

Sawbones 12: Urine

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Intro (Clint McElroy):

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. My name's Justin McElroy.

Sydnee:

And I'm Sydnee McElroy.

Justin:

This is our marital tour of misguided medicine, and Sydnee, can we hurry this one up?

Sydnee:

Well, why?

Justin:

I wanna rush it. I wanna—

Sydnee:

W—

Justin:

... rush to the end.

Sydnee:

Why would you wanna rush to the end? This is so much fun.

Justin:

I, I... I gotta pee. I gotta—

Sydnee:

Oh.

Justin:

I gotta pee.

Sydnee:

Oh. Okay. Well, um, that's, that's all, that's good. I—could you, would you mind when you do go to pee, would you, um... Uh, I've, I've stocked the bathroom with several, um, well hundreds of small plastic containers in which I'd like you to collect your urine. Do you mind doing that for me?

Justin:

Uh—

Sydnee:

Real quick? Just, um—

Justin:

... oh.

Sydnee:

... just pee in any one of those cups. If you could also follow the instructions I've posted on the wall as to how to sterilize yourself before, um, just to make sure I get a good sample. Mid-stream too would be good.

Justin:

Right. So—

Sydnee:

I just wanna—

Justin:

... uh, uh—

Sydnee:

... take really good care of you Justin.

Justin:

I... I go, I go pee pee in the potty. Uh, I go I... Classically, I, uh, I, I go pee pee in the potty.

Sydnee:

Well I, I understand that's what you've been taught, that's great, but, um, I really, I'm really gonna need... You know, I am a physician and I, I wanna, you know, take good care of you too. So if you could just, you know, save all your urine for me. Just all of it in those plastic cups.

Justin:

Sydnee, why on earth, uh, would we want to store my urine?

Sydnee:

Well, other than for kicks, uh, urine is really a great diagnostic tool. It's been recognized for centuries that you can tell a lot about what is going on inside the human body by what comes out of it.

Justin:

Considering this is a marital tour of misguided medicine, I'm gonna assume that some of the things that we have thought that you could tell from it, we were making up.

Sydnee:

Oh, absolutely.

Justin:

Now, before we get into that, I do wanna thank Chris Parker and Ashley who suggested the topic of urine to us.

Sydnee:

Yeah, thank you Chris and Ashley.

Justin:

Uh, if you'd like to suggest a topic you can email us. sawbones@maximumfun.org.

Sydnee:

So let's talk about pee.

Justin:

[laughs] Let's do it.

Sydnee:

Do you know what's in pee?

Justin:

Pee. Wait... What... Hold on, I know this. I'm not gonna just be an idiot.

Sydnee:

Come on Justin, what's in urine?

Justin:

Uh, well let's see, there's water, there's yellow, there's smell, and pee pee.

Sydnee:

All right. Bad job. Uh—

Justin:

[laughs] No—not, not a good one?

Sydnee:

... but even considering that, you were still like 95% right.

Justin:

Hey, that's something. You gotta give me that. 95%, not bad. So I got most of those.

Sydnee:

Well just mainly because urine is 95% water.

Justin:

Okay. So by quantity I guess I, I got it right.

Sydnee:

Close enough. So in addition to water there's urea, there's, uh, electrolytes like sodium, chloride, potassium, creatinine. There are lot of other random organic and inorganic compounds, hormones and the like.

Justin:

Now, so what's urea? I don't... I'm not familiar with urea.

Sydnee:

It's a, it's a byproduct of, uh, metabolism in the human body. It's a waste product and, uh, we don't need it, so we get rid of it.

Justin:

Get on out of here, urea.

Sydnee:

That's right. And, uh, it's, it's a common belief that urine is sterile, uh, w—which is kind of a misconception. It is sterile, but it, that's until it passes through the urethra.

Justin:

Which it has to, right?

Sydnee:

Obviously, yes.

Justin:

To get out—

Sydnee:

Yes.

Justin:

... the hole.

Sydnee:

Unless you have a super pubic catheter but that a whole other thing.

Justin:

Super pubic catheter. That sounds like some—

Sydnee:

Super pubic—

Justin:

Catheter.

Sydnee:

Uh, yes. [laughs] So it does have to pass through the urethra and there are, uh, likely bacteria in the urethra and therefore and then it doesn't come out sterile which is why we ask for a mid-stream catch, thank you. So—

Justin:

[laughs]

Sydnee:

... we get those germs out of the way.

Justin:

What do you mean by mid-stream catch?

Sydnee:

Well you pee a little and then you pee in the cup and then you finish up in the toilet.

Justin:

Pee pee in the potty.

Sydnee:

These instructions are posted in the bathroom at any doctor's office you may have ever attend and give a urine sample.

Justin:

Okay. I will pay attention next time instead of just peeing like I normally do, all over everything like a monkey.

Sydnee:

Right. I'd really appreciate it, and so would our cleaning ladies, if you stop doing that.

Justin:

[laughs] Deal.

Sydnee:

But urine has been used, as I said—

Justin:

No deal.

