#### Sawbones 137: Kidney Stones

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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: A Marital Tour of Misguided Medicine. I am your cohost, Justin McElroy.

### Sydnee:

And I'm Sydnee McElroy.

## Justin:

Sydnee, we've done a lot of really personal episodes over the years. And I think today's episode, um, when I was asking you for particulars about it, distinguishing factors, um, you let me know that this may be one of our most personal yet, one that's really hit close to home. Um, because—

## Sydnee:

I guess that's fair.

#### Justin:

Because you said about today's, uh, topic that it hurts and you had one once.

## Sydnee:

[laughs]

## Justin:

So-

That's why you... You asked me for facts.

## Justin:

We're coming at this from a very personal angle today.

## Sydnee:

Right. That's true. Justin always asks me for some facts about the topic to, like, come up with these very, as you can tell, very clever, um, I think, like, comedy masterpiece level bits that are intros to our show.

And when he asked me about this topic in particular, he said, "What, what kind of facts can you give me?" And I don't know, like they're right there in front of him, so I just thought maybe he could look at them himself this time, but he didn't. So I said it hurts and I had one.

# Justin:

I don't like to read ahead and I'll spoil it for myself if I read ahead. So I like to keep it all...

# Sydnee:

I just—

# Justin:

... fresh and new.

# Sydnee:

... I just feel like I do all the heavy lifting...

## Justin:

Mm-hmm.

# Sydnee:

... ahead of time. Like, I do all the hard work, and like you could just, like... aren't you professionally funny?

Yeah, but that humor comes from a lot of pain. And I've had— That was really my heavy lifting, was years of, um, bullying, basically.

## Sydnee:

[laughs]

## Justin:

Just experiencing bullying.

### Sydnee:

Would you say that that pain was as bad as a kidney stone?

### Justin:

I have no frame of reference, but I do wanna know about a kidney stone, 'cause this seems like one of those things that you hear people talk about enough, but I really don't have much of a frame of reference for, like, what it is.

## Sydnee:

Well, they hurt.

## Justin:

And you had one once.

## Sydnee:

[laughs]

#### Justin:

Those are the two things I know about kidney stones.

#### Sydnee:

That's true. Well, a lot of people have asked me to talk about kidney stones, and I think in part, um, not everyone who's suggested this, but quite a few people who have, uh, it's been a personal thing.

It's been because they have been affected by kidney stones and probably had the same thought I did, which was, "Oh, oh gosh, this is— Oh no. This is

awful. This is horrible." But, like, more dramatic. And then, "Why is this happening to me? Oh, dear God, why?"

### Justin:

Oh God, not me. This can't be happening to me.

#### Sydnee:

Yeah. Uh, so thank you Nicholas, and Skye, and Nicola, and Daniel, and Alexis, and Nathaniel, and Amanda, and Vickie, and Russell, and Chase, and Nia, and Ed. Thank all of you.

#### Justin:

Thanks everybody for recommending.

## Sydnee:

Yes.

### Justin:

And I'm sure at least for a few of you for having them, I bet.

## Sydnee:

Thank you and I'm sorry.

## Justin:

Sorry.

## Sydnee:

I'm sorry about that.

#### Justin:

I hear they're very painful and Sydnee had one once, so you're in good company.

#### Sydnee:

[laughs] So, kidney stones— And we'll talk a little bit, let me say, just to be fair, I'm gonna talk a little bit about bladder stones, too. Same idea, just different location.

### Justin:

Yeah, if you expect me to learn the difference between those two you're... no way.

## Sydnee:

One's in the kidney, one's in the bladder.

## Justin:

Mm-hmm.

# Sydnee:

There you go.

# Justin:

You already lost me.

## Sydnee:

That's it. Nephrolithiasis is the other word here we're gonna use.

# Justin:

[laughs]

# Sydnee:

Or ureterolithiasis.

#### Justin:

No. No, that won't be necessary.

## Sydnee:

Renal lithiasis...

## Justin:

We're fine.

## Sydnee:

... if you prefer. I mean, we're talking about stones, the word for stone, and then the location of the stone. That's really it.

### Justin:

The tomb. Usually I find that the location of the stone is somewhere buried in a tomb...

## Sydnee:

[laughs]

### Justin:

... or in the Shrine of the Silver Monkey.

### Sydnee:

[laughs] That's where everybody always got stuck, was in the Shrine of the Silver Monkey.

#### Justin:

Gotta be careful in there, it's very confusing. The head looks like its but. It's very confusing monkey.

### Sydnee:

Much like there are several places along the urinary tract where the kidney stones can get stuck.

#### Justin:

Whoa. I like that.

#### Sydnee:

Yeah.

#### Justin:

So-

#### Sydnee:

Your body is a temple. It's led— It's Olmec.

## Justin:

[laughs]

It's the Hidden Temple.

## Justin:

It's the Hidden Temple!

## Sydnee:

And there are places where you... Stones get stuck.

