

## Sawbones 384: Weird Medical Questions Strike Back

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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:** I don't know why my, um, introduction had the Doppler effect. That's a— that's a new one for me.

**Sydnee:** Oh. I—

**Justin:** It was, like, rising action and then—

**Sydnee:** I guess it— yeah. Just trying some different stuff.

**Justin:** Just trying—

**Sydnee:** Just trying to keep it fresh.

**Justin:** Trying to keep it fresh. But— although, it's funny that we would try to keep it fresh with this, because this is one of my favorite tried and true *Sawbones* standards: the question and answer episode.

**Sydnee:** Well, but it's a way that— I think our listeners keep our program fresh.

**Justin:** Hmm!

**Sydnee:** With their questions, with their fresh, hot questions.

**Justin:** [snorts]

**Sydnee:** Straight from the...

**Justin:** The tap?

**Sydnee:** ... brain oven.

**Justin:** The brain oven!

**Sydnee:** [laughs] I don't know.

**Justin:** Interesting! Kind of a ghoulish way of putting that, but okay!

**Sydnee:** Sorry about that. That wasn't some of my best work.

**Justin:** No, I— but you will do your best work now. I feel it in my bones.

**Sydnee:** I will try very hard.

**Justin:** Yeah.

**Sydnee:** You sent us your questions, um, about medicine. As always, these are not— this is not any sort of medical advice that I'm about to offer you. It is just some fun science-y facts.

**Justin:** Yep.

**Sydnee:** If you actually have a question about your human body and you have concerns about your own health and safety, please go ask your own healthcare provider, and not me, a podcaster... who is a doctor.

**Justin:** Yes.

**Sydnee:** But in this— in this context.

**Justin:** Right.

**Sydnee:** The podcaster.

**Justin:** Yeah. Here's our first question. "Does wearing lip gloss or chapstick make me catch more germs? So, before you laugh, when you drop a piece of toast butter side down, it will—" they actually say "jam side down," but I think *Seussical: the Musical*—

**Sydnee:** Yeah, I was gonna say, don't— oh, okay.

**Justin:** —has ingrained butter side—anyway. "It will pick up visibly more gross stuff than if you dropped it dry side down. Is it the same for my lips? If they're wet, will more germs stick to them? Thanks, love the show. Erin."

**Sydnee:** You know, so I— when I first saw this question I thought, "Probably not." But then... that's not a great answer in science. "*Probably not!*" That's never what you wanna hear. Uh, I couldn't find any studies

that actually tested this exact question. Like, I mean, what you'd need to do, right, to set this up properly, is have a group of people who are wearing chapstick regularly, and you'd have to, like, standardize it. What kind of chapstick, how much they're applying, how often they're reapplying, all that kind of stuff.

**Justin:** Right.

**Sydnee:** And a group of people who never wear lip gloss or chapstick ever. And then you have to then, like, chart illnesses—

**Justin:** [simultaneously] I rarely do, but every once in a while...

**Sydnee:** —or you— or maybe, like, culture their lips periodically and, like, grow the— on a Petri dish. You know what I mean?

**Justin:** Yeah.

**Sydnee:** Like, you'd have to come up with some way to figure this out. And it doesn't seem like someone has done that particular study. Um, but if you are interested, that would be cool.

What I did find, looking into this, is a good reminder, I think, generally, that any sort of, like, makeup-type product— chapstick, lipstick, or anything that you're gonna apply to your face regularly— you do want to, uh, one, make sure that you're keeping it clean, storing it properly, handling it properly. Um, and two, not sharing, especially right now. I found that a lot— a lot of articles reminding people, like, don't share chapstick, which I guess I hadn't really considered, because... I mean, pandemic.

**Justin:** Yeah.

**Sydnee:** Don't share food and drink, don't... but yeah, that is definitely a higher risk, I think, for catching germs. Sharing those sorts of products.

**Justin:** I think... okay, listen, I'm just gonna put it out there. I think that if it will stick to the chapstick, thereby prohibiting you from sharing with other people, it stands to reason that it would stick to the chapstick on your lips.

**Sydnee:** Well, I think what I did find is that if you're reusing these products and not storing them well, like keeping them with lids off or caps off or that kind of thing, um, obviously they're open to contamination, and they could get germs on them, which you then are applying to your face, which is why it is recommended that not only do you store these types of things the right way, but you routinely get fresh products and not...

**Justin:** Right.

**Sydnee:** ... like my, buy some, you know, drugstore makeup when you're in high school and just assume you can keep it for the next two decades.