Sydnee:

Ah.

Justin:

I rethought it.

Sydnee:

I know. I know. I was, I'm not that naïve. I know you—

Justin:

[laughs]

Sydnee:

[laughs] I know you better than that after seven years. Uh, but urine has been used, like I said, for thousands of years. The ancient Babylonians and the Sumerians, uh, recorded, uh, urinalysis results on clay tablets. Um, Hippocrates thought—

Justin:

How official.

Sydnee:

[laughs] Yeah. For all of history to read.

Justin:

"Let me just jot this down. You can keep your—"

Sydnee:

"The smell of your—"

Justin:

"... urine."

Sydnee:

"... urine," [laughs] Uh—

Justin:

"This smells weird."

Sydnee:

[laughs] Hippocrates thought that the most, as far as diagnostically, the most important system in the body was the urinary system. Urine really came into its own in the Middle Ages when they, uh, came up with the name uroscopy or uromancy.

Justin:

[laughs] You know, lot of people talk about, uh, some of those other books... I think Uromancer is probably my favorite William Gibson, of, of his, of his work. It's, it's—

Sydnee:

[laughs]

Justin:

... a tough read but I think it's well worth the effort.

Sydnee:

[laughs] Uh, uromancy or uroscopy was practiced by many doctors, uh, who would diagnose you simply by asking for a bottle of your urine. No, uh, history or exam required.

Justin:

Well you would have to go to them, right?

Sydnee:

Um, I suppose. Either that or you send your urine in a bottle with your messenger boy.

Justin:

And they would just look at the urine and get that...?

Sydnee:

Yeah. Just check out the urine.

Justin:

You know, a lot of people didn't enjoy it, but I, I really like Middle Ages House when, uh, he would just around the table with his, uh, four young doctors—

Sydnee:

[laughs]

Justin:

... and they would stare at a bottle of pee.

Sydnee:

And they would draw ideas about it up on the board.

Justin:

"What's is smell like?"

"Pee pee."

Sydnee:

... Middle Ages Sharpies and the—

Justin:

"It's lupus."

Sydnee:

It's never lupus.

Justin:

It's never lupus.

Sydnee:

"But let's definitely treat 'em with high dose steroids, broad spectrum antibiotics and then chemo."

Justin:

That's House.

Sydnee:

And then we'll figure out it was a tooth pick all along.

Justin:

It was a tooth pick.

Sydnee:

[laughs]

Justin:

From their trip to Africa that they took.

Sydnee:

Um, it... This is even referenced in Shakespeare. Do you remember what, uh, Shakespeare this is referenced in, Justin?

Justin:

Hmm.

Sydnee:

As a student of the theater.

Justin:

If I remember—

Sydnee:

... I suppose you should know.

Justin:

... if I remember correctly, um, in Henry IV, I think it was Falstaff asked, uh, "What says the doctor to my water?" as a way of asking about that. If, if memory serves.

Sydnee:

Why, Justin, I'm, I'm really impressed. That's absolutely right.

Justin:

Oh, thank you Sydnee.

Sydnee:

How did you know that?

Justin:

Well, I'm a thea—I was a theater major, of course I have the first folio, uh, by heart, memorized. So—

Sydnee:

Right. And that's definitely how you knew that?

Justin:

That's absolutely how I knew that. Can you please just give this one?

Sydnee:

[laughs]

Justin:

This one win.

Sydnee:

All right. Fair enough. And of course, then you know that that was a way of him asking about, not just his urinary health, but his health in general. Because that's all you need to know.

Justin:

Right. Well, I mean, I've done some line analysis too with these lines. Not just, it's not just about memorization folks, you gotta dig in the text.

Sydnee:

Really?

Justin:

Find the IMs.

Sydnee:

Right. Sure. Uh, at the same time this was also a period where, um, you could use urine to tell if someone was a witch.

Justin:

[laughs] You could?

Sydnee:

Sure.

Justin:

Times have changed 'cause I don't think that would work anymore.

Sydnee:

[laughs] No, we have much more sophisticated methods of witch—hunting now.

Justin:

Oh, we've come so far in our witch-hunting. Yeah, we've made strides. How do you exactly tell if somebody is a witch?

Sydnee:

Well, it's simple.

Justin:

You pee on them and if they turn you into a frog—

Sydnee:

[laughs]

Justin:

... then they're not a witch. There. Perfect. "It's fine!"

Sydnee:

If somebody peed on me and I was able to turn them into a frog, I definitely would.

Justin:

Absolutely, you are a witch, proven. Stone cold proven.

Sydnee:

But that's not what they would do. They would have, uh, the suspected witch pee into a bottle, uh, then they would fill that bottle with metal objects, pins, nails, whatever, cork it, and wait to see if the cork popped out.

Justin:

[laughs]

Sydnee:

If it does, a witch.

Justin:

Witch.

Sydnee:

If not, not a witch, unless you find another way to prove that they're a witch, which you probably will.