## Justin:

Um—

# Sydnee:

Um, it's pretty much what you would think. So, it's not an... I mean it's not a stone per se, but it is a small like clump of usually, like, crystal-like mineral, materials that, um, you know, they sort of precipitate out of your urine and begin to stick together and form a little hard, can be sharp, can be smooth, irregular, various colors and shapes depending on what minerals are in there, stone...

# Justin:

So, I was-

# Sydnee:

... like thing.

## Justin:

I was about to ask you if I pop one out what would it look like, but it sounds like quite a variety.

# Sydnee:

It depends. A lot of them are calcium oxalate stones. That's the majority of kidney stones are made of calcium oxalate, and so they would look like these little, maybe, like, brownish or reddish brownish, um, I don't know, like little irregular moon rock looking thingies.

Okay.

## Sydnee:

But there can be ones that look sharper, or more jagged, or smoother. Or some can be like, purpley in color, or some can be kind of clear, lighter, yellow... There's a variety. Depends on what causes them. The majority are calcium.

## Justin:

Uh, size-wise, fairly small?

## Sydnee:

Hopefully.

## Justin:

Yeah.

## Sydnee:

The majority are fairly small. They can be anywhere from like the, a grain of sand, you know, they can be quite, quite small, um, which is what you're hoping for if you have one...

# Justin:

That's what the— Cross your fingers.

# Sydnee:

Yeah. Or um, they can get fairly large, into the centimeters.

## Justin:

Ugh.

## Sydnee:

Again, you don't...

## Justin:

Oof.

... want that. Yeah. Uh, the bigger, the more problems they cause, of course. Um, so obviously they form inside your kidney. They got to make their way out of your kidney, and the way out of your kidney is down the ureter into the bladder, and then out the urethra.

## Justin:

Okay.

## Sydnee:

Which is where you pee from.

## Justin:

Right.

## Sydnee:

Right? Got that?

## Justin:

Got that.

# Sydnee:

[laughs] Uh, and that's why, of course, the smaller the better. Um, hopefully they just come out.

# Justin:

Yeah, but sometimes-

# Sydnee:

You pass them, is what we would say.

## Justin:

Sometimes your ureter wouldn't be big enough, I think, to pass that.

# Sydnee:

That's true. They can get hung up in there.

Mm-hmm.

## Sydnee:

They can get, they can get hung up in the ureter, they can get hung up in the place where the ureter meets the bladder, um—

#### Justin:

What kind of pain we talking with these? Like, like a burning, sharp pain? What are we looking forward to?

## Sydnee:

Well, the word that we would use medically is a colicky pain, which means it kind of comes and goes as the stone moves, and um, it's a pretty intense pain. It's a pretty uh, um, I would say like more of a deep, achy, throbby kind of pain?

### Justin:

Ugh.

## Sydnee:

But I mean, some— I mean people describe it as sharp sometimes. But it comes and goes as the stone moves, that's when it hurts, is when it's moving. And um, it's— It, like, when someone is doubled over clutching their, you know, midsection or their lower back and writhing, that's probably a kidney stone.

## Justin:

Yeah.

## Sydnee:

Yeah. Um, and obviously they can, in addition to being very painful, they can lead to obstruction. So they can block the flow of urine, which is bad 'cause it can kind of cause the kidney to swell—

## Justin:

Sure.

... and that can damage the kidneys. And then to infections, too, 'cause stuff builds up behind it, and bacteria like to just swim around in, you know, stagnant pools of urine.

### Justin:

Like how that—

#### Sydnee:

Much like any of us, really. [laughs]

### Justin:

Like how that guy had to get sent home from Survivor, 'cause his pipes were all blocked up.

## Sydnee:

Sort of like that, yeah. I mean, his prostate-

### Justin:

It was an enlarged prostate, but still.

#### Sydnee:

Right, it was blocking his pipes. But either way, you don't want your p— You cannot get your pipes blocked up. It's a very serious problem. Your plumbing's got to be flowing.

## Justin:

Churning.

## Sydnee:

So, now, as you can imagine, because kidney stones, I mean, can affect almost anyone really, they're not uncommon, um—

#### Justin:

Some people seem to get them a lot.

## Sydnee:

Which, uh, and you know, and I'll get into that just a little bit, but there are hereditary reasons...

## Justin:

Okay.

## Sydnee:

... why you might get stones. Um, there are genetic reasons, and then some people just have certain diseases that predispose them to it.

# Justin:

Okay.

# Sydnee:

Um, but there are records of us trying to treat these guys, uh, back to ancient times because they're very painful. Um, and when they come out we can see them, so we know exactly what the problem was, right?

# Justin:

Okay, yeah.

# Sydnee:

Which was, like, a rare thing in medicine, where, like, once the st— Once you pee out the stone, you can pick it up and go, "This was the problem."

# Justin:

That's got to be kind of satisfying, right? This is an easy one to crack, like-

# Sydnee:

Yeah.

# Justin:

It comes out— How often do you just, like, take out the bad thing and it's just, like, plop.