**Justin:** [laughs]

**Sydnee:** Until your siblings throw it away in horror. Um...

**Justin:** [laughs]

**Sydnee:** So, I don't know if that's helpful. [laughs quietly]

**Justin:** Yeah. Uh, next up, this question.

"My question: a few years ago, I was diagnosed with shingles, and it was located in one of my eyes. It was a really unpresent experience, and I have—" wow, I said that so bad. "It was a really *unpleasant* experience, and I have some residual nerve pain that will occasionally flare up. I know that you can get shingles again, but I'd like to know if once you get it, would a second case happen in the same location, or could it be somewhere else on your body? Also, maybe too many questions, but I was in my 30's when I got it, and had many friends tell me 'You're too young to have shingles.' I also heard from several people my age that say they also had shingles. Some of them were very young. Is it a myth that shingles more commonly affects you as you get older, or is something that's getting more common for people at a younger age? Thank you, Bonnie."

**Sydnee:** So, it— the first part of the question, um, you can have shingles again. Like, once you've had shingles one time, the virus— it's the same virus as the chicken pox virus. It just lays dormant, and then the disease presentation is different. Does that make sense?

**Justin:** Yes.

**Sydnee:** Same virus, but what you get is different.

**Justin:** Yes.

**Sydnee:** Um, shingles can definitely come out again. It usually happens in a different location, though. So if that is— if that is of some comfort, um, it is less common that it would continually recur in the same place. It is more common that it will just pop up in another what we call dermatome or, like, nerve distribution. The area of a nerve.

**Justin:** Okay.

**Sydnee:** They're very specific patterns. It's why you know, for instance, shingles never crosses the mid line.

**Justin:** That's something that—

**Sydnee:** Generally speaking. Because it— your nerves don't. Like, they start in your spine and wrap around your body in certain patterns, and then they stop right at the mid line. So generally speaking, if it crosses the mid line, it can never be shingles. Obviously there'll be rare exceptions.

**Justin:** [simultaneously] Then what is it? Then what could it be?"

**Sydnee:** Well, no. I mean, it's something else. Then it's a different rash. [laughs]

**Justin:** It has become something new! Something—

**Sydnee:** Then it's something different. No, but then the second question in terms of, like, age distribution, obviously yes, as you have demonstrated, young people can get shingles, but it is much more common as we get older. Especially, like, in the, um, over 85 group, shingles can be incredibly common. Um, so it is definitely something that is more common in older people. But yeah, it definitely happens in younger adults as well.

**Justin:** Our next question. They don't stop, Sydnee. Our listeners' curiosity will not be slaked. Do people still say that? Slaked? Like, thirst is slaked.

**Sydnee:** You do.

**Justin:** [inhales deeply] "Hi, Justin and Sydnee! You may have already talked about this in a past episode I missed, but my wellness friends are always talking about adaptogens. What even are adaptogens? Are they definitely just a made-up term to sell health foods? Thanks! Danica."

**Sydnee:** So—

**Justin:** I wonder about this too, because there is a cereal brand that I enjoy that is, like, an indie cereal brand, and they advertise their adaptogens. So, what's up?

**Sydnee:** Mm-hmm.

**Justin:** With adaptogens?

**Sydnee:** I drank a product today that I did not bring into the house that had adaptogens on the label.

**Justin:** Mm-hmm. You don't need to act all brassy about it. You did consume it with your human body, so you're culpable.

**Sydnee:** It was needed. It had, uh—[laughs] it had another ingredient, called caffeine. [laughs]

**Justin:** [laughs] That is *not* an adaptogen.

**Sydnee:** No, it was not an adaptogen. I know exactly what it does. I know all the risks and benefits, and I did put it in my human body. Again. But, uh, the adaptogens.

So, first of all, this word comes from 1947, a Russian Soviet scientist, N.V. Lazarev, uh, Dr. Lazarev, did some various, like, experiments in the area of toxicology, and made some breakthroughs and things, but also coined the term "adaptogens," and basically kind of theorized that there are substances that you can put into your body that will increase your resistance to stress.

Like, any sort of— and stress being anything that kind of upsets the homeostasis, the balance of your body.

**Justin:** Okay.

**Sydnee:** Whether that be physical, emotional, medical, any kind of stress.

**Justin:** Idea being that these will help you adapt to your situation.

**Sydnee:** To that stress.

**Justin:** Okay.

**Sydnee:** And maintain that homeostasis inside your body. Um, and this— like, hi— hi— his initial work was sort of, like, theoretical. And, like, there were a couple substances, like a specific kind of, um... root that he focused on initially, like, that might do this.

Uh, but generally speaking, it wasn't— it was some of his prote— like, proteges, some of the people who followed in his footsteps who, like, carried on this work and really got us to where we understand adaptogens today.