Justin:

Witches have carbonated pee, lots of people don't know that.

Sydnee:

[laughs]

Justin:

That's a fact.

Sydnee:

That's, that's part of their witchcraft.

Justin:

That's science. It's the first thing they teach you at Hogwarts. [laughs]

Sydnee:

I think my favorite, my favorite, uh, use of urine as a diagnostic tool, uh, is the urine flavor wheel.

Justin:

Oh man, I am into this right now. I want a urine flavor wheel already and I don't even know what it is.

Sydnee:

Well it's, I mean, it's kind of self-explanatory. So a urine flavor wheel, um, was, uh, a wheel with different properties of urine recorded, and you could connect different, uh, sensory properties of the urine sample to different diagnoses.

Justin:

So you would, uh, you could find the protein that you're having that evening, turn the wheel until it lined up and find the urine that best paired with that protein?

Sydnee:

[laughs] Do you mean you could become a urine sommelier?

Justin:

Perfect. "Mm, this is... Ooh, this is a great... A lotta tans."

Sydnee:

[laughs]

Justin:

"... a lotta tans."

Sydnee:

Uh, no, at that time, you know, they understood that urine could be used to tell the things about the inside of the body but they didn't know exactly how to evaluate it. We didn't have like urinalysis yet, or microscopy. So you, um, evaluated urine with your senses: the color, the taste, the smell, uh, you know, how turbid or how cloudy or clear the urine is.

Um, so, uh, so the urine flavor wheel would tell you the different flavors that your urine might have that can be associated with certain diseases. For

instance, uh, if, if the wheel said... You know, if you turn the wheel to a urine that was astringent, sweet, white and sharp... Sounds like a cheese.

Justin:

[laughs]

Sydnee:

[laughs]

Justin:

This is delightful.

Sydnee:

That would actually be—"

Justin:

"This is, this is challenging—"

Sydnee:

[laughs]

Justin:

This is, this is challenging urine. I, I like this. This is oaky."

Sydnee:

"Can we have some grapes with this?"

Justin:

"This would be fantastic. We're w—, we're weird by the way. We're weird Romans."

Sydnee:

[laughs]

Justin:

"... so we love this."

Sydnee:

Uh, this would be the urine of a diabetic.

Justin:

Oh, wow. Okay.

Sydnee:

Yeah. That's, uh, that's actually where diabetes, um, mellitus gets its name. Diabetes references to "pass through," which is, uh, the large amounts of urine that a diabetic patient would pass, and then mellitus from honey. Uh, so the passing large amounts of sweet urine.

Justin:

Sweet, sweet urine.

Sydnee:

That's right. Uh, you could also... If you didn't wanna do that, you could just pour that urine on the ground and see if bugs came, 'cause then—

Justin:

Okay.

Sydnee:

... that would [laughs] indicate sugar.

Justin:

Let's... Okay weird old scientist, can we do that one instead maybe?

Sydnee:

"Nah, let's just taste it."

Justin:

"Let's just give it a swi—" And you know that they all did except for like after they discovered that trick, there was one guy who just wouldn't give it up.

"I, I really think—"

Sydnee:

"The old ways are best."

Justin:

"You know, I really think you get a better more of a reliable—"

Sydnee:

[laughs]

Justin:

... read if, if you all just have one more sip."

Sydnee:

And this, you know, this analysis of urine actually led some women in ancient Rome in turpentine to make their urine smell like roses, um, because bad smelling urine was associated with bad health.

Justin:

And drinking turpentine was associated with death, so... [laughs]

Sydnee:

Well, yeah. So it wasn't a great plan.

Justin:

No, kind of a short game you're playing there, ladies.

Sydnee:

And they're, they're hitting on things that are right. I mean, uh, m—, urine that smells bad could mean infection, urine that swells, smells sweet or certainly tastes sweet, if that's your thing, could mean diabetes. And then certainly we know that there are some foods that you can, uh, eat and, and tell that, you know, you've eaten them from the smell of your urine. Asparagus comes to mind.

Justin:

So if we're just relying on color though, are there actually, real life, not made up things that you can tell from, from looking at urine?

Sydnee:

There are some generalities, yeah.

Justin:

Oh, did you wanna share them with me?

Sydnee:

Oh, I didn't know if you wanted to know.

Justin:

I do. I do. Let me quiz you.

Sydnee:

Well, what, what—

Justin:

Le—

Sydnee:

... colors would you—

Justin:

Right. Let me—

Sydnee:

... like to know about Justin?

Justin:

... quiz you. I'll quiz you. Okay?

Sydnee:

Okay.

Justin:

You ready?

Sydnee:

Go.

Justin:

Dark yellow.

Sydnee:

Uh, that's probably dehydration.

Justin:

Orange.

Sydnee:

Uh, that could be B vitamins, maybe you're jaundiced, you know, maybe liver disease or some medications, um, like the over-the-counter like, uh, Pyridium, Uristat. Some people may have taken that.

Justin:

Uh, red.

Sydnee:

Um, unfortunately that's probably blood.

