah. I know how we get tobacco juice, and I don't think that would be great as a kid. That would not be wonderful.

Sydnee: No. No, that would be a bad idea. It wouldn't work. And I think that it feels more like a punishment, like I'm mad at you for getting lice. [laughs quietly] I would not recommend any of that. Parents especially I think were targeted with bad lice advice, because they probably felt a little helpless. My job is to get all of these lice out of my kid's head, and it's really hard, and I don't know how to do it, and so that's... that's just ripe for a bunch of pseudoscience and medical misinformation.

So they would try everything from, like, tomato juice, to mixing together vinegar and cheese whey. There was one recipe that was ginger, melted butter, and [holding back laughter] sneeze powder.

Justin: Sneeze powder?!

Sydnee: Which I didn't even know was a real thing. I thought sneeze—

Justin: Like you buy at the prank store?!

Sydnee: That's what I thought! Like, I'm assuming mainly black pepper?

Justin: I guess, right? Sneeze powder.

Sydnee: [laughs]

Justin: "One single whoopee cushion, properly applied, can... "

Sydnee: Um, when wigs would be popular, especially among—you know, if we think about, like, among royalty, the idea of wearing beautiful, fancy—

Justin: [crosstalk]

Sydnee: Huh?

Justin: Can you get lice on wigs?

Sydnee: Yeah. Yeah, you can get lice in your wigs. Now, I will say, though, that if you're not wearing the wig for a period of time, you know, they're not gonna survive. They need that heat, and the blood supply. But you could certainly get—any—you know, it's the same thing you worry about with, like, a lice infestation in your head, is that is it gonna get on blankets, on pillows, for kids on stuffed animals? And it can't survive very long in any of those places.

Like, most of the time adult lice are gonna die a couple days after being away from some sort of host. But the nits can survive for a couple weeks, and so that's the real worry is that, like, if you have stuffed animals or something that have become infested, and now there are nits on them, like, yeah, no, the adult lice might die off, but in a week or so those eggs are gonna hatch, and then you've got more.

Justin: Ugh.

Sydnee: I know. Um, but the nice thing with the wigs, one, in order to fit some of the wigs that would be worn, like powdered wigs, you would shave

your head, and so you take off the lice when you take off the wig. That's convenient. Um, and the nice thing is you could just boil your wig.

Justin: Um, that sounds like it should be a drag slang of some sort. Like "I had to boil my wig," or "She really boiled her wig."

Sydnee: [laughs]

Justin: It just feels like...

Sydnee: But that would be so much easier and more satisfying if you could do that with your hair. You could just boil it.

Justin: [simultaneously] Boil your hair?

Sydnee: Now, don't do that. Don't do that.

Justin: Don't do that. Don't do that.

Sydnee: You'll burn yourself. But, like—and that would be effective, too. Heat is pretty effective at killing lice. It's obviously more difficult to employ when they're, you know, again...

Justin: On your head.

Sydnee: ... on your head. But blow drying kills a good percentage of lice. Not all of them, but a good percentage of them.

Justin: Good to know.

Sydnee: Yeah. So anyway, so with your wigs you'd just throw 'em in some boiling water, and there you're good. Also of course you could combs and things like that if you wanted to, but I don't know why you'd bother.

Justin: [laughs]

Sydnee: In as far back as—[laughs] 100 CE, Chinese medicine people discovered pyrethrum powder.

Justin: Hmm, what's that?

Sydnee: Which was extracted from chrysanthemums. And this powder that came from the flower, the chrysanthemum, was useful for killing insects, a variety of insects. So the thought was "Hey. Maybe this would be useful for head lice."

So it took a while. It was eventually refined into pyrethrin, and it actually wasn't available just for targeted at head lice until the 1940's. But we've known about it in ancient Chinese medicine, the tradition of using chrysanthemum extracts, pyrethrums, to treat a variety of insect infestations as an old practice. So it was well known long, long, long before the Western world started marketing it for this specific purpose.

Justin: That sounds like the Western world.

Sydnee: Yes, exactly. And then we probably took credit for it.

Justin: Yeah, of course.

Sydnee: Um, now again, though, it was less effective at killing the nits. More effective at killing the lice themselves. So that problem would persist. A synthetic version was eventually introduced in the '70s so you didn't actually have to get the extract from the original plant. You could synthesize it in a lab. Which is common, right? We've done that with a load of medications.

Justin: Quinine is like that, right?

Sydnee: Yeah, things that we initially went out and collected things. Foxglove, digitalis.

Justin: The way you just passively were like, "Oh yeah, that's one, Justin." And you weren't like, "Whoa!" You know what I mean? Like, I understand that you know that stuff, but the fact that I knew that, it should've gotten a bigger reaction. [pause] You know?

Sydnee: What kind—so you want—okay. Let's try it again.

Justin: Okay. Um... [laughs quietly] Oh, like quinine.

[pause]

Sydnee: J—oh my—oh my god, Justin.

Justin: This is too much. [wheezes] That sounds like you're worried about me.

Sydnee: Oh my—you know, you're right!