Um, the problem with all of this is that no one has ever really proven... [laughs quietly] that these things exist, or how they work—

**Justin:** That they exist?!

**Sydnee:** Well, I mean, I think it's— it's all very— it's all based on— like, any usage of them is based on, um, anecdotal— just people using it. Like, folk use, basically. Um, people— they all fall into the class of alternative medicines, supplements, herbal medicines. Nothing that— because there's nothing that we have been able to, like, do in a lab that shows exactly— like, what do you mean it helped your body adapt to stress? What does that mean? We don't know. There is no—[laughs quietly] like, how does it function? There's no evidence for any of that.

There are— there are decades of people using— because the herbs that they're using, by the way, I should say that even though this term, "adaptogen," and this concept of adaptogen, is from the 40's, the herbs that they claim to be adaptogens are from traditional Chinese medicine, you know, or from Ayurvedic medicine, or from ancient medical traditions that have been using these herbs for a very long time.

And so you have lots of this sort of, like... what we would call, like, folk use. Like, we know people use it. We know they claim these benefits. We don't have studies. We have no idea why they would do these things. But people say ashwagandha is an adaptogen and they like it, so they use it, and it's not a medicine, it's a supplement.

**Justin:** Got it.

**Sydnee:** But that's, like, in terms of what they're supposed to do or what they are, I don't think— we have no hard science that says any of that is real. [laughs]

**Justin:** So you— the jury's out on that one.

**Sydnee:** No, I would say that at this point, nobody's done a study that proves to me that an adaptogen is real, and can do what they say it can do.

**Justin:** So you're the fen— you're on the fence.

**Sydnee:** No.

**Justin:** [wheezes] So you're kind of undeci—

**Sydnee:** No. I mean, the product—

**Justin:** Undecided.

**Sydnee:** I'm trying to be so vague. The product that I consumed was fine. [beat] But it had the caffeine, and that's what I was looking for! It did the job. [laughs quietly]

**Justin:** Uh, so thank you, caffeine.

**Sydnee:** [laughs]

**Justin:** Still— still a stunner, after all these years. Still getting the job done. No studies— no more studies needed on caffeine. It's all good.

**Sydnee:** Um, by the way, I should just— I should always note with these sorts of herbal things, some of them can definitely interact with your medications that you might already be on. If you are on one, some of them can cause problems for people with various underlying illnesses or chronic diseases. So i— if you're going—

**Justin:** Yeah, but, I mean, you can't make omelet without breaking a few eggs, folks. [wheezes]

**Sydnee:** I would never—[laughs quietly] I would never recommend starting any of these things, like, in— instead of seeking, you know, traditional medicine, or without the consent and advice and opinion and whatever of your medical professional.

**Justin:** Spoken— spoken like a true allopath. Moving on.

**Sydnee:** [laughs]

**Justin:** Uh, "Hi! I know of and agree with Sydnee's aversion to scatological topics. But how are C. diff spores so resistant to most sanitation efforts? Sanitization efforts. What makes C. diff—" I'm a professional talker. Did you know that?

**Sydnee:** [laughs]

**Justin:** "What makes C. diff one of the most difficult diseases to clean up in hospitals and such?

**Sydnee:** So, C. diff. Do you know what that stands for?

**Justin:** S— see ze difference!

**Sydnee:** No. Clostridium difficile.

**Justin:** [French accent] Clostridium difficile.

**Sydnee:** Oh! And you had a little accent there at the end.



**Justin:** [laughs] Oui, oui!

**Sydnee:** [laughs] So, uh, this is an infection that you can get, and basically it's an overgrowth of a bacteria that can exist in your colon, but then when other bacteria that keep it in balance get wiped out, usually by, like, antibiotics, then it can grow like wild, and then you get terrible diarrhea, and it can make you very sick. I mean, it's a big deal. It's a big deal infection. It can make people very sick. It can unfortunately be fatal.

Um, the thing about clostridium difficile is that it's a spore-forming organism, and it is very difficult to kill these spores, one, with, like, alcohol-based sanitizer. So, one thing that you have to do in the hospital when you're caring for someone who has C. diff is actually wash your hands with soap and water every time you've taken care of them, as opposed to using the hand sanitizer, because you are— interestingly, you're physically removing the spores from your hands, if they're on there, with the soap and water. Does that make sense? Like, you're not killing them. You're washing them off.

**Justin:** Yes.

**Sydnee:** Quite literally washing them off. Um, not because of the spore, just because of the, you know, characteristics intrinsic to the organism, it's also really hard to kill with antibiotics.

**Justin:** Hm!

**Sydnee:** There are very few antibiotics that treat C. diff infections, and even the ones that, like— even since I've started practicing, the first line drug of choice that we used to use is no longer the first line drug because of so much resistance to it.