Justin:

That's a bad sign, right?

Sydnee:

It's a bad sign.

Justin:

Pink.

Sydnee:

Well that just means you've been eating beets.

Justin:

Ah. Gosh Doc, you know, I—

Sydnee:

[laughs]

Justin:

... You know, looking at it in this light it really seems to be more of a pink. I think... Don't you think?

Sydnee:

Yeah, that's a, that's kind of a close call there. I'd say if you're, if [laughs] you're unsure if it's beets or blood, I'd let a doctor make that call.

Justin:

"I don't know, seems pinkish in a certain light." Uh, green.

Sydnee:

Uh, you may also have been eating a lot of asparagus, um, or some medications can turn your urine green.

Justin:

Uh, blue.

Sydnee:

Ah, usually that just means you were exposed to methylene blue, certain medication you wanna have in the hospital.

Justin:

Does food coloring get filtered out in the, in the, in your organs?

Sydnee:

For the most part. I mean, I, I suppose if you were eating a large amount of just food coloring you may be able to turn your urine.

Justin:

And I am. I usually am.

Sydnee:

Nowadays we usually use urinalysis to evaluate urine for, you know, the, um, for protein or, um, different, um, markers of infections, nitrites, white blood cells, that kinda thing. Um, although, uh, although I did once hold urine up to the sun in a patient that had porphyria and I watched it turn purple.

Justin:

I remember that. Those are, those were very exciting.

Sydnee:

Do you remember that? I left it in our window sill all weekend?

Justin:

Ah, man, how can I forget?

Sydnee:

You know, one interesting thing Justin is everybody always likes to reference how bad asparagus can make your pee smell.

Justin:

Mm-hmm.

Sydnee:

Do you know that only half of people can smell that?

Justin:

I did not. That's fascinating.

Sydnee:

Yeah. Only 50% of people are able to smell that, so.

Justin:

You know, I, I like the smell because, uh, I know it's supposed to be bad but, you know, I... It makes me feel I know that I've been eating vegetables. Like I may seem proud, it's a proud smell for me—

Sydnee:

Well could also—

Justin:

... 'cause I eat vegetables. Like I mean, that's awesome. Good for me.

Sydnee:

I mean, to be fair, you would also know you're eating vegetables because you ate vegetables.

Justin:

Yeah, but like it's a good reminder in case I stop being proud of myself [laughs] Since I finished eating.

Sydnee:

"Boy my pee smells bad."

Justin:

"Good job."

Sydnee:

"Great job, Justin."

Justin:

"So proud."

Sydnee:

Well we've kind covered the different ways we used urine for diagnoses, but, uh, you know, urine was also used as a treatment.

Justin:

I mean, you got, you got stored, you got all my urine stored here. Uh, I'm, I'm glad I could it could be put to good use.

Sydnee:

Right. So I can figure out what's wrong with you, I hope somebody can, and then maybe I can fix it.

Justin:

Fix me. I'm ready.

Sydnee:

So if we go all the way back again ancient Rome, uh, Pliny the Elder—

Justin:

[laughs] What?

Sydnee:

You know, Pliny the Elder.

Justin:

David the Gnome.

Sydnee:

[laughs] No.

Justin:

[singing]

Sydnee:

That was my favorite cartoon.

Justin:

[laughs] Pliny the Elder.

Sydnee:

Pliny the Elder.

Justin:

He's a wizened.

Sydnee:

Uh, he advised using urine for all kinds of things. Um, put it on sores, or burns, or scorpion stings, or affections of the anus perhaps.

Justin:

[laughs]

Sydnee:

It's not, it's not a long trip for your urine. [laughs]

Justin:

Okay.

Sydnee:

Just work that out. Easier is you're a female, probably. Um, you could, uh... Maybe if you didn't wanna do that, you could like get some stale urine, you know, kinda like you can use stale bread for, for certain things, right?

Justin:

Uh-huh.

Sydnee:

Croutons or whatever. If you got some stale urine, you can mix it with ash and then just put it on your baby's bum for their diaper rash.

Justin:

[laughs] "Hey baby, baby, come here. I wanna try something."

Sydnee:

[laughs]

Justin:

"Gotta test this, uh, medical theory or whatever. I'm gonna pee on you."

Sydnee:

"I'm just gonna pee on your butt though."

Justin:

"I'm gonna pee on your butt, baby. Stay still."

Sydnee:

[laughs]

Justin:

"You can write a book about it someday or something."

Sydnee:

"Don't worry I'm gonna rub some ash on it afterwards."

Justin:

"There'll be ash too baby. Just don't, just, just don't move, okay?"

Sydnee:

He also wanted to make sure you remember to always spit into your urine—

Justin:

Of course.

Sydnee:

... immediately after you passed it so that you could prevent being cursed.

Justin:

Sure. Sure. I mean, I mean, obviously.

Sydnee:

Who doesn't do that, really?

Justin:

I still spit in my urine.

Sydnee:

Right. Well, I mean, you're a guy, as long as you're standing there—

Justin:

Yeah.