# Sydnee:

It's a wonderful, uh, what a chance to cut is a chance to cure. That's a wonderful...

[laughs]

## Sydnee:

... time in medicine when it's that simple. It rarely is. We've seen descriptions of stones dating back to the Mesopotamians, and we've found stones in Egyptian mummies.

So, you know, we know people were dealing with them, and describing them, and trying to figure out ways to fix them. Um, the most common way that people came up with to fix them was surgery.

#### Justin:

Really?

## Sydnee:

Strangely enough. Yes. Removing-

#### Justin:

Well, we know it's a physical thing, why not go in there and get it?

#### Sydnee:

Exactly. Removing stones is one of the oldest surgeries that people were trying to do.

#### Justin:

The germs hadn't been invented yet, so might as well...

#### Sydnee:

[laughs]

#### Justin:

... get in there and get it out.

#### Sydnee:

Uh, Sushruta, a surgeon from India, 600 BC, wrote descriptions of lots of different surgical procedures, including, uh, what we would call a perineal lithotomy, which means you would make a hole in the perineum, do you know what the perineum is?

#### Justin:

[deep voice] `The taint.

# Sydnee:

Thanks, Justin. [laughs]

## Justin:

Well, you asked.

## Sydnee:

Yes. Yes.

## Justin:

Yes, what?

## Sydnee:

The perineum. I'm not gonna use that word.

## Justin:

Okay. Well, that'll be, I'm kind of the common man here, I represent the people.

## Sydnee:

Would you like to explain to people where that is?

#### Justin:

It's the taint. It's between your- [sighs]

## Sydnee:

Your front butt and your back butt.

## Justin:

Front butt and your back butt.

## Sydnee:

[laughs]

#### Justin:

It's the no man's land between your front butt— It's the DMZ between your, the PMZ, between your front butt and your back butt.

## Sydnee:

Do you know where taint comes from?

#### Justin:

Yes. And I'm not gonna say that, because that gives me the shivers.

### Sydnee:

Okay. So, you— The way that you would do it is you would go up through the perineum...

### Justin:

You can't actually like...

## Sydnee:

... cut a hole through there-

#### Justin:

... lead into that without actually saying what it is now, 'cause there's at least one person out there that's like, "What is it? You can't do this to me."

## Sydnee:

It's called the taint 'cause it t'aint this, and it t'aint that.

#### Justin:

Yeah. Okay.

#### Sydnee:

There you go.

#### Justin:

Gotcha.

Anyway [laughs] so you cut a hole through the perineum and you could go up and try to remove the stone that way. Um, he also wrote a theory on stone formation, the idea being that if you eat foods that are considered impure or unclean, and we're kind of talking from like a spiritual sense, your inner passageways would become all clogged up with, uh, phlegm and urine that would mix together to form the stones...

## Justin:

Makes perfect sense.

## Sydnee:

... um, and then you would get a kidney stone. If you didn't want to do surgery, there were some conservative treatments you could try. Uh, one just being a vegetarian diet.

## Justin:

Okay.

## Sydnee:

That doesn't sound too bad. So like, I'll either cut a hole-

# Justin:

It sounds pretty bad, but go ahead.

# Sydnee:

[laughs] I don't know, I'll cut a hole in your perineum, and by the way we don't have antibiotics or anesthesia, or any sort of pain control or anything, or you can just eat a vegetarian diet.

# Justin:

What, I'm sorry, it's 600 BC? I'm gonna live to 25, I'm just gonna ride or die, if that's cool.

# Sydnee:

[laughs]

I'm just gonna go ahead and keep eating these like, uh, mammoth, wooly mammoth steaks. If that's all right by you.

### Sydnee:

You had a third choice.

## Justin:

Ugh, well, [laughs] duh, Syd, you didn't tell me I had a third one.

### Sydnee:

Uh, a treatment of um, clarified butter and milk that is then loaded into a syringe and injected into your urethra.

### Justin:

Um, no. [laughs] No, I'd rather not.

### Sydnee:

[laughs] Just no to that?

#### Justin:

No, I'd rather not...

## Sydnee:

Just done?

#### Justin:

... become, uh, butter poached from the inside out.

## Sydnee:

[laughs]

#### Justin:

Thank you.

### Sydnee:

You're scampied.

Yeah, I don't need to be scampied. Scampi Justin.

## Sydnee:

Sous vide. Um, Hippocrates wrote about stones. This is a— Very famously he wrote about stones of the kidney and the bladder. Um, and the way in which he wrote about them, it's interesting, it was specifically stating that he would not fix them with surgery.

## Justin:

Oh.

# Sydnee:

Uh, it is actually part of the original Hippocratic Oath.

# Justin:

[laughs] Really? Like, cutting room floor stuff?

# Sydnee:

"I will not cut for the stone, but will leave this to be done by practitioners of this work." Cut for the stone, of course, meaning doing surgery to remove a stone.

# Justin:

Practitioners of this work meaning?