**Justin:** Oh, man.

**Sydnee:** Even in just the time I've been practicing. We're actually finding more and more that maybe when someone has this infection, instead of trying to kill the C. diff with an antibiotic to treat the infection, we should put back in them the good bacteria that will basically out-compete the C. diff, so repopulate their colon with the bacteria they need... via fecal transplant.

**Justin:** Yes! Now we're talking about fecal transplant.

**Sydnee:** Yes, which we have talked about on this show before, but—

**Justin:** And we're talking about again!

**Sydnee:** I— which is, like, one of the few things I think we can— we all know from this show and from the last couple years that one of the few things I feel good about, like, my prognostication, is I have been, like, screaming for fecal transplants in our hospital for so long. [through gritted teeth] And I was right! [laughs]

And they work better than antibiotics in this one case. But that's the story with C. diff. Wash your hands with soap and water. Um... fecal transplants rule.

**Justin:** Yeah. Share and share alike.

**Sydnee:** [laughs quietly]

**Justin:** Everybody. Right?

**Sydnee:** It's taking stool from someone else and putting it— we did a whole thing on this. On, like, the Bristol stool chart.

**Justin:** A do— a d—[stammers] a dookie loan.

**Sydnee:** Yeah. Well, I mean, it's not a loan. Like, you don't want it back.

**Justin:** A dookie donation.

**Sydnee:** Yeah, exactly.

**Justin:** If you will.

**Sydnee:** Exactly.

**Justin:** You don't want it back. [laughs loudly] Uh, we're gonna take a quick break. I have more questions for you, Sydnee. I will not— I will not be stopped, but we are gonna take a quick break right now.

**Sydnee:** And head to the billing department.

**Justin:** Let's go!

[ad break]

**Justin:** "Should I get my third COVID shot?" That's a question from a listener, uh, not from me. I've already had a bunch of the things. [laughs quietly] Way more than three.

**Sydnee:** Well, no—[laughs]

**Justin:** "Like, I'm all for vaccines," says question-asker, "but I feel bad taking a third one when there are people all over the world who are desperate for their first one."

**Sydnee:** So... okay. I think that this is a good— a good moment to talk a little bit about, um, an additional COVID vaccine versus a booster.

**Justin:** I had no idea that there was a difference. I am shocked.

**Sydnee:** Yes. There is a difference. Because a lot of people keep talking about their boosters, and what the CDC is already recommending, the thing that is already happening— the CDC put out these guidelines, and this is what has been recommended— is that people who are moderately to severely immunocompromised need a third dose of the vaccine. So it's not a booster, it's a third dose. They got dose one, they got dose two, now they need dose three. Whereas because I am not moderately to severely immunocompromised, I got dose one, I got dose two, I don't need dose three.

The difference is that a third dose is aimed at someone whose body may not have produced the predicted response to the vaccine. Does that make sense?

**Justin:** Okay, yeah.

**Sydnee:** Like, when we give you the vaccine, we expect your body to make this big immune response, right? Well, for people with immunocompromise, we know they might not. Um, and so this is an extra dose to make that happen. A booster is for someone whose body did produce the expected immune response, but we feel it has waned over time. We have evidence that over time that has begun to decrease, and we want to boost it back up, like a tetanus booster.

**Justin:** Sure.

**Sydnee:** You get your Tdap, ten years later, or if you have baby, we tell you to get another one, because your immune response has waned over time. There are many vaccines like that. The only people who are receiving a third dose right now are— and you can look this up— I won't read the whole list, but on the CDC website, CDC.gov, you can look up who needs an additional COVID-19 vaccine. Not a booster, an additional vaccine, and there's a list of very specific people, like people who are receiving cancer treatment, people with advanced or untreated HIV infection, people with high dose corticosteroids. Like, there are others, but you can look up that specific list.

Um, the pharmacy, if you go to a pharmacy to get your additional vaccine, if you think you qualify, they will have the list there for you to

look over. You have to check one of those boxes to receive a dose. Or the health department or wherever you can talk to your healthcare providers. But, um, these are the only people who should be getting a third dose right now.

**Justin:** Okay.

**Sydnee:** Now, the Department of Health and Human Services, the HHS, introduced a plan to give a booster vaccine to everyone who is eight months out. They have not started implementing said plan, but that was the big buzz, right? We all heard that after you're eight months out, you need a booster?

**Justin:** Right?

**Sydnee:** That has not been implemented yet.

**Justin:** So what— but what if you are eight months out [wheezes] from the booster?

**Sydnee:** That— we have not started—

**Justin:** What if you're eight months out from your— from your shot?

**Sydnee:** I think what we have is the HHS saying that we need to do this, and the FDA and the CDC and the World Health Organization and a lot of other groups are saying, "Wait, wait, wait, ho— hold up, hold up, hold up."