Justin: [wheezes]

Sydnee: How did you—

Justin: That sounds like you're worried about me.

Sydnee: Are you okay?

Justin: [through laughter] Yeah, okay, that is exactly...

Sydnee: Were you—hold on. Did you—did somebody tell you—did somebody tell you that?

Justin: [laughs]

Sydnee: Hold on. No, it's not in my notes. It's not in my notes?!

Justin: I had phenomenon. [wheezes] Phenomenon disease like John Travolta.

Sydnee: Oh god, no!

Justin: Phenomenonitis.

Sydnee: Don't say that! I think it was a brain tumor, honey.

Justin: No, I think it's phenomnonitis.

Sydnee: If I remember correctly.

Justin: Honey, there's no—that would be... if you had a movie about John Travolta with super brain powers and it turned out that he actually just had a tumor, that would be a really wild movie. There's no way that that actual real movie—that was a plot line in that movie.

Sydnee: Are you gas lighting me right now? That is the plot of that movie.

Justin: [crosstalk] I'm being sarcastic.

Sydnee: Okay.

Justin: That's 100% the plot of that movie.

Sydnee: Okay. I thought I—I really—I was sitting here thinking, "That is the plot of that movie, isn't it?"

Justin: 100% is the plot of that movie.

Sydnee: What a bummer!

Justin: It's—yeah, it's a huge bummer.

Sydnee: Anyway. So, um, we—[laughs] so we were able to synthesize it. And this is great, because a lot of what you probably know as over-the-counter lice treatments—and there are a variety of brands, and there are also endless numbers of generic products, depending on what pharmacy or grocery store or wherever you're buying it from. You can go online and find, again, endless different types of lice killing products. And a lot of them have basically the same pyrethroid-type compounds in them. That's what they're using. Most of them are based on that.

Um, the only concern we have nowadays is that we have found strains of lice that are actually resistant to these compounds. That doesn't mean that if

you have head lice yours are, but it's possible. And so it makes it a little trickier when it comes to killing them. They become a lot easier, as you may imagine, to comb out of the hair, if they're dead.

So you can still comb 'em out alive, you know, they come out wigglin', but you can get 'em out that way. It's just the whole process becomes a lot less stressful if you've killed the lice first. You can get 'em off easier, and then... I don't know. You're less worried about—if you've killed the eggs, they're not gonna come back, but you probably have to treat again. But it's a lot easier if you can kill 'em first.

Justin: Mm-hmm.

Sydnee: So, because I think it is such a cumbersome treatment, because even if you use these over-the-counter lice treatments—and I should say for more severe infestations there are prescription medications that we can use for lice—I have yet to have personal experience with having to do that. In every case that I've been involved with in my professional life, over-the-counter products combined with really rigorous combing is the treatment.

And again, you can look up a picture if you've never seen a nit comb or a lice comb. It's not like your regular comb. The teeth are too wide on the vast majority of combs or brushes we would use for our hair. You need something that has tines that are really close together. And then most of the ones you're gonna buy aren't plastic.

They're more like metal, because they're stiffer, and they're gonna really trap the little guys. Almost like tons of teeny little tweezers, they're gonna trap all these little guys and pull 'em out of the hair. It's an incredibly cumbersome process, and so a lot of people have come up with alternatives that they will tout as folk remedies, or online remedies.

Justin: Of course. Of course.

Sydnee: Because this is hard. It just is hard. And you think, surely there's gotta be a better way. People will tell you to put melted butter on your hair, mayonnaise... I was about to say mayo-naisse.

Justin: Mayo-naisse.

Sydnee: I don't know why I was about to say that. Vinegar, olive oil. Gasoline is recommended a surprising—a surprising number of times.

Justin: No! That's gaso—that's gasoline!

Sydnee: Please do not ever put any flammable substances on your head or body. Um, certainly not gasoline. Some have said that the fumes specifically are what's helpful. That's really dangerous.

Justin: 'Cause those are the fumes that are bad, actually.

Sydnee: Yeah. Um, but there have been, as a result, multiple cases of people accidental catching themselves or the person who they're trying to help treat their head on fire because of treatments with gasoline.

Justin: Hey, hey, hey.

Sydnee: So please, please do not.

Justin: Now, hold on.

Sydnee: This is serious. This is serious. Don't make a joke here, because—

Justin: [simultaneously] I know it's serious. I'm not making a joke.

Sydnee: It's tragic that people have tried this and then—all it takes is a little spark.

Justin: [quietly] But you have to admit, it does get the lice.

[pause]

Sydnee: Justin.

Justin: [quietly] I'm just saying.

Sydnee: Yes, I'm sure the lice died. But my point is please, do not put gasoline or any other flab—flammable su—I d—I can't b—[sighs] Please don't put any flammable substances on yourself, or your child, or anyone else you may be helping treat for lice.

Justin: What about hairspray, tough guy? What about hairspray?

Sydnee: Okay. Well... I don't know. Don't get—let's not. [laughs quietly] Just don't put gasoline on your head!

Justin: It feels like hairspray would get 'em, doesn't it?