Sydnee:

... like what else? You know—

Justin:

Let's get all the curses out.

Sydnee:

... turn around and everything, so. You can also brush your teeth with it.

Justin:

Well, you couldn't.

Sydnee:

I mean—

Justin:

I mean, you could.

Sydnee:

Well you could.

Justin:

You could.

Sydnee:

It was known to make your teeth bright, and white, and shiny, and you, your mouth would smell like [laughs] pee I guess.

Justin:

So it's, it's kind of a you take the good, you take the bad I guess.

Sydnee:

I guess that's—

Justin:

Kind of those situations.

Sydnee:

That's really a situation where you don't wanna eat asparagus.

Justin:

It's when you're gonna be seeing a lot of people but not getting too close to any of them.

Sydnee:

[laughs] But not talking necessarily.

Justin:

Great for lectures.

Sydnee:

[laughs] Um, uh, in the same time period it was also advocated that you could treat a fever by boiling an egg in some of the patient's urine and then burying it in an anthill.

Justin:

I mean, can we not? Uh, that... Can we not treat that like a medical treatment an—, anything other than voodoo?

Sydnee:

[laughs] I suppose that falls in that, "Well, I mean, I guess it's not gonna hurt anybody" category.

Justin:

Yeah, except the ants. "Thank you. Thank you so much. This is fanta—... What is this? A, uh... Yeah, smells like an egg boiled in pee."

Sydnee:

[laughs]

Justin:

"This is great for ants. I mean, we have, we have souls. No big deal."

Sydnee:

"We have some standards."

Justin:

"We have s—like, standards. You can't just like put a pee egg in our home."

Sydnee:

Hey, maybe it was a diabetic and then there's sugar and then we're all good.

Justin:

Yeah, maybe. And maybe they looked down on the ants... "I don't know man. You go ahead. Jerry's ducking in, he loves it."

Sydnee:

[laughs]

Justin:

"I think he's weird."

Sydnee:

Um, do you remember Justin, the French surgeon that we mentioned in our amputation episode, um, Am—Ambroise Pare? Something like that?

Justin:

Yeah, vaguely.

Sydnee:

Um, he had something to say about urine as well.

Justin:

Sure. Get it all—

Sydnee:

Uh—

Justin:

... out.

Sydnee:

So—

Justin:

Get it out of your system.

Sydnee:

... so let's say, um, you know, you gotta pee, why not just go ahead, um, pee into a barber's basin like you do, keep—

Justin:

Right. Every g—, everybody's got one of those.

Sydnee:

Everyone's got one of those. Keep it all night, and then tomorrow morning, um, in case your eyelids are itchy you could just, you know, wash them with it, and it'll help.

Justin:

[laughs] That is really thinking ahead. That's a, a level of like, uh, preparation that I really can't... "You know, my eyelids might be itchy tomorrow."

Sydnee:

[laughs]

Justin:

"I am gonna go ahead and pee now so it's good and stale over night and, uh, just rub it on there and good, tomorrow."

Sydnee:

Do you know how itchy my eyelids would have to be? [laughs]

Justin:

Like the itchiest. Like itchier than... Boy... And also, uh, uh, treacherous walking at night. Gone out to get a midnight snack just watch, watch where you step.

Sydnee:

"Mind those barber's basins of pee."

Justin:

"That I leave around. But we're happy to have you."

Sydnee:

[laughs]

Justin:

... uncle Dan."

Sydnee:

"I'm never staying with you people again."

Justin:

"I should have paid for the Motel Six! It was very reasonable."

Sydnee:

The, the French also advocated soaking your stockings in urine and then wrapping 'em around your throat, um, if you had, um, what we would now know as strep throat.

Justin:

Originally called pee neck.

Sydnee:

[laughs] Old pee neck. "Oh, you got the old pee neck."

Justin:

"You got—"

Sydnee:

... don't ya?"

Justin:

... pee neck."

Sydnee:

"I hate that."

Justin:

"Seen a lot of these cases recently."

Sydnee:

Um, there are, they're also over in England, uh, on the advice of both Robert Boyle and, and Thomas, uh, Willis who was the richest doctor in England, um, you should just drink your own urine. Why not? Every morning, it'll keep you healthy.

Justin:

[laughs] Just—

Sydnee:

"Let's step it up a notch. We're wrapping it around our necks—"

Justin:

"Let's not—"

Sydnee:

"... we're boiling eggs in it."

Justin:

... fool around. No more games."

Sydnee:

"We're—we're rubbing it on our eyelids."

Justin:

"No more games."

Sydnee:

"Let's just drink it."

Justin:

"Let's just drink the urine. We've all been dancing around it for millennia, let's just drink [laughs] this pee."

Sydnee:

I—, and it continued to be popular to use urine, I mean, for all sorts of things. An Italian doctor, um, uh, Leonardo Fioravanti urinated on a man's nose after it had been sliced off during like a, um, some kind of dispute, some kind of sword battle, some kind of display for swordsmanship.