Um, so I think we have a little bit of dissonance between various organizations.

**Justin:** Got it. Okay.

**Sydnee:** So currently they're not giving boosters. They are saying that they will start giving— and, I mean, I think it was supposed to happen, like, this week. That is what they initially proposed. As early as this week, they will start giving boosters to people who are eight months out. And even then, there was supposed to be some sort of, like, system of who gets it first. Like, because I've heard all of this about, like, well, high risk people or older people, or should it be healthcare workers, or... I think there's still a lot of questioning about that.

Because the other issue to all this is, the big question we keep asking... if we know that two doses of the mRNA vaccines, and to further that point, one dose of the J&J, are still extremely effective at preventing severe illness, hospitalization, and death from COVID-19, why are we giving booster doses to people who already are pretty well protected instead of

sending all those vaccines to all the places in the world where people haven't gotten one or two doses. Does that...

**Justin:** Yeah... yeah.

**Sydnee:** Because by extending vaccines to as many people as possible globally, we will decrease the rate of new variants being created, and it benefits all humankind. So there's this whole—

**Justin:** And maybe they should go to countries that will use 'em better. That will maybe use 'em— like, have a better use— adoption rate. You won't have to flush so many down the toitey.

**Sydnee:** There's a—[laughs] there's a lot of— I think that medical ethics is really being strained here, because there's a lot of that debate. But then at the same time, the US is not— they're not gonna send all these vaccines anywhere else. They're just gonna be here. And so then you have people going, "Well, if it's gonna be there anyway... like, I'd rather them send it somewhere else, but if they're not going to, why wouldn't I not just go get it?"

[sighs heavily] I know. I know. It's sticky.

**Justin:** [crosstalk]

**Sydnee:** But right now, if you think you need an additional COVID-19 vaccine because you are moderately to severely immunocompromised, please go inquire and seek that out. Currently we're not giving booster vaccines, but if you are eight months out, pay attention, because they might announce that soon.

**Justin:** They should just put you in charge of all that stuff, Syd. [quietly] Of those decisions.

**Sydnee:** Well, there's a lot of health equity issues that aren't being answered, Justin.

**Justin:** Well, yeah, but if you were in charge, I feel, like, reasonably sure that I'd be covered, at least. [holding back laughter] You know what I mean?

**Sydnee:** [laughs]

**Justin:** Uh, which is kind of everyone's top priority, isn't it?

**Sydnee:** [laughs]

**Justin:** Uh, "When I got my HPV vaccine, very shortly after it was approved, my doctor did the first two shots in my *butt!*"

**Sydnee:** [laughs quietly]

**Justin:** [wheezes] Ai has capitalized B-U-T-T. Not just capitalized. Full all four letters cap.

**Sydnee:** I like that. Butt!

**Justin:** Butt! "And the third in my arm. When and how do doctors make decisions about where shots should go? Was my doctor just nuts, or particularly vindictive?"

That's from Ai.

**Sydnee:** Uh, so... [laughs] I'm not entirely certain why you got two— two sh—[holding back laughter] the first two shots— I'm trying to—

**Justin:** Two— two in the— two in the butt, one in the arm!

**Sydnee:** [crosstalk] [laughs]

**Justin:** Just say it! Two in the butt, one in the arm!

**Sydnee:** I was trying not to say that. I'm not entirely certain what that—

**Justin:** [simultaneously] The super-duper shocker!

**Sydnee:** —what that thought process was. There was nothing wrong with it. Let me say that. Like, no harm has been done. Um, really the only decision you have to make when you're giving a va— and it's not a decision you have to make. We know that different, um, medications, vaccines, drugs, anything that we are injecting with a needle into the body, it goes a different route. And we've talked about this a little bit before, but some are intramuscular, so they go in a muscle. Some are subcutaneous. They go, you know, in the subcutaneous levels of the skin. Some are intradermal. Like, um, if you've gotten a PPD, the TB test, and they make that little bubble right under your skin. It's very surface.

Um, and then you have, uh, things that go intravenous, right? An IV. They actually have to find a vein to inject it. Um, the important thing is that you're putting the medication where it belongs, in terms of those choices. Which muscle you choose— and this is what we're talking about here. Like, vaccines are typically IM, intramuscular injections. Which muscle is not terribly important.