# Sydnee:

So, that's interesting. At the time, there were people known as-

# Justin:

Stone jockeys.

# Sydnee:

[laughs] Sure. Lithotomists.

## Justin:

Okay.

Same thing. They were probably mainly guys who would remove stones, and that's what they did. And the reason is that at the time, surgery was very risky.

# Justin:

Mm-hmm.

## Sydnee:

Uh, right? We know that. Any surgery was. And so, to do it, maybe meant, likely meant, could very well mean that you were killing somebody. So, because they didn't know a good way to do it and consistently not kill people, Hippocrates basically said, "Look, this is not what physicians should be doing. Leave it to lithotomists and they can try this risky thing."

## Justin:

Okay.

## Sydnee:

So, that actually stuck around for a really long time. There's a really long period of history where doctors, uh, did not do surgery because it was kind of considered beneath them, almost...

# Justin:

Mm-hmm.

# Sydnee:

... um, because, you know, people are gonna die. And that's why we see that connection with, you know, this leads into, like, the time of barber surgeons and everything.

# Justin:

Mm-hmm.

# Sydnee:

So, but these were specifically people who would just, quote, unquote, "cut for the stone." Um, in 276 BC, Ammonius of Alexandria came up with the idea of not just making a cut to remove the stone, but actually, like, using a little hook. So you would do the lithotomy, you would stick a hook up there to kind of hold the stone in place, and then you would take a blunt instrument in and kind of, like, pound the stone into pieces, like, break it up.

### Justin:

Oh, that's great. Yeah. For sure.

#### Sydnee:

[laughs] But then you wouldn't have to pull it back out. You would just let it pass on its own, which wasn't a crazy idea considering that through the years we would search for safer ways to break a stone up and let you pass it on your own.

### Justin:

Okay.

#### Sydnee:

Um, but the— I don't know. A hook and a blunt instrument probably wasn't the best way to do it.

#### Justin:

Could do better than that.

#### Sydnee:

Now, Ammonius did so many of these that he came to be known as Lithotomus [laughs] which I think is really funny.

#### Justin:

Is that a pretty good one?

## Sydnee:

Don't you think so?

#### Justin:

I'll have to take your word for it.

[laughs] I mean, imagine like the modern-day equivalent. Like, you do so many, you know, appendectomies that we start calling you Appendectomus. [laughs]

## Justin:

[laughs]

## Sydnee:

I mean, think about it.

## Justin:

I am. I'm chuckling over here.

# Sydnee:

I think it's really funny.

## Justin:

I've got my mic turned down too low to hear, but I'm busting a gut.

# Sydnee:

Cholecystectomus. That's when you take out your gallbladder.

# Justin:

Mm-hmm.

## Sydnee:

Anyway. Celsus would later write about, uh, the best way to do the procedure. Although, to be fair, he never did one. He just wrote about it, and he insisted on a couple things in addition to, this is—

## Justin:

"Guys, guys. This is how I dream it would go down."

# Sydnee:

[laughs]

"So it's me, and I'm cruising along in my sleek Lamborghini, and this hot babe pulls up to me and she's like, 'Ah, I got a kidney stone, help.' And I'm like, 'Here, let me. Allow me, madame.'"

## Sydnee:

And also, it has to be spring.

### Justin:

Yeah.

## Sydnee:

And it's best if it's a 9 to 14 year old.

## Justin:

Ugh.

# Sydnee:

That's just...

## Justin:

Creep.

## Sydnee:

... who he thought it was best to [laughs] to do the procedure on. And also-

## Justin:

You can't— Okay! No, okay, wait.

## Sydnee:

[laughs]

#### Justin:

No. I'm sorry. No, you can't, as part of your therapy say who it would be best to have the thing. Like that—

## Sydnee:

I guess if it's, like, it's all a hypothetical procedure, he's never done one, so.

### Justin:

He's, like, dream one-

## Sydnee:

[laughs]

## Justin:

... like if this, like, he would love to do one, and he's sure he's great at it, but, like, he's got to wait for just the right one to come along before he'll really get into the pool, wade in there with the rest of us.

## Sydnee:

This is, like, the height— This is, like, the epitome of, like, ivory tower academia and medicine.

## Justin:

What's this dude's name?

## Sydnee:

Celsus.

# Justin:

Celsus?

# Sydnee:

Yeah.

## Justin:

This guy's a creep. I don't know about this guy.

## Sydnee:

Um, and then also he makes a point that you need to have two, uh, assistants to perform this procedure. They should be strong and also preferably smart.

## Justin:

Yeah, okay.

Sure. [laughs]

## Justin:

Yeah, sure.

## Sydnee:

Um, in the medieval period, men, uh, lithotomists, would travel from town to town to perform lithotomies, and we've kind of talked about this, like, the showmanship of medicine for awhile, like, as we, you know, as we move into much later periods, like, medicine shows, but, like, the people who would go around extracting teeth, you know? In front of crowds?

## Justin:

Yeah, they make a big production out of it?