Justin:

[laughs]

Sydnee:

[laughs]

Justin:

Sword, sword challenge.

Sydnee:

A sword challenge. Uh, he immediately urinated on the man's nose and then sewed it back on.

Justin:

Fantastic.

Sydnee:

Uh, Henry VIII's surgeon, Thomas Vicary, he also advised washing battle wounds in urine.

Justin:

Now that would not help, right? That's the sterile thing again?

Sydnee:

Right. I mean, the thought is that—

Justin:

Of course we didn't even know sterile back then, like we didn't—

Sydnee:

No. No. We did think it would help, um... You know, there is some, some thought that the urea could help a little bit with like, killing bacteria, but again, it's still not a great thing to wash wounds in. Um, it also probably didn't work for ulcers as it was advised for gangrene, or poisonous bites, or insect stings. Um—

Justin:

Pretty much anything.

Sydnee:

It was used against the plague, but—

Justin:

Well, what, what didn't we try?

Sydnee:

What wasn't? [laughs] Uh, and then there also in, uh, 1670s they began to collect vast quantities of children's urine, 'cause it was thought to be cleaner, to, um, distill it down to make a salt and then the essence of urine was sold to, uh, upper class women for the vapors.

Justin:

You know that even after they dispelled that there was still one guys like, "Uh, you know, I got all this child's urine, I'm just gonna hold on to it. You never know, you know these treatments—"

Sydnee:

"You don't know."

Justin:

"... go, might come back around, might come back into fashion."

Sydnee:

"Last year they told us not to eat eggs, this year they said eggs are good for you, you know."

Justin:

"You know... So, uh, let's just keep the kid pee."

Sydnee:

"You never know."

Justin:

"You never know."

Sydnee:

The, you know, the thing—

Justin:

"Where else am I gonna find it? I can't collect it again."

Sydnee:

[laughs]

Justin:

"It'll take forever."

Sydnee:

"Those parents are never gonna let me into their houses again."

Justin:

"You know how much candy I had to give away? Crazy amounts."

Sydnee:

This trend, uh, followed American pioneers, uh, to the New World, um, and they used to actually put pee in their ears and then plug them up with, uh, with wash cloths for, uh, ear aches.

Justin:

[laughs] Just get a friend to lie super still, "Shh, don't move."

Sydnee:

"Just... Jerry if you can hold real still."

Justin:

"Just... Jerry just... Don't move."

Sydnee:

"Don't move Jerry. Really don't—you should probably close your mouth."

Justin:

"Just close it."

Sydnee:

"Um, maybe your eyes too."

Justin:

"Just close anything open—"

Sydnee:

"Just def—"

Justin:

... not the ears.

Sydnee:

"Don't move. Just re—"

Justin:

"Just—"

Sydnee:

"Ah! See?"

Justin:

"See, you moved. And that's not my fault."

Sydnee:

"Told you not to move. That's totally on you."

Justin:

"That's on you. Literally it's on you."

Sydnee:

[laughs]

Justin:

"It's on your... Arg, it's on your cheek."

Sydnee:

Now other than medical—[laughs] Other than medical uses, uh, you know, urine was also advocated as a beauty aid that, um, women should wash their faces in it. It would improve your complexion.

Justin:

Mm-hmm.

Sydnee:

Um, they thought it was good for baby skin, so they—

Justin:

[laughs]

Sydnee:

... actually, uh, thought it would be a good idea to just once you take off that pee diaper, just go ahead and rub it on your baby's [laughs] face.

Justin:

[laughs] "Here you go baby. Handle this."

Sydnee:

"Take this."

Justin:

[laughs] "Take that."

Sydnee:

"Welcome to life."

Justin:

"This is what the world is like, baby."

Sydnee:

[laughs] "This is what it means to be human."

Justin:

"Is life. You'll, uh remember I did this. You'll thank me one day. You won't, but your skin, your skin won't be any different 'cause I'm an old idiot."

Sydnee:

"This is the first thing you're gonna tell your therapist in twenty years."
[laughing]

Justin:

No, I mean, d—, this was—

Sydnee:

I mean, really... Do you know what they did?

Justin:

This was 1975, I mean—

Sydnee:

[laughs]

Justin:

... this has been thoroughly disproven by this point.

Sydnee:

Please don't rub your baby's diapers on their faces.

Justin:

I mean, just don't.

Sydnee:

You'll get... CPS will be called.

Justin:

Yeah.

Sydnee:

Sorry.

Justin:

Sorry.

Sydnee:

Um, it was used to clean hats, uh, it was u—it was tried for a while as invisible ink, urine was.

Justin:

[laughs]

Sydnee:

[laughs] You know, that might work.

Justin:

Okay, no. Wait.

Sydnee:

[laughs]

Justin:

You can't try something as invisible ink for a while. Like this is a—

Sydnee:

"We, we wrote it and it disappeared. We're still waiting for it to come back."

[laughs]

Justin:

"Yeah. Well you know there is something, a lemon, a candle, there has to be something to my pee appear."