Um, the one on your arm, obviously, your deltoid, that's where we usually pick 'cause it's easily accessible. For most people, it's large enough that you can comfortably receive a vaccine there. Um, for children we often will give it in the thigh, and that's really just because it's a bigger muscle at that age. Kids' arms are typically very small. Once they get larger it's easier to give them a shot in the arm, and so we can do the shot in the arm. Um, but it's really just about accessibility and muscle size, and there's really not much more to it in that case. I mean, there's nothing wrong with doing the [holding back laughter] gluteal shots. Um—[laughs] But I'd say— I'd say usually we just go with the arm 'cause, like, it's right there. [laughs quietly]

**Justin:** So there you have it.

**Sydnee:** But they're both fine. Your vaccines worked. And thank you for getting your HPV vaccines! Another vaccine that not enough— that there's a lot of misinformation about and not enough people realize how incredibly beneficial it is to mankind. Humankind, all kind.

**Justin:** I will get it tomorrow.

"Everyone tells me it's sugary drinks that give the worst hangovers. I wanted to know if there is any evidence to back that up, since it just sounds like anecdote to me." Anton.

**Sydnee:** I— this was interesting, 'cause I had always heard that too, and I assumed that it was true. There's no evidence for this.

**Justin:** Really?

**Sydnee:** No evidence that the sugar is the problem. The argument has been made that because your liver has to process both the sugar and the alcohol that, like, basically you're taxing it even more, and that's why the hangover is worse.

Um, this isn't true. Your liver's really good at processing sugar, and it would not overtax your liver to process sugar at the same time as alcohol. If you're noticing this effect, it may be because... I don't know, a lot of sugar just kind of makes me feel nauseous, so maybe that. Um, it may just be that sugary drinks taste really good, and sometimes disguise the flavor of alcohol so well that you drink more.

**Justin:** Drink more. I like—

**Sydnee:** That you—

**Justin:** —that's very possible.

**Sydnee:** Mm-hmm, or drink faster than you intend to. Um, but the sugar itself should not affect your hangover. It's all about the congeners.

**Justin:** All about the congeners.

**Sydnee:** The extra products of fermentation that happen when you're, you know, making whatever you're making. Wine, beer, liquor, whatever it is. The more congeners, the more extra stuff in there.

**Justin:** That's why you should just stick with— just stick with vodka, folks. This is what I keep saying.

**Sydnee:** That is theoretically why vodka would— would produce less of a hangover.

**Justin:** You know what [crosstalk]—

**Sydnee:** Or— or any sort of clear—

**Justin:** It also feels like you're drinking, like, not— like— like you should be covered on hydration, right? 'Cause it feels like you're drinking something that's like, "Oh, this is kind of like a drink. Like the regular... "

**Sydnee:** Like something frozen, especially.

**Justin:** Yeah, exactly.

**Sydnee:** A frozen sugary drink. It's got a lot of ice in there.

**Justin:** "Ahh, I feel very refreshed!"

**Sydnee:** Yeah.

**Justin:** "[through laughter] I don't need any water!"

**Sydnee:** No, but the congeners are the problem. Um, and then that also is why well liquor is no more likely to cause a hangover than the fancy stuff.

**Justin:** Do you think there's a band called The Congeners?

**Sydnee:** It's a good name.

**Justin:** It's a good name.

**Sydnee:** It's a good name!



**Justin:** "I donate a lot of blood, platelets, and WBCs to the American Red Cross. Flex!" They said that, not me. But I would have said it, had they not.

**Sydnee:** Sure.

**Justin:** "Years ago, they told me my platelets are very valuable because of my blood type and the fact that I have what's known as... baby's blood." [holding back laughter] A crime in many states. [snorts] No.

**Sydnee:** [laughs]

**Justin:** [laughs] Possession of baby's blood. "It means I'm CMV. They said roughly half the—"

**Sydnee:** Negative. CMV negative.

**Justin:** CMV negative, sorry. They said that roughly half the population has this disease/condition, but aren't aware of it. What are some other diseases and illnesses that many people have but aren't aware of? Sorry to people with anxiety."

**Sydnee:** Uh, so... okay. [laughs] I don't— I don't wanna start listing, because as you very politely mentioned, I don't wanna start listing a bunch of diseases like, "Hey! Here are some—" there are many genetic conditions and things sort of like— I mean, I think the popularity of things like 23andMe has really brought this to the forefront, right? Like, you can figure out that you're predisposed to a number of things if you want to.

**Justin:** Yeah.

**Sydnee:** Um, and some of that information might be helpful for lifestyle changes, and others might just... stress you out. Uh, because there's not much you can do about that. Um, but I do think this point is really interesting, about the— about blood products and CMV. So, CMV, or cytomegalovirus, is an incredibly common viral infection. Um, it's most similar to— have you heard of mono EBV? Epstein-Barr virus?