# Sydnee:

This is the same thing, same idea except for they're cutting holes in people's perineums and pulling stones out of them. So basically, if you came up to them and said you had any problem from the waist down, they were gonna cut a hole and try to pull a stone out of you.

# Justin:

They only have that one trick.

# Sydnee:

Yeah, so-

## Justin:

When all you got's a hammer, everything looks like a taint.

## Sydnee:

[laughs] Plus, there's big money in that.

## Justin:

Big money. Yeah, 'cause you get tickets and you get the— You get it front end and back end and in the middle from the taint.

[laughs] And there was. like, no entertainment at the time. Like...

#### Justin:

Sure.

#### Sydnee:

... we had no TV, we had no, uh, Blendoku. I mean, there was nothing to do, basically, so.

#### Justin:

Yeah, you just...

### Sydnee:

Watched people...

#### Justin:

... watched somebody...

## Sydnee:

... do lithotomies.

#### Justin:

... get their taint blasted.

#### Sydnee:

[laughs] There are lots of people who spend their free time that way now.

#### Justin:

Yeah, mostly in Second Life...

#### Sydnee:

[laughs]

#### Justin:

... but they're all over.

Um, so they would do this of course without anesthesia, and very quickly, and with a lot of, I don't know, glamor? With a lot of panache?

## Justin:

Yeah.

## Sydnee:

A lot of... Yeah, you know what I mean.

### Justin:

Mm-hmm.

### Sydnee:

It's a show. Um, and for an audience. In 1215, there was a, a papal edict that actually, and I kind of alluded to this, forbade physicians from doing any surgery because it was thought that it was unclean, and that you would be kind of spiritually contaminated, so to speak, if you came in contact with blood or bodily fluids.

Um, which is exactly why we had, you know, these lithotomists doing these surgeries as well as, again, the rise of barber surgeons, um, who didn't have, you know, what we would think of at the time as a traditional medical training. They just knew how to cut things.

## Justin:

Mm-hmm. Makes sense.

## Sydnee:

Um, and this actually persisted until 1540 when Henry VIII was the one who actually kind of united the professions into surgeons.

#### Justin:

Okay.

Um, we... Just a quick mention. We talked about this in the self-surgery episode, but um, do you remember the Dutch blacksmith, Jan de Doot?

#### Justin:

Mm-hmm.

#### Sydnee:

Who removed his own bladder stones? Do you remember the story?

#### Justin:

Vaguely. Yeah.

### Sydnee:

I won't belabor it, 'cause we told the whole story in the self surgery episode—

#### Justin:

That's been years ago. Go back and listen to that one.

#### Sydnee:

Yeah, it's a good one. But in 1651, he had a huge stone in his bladder. He'd had multiple. He'd had three removed before by, uh, barber surgeons or lithotomists, and he was like, "Forget this, I can do it myself." So he cut a hole in his own perineum and yanked a stone out.

#### Justin:

Love it.

## Sydnee:

Like the size of a hen's egg, I believe is the way the story goes.

## Justin:

That's a lie.

## Sydnee:

[laughs]

That one's a lie. Nice try, buddy. Listen, we already think you're a tough fella.

## Sydnee:

Uh, throughout the Renaissance we got way better, um, different approaches, specifically the big revolution was trying to get stones out by actually going what we call suprapubically, so like, from the front of the abdomen...

## Justin:

Sure.

# Sydnee:

... into the bladder, um, was the way we started going for stones. And that was better. We got better tools and improved methods. We practiced a lot on criminals, oops. That was— That made us better at them.

Um, for a while we tried to stick a nail up the urethra and hit the stone with a hammer. That was not very successful. Luckily, we moved on from there. Um, there have been a lot of famous people, by the way, with stones throughout this time period.

# Justin:

Well, we've established, Sydnee had one once.

# Sydnee:

So, obviously most famously me, but slightly less famously, uh, Napoleon did, and Michelangelo suffered from many kidney stones. Ben Franklin, Louis XIV, Isaac Newton. It is a disease of distinction, I would say.

# Justin:

I wanna hear about some of the ways we tried to fix them.

# Sydnee:

Well, I'm gonna tell you a little bit more about stones, but first Justin, why don't you follow me to the billing department?

Let's go!

[theme music plays]

[ad break]

#### Justin:

Sydnee McElroy, fix my kidney stones! [imitates game show music] It's America's least popular game show, Sydnee McElroy, Fix my Kidney Stones with your host, Sydnee McElroy.

#### Sydnee:

Uh, so-

#### Justin:

And Pat Sajak! Times are hard on old Pat. [laughs]

### Sydnee:

[laughs] For my—

#### Justin:

He's had to make ends meet.

#### Sydnee:

So, for my first trick I would like to consult urology. That's it. That's the only trick I have.

#### Justin:

Oh, okay.

## Sydnee:

Okay. Sorry.

#### Justin:

How did we do it throughout history?

#### Sydnee:

I'm a family practice doctor.

## Justin:

Yeah.