Sydnee:

Something will make it come back. Uh, you know it was used for gun powder, too?

Justin:

Okay.

Sydnee:

You can pee on some straw and it would rot and then you would, I don't know, mix it with something. Anyway, um, it can be used for gun powder. A alchemist tried to distill it, uh, down to make gold. It didn't work.

Justin:

[laughs] That was really, really a last ditch attempt by alchemists.

Sydnee:

[laughs] Anything at this point.

Justin:

"It's yellow. I don't know."

Sydnee:

"It might be gold in there."

Justin:

"We been trying really hard. We can't make the lead thing happen."

Sydnee:

"Nothing is working." Um, you know, in World War I we used urine... I thought this was interesting, uh, soldiers were instructed because the enemies were using, um, chlorine gas against our soldiers. They said, "Well, if you think that somebody's about to use gas then w—you have this cloth we give you so just pee on it real fast and hold it over your face and use it as like a gas mask." 'Cause it was thought that the ammonia in your urine would counteract the chlorine in the gas.

Justin:

But I'm guessing not.

Sydnee:

No. Um, it, that doesn't work. It, it actually probably becomes more toxic. Um—

Justin:

[laughs]

Sydnee:

... the mixing [laughs] of ammonia and... Well, mixing ammonia bleach makes chlorine gas, so, uh—

Justin:

Okay. I have a new, I have a new number one worst way to die, and it is in WWI holding a pee rag over my mouth to defend against the gas attack. That would be—

Sydnee:

[laughs]

Justin:

... the worst.

Sydnee:

Hopefully it, it didn't actually cause any death as much as it just resulted in a lot of soldiers unfortunately running around with pee on their faces.

Justin:

And wishing for death maybe.

Sydnee:

[laughs]

Justin:

Praying for the sweet release of death.

Sydnee:

Um, you know, in... This, this whole theory of, uh, drinking your own urine is actually still, um, I mentioned it earlier, it, it's still practiced, uh, some today. Um, alternative medicine, they call it urinopathy or uropathy, um, they, uh... It's advocated to help with anything from, um, increasing fertility, stimulating sexuality, fevers, yeast infections, diabetes, bladder problems, cancer, breaking down blood clots...

Justin:

Hmm. Gosh.

Sydnee:

AIDs...

Justin:

Gosh. Man, that sounds like it's curing a lot of things.

Sydnee:

Y— you know, you can almost call it...

Justin:

It's almost... So, something of a cure-all?

Sydnee:

I think you can call it that.

Justin:

Yeah. And what have we learned about cure-alls on this show, gang?

Sydnee:

Cure-alls cure nothing.

Justin:

.... nothing. Okay. I know people are still doing it. You know, if you wanna try it, I, let's just keep it in a historical perspective, okay? [laughs]

Sydnee:

I should, I should note that the American Cancer Society advises against drinking your own urine to prevent cancer.

Justin:

Finally, me and the American Cancer Society find some common ground.

Sydnee:

Um, there, there has also been, um, uh, urine has been used for a practice in, uh, yoga called amaroli, um—

Justin:

Is that what hot yoga is?

Sydnee:

[laughs]

Justin:

[laughs] I've been wondering.

Sydnee:

I hope not. [laughs] It was, uh, advocated by the former prime minister of India.

Justin:

"I do wet yoga."

Sydnee:

[laughs]

Justin:

"I do itchy, wet yoga."

Sydnee:

[laughs] "You just pee on yourself."

Justin:

"You just pee on yourself."

Sydnee:

"It's hot." Um, but the thought was that if you drink your first AM urine, um, it might contain some more melatonin which is the chemical, it's a hormone in our brains that makes us, it calms us down, tells us it's sleepy time. So if you drink it in the morning then maybe you'll be better at meditation and yoga and generally being calm.

Justin:

You know, I can buy melatonin?

Sydnee:

I would advise doing that, if you need it.

Justin:

You know can just buy it.

Sydnee:

Don't... Yeah. Don't drink your pee. Um, in Mexico, there's still some places where they actually have a child... If you break a bone, they'll have a child urinate into a bowl of charred corn—

Justin:

[laughs]

Sydnee:

... [laughs] and then they'll make a poultice and put it on the broken bone. Um...

Justin:

[laughs]

Sydnee:

Not something that I do in my office.

Justin:

"I was gonna eat that corn."

Sydnee:

[laughs]

Justin:

"God darn it."

Sydnee:

Um, it should be noted that there are some famous people who would advocate this. Um, it was said that, uh, Jim Morrison, John Lennon, Gandhi all tried this and, uh—

Justin:

And it killed them.

Sydnee:

A—drinking their own pee, no. No, I didn't say that. I don't know that it helped anything. Um, and Madonna, uh, she doesn't drink her own pee as far as I know, but she does pee on her feet, uh, to help with her athlete's foot.

Justin:

[laughs] So you learned two things today.

Sydnee:

I think that's just a good excuse for peeing in the shower.