**Justin:** Mm-hmm.

**Sydnee:** Okay. It's very similar to that. It's not the same virus, obviously, but it's in that same sort of, you know, kind of world of viruses. Um, the thing about CMV is many people get it and don't ever know they had it. And, uh, in fact, by the time we're 40, uh, 85% of people have CMV, have had CMV.

Now, here's the thing. For the most part, having CMV and then now you've recovered from it, and us finding the antibodies in your blood, is

not a big deal when it comes to donating blood, right? Because for most people, there's nothing dangerous about that. But for specific people to receive blood, we have to be very careful about what sorts of infections and things they might have, what they might have antibodies for. So, for babies...

**Justin:** Baby's blood.

**Sydnee:** ... it is important that you have a donor who has not had CMV. And those are difficult to find. So when you find a donor who has not had CMV, that's a very precious donor that you have located. Um, in addition, if you are O- and you've never had CMV, you're just, like... I mean, like, all the Red Crosses are gonna want to get at you. They're all trading your number around like, "Hey, hey, hey! [laughs] Gimme some of that sweet baby's blood."

Um, so that is why that is— that is such a— an important thing. It's not just babies. There are other people who have to, because of their, again, immunocompromised and things like that. You have to be very particular about what kind of blood donation they receive. Um, but that makes that blood extremely precious, that you can donate.

**Justin:** Good reminder to, you know, if you're able to and if it's safe for you or whatever, to donate. Uh, it's been hard to come by, from what I've been reading.

**Sydnee:** Absolutely. It's really important to. And, you know, the thing is, just to sort of answer the question, there are lots of viruses that we get in our lives... and clear, and we could find evidence of later on, but don't necessarily impact us long term. And that is what this is, in this case. Um... so. Donate blood if you can.

**Justin:** Okay. A couple more quickies.

"Why does the discharged snot turn a bright green color when you have a sinus infection?"

**Sydnee:** So, I wanted to include this question because I think it's important to know that just because your snot is green or yellow doesn't mean you have an infection, and just because your snot isn't green or yellow doesn't mean you don't have an infection. [laughs] Does that make— there were a lot of negatives in there.

Um, snot color is largely related to how concentrated it is, so the thicker it is, the less, um... the less hydrated you are.

**Justin:** Yeah.

**Sydnee:** The darker it tends to be. Now, that being said, certainly if there are bacteria present, they can change the color of snot. So, green snot usually means something is up, and you— and it might not be a bacteria. It might just be a virus. You know, which in the year 2021 I can't believe I said "just a virus."

**Justin:** [laughs weakly]

**Sydnee:** But it might be a virus. It doesn't necessarily mean you need antibiotics.

**Justin:** Got it.

**Sydnee:** Um, but also if there's a lot of white blood cells, then it could look like pus. Purulent is what we would say. So, like a whiter, creamier discharge, and not necessarily green, and that could still mean infection. Generally speaking, it's related to how concentrated the snot is, and less what's in there. Um, but certainly if your snot is changing color, you should ask somebody about it, 'cause you could have a sinus infection.

**Justin:** I would suggest Sydnee, that is who I would ask.

Uh, "I have this bump on my back. It doesn't hurt and doesn't seem to do anything." Except what would you want it to do?

**Sydnee:** [laughs] Well, get bigger or smaller or go away.

**Justin:** It does predict the rain. If I can feel it swelling. "Except once in a while if I squeeze it, white stuff comes out." [gags] "It's roughly the consistency of old... " [inhales] I actually can't do this one, okay? So this person has a thing. I don't wanna read the rest of this.

**Sydnee:** It's roughly the consistency of old, almost-dry toothpaste, and smells bad. What the heck is this stuff?

**Justin:** [groans] You done?

**Sydnee:** I'm done. I'm done.

**Justin:** Okay, good.

**Sydnee:** I'm done. Uh... [laughs]

**Justin:** [dry-heaves] [laughs]

**Sydnee:** I love gross stuff. [laughs quietly]

**Justin:** [high-pitched] This one's too much! We did—

**Sydnee:** I can't.

**Justin:** —we've done this for so many years. 2013.

**Sydnee:** I can't.

**Justin:** Hundreds of episodes. This one's too much.

**Sydnee:** I just included it 'cause I love gross stuff. I hope, um, you're—

**Justin:** Except poop! You're so— like, you're— you're so narrow—

**Sydnee:** [simultaneously] I talked about fecal transplant!

**Justin:** I know, but you don't like it! Right? Like, there's a way— and you talk about it in a very clinical way. You act all, like, "Oh, I just love gross stuff!" Uh, except for the things that *you* find gross.