## Sydnee:

I can't remove kidney— I don't cut for the stone. Hippocrates told me not to. [laughs]

## Justin:

[laughs]

## Sydnee:

Uh—

## Justin:

But, like, how did we?

## Sydnee:

So, because surgery throughout time was so dangerous, and one way or another that stone's got to come out of there. Okay? The stone's got to come out.

# Justin:

Stone's coming out.

# Sydnee:

Whether it's coming out in bits and pieces, or coming out as one whole thing, it's got to come out of there. That's really the... that's the treatment. The stone's got to come out.

# Justin:

Mm-hmm.

# Sydnee:

But because surgery was so dangerous, people have tried a lot of weird things from time to time in addition to the weird butter basting, milk urethral syringe.

Mm-hmm.

### Sydnee:

Um, some herbal remedies that have been tried, mustard plasters were popular.

### Justin:

Ugh.

## Sydnee:

Which can be very irritating to the skin, by the way. So you got to be careful with that. You just kind of slap it over, like, the area that hurts, hope that that'll do something.

## Justin:

Slap, just- Sorry. Slap it on the area that hurts with the kidney stones?

# Sydnee:

Yeah.

## Justin:

Got it.

## Sydnee:

Well, you kind of hurt, like, in your flank area, and then it kind of radiates around to, like, your groin and then...

## Justin:

Got it.

## Sydnee:

... down to the nether regions.

## Justin:

I'm with you.

Uh, so you would probably. like, stick a mustard plaster on your back, or don't. I mean don't, but like, this is what people would've done. Um, a lot of different teas have been touted as great for— So, quote unquote, "dissolving the" stones.

That is what people think that they're doing when they're taking these different substances. Like nettle tea, and celery seed tea, and watermelon seed tea, and parsley tea, corn silk tea. I'm just like, what?

#### Justin:

Lot of tea.

## Sydnee:

That's, like, nothing.

## Justin:

Just drink any tea.

### Sydnee:

Dandelion tea, just anything that's around, has been, you know, said that it would, uh, like, I said, dissolve the stones. Plantains were thought to do that...

## Justin:

Mm-hmm.

## Sydnee:

... marshmallow root is a popular treatment.

## Justin:

Man, people love that marshmallow root, huh?

## Sydnee:

Yeah.

## Justin:

I have no idea what that is. People are crazy about it.

I mean, it's a root.

## Justin:

Made of marshmallows.

# Sydnee:

[laughs]

## Justin:

Or it looks like— Is it that it looks like delicious marshmallows.

## Sydnee:

I don't even know if it looks like- I don't know.

## Justin:

Why is it a marshmallow root?

# Sydnee:

I don't know, Justin.

# Justin:

Okay.

## Sydnee:

It seems like something that you should tell me about.

## Justin:

I'll tell you about it soon.

# Sydnee:

You go look up marshmallow root and get back to me.

## Justin:

All right. Will do.

Uh, there were, another one that I particularly liked was a cabbage leaf poultice. Now, cabbage leaves are another thing, like, you will see all over the internet people taking cabbage leaves and, like, smashing them on various parts of their bodies, strapping them onto their, I don't know, their bellies, their butts, their boobs, whatever...

# Justin:

[laughs]

## Sydnee:

... to do various things, great, wonderful things for them. But uh, a cabbage leaf poultice specifically with onions and bran...

## Justin:

Yeah. I don't know, that sounds like a rough afternoon to me.

## Sydnee:

... that you would, like, cook, and slather on the cabbage leaf and, like, stick to your side. So, like, you don't feel bad enough as it is, 'cause you got a frickin' kidney stone, now you've got cabbage and onions, like— I guess maybe that takes your mind off of it? I don't know. It won't.

Um, and then, uh, always with kidney stones people will tell you just to drink water until it goes away. Let me give you a little piece of advice there. If you've already got the kidney stone, it's a little too late to be pounding the water.

## Justin:

If you got the kidney stone, it's too late to hydrate.

# Sydnee:

And I'm not saying don't drink water. Of course, water's great. It's very important for you. Drink water. If you have a kidney stone, still drink water. That's wonderful, but really, you should've drank more water beforehand, because dehydration is one reason you may have gotten the stone.

## Justin:

Um, this uh, marshmallow root, quick trivia. You ready?

Okay.

## Justin:

'Cause I'm, uh, I'm true to my word. Uh, the root which is actually called um, althaea? Althaea, I hope I'm pronouncing that correctly? Um, althaea was used, uh, since Egyptian antiquity in a honey-sweetened confection useful in the treatment of a sore throat.

The later French version of the recipe, which is called, and I'm going to butcher this, but uh, pate de guimave, or guimave for short, it included an egg white meringue and was often flavored with rosewater. Pate guimave more closely resembles contemporary, commercially available marshmallows, which no longer contain any actual marshmallow.

# Sydnee:

Huh.

# Justin:

So yeah, there you go.