Sydnee: It doesn't, though.

Justin: It feels like it should!

Sydnee: I know, it feels like it should.

Justin: [laughs] It feels like it's like, "Oh no, I'm frozen in stasis!"

Sydnee: Especially like 80's hairspray. Like I feel like our moms used to use, yeah.

Justin: [simultaneously] Aqua Net.

Sydnee: Like the heavy duty stuff. You feel it would just, like—they're just—they—they fro—

Justin: [simultaneously] Frozen, yeah.

Sydnee: The freeze there till they die. They don't.

Justin: [laughs]

Sydnee: There is also, like, as an alternative medicine, tea tree oil is very commonly recommended. It has been recommended to me in my professional life by many people. [laughs] There is no evidence that this is effective. As is typical with a lot of these sorts of herbal alternative remedies,

there aren't a ton of high quality studies, but it's never been proven to work. Whether as a preventative or a treatment for head lice.

And it can, as with a lot of—I mean, just because something is from the earth doesn't mean it can't have side effects or you can't have a reaction to it. Anyone with seasonal allergies knows that. So you can have an allergic reaction or some sort of irritation as a result of tea tree oil, and then you can do that to your scalp if you put a bunch of tea tree oil all over your scalp to try to kill lice. So that is not a recommendation.

And same for a lot of—they smell really nice. I have encountered them myself. The sprays that prevent lice, they smell great. I enjoy them too. No evidence that those actually work, at this point. But if you want to use them, that's fine, but there's no evidence that those sorts of things are gonna work. So obviously the current concern is resistant lice, and you gotta kill the eggs.

For all these reasons, keeping children out of school while they have lice has been common practice for many years. It really shouldn't be. And that recommendation is not brand new. For quite a while the CDC has been recommending against what are called no-nit policies at school. So basically if you find a single nit on a child's head you send 'em home until they're all gone.

There is little risk of your child sitting next to another child in school and getting lice that way. Certainly if you're sharing hats, or scarves, or brushes, or hair clips or whatever, obviously there are ways. If you're sleeping next to each other, if your hair is entangled. There are ways of course you can get lice from each other.

Um, but these no-nit policies are really damaging, because they end up keeping kids out of school longer than necessary. It's not really a risk to anyone else. And even if somebody else gets lice, yes, it's inconvenient, yes it's a bummer, yes it's itchy. But it's not life threatening. And keeping a child out of school for weeks on end to try to make sure every nit is gone is really damaging to them in many ways—not always, but can be very damaging. So we do not have no-not policies anymore. It's stigmatizing. It's unnecessary.

If you are interested in treating head lice, it is something that most people just do at home. Most people do not seek medical advice to treat head lice because it is so common and because the over-the-counter treatments are the first recommended treatment anyway. Certainly you can reach out to your provider if you have questions or if it's not working, or if you're worried that the infestation is really severe.

You know, if you have so many nits and live lice that you can just see it sitting across the room, you probably want to talk to somebody about that. But for most of us it's something you're gonna find a few in there and go, "Oh. Crap." And you're gonna spend a lot of time treating and combing and treating and combing and double checking. But you don't need to keep your kid out of school for it, and I would really recommend if you need more information the CDC website—[CDC.gov](https://www.cdc.gov), you just type in "lice" in the search bar. They have plenty of information, whether you're a healthcare professional or a layperson, whether you're a parent or somebody who has lice yourself.

Read that information. Read the—they have specific information for schools about the American Academy of Pediatrics does not recommend keeping your kid out of school for having some nits in their hair, and how to treat—you don't even need to send a kid home. You find a nit in their hair, they can treat it at the end of the day. There's no need to send 'em home early. So, um, I think it's so still—it's still so stigmatized.

Justin: Yeah.

Sydnee: I had lice as a kid.

Justin: There it is, folks.

Sydnee: I had lice. I am not ashamed to admit. I still remember my mother combing, and combing, and combing my hair. [laughs]

Justin: Uh, [crosstalk]—

Sydnee: Not a fun experience. I had very long hair as a kid.

Justin: I never had lice, but I think it's 'cause the other children avoided me. Thank you so much for listening to our podcast. We hope you've enjoyed yourself. We are going to be doing a virtual show with My Brother, My Brother, and Me. It's on March 17th. Yes, that one! The same one that is St. Patrick's Day as well. [laughs quietly]

Sydnee: [laughs]

Justin: If you go over to bit.ly/mbmbamvirtual, you can get all the details on that. Tickets are ten bucks. They're available right now. You can watch that for two weeks afterwards. You can get video on-demand also. You can buy for two weeks after. But you know, get ahead of it. Get there. It's gonna be really fun. The live virtual shows are always a hoot and a half. And when you're getting two for one, I mean, you're basically losing money to not go to see the show.

Sydnee: Absolutely. And stop scratching your head right now, please.

Justin: Yes. Um, and that's gonna do it for us. Thank you so much for joining us. Thanks to The Taxpayers for the use of their song "Medicines" as the intro and outro of our program, and thanks to you for listening! That's gonna do it for us for this week. 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]

[chord]

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