Justin:

Good job Madonna, you found a way around the system.

Sydnee:

[laughs]

Justin:

Sydnee, I know that there's a lot of, uh, we talked about a lot of pluses and minuses, uh, what about the big one, uh, jellyfish stings? Is that, is that an actual application for pee pee?

Sydnee:

No.

Justin:

Oh man.

Sydnee:

No. And as a matter of fact, from everything that I have read and researched, um, urine probably, uh, it... Well, definitely does not help jellyfish stings and it, it probably makes it worse.

Justin:

Oh man.

Sydnee:

So, much to the chagrin of *Friends* fans, if you watch the show you get that reference.

Justin:

[laughs] The indie hit.

Sydnee:

Don't, [laughs] don't—

Justin:

The underground... [laughs]

Sydnee:

Don't pee on your jellyfish sting. Um, and I, I should note too, uh, the, uh, the army actually recommends many, many times not to drink your own urine. No matter what kind of survival situation you're in, no matter what how dehydrated you are, drinking your own urine will only make things worse. Um, if you're really hot, you could pee on a shirt, or towel or something and wrap it around your head, that's a good idea. I think we saw Bear Grylls do that once.

Justin:

I think I so. This strikes a chord.

Sydnee:

But still don't drink your own pee, no matter how dehydrated you are getting, it will make things worse.

Justin:

Well, I have all this pee Syd, what's it used for? Is there anything?

Sydnee:

We can do some things with pee. Um, obviously as I mentioned, it can still be used for diagnostic purposes in many, many ways. Um, but as far as treatment, uh, there are hormones in urine that we can synthesize. Um, for instance, uh, estrogen replacement therapy, Premarin is made from, uh, mare urine.

Justin:

[laughs]

Sydnee:

As in female horses.

Justin:

Sure.

Sydnee:

Uh, we do use, uh, urea cream, so urea, that is in urine. We do use creams, not, uh, synthesized from urine necessarily, but urea base's good for dry skin. So that whole beauty aid thing, it comes from somewhere probably. And there is... Uh, you know, I scoffed at the breaking down blood clots, but there is an enzyme urokinase it's synthesized from urine, uh, that we do use to break up blood clots. Now again, there's no evidence that drinking your own pee will do anything of that nature.

Justin:

But why not give a shot?

Sydnee:

Yeah, all these things come from somewhere, I guess. I still, I have to say I know I don't give medical advice but I still have to say that drinking your own urine is probably [laughs] not a good idea.

Justin:

Just know, there's no call for it. Uh, what there is a call for is for us to say thank you to you at home for listening to another episode of, uh, Sawbones. We hope you've had as much fun as we have. Wanna thank those of you who are reviewing the show on, uh, iTunes. People like, uh, Dumb People Suck, Cannibal Chainsaw Detective, A1F, Tom I'm a Teacher, HJ Cheerio, Bunny Foo Foo, Lumi Enacklin, uh, Angelente, Anjelente, here we go, uh, Dr Hack, Darth Kerwin, A Piece of Maria, Akiola, Coolio McCloudness. [laughs]

Sydnee:

[laughs]

Justin:

George Erswens, J.CCCCCC, uh—

Sydnee:

And, uh, Chuck too reviewed us somewhere on here. He's, uh, he's a doctor who works with me.

Justin:

Oh, really?

Sydnee:

Yeah.

Justin:

Thanks Chuck.

Sydnee:

Dr. Clemens.

Justin:

Um, and thank you to, uh, to those of you who've been sharing the show. Uh, it is been so awesome to see that. Uh, you can, you can use the, uh, @sawbones Twitter handle if you wanna follow us there, or mention the show.

Sydnee:

You can—

Justin:

We really appreciate it.

Sydnee:

Yeah. And you can tweet at us @justinmcelroy.

Justin:

And she's @sydneemcelroy, S-Y-D-N-E-E.

Sydnee:

And we really appreciate when you tweet about the show, when you let people know about it, reviewing the show. Really I, I read everyone and it makes my heart happy.

Justin:

We've got a Facebook page now, it's facebook.com/sawbonesshow, so go give us a like there. Uh, I, I put out a hint for what our new episode was about, uh, this week. So you can be the first to get those if you got like the page there, it won't be hanging around. So, you know, come by and say hi, have a chat.

Sydnee:

And you should check out all of our other great MaxFun shows. What are some of those, Justin?

Justin:

Stop Podcasting Yourself, Judge John Hodgman, Jordan, Jesse, Go! Bullseye, One Bad Mother, Wham, Bam, Pow, uh...

Sydnee:

My Brother, My Brother and Me.

Justin:

My Brother, My Brother and Me. Thank you. RISK! So many... Memory Palace. There's tons. Go. Maximumfun.org. Enjoy them.

Sydnee:

Check it out.

Justin:

And, uh, make sure you join us again next Friday for another episode of Sawbones. I'm Justin McElroy.

Sydnee:

I'm Sydnee McElroy.

Justin:

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

[theme music plays]

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