# Sydnee:

That's all very interesting. I think this should be a new segment every episode, that you have to do, like, one—

# Justin:

We'll call it Justin Googled It.

# Sydnee:

Justin Googled It, just now, and he taught us something. Thank you, Justin.

## Justin:

[laughs] I'm bringing value.

# Sydnee:

Great job.

Great job.

## Sydnee:

Uh, so, a couple more recipes, and they're endless. They're endless. If you wanna— I mean I don't know why. If you have a kidney stone, you do not wanna waste time Googling, like, home remedies for kidney— Don't do that.

## Justin:

Don't do that.

## Sydnee:

Don't do that. But if you did, in your free time, some things you might find. Um, kidney beans. [laughs] Now, I know what we're going— I know where this come from. We know, if you listen to this show, you know where, where these kinds of crazy ideas come from.

## Justin:

They look like kidneys.

## Sydnee:

They look like kidneys. They're called kidney beans. Uh, that whole, you know, the um, the law of signatures?

# Justin:

Mm-hmm.

# Sydnee:

The idea that something that looks like something else will fix it? So, you know, crushed walnuts will fix a headache 'cause they kind of look like little brains?

## Justin:

Gotcha.

## Sydnee:

There you go. Kidney beans'll fix kidney stones. So you take 60 grams of kidney beans, add four liters of water, you heat that for four to five hours.

You strain that through a fine muslin cloth. You allow it to cool, and then you drink one glass of this every two hours, uh, for a week.

#### Justin:

Okay. Done.

## Sydnee:

And then your kidney stone goes away.

### Justin:

It didn't. I'm here for a refund.

### Sydnee:

Or if it's been a week and it hasn't, you're in trouble. [laughs]

#### Justin:

Yeah, sorry. We did our best.

### Sydnee:

Um, another one that I particularly enjoyed was lemon juice as a cure for kidney stones. So in the morning, you start your day with a glass of water mixed with the juice of one fresh lemon, if, like, you know, in the morning, just your regular day.

## Justin:

Sounds refreshing.

#### Sydnee:

Um, every day to try to hopefully prevent the kidney stones. But then, let's say that you do start having some pain from a kidney stone. Then you're gonna take four tablespoons of lemon juice, mix it into a glass of water, and drink that. Now, if your body accepts it...

## Justin:

Always so important.

## Sydnee:

[laughs] If it accepts it, then your pain will go away in 20 minutes.

### Justin:

If your body's being lame and dropped the ball—

## Sydnee:

Then in that case, uh, you need to add, um, to the four tablespoons of lemon juice, you need to add four tablespoons of olive oil, and you need to drink this.

### Justin:

Um, can you add sugar?

### Sydnee:

No.

### Justin:

Please?

### Sydnee:

No. Sorry. Four tablespoons of lemon juice, four tablespoons of olive oil, mix it in some water, and then also that will probably make you sick.

## Justin:

Oh, yeah. I mean for sure.

## Sydnee:

So-

#### Justin:

It's also a vinaigrette dressing...

## Sydnee:

[laughs]

#### Justin:

... that we had tonight for dinner.

It is.

#### Justin:

In our Blue Apron.

#### Sydnee:

Yeah. It's also that, it's also a vinaigrette, so if you, if your kidney pain does go away, use the rest of it on your salad.

### Justin:

There you go. Perfect.

### Sydnee:

If it doesn't, go to a doctor, 'cause you should've done that to begin with.

#### Justin:

Now I'm in, now I'm best of both worlds. My kidney stone's gone, and I'm enjoying a delicious, crisp salad.

## Sydnee:

[laughs]

## Justin:

What a great Thursday.

#### Sydnee:

Don't pretend like you like salads all the sudden.

#### Justin:

I'd love them.

#### Sydnee:

You wanna love them.

#### Justin:

I ate several bites of that one tonight even though I didn't like it. And that wasn't against Blue Apron, we made it bad.

[laughs]

## Justin:

They didn't mess up.

## Sydnee:

We did, we did it bad. Uh, there is one last, one last little interesting kidney stone fact before, before I take you to today. There's a small town in Italy, uh, to the southeast of Rome, and it is called Fiuggi?

## Justin:

Fiuggi?

## Sydnee:

Fiuggi?

# Justin:

Fiuggi?

# Sydnee:

Fiuggi? Fiuggi? F—I—U—G—G—I?

## Justin:

Mm-hmm.

## Sydnee:

And it has, uh, natural mineral springs that have been, for numerous reasons, praised for having healing qualities. Um, but specifically for the ability to dissolve kidney stones.

## Justin:

Mm-hmm.

## Sydnee:

Um, we had to bring him up, of course, old Pliny the Elder.

## Justin:

Yeah. You know he's got to get in here.

## Sydnee:

Family friend, Pliny the Elder. Uh, this was his recommendation for what you should do if you have any kidney ailments. If you have a kidney stone, if you have kidney pain, if you have any kind of urinary problems, go to Fiuggi. [laughs]

## Justin:

'Cause there's nothing you wanna do more when you have a kidney stone than, uh, a road trip.