**Sydnee:** I don't like to— no, okay. Poop—

**Justin:** [simultaneously] Poop doesn't bother me. This— this I find very problematic.

**Sydnee:** —poop doesn't bother me. I don't like to talk about my own bodily functions, and not everyone around me has that same sort of stance.

**Justin:** [sighs] Okay.

**Sydnee:** I don't want to discuss what I am or am not doing and in what frequency.

**Justin:** Or have ever— or have ever done.

**Sydnee:** Or have ever done. [laughs quietly] Anyway, I— I hope— dear listener, I hope you know I cannot diagnose the bump on your back from an email. But, um—

**Justin:** Don't we have a literal—[wheezes]

**Sydnee:** If it does— I know.

**Justin:** —a moment from distraction from that weird growth, right?

**Sydnee:** If it does concern you, please get it checked out. But I did think it was— I like gross stuff, one. And, uh, not that you're gross. The— just the consistency of old almost-dry toothpaste is kind of a gross

description. Um, but my thought is this is probably some kind of cyst. Probably an epidermal or sebaceous cyst. And a lot of people assume that, like, the stuff that can come out of your body— like, there's pus, right? You got an infection. White, creamy, pus-stuff comes out.

**Justin:** Come on!

**Sydnee:** You've got a cyst that maybe has just fluid. Like, people have usually seen, like, just— like, something that's just clear fluid. Serous fluid, we would call it, or serosanguineous, if there's blood in there. Um, there's also— you can also get keratin, that's in your skin, nails, hair. Keratin can build up and get, like, stuck inside [laughs quietly] underneath, like, in your skin, and not be able to come out like it's supposed to.

**Justin:** Right. Like the stuff rhino horns are made out of, right?

**Sydnee:** And— yeah. And form— and form these cysts where you've got, like, a plug of this keratin material underneath it. And it won't look like— like, it'll— it might be white, like you said. But you look at it and you think, "Well, that doesn't look like pus. Like, I'm use to— I know what pus is supposed to look like. This doesn't look like pus. What in the world is this stuff?"

And it's probably a buildup of this keratin material, and there can be some proteinaceous stuff in there too. But it can be, like, thicker or waxier or white. Um, not necessarily creamy. [laughs quietly]

**Justin:** Mm-hmm.

**Sydnee:** There might be infection there too, which you usually know because, like, it hurts. It's red. It's hot. And then pus comes out.

Um, if this is something that bothers you, you should certainly get, like, a medical professional to check it out, because usually when it comes to these cysts, they're not as easy as squeezing and popping, which is just too bad 'cause that would be great. I love squeezing and popping things.

Um, usually you have to, um— well, always. If you wanna get rid of it, you have to remove the whole cyst. Like, the whole body of the cyst. And you know what this is all about, 'cause you had one in your head.

**Justin:** Yeah!

**Sydnee:** You had one removed from your head.

**Justin:** Did think I'd have to talk about that right this second, but sure, yeah, I had a weird—

**Sydnee:** It was like a little water balloon.

**Justin:** Okay. That will—

**Sydnee:** Full of— but full of this keratin-like... you know, white... material.

**Justin:** So what Sydnee is saying is go to a doctor.

**Sydnee:** Yeah. If it's— I mean, if it's just there—

**Justin:** If it's bothering you.

**Sydnee:** —and it's not bothering you, I would not— now, I will say this. I wouldn't continue to squeeze and pick at it. Because our hands are dirty. Not just yours, mine too. All of our hands are dirty. And especially under our nails. And if we start picking and squeezing at things, we're very likely to introduce bacteria, even if they weren't there already. So, if it's bothering you, have a doctor check it out. If it's changing, have a doctor check it out. Don't pick at it.

**Justin:** Thank you so much for listening to our podcast. It's called *Sawbones*.

Hey, if you want to see us in a live virtual setting, [bit.ly/mbmbamvirtual](https://bit.ly/mbmbamvirtual). It's gonna be Friday at 9 PM. This Friday, September 24th, at 9 PM. Uh, tickets are \$10. You'll be able to watch it on VOD for, like, two weeks after that, I believe. But, uh, that address again, [bit.ly/mbmbamvirtual](https://bit.ly/mbmbamvirtual). We were gonna try to do some in person live shows this year, but it didn't pan out, because of the ongoing unpleasantness. So, if you wanna support us, then that is a great way of doing it, and have some fun too. There will also be a *My Brother, My Brother, and Me* live show, [quietly] but who cares.

Um, thanks to The Taxpayers for the use of their song—

**Sydnee:** I care.

**Justin:** —"Medicines" as the intro and outro of our program, and thanks to you! For listening. We sure appreciate it. That's gonna do it for us. Until next time, my name's 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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