## Sydnee:

To Italy. Uh, and drink the mineral waters there and your problems will be solved. Um, this was made famous by a lot of royalty and important people. Pope Boniface VIII was cured, supposedly, of his kidney issues by the waters. Um, and then from then, from that point, the royal families all over Europe started, like, demanding that casks of this be sent for them to stock up in their castles to use...

# Justin:

Sure.

## Sydnee:

... for their kidney problems. Um, I read that it may— That there was somebody claiming that, like, it cured Michelangelo's stones, but then I also read somewhere else that when I was reading about Michelangelo having kidney stones that they may have been the reason he died. So I don't know if they really cured him?

## Justin:

Kind of the furthest away the two facts could be from each other, huh?

## Sydnee:

Basically either it did or it didn't.

Either it did or it didn't. That's two different ways of looking at it.

## Sydnee:

Uh, but there are tons of people who claim that it has magical healing powers, and like, to this day people make pilgrimages there, and say that they have been, not just their kidney issues, but that all their medical problems have been cured by this.

But primarily kidneys and kidney stones, these waters will, uh, in theory fix. It is also supposedly like a natural Viagra. Just throwing that out there.

### Justin:

Awesome.

## Sydnee:

So there you go.

#### Justin:

All right, so, real quick. What, what about today?

#### Sydnee:

So, today just, you know, we're much better at removing stones. We have many more techniques that are very minimally invasive. We mainly go through the urethra.

#### Justin:

Yeah.

## Sydnee:

And go up through the bladder, and we can either break up the stone, we have ways to break it up that way, or we can go in and remove it that way if we need to, or we can put something called, like, a stent inside the ureter to kind of keep the ureter open and allow the stone to pass on its own.

#### Justin:

Love it.

Um, if we have to go, what we call percutaneously, like, through the kidney to get the stone, we can. Uh, we don't do that as often. But there are many ways to do safe, uh, much less painful, much cleaner surgeries now, minimally invasive to remove kidney stones if needed.

Um, the majority still pass on their own. The majority are small enough that they're just gonna— Time and some pain medicine, and they're gonna get through there.

#### Justin:

All right.

## Sydnee:

Hopefully. Um, but, and like I said, there are hereditary factors. They run in families, they run in mine.

### Justin:

Okay.

## Sydnee:

I'm not the only member of my family to have had stones. We were all given giant jugs to collect our pee when I was younger, so that the doctors could study it and see what kind of stones we were forming.

#### Justin:

Okay.

## Sydnee:

We didn't do it. But-

## Justin:

Good.

# Sydnee:

... [laughs].

## Justin:

Good.

Well, no, we should've. Like, the scientist in me now regrets that.

## Justin:

[laughs]

## Sydnee:

But I mean, I was little. I mean, it wasn't my fault. I blame my family.

#### Justin:

Fair.

## Sydnee:

Anyway, so there are hereditary factors, there are meds that can predispose you. Again, the main thing you should do is stay hydrated, um, and uh, and if you do get kidney stones go talk to your doctor about ways you could maybe alter your diet or, you know, like I said, the medications, or something that could help prevent you from getting so many. And also, again, if you think you have a stone, don't Google it. Please go see a doctor. We can help you.

## Justin:

Folks, that's gonna do it for us. Thank you. We hope you've had a good time listening to the show. Uh, if you wanna suggest a topic, uh, the best thing to do is probably email us, don't you think, Syd?

## Sydnee:

Yeah, absolutely. Um, I see when you Tweet or when you put them on Facebook, and I love, I appreciate all your comments. I read them, but I can search them much easier in the emails. So, when I'm looking for ideas that's where I go, and when I'm looking for names and people to thank, that's also where I go.

## Justin:

Um, so, what else we got to talk about? Oh, MaximumFun.org is our, uh, the website for our podcast network called Maximum Fun. Got a ton of great shows on there, like, uh, one I wanna highlight is the Beef and Dairy Network. It's a very funny show which is only about 10 minutes long, and it

is uh, a show about beef, dairy, and agriculture, which is very funny.

Um, trust me on this one. Wink. And uh, if you like, like, funny stuff, you should check it out. Also listen to Still Buffering, that's the show that Sydnee makes with her sisters. Uh, it is very funny.

My brother Griffin only listens to two podcasts, he says, and that's one of them. What's the other podcast? It is a mystery. It's a show about dealing with teen life, from sisters.

### Sydnee:

That's right.

## Justin:

And that—

## Sydnee:

That's the important one.

#### Justin:

... you can find that—

## Sydnee:

I'm glad you mentioned that one. Thank you, Griffin. Justin doesn't listen, so thank you, Griffin.

## Justin:

TeenGoogle.com is where you can find that show. It's also at MaximumFun.org like all our shows. Thanks to the Taxpayers for letting us use their song, Medicines, as the intro and outro of our program, and uh, until next Wednesday, or Thursday sometimes, 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